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2020 Taiwan Health and Welfare Report

HEALTH · HAPPINESS · FAIRNESS · SUSTAINABILITY

Ministry of Health and Welfare, R.O.C (Taiwan)

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Health • Happiness • Fairness • Sustainability

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Foreword

To realize globalization, localization and innovation, Taiwan's Ministry of Health and Welfare (MOHW) has integrated resources of social welfare and healthcare to effect a consistent policy capable of delivering services that meet people's expectations. MOHW made several well-meaning decisions in 2019 mindful of incessant innovation and breakthroughs. Notable achievements are as follow:

Firstly, before the outbreak of COVID-19 pandemic when the relevant information was still scarce, Taiwan had already preemptively implemented onboard quarantine of direct flights from Wuhan to stem the flow of infection. Additionally, the 2019 flu shot was updated from a trivalent (three-strain) vaccine to a quadrivalent (four-strain) one to enhance immunity.

Secondly, concerning "safety and welfare for doctors and patients," resident physicians have been covered under Taiwan's Labor Standards Act and the nurse to patient ratios has been legislated since May 2019. During July 2019, our suicide prevention hotline was changed to a four-digit 1925 (a mnemonic that phonetically resembles "still love me" in Chinese) enabling easier memorization and dialing for the general public. Moreover, the Suicide Prevention Act went into effect in June 2019 to strengthen suicide prevention efforts.

As for "Safe, Healthy Food and Safe, Effective Medications," MOHW will continue to promulgate our "five rings of food safety" initiative while fortifying Taiwan's involvement in international free trade so that we can safeguard food safety and quality at its source. Moreover, Taiwan celebrates a new milestone for Traditional Chinese medicine development by enacting the Chinese Medicine and Pharmacy Development Act at the end of December 2019. As a part of the flagship program "New Southbound Policy: Partnership build health connections," MOHW introduced the "One Country, One Center" program in 2019 to foster cooperation among partner countries in healthcare, public health and industrial connections/solutions. Under this project, seven Taiwanese medical teams have linked 83 Taiwanese businesses with target South East Asian countries to establish a regional anti-epidemic network. We aim to further cooperation in medicine, food, Traditional Chinese medicine, psychiatric care, mental health and oral health care to strengthen Taiwan's ties with these nations.

Taiwan also possesses a National Health Insurance system that is accessible, affordable, convenient and commendable; our efforts in promoting tiered medical care have been bearing fruits as reflected in the growing number of patients seeking primary care since 2019. NHI launched a MediCloud System to better reduce duplicated prescription of drugs and tests. Furthermore, "My Health Bank" system included brand new features to facilitate patients handling of their medical records. For example, self-paid health exams, dependent management functions, major illness/injury reminder functions, are all very welcome.

Taiwan's aging population over 65 years old accounted for 15.28% in 2019. As such, MOHW has accelerated the development of long-term care. Compared to 2018, the number of long-term care recipients grew by 57.32% in 2019. Considering the growing need for long-term care, the introduction of Long-Term Care Plan 2.0 will offer much needed services and volumes. MOHW has also launched the "Diverse Reablement Pilot Program". In older to create a more humane environment centered around people with dementia and carers, we aim to refine the present dementia protection network. Simultaneously, efforts have been made to increase the subsidies for difficult cases, to establish a career path for care workers, and to create more incentives to attract/retain more care workers .

On the other end of the spectrum, to increase Taiwan's birthrate, the government has offered a monthly parental leave allowance (corresponding to each household's income) for families with children (0 to 2 years old) to help shoulder the burden for childcare. In 2019, 448,000 children (age 0 to 2) benefited from this program a growth of 13.8% compared to the previous year. Besides, MOHW has also promoted public childcare and quasi-public services to boost service availability to help families lighten their childcare burden.

(See Table of Contents)
Scan this page to view video of Foreword

Lastly, to protect disadvantaged groups, Taiwan amended the “Protection of Children and Youth Welfare and Rights Act” in April 2019 to boost the effectiveness of child protection through weeding out substandard personnel and institutions, imposing severe punishment for inappropriate conduct toward children/youths and minimizing repeat offenses to ensure minors’ safety. Considering the increasing number of people with disabilities, the MOHW has adopted the Convention on the Rights of Persons with Disabilities (CRPD) to meet their diverse needs, and in line with global trends. In 2019, the government presented the Concluding Observations Response Form of the Initial Report of the Republic of China (Taiwan) on the Convention on the Rights of Persons with Disabilities (CRPD) adopted by the International Review Committee to ensure all disability action plans are aiming at a continuous development of human rights of people with disabilities.

A solid healthcare system may serve as a foundation for a strong, prosperous nation. In 2019, we organized the “World Health Day Now - 10,000 Steps for All and Walk Our Way into WHA!” campaign, and echoed the “Walk the Talk!” campaign held by the World Health Assembly to demonstrate the Taiwanese people’s resolve to become an active member of the World Health Organization.

Faced with numerous challenges and uncertainties, the MOHW shall adhere to its philosophy of “advancing health and welfare for all.” We have integrated resources from central and local governments, families and communities to safeguard people’s rights. We have also aimed for a hospitable environment for all, and improve our service quality. We thus envision becoming “the agency that is most trusted by our people” as we continue our relentless pursuit of Taiwanese health and well-being.

Sincerely,

Minister of Health and Welfare Shih-Chung Chen

2020 Taiwan Health and Welfare Report

CONTENTS

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2020 Taiwan Health and Welfare Report

CONTENTS

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1 Organization and Policy

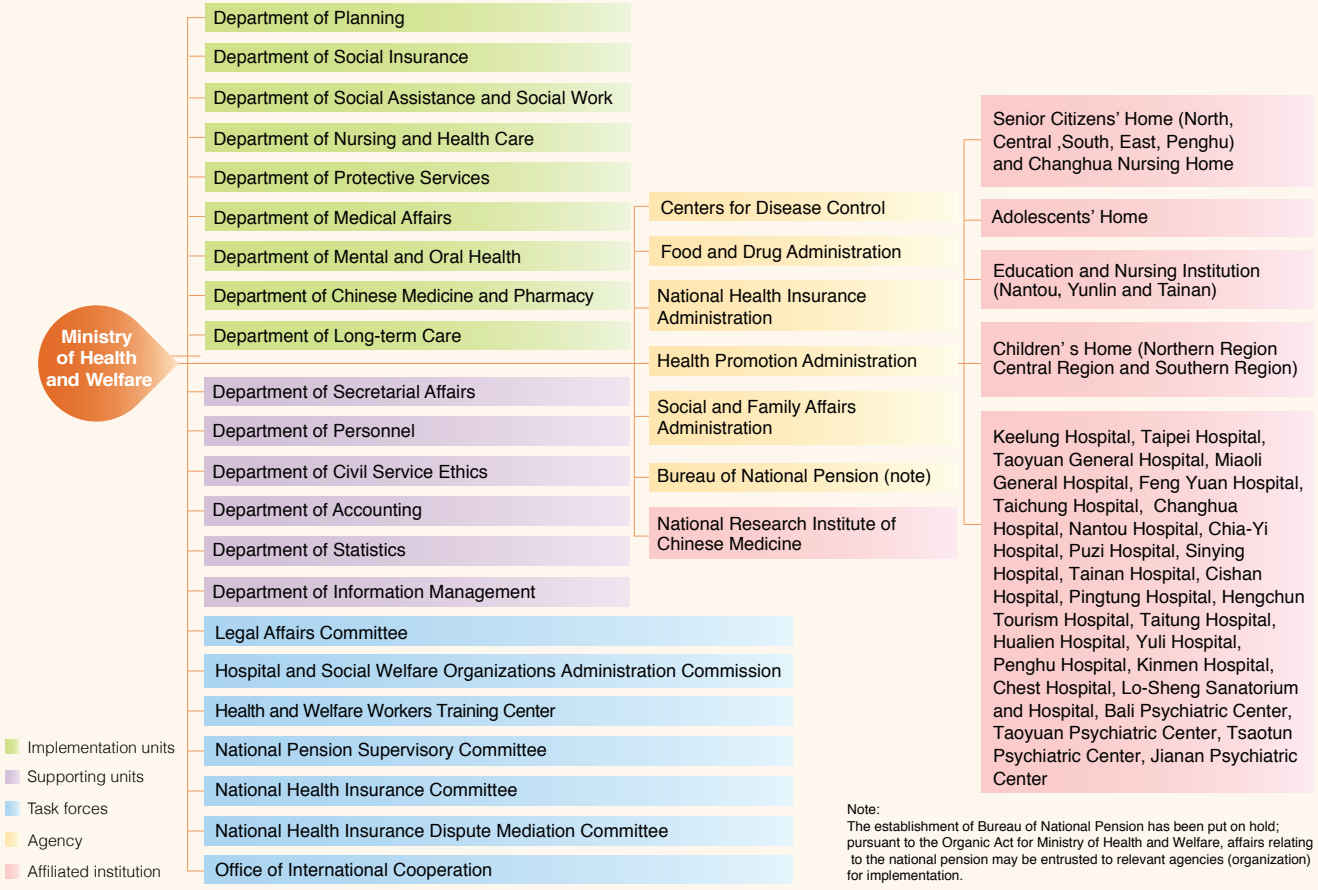
In accordance with the organizational restructuring of the Executive Yuan, the Ministry of Health and Welfare (hereinafter referred to as the “MOHW”) was established in 2013, by integrating 21 divisions and task forces of the former Department of Health, five subordinate authorities, the Ministry of the Interior's Department of Social Affairs, Child Welfare Bureau, Domestic Violence and Sexual Assault Prevention Committee, National Pension Supervisory Committee, and the Ministry of Education's National Research Institute of Chinese Medicine. A humancentric health and welfare network was thus formed to improve the people’s health and well-being.

Guided by our mission of “promoting the health and well-being for all citizens” and our vision of “becoming the most trusted government agency”, the Ministry will adhere to global and innovative thinking with localized strategies to integrate social welfare and healthcare resources as we diligently plan administrative measures and integrated, consistent public policies so that we can deliver comprehensive, one-stop services that will enable all citizens to lead more joyful and healthier lives.

Chapter 1 Organizational Structure

The minister oversees ministry affairs and is aided by two deputy ministers, one vice minister, and one secretary-general. The MOHW consists of nine departments, six administrative departments, seven mission-oriented units, and six affiliated third-level agencies (institutes). It oversees 26 hospitals and 13 social welfare institutions, as shown in Figure 1-1.The MOHW is responsible for health promotion, disease control, food safety and drug management, medical care, social insurance, social welfare, social assistance, and protective services.

Figure 1-1 Organization of the Ministry of Health and Welfare (MOHW)



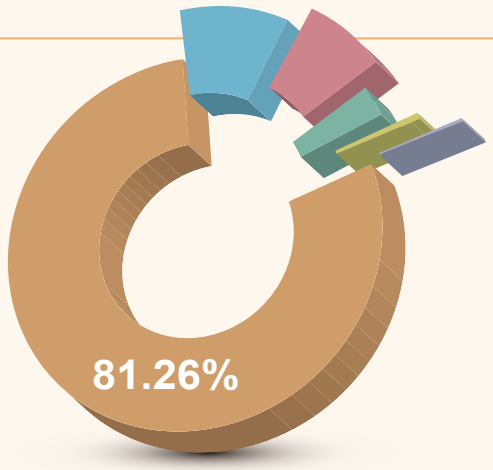
Note:
The establishment of Bureau of National Pension has been put on hold; pursuant to the Organic Act for Ministry of Health and Welfare, affairs relating to the national pension may be entrusted to relevant agencies (organization) for implementation.

Chapter 2 Expenditure

The Ministry's financial statement for 2019 came to 220.789025 billion NTD, with various expenses and their percentages shown in Figure 1-2.

Figure 1-2 Distribution of 2019 Health and Welfare Final Accounts

	Units: NT$1,000, %	
Education	176,962	0.08%
Social Assistance	1,209,416	0.55%
Science	4,523,287	2.05%
Medical and Health Care	17,505,465	7.93%
Welfare Services	17,954,830	8.13%
Social Insurance	179,419,065	81.26%



Chapter 3 Administrative Goals

Section 1 Annual Objectives

SThe Ministry has prepared its administrative plans and objectives for 2019 as shown in Figure 1-3 in accordance with the Executive Yuan's administrative policies and approved budgets. The excerpt of key strategies is as follows:

1. Reinforcing the welfare delivery system and giving priority to care for vulnerable groups

(1) Protecting children and youths' welfare and rights; constructing diverse nursery models of consistent quality.

(2) Promoting the Convention on the Rights of Persons with Disabilities by improving the service capacities and quality.

(3) Reinforcing the empowerment of women and constructing a friendly environment of empowerment.

(4) Integrating existing protective services and service network for high-risk families and establishing centralized case acceptance and dispatch center to strengthen the Social Safety Net.

(5) Promoting aging in place policies and constructing resource networks for aging in place communities.

2. Setting up a high-quality long-term care system and preparing holistic long-term care service resources

(1) Improving long-term care quality and expanding upon diverse supply capacities.

(2) Building up comprehensive ABC tier resources to improve the accessibility of community care services.

(3) Promoting care for solitary seniors and integrated outpatient services; bolstering community care services for seniors with dementia.

3. Creating a mutual assistance society and improving the protective services system

(1) Safeguarding economic means for the disadvantaged minorities and promoting the "Savings Accounts for Future Education and Development of Children and Youth".

(2) Constructing a community mutual care network and expanding capacities for volunteer services, promoting social welfare services at the municipal level.

(3) Constructing a vocational system for social work and fleshing out social worker human resources for local governments.

4. Expanding current systems of healthcare and safeguarding people's rights to seek medical assistance

(1) Promoting Patient Right to Autonomy Act, and integrating home and community-based hospice care.

(2) Improving upon existing systems for emergency medical care and continuing to inject resources to medical services in remote areas.

(3) Promoting the legalization of working rights for physicians and improving the working environment for medical personnel; fortifing existing handling mechanisms for medical disputes.

(4) Promoting premium nursing work environment to attract more nursing personnel return; strengthening nursing talent cultivation and institutional management.

(5) Constructing a better healthcare environment for TCM and improving the administration of Chinese Traditional Folk Therapy by law.

(6) Strengthening health and welfare related technological research and talent cultivation and promoting the development for biomedical industries

(7) Promoting international and cross-strait collaboration and exchanges in the areas of health and welfare.

5. Establishing a high-quality communicable disease prevention preparedness system and advancing toward a new era in epidemic disease prevention

(1) Constructing a comprehensive epidemic prevention system by strengthening capacities for infectious disease monitoring, early warning and risk control.

(2) Implementing relevant vaccination operations and ensuring adequate financial resources for vaccinations.

(3) Providing diversified screening and case management to reduce the incidence rate for TB and infection rate for AIDS.

(4) Expanding international epidemic prevention collaborations and promoting cross-region joint defense to keep infectious diseases from entering Taiwan proper.

6. Constructing a safe environment for food, Protecting the health and safety of the general public

(1) Strengthening food and drug administration by improving existing risk control and analytic mechanisms and fortifying existing systems for traceability

(2) Promoting food and drug safety communication and dissemination to raise awareness for all citizens.

(3) Implementing sound management for TCM quality control and ensuring the safety and hygiene of Chinese herbal medicine (ingredients).

7. Constructing a healthy and supportive environment to facilitate holistic health promotion

(1) Strengthening the prevention and management for chronic diseases; nurturing healthy lifestyles by creating a smoke and betel-nut free supportive environment.

(2) Improving the environment for maternal and child healthcare services, promoting better health for women with high-risk pregnancy, indigenous people and new residents and creating age-friendly cities.

(3) Strengthening cancer prevention, promote precision medicine

(4) Strengthening health education promotion for air-pollution, improving existing indicators for citizen health monitoring and constructing data warehouses for seniors and nutrition.

(5) Promoting health information service platform integration, constructing health education resource sharing platform and personalized health management services.

(6) Strengthening suicide prevention and integrating existing management mechanisms for the follow-up of high-risk mental disorder patients, addicts of alcohol/substance abuse, domestic violence/sexual assault offenders

(7) Constructing oral hygiene and care capabilities for specific demographics, educating children to cultivate proper habits for dental hygiene.

8. Promoting National Health Insurance and National Pension Insurance systems and strengthening social insurance systems

(1) Strengthening the financial status of the National Health Insurance by promoting system reform and implementing tiered medical care.

(2) Utilizing smart cloud technologies to innovate National Health Insurance services.

(3) Improving the National Pension System to safeguard economic security for the elderly

Figure 1-3 **Administrative Goals of the MOHW, 2019**

Mission

Promoting the Health and Well-Being for All citizens

Vision

Being the Most Trustworthy Administration

Administrative Goal

- Reinforcing the welfare delivery system and giving priority to care for vulnerable groups
- Setting up a high-quality long-term care system and preparing holistic long-term care service resources
- Creating a mutual assistance society and improving the protective services system
- Expanding current systems of healthcare and safeguarding people's rights to seek medical assistance
- Establishing a high-quality communicable disease prevention preparedness system and advancing toward a new era in epidemic disease prevention
- Constructing a safe environment for food and medicine to protect all citizens with food and medicine safety
- Constructing a healthy and supportive environment to facilitate holistic health promotion
- Promoting National Health Insurance and National Pension Insurance systems and strengthening social insurance systems

Section 2 Policies for Gender Equality

In an effort to promote gender equality, and in response to the international trend of higher awareness for gender equality, the Ministry has been working with the Gender Equality Committee of the Executive Yuan to actively promote relevant gender equality policies by actively incorporating gender perspectives in the formulation, planning and implementation process while adhering to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW in short) in the hopes of facilitating gender equality in various aspects of health, medical care and social benefits.

In 2019, the Ministry has continued to actively promote and implement rolling update its Gender Equality Promotion Plan for 2019 through 2022. This plan covers four major topics of gender equality as laid out by the Executive Yuan (including the promotion of three-in-one policy for public nursery, overcoming gender stereotypes and biases, strengthening public support for aging society and the promotion of gender equality in the decision-making process for public and private departments) and six ministry-level issues (including the promotion of gender equality in healthcare, construction of gender-friendly environment for medical assistance, improvement in the analysis and services for the needs of new resident victims of domestic violence, bolstering mental health and suicide prevention for LGBTI community, care and protection of rights for pregnant teenagers, construction of comprehensive

service for pregnant women), with the integration of gender mainstreaming strategies for the formulation and promotion of gender equality related policies and measures. The outcomes of relevant gender equality promotional plans have been published in the gender equality section on the Ministry's website.

The Act for Implementation of J.Y. Interpretation No. 748 was announced by President Tsai Ing-Wen on May 22 2019 and took effect on May 24, 2019. Consequently, the Ministry has actively collaborated with Executive Yuan's Gender Equality Committee with the amendment of relevant regulations and measures in an effort to create a gender friendly environment. In addition, the Ministry urges all citizens to break free from common stereotypes by respecting the rights of girls by working with the Taiwan Women's Film Association on 2019 October 11 (the International Day of the Girl Child) in the Women Make Waves Festival Taiwan. With "Girl Up!" as being the central theme of the event, the festival featured 7 selected domestic and international films in a national roadshow in order to leverage the power of visual images to promote gender equality and create a friendlier society that will enable girls to have a fair chance at developing and realizing their potentials.

The "Girl Up!" promotional press conference was held at SPOT Huashan Cinema on October 8 2019. With the attendance of VIPs from different areas of specializations, students and their teachers, the participants were able to show their support for gender equality through action. (Photograph provided by: Social and Family Affairs Administration)

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2 Health and Welfare Indicators

- Chapter 1 Population Indicators
- Chapter 2 Vital Indicators
- Chapter 3 National Health Expenditure (NHE)
- Chapter 4 Social Welfare Indicators
- Chapter 5 International Comparisons

Rising incomes, improved living environment and nutrition, advances in medicine and health care, and greater health awareness have led to a gradual increase in Taiwan's life expectancy. As baby boomers become older, and the birth rate declines, one must pay greater attention to the health needs of an aging population. The changing demographics may affect not only national health expenditure (NHE) and resource distributions, but also the rate of economic growth. In this section, we address these topics by examining important health and welfare indicators, including population indicators, vital indicators, NHE, social welfare indicators, and international comparisons.

Chapter 1 Population Indicators

At the end of 2019, Taiwan had a registered population of 23.60 million, an increase of 0.60‰ from 2018. There were 11.71 million males, a decrease of 0.66‰, and 11.90 million females, an increase of 1.85‰. The sex ratio (the ratio of males to females in a population) was 98.38%.

At the end of 2019, there were 652 people per square kilometer, similar to the previous year. The densest city was Taipei, at 9,732 people. The least dense area was Taitung, at 62 people, followed by Hualien, at 70 people.

Section 1 Population Age Structure

The declining birth rate and the rising life expectancy at birth have reduced the proportion of young population, and conversely increased the proportion of the elderlies. Between 2009 and 2019, the proportion of the population aged 0-14 dropped from 16.34% to 12.75%, while the proportion of the population at 65 years old or over has exceeded 7.0% as of 1993. Taiwan in 1993 has entered a transitional phase towards an aging society with its population of seniors continuing to rise ever since.Then, the figure reached 14.56% in 2018 and we officially became an aged society. The number continues to grow to 15.28% in 2019 as shown in Figure 2-1.

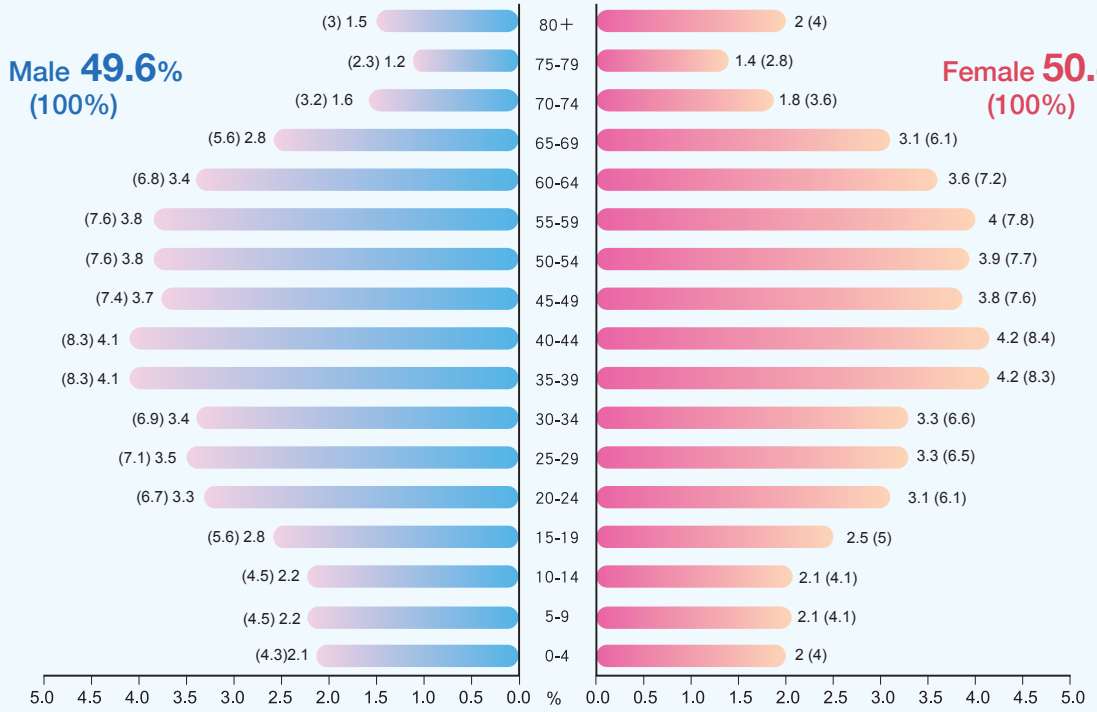
Regarding gender differences, females accounted for a greater proportion of aging population than the males. In 2019, females accounted for higher proportion 16.47% of elderlies than males which accounted for 14.07%. On the other hand, females accounted for lower proportion 12.16% of young population than males which accounted for 13.36%. (Figure 2-2).

Figure 2-1 **Population Age Structure**

Source: Ministry of the Interior, R.O.C. (Taiwan)

Figure 2-2 **2019 Population Age Structure, by Gender**

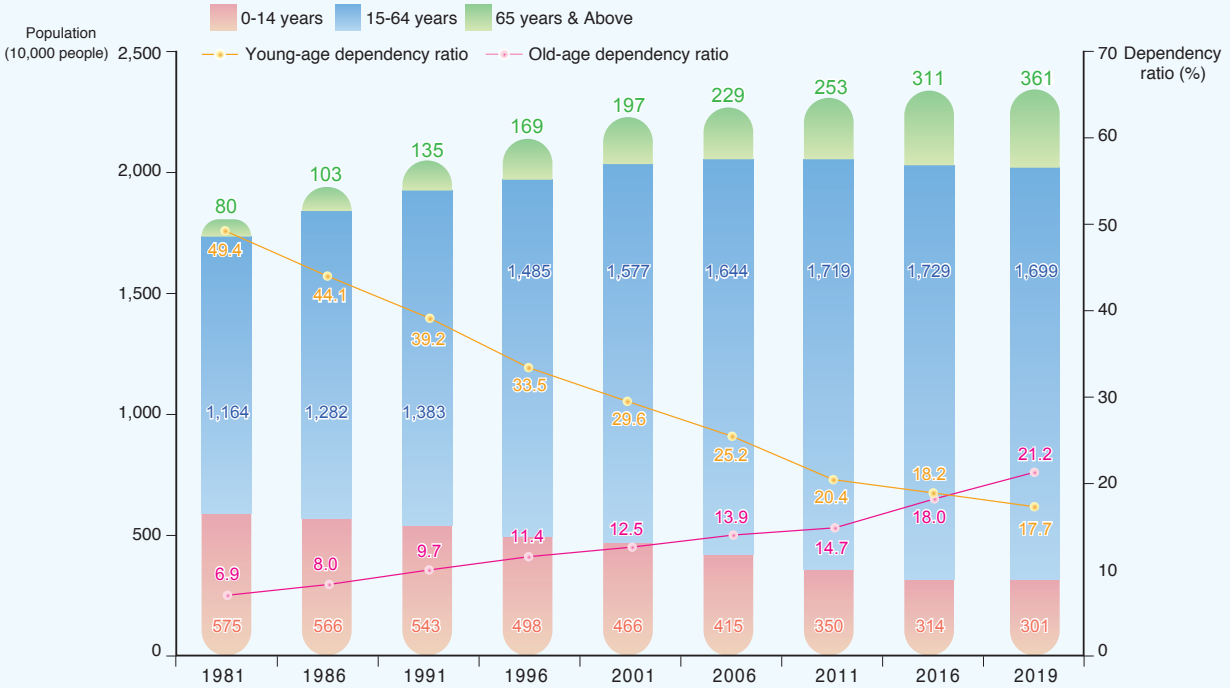
Source: Ministry of the Interior, R.O.C. (Taiwan)



The dependency ratio [(population aged 0-14 + population aged 65 and above) / population aged 15- 64* 100] fell from 56.3% in 1981 to 39.0% in 2019.This was primarily due to the rapid decrease in the young-age dependency ratio [population aged 0-14 / population aged 15-64* 100] from 49.4% to 17.7%, and the steady increase in the old-age dependency ratio [population aged 65 and above/population aged 15-64* 100] from 6.9% to 21.2% (Figure 2-3).

Figure 2-3 **Population Age Structure and Dependency Ratio, by Year**

Source: Ministry of the Interior, R.O.C. (Taiwan)

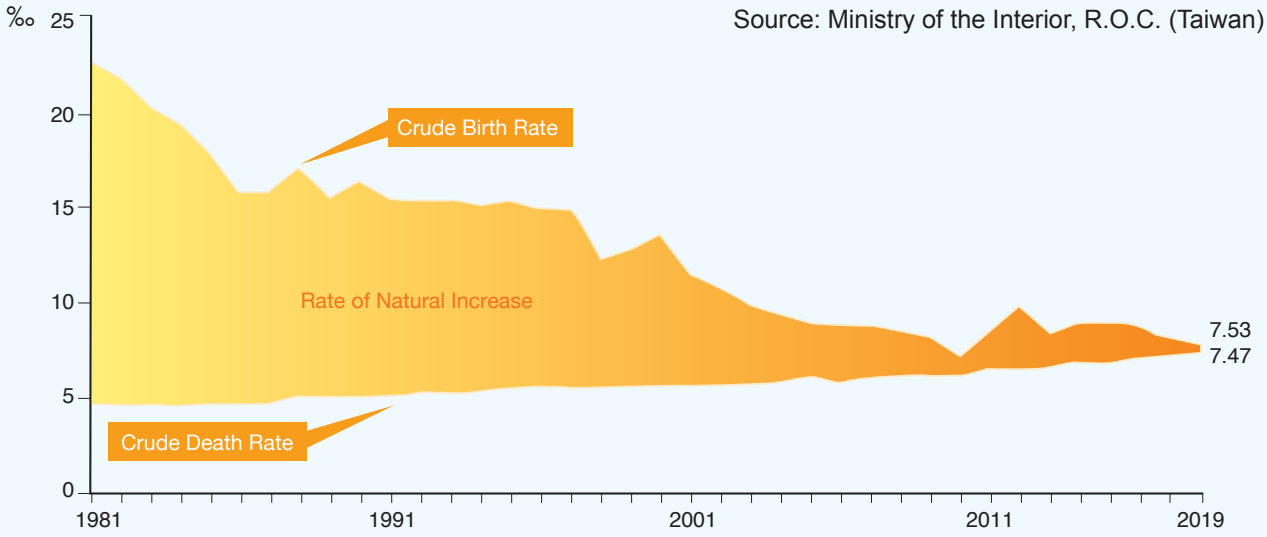


Section 2 Birth and Death

Taiwan's changing socioeconomic structure has led to a steady decline in the fertility rate. The crude birth rate (births/mid-year population* 1,000) fell from 20‰ in the early 1980s to below 10‰ in 2000s, and to 7.5‰ in 2019. The crude mortality rate (deaths/mid-year population* 1,000) rose from 5‰ in the 1980s to 7.5‰ in 2019, because the proportion of the elderly population was increasing. The overall impact has been a decline in the rate of natural increase (crude birth rate minus crude mortality rate), from over 10‰ in the 1980s to about 0.1‰ in 2019 (Figure 2-4).

Figure 2-4 Crude Birth Rate, Crude Death Rate, and Rate of Natural Increase, by Year

Source: Ministry of the Interior, R.O.C. (Taiwan)

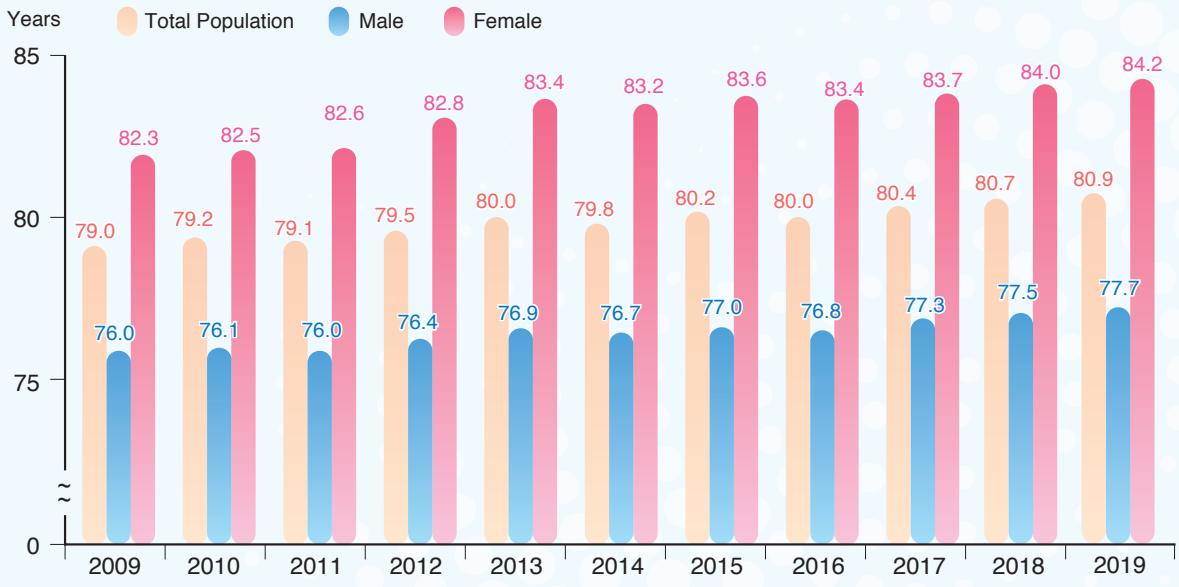


Section 3 Life Expectancy

Life expectancy at birth was 80.9 in 2019, representing an increase of 1.9 years over the past decade. Life expectancy at birth increased by 1.7 years to 77.7 for males, and by 1.9 years to 84.2 for females during the same period, showing that women live longer than men and the gap has been widening (Figure 2-5 and Table 2, Appendix 1).

Figure 2-5 Life Expectancy at Birth, by Year

Source: Ministry of the Interior, R.O.C. (Taiwan)



Chapter 2 Vital Indicators

Section 1 Ten Leading Causes of Death

Economic transformation, better quality of life, and improved health care have led to changes in the leading causes of death. In 1952, acute and communicable diseases took the most lives in Taiwan; today, malignant neoplasms(cancer), accidents, and chronic diseases such as cardiovascular diseases represent the main causes.

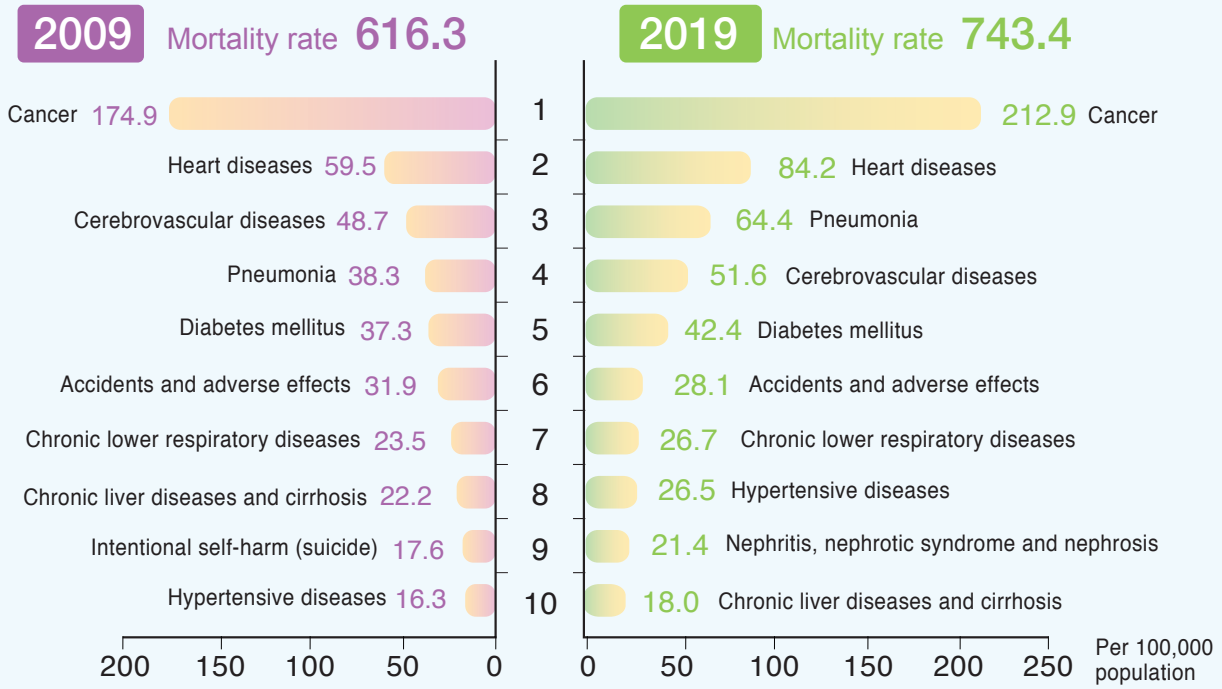
Selecting the underlying cause of death has followed ICD-10 version 2016 since 2019, the mortality rates for causes reflected greater differential compared to those from 2018. In order to facilitate better comparison of data for different years, the mortality data for 2018 has been recalculated based on ICD-10 version 2016 and the ratio between the old and new data has been referred to as the "conversion ratio". The past decade data multiplied by "conversion ratio" has been referred to as the "value adjusted by conversion ratio" which is a separate item from the original releases of statistical data. For all analyses presented in this report, the data from previous years are all "value adjusted by conversion ratio".

In 2019, there were 175,424 deaths and the crude mortality rate was 743.4 per 100,000 population, an increase of 1.4% compared to 2018 and an increase of 20.6% compared to 2009. The standardized mortality rate [based on the WHO standard world population age structure for 2000] was 408.2 per 100,000 population, a decrease of 1.6% compared to 2018 and a decrease of 12.5% compared to 2009.

In 2019, the ten leading causes of death accounted for 77.5% of all deaths, and were primarily chronic diseases. In descending order by mortality rate they were (1) malignant neoplasms (cancer), (2) heart diseases, (3) pneumonia, (4) cerebrovascular diseases, (5) diabetes mellitus, (6) accidents and adverse effects, (7) chronic lower respiratory diseases, (8) hypertensive diseases, (9) nephritis, nephrotic syndrome and nephrosis, and (10) chronic liver diseases and cirrhosis. Compared to 2009, the leading causes of death that increased in ranking included pneumonia, hypertensive disease, nephritis, nephrotic syndrome and nephrosis; causes that fell in ranking included cerebrovascular diseases, chronic liver disease, cirrhosis and intentional self-harm (suicide), as shown in Figure 2-6.

Figure 2-6 Changes in the Ten Leading Causes of Death

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: The data for 2009 is the "value adjusted by conversion ratio" and not the original releases of statistical data.

Section 2 Cancer Incidence and Causes of Cancer Death

1. Cancer Incidence

According to 2017 cancer registry data, the incidence rates of cancer for males and females were 506 and 442 per 100,000 population respectively.

By factoring the WHO Standard Population for 2000 into the calculation for adjustment, the age-standardized incidence rates for males and females became 335.7 and 281 people per 100,000 population, respectively (Table 2-1).

Table 2-1 Incidence of Ten Leading Cancers, 2017

Source: Health Promotion Administration, MOHW, R.O.C. (Taiwan)

Male				Female			
Rank	Cancer Site	No. of Cases	Age-Standardized Incidence Rate (Per 100,000 Population)	Rank	Cancer Site	No. of Cases	Age-Standardized Incidence Rate (Per 100,000 Population)
1	Colon and Rectum, Rectosigmoid Junction and Anus	9,434	52.2	1	Female Breast	13,965	78.9
2	Liver and Intrahepatic Bile Ducts	7,800	43.5	2	Colon and Rectum, Rectosigmoid Junction and Anus	6,974	34.7
3	Lungs, Trachea, and Bronchus	7,936	43.5	3	Lungs, Trachea, and Bronchus	6,346	31.6
4	Oral Cavity, Opharynx, and Hypopharynx	7,058	41.2	4	Thyroid Gland	3,118	20.0
5	Prostate Gland	5,866	31.7	5	Liver and Intrahepatic Bile Ducts	3,425	16.2
6	Esophagus	2,563	14.5	6	Uterus	2,695	15.1
7	Stomach	2,304	12.4	7	Ovary, Fallopian Tube, and Broad Ligament	1,521	9.2
8	Skin	2,089	11.3	8	Skin	1,715	7.9
9	Bladder	1,707	9.1	9	Cervix	1,418	7.9
10	Leukemia	1,383	9.0	10	Stomach	1,399	6.8
	Total	**59,297**	**335.7**		**Total**	**52,387**	**281.0**

Notes: 1. Cancer registry data excludes carcinoma in situ.
2. Ranked from highest to lowest by age-standardized incidence rate (per 100,000 population).
3. The age-standardized incidence rate is based on the standard world population age structure in 2000.
Formula: Σ (Age-Specific Incidence Rate x Standard Age-Specific Population)/Standard Total Population.

2. Causes of Cancer Death

In 2019, there were 50,232 deaths due to malignant neoplasms accounting for 28.6% of total deaths and a crude mortality rate of 212.9 per 100,000 population. This represented an increase of 1.8% compared to the previous year and an increase of 21.7% compared to 2009. The standardized cancer mortality rate in 2019 was 121.3 per 100,000 population, a decrease of 1.4% compared to 2018 and a decrease of 9.4% compared to 2009.

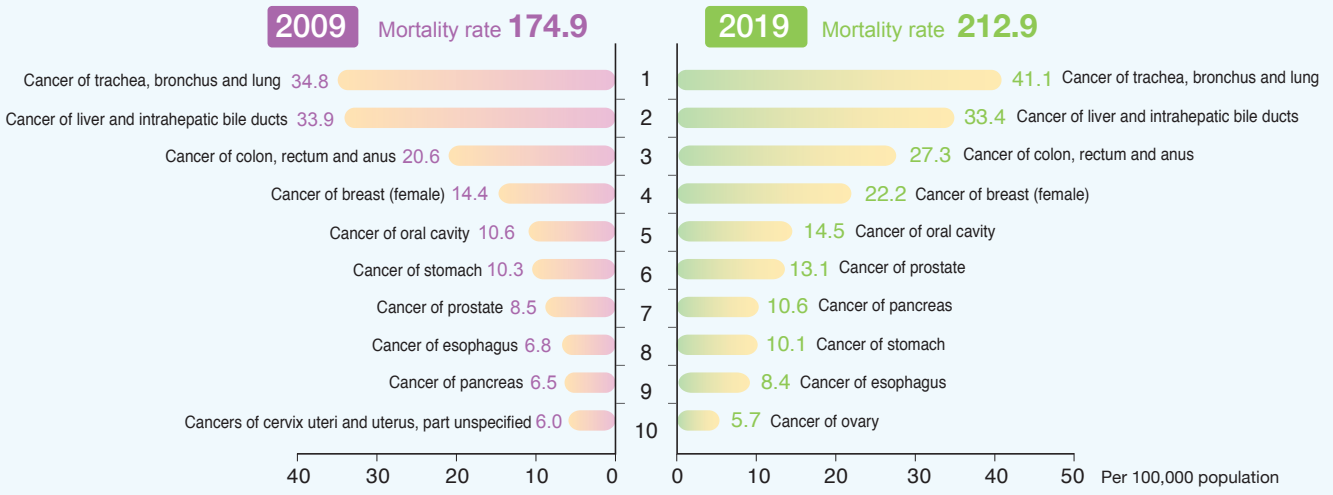
The ten leading causes of cancer death in 2019 were cancers of the (1) trachea, bronchus and lung; (2) liver and intrahepatic bile ducts; (3) colon, rectum and anus; (4) breast (female);(5) oral cavity; (6) prostate; (7) pancreas; (8) stomach; (9) oesophagus; (10) ovary. Compared to 2009, cancers of the prostrate, pancreas, and ovary rose in the rankings, while cancers of the stomach, oesophagus, cervix uteri and uterus (part unspecified) fell. (Figure 2-7).

Section 3 Infant and Neonatal Mortality Rates

Other than a slight increase in 1995 due to a new birth reporting system, advances in public health have led to general declines in both the infant mortality rate (deaths before age one per 1,000 live births) and the neonatal mortality rate (deaths in the first four weeks of life per 1,000 live births). In 2019, the infant mortality rate declined to 3.8‰, compared to 8.9‰ in 1981. Over the same period, the neonatal mortality rate dropped from 3.1‰ to 2.4‰ (Figure 2-8).

Figure 2-7 **Changes in the Ten Leading Causes of Cancer Death**

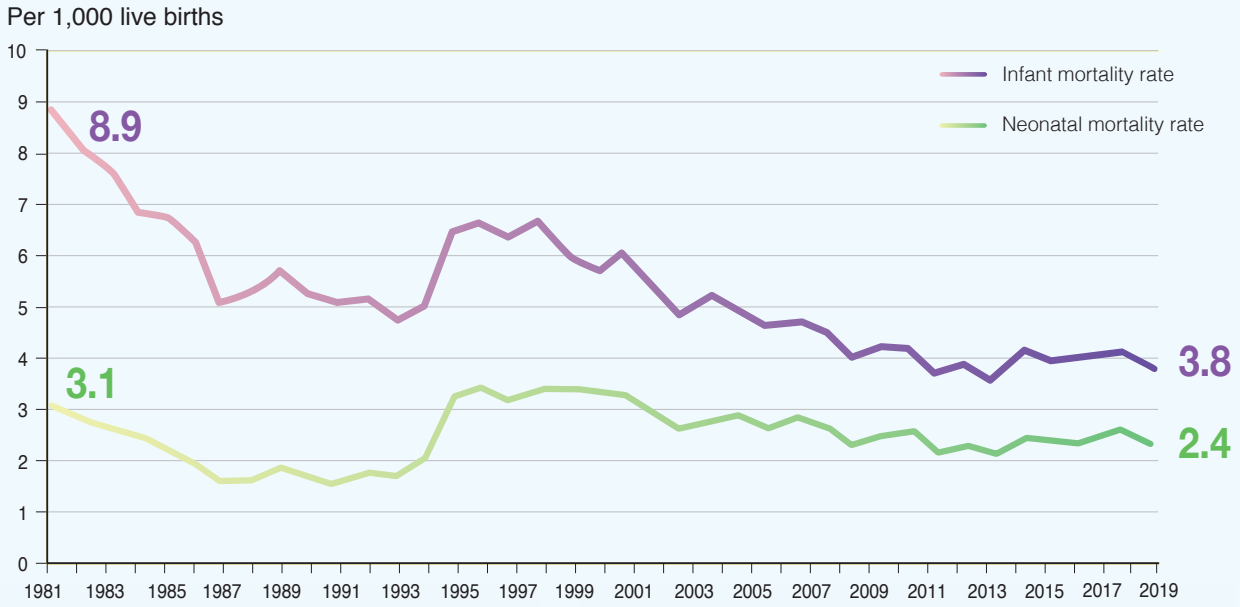
Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: The data for 2009 is the “value adjusted by conversion ratio” and not the original releases of statistical data.

Figure 2-8 **Infant and Neonatal Mortality Rates, by Year**

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: The birth reporting system was launched on Mar. 1995.

Chapter 3 National Health Expenditure (NHE)

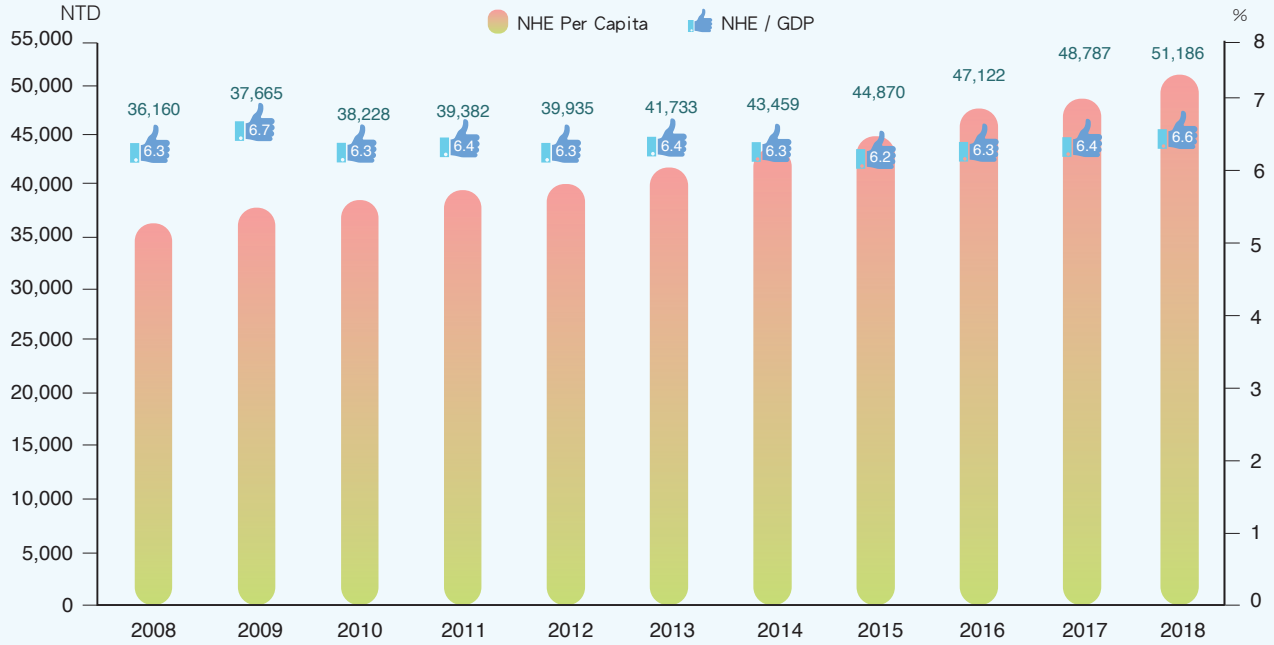
Good health care is a basic need in modern society and a major indicator of a country's advancement.

Taiwan's NHE has shown steady growth, NHE surpassed NTD 1.207 trillion in 2018. The expansion of international medicine, development of biomedicine and technology, and a rapidly aging population are expected to contribute to continued increases in NHE.

NHE as a share of GDP increased from 6.3% in 2008 to 6.6% in 2018. Per capita NHE increased from NTD 36,160 in 2008 to NTD 51,186 in 2018, for an average annual increase of 3.5% (Figure 2-9).

Figure 2-9 NHE/ GDP Ratios and NHE Per Capita, by Year

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Chapter 4 Social Welfare Indicators

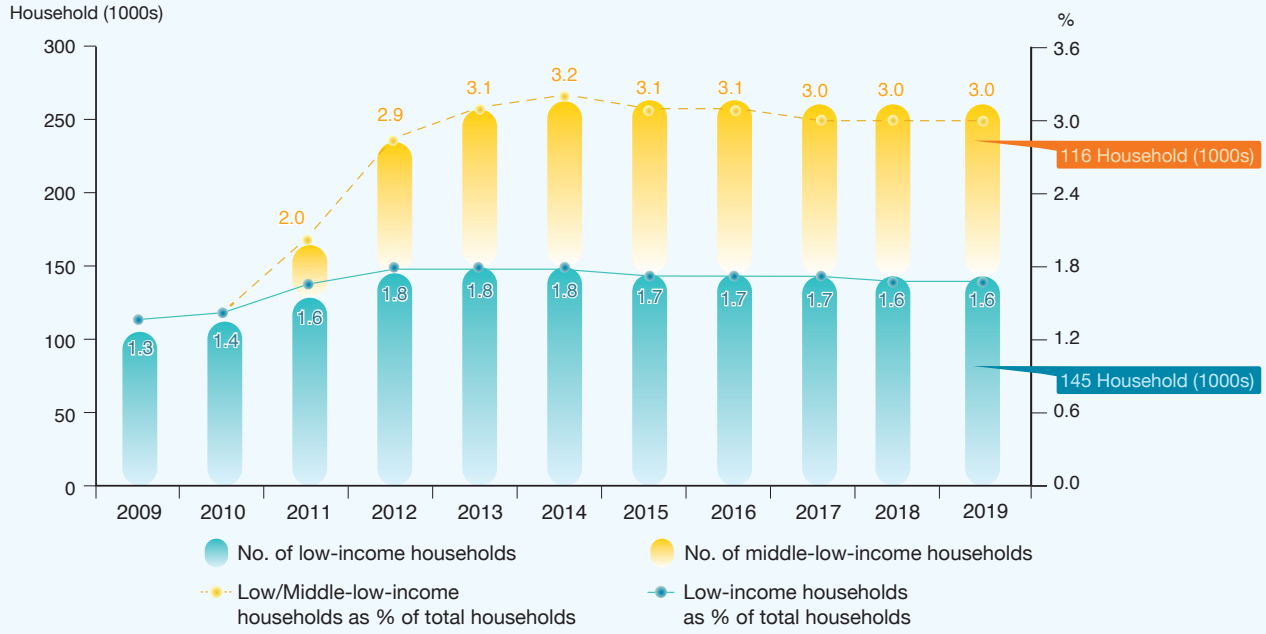
Section 1 Low-Income and Middle-Low-Income Households

The government offers various social assistance measures to guarantee a basic standard of care for the poor, the ill, and those in urgent need. In 2008 and 2011, the government increased basic living subsidies for low-income households and lowered the qualification threshold to expand care for more financially vulnerable people. At the end of 2019, there were 260,800 low-income and middle-low-income households (144,863 and 115,937 households, respectively), with a total of 638,707 members (304,470 and 334,237 respectively). They accounted for 3.0% of all households and 2.7% of the total population.

Among all members of low-income and middle-low-income households, there were 328,539 males and 310,168 females, for a male to female ratio of 1.06, compared to a national average of 0.98 (Figures 2-10, 2-11).

Figure 2-10 Low-Income and Middle-Low-Income Households, by Year

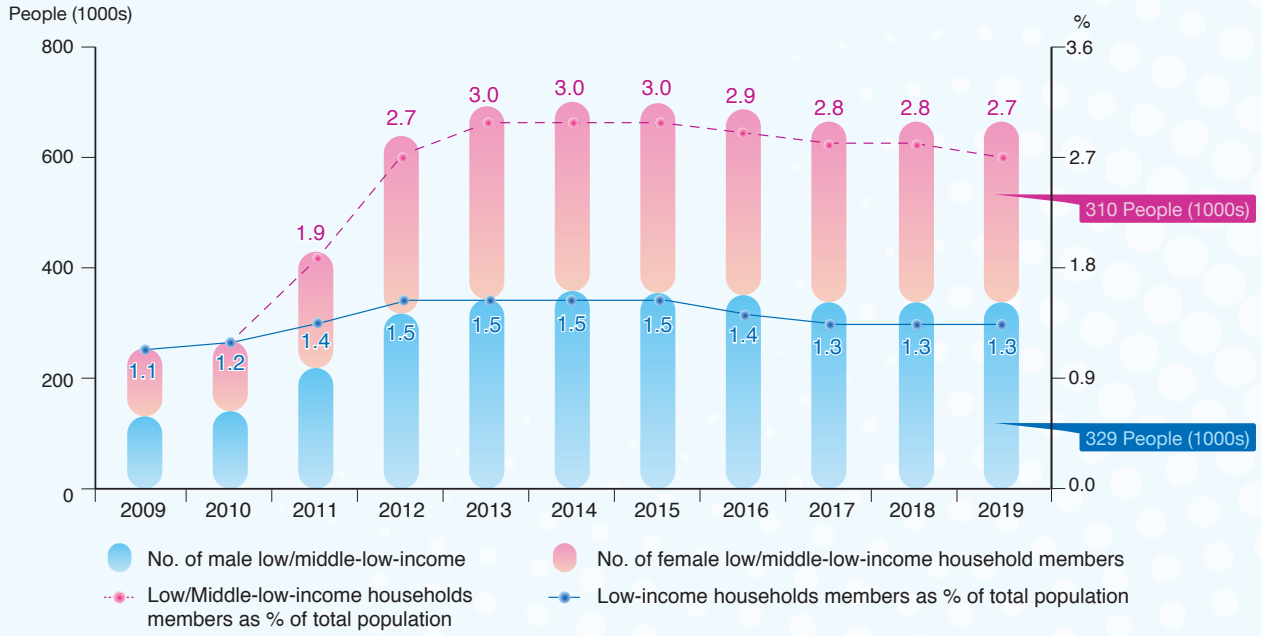
Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: Since July 2011, middle-low-income households have qualified for basic living subsidies.The standard minimum cost of living was changed from 60% of average expenditures per person during the previous year to 60% of the median disposable income per person. Siblings are excluded from household calculations.

Figure 2-11 Low-Income and Middle-Low-Income Household Members, by Year

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: Since July 2011, middle-low-income households have qualified for basic living subsidies.The standard minimum cost of living was changed from 60% of average expenditures per person during the previous year to 60% of the median disposable income per person. Siblings are excluded from household calculations.

Section 2 Disabilities

At the end of 2019, 1,186,740 people were identified as disabled, accounting for 5.0% of the total population and consisting of 661,690 males (55.8%) and 525,050 females (44.2%).

From 2009 to 2019, the number of disabled persons increased by 115,667, or 10.8%, primarily attributed to an aging population and a higher risk of disability facing the elderlies. In terms of age, the percentage of disabled persons 0 - 17 years old fell by 18.3%. On the other hand, disabled persons aged 18 to 64, and 65 and older increased by 1.7%, and 29.5%, respectively (Table 2-2).

Table 2-2 **Annual Disability Statistics Compendium, by Gender and Age**

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year (End)	Gender (Persons)			Age group (Persons)			As % of total population
	Total (Persons)	Male	Female	0-17 Years	18-64 Years	65 Years & Above	
2009	1,071,073	615,621	455,452	63,440	611,154	396,479	4.6
2010	1,076,293	616,675	459,618	62,705	619,809	393,779	4.7
2011	1,100,436	629,179	471,257	61,833	631,413	407,190	4.7
2012	1,117,518	636,287	481,231	62,051	644,023	411,444	4.8
2013	1,125,113	639,969	485,144	59,570	643,185	422,358	4.8
2014	1,141,677	648,807	492,870	58,737	646,992	435,948	4.9
2015	1,155,650	655,444	500,206	56,885	648,486	450,279	4.9
2016	1,170,199	662,800	507,399	55,702	645,588	468,909	5.0
2017	1,167,450	658,682	508,768	54,051	637,568	475,831	5.0
2018	1,173,978	658,673	515,305	52,119	629,460	492,399	5.0
2019	1,186,740	661,690	525,050	51,844	621,581	513,315	5.0

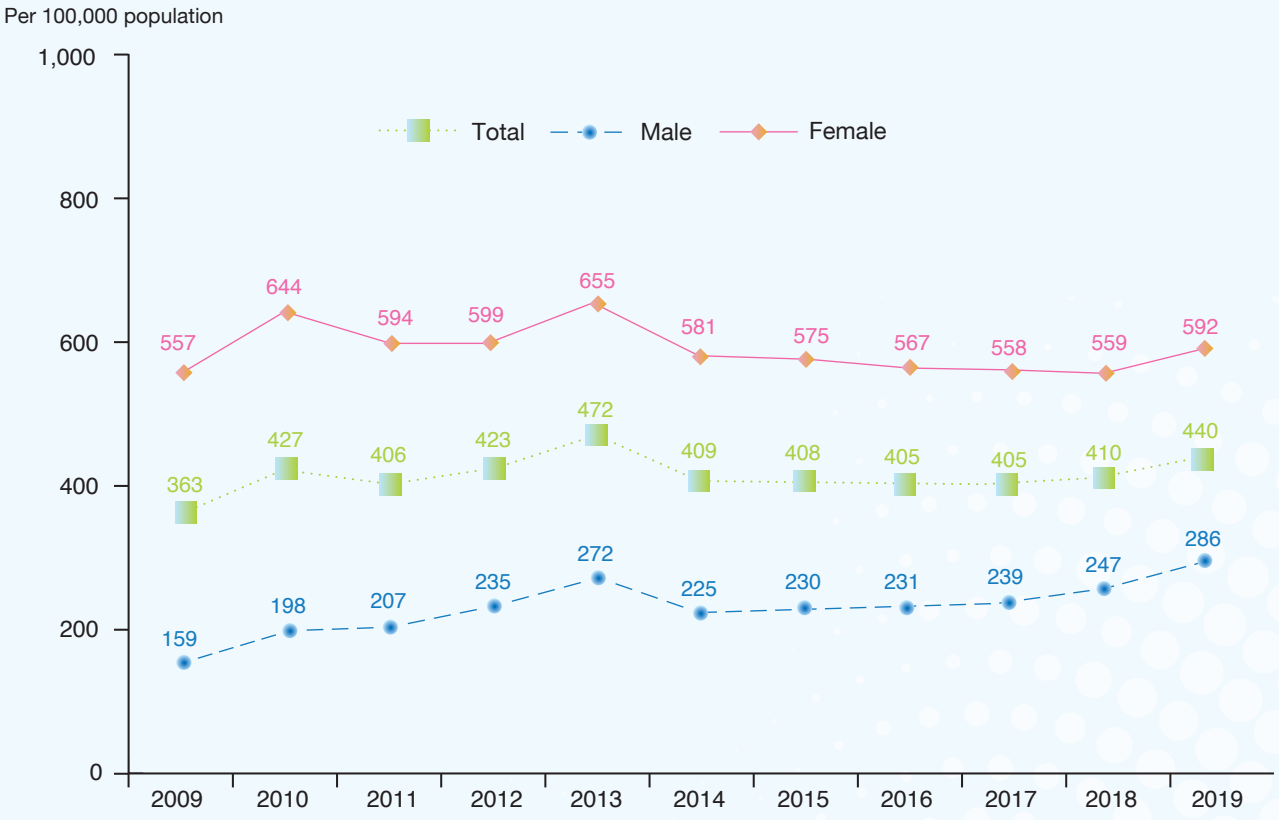
Section 3 Domestic Violence

In light of the government's stronger push to increase public awareness of domestic violence and promote primary prevention at the community level by strengthening the reporting network and support measures, the number of reported cases of victims in domestic violence increased from 84,000 in 2009 to 104,000 in 2019. In terms of victims per 100,000 population, there were 440 reported victims in 2019, consisting of 286 male victims and 592 female victims respectively. Female victims outnumbered male counterparts by a factor of 2.1 (Figure 2-12).

As for type of cases, there had been a total of 128,000 cases of domestic violence reported in 2019, with "spouse, former spouse, or cohabitating partner" being the type in majority at 49.8%, while "children and youths protection" came to 16.4%. Over the years, the majority of the cases has been attributed mostly to "spouse, former spouse or cohabitating partner". (As shown in Fig. 2-13) With regards to the handling of domestic violence, refer to Sections 2 and 3 under Chapter 2 of Part 11.

Figure 2-12 **Victims of Domestic Violence Rate, by Year**

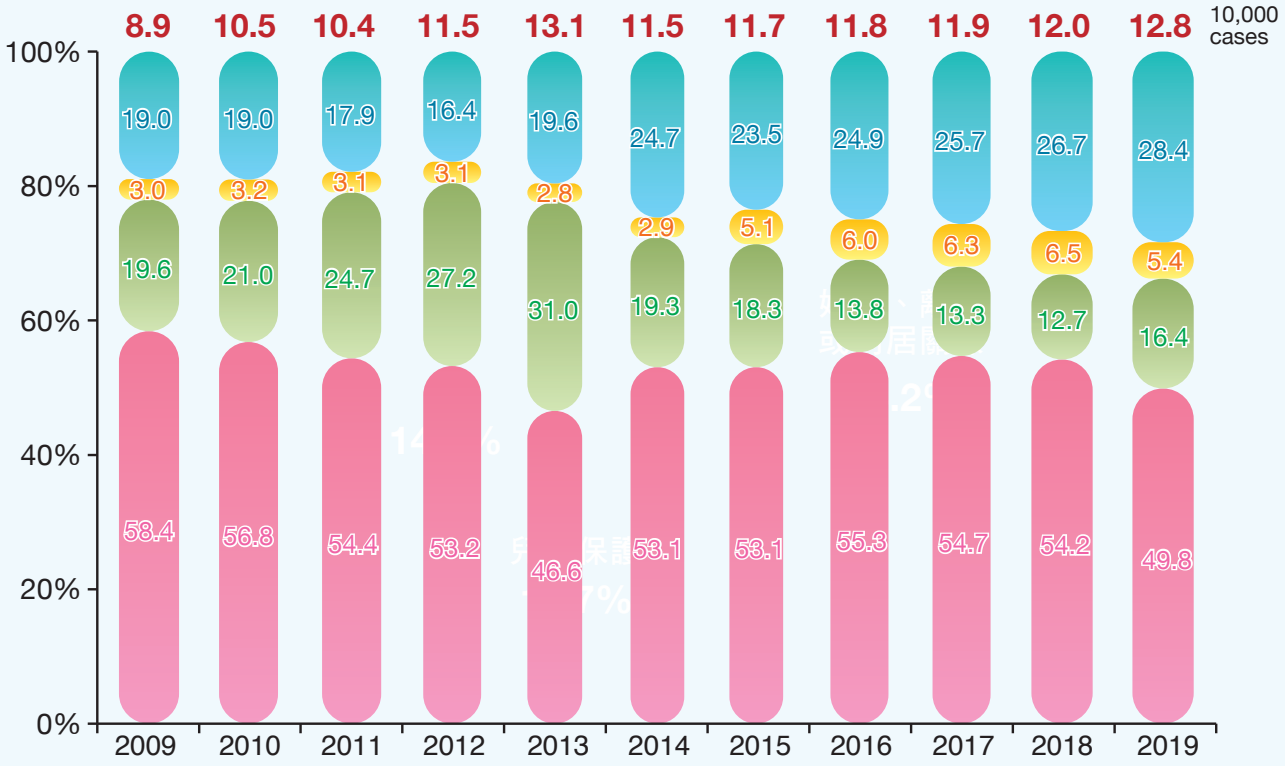
Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: Victims of Domestic Violence Rate=Reported victims/mid-year population x 100,000

Figure 2-13 **Domestic Violence Reported Cases by Type, 2019**

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Note:In order to clearly define the scope of domestic violence, the number of notifications since 2014 did not include "strangers" and "family members other than fourth degree of kinship."

Section 4 Economic Security of Children and Youths

Due to the low birth rate, the population of children and youths has been decreasing. At the end of 2019, the number of people aged younger than 18 years old was 3,702,000 which was 76,000 less than in 2018 and 1,043,000 less than in 2009, indicating a 22.0% decrease over the 10-year period. In terms of gender, both male and female newborns fell by an additional 2.0% compared to the end of 2018 and being 22.1% and 21.8% lower compared to the end of 2009 respectively.

To improve economic security of children and youths, county and city governments provide living subsidies (livelihood assistance) to children from low-income families and livelihood assistance to children and youths from vulnerable families. At the end of 2019, living subsidies provided to children from low-income families and children and youths from vulnerable families amounted to NTD2.81 billion and NTD2.50 billion, respectively, which was 6.5% and 5.2% less than in 2018, respectively. The decrease is mainly due to the reduced population of children and youths (Figures 2-14, 2-15).

Figure 2-14 **Population of Children and Youths under 18 Years Old**

Source: Ministry of the Interior, R.O.C. (Taiwan)

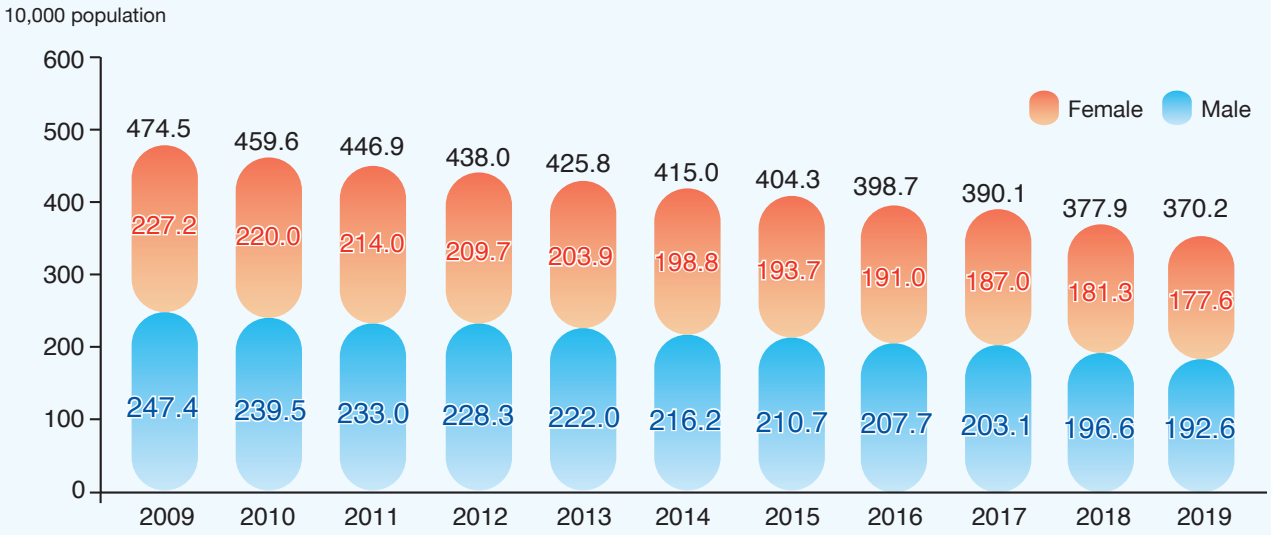
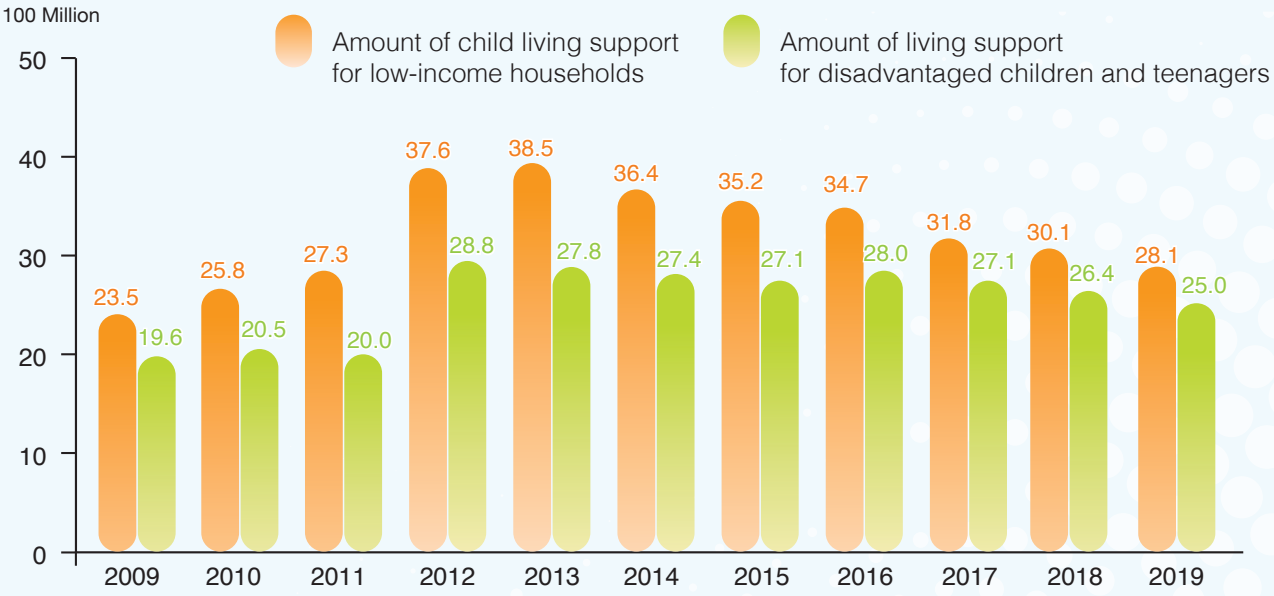


Figure 2-15 **Amount of Living Subsidies (Livelihood Assistance) for Children and Youths**

Source: Ministry of the Interior, R.O.C. (Taiwan)



Notes: Since July 2011, the public assistance act have qualified for basic living subsidies. The standard minimum cost of living was changed from 60% of average expenditures per person during the previous year to 60% of the median disposable income per person. Siblings are excluded from household calculations.

Chapter 5 International Comparisons

Section 1 Life Expectancy

In Taiwan, life expectancy at birth in 2018 was 80.7 years. If ranked among the Organization for Economic Cooperation and Development (OECD) member states, Taiwan would have been 26th. Taiwan's life expectancy was lower than the OECD median of 81.8 years. Male life expectancy at birth in OECD member states was highest in Switzerland at 81.9 years; in Taiwan, male life expectancy was 77.5 years. Female life expectancy at birth was highest in Japan at 87.3 years; in Taiwan, female life expectancy was 84.0 years (Table 2-3).

Section 2 Rate of Natural Increase

The rate of natural increase in Taiwan in 2019 was 0.06‰, ranking 22nd among OECD member states and lower than the OECD median of 1‰. Due to the recent tendency toward late marriage and delayed childbearing, Taiwan's total fertility rate (the average number of live births for a woman over her lifetime) has been decreasing and reached 1.05 in 2019, (compared to other OCED members, Taiwan's fertility rate is only higher than South Korea). This rate in all OECD member states, excluding Israel and Mexico, was lower than the replacement level of 2.1. For the same period, Taiwan's crude birth rate was 8‰ and the death rate was 7‰, ranking 32nd and 27th among OECD member states, respectively and lower than the respective OECD medians of 10‰ and 9‰. Generally, demographic structures in OECD member states were trending toward low birth rates (Table 2-4).

Section 3 Dependency Ratio

In terms of dependency ratio among the OECD member countries, Japan ranked top at 68% in 2019, followed by Israel at 66%. Our dependency ratio was at 39% and placed only higher than South Korea compared to other OECD member countries.

In 2019, the old-age dependency ratio (population aged 65 and above/population aged 15-64 × 100) in Taiwan was 21%. If ranked among OECD member states, Taiwan would have been 31st. Taiwan's old-age dependency ratio was higher than that in Luxembourg, Israel, Repulic of Korea, Chile, Turkey, and Mexico. There was 1 elderly person per 4.7 young and mid-year population in Taiwan. The aging index (population aged 65 and above/population aged 0-14 × 100) of Taiwan was 120%. If ranked among OECD member states, Taiwan would have been 17th. In comparison to OECD member states, the ratio of elderly people in Taiwan was not high, whereas its ratio of population aged 0-14 years old was slightly lower. As a result, the aging index of Taiwan was higher than that of approximately half of OECD member states (Table 2-5).

Table 2-3 **Life Expectancy at Birth in Taiwan and OECD member states, 2018**

Source: Ministry of the Interior, R.O.C. (Taiwan); OECD Health Statistics

Ranking	Country- Ranked by Life Expectancy at Birth	Total (years)	Male (years)	Female (years)
OECD Median		81.8	79.4	84.1
1	Japan*	84.2	81.1	87.3
2	Switzerland	83.8	81.9	85.7
3	Spain	83.5	80.7	86.3
4	Italy	83.4	81.2	85.6
5	Iceland	82.9	81.3	84.5
5	Israel	82.9	80.9	84.8
7	Austria	82.8	80.7	84.9
7	France	82.8	79.7	85.9
7	Norway	82.8	81.1	84.5
10	Repulic of Korea	82.7	79.7	85.7
11	Sweden	82.6	80.9	84.3
12	Luxembourg	82.4	80.1	84.6
13	Ireland	82.3	80.5	84.1
14	Canada	82.0	79.9	84.1
15	Greece	81.9	79.3	84.4
15	Netherlands	81.9	80.3	83.4
17	Austria	81.8	79.4	84.1
17	Finland	81.8	79.1	84.5
17	New Zealand	81.8	80.0	83.5
20	Belgium	81.7	79.4	83.9
21	Slovenia	81.5	78.5	84.4
22	Portugal	81.4	78.3	84.5
23	United Kingdom	81.3	79.5	83.1
24	Denmark	81.0	79.1	82.9
24	Germany	81.0	78.6	83.3
26	**R.O.C. (Taiwan)**	**80.7**	**77.5**	**84.0**
27	Chile	80.4	77.7	83.2
28	Czech Republic	79.1	76.2	82.0
29	United States	78.7	76.2	81.2
30	Estonia	78.4	74.0	82.7
31	Turkey	78.3	75.6	81.0
32	Poland	77.7	73.7	81.7
33	Slovakia	77.4	73.9	80.8
34	Hungary	76.2	72.7	79.6
35	Lithuania	75.8	70.9	80.7
36	Mexico	75.0	72.2	77.9
37	Latvia	74.9	70.1	79.7

*The data for Japan is for 2017

Table 2-4 **Population Status of Taiwan and OECD Member States, 2019**

Source: Ministry of the Interior, R.O.C. (Taiwan); 2019 World Population Data Sheet, Population Reference Bureau

Ranking	Country – Ranked by rate of natural increase	Mid-year population (Millions)	Population (Millions)		Multiple ratio of population	Total fertility rate(Per Woman)	Crude birth rate (‰)	Crude death rate (‰)	Rate of natural increase (‰)
		2019	2030	2050	2050 vs 2019	2019	2019	2019	2019
Global		7,691.5	8,932.4	9,854.2	1.3	2.4	19	7	11
OECD Median		10.7	11.0	12.3	1.1	1.6	10	9	1
1	Israel	8.5	10.7	12.7	1.5	3.1	21	5	16
2	Mexico	126.6	141.9	148.2	1.2	2.1	17	6	12
3	Turkey	82.6	96.8	104.6	1.3	2	15	5	10
4	Austria	25.3	31.6	36.9	1.5	1.7	13	6	6
4	Chile	19.1	21.1	21.6	1.1	1.7	12	6	6
4	Ireland	4.9	5.5	6.0	1.2	1.8	13	6	6
7	Iceland	0.4	0.4	0.4	1.2	1.7	12	7	5
7	New Zealand	5.0	5.7	6.1	1.2	1.7	12	7	5
9	Canada	37.4	42.7	47.0	1.3	1.5	10	8	3
9	Luxembourg	0.6	0.7	0.8	1.3	1.4	10	7	3
9	Norway	5.3	5.9	6.3	1.2	1.6	10	8	3
9	United States	329.2	363.6	387.6	1.2	1.7	12	9	3
13	France	64.8	69.8	72.3	1.1	1.8	11	9	2
13	Sweden	10.3	11.3	11.9	1.2	1.8	11	9	2
13	Switzerland	8.6	9.9	10.3	1.2	1.5	10	8	2
13	United Kingdom	66.8	70.4	74.7	1.1	1.7	11	9	2
17	Belgium	11.5	12.1	12.6	1.1	1.6	10	10	1
17	Denmark	5.8	6.2	6.4	1.1	1.7	11	10	1
17	Repulic of Korea	51.8	51.6	47.7	0.9	1	6	6	1
17	Netherlands	17.3	18.2	18.4	1.1	1.6	10	9	1
17	Slovakia	5.5	5.3	5.0	0.9	1.5	11	10	1
22	Austria	8.9	9.4	9.7	1.1	1.5	10	9	0
22	Czech Republic	10.7	10.7	10.6	1.0	1.7	11	11	0
22	**R.O.C. (Taiwan)**	**23.6**	**23.1**	**20.7**	**0.9**	**1.1**	**8**	**7**	**0**
22	Slovenia	2.1	2.0	1.9	0.9	1.6	10	10	0
26	Estonia	1.3	1.3	1.1	1.0	1.7	11	12	-1
26	Finland	5.5	5.6	5.9	1.0	1.4	9	10	-1
26	Poland	38.4	36.5	34.0	0.9	1.5	10	11	-1
26	Spain	47.1	49.2	49.6	1.0	1.3	8	9	-1
30	Germany	83.1	82.2	79.2	1.0	1.6	10	12	-2
31	Greece	10.7	9.7	9.0	0.8	1.4	8	12	-3
31	Italy	60.3	60.1	58.1	1.0	1.3	7	11	-3
31	Japan	126.2	123.6	109.9	0.9	1.4	7	11	-3
31	Portugal	10.3	9.9	9.4	0.9	1.4	9	11	-3
35	Hungary	9.8	9.4	9.0	0.9	1.5	9	13	-4
35	Lithuania	2.8	2.4	2.2	0.8	1.6	10	14	-4
37	Latvia	1.9	1.6	1.5	0.8	1.6	10	15	-5

Notes: Rate of natural increase=Crude birth rate-Crude death rate

Table 2-5 **Dependency Ratio in Taiwan and OECD Member States, 2019**

Source: Ministry of the Interior, R.O.C. (Taiwan); 2019 World Population Data Sheet, Population Reference Bureau

Ranking	Country-ranked by dependency ratio	Population structure			Dependency ratio (%)	Young-age dependency ratio (%)	Old-age dependency ratio (%)	Aging index
		0-14 years (%)	15-64 years (%)	65 years and above (%)				
OECD Median		16	65	19	54	25	29	115
1	Japan	12	60	28	68	20	47	232
2	Israel	28	60	12	66	47	19	41
3	France	18	62	20	61	29	32	112
4	Finland	16	62	22	61	26	35	137
5	Sweden	18	62	20	60	29	32	112
6	Greece	14	64	22	57	23	35	154
7	United Kingdom	18	64	18	57	28	29	103
8	Estonia	16	64	20	57	26	31	120
9	Latvia	16	64	20	57	25	32	128
10	Denmark	16	64	20	56	26	31	119
11	Italy	13	64	23	56	21	36	173
12	Belgium	17	64	19	56	26	29	112
13	Portugal	14	64	22	55	21	34	159
14	Czech Republic	16	65	20	55	25	30	123
15	Germany	14	65	22	54	21	33	158
16	New Zealand	19	65	16	54	30	24	80
17	Netherlands	16	65	19	54	24	30	121
18	Slovenia	15	65	20	54	23	31	132
19	Lithuania	15	65	20	54	23	30	131
20	Norway	18	65	17	53	27	26	98
21	Austria	19	65	16	53	29	25	86
22	Ireland	21	65	14	53	31	22	69
23	United States	19	65	16	53	28	25	86
24	Spain	15	66	19	52	22	29	131
25	Hungary	15	66	19	51	22	29	133
26	Mexico	26	66	8	51	40	11	29
27	Canada	16	66	18	50	24	26	110
28	Switzerland	15	67	18	50	23	28	123
29	Austria	14	67	19	50	22	28	130
30	Iceland	19	67	14	50	28	21	75
31	Poland	15	67	18	49	23	26	115
32	Turkey	23	68	9	47	34	13	37
33	Slovakia	16	68	16	47	23	24	102
34	Chile	19	69	12	45	28	17	61
35	Luxembourg	16	70	14	44	23	21	90
36	**R.O.C. (Taiwan)**	**13**	**72**	**15**	**39**	**18**	**21**	**120**
37	Repulic of Korea	13	72	15	38	18	19	106

Notes:
1. Dependency ratio = (Population aged 0-14+ Population aged 65 and above) / Population aged 15-64X100
2. Young-age dependency ratio= (Population aged 0-14)/ Population aged 15-64X100
3. Old-age dependency ratio= (Population aged 65 and above) / Population aged 15-64X100
4. Aging index = (Population aged 65 and above) / Population aged 0-14X100

Section 4 Mortality Rates

According to the latest OECD data, in 2017, among developed countries Repulic of Korea had the lowest standardized mortality rate for malignant neoplasms at 160.1 deaths per 100,000 population, compared to a rate of 211.3 deaths in Taiwan. For transport accidents the United Kingdom was the lowest at 2.8 deaths per 100,000 population, compared to a rate of 13.7 deaths in Taiwan. The United Kingdom also had the lowest suicide rate, at 7.3 deaths per 100,000 population, compared to a rate of 15.5 deaths in Taiwan. Japan led in neonatal mortality rate, with 0.9 deaths per 1,000 live births, compared to a rate of 2.6 deaths in Taiwan. Since 2007, the suicide rates decreased in all countries apart from the United States, Canada, the United Kingdom, and Australia (Table 2-6).

Table 2-6 Standardized Mortality Rates of Major Countries

Source: Department of Statistics, MOHW, R.O.C. (Taiwan); OECD Health Data

	Malignant neoplasms (per 100,000 population)		Transport accidents (per 100,000 population)		Suicide (per 100,000 population)		Neonatal mortality (per 1,000 live births)	
	2007	2017	2007	2017	2007	2017	2008	2018
R.O.C. (Taiwan)	241.0	211.3	19.7	13.7	18.2	15.5	2.7	2.6
Japan	191.9	167.5	5.7	3.1	22.1	14.9	1.2	0.9
Repulic of Korea	203.6	160.1	18.6	9.7	28.7	23.0	2.0	1.6
United States	206.8	178.3	15.7	13.2	11.7	14.5	4.3	3.9
Canada	221.8	192.6	9.4	5.2	10.6	11.0	3.7	3.5
United Kingdom	234.8	216.4	5.5	2.8	6.3	7.3	3.2	2.8
Germany	209.9	194.7	6.1	3.8	10.2	9.5	2.4	2.3
France	215.3	196.8	7.6	4.7	15.8	12.3	2.6	2.7
Australia	203.0	179.8	8.3	5.7	10.6	12.8	2.8	2.3
New Zealand	229.8	212.2	11.7	9.1	11.9	11.7	2.9	2.8

Notes:1. The data for 2007 and 2017 are the “value adjusted by conversion ratio” and not the original releases of statistical data.
2. If the data for a specific year are not available, the latest available data are used instead.
3. The standardized mortality rates for malignant neoplasms, transport accidents, and suicide were calculated based on the 2010 OECD standards for calculating population.

Section 5 Health Expenditure

In comparison to 2008, the share of CHE in GDP increased in most OECD member states of 2018, Japan and Sweden’s had the greatest increase by 2.7 percentage points. A decrease was observed in 10 countries, including Ireland and Greece. The share of CHE in Taiwan’s GDP increased by 0.2 percentage points, which was lower than the OECD mean of 0.6 percentage points (Table 2-7).

Table 2-7 **CHE / GDP Proportion**

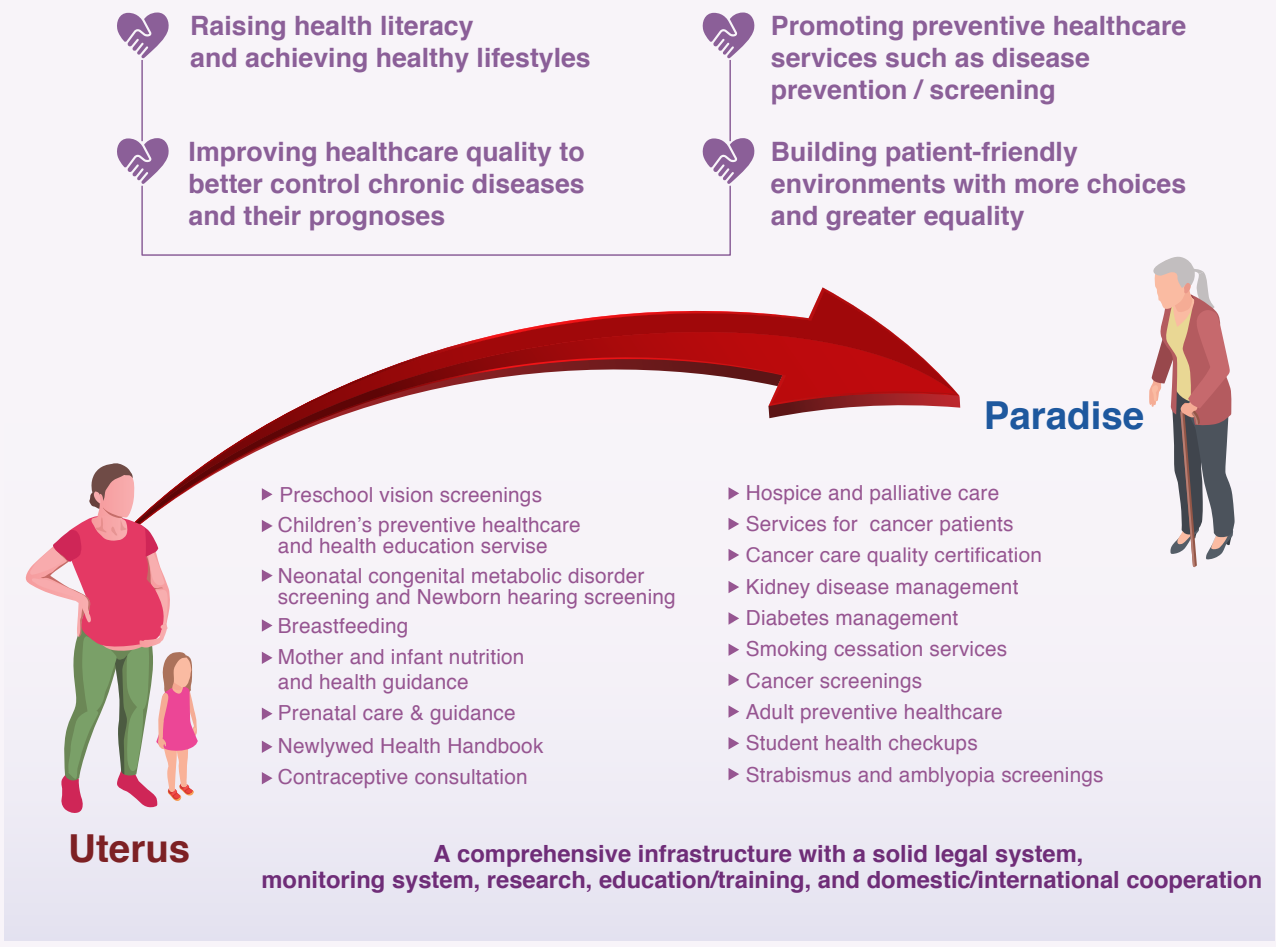
Source: Department of Statistics, MOHW, R.O.C (Taiwan); OECD Health Statistics

Country	CHE / GDP (%)		Increase / Decrease in 2018 compared to 2008
	2008	2018	
OECD mean	8.2	8.8	0.6
United States	15.3	16.9	1.6
Switzerland	10.2	12.2	2.0
Germany	10.2	11.2	1.1
France	10.5	11.2	0.7
Sweden	8.3	11.0	2.7
Japan	8.2	10.9	2.7
Canada	9.6	10.7	1.1
Denmark	9.5	10.5	1.0
Belgium	9.3	10.4	1.0
Austria	9.7	10.3	0.6
Norway	8.0	10.2	2.2
Netherlands	9.3	9.9	0.7
United Kingdom	7.6	9.8	2.1
New Zealand	9.1	9.3	0.2
Austria	8.3	9.3	1.0
Portugal	9.4	9.1	-0.3
Finland	8.1	9.1	1.0
Chile	6.7	8.9	2.2
Spain	8.3	8.9	0.6
Italy	8.6	8.8	0.3
Iceland	8.6	8.3	-0.2
Repulic of Korea	5.7	8.1	2.4
Slovenia	7.8	7.9	0.1
Greece	9.4	7.8	-1.5
Czech Republic	6.4	7.5	1.2
Israel	7.0	7.5	0.5
Ireland	9.1	7.1	-2.0
Lithuania	6.3	6.8	0.5
Slovakia	7.0	6.7	-0.2
Hungary	7.1	6.6	-0.5
Estonia	5.8	6.4	0.7
Poland	6.4	6.3	-0.1
R.O.C. (Taiwan)	**5.9**	**6.1**	**0.2**
Latvia	5.6	5.9	0.2
Mexico	5.7	5.5	-0.2
Luxembourg	6.5	5.4	-1.1
Turkey	5.3	4.2	-1.1

3 An Environment Conducive to Health

To realize "Health for All" advocated by the WHO, the MOHW has planned health promotion policies to benefit people at different stages of life (Figure 3-1). In response to UN's initiative of "Health in All Policies"to make progress in the SDG, health-promoting policies are systematically incorporated into cross-departmental decisions in order to achieve synergy Policy makers hope to improve health by considering all aspects of decisionmaking.

Figure 3-1 A Cradle-to-Paradise, Community-Based Approach to Promote



MOHW is actively working to establish an environment that is conducive to health in order to create a fair and healthy society that is sustainable. Furthermore, in conjunction with the WHO's "25 by 25" objective, relevant health issues have been incorporated into various policies as part of our administrative goals. By taking a whole-of-government, a whole-of-society and a life course approach, the MOHW shall formulate policies to improve health at the individual, societal, national and global levels.

Chapter 1 Healthy Childbirth and Growth

In order to promote healthy growth of infants and children, the MOHW actively promotes health among pregnant women, children, and adolescents.

Section 1 Maternal Health

1. Prenatal Care

(1) As many as 1,574,830 women (the average utilization rate was 94.3%) in pregnancy benefited from the 10 prenatal examinations and one ultrasound examination subsidized by the government in 2019, along with two sessions of prenatal health education.

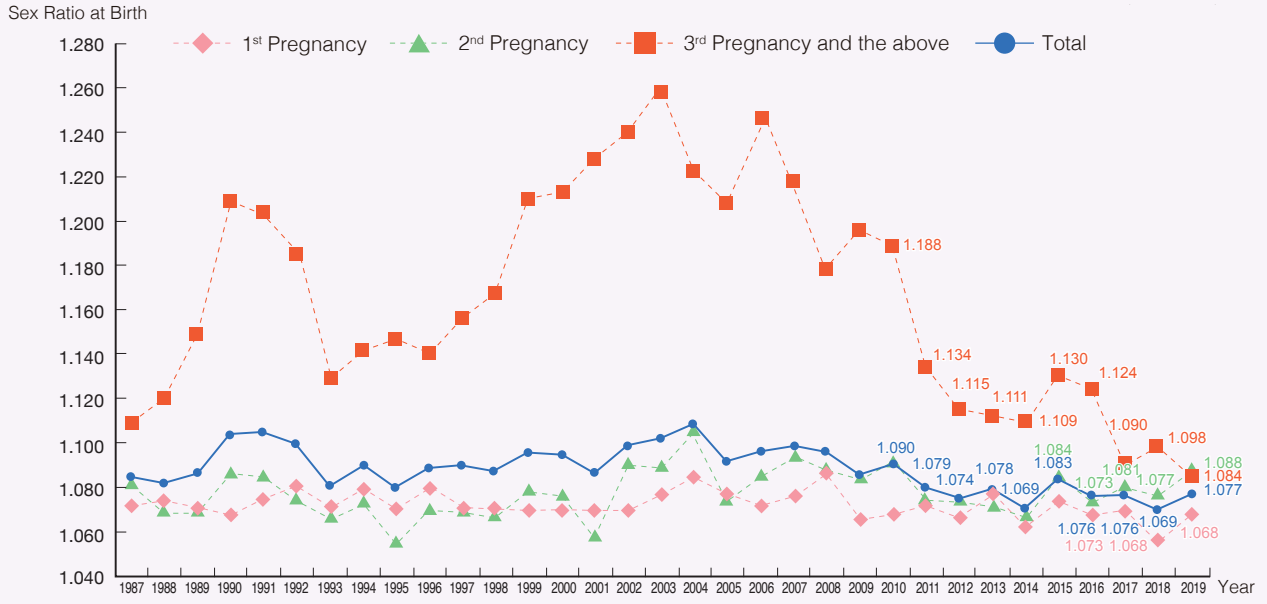
(2) Subsidized Group B Streptococcus Screenings (GBS). In 2019, there were 152,966 GBS screenings, with a coverage rate of 87.1% and a positive rate of 20.1%.

(3) Subsidized prenatal genetic testing is provided for high-risk pregnancies. In 2019, 1,451 abnormalities were found in 43,878 cases. Referral for further genetic counseling were provided.

2. MOHW is actively working to establish an environment that is conducive to health in order to create a fair and healthy society that is sustainable. Furthermore, in conjunction with the WHO's "25 by 25" objective, relevant health issues have been incorporated into various policies as part of our administrative goals. By taking a whole-of-government, a whole-of-society and a life course approach, the MOHW shall formulate policies to improve health at the individual, societal, national and global levels.
3. The "Public Breastfeeding Act" was amended on April 24th 2019 in the hopes of creating a friendlier environment for breastfeeding mothers to make the task of breast-feeding easier for mothers on the go. A total of 2,346 public breast-feeding rooms have been established in accordance with the "Public Breastfeeding Act", with a total of 1,222 breastfeeding rooms to be created independently by various building proprietors.
4. The MOHW has been promoting Baby-Friendly Hospital Institution accreditation. In 2019, there were 159 hospitals accredited, with a coverage rate of 73.6% of all births in Taiwan. The exclusive breastfeeding rate for infants of under 6 months of age was 46.2%, getting closer to the WHO global target of 50 by 2025.
5. The MOHW has resorted to diverse channels in order to disseminate the concept of gender equality and hopefully through relevant advocacy, we hope to create a positive social atmosphere by strengthening the public's concept for gender equality. As a result of the aforementioned efforts, the sex ratio in Taiwan has decreased from 1.090 in 2010 to 1.077 in 2019 (Figure. 3-2).
6. In addition, the MOHW has also taken steps to reinforce a supportive environment provided by the families of women in pregnancy in order to bolster their health by adding a section on "A word for soon-to-be-fathers" in the "Maternal Health Booklet" as information for expectant fathers on the things they can help with during their wives' pregnancy and the role they need to play. Not only that, a summary of care services and resource available to pregnant women for the entire course of their pregnancy has also been included in the "Health Education Handbook for Pregnant Women".

Figure 3-2 **Sex Ratio of Live Births in Taiwan, by Year**

Source: Health Promotion Administration, MOHW, R.O.C. (Taiwan)

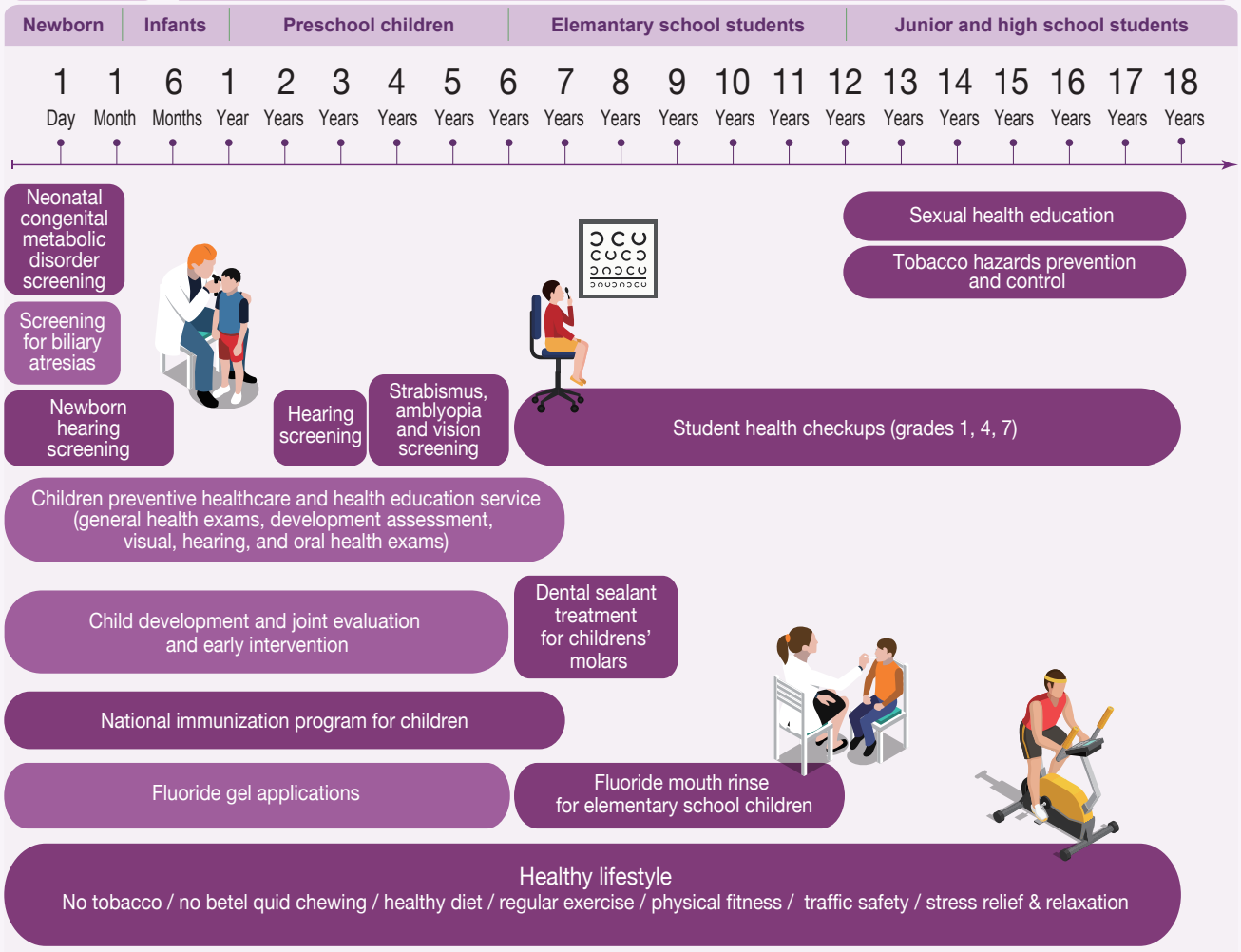


7. In order to help women in pregnancy to strengthen their self-check for mental health, contents on "knowing and preventing postpartum depression" and information on "community mental health center" in the "Health Education Handbook for Pregnant Women" to help pregnant women learn about postpartum depression, how to deal with the symptoms and provide a channel for them to seek support and assistance. In 2019, 150 sessions of guidance and counselling activities were held to promote mental health of women (including pregnant women) as a way to promote the mental health education resources that the MOHW has developed.

Section 2 Health for Infants, Children, and Adolescents

The MOHW has been providing health services such as neo-natal congenital metabolic disorder sceening, newborn hearing screening, 7 children preventive healthcare and health education services for children of age 7 years and below and vision care, for early diagnosis and prompt treatment of suspected abnormalities in children. Not only that, we have also organized and promotion health promotion plan for adolescents (Figure 3-3). Achievements include the following:

Figure 3-3 Health Policies of Infants, Children, and Adolescents



1. At 48 hours after birth, newborns in Taiwan are screened for congenital metabolic disorders. The 11 items of screening had also been increased to 21 effectively from October 1st 2019. In 2019, a total of 175,514 babies had been screened with a coverage rate of over 99%. All atypical cases were provided with follow-up referrals, diagnosis, and treatment.
2. Fully subsidized newborn hearing screening is provided within the first three months of birth (for children with Taiwan nationality). In 2019, 172,520 (98.9%) newborns were screened and 907 cases were found to have hearing impairment.
3. Provides 7 preventive health care and health education services to children of age 7 years and below. In 2019, 1.04 million preventive health care services (the average 7-time utilization rate was 80.3%) and 912,739 health education services were provided by physicians to parents with children of age 7 years and below (the average 7-time utilization rate was 69.9%).
4. Every city and county has established one to five Child Development Assessment Center(s). In 2019, 51 centers in 22 cities and counties had diagnosed and confirmed developmental delays in 16,784 children.
5. We have continuously promoted strabismus, amblyopia, and vision screenings for preschool children of 4 and 5 years of age. In 2019, the screening rate was 100%, with 99.96% of diagnosed abnormalities referred for treatment.
6. In 2019, a total of 2,555 people participated in 24 sexual health campus lectures and parent education lectures. Also, 130,491 people visited the website which provides adolescents, parents and teachers with correct sexual health information and teaching materials.

Chapter 2 Unhealthy Habits

Major unhealthy habits include smoking/ chewing betel quid, unhealthy diet, sedentary life styles, and injuries. Tobaccos and betel quid are both group 1 carcinogens. Injuries is the one of 10 leading causes of death. It is therefore imperative that we continue to work toward rejecting tobaccos and betel quid, and to build a safe, healthy society.

Section 1 Nutrition and Obesity Control

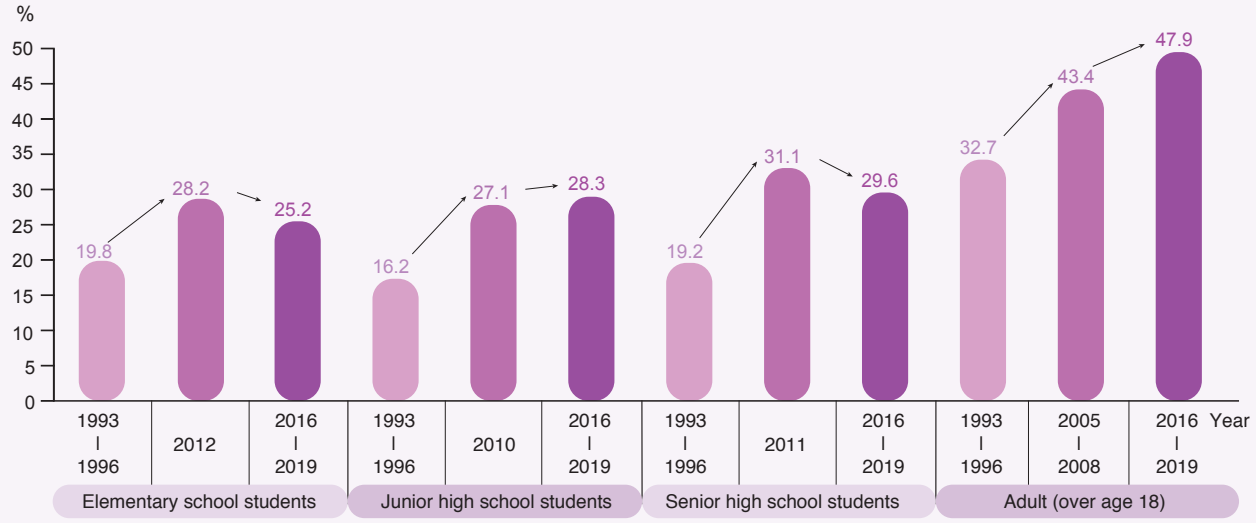
To promote active lifestyles, the MOHW educates people about calories and nutrition literacy, maintaining a healthy body weight, improving physical/mental and social health to prevent chronic diseases.

Key strategies and achievements in 2019 were as follows:

1. The MOHW has promoted "Nutrition and Healthy Diet Promotion Act" legislation as a way to improve people's nutrition and nutrition literacy by constructing a supporting environment for healthy eating.
2. The MOHW has continued to push for all municipalities to establish their "Community Nutrition Promotion Center", a total of 55 community dietitians were participated and branches in remote areas to elevate the overall capacity for community nutritional care and services. In addition, the MOHW has also organized the "National Community Nutrition Promotion Center Presentation" to showcase the efforts and outstanding achievements that all municipal governments have put into the promotion of community nutrition. As of the end of 2019, more than 60,000 seniors have been served and close to 1,000 community diners/elderly care spots/ institutions have received assistance on the preparation of healthy food that are senior friendly.
3. Continue to promote the illustration of "My Meal" as an example of a nutritionally balanced meal with visual representation and mnemonic phrase as the reference/ promotional material for take-out menus and jingles. Not only that, the MOHW has also organized other activities such as video campaign, KOL collaboration, stage challenge games, workshops/seminars and so forth as part of the multimedia promotional campaign.
4. Developing the "Food Texture for Senior Diet & Nutrition Guidebook" and videos for recipe instruction. Providing demonstrations on preparing meals for seniors with the suitable "texture" by adjusting cooking techniques, for example, cutting ingredients into small pieces and soften and tenderize foods, and testing the texture of food with simple tools.
5. Organized obesity prevention at different venues; established specific processes for referral and handling of obesity management at schools and workplaces; collected relevant material for the compilation of "100 Questions on Obesity" booklet to be downloaded by the general public.
6. Based on the results of the Nutrition and Health Survey in Taiwan (NAHSIT), the prevalence of overweight and obesity is calculated and shown in Figure 3-4, which reflects improvements with regards to overweight/ obesity prevention for children and youths while the rise in body weight for adults slowed down significantly.

Figure 3-4 Overweight and Obesity Rates in Taiwan

Source: Nutrition and Health Survey in Taiwan for 1993-1996 and 2016-2019



Notes: 1. Overweight/obese indicators for elementary, junior high, and senior high school students were based on the MOHW's 2013 BMI recommendations.
2. Adults 18 years and older with a BMI ≥ 24 kg/m^2 were designated as overweight or obese.
3. Data from 2005-2008 have been obtained from adults over the age of 19.

7. According to the NAHSIT conducted between 2014 and 2017, it is apparent that the average citizen hadn't been adhering to the recommended dietary guidelines. Consequently, the MOHW will continue to monitor the nutrition status for the general public, establish relevant public health policies and construct diverse channels to disseminate important nutritional information to advocate for the importance of healthy diet so as to bolster the general public's health and prevent chronic illnesses.
8. Cross-domain integration of Council of Agriculture, Hakka Affairs Council, Council of Indigenous Peoples, the Ministry of Education (MOE), department of health of local governments, public health centers, universities and colleges, non-governmental organizations and other units to jointly train nutrition care manpower, formulate relevant norms and benchmarks, and integrate Green Care Stations, the National Farmers' Association and Fishermens' Association, Home Economics Extension, Hakka Senior Health Care Station and Indigenous Peoples Senior Health Care Station conduct nutrition education activities and lectures to jointly create a healthy and supportive environment.

Section 2 Tobaccos and Betel Quid

1. Tobacco Control

Ever since the enactment of the Tobacco Hazards Prevention Act and its amendment, the adult smoking rate has fallen from 21.9% in 2008 to 13.0% in 2018 as shown in Figure 3-5 (No data is available for 2019 since no survey was conducted for that year). Smoking rate of junior high school students fell from 7.8% in 2008 to 3.0% in 2019, a decline of 60%; smoking rate of senior high school and vocational school students fell by more than 40% from 14.8% in 2007 to 8.4% in 2019 (Figure 3-6). Moreover, the secondhand smoke exposure rate in public places where prohibit smoking fell from 23.7% in 2008 to 5.4% in 2018.

Taiwan implemented the Framework Convention on Tobacco Control and the MPOWER measures. Taiwan's achievements are as follows:

The MPOWER measures

(1) Building a Tobacco-Free Environment through the "Tobacco Hazards Prevention Act".

A. In order to create a tobacco-free environment, Article 15 of the Tobacco Hazard Prevention Act stipulates that smoking is completely prohibited in schools below 12 grades, indoor areas of public places and public transportation vehicles, which shall have conspicuous non-smoking signs at all of their entrances and shall not supply smoking-related objects. For outdoor areas of public places, Article 16 of the Tobacco Hazard Prevention Act stipulates that with the exception of designated smoking areas, smoking is completely prohibited; and for places without designated smoking areas, smoking is prohibited completely.

B. In order to ensure adherence to the Tobacco Hazard Prevention Act, local health bureaus conducted more than 4.65 million inspections of over 690,000 businesses and recorded 7,830 violations fined over 88.76 million NTD.

C. Local health bureaus have also been actively supervising areas that are more likely to attract crowds, exclusive bus lanes, bus shelters, commuting routes in the perimeter of schools, overhangs of store fronts and so forth. These spaces have been designated as tobacco free areas by municipal governments in accordance with pertinent laws to protect the general public from the hazards of second-hand smoke. As of the end of 2019, close to 25,000 places have been designated as tobacco free areas.

D. As of the end of 2019, 213 hospitals in Taiwan have received become members of the GNTH-Global Network for Tobacco Free Healthcare Services, making Taiwan the first in the Asia-Pacific region and the largest in the world. Presently, 22 hospitals in Taiwan have received the prestigious International Gold-level Award, placing Taiwan and at the top of the list of networks for having the most hospitals with this award.

(2) Comprehensive Smoking Cessation Programs.

A. With services such as our 2nd generation cessation services, our smoking cessation helpline and cessation classes offered by local health bureaus and pharmacist consultations, we were able to provide 901,607 services to smokers in 2019. The 2nd generation smoking cessation services were utilized 173,525 times (631,764 person-times), which helped over 44,000 smokers successfully quit the habit. In the short-term, the reduction in the number of smokers would likely lower health expenditures by more than NT$ 240 million. Long-term economic benefits could exceed NT$ 18.8 billion.

B. In 2019, there were 87,884 calls made to the Toll-free Smokers' helpline (0800-636-363).

(3) Effectiveness of smoking prevention in adolescents.

A. The MOHW cooperates with local governments to regulate tobacco sellers. In 2019, over 360,000 inspections uncovered 464 cases of tobacco being sold to minors, leading to total fines exceeding

NT$4.60 million. Another 390,000 inspections uncovered 2,188 cases of minors smoking, with smoking cessation classes completed in 1,855 of these cases.

B. The administrative penalty for violating the "Tobacco Hazards Prevention Act" article 13 "not selling tobacco to minors" has been included into the performance evaluation of local health bureau and the effectiveness assessment of the Youth protection Projects since 2014.

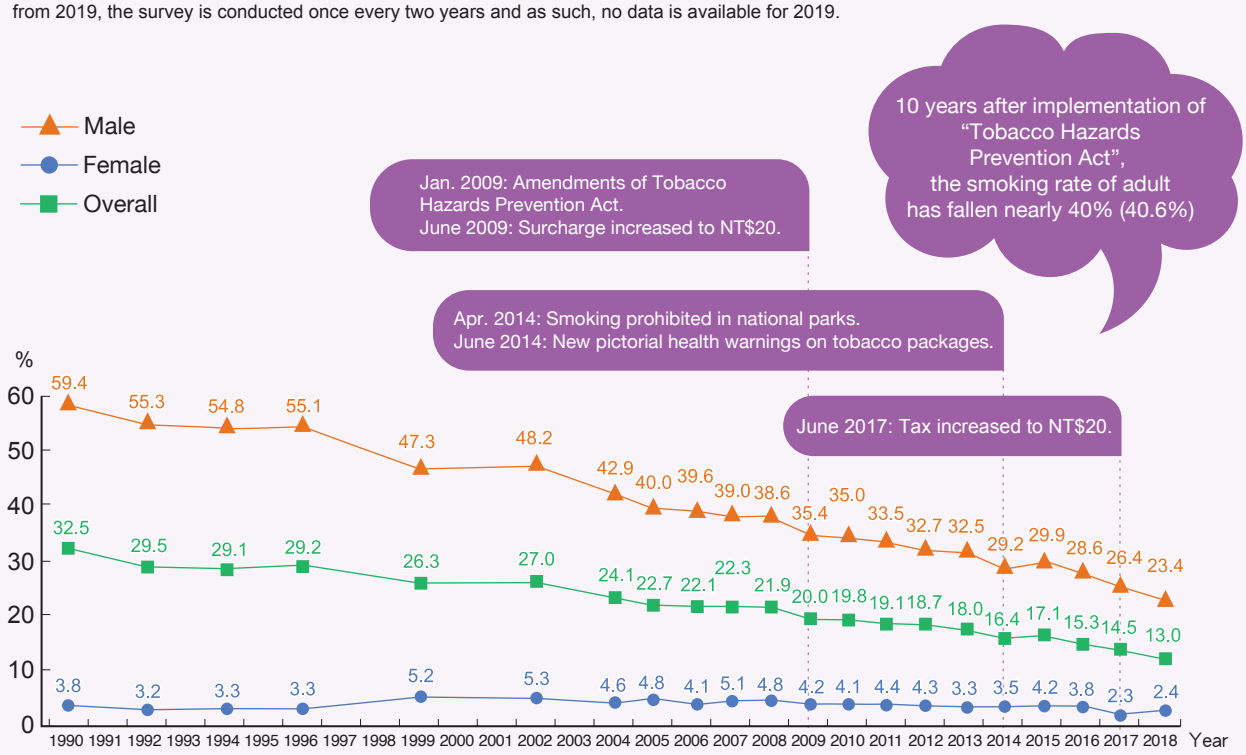
According to 2019 inspection results, 32.3% of tobacco sellers didn't refuse to sell tobacco to minors. Among these targeted shops, the violation rate of convenience store is 12.9%; the violation rates in betel nut stands and traditional grocery stores are 46.1% and 44.0%. Compared to 2018, the violation rate came to 42.7% and this reduced to of 10%. The MOHW has asked municipal governments to step up with relevant supervisions and inspections as there is still room for improvement.

C. The MOHW has collaborated with the MOE to organize campus contests on the theme of "Staying away from the dangers of mists" in the hopes of educating students on the hazards of vape/vaping. The event has attracted a total of 964 submissions, 32 of which were chosen as winning entries. These entries became the promotional material for Health Promotion Administration in relevant promotional campaigns to help participating students become more aware of this emerging issue on e-cigarette.

Figure 3-5 **Smoking Rates of Adults over 18 Years Old in Taiwan, by Year**

Source: Health Promotion Administration, MOHW, R.O.C. (Taiwan)

1. Data from 1990 to 1996 were derived from household interviews conducted by the Taiwan Tobacco & Liquor Corporation.
2. Data for 1999 carried out by Professor Lee-Lan Yen.
3. Data for 2002 was based upon health-related information collected using household interviews conducted by the HPA for the "2002 National Survey on Knowledge, Attitude, and Practice of Health Promotion for the Taiwan Region".
4. Data from 2004 to 2018 was based on smoking-related information of the general public from the "Adult Smoking Behavior Surveillance". Starting from 2019, the survey is conducted once every two years and as such, no data is available for 2019.



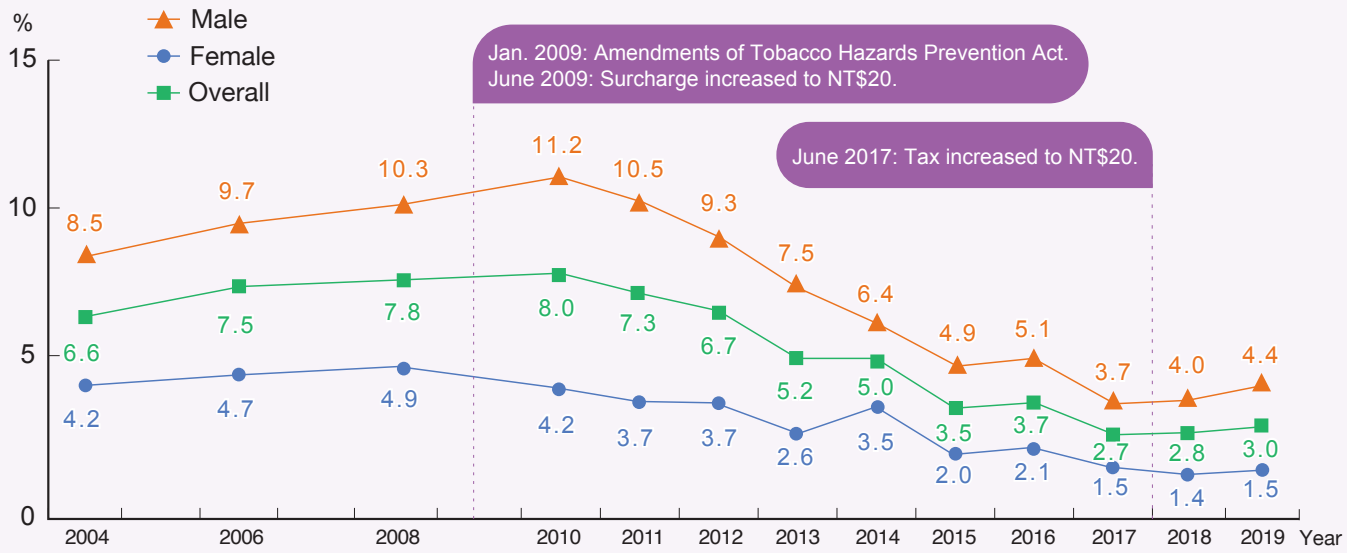
Notes:

1. From 1999 to 2018, the definition for smokers refer to anyone who had smoked more than 100 sticks (5 packs) of cigarettes, and had smoked in the last 30 days.
2. Annual averages from 2004 to 2018 were based upon the Taiwan region household census of 2000 carried out by the Directorate-General of Budget, Accounting, and Statistics (DGBAS). Weight adjustments were carried out according to gender, age, education background, and characteristics of the area of residence.

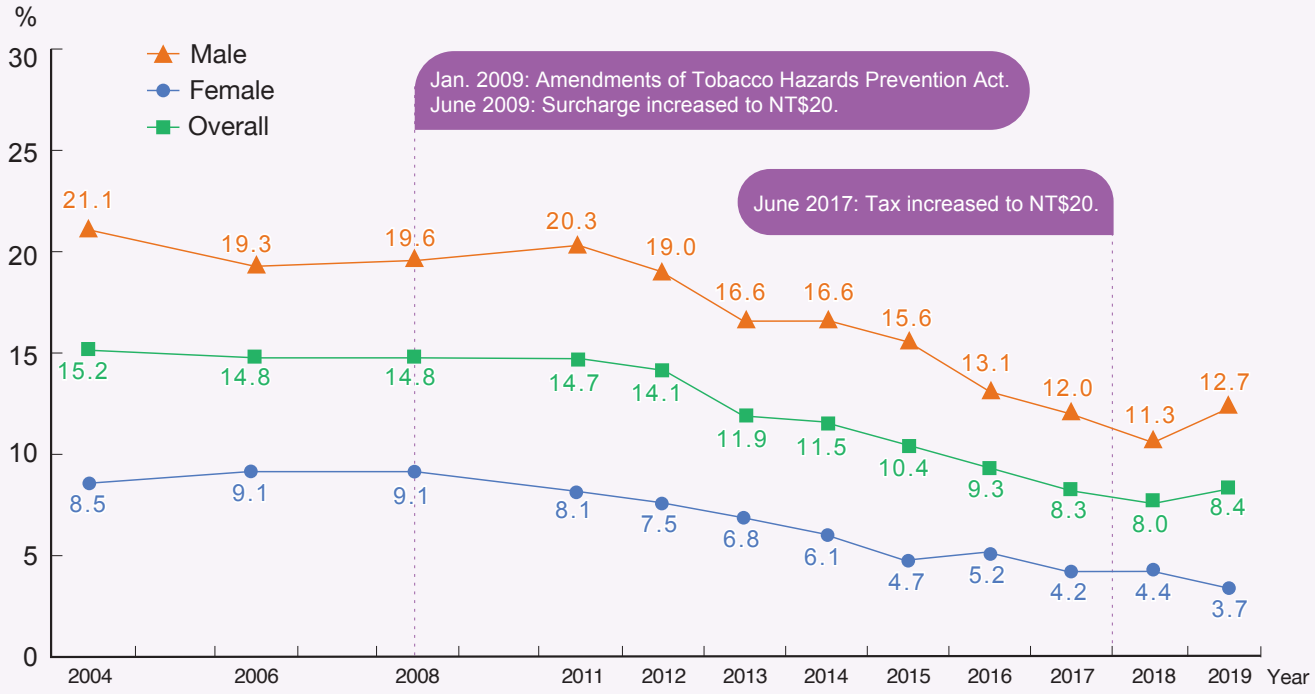
Figure 3-6 **Taiwan Adolescent Smoking Rate over the past years**

Source: MOHW's 2004-2019 Global Youth Tobacco Survey

Smoking Rate for Junior High School Students



Smoking Rate for Senior/Vocational High School Students



Notes: An adolescent smoker was defined as someone who had attempted to smoke in the last 30 days.

1. Betel Quid Hazards Prevention Program

(1) The MOHW worked with various agencies, and NGOs to build betel quid-free environments. Oral cancer screenings are offered to betel quid chewers or smokers aged 30 and older and to indigenous people aged 18 and older who are betel quid users. Over the same period, the percentage of betel quid users among males over the age of 18 fell by over 60% from 17.2% in 2007 to 6.2% in 2018.

(2) In order to determine whether the total area used for growing betel nut continues to decline as desired, the COA monitored the conversion of abandoned betel nut farms into other crops. In 2014-2018, subsidies were provided to assist converting 2,450 hectares of land.

Section 3 Self-protection against Air Pollution

Due to the presence of wind farms during winter seasons, air pollutants are more likely to accumulate. Thus, the MOHW has been referring to the air quality forecasts by the Environmental Protection Administration to publish press releases and social media posts when deemed necessary to remind the general public to protect themselves against poor air quality. In addition, through various broadcasting media, the MOHW has been making efforts to remind vulnerable groups such as elderly people, children, pregnant women, and patients with respiratory or cardiovascular illness to avoid outdoor activities when the air quality is poor. If it's necessary to stay outside, wearing face masks is highly recommended. With the efforts of public health education, the MOHW aims to enhance people's awareness of self-protection against harmful environmental pollutants.

Moreover, the MOHW has compiled a number of educational booklets and leaflets, including "General Knowledge about $PM_{2.5}$", "Face Mask Wearing Guidance" and "Self-protection against Air Pollution. On the HPA website, there is a specific section for taking self-protection measures against atmospheric $PM_{2.5}$. The relevant governmental agencies, major stations, hospitals, public health bureaus, local public health centers and medical associations countrywide are encouraged to utilize the above-mentioned materials to raise environmental health literacy of the general public.

Section 4 Healthy Environments

In accordance with the WHO's 1997 Jakarta Declaration, MOHW uses public and private resources to help cultivate greater health awareness among the general public. It intends to build friendly, supportive environments to better societal health and wellbeing.

1. Healthy Cities, Communities, Schools, and Workplaces

(1) Age-friendly City and Community

In 2019, age-friendly city and community project was implemented by organizations in 22 counties and cities and 126 communities (109 public health center and 17 community units). Established 126 Cross-Department promoting platforms, creating "age-friendly communities".

(2) Health-Promoting Schools

A. Since 2002, the MOHW and MOE have jointly promoted the health promoting school program. Until 2019, 4,035 schools from primary schools to universities had implemented the program.

B. Thus far, the MOHW had organized 4 international accreditations for health promoting schools, with as many as 374 schools receiving the accreditation. In 2019, the MOHW has hosted awards ceremonies for 5 schools that have received the Gold Award.

C. In an effort to be linked up with the world, the MOHW has developed rudimentary structure for "Health Promoting School 3.0" based on the "Global Standards for Health Promoting Schools" proposed by WHO and UNESCO, UN's SDGs and their empirical basis.

(3) Workplace Health Promotion

The MOHW has been pushing for workplaces to promote various issues on health control, such as: physical activities, healthy diets, tobacco and betel quid hazards control, body weight management, four-cancer screening, preventive healthcare for adults, chronic disease control management, workplace health for women, and mental health promotion and so forth. The MOHW has collaborated with professional team of counselors to actively promote healthy workplace accreditation. A total of 22,193 workplaces were qualified by the end of 2019. In 2019, there were 32 workplaces awarded for excellence in health promotion and five individuals gained recognition for outstanding contributions.

2. Healthy Hospitals

(1) The MOHW has established the accreditation mechanism for "healthy hospital" and this framework incorporates elements of health literacy, shared decision-making and patient and family engagement along with the Patient Focused Method (PFM) for implementation. Ever since the accreditation mechanism for "healthy hospital' was established, a total of 202 hospitals have been accredited as of the end of 2019."

(2) In 2019, subsidies were provided to 20 local health bureaus and 94 healthcare institutions (84 hospitals and 10 long-term care facilities) to implement the "Plan to Encourage Healthcare Institution Participation in Health-Promotion Work." Promoted issues such as age-friendly healthcare, health literacy, promotion of climate smart hospitals and so forth.

(3) Promotion of Low Carbon Hospitals

In order to assist the healthcare and medical industries to alleviate their impact on the environment, the MOHW has advocated topics relating to "Health Promoting Hospitals and Environmental friendliness" in Taiwan since 2010, so as to help medical institutions transform themselves from polluters to protectors of the environment.

In 2019, the MOHW developed the "Enviroment-friendly Hospital Blueprint" and "Enviroment-friendly Hospital Indicators and Guidelines" as reference material for medical institutions to establish their climate-change and health related short-term, mid-term and long-term mitigation and adaptation objectives, while carrying out inventory and reducing their carbon-emission from provision of services and formulate relevant reduction plans.

3. Advocating Physical Activity

(1) According to the WHO, walking is the most recommended and practical method of physical activity. Since 2002, the MOHW has promoted the "Walking 10,000 Steps per day for health" slogan. Key achievements in 2019 were as follows:

A. In our "World Health Day Now - 10,000 Steps for All and Walk Our Way into WHA!" campaign, the MOHW called on members of the general public to complete 24 million steps for the event. With each participant contributing one step, we can gather as many as 24 million steps (equivalent to the distance of 9,682km for one to walk to Geneva from Taiwan) as a show of the Taiwanese people's determination for Taiwan to become a member of WHO. In addition, we also echoed the "Walk the Talk!" campaign held by the World Health Assembly to demonstrate the Ministry's support for Taiwan to become an active member of the WHO.

B. We organized the "Walking for All - The Million Step Club" event that featured a online promotional event along with three actual activities held in Taoyuan, Taichung and Kaohsiung. For the event, we adopted a reward mechanism for each leg of the race and utilized mySports App as the tool to record each participant's accrued steps each day so as to create an atmosphere for physical exercise and walking. Approximately 50,000 participants took part in the walk.

(2) Together with the MOE, the MOHW hosted the "Physical activities for Seniors - Aging towards Better Health" seminar. A total of 220 representatives from the industries, academia, relevant sectors, the general public and media were invited to attend the discussion and share their relevant experiences for promotion and outlook for the future.

(3) By resorting to a design perspective, the MOHW explored ways that can help office workers who have suffered from inadequate physical activities to be more physically active. The idea was to involve workplace health promotional personnel and nurses to evaluate different approaches that would be more empathetic to the circumstances of the care recipients while the other portion of the activity focused on the brainstorming of ideas. The goal of the two-stage workshop was to formulate five prototypical solutions to increase one's physical activity and trial programs in order to develop inforgraphy material for scheduled interruption to prolonged sitting and intermittent walking as potential solutions to improving workplace health.

(4) Targeting frail, sub-health and healthy seniors as service recipients, the MOHW subsidized 17 counties and cities to host 899 health promotion classes, helping approximately 13,000 people. Results showed multiple interventions of physical activities could facilitate interpersonal interactions for seniors, their emotional functions and reduce the incidence of falls. In addition, we also implemented the "Preventive and Disability Delaying Solution Development Project" in order to create innovative and cost-effective service solutions supported by empirical evidence, with clearly defined targets and content of intervention with significant power of extrapolation.

(5) According to a survey by the Sports Administration, MOE, the regular physical activity rate of persons 13 years old and above raised from 33.0% in 2016 to 33.6% in 2019.

4. Prevention of Accidental Injuries

(1) Provides 7 children health education services (including prevention of sudden infant death syndrome and accidental injuries) along with the children preventive healthcare service schedule for children of age 7 years and below. In addition, information on accidental injuries has been added into the "Children Health Education Handbook".

Also advocates parents to choose a picture book featuring health related topics so as to expose their children to knowledge and information that will facilitate their health and self-protection at an early age. Thus, both parents and children can learn and enhance health related knowledge through parent-child shared reading.

(2) By integrating concepts of healthy cities, community health facilitation, aboriginal township and community care spots, the MOHW has sought to drive community health promotion based on specific characteristics and needs of community residents and seniors. Through a variety of channels, the MOHW has been promoting "Fall Prevention Education for Seniors" and injury prevention (i.e. drunk driving, falling prevention, drowning prevention) to improve seniors' literacy for healthy behaviors. Coupled with the frailty assessment conducted by hospitals and health departments, the MOHW strives to identify the high-risk groups for fall hazards so that further intervention can be taken to reduce the incidence and risk of accidents.

Chapter 3 Active Aging and Prevention of Noncommunicable Diseases

Taiwan has become an aged society by 2018. An aging population, a sedentary lifestyle and Western diets have increased the number of people suffering from chronic illness. To raise the quality of life of elderlies, the MOHW promotes health awareness among elderly persons, age-friendly cities, and the prevention of major chronic diseases and cancer.

Section 1 Health Promotion for Middle-Aged and Older People

1. In order to achieve early identification of risk factors for chronic illness so that early intervention and treatment can be implemented, the MOHW offers a free preventive health service for adults (once every three years for people aged 40-64 and annually for people aged 65 and over) available at more than 6,800 health institutions and via community screening services. In 2019, a total of 1.99 million people have utilized the screening service.
2. In 2019, the MOHW continued to publish the "Active Life" and "Active Guru" Handbooks that feature instructional contents for seniors and the general public ways to identify suitable trainings to be adopted into a part of their daily lives in safe environments based on domestic and international empirical studies. We also encourage seniors to increase the amount of physical activities they get through day-to-day activities at home in order to improve their health.
3. For our promotion of dementia friendly communities, the MOHW has referred to WHO's "Global action plan on the public health response to dementia 2017-2025" in the formulation of Taiwan's" Dementia Prevention and Care Guidelines 2.0". The new guidelines feature seven major areas of action, including "Boosting dementia awareness and dementia-friendliness" and "Lowering risks of incidence". Starting from 2019, the MOHW has subsidized the construction of 10 dementia-friendly communities to create spheres of lifestyle centered around dementia patients and their families. We were able to recruit 66,000 guardian angels and reached out to 5,500 dementia friendly organizations and held 518 sessions of dementia-friendly promotional events that attracted more than 200,000 people, thereby boosting their knowledge and friendliness towards dementia while creating a network of protection for dementia patients. On top of that, the MOHW has also constructed dementia friendly resource integration center that now features a collection of 273 articles on dementia, 268 materials for dementia education, 20 presentations and 3 short videos.
4. The MOHW subsidizated 19 local government to promot the "Frailty Prevention Service Network Hub Project" that features various public health centers as hubs (with a total of 82 hubs) to inventory community health resources and services (including: physical exercise, nutrition for elderly, home safety and fall prevention, preventive healthcare, chronic illness management, social participation, transportation, welfare, subsidies and so forth) in order to achieve inter-disciplinary integration between healthcare and public health resources by functioning as the primary window of service to achieve an integrated service model for senior healthcare that would facilitate senior citizens' employment and social participation and lead independent, healthy and safe lifestyles by offering relevant support through a supportive environment.
5. The MOHW sponsored team competitions to raise health awareness for seniors. In 2019, 3,773 participated in the competitions within senior teams (representing villages and townships). The average age of the participants was 70 and over 530,000 senior citizens have taken part in the competitions over the period of 9 years since the competitions were first held.
6. Starting from 2013, all 22 cities and counties in Taiwan became age-friendly cities. Consequently, Taiwan achieved the highest coverage rate of age-friendly cities in the world. In 2019, the MOHW subsidized 22 municipal health departments, 109 health centers and 17 communities in the implementation of "Age-Friendly City and Community Project". Through means of voting and selection, the MOHW encouraged local governments to promote their efforts in healthy and age-friendly cities by disseminating relevant issues and accomplishments. In 2019, the MOHW held the "Healthy City and Age-Friendly City Awards, with 63 award-winning entries."

7. By the end of 2019, a total of 645 Age-friendly healthcare institutions passed recognition (including 207 hospitals, 358 public health centers, 1 private clinic and 79 long-term care facilities).

Section 2 Control of Major Chronic Diseases

1. Control of Major Chronic Diseases

(1) In light of the fact that most causes for noncommunicable diseases can be attributed to unhealthy lifestyles, the MOHW has therefore collaborated with relevant agencies to implement prevention at the source. Not only that, the MOHW has also been working with relevant specialist associations and local health bureaus in the promotion of smoking cessation and physical activities. Through marketing strategies via diverse media, we have also disseminated relevant issues on corresponding world disease days in the hopes of bolstering the general public's awareness and concern for chronic disease prevention. In addition, through venues such as medical institutions that provide preventive healthcare services for adults, diabetes health promotional institutions and chronic renal disease health promotional institutions, the MOHW has organized a variety of educational seminars for relevant chronic diseases to raise the awareness for chronic disease risk factors for the general public and medical personnel. This would in turn facilitate early intervention and prevention of chronic disease while improving the care quality for chronic disease patients (See Figure 3-7 for Chronic Disease Control Framework).

(2) In an effort to strengthen the prevention of chronic diseases such as diabetes that are associated with the "three hypers" while establishing quality care and management for chronic diseases, the MOHW has been promoting the establishment of a Diabetes Shared Care Network since 2003 by establishing the standards for medical personnel certification, and training qualified medical personnel for diabetes care; as of 2019, a total of 11,972 medical personnel received their certification and collaborated as a professional team that delivers quality care for diabetes patients. The MOHW has provided payment incentives and established corresponding indicators (such as coverage rate and the examination rate including HbA1c, fasting plasma lipid, fundus examination and urine microzlbumin) to monitor care quality. In addition, through 269 diabetes health promotion institutions and 549 diabetes support groups, the MOHW endeavors to help diabetes patients strengthen their self-management.

(3) Promote clinics and family doctor integrated delivery system to push chronic intervention services to prevent disability. The MOHW has connected 10 family doctor integrated delivery system (comprising 56 clinics) across Taiwan to complete physical function and drug use assessment for more than 20,000 seniors. By improving the management of chronic disease, it is possible to delay functional to disability for the elderly and by offering relevant intervention services for pre-frailty and frail seniors, we were able to successfully improve the physical functions of some seniors by close to 60%. Responsible personnel have followed up of 5,404 cases of pre-diabetes and among them, the rates of achievement for HbA1c, blood pressure and LDL came to 72%, 76% and 69% respectively. Not only that, steps have also been taken to strengthen the managing of pre-chronic renal disease cases, with 2,547 adults diagnosed and 100% monitored rate.

(4) In an effort to raise the general public's awareness for measuring their blood pressures, a total of more than 3,200 blood measurement stations were established across Taiwan by the end of 2019. The MOHW has endeavored to integrate relevant resources available at municipal health departments so that the general public can take their blood measurements with ease at different community locations (i.e. various administrative service units, community care spots, activity center, pharmacies, malls and workplaces) that are easily accessible. In addition, the MOHW has also collaborated with public health systems to incorporate assessment items from the healthcare promotion subsidy plans by different municipalities to inventory and integrate community, clinic and blood measurement resources through the 22 departments of health nationwide, and implement marketing and dissemination strategies to help the general public learn more about their blood pressure and its significance, so as to help them cultivate the habit of taking their blood pressures at home or at various designated locations. Furthermore, steps have also been taken to improve hypertension management and care quality alongside the development of comprehensive diagnostics and healthcare guidelines (i.e. for patients of hypertension, high cholesterol and diabetes and so forth) by connecting the cases to integrated prevention system with health and illness management, so that patients of hypertension can benefit from better care and control.

(5) In order to help the elders maintain their existing abilities during the course of receiving acute medical care and reduce their disability, since 2019, 36 hospitals have been subsidized to pilot-test 50 trials of the Acute Care for Elders (ACE) at the emergency, inpatient and outpatient services. It plans to develop a friendly care model for the elderly in Taiwan, and establish a community resource transfer network, so that the elderly can receive continuous and integrated assessment and care services from hospital to community.

2. Established the toll-free "0800-00-5107 Menopause Health Consultation Hotline". In 2019, counseling services were provided to more than 10,367 individuals

Figure 3-7 **Chronic Disease Control Framework**

Regular prevention and health maintenance ⟷ **Periodic check-ups for early detection** ⟷ **Diagnosis and risk classification** ⟷ **Management by level Medical and healthcare**

Participating communities schools & workplaces: Waistline measurements, blood pressure measurements, sodium reduction

General public → Adult preventive health services Community integrated screening services (Hospitals Clinics Public Health Centers)

Risk factors

Management by level

- Healthy lifestyles: Balanced diet, regular physical activity, smoking cessation, moderate alcohol use, stress reduction, etc.
- Maintaining the ideal waist circumference

1.Metabolic syndrome
- (1) Waist circumference is too high
  - Male ≧ 90cm (35 inches)
  - Female ≧ 80cm (31 inches)
- (2) Raised blood pressure
  - SBP ≧130mmHg
  - DBP ≧85mmHg
- (3) Low HDL cholestreol
  - Male < 40mg/dl
  - Female < 50mg/dl
- (4) High fasting blood glucose ≧ 100mg/dl
- (5) High triglycerides ≧ 150mg/dl

2. Tobacco use
3. Unhealthy diet
4. Physical inactivity
5. Harmful use of alcohol

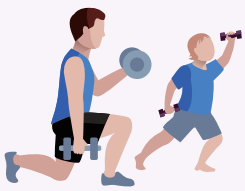
Includes any factors → Acceptance recommended

1. Health promotion and intervention from health institutions
2. Smoking cessation clinics (for smokers)
3. Health promotion cases managed by health department-run by health centers, healthinstitutions, or communities (e.g. community LOHAS plans)
4. Health promotion activities run by health-promoting hospitals

1. Raised blood pressure: SBP≧140mmHg or DBP≧90mmHg
2. Hyperglycemia: Fasting blood glucose ≧126mg/dl
3. Hyperlipidemia: TG≧200 mg/dL or TC≧240 mg/dL
4. Chronic kidney disease: (stage 3b-5) GFR≦45

Diagnosis → 1. Reporting diagnostic results 2. Regular medical care at health institutions

Compliance with care plan



Chronic disease patients

National Health Insurance Administration

- Diabetes care payment improvement scheme
- Early chronic kidney disease medical payment improvement plan
- pre-ESRD preventive plans and patient health education program

and provided 76 menopause health care services, including menopause growth camps, lectures/consultations, and educational training, with a total of 4,083 participants attended.

Section 3 Cancer Prevention

Starting from 2019, the MOHW has launched the 4th Phase National Cancer Prevention and Control Program, with emphasis on the construction of a sustainable cancer prevention and control system, bolstering health literacy on cancer prevention for the general public and medical personnel, strengthening the quality of services at different levels, continual promotion for cancer screening, development of individualized cancer precision preventive healthcare services, closing the gap in different aspects of cancer prevention and the application of data and empirical evidence to boost the effectiveness of cancer prevention and control.

1. Reducing Cancer Risk Factors

Four major risk factors are associated with cancer: smoking, insufficient physical activity, unhealthy eating habits, and excessive alcohol use. The MOHW has been encouraging people to quit smoking, to cut down on alcohol, and to stop chewing betel nuts. It urges everyone to maintain a healthy body weight, improve their eating habits, and adopt a healthy lifestyle.

2. Cancer Screening

(1) Since 2010, the MOHW has offered fully subsidized screenings for cancers of the cervix, oral, colorectal, and breast. In 2019, 5.015 million screenings detected precancerous lesions in close to 52,000 patients and malignant tumors in around 10,000 patients. Table 3-1 outlines significant milestones in cancer screening, while Table 3-2 and Table 3-3 summarizes the cancer detection rates and five-year survival rates for four major types of cancer.

(2) In 2019, 217 health institutions implemented the Plan to Enhance the Quality of Cancer Screenings, Diagnosis and Treatment in Hospitals. This involves the installation of a notification system that would notify patients to be screened, with a single referral pathway for those who tested positive.

(3) In order to ensure the quality of cancer screenings, officials conduct periodic reviews of health institutions that offer such screenings. In 2019, accreditations were given to 120 institutions that conduct cervical cancer screenings, 213 that conduct mammograms, and 157 that conduct fecal occult blood tests. Finally, the Plan to Improve the Quality of Oral Mucosa Exams trained doctor to screening patients for oral cancer.

(4) According to the results from studies commissioned by the HPA, by taking one mammogram once every two years, potential patients could reduce their mortality rate from breast cancer by as much as 41%; by taking one FIT once every two years, patients could reduce their mortality rate from colorectal cancer by as much as 35%; by taking oral mucosa test once every two years, men with the habit of betel quid chewing and smoking could reduce their mortality rate from oral cancer by as much as 26% and by having a Pap smear test once every three years, women will be able to reduce their mortality rate from cervical cancer by as much as 70%.

Table 3-1 **Screening Volume and Rate, Precancerous Lesions, Follow-up Rate for Positive Screenings, Cancer Cases, and Follow-up Rates for Positive Screenings for the Four Major Types of Cancer, 2019**

Cancer Type	Screening Volume (Thousands)	Screening Rate (%)	Precancerous Lesions	Cancer Cases	Follow-up Rate for Positive Screenings (%)
Cervical Cancer	2,189	54.8	12,903 (including carcinoma in situ)	1,108	93.8
Breast Cancer	880	40.0	-	4,458	92.3
Colorectal Cancer	1,343	40.9	35,462	2,600	76.1
Oral Cancer	603		3,518	1,098	82.4
Total	5,015	-	51,883	9,264	

Notes: Basis for Screening Rates
1. Cervical cancer: the rate of women aged 30-69 who have received a screening for cervical cancer within the past three years.
2. Breast cancer: the rate of women aged 45-69 who have received a screening for breast cancer within the past two years.
3. Colorectal cancer: the rate of people aged 50-69 who have received a screening for colorectal cancer within the past two years.
4. Oral cancer screening rate: since the screening for oral cancer focus primarily on smokers and betel quid chewers (including those who quit) and the denominator already covers those with the habit of smoking and betel nut chewing, and as such, this data will no longer be included starting from 2017 onward.

Table 3-2 **Cancer Detection Rates for the Four Major Types of Cancer, 2019**

Cancer Type	Cancer detection rate (Estimates based on 100% follow-up of positive cases)		
	Precancerous Lesions	Cancer	Total
Cervical Cancer	1/99	1/358	1/78
Breast Cancer	-	1/186	1/186
Colorectal Cancer	1/29	1/370	1/27
Oral Cancer	1/137	1/440	1/105

Notes: Basis for Detection Rates
1. Precancerous Lesion Detection Rate (Based on 100% follow up): defined as precancerous lesion cases/number of screenings
2. Cancer Detection Rate (based on 100% follow up): cancer cases/number of screenings
3. Overall Detection Rate (based on 100% Follow up): (precancerous lesions + cancer cases)/number of screenings
4. 1/Detection Rate = number of people who must be screened on average to detect one positive case

Table 3-3 **Five-Year Survival Rates for Four Major Types of Cancer, 2017, by Stage**

Source: Taiwan Cancer Registry database (includes carcinoma in situ)

Stage	Breast Cancer (%)	Cervical Cancer (%)	Colorectal Cancer (%)	Oral Cancer (including oropharynx and hypopharynx) (%)
Stage 0	100	99.1	95.1	82.9
Stage 1	100	88.5	93.4	85.1
Stage 2	94	72.7	84.6	74.4
Stage 3	77.9	61.5	69.1	60.6
Stage 4	34.1	24.3	13.0	37.7

Notes:
1. Analyzed hospital-reported data on the five-year survival rate for four major types of cancer by stage, from 2013 to 2017 (patient tracking through 2018)
2. According to the screening data and five-year survival rates for patients diagnosed with stages 0 and 1 oral cavity cancer by MOHW, approximately 65% of the stage 0 cases have been classified under “precancerous lesions” in actual practice. Consequently, the number of stage 0 cases (285 entries) has significantly less compared to that of stage 1 cases (7,970 entries). This in turn has caused significant fluctuations in the data for survival rate.
3. Relative 5-year survival rate: the corrected competing risk survival rate would be the survival rate from the cancer. Relative survival rate = Observed survival rate / Expected survival rate x100%.

3. Improving the Quality of Cancer Care

(1) Cancer Care Quality Certification for hospitals began in 2008. By the end of 2019, 60 hospitals had been certified; more than 80% of cancer patients are treated in these hospitals.

(2) The MOHW has been promoting the quality of palliative care for cancer patients of terminal cancer and their family members by organizing healthcare training programs with bio- psycho-social-spiritual and long-term care approaches and enhance public awareness and perception of palliative care so that patients of terminal cancer and their family members can receive premium care.

Chapter 4 Health Communication, Information, and Surveillance

Section 1 Health Information and Communication

The media, professional associations and civic organizations are utilized to transmit accurate health information. It also involves the provision of websites and reference materials focused on specific healthrelated matters for the use of all citizens. Furthermore, the effective integration of cloudbased services has enhanced health literacy among Taiwan's inhabitants.

1. Health Communication

(1) To promote the development and quality of health education materials, "Health Literacy and Communication Index" were established and development. In 2019, the MOHW hosted "The Most Natural Award-Presentation Ceremony! Enjoying a Picnic on the Lawn!" and showcased the outstanding entries that won awards in the "Health Promotional Broadcasting Material Selection" The Health Promotional Broadcasting Material Selection attracted a total of 628 submissions, among which 351 were compliant with the "Health Literacy and Communication Index" and have been uploaded to the Health 99 Education Resource Website.

(2) The Health 99 website has gotten an average of 370,000 visits each month and as of the end of 2019, more than 5,800 materials have been uploaded to the website, including leaflets, manuals, posters and multimedia contents. We also use social media such as Facebook and LINE@ to disseminate accurate health information and take the initiative to promote health information and issues.

2. e-Health Promotion and Application Services

The MOHW continued to implement the "Wellness Cloud" project, a step-by-step establishment of a new health promotion and chronic disease selfmanagement in Taiwan:

(1) To optimize "Wellness Cloud" mobile APP's UI/UX update functions that primary features of the app include: the management of personal healthy lifestyle records, health scales and data linkage with My Health Bank SDK, Google Fit and Apple HealthKit.

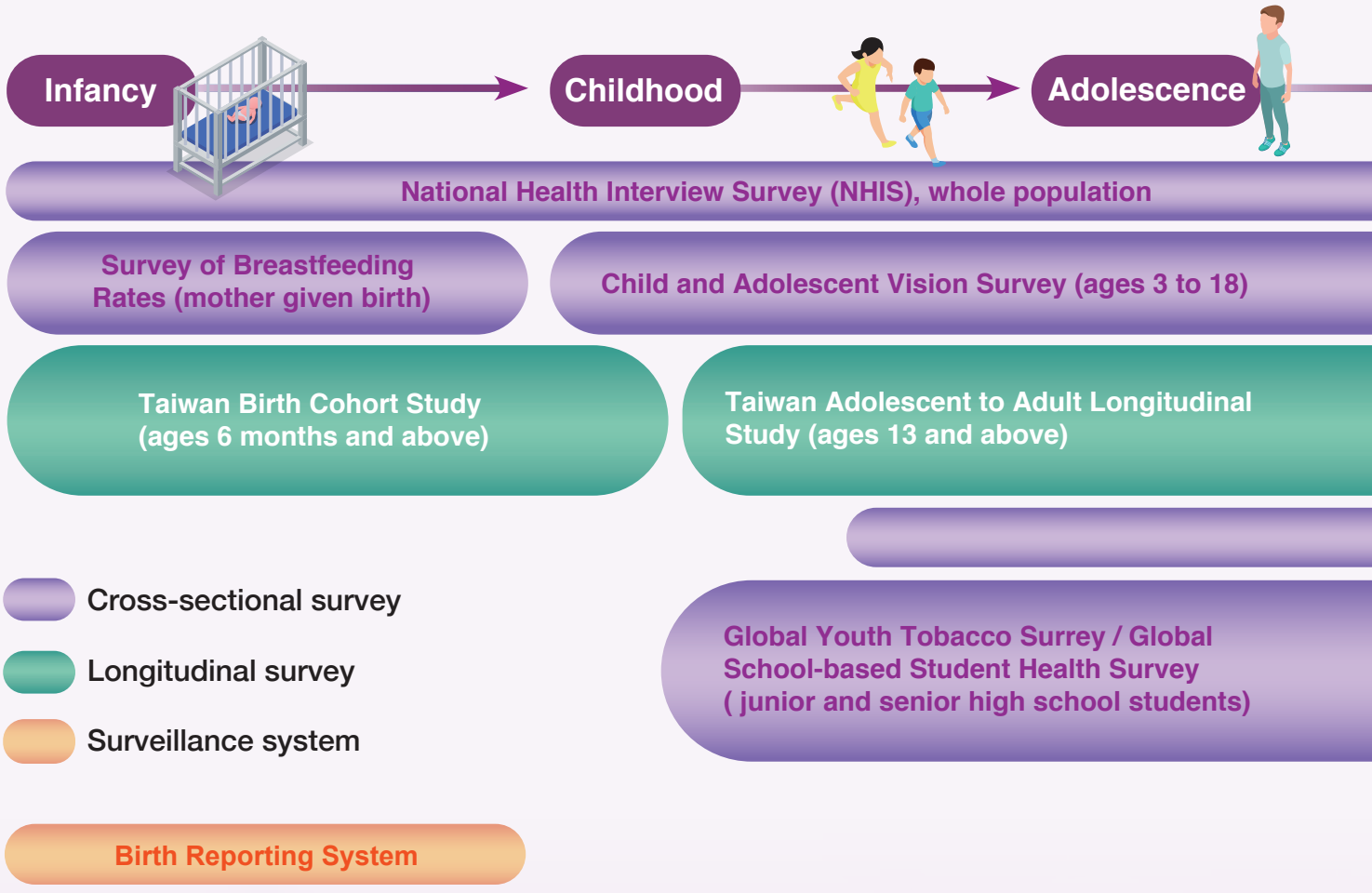
(2) In 2019, the "Wellness Cloud 2.0 - National PHR Platform" was used 8.36 million times and more than 20,000 users have downloaded the App, which received an average rating of 4.5 points (out of 5).

(3) To integrate the login portal for Wellness Cloud website and NHI's My Health Bank website, making users can accessibly check their personal health and medical records, and boosting the effectiveness of data inquiry and usage to enhance personal health management.

Section 2 Health Surveillance

The MOHW conducts health surveillance and surveys to collect data that can be used to formulate policies. The MOHW has established the noncommunicable disease surveillance system and continuously conducts health surveys on the whole population and people of different age groups (Figure 3-8).

Figure 3-8 Major Health Surveillance and Surveys



Nutrition and Health Survey in Taiwan (NAHSIT) , whole population

Taiwan Fertility and Family Survey (TFFS) (ages 20 to 49)

Taiwan Longitudinal Study on Aging (TLSA) (ages 50 and above)

Adults Smoking Behavior Survey (ASBS) (ages 15 and above)

Workplace Health Promotion Survey (working age)

Monitoring and Decision Support System for Active Aging

After reading this article, scan the QR Code.
Please fill-in the questionnaire to give us your advice.

4 Health Care

Following the enactment of the Medical Care Act in 1985, the government implemented a medical facilities network project, whereby Taiwan was divided into healthcare regions. Planning was undertaken for the equitable allocation of medical human resources and facilities to each region to ensure the quality of medical care in each region. The "8th Medical Network Plan" is implemented in 2017-2020 to develop an integrated, sustainable public health and medical service network that is rooted in the local community.

Chapter 1 Healthcare Systems

Section 1 Medical Care Resources

Aiming to promote balanced distribution of medical care resources, the Ministry of Health and Welfare (MOHW) has established a regional medical care system in accordance with the Medical Care Act and the Medical Care Network Project. Using regional guidance and the operation of related organizations,the MOHW assessed the health needs of each area,and implemented various projects to ensure the equitable allocation of healthcare resources between regions and to ensure the quality of care everywhere. The main results achieved in 2019 are shown below:

1. Current status of medical institutions: Table 4-1.

Table 4-1 **Status of Medical Institutions, 2019**

Source: Department of Statistics, Ministry of Health and Welfare

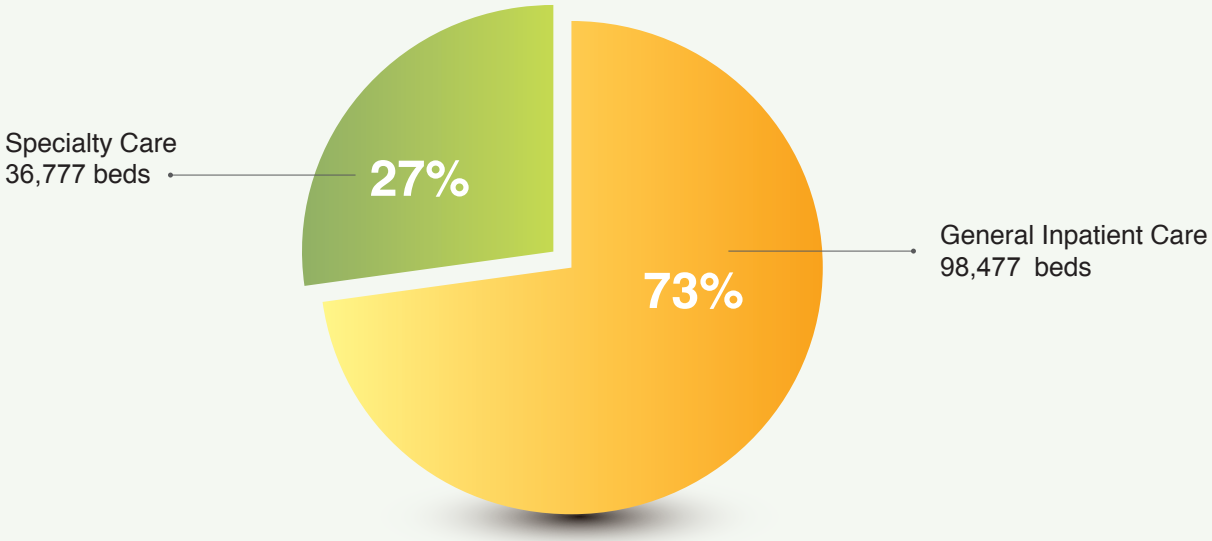
Type of Medical Institution		No. of Institutions
Medical Care Institutions	Hospital	480
	Clinics	22,512
Pharmacies		8,129
Home Care Practices	General Nursing Homes	553
	Psychiatric Nursing Homes	48
	Home Care Practices	672
	Post-Natal Nursing Institutions	267
Blood Donation Institutions	Blood Donation Centers	5
	Blood Donation Stations	13
Pathology Institutions		11
Other Medical Institutions	Midwifery Practices	23
	Medical Laboratories	368
	Medical Radiological Institutions	49
	Physical Therapy Practices	312
	Occupational Therapy Practices	111
	Denture Clinics	31
	Mental Counseling Clinics	93
	Psychotherapy Clinics	65
	Speech Therapy Centers	59
	Dental Technology Centers	916
	Hearing Centers	24
	Home Respiratory Care Practices	6
	Optometry Practices	34
	Nutrition Advisory Organizations	30

2. Current Status of Hospital Beds:

There are 135,254 hospital beds (including general and specialist). The general hospital beds include acute care beds (acute care beds and acute psychiatric beds), chronic care beds (chronic care beds, chronic psychiatric beds, chronic tuberculosis beds and leprosy beds). The exact numbers in descending order are 74,207 acute care beds, 7,381 acute psychiatric beds, 3,170 chronic care beds, 13,549 chronic psychiatric beds, 2 chronic tuberculosis beds, and 168 leprosy beds. The average general hospital beds are 41.72 beds per 10,000 people; 36,777 specialist beds and other beds, as shown in Figure 4-1.

Figure 4-1 **Status of Hospital Beds in Medical Care Institutions**

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)



Notes: Special beds includes intensive care beds, general beds for burn patients, intensive care beds for burn patients, infant sickbeds, emergency observation beds, hospice beds, chronic respiratory care beds, subacute respiratory care beds,acute TB beds, intensive care beds for psychiatric patients, isolation beds, positive pressure isolation room negative pressure isolation room, beds for bone marrow transplant patients, Sex offender compulsory treatment beds, Acute late care beds, integrated post-acute care hospital beds, surgery recovery beds, infant beds, hemodialysis beds, peritoneal dialysis beds, etc.

Section 2 Emergency Health Care and Rescue

MOHW continued to reinforce development of the emergency network while extending integrated response mechanisms.

1. Table 4-2 depicts the number of hospitals designated to provide emergency care at the end of 2019.Taiwan currently has 52 medical sub-regions; each of which has at least one intermediate to advanced emergency responsibility hospital.

Table 4-2 **Number of Emergency Responsibility Hospital in 2019, by Grade**

Source: Department of Medical Affairs, MOHW, R.O.C. (Taiwan)

Emergency Treatment Grade	Advanced	Intermediate	General	Total
Number of Institutions	46	75	80	201

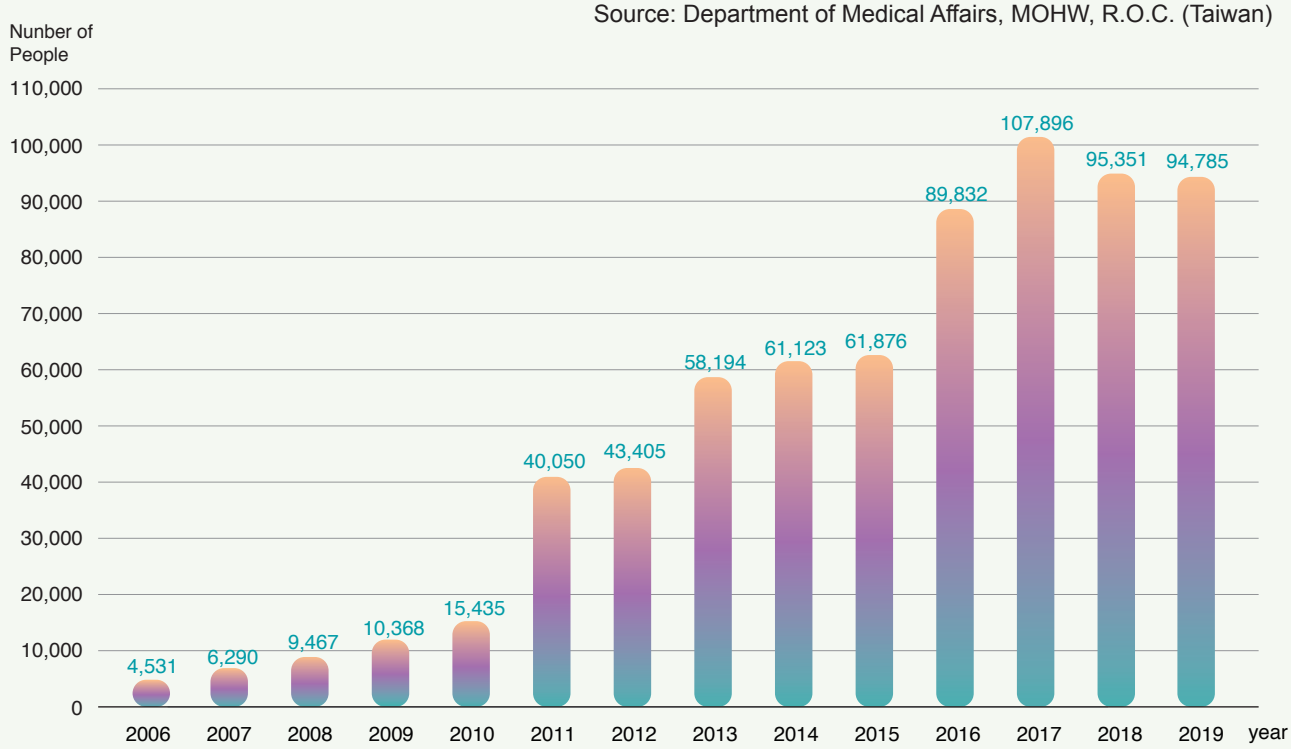
2. MOHW has been assisting districts with inadequate emergency care resources. These efforts focus on three areas: emergency care stations in places that receive many tourists; first-aid stations that are open at night, on weekends and on public holidays; and strengthening the emergency care capabilities of hospitals in districts with limited resources. In 2019, special incentives were offered in 18 locations to effect these objectives.
3. Incentives remain in place to encourage medical centers and advanced grade emergency responsibility hospitals to provide emergency care on outlying islands and in underserved areas.27 medical centers have been participating in this program, providing a combined total of 130 acute and critical care doctors to assist in 29 outlying islands and underserved areas. This program has been instrumental in making needed medical resources more accessible to underserved communities.
4. As of the end of 2019, there were approximately 10,587 automated external defibrillators (AEDs) in Taiwan, equivalent to 44.9 AEDs for every 100,000 people. 5,634 locations have already been certified as “safe locations” (meaning that the location has an AED, and that at least 70% of employees there have completed CPR and AED training).
5. In 2019, MOHW continued to raise the quality of emergency pediatric care. Under the plan, remote hospitals designated for Intermediate grade emergencies or above qualify for subsidies if they offer 24-hour pediatric emergency. The government desires to have at least one hospital in every city/county offering this vital service. By the end of 2019, 15 hospitals in 15 cities/counties were participating.

Section 3 Hospice and Palliative Care and Patient Autonomy

1. Implementation of the Hospice Palliative Care Act on June 7, 2000 paved the way for doctors (patients' informed consent) to focus on eliminating suffering, and offering support to terminally ill patients, in lieu of curative- and rescue-oriented care.
2. Beginning in 2006, a special project has been urging medical care institutions and the general public to participate in hospice and palliative care, while encouraging NHI enrolled persons to record consent on their NHI IC cards. As of the end of 2019, a total of 698,603 people, accounting for 2.96% of the total population, documented their willingness to receive hospice and palliative care, along with their wishes concerning life-sustaining treatment. Each person's choice was recorded on his/her NHI IC card (Figure 4-2).

Figure 4-2 **Number of People Who Have Had Their Hospice and Palliative Care Wishes Recorded on Their NHI IC Cards**

Source: Department of Medical Affairs, MOHW, R.O.C. (Taiwan)



3. In an effort to safeguard patients' dignity and rights to a good death, Taiwan announced the legislation of Patient Right to Autonomy on January 6 2016. The Act came into effect on January 6 2019 and became the first law in Asia legislated to protect patients' autonomy by granting persons with full disposing capacity to made advance decisions and accept or refuse treatment options that are available to him through advance care planning and prepare his advance decision in the form of a prior written and signed statement, thereby ensuring his rights to a good death. As of the end of 2019, a total of 11,266 declarants have signed their advance decision and registered their decision on their NHI IC cards.

Section 4 Oral Health Care

1. Better Dental Care for the Disabled

(1) The MOHW has been implementing "Dental Care Services for People with Special Requirements."In 2019, the "Coordinated Dental Care Plan for People with Special Requirements" was implemented with subsidies for seven model centers (National Taiwan University Hospital, Shuang Ho Hospital,Chung Shan Medical University Hospital, National Cheng Kung University Hospital, Kaohsiung Medical University Hospital, National Yang-Ming University Hospital, and Mennonite Christian Hospital) and 22 other hospitals. 27,390 patients received services under this Plan in 2019.

(2) 103 county and city hospitals throughout Taiwan have been designated as providing special dental outpatient services for the disabled in accordance with the provisions of the "Management of Specialist Outpatient Services for the Disabled" act.

2. Continuing to Provide Dental Health Services to Young Children

(1) The MOHW has continued to provide topical fluoride treatments for children. In 2019, topical fluoride treatment was provided to 1.25 million people, with 82.7% of children aged 3-6 receiving this service at least once that year.

(2) Provide dental sealant treatment for grade 1 and 2 students' permanent molarsIn 2019, 500,000 people benefited from this service.

(3) The MOHW has also continued to promote the administration of anti-plaque fluoride mouthwash for Taiwan's elementary school students. In 2019, a coverage rate of around 90% of 1.15 million children obtained this service.

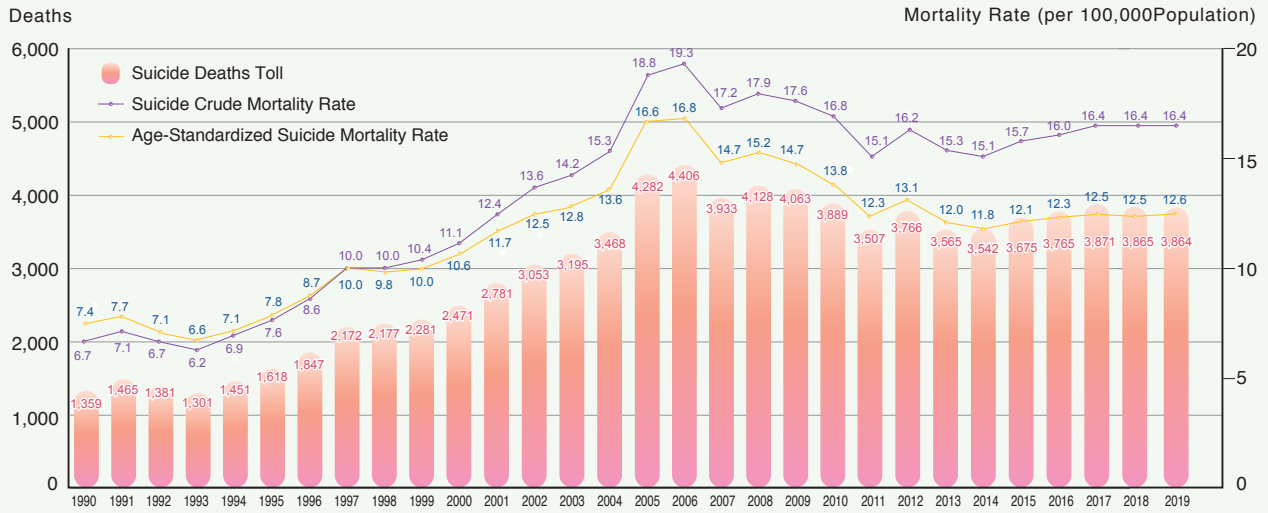
Chapter 2 Mental Health and Psychiatric Care

Section 1 Mental Health Promotion

1. MOHW's "Wellbeing" mental health learning platform is a source of related learning resources and contains information on professional mental health counseling services across Taiwan. In 2019, the website's number of uses grew by 144,573.
2. To facilitate better wellbeing and mental health for the public, the MOHW commissioned 22 local departments of health to implement the "Mental Health Network Promotion Project" in 2018 to provide psychological counseling for 23,086callers. In addition, the Ministry also held a total of 22 press conferences across Taiwan in October (Mental Health Awareness Month) 2019, attracting a total of 8,075 participants.
3. The original suicide prevention hotline has been changed from its original 10-digit number to simply "1925" (homonymous to "still love me" in Chinese) effective from July 1 2019. The service provides 24-hour free mental counseling service and in 2019, the service has helped a total of 91,693 callers and assisted 14,670 potential suicide victims and directly prevented 592 suicide attempts.
4. The MOHW continued to implement reporting of all suicide-related cases, arranged outreach visits, helped people with risk of suicide. In 2019,Taiwan had 35,324 reported suicide attempts, and authorities made 228,047 outreach visits.
5. The Suicide Prevention Act was announced for promulgation on June 19, 2019. In 2019, there were 3,864 suicides in Taiwan, representing a standardized suicide rate of 12.6 people per 100,000 people (Figure 3-4). The long-term trend has shown decline for suicide rate, which peaked in 2006 and it had not been one of the top 10 leading causes of death in Taiwan since 2010. Nevertheless, Taiwan still has a medium high suicide rate compared to international peers. In the future, MOHW will continue to strengthen the social safety net and various prevention policies.

Figure 4-3 **Taiwan's Suicide Deaths and Suicide Mortality Rate, 1990-2019**

Source: Department of Medical Affairs, MOHW, R.O.C. (Taiwan)



Section 2 Psychiatric Health Services

1. The MOHW continued to utilize the seven regional psychiatric care networks. Within these networks, designated core hospitals promote mental health within the region, develop the regional psychiatric care network.
2. In 2019, there were 516 psychiatric care institutions in Taiwan.There were 20,930 hospital beds in the institutions, including 7,381 beds for emergency psychiatric patients and 13,549 beds for chronic psychiatric patients. These figures equate to approximately 9 beds for every 10,000 people. There were also 68 daytime psychiatric rehabilitation institutionscapable of serving 3,308 persons, 154 psychiatric rehabilitation institutions that offered accommodation (with 6,650 beds), psychiatric day care centers (capable of serving 6,250 persons),and 48 psychiatric nursing homes (with 4,650 beds).
3. The MOHW subsidized county and city governments to recruit 96 outreach community care visitors. In 2019, 576,473 outreach visits were made to 137,184 psychiatric patients.
4. Mandatory hospitalizations and mandatory community care for severe patients are carried out in accordance with the "Mental Health Act." In 2019, there were 725 applications (including 683 applications for mandatory hospitalization and 42 applications for mandatory community care). (Table 4-3)
5. In 2019, the MOHW carried out evaluation inspections of 8 psychiatric medical care institutions (including psychiatric teaching hospitals), 78 psychiatric rehabilitation institutions, and 9 psychiatric nursing homes. Furthermore, occasional follow-up guidance was conducted for 33 institutions. (Table 4-4)

Table 4-3 **Statistics of Cases reviewed by the Mandatory Hospitalizations and Mandatory Community Care Committee between 2008 and 2019**

Source: Department of Mental and Oral Health, MOHW, R.O.C.(Taiwan)

Date	Case review	Mandatory hospitalization			Mandatory community treatment		
		Mandatory hospitalization cases reviewed	Mandatory hospitalization cases approved	Mandatory hospitalization approval rate	Mandatory community treatment cases	Mandatory community treatment cases approved	Mandatory community treatment approval rate
2007 Jul-Dec	669	669	576	86.10%	--	--	--
2009 Jan-Dec	1679	1679	1555	92.61%	--	--	--
2010 Jan-Dec	1696	1670	1585	94.91%	26	26	100%
2011 Jan-Dec	1251	1211	1164	96.12%	40	39	97.50%
2012 Jan-Dec	1277	1221	1182	96.81%	56	52	92.86%
2013 Jan-Dec	835	772	735	95.21%	63	62	98.41%
2014 Jan-Dec	766	718	680	93.41%	48	40	83.33%
2015 Jan-Dec	747	677	634	93.65%	70	68	97.14%
2016 Jan-Dec	791	725	686	94.62%	66	64	96.97%
2017 Jan-Dec	876	818	752	91.93%	58	58	100%
2018 Jan-Dec	690	642	592	92.21%	48	46	95.83%
2019 Jan-Dec	725	683	629	92.09%	42	41	97.62%

Table 4-4 **The Number of Psychiatric Care Institutions in Taiwan in 2019, and Evaluation Results**

Source: Department of Mental and Oral Health, MOHW, R.O.C.(Taiwan)

Psychiatric Care Institution Category		No. of Institutions	No. of beds / registered (patiens) Total	2019 No. of Evaluated Institutions	Accreditation Results		
					Outstanding	Passed	Failed
Psychiatric hospitals	Non-teaching hospitals	34	20,930	6	0	6	0
	Teaching hospitals	10		2	-	2	0
General hospitals with a psychiatric care department		200		–			
Clinics with a psychiatric care department		316		–			
Psychiatric rehabilitation institutions	Daytime only	68	3,308	25	-	25	0
	With residential accommodation	154	6,650	53	-	50	3
Psychiatric nursing homes		48	4,650	9	-	8	1

Section 3 Control of Drug Addiction

1. Subsidized alternative therapy for drug addiction was introduced in 2006. As of the end of 2019, a total of 184 institutions throughout Taiwan were providing alternative therapy, with a cumulative total of 45,470 patients treated. In 2019, on average 7,922 patients received treatment daily. The number of new HIV cases among drug addicts per year has fallen from 2,425 in 2005 to 43 in 2019.
2. As of the end of 2019, there were 157 designated drug addiction treatment and rehabilitation institutions. The Department of Health and regional psychiatric care network's core hospitals were responsible for providing 47 sessions of education and training for a total of 4,406 participants.
3. With the Drug Prevention Fund officially operational starting from May 2019, the Ministry has launched the "Substance Abuse Treatment Fee Subsidy Program" for narcotics of different classifications and subsidized a total of 2,178 recipients in 2019.
4. Since 2006, MOHW's Tsaotun Psychiatric Center has been receiving funding to establish a therapeutic community for drug addicts and in 2019, funding has also been made available to other private organizations with relevant developments to expand the number of facilities from 1 to 6, with a total of 296 beds and 8,893 in-patients days in 2019. In addition, the Ministry also subsidized 18 NGOs to carry out the "Drug Addict Psychological Counseling and Social Rehabilitation Work Plan". Under this program, 323 people obtained assistance in settlement; 8,960 people received transitional counseling; 5,257 people received group rehab counseling and 8,515 people received vocational skills training, employment counseling and job matching services.
5. In 2019, the Drug Prevention Fund became the source of funding for 10 medical institutions to carry out the "Corrective Agency Integrated Drug Addict Treatment Service and Quality Improvement Plan at 11 correctional facilities. They provided 515 addiction treatment clinics that served 2,994 patients, health education for 22,167 inmates, psychological therapy for 5,650 inmates, 1,123 prisoner release referrals and 2,444 follow-ups.
6. The MOHW continued to implement the "Alcohol Addiction Treatment Plan" in 2019 and subsidies were provided to help 2,113 people. Moreover, since 2015, the MOHW has been implementing the "Pilot Project for the Establishment of a Treatment and Social Rehabilitation Service Model for Problem Drinkers and Alcohol Addicts" by subsidizing selected medical institutions. The Ministry expanded the subsidies to 12 institutions in 2019 to create an inter-network mechanism for alcoholic case referral. 981 referrals were made and alcohol addition treatment was provided to 802 people.
7. Starting from 2018 onward, the Ministry took over the duty of supervising all Drug Abuse Prevention Centers in Taiwan from the Ministry of Justice. In 2019, additional subsidies for administrative manpower for 208 (totaling 607 cases) to assist in relevant case management to improve the quality of follow-up and counseling for communities involved in cases of drug use. The MOHW also subsidized Taipei City Hospital (Songde Branch), MOHW's Taoyuan Psychiatric Center, Tsaotun Psychiatric Center and Jianan Psychiatric Center along with Kaohsiung Municipal Kai-Syuan Psychiatric Hospital to setup 5 Substance Treatment and Research Centers in the hopes of developing diverse treatment models and intervention solutions that are empirically proven to be effective.
8. Internet addiction prevention has been included in the "Integrated Mental Health Work Plan" for 2019 and Ministry has requested all local departments of health to inventory and flesh out resources necessary to curb the trend of internet addiction within their jurisdiction while announcing websites featuring said resources for the general public to access. In addition, the MOHW also encourages the general public to use the "Internet User Behavior Screening Scale" and organized no less than 1 session of internet addiction prevention dissemination and internet addiction prevention training.

Chapter 3 Medical Manpower

Section 1 Current Status of Medical Manpower

1. Taiwan has 15 laws and regulations governing the licensing requirements of medical personnel: the "Physicians Act," the "Pharmacists Act," the "Midwifery Personnel Act," the "Dietitians Act," the "Nursing Personnel Act," the "Physical Therapists Act," the "Occupational Therapists Act," the "Medical Technologists Act," the"Medical Radiation Technologists Act,"the "Psychologists Act," the "Respiratory Therapists Act," the "Hearing Specialists Act," the "Speech Therapists Act," the "Dental Technicians Act," and the "Optometric Personnel Act."
2. As of 2019, Taiwan had 326,691 practicing health professionals including 71,766 physicians (including medical doctors (MD) and Chinese medical doctors (CMD)and dentists), 35,316 pharmacists, 9,940 medical technologists, 6,840 radiologic technologists, 172,966 registered nurses, 200 midwives, and 3,237dietitians.

Section 2 Training Health Professionals

In order to ensure an excellent medical workforce, every year the MOHW conducts training programs, personnel development programs, and workplace training. The results are as follows:

1. Regarding the training of health professionals, 1,300 students matriculate at Taiwanese medical schools

each year; as for other categories of healthcare practitioners (training programs must be approved by the Ministry of Education). Taiwan's planning of the physician workforce will focus on a balanced distribution of resources, and a periodic evaluation of its effectiveness.

2. According to Taiwan's "Diplomate Specialization and Examination Regulations," there are 23 medical specialties. Through the end of 2019, 53,940 people received their medical licenses in Taiwan.
3. The revised "Dentist Specialization and Examination Regulations" was promulgated on October 5 2018 and the revision added 7 new specializations to the original 3 for dentists, to a total of 10 specializations. As of the end of 2019, there are 1,215 certified dentists (704 orthodontists, 431 oral and maxillofacial surgeons, and 80 oral pathologists).
4. Post-graduate general medical training is offered to strengthen holistic care. In 2019, Taiwan approved 35 teaching hospitals and 110 collaborating hospitals to provide postgraduate year (PGY) training programs. 912 medical graduates received training under this scheme.
5. A system of postgraduate clinical training for dentists has been put in place to ensure quality oral health care. As of 2019, Taiwan certified 507 institutions (90 hospitals and 417 clinics) offer this training. 848 dentists received training under this project.
6. Taiwan has been providing nurse practitioner training since 2006 to enhance the quality of nursing. The number of applicants and recipients of the certification for nurse practitioners as of 2019 are shown in Table 4-5.

Table 4-5 **Number of applicants and recipients of the certification between 2006-2019**

Source: Department of Nursing and Health Care, MOHW, R.O.C.(Taiwan)

Group	Specialization	No. of people
Internal medicine	General medicine	4,257
	Pediatrics	188
	Psychiatrics	224
Surgery	General surgery	4,038
	Obstetrics and gynecology	145
Total		8,852

7. To ensure that newly minted health practitioners can receive superior clinical training, in 2007 the MOHW launched the "Clinical Practitioner Training Program." As of 2019, 1,187 individual training programs at 146 participating hospitals trained 26,896 health workers; 88.76% of medical workers received this training within four years of gaining a license.
8. To create an effective clinical training system for doctors of traditional Chinese medicine, the MOHW has launched the program for the Training of Responsible Physicians in Chinese Medical Care Institutions. In 2019, this scheme assisted 95 training hospitals in providing a two-year physician training to 530 new Chinese medicine physicians. The Ministry also established the "Chinese Medicine Specialist Physician Training Guidelines" in 2017 to provide a framework of training for Chinese internal medicine and acupuncturists. In 2019, the Ministry assisted 11 qualified teaching hospitals by accepting 26 trainees in a trial program while helping 7 teaching hospitals to develop objective structured clinical examination in traditional Chinese medicine doctors for competence and prepare for the oral exams of specialist physician training of Chinese medicine in the future.

Section 3 Creating Employ-Friendly Work Environments

1. In an effort to safeguard physicians' rights and patient safety, effective from September 1 2019, resident physicians hired by the medical, healthcare and care-giving industries shall be applicable to the Labor Standards Act. Due to considerations such as the degree of autonomy, diversity of work and responsibilities and complicated definition of work hours, the responsibility of promoting specific amendments to the Medical Care Act has been entrusted to MOHW to see that special clauses on the labor rights of physicians are added to the Act

by incorporating aspects such as physicians' work contract, compensations for occupational illnesses/ hazards and retirement benefits into the clauses.

2. To reduce malpractice risks and foster harmonious doctor-patient relationships, the MOHW has been implementing childbirth accident emergency relief while strengthening "Medical dispute resolution mechanism" their results are outlined below.

   (1) Starting from the date of implementation (June 30 2016) for Childbirth Accident Emergency Relief Act and up to December 31 2019, 922 claims were received. In 2019, a total of 12 review meetings were held to review a total of 317 applications, with 291 applications deemed to be eligible for relief. A total of NTD 162.2 million in relief funding has been paid.

   (2) Articles 7 and 9 of "Regulations Governing Childbirth Accident Relief" have been amended to increase the caps of relief for maternal mortality, profound, severe and moderate cases of maternal/ newborn disability to NT$ 4 million, 3 million, 2 million and 1.5 million respectively, effective from October 4 2019 onward.

   (3) Actively promoting alternative dispute resolution mechanisms:

      A. The MOHW has counseled professional institutions and healthcare facilities in managing care services. Various service models have been established to expand coverage across the country. Sixteen professional institutions from 9 counties and cities have participated.

      B. The MOHW held a total of 12 sessions of training for care, mediation, assessment and consultation for 478 participants. Not only that, the Ministry also constructed a talent pool for specialists in the handling of medical disputes, including 107 care personnel, 259 mediators and 379 crictics/ consultants for medicine related affairs.

      C. The Ministry has setup a consultation hotline for medical dispute care services and is in the process of planning for the creation of a "Medical Dispute Handling Resource Pool" consultation platform to provide relevant inquiry services.

      D. Implemented the "Diverse Bilateral Medical Dispute Handling Trial Program" to establish a two-pronged approach (medical and legal) of mediation. In 2019, 21 municipalities took part in the program, with 560 cases of application, 38.9% of these cases were resolved through mediation.

      E. Improved medical dispute assessment quality and efficacy. In 2019, the Ministry accepted a total of 373 cases from judicial/prosecutors' office for assessment and reviewed 337 cases (including previous cases that have yet to be closed). On average, each case took approximately 5.6 months to process and compared to the previous average of 6 months per case in 2018, the figure reflected an improvement in efficacy by 6.7%. Not only that, the Ministry also trained 223 medical assessment personnel (cumulative total at 1,580).

3. In an effort to improve the workplace environment of nursing personnel, the Department of Nursing and Health Care has been actively promoting relevant reforms starting in 2012, with the purpose of facilitate the retention as well as encouraging nurses who left the professional field to return. The following outcomes have been achieved in 2019:

   (1) Increasing the number of nurses and reducing their turnover/vacancy rates:

   At of the end of 2019, 175,029 registered nurses worked in Taiwan, an increase of over 38,000 compared to before nursing reforms were enacted. The turnover rate fell from 13.14% in 2012 to 10.04% in 2018. The total vacancy rate fell from 7.2% in 2012 to 4.48% in 2018.

   (2) Reducing Workloads and Improving Nurse-Patient Ratios and Work Conditions

      A. In 2015, nurse-patient ratios were officially added to the criteria for hospital evaluations. The standard for evaluation is the "average nurse-patient ratio" for emergency and general beds in hospitals; the ratio for medical centers is ≦ 9, including ≦ 7 for daytime nurses; the ratio for regional hospitals is ≦ 12; the ratio for local hospitals is ≦ 15. Between 2016 and 2019, a total of 438 hospitals applied for evaluation and 437 hospitals have passed the evaluation.

      B. Tie-in of nurse-patient ratio to hospitalization insurance bonus: starting from 2018 onward, the bonus bracket has been expanded once more to 2-20% as a way to encourage hospitals to achieve the necessary threshold for nursepatient ratio.

      C. Promotion of the legislation of nurse-patient ratio: Amendments to the nurse-patient ratio were published on February 1st, 2019 in the "Establishment Standards for Medical Institutions" (Medical centers ≦ 1:9, regional hospitals ≦ 1:12 and local hospitals ≦ 1:15). The amendments became effective on May 1st of the same year.

      D. The "Nursing Workplace Dispute Reporting Platform" was launched on February 1st, 2018 as a channel for nursing personnel to report disputes in the workplace. By the end of 2019, a total of 438 reports were made. Among the reports, 327 (75%) were related to the Labor Standards Act, and the remaining 111 (25%) were made due to other disputes (i.e. reporting personnel without a valid permit, violation of "Establishment Standards for Medical Institutions" and so forth). The Ministry had reached out to local health and labor organizations to investigate the incidents as reported and violations were penalized accordingly (approximately 15% of the cases were penalized). In addition, additional platform features

were launched for users to inquire about case progress and outcomes, as well as overtime pay calculation and complete analytical data for all cases across Taiwan. It is the Ministry's wish to create a positive working environment for nursing personnel through information transparency and adequate supervision of their working environments.

(3) Raising Salaries and Benefits

Ministry of Labor surveys have shown that nurse salaries rose by approximately 19.3% since 2011.

Chapter 4 Health Care Quality

Section 1 Patient Safety and Quality of Medical Care

The MOHW has aimed to improve the quality of patient-centered services and establish a hospital evaluation/accreditation system, annual objectives for healthcare quality and patient safety, and a patient safety reporting system. Significant achievements in 2019 are as follows:

1. The MOHW drew up the "2018-2019 Taiwan Patient Safety Goals for Hospitals and Clinics" (Table 4-6).
2. The Taiwan Patient Safety Reporting System (TPR) has been used to effect a patient safety culture. In 2019, 12,642 healthcare organizations participated in the TPR, and preliminary statistics indicate that around 81,951 cases were reported.
3. The Shared Medical Decision Making Platform was established and as of the end of 2019, 62 decision support tools (including decision support tables, videos and other materials) were uploaded to the platform to be used by medical personnel. A total of 273 hospitals participated in the promotion f shared medical decision making.
4. The Hospital Accreditation Standards include regulations about a safe hospital environment, safe equipment, patient orientation services, healthcare quality, drug safety, anesthesia and operations, and infection control. These measures are hopefully tantamount to creating a safe hospital environment.

Table 4-6 **2018-2019 Taiwan Patient Safety Goals for Hospitals and Clinics**

Source: Taiwan Patient Safety Net, Department of Medical Affairs, MOHW, R.O.C.(Taiwan)

No.	Taiwan Patient Safety Goals for Hospitals
1	Improving effective communication among healthcare workers
2	Implementing adverse event management
3	Improving surgical safety
4	Falls prevention and reducing patient harm resulting from falls
5	Improving medication safety
6	Implementing infection control
7	Enhancing the safety of medical catheters/ tubing use
8	Encouraging patients and families engagement in healthcare safety
No.	**Taiwan Patient Safety Goals for Clinics**
1	Improving effective communication
2	Improving medication safety
3	Improving surgical safety
4	Falls prevention
5	Implementing infection control

Section 2 Reforming the Hospital Accreditation System

The MOHW is reforming the hospital accreditation system with patient safety and quality of medical care as its core concerns. Taiwan intend to foster tangible reform, reduce the undue pressure that the accreditation process puts on hospitals, simplify/clarify the Hospital Accreditation Standards, and ensure that Taiwan keeps pace with current international standards in hospital accreditation.

1. As of 2019, accreditation had been granted 425 hospitals and 134 teaching hospitals (Tables 4-7 and 4-8).
2. The Ministry has been promoting the reform of existing hospital accreditation system in order to facilitate hospital quality monitoring and routine management. Critical issues of current affairs and aspects on creating a friendly environment for patients to receive medical care have been included in the articles, which have been increased from 122 to 125. In addition, the accreditation process is now performed electronically (hospital administrators can now apply/declare online) with continual monitoring of relevant indicators. This is also a way for the Ministry to respond to the growing concern from the general public on medical personnel's labor rights in recent years, this also serves as the Ministry's response to the growing concern from the general public on medical personnel's labor rights and relevant supervision.
3. The Ministry has continued to conduct joint on-site survey of supervision for health and medical care operations. This includes the accreditation certification survey for agencies under MOHW and its affiliated organizations. In principle, only one accreditation/ visit will be made to each hospital in a given year with the goal of integrating relevant items, simplifying articles and combining itineraries to simplify relevant assessments, appraisals, visits and certifications.

Table 4-7 **2016-2019 Hospital Accreditation Results**

Source: Taiwan Patient Safety Net, Department of Medical Affairs, MOHW, R.O.C.(Taiwan)

Accreditation Results	Hospital Accreditation – Qualified			
	Medical Centers	Regional Hospitals – Would-be Academic Medical Centers	Regional Hospitals	District Hospitals
Nubre. of Institutions	19	3	76	327

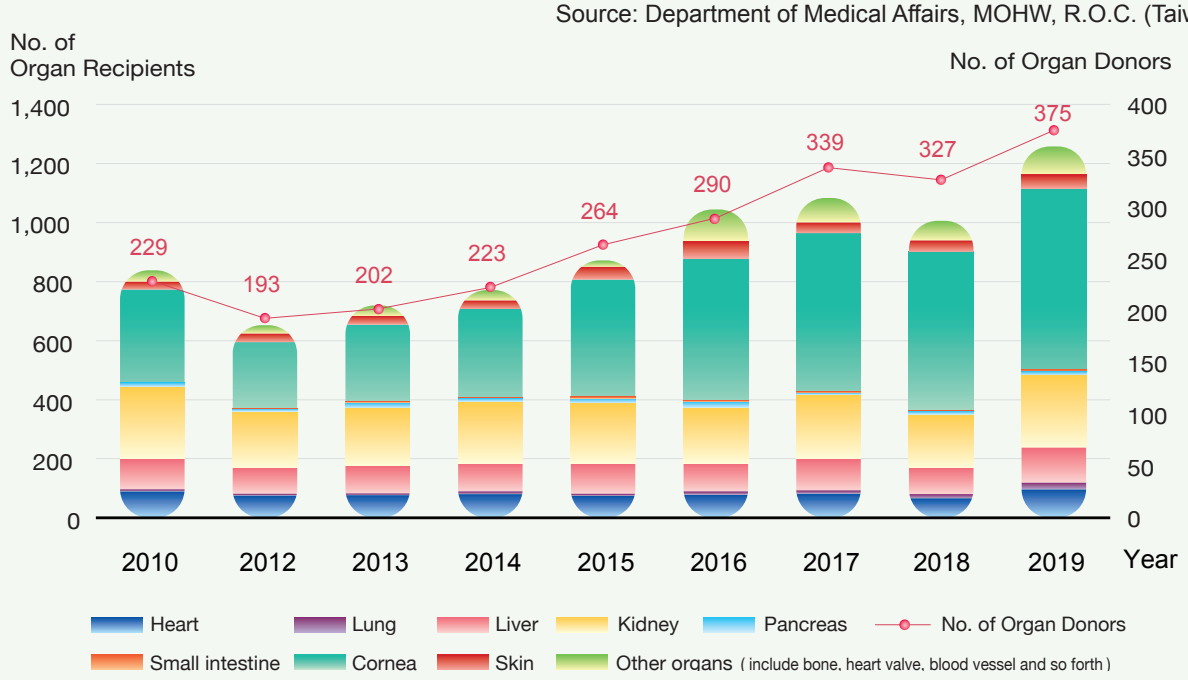
Table 4-8 **2016-2019 Hospital Accreditation Results**

Source: Taiwan Patient Safety Net, Department of Medical Affairs, MOHW, R.O.C.(Taiwan)

Accreditation Results	Physicians and Medical Personnel Teaching Hospitals Accredited	Medical Personnel (Non-Physicians) Teaching Hospitals Accredited
Nubre. of Institutions	113	20

Figure 4-4 **Organ Transplant Donors and Recipients in Taiwan, 2011-2019**

Source: Department of Medical Affairs, MOHW, R.O.C. (Taiwan)



Section 3 Organ Donations and Transplantations

The world is facing a shortage of available organs for transplantation. As of the end of 2019, over 10,000 patients in Taiwan awaited organ transplantation; however, only about 1,000 patients annually are able to receive an organ transplant (Figure 4-5). The Ministry has continued to promote the measure to encourage people to sign the consent for organ donation. A total of 43,684 organ donation consents were obtained till the end of 2019, bringing the cumulative total to 453,097 entries over the past years.

To encourage organ donation, in 2002 the MOHW established the Taiwan Organ Registry and Sharing Center. This measure such has given Taiwan the second highest organ donation rate in Asia, and post-transplant survival rates comparable with those of developed countries — a testament to the quality of Taiwan's healthcare system. In 2017, the MOHW published the “Regulations for Implementing Approval and Administration of Human Organ Transplantation” as well as the “Regulations for Organization and Operational Management of the Ethics Review Board for Human Organ Transplantation,” to improve the quality of organ donations and transplantations. Furthermore, the Ministry also published the “Guidelines for Donation of Organs after Cardiac Death” Additionally, in 2019 Taiwan enacted the "Guidelines on the Evaluation and Management of Candidates for Kidney Transplantation" to establish multiple channels for organ donation, and to thus increase the likelihood of success.

Section 4 Promoting Electronic Medical Records (EMR) Adoption

In 2019, the Ministry continued to maintain the operation of Electronic Medical Record Exchange Center (EEC) to enable inter-hospital EMR exchanges. 404 hospitals across Taiwan are connected to the EEC and a total of 208,699,154 EMR indexes were uploaded with 1,825,443 exchanges requested through the EEC.

At the same time, the MOHW has pushed for automatic connection of the EEC to existing administrative systems at agencies such as the Bureau of Labor Insurance (Ministry of Labor), MOHW’s Centers for Disease Control, National Aeromedical Approval Center and MOHW’s Department of Mental and Oral Health for automatic data transferring for drug and alcoholic additions and thereby boosting the efficacy of relevant affairs.

In 2019, the Ministry shall work on improving the standards governing the exchange of electronic medical records. The standards for inspection reports, record of initial assessment for addiction treatment, record of addiction treatment follow-up assessment, records of alcohol use disorder identification test, refillable prescriptions for patients with chronic illnesses and emergency medical record summary, totally six standards have established and should be adopted by hospitals and relevant institutions.

Chapter 5 Healthcare in Remote Regions

Section 1 Localized Care and Telemedicine

To safeguard the health of people living on outlying islands and remote regions, in light of the dawn of the Internet era, the advancement of technological products and the needs of an aging society, the need to establish comprehensive guidelines on the way physicians perform diagnosis and consultation via different telecommunication formats has emerged indeed. And as such, pursuant to Paragraph 2, Article 11 of the Physicians Act, the Ministry has established the Rules of Medical Diagnosis and Treatment by Telecommunications and announced it on May 11 2018. Relevant measures include:

1. The MOHW Penghu Hospital’ s Cardiovascular Care Center has been officially operating since December 4 2013. By December 2019, the Center had provided treatment to 858 people. The Center helps to improve the quality of treatment for patients with cardiovascular diseases and tailor care to local needs.
2. The MOHW Penghu Hospital’s Chemotherapy Center was established in October 2015. By December 2019, the Center had completed treatment of 2,629 people to provide convenient, timely and appropriate treatment and care for cancer patients, relieve Penghu residents from the necessity to travel to Taiwan and increase localization and accessibility of medical care.
3. The MOHW Kinmen Hospital’s Cardiovascular Care Center was established in October 2015 and by December 2019, the Center had provided treatment to 515 people. The Center has improved local emergency care capacities and reduced the frequency of emergency evacuation by the means of air transport. The Center offers first-line treatment for acute myocardial infarction and acute coronary syndrome, providing Kinmen residents with safe comprehensive medical care.
4. The “Telemedicine Video-conferencing and Consultation Project” implemented by the Ministry subsidized four health stations in Taitung, Kinmen, Lianjiang and Penghu to provide consultation by telemedicine. This makes the provision of health consultation and referral suggestions available for local residents and in turn improves the accessibility of medical services. (Department of Nursing and Health Care).
5. In an effort to promote telemedicine treatment so as to effectively provide non-urgent but much needed outpatient services in remote areas, Chenggong Branch of Taitung Hospital has utilized cutting-edge ICT technologies to construct its “Telemedicine Outpatient System” by collaborating with Kaohsiung Chang Gung Memorial Hospital to engage specialist physicians to provide diagnosis and treatment. Hopefully this system will enable remote areas to benefit from diagnosis and treatment resources at medical center level so that

relevant resources are put to optimal use. The branch has arranged for fixed telemedicine outpatient services by beginning with dermatology, otorhinolaryngology and ophthalmology; outpatient services for other pecialization will be offered in the future. This will enable us to achieve local medical services whereby patients can stay put to save the residents from the hassle of traveling back and forth.

6. In order to effectively integrate human resources for specialist physicians and close the gap between urban and rural healthcare development, the Ministry has funded relevant Smart Healthcare Projects developed by Yunlin Branch of National Taiwan University Hospital and collaborated with Dou -Liou Branch of National Cheng Kung University Hospital to launch the Regional Twin-Star Joint Defense Initiative". This endeavor will involve combined shift schedule for specialist physicians from the Plastic Surgery department and Neurosurgery department of two hospitals, thereby facilitating the sharing of medical resource in the form of specialist physicians acting as part-time attending doctors offering remote support. Not only that the two participating hospitals would employ solutions such as VPN connection, teleconferencing or in-person diagnosis and so forth to provide clinical diagnosis or contingent medical consultation for emergencies or urgent situations. In 2019, a total of 66 cases participated in the initiative and received their diagnosis/ consultation in this arrangement and duly followed up through outpatient services after appropriate treatments were prescribed. On average, 3-10 patients would take part in the initiative each month and 44% would have their diagnosis performed in person while 56% received theirs via telemedicine. The utilization rate at Dou-Liu Branch came to 86% while the remaining 14% was attributed to the Yunlin Branch. All patients had received outpatient services after appropriate treatment were prescribed. The ratio of the diagnoses and consultations between neurosurgery and plastic surgery came to 50%-50%.
7. In an effort to construct a network of smart medicine and healthcare at aboriginal communities and offshore islands, the Ministry has constructed the Health Information System (HIS) at 73 health stations at aboriginal communities and offshore islands. In 2019, the total number of HIS outpatient services offered came to 1,062,040. Not only that, the Picture Archiving and Communication System (PACS) has also been constructed at 37 health stations so that the image files can be sent to Taoyuan Hospital for image reading to improve the efficacy and quality of medical services. In 2019, a total of 16,413 images were sent through PACS for reading.
8. Through the "Forward-Looking Infrastructure Project", the Ministry was able to increase the speed of broadband connection for all 403 health stations (rooms) at aboriginal communities and offshore islands along with mobile healthcare stations to reach 100M (or the highest possible speed available at the location). In addition, medical IT equipment at 64 health stations have been upgraded to improve the medical resources and image transfer quality and speed. As of the end of 2019, the initiative was completed in full and by leveraging broadband connection, we were able to speed up existing telemedicine for ophthalmology,otorhinolaryngology, and dermatology to boost the accessibility of medical help and enhance service capacity for local healthcare capacities.
9. In an effort to improve the accessibility of services and meet various medical needs of people living in remote regions and regions with insufficient medical resources, the Plan for Strengthening Efficacy of Hospitals in Remote Regions and Regions with Insufficient Medical Resources was implemented since 2016. In 2019, the Ministry subsidized Fengbin Branch of Hua-Lien Hospital, Chenggong Branch of Taitung Hospital and Hengchun Tourism Hospital to hire more specialist physicians to offer relevant medical care services.
10. The Medical Human Resource Replenishment Plan for Remote Regions and Outlying Islands has been implemented in order to achieve the mission of public health service and fulfil the responsibility before remote regions and vulnerable groups by improving the efficacy of medical services in remote regions and ensuring provision of appropriate services. Drawing from the actual demand for specialists, physicians and other medical personnel have been asked to provide diagnosis and treatment services. In 2019, the 2,472 outpatient services were provided for 59,223 patients; 900 hours of emergency response services performed), provided for 1,197 patients.
11. Implemented the Improvement Plan for Areas with Insufficient Resources to establish three improvement models, namely, Nighttime and Holiday First-Aid Stations, Emergency Care Stations in Touristic Areas, and Improving Emergency Care Efficacy in Areas with Insufficient Emergency Care Resources to ensure that emergency care services are available around the clock.
12. Implementing the Plan for the Training of Medical Personnel for Aboriginal Communities and Offshore Islands

    Starting from 1969, the MOHW has been actively training aboriginal health workers and offshore island health workers in accordance with the "Plan for the Training of Medical Personnel for Aboriginal Communities and Offshore island" as our way of expanding the talent pool and service capacity:

    (1) As of the end of 2019, 1,106 health workers (including 593 doctors, 107 dentists, 272 nursing personnel and 134 other medical personnel) received training under this program. Approximately

70% of these personnel have chosen to remain in the aboriginal communities and offshore islands to serve upon the completion of their training.

(2) Expand the cultivation of local health workers: the Ministry has adhered to "Revision of Aboriginal Community and Offshore Island Health Worker Cultivation Project - Stage IV (2017-2021)" by increasing the number of local health worker trainees by 356, bringing the total to 580.

(3) Promote cultivation through vocational schools: for disciplines such as general medicine, dentistry and nursing, the Ministry will gradually promote a system for cultivation through vocational schools to mitigate potential cultural shock and increase graduation and certification rate.

(4) In accordance with the "Elite Nurses Program for Remote/Rural Regions", the Ministry has trained a total of 195 publicly funded nursing students between 2015 and 2018. 30 of these students have been assigned to serve at hospitals in various rural areas in 2019.

13. In order to strengthen local medical services in rural areas and encourage health workers to establish health institutions in aboriginal communities and offshore islands, the Ministry has been offering subsidies (no more than 500,000 NTD per recipient) to such institutions. In 2019, the Ministry has subsidized 5 newly established health institutions.

14. In an effort to improve the equipment and resources available at aboriginal communities and offshore island health stations(rooms), the Ministry has subsidized the replacement of 75 medical equipment and 4 medical transports in 2019. In addition, funding has also been provided for the (re)construction of 2 health stations(rooms), renovation of 1 health station and 4 health stations were involved in projects that span across the year.

Section 2 Emergency Medical Evacuations

Taiwan desires to ensure that residents of outlying islands requiring emergency medical treatment can receive proper care. As such, the MOHW has followed the principles of "doctors move, patients stay put" and "seamless medical care." The agency has strengthened the provision of medical care to underserved regions with support from aeromedical services whenever necessary. Implementations are summarized as follows:

1. The Ministry has established the "Aeromedical Evacuation Review Mechanism" and enlisted qualified physicians to provide emergency medical consultations on an around-the-cloud basis to evaluate the necessity of providing aeromedical evacuation. Prior to the establishment of the mechanism, the average number of aeromedical service provision per month was 43.18. With the mechanism in place, the number fell significantly to 25.92 per month in 2019, representing a decline of 39.97%.

2. The Ministry implemented the "Kinmen, Lianjiang and Penghu Offshore Island Aircraft on Local Standby Program" and outsourced the deployment of 1 private aircraft on each of the three offshore islands for standby services. In light of the prerequisites that must be observed to operate relevant medical instrument onboard an aircraft, the local aircraft company has been asked to verify the medical equipment to ensure their suitability for onboard operation.

3. In an effort to enhance medical personnel's competence in aeromedical evacuation, the local airlines and governments have organized aeromedical evacuation trainings, together with simulations and drills held onboard the aircrafts. In 2019, a total of 10 sessions of training were held in Pingtung, Penghu, Kinmen and Lianjiang.

4. The Ministry completed the construction of the "Aeromedical Evacuation Distance Consultation Platform" at 105 locations in aboriginal communities and offshore islands in August 2019. The platform became fully operational later on October 6 of the same year, functioning as a channel for different parties to provide relevant medical information to the Aeromedical Approval Center for assessments such as destination hospital, offshore-island physician decision-making for diagnosis and treatment, necessity for an aeromedical evacuation and so forth to alleviate the stress on frontline physicians by lowering the risks of unnecessary evacuations.

5. In an effort to lighten the financial burden on the general public seeking medical assistance, the Ministry has been subsidizing a portion of the transportation expenses (by plane or boat) for patients with serious injuries/illnesses on offshore islands having to make the trip on their own. In 2019, a total of 17.44 million NTD has been paid in subsidy for 25,720 patients.

Section 3 Training and Retaining Staffs

The objective of training government-supported physicians is to replenish grassroot personnel and human resources in remote regions. Anticipating a growth in demand for physicians in the future, the Ministry has restarted the Plan for Training of Government-Supported Physicians in Key Subjects. The plan involves the training of 500 government-supported physicians between 2016-2020 (approximately 100 physicians per year). The training has been restricted to key specializations and upon completing the training in full, these government-supported physicians are required to serve at hospitals on offshore islands, remote areas or rudimentary health stations. In conjunction with the support programs for medical centers to assist hospitals in remote regions, government-supported physicians may also choose to fulfill their obligations in different stages in order to retain their opportunities at returning to specific medical center for further education so that they can maintain their

competence for the purpose of career planning. On top of that, the Ministry also offers incentives to encourage government-supported physicians to extend their services in remote areas in the form of salary adjustment or additional benefits in order to retain their services at hospitals or health stations in remote regions.

Chapter 6 Healthcare for Specially Targeted Groups

Section 1 Healthcare for Indigenous People

According to the Council of Indigenous People, as of December 2019, there were 571,816 indigenous people in Taiwan, accounting for 2.4% of its total population. According to relevant statistics from the Ministry of Interior, the average life expectancy for indigenous people in 2018 came to 72.57 years, which was 8.12 years shorter compared to that for the entire population.The Ministry has endeavored to improve the accessibility of health and medical care for people in aboriginal communities with the following promotional strategies:

1. Implementing the Plan for the Incubating and Educating of Medical Personnel for Aboriginal Communities and Offshore Islands

Since 1969, the Ministry has incubated and educated local health workers through the "Plan for the Incubating and Educating of Medical Personnel for Aboriginal Communities and Offshore Islands". As of 2019, a total of 591 indigenous people (291 physicians and 300 other medical personnel) have received relevant medical training. Approximately 70% of these indigenous medical personnel have fulfilled their service obligations and chose to stay in their location of assignment to continue their services.

2. Increasing Investments into Medical Equipment and Improving Service Quality in Indigenous Communities

(1) In 2019, the Ministry has subsidized the replacement of 75 medical equipment, the replacement of 4 medical transports and the (re)construction of 2 health stations (rooms) and renovation of 1 health stations. 4 health stations were involved in projects that span across the year.

(2) Through the "Forward-Looking Digital Infrastructure Project", the Ministry was able to increase the speed of broadband connection for all health stations (rooms) at aboriginal communities and mobile healthcare stations to reach 100M (or the highest possible speed available at the location). By the end of 2019, broadband connection speed upgrade were completed for 317 locations, with HIS/PACS equipment upgrades performed at 45 health stations to improve the quality and efficacy of medical image transfer.

(3) The Ministry subsidized transportation fees for indigenous people involved in referrals, major or urgent illnesses / diseases so that they can receive medical assistance or access relevant welfare resources. In 2019, a total of 13.85 million was paid in subsidy for a total of 16,592 members of the indigenous population. Starting from November 2019, the Ministry also offered transportation fee subsidies for pregnant women in aboriginal regions having their pregnancy test/their infant delivered to increase the utilization rate for pregnancy tests and protect the health of mothers and newborns.

(4) The Ministry has established 53 Tribal Health Promotion Centers at various aboriginal communities so as to integrate local resources to bring health literacy into the communities by offering family healthcare while establishing an interface that identifies potential volunteers so as to facilitate a model of satisfying the supplies and demands of local health service for local people.

3. Facilitating Health Equality for Indigenous Communities

(1) For 2019, the Ministry continued to promote the next portion of the 10 Action Plan to Eradicate Health Disparity for Aboriginal Communities (2018-2020), with contents including the cultivation of local health workers, promotion of tribal health, improvement in medical resources in aboriginal communities, health management for women in high-risk pregnancy,responsible use of smoking/alcohol/betel quids, accident and injury prevention in aboriginal communities, digestive tract cancer prevention in aboriginal communities, active discovery of TB in mountainous aboriginal communities and holistic care solutions and so forth.The strategic objective is to establish an integrated system and implement relevant trials for on relevant local health issues to facilitate better health for the tribes, families and individual members and thereby facilitating health equality.

(2) The three key strategies for the 10 Action Plan are as follows:

A. Identifying targets through data – examining the 10 leading causes of death and 10 leading cancers for indigenous people, the Ministry found that liver / stomach/cancers of the digestive system and newborn/infant mortality rates were both higher than the national average.

B. Searching for talents locally - to cultivate and train health workers who are native speakers of the mother tongue to provide the healthcare and medical services.

C. Looking for solutions through culture – to incorporate and encourage positive and healthy changes in behavior by introducing elements of local cultural implications and promote horizontal integration of local resources.

Section 2 Healthcare for New Immigrants

According to the National Immigration Agency of the Ministry of the Interior, the number of foreign and Chinese spouses in Taiwan from 1987-2019 amounted to 557,450. In 2019, 269,048 people registered for marriage. In terms of their nationality, 247,832 were Taiwanese, 21,216 were foreigners (5,948 men and 15,268 women). MOHW has promoted the following policies to improve the reproductive health of new immigrants and reduce life and treatment difficulties caused by language barriers:

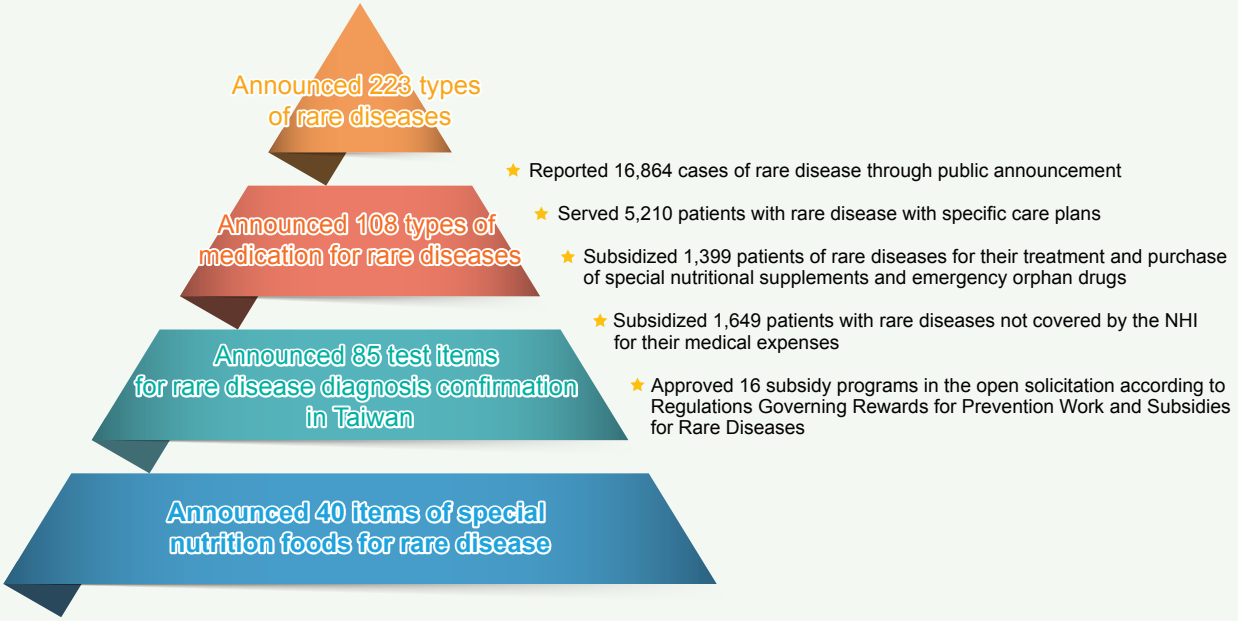
1. Recent immigrants in Taiwan, who have not yet joined the NHI system, receive subsidies for 10 prenatal examinations, one Group B streptococcus screening, one ultrasound screening, and two prenatal health education guidance. New immigrants and their children are provided with health management cards, which offer services and health guidance in the areas of family planning, breastfeeding, pregnancy healthcare, prenatal appointments on time, and prenatal nutrition. In 2019, the utilization rate for the health management card was 99.76%.
2. To protect the reproductive health of new immigrants who have not yet joined the NHI system, subsidies for prenatal examinations have been provided to foreign spouses of Taiwanese citizens, since 2011. In 2019, a total of 9,992 cases have been subsidized.
3. To reduce new immigrants' treatment difficulties caused by the language barrier, local health bureaus can apply for the "Interpreter Training Program among New Residents" with the Ministry of the Interior's "New Resident Development Fund" since 2011. Local health bureaus have promoted training of interpreters among new immigrants who have lived in Taiwan for many years, so that they can assist the departments' personnel in visiting new immigrants and providing them with outpatient service and prenatal health guidance. In 2019, 16 counties and cities applied for the program.
4. To provide multicultural and reproductive health information more effectively, the MOHW has commissioned the publication of the "Children's Health Booklet" and "Maternal Health Booklet" in five languages: English, Vietnamese, Indonesian, Khmer, and Thai. These booklets are distributed to various local health bureau, local health centers and medical institutions, and their electronic version has been made available on Health Promotion Administration website for use by the new immigrant family.

Section 3 Healthcare for Rare Disease Patients

In order to encourage early diagnosis and treatment of rare diseases and assist patients in obtaining orphan drugs and special nutritional foods essential 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 the rights and interests of rare disease patients. Since then, the Act has been amended three times. As of the end of 2019, a total of 16,864 rare diseases cases had been reported.

The MOHW has constructed a comprehensive medical service network for rare diseases, thus helping patients to secure the care and subsidies they need. The outcomes achieved for rare disease services for 2019 is shown in Figure 4-6.

Figure 4-5 **Outcome of rare disease care in 2019**



Section 4 Groups with Special Health Needs

1. Healthcare for Patients Affected by Polychlorinated Biphenyl (PCB) Poisoning (Yu Cheng)

(1) In a leak and subsequent PCB poisoning that took place in Taichung and Changhua in 1979, more than 2,000 residents in the area became victims of PCB poisoning. Early symptoms of PCB poisoning include acne and skin hyperpigmentation, and other problems such as damages to the liver, the immune system and nervous system may develop later. Starting from April 1979, the former Department of Health (under the then-Taiwan Provincial Government) registered Yu Cheng patients and provided blood test and healthcare services for them. In addition, various local health bureaus actively visited the patients, tracked their conditions of health, provided health education for them, and helped them on medical referrals. As the people responsible for the contamination liquidated their assets beforehand and later died while serving their prison sentence, the responsibility of caring for the victims fell onto the government and the general public.

(2) To safeguard the rights of patients affected by PCB contamination, the "Yu Cheng Patients Health Care Services Act" was promulgated on February 4th, 2015. Benefits include making both first-generation and second-generation Yu Cheng patients exempt from NHI copayments for outpatient (and emergency) services as well as providing first-generation Yu Cheng patients with exemption on inpatient copayments, free annual health checkups, and special clinics for PCB contamination. Victims who were born in 1980 or earlier were eligible for all the benefits mentioned above. Not only that, The MOHW also established health care promotional group for the victims and offered solatium payment for surviving family members of those victims. On November 16th, 2016, an amendment was made to revise Articles 4 and 12 in the above Act. After the amendment, the acquisition of the solatium payment has become easier. For those victims without any surviving lineal descendants, their surviving parents could apply for the solatium payment until August 9th, 2020.

(3) As of the end of 2019, there were a total of 1,883 registered Yu Cheng patients, including 1,244 first-generation patients and 639 second-generation patients. A total of 21,592 victims received subsidy for outpatient (and emergency) service copayments, 114 received subsidy for their hospitalization, and 672 received free health checkups. To date, 254 applications of solatium payments for surviving family members have been approved.

2. Human Rights Protection and Care for Hansen's Disease Patients

(1) The MOHW has been implementing the Directly Observed Treatment Short-Course (DOTS) program to provide high-quality care for Hansen's disease patients.

(2) As of 2019, five hospitals have been providing the diagnosis and treatment of Hansen's disease: National Taiwan University Hospital, MacKay Memorial Hospital, Taichung Veterans General Hospital, National Cheng Kung University Hospital and Lo-Sheng Sanitarium, thus offering greater convenience for patients seeking medical help.

3. Human Rights Protection and Care for HIV Patients

Taiwan imported Zidovudine (ZDV/AZT) drugs in 1988. In 1997, the country also offered highly active antiretroviral therapy (HAART) for free to patients. Highlights of the MOHW's efforts in 2019 are as follows:

(1) Human Rights Protection: following the promulgation of the "Regulations Governing the Protection of the Rights of HIV Patients" in 2007, a system was established for HIV patients to file complaints.

(2) Health and Care

A. In 2019, there were a total of 80 hospitals in Taiwan designated for the treatment of HIV/AIDS, along with 47 community pharmacies that provide relevant care services for those infected with AIDS. 92% of HIV patients received medication and 95% of HIV patients had an undetectable viral load.

B. Local health bureaus and centers have been tracking patients and urging them to seek regular treatment. Consultation and testing services are also provided to partners of HIV/ AIDS patients.

C. In order to strengthen health self-management among HIV/AIDS patients, in 2019 the MOHW implemented the Plan for the Improving of Service Quality in Hospitals Designated for the Treatment of HIV/AIDS. Relevant health education and consultation services are provided to the patients.

D. In 2019, placement was offered in 840 cases, and case management services were provided to 384 patients. Subsidies are provided to NGOs that assist with HIV patient care as halfway shelters by offering treatment arrangements, emergency accommodation, and case management services.

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5 Long-Term Care Services

Taiwan's population structure is affected by low birth rate and an increase in life expectancy, with the population aged 65 and over growing rapidly. As of the end of March 2018, Taiwan officially became an aged society and by 2025, the population aged 65 and over is expected to reach 20.1%, consequently making Taiwan a "super-aged" society. In light of this trend, there's greater urgency to establish a sound long-term care system, to develop human capital and institutional resources, and to ensure service quality. Consequently, the MOHW began its implementation of the National Ten-Year Long-Term Care Plan 2.0 (hereafter referred to as "Long-Term Care Plan 2.0) from January 2017 to promote an integrated community service network as a response to the long-term care needs of Taiwan's aging population.

Improving upon the contents of its predecessor, Long-Term Care Plan 2.0 has increased the number of care recipients and service items. The plan has been extended to prevent disability and delay its onset. Not only that, it has also integrated home hospice care and home-based medical care with the purpose of achieving the vision of "aging in place" to meet the growing demand for seniors' services. The plan therefore called for establishing a community-based care service system that would support diversified services in a family-based, home-based, community-based and residential cares that are closely knit in order to create a long-term care service system that is premium in quality, affordable in costs and easily available to all.

Chapter 1 The Long-Term Care Service System

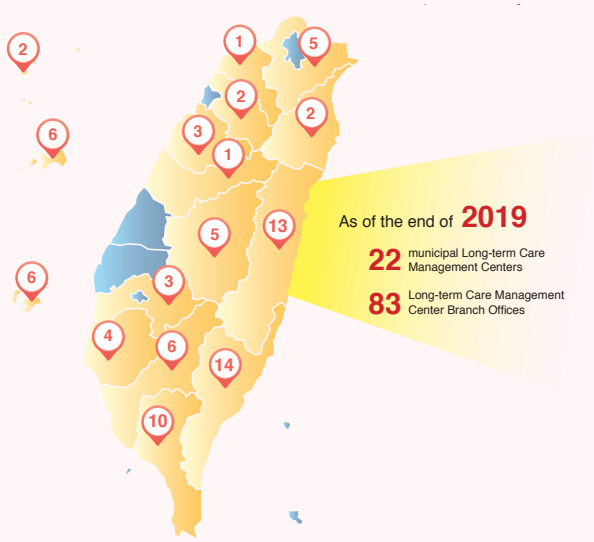
Section 1 The Long-Term Care Services Act

1. In order to create a sound foundation for our long-term care service system by ensuring care and supporting service quality as we develop accessible, diverse and affordable services while safeguarding the dignity and rights of both care givers and care receivers, the Long-Term Care Services Act has been legislated for promulgation on June 3, 2017. The act was last amended on June 19, 2019 and the amendment focused on key aspects including long-term care for indigenous people, strengthening the protection of rights for residents at long-term care facilities and assurance of long-term care service quality and efficacy of its assessment mechanism.
2. Regulations and statutes are authorized by the Long-Term Care Services Act: In order to implement and clarify the definitions of the Act, formulate the Enforcement Rules for Long-Term Care Services Act and the remaining 7 sub-statutes have been established, and formulate Institutional Long-Term Care Juridical Entities Act in accordance with the Long-Trem Care Services Act.On October 24, 2019, amendments in the "Enforcement Rules for Long-Term Care Services Act" included deleting the requirement that doctors' opinions must be supplemented by relevant medical records or diagnostic reports within three months, and their implementation date. To effectively allocate precious long-term care resources, the MOHW amended the "Regulations for the Establishment, Approval and Management for Long-Term Care Institutions" (hereinafter the Regulations) on December 31, 2019. A chief executive officer (without needing to involve the school itself) at a private institution above the level of secondary education may apply to establish home and community-based long-term care facilities. Additionally, to simplify the possible relocation, any long-term care facility that moves within the same jurisdiction without other significant changes, only needs to submit relevant documents about the planned relocation to its local authority.

Section 2 Care Management System

To facilitate the implementation of Long-Term Care 2.0, the Ministry has funded municipal governments towards the establishment of Long-Term Care Management Centers (hereafter referred to as (Care Management Centers) to recruit qualified care managers to provide an integrated "one-stop" contact window for applications, evaluations, care plans, and coordinating and delivering long-term care services. At the same time, subsidies are also given to local governments to set up long-tern care management center branch offices in rural areas announced by the Ministry (i.e. indigenous communities, offshore islands and other areas with inadequate resources). The status of distribution is shown in Figure 5-1.

Figure 5-1 Distribution of Long-term Care Management Center (Branch)



In order to improve the availability of care managers at Long-Term Care Management Centers, the MOHW is implementing the following measures:

1. Qualification of appointment for Long-term Care Management Center personnel: The Ministry has launched the new long-term care payments and benefits standards in January, 2018. And also adjusted the qualification requirements for appointment and wages in order to attract talents and raise the pay for care management personnel.

(1) Qualification requirements for appointment:

A. Care manager: In addition to the original qualification requirements (a) holder of degree in long-term care related universities or vocational schools with at least two years of experience in relevant work (b) holder of masters degree in public health, with at least a year of experience in relevant work (c) holder of specialist certificate with at least three years of experience in relevant work. New addition: candidates are required to have completed qualification training for senior social worker or elderly-care related departments with specific years of experience in relevant work in order to eligible for the position of care manager.

B. For rural areas, apart from the aforementioned qualification requirements, the duration of work experience required has been reduced by 1 year compared to normal areas; for administrative personnel, the requirements for appointment have been adjusted from undergraduate degree to senior high school diploma with two years of work experience compared to normal regions.

(2) Wage standard: the contracted salary for care managers and supervisors will be raise by 2 job grades.

A. Care manager: for care managers deployed in normal regions, their wage has been adjusted from 33,908 NTD - 45,534 NTD per month to 38,906 NTD - 50,878 NTD per month; for care managers in rural regions, their starting salary has been increased to 44,892 NTD. At the same time, in an effort to encourage existing care managers at Long-Term Care Management Center Branch Offices in rural regions to remain in their position, they will receive a starting salary of 46,887 NTD if they become care managers under the new system through transfer.

B. Care supervisor: for care supervisors deployed in normal regions, their wage has been adjusted from 39,721 NTD - 51,346 NTD per month to 44,892 NTD - 56,863 NTD per month; for care supervisors in rural regions, their starting salary has been increased to 50,878 NTD.

2. Care management personnel deployment

Care personnel allocation: As of the end of 2019, the approved total for care giver manpower was 1,249 (comprising 915 long-term care managers, 138 long-term care supervisors and 196 administrative assistants).

Through the establishment of Long-term Care Management Centers and Branch Offices and the replenishment and retention of care management personnel, the applications for long-term care services were 182,541 in 2019. Compared to the 136,058 applicants in 2018, the figure translates to a growth of 34.2%. In 2019, there were 284,208 personel who completed the assessment for long-term care, which is an 57.3% increased compared to the 180,660 personnel in 2018. The average processing duration between the submission of application by the people to the actual visit at the applicants home has been reduced to within two days on average.

Section 3 Service System and Resource Development

1. Constructing the integrated community care service networks

The MOHW has been working to develop a community-based integrated care service network based on the basic concept of cultivating community integrated service center (“A”), combined service center (“B”), and LTC stations around the blocks (“C”) throughout Taiwan. Individual county and city governments have been encouraged to work with long-term care service providers, medical institutions, nursing homes and community organizations to realize this vision. Citizens needing long-term care services should contact their local long-term care management center. The necessary long-term care services are evaluated and connected by care managers or community integrated service center. The Ministry plans to establish 469 integrated service centers, 829 combined service centers and 2,529 LTC stations around the blocks in four years (between 2017- 2020)(469A-829B-2,529C). As of the end of 2019, the progress thus far was (588A-4,631B-2,595C), with the following deployment in various municipalities as shown in Figure 5-2.

2. Development and Deployment of Service Resources:

(1) Improving Service Utilization of Long- Term Care: As shown in Table 5-1, the profile of long-term care service provided in 2019, (1) the purchase and rental of the assisting instruments and the improvement of household barrier-free environments showed the most significant growth at 151% compared to that of 2018. (2) Professional services took the number two spot on the list with an impressive at 72% growth compared to 2018. (3) Transportation services and (4) respite care also showed substantial growths compared to 2018 at 59% and 45% respectively.

(2) Hasten Resource Provisioning

A. Overall, transportation services and home care stood out with the most growth out of all items of resources at approximately 64% growth in 2019 compared to the previous year; family care services also grew in excess of 57% as shown in Table 5-2.

B. Number of Senior Citizens’ Social Welfare Organizations and Residents are shown in Table 5-3.

C. Number of Nursing Homes and Residents are shown in Table 5-4.

Figure 5-2 **Integrated community care service networks in counties and cities of Taiwan**

Source: Department of Long-Term Care

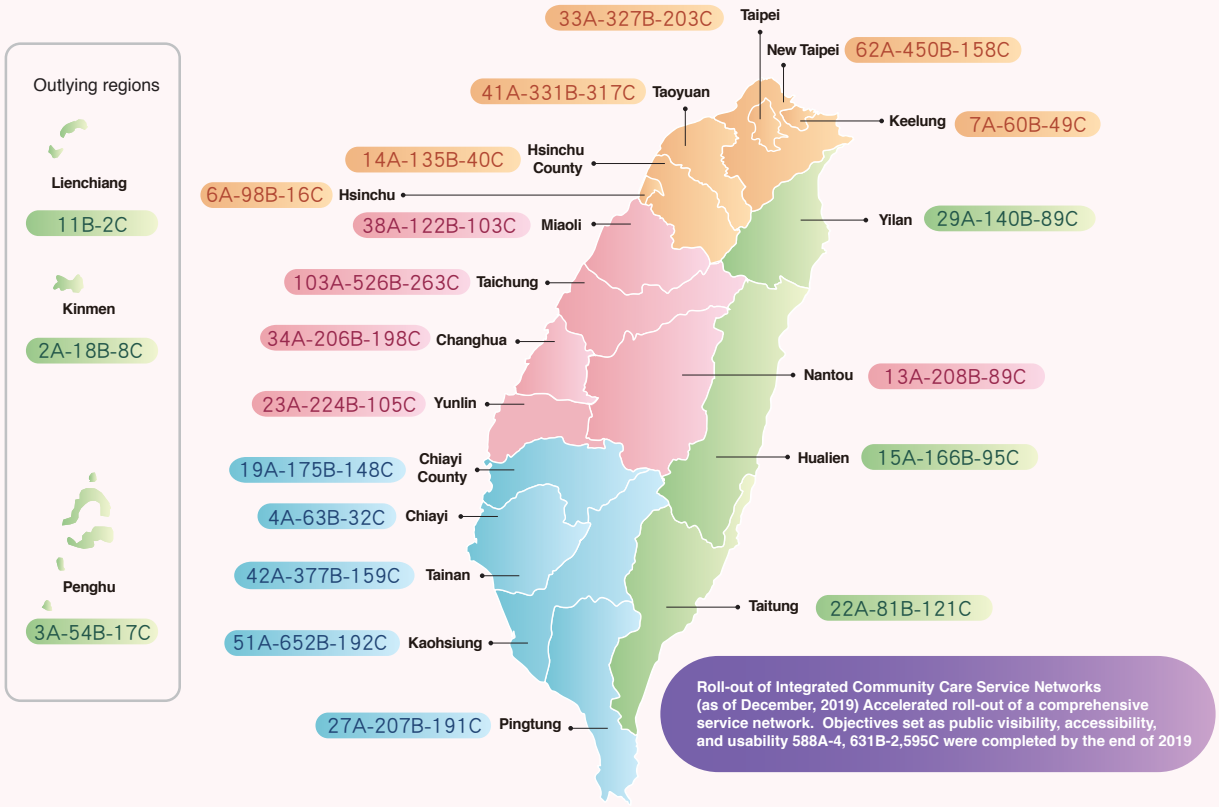


Table 5-1 **Number of Persons Receiving Long-Term Care Services from 2017 to 2019**

Source: Department of Long-Term Care

Item	2017	2018	2019
Home care	79,137	117,911	161,247
Day care (including day care centers for people with dementia)	7,029	11,622	15,528
Family care	390	681	966
The purchase and rental of the assisting instruments and the improvement of household barrier-free environments (number of times)	8,008	20,841	52,270
Nutritional food delivery services	9,090	16,843	13,152
Transportation services	10,351	66,440	105,538
Home nursing care	9,970	-	-
Home-based/ community-based rehabilitation	12,013		
Professional services	-	49,234	84,794
Respite care	21,270	49,053	71,286
Total number of people served (adjusted)	113,706	180,660	284,208

Note:
1. After 2017:
   (1) Apart from the statistics for purchase and rental of the assisting instruments and the improvement of household barrier-free environments reported by the municipal governments), the remaining number of people served have been obtained through the Care Management Information System at the end of the year using recipients' personal ID. number as carriers to adjust and exclude the repeated counts.
   (2) Total number of people served: The number does not include the number of people requiring assistance with nutritional food delivery services.

2. After 2018:
   (1) Home nursing care and home-based rehabilitation services are incorporated into Taiwan's National Health Insurance. According to LTC payments and benefits standards, the professional services are covered under Code C.
   (2) The number of people served for different services has been obtained through the Cre Management Information System at the end of the year using recipients' personal ID. number as carriers to adjust and exclude the repeated counts.

Table 5-2 Number of Institutions Providing Long-Term Care Services from 2017 to 2019

Source: Department of Long-Term Care

Date	2017		2018		2019	
Item	No. of Institutions Providing Long-Term Care Services	Service capacity (no. of people)	No. of Institutions Providing Long-Term Care Services	Service capacity (no. of people)	No. of Institutions Providing Long-Term Care Services	Service capacity (no. of people)
Home care	238	-	420	-	688	-
Day care (Including day care centers for people with dementia)	259	7,770	355	10,650	423	12,690
Family care	85	340	104	416	164	656
Nutritional food delivery services	249	-	265	-	288	-
Transportation services	48	-	112	-	184	-
Home nursing care	505	-	-	-	-	-
Home-based / communitybased rehabilitation	211	-	-	-	-	-
Professional services	-	-	1,255	-	1,681	-
Respite care	872	-	-	-	-	-

Note:
1. As different providers of home care, nutritional food and transportation services differ in their service capabilities due to factors such as geographical location, density of medical institutions and distribution of population, it is not possible to accurately estimate the service capacity for each unit.
2. The service capacity (number of person served) for daycare center is calculated based on the scale of 30 persons per center; the service capacity for family care is calculated based on the scale of 4 persons per location.
3. Due to the uncertain number of professionals employed in home nursing care, home-based / community-based service facilicies rehabilitation in 2017 and professional service facilities in 2018, it difficult to estimate the service capacity of each unit.
4. Respite service is a temporary care service provided to caregivers due to temporary inability to provide care or a need to alleviate the stress from offering service by having the respite service personnel to visit and provide short-term care. Alternatively, case managers from a unit may provide respite service at other location of home care, community-based service or institutional long-term care locations according to the service capabilities and as such, their service capacity cannot be accurately estimated.

Table 5-3 Number of Senior Citizens' Social Welfare Organizations and Residents from 2017 to 2019

Source: Department of Long-Term Care

Year	No. of institutions	Occupancy rate (%)					Actual number of resident (persons)	Occupancy rate (%)
		Long-term care beds	Nursing care beds	Beds for patients with dementia	Aged home beds	Total (Number of beds)		
2017	1,100	4,470	52,481	459	5,050	62,460	48,315	77.4%
2018	1,098	4,676	52,695	471	4,882	62,724	49,575	79.0%
2019	1,091	4,603	52,747	441	4,860	62,651	51,120	81.6%

Table 5-4 Number of Nursing Homes and Residents from 2017 to 2019

Source: Department of Long-Term Care

Year	Number ofnursing homes	Number of beds	Actual number of residents (persons)	Occupancy rate (%)
2017	528	41,316	34,698	84.0%
2018	539	43,241	36,365	84.1%
2019	554	45,881	39,028	85.1%

3. Construction of long-term service related information system

(1) Care service management information system

Starting from April 2017, the Ministry adopted the Care Management Assessment Scale across all units as the standard reference to evaluate the need for long-term care for different care recipients in conjunction with Long-term Care 2.0 to expand the eligible recipient base and criterion to determine the disability grades for long-term care and payment quota. The scale has been integrated into mobile device (tablet PC) for the evaluation to be carried out and the results will be automatically processed to determine the required level of long-term care need for the case in question. Through the Care Service Management Information System (hereafter referred to as Care Management Platform), the evaluation data and service records along with procedural functions such as service note for the care recipient can be linked to other systems such as the National Physical/Mental Disability Welfare Information Integrated Platform,, Social Welfare Data Matching System, Foreign Labor Searching System and so forth so as to search for matching results in different databases, thereby improving the quality and adequacy of health care and social welfare data presentation.

(2) Long-term Care 2.0 Service Payment Audit System

In order to speed up the process of long-term care expense reimbursement and improve the overall service efficacy and quality for long-term care, the Ministry has constructed the "Long-Term Care 2.0 Expense Payment Audit System" in 2019. The system was officially launched on October 1, 2019 and it is linked to the Care Management Platform's declaration data so that responsible personnel can access the system and audit the reimbursement applications via a PC to improve the efficacy of reimbursement operations.

(3) Long-term Care Facility & Long-term Care Personnel Related Management Information System

In order to ensure the uniqueness and accuracy of data on long-term care institutions and their personnel and in response to relevant administrative needs, the Ministry built the Long-term Care Facility & Long-term Care Personnel Related Management Information System in September, 2018. The system was later launched for operation towards the end of August, 2020 to provide institution and personnel management features; operators can use the system to add or maintain institution data, review the status of qualification for long-term care personnel and so forth. As the system linked institutions and their staff by means of uniquely assigned codes, the Ministry had thus managed to register long-term care personnel under their affiliated institutions.

Section 4 Diverse Innovative Service

1. Care Services for People with Dementia

Long-term Care 2.0 includes people with dementia over the age of 50 as eligible care recipients. In an effort to strengthen community-based service capacity for dementia, the Ministry has also established more Support Center for People with Dementia and their families while taking various measures such as awareness promotion, dementia alleviation, courses on family care, family support groups, safety watch and so forth. In addition, the MOHW has established Integrated Dementia Care Center (IDCC) in municipalities across Taiwan in the hopes of providing proper guidance/assistance to caregivers, as well as information services, referrals and other supporting services. These centers will help to coordinate medical resources, and arrange the provision of relevant care services, ultimately promoting dementia literacy. As of 2019, the Ministry has established a total of 434 SPDFs and 87 Integrated Dementia Care Centers.

2. Long-term care integrated services in indigenous communities

In an effort to deliver long-term care to indigenous communities and as instructed by the President: "To create Cultural Health Stations that will serve as multipurpose service stations in regions of indigenous tribes, the Ministry is committed to achieving objective of enabling seniors to age in place. And as such, the MOHW has been actively encouraging municipal governments to assist local indigenous tribe to help seniors familiarize themselves with their local cultural health station or setting up micro daycare centers in proximity to cultural health stations to provide multi-level long-term care services such as daycare, temporary overnight lodging, transportation service, respite services and so forth. Not only that, the cultural health stations can also serve as nodes for home care and provide training for local caregivers to strengthen long-term care in indigenous communities.

The Pilot Program for Long-Term Service in Indigenous Communities provided funding to set up 5 trial locations. After intensive cross-agency communication and close collaboration with local government that began towards the end of 2018, the Ministry has successfully completed the establishment of daycare center in Laiyi of Pingtung County at the end of 2019.

3. Support services for family caregivers

(1) Provision of support services and relevant information for family caregivers

In an effort to lighten the workload and burden on caregivers offering support services in the household of the care receivers, apart from offering relevant care services, professional services, transportation services, rental of assisting instruments, improvement of household barrier-free environments and respite care, Long-Term care 2.0 is also designed to provide caretakers from diversified families with specific support from the Ministry working in tandem with municipal governments and associations. One example of such support include the creation of a consultation hotline for family caretakers family caregivers at 0800-507272 to provide simple consultation and referral services.

The Ministry has also aggressively established support service locations for family caregivers by collaborating with local professional organizations to provide services such as case management, psychological counseling and group support for family caregivers. As of the end of 2019, the Ministry has established 83 service locations across 22 municipalities. Not only that, the MOHW also encourages municipal governments to implement innovative projects for services intended for family caregivers.

(2) Extending respite care services for family that hired foreign caregiver

In an effort to alleviate the stress arising from family caregivers when foreign caregivers taking time off, the MOHW expand respite care services. When foreign caregiver take time off, the family can apply for respite care services without thirty-day restriction to secure the safety and the quality of the care recipients. However, the target service recipient is required for LTC grade 7 or 8 level.

4. Family Physician Care Solution for Home-Based Disabled Care Recipient

To establish integration between home-based care and long-term care service models so as to prevent patients of chronic diseases from deterioration and worsening in disability, the Ministry has implemented its "Family Physician Care Solution for Home-Based Disabled Care Recipient from July 19, 2019 onward. The solution involves dispatching nurses to the homes of disabled cases in nearby communities and perform health and chronic illness management, issue LTC physician's opinion and special precautions for service personnel intending to care recipients and so forth as the basis for the formulation of care plans. As of the end of 2019, a total of 345 clinics/health centers took part in the project.

5. Long-term Care 2.0 Discharge Planning and Diverse Reablement Services

In order to better help patients with need for long-term care service after their discharge from the hospital ASAP, the Ministry has established the "Incentive program for long-term care 2.0 integration of discharge planning service friendly hospitals" to integrate relevant tools of evaluation, personnel training, information system and evaluation processes so that patients can now have their long-term care need evaluation (which could only be conducted after the hospital receives the application upon their discharge) completed 3 days prior to their discharge and begin receiving their long-term care services as soon as within 7 days after their discharge.

In light of specific patients needing intensive reablement services upon their discharge from hospital, the Ministry has strengthened the link between medical care and long-term care and increasing the capacity for discharge planning by implementing the "Diverse Reablement Service Pilot Program". The program involves aggressive promotion of professional reablement services by emphasizing the golden window of recovery and reablement (within 3 months after discharge) and assisting the clients in specific trainings designed to help them become independent. This would in turn help them become more active in their social participation and independent and consequently, reduce their family members' stress and financial burden from care giving. As of December, 2019, a total of 224 hospitals took part in the pilot program.

6. Subsidy program for residents at institutional services

In order to relieve the financial burden of institutional users and their families, and in conjunction with the amendment Article 17 of the Income Tax Act announced by the Ministry of Finance on July 24, 2019, long-term care-incurred expenses can be deducted from comprehensive income. Given the fact that low-income individuals are unlikely to benefit from these deductions, the Executive Yuan approved MOHW's "subsidy program for residents at institutional services" on September 12, 2019. The program covered staying at designated institutions for more than 90 days in 2019, included an exclusion clause targeting high net-worth individuals, and included a one-time subsidy per year. The tiered reimbursement rate correlates with the comprehensive income tax rate of 0, 5%, and 12%. Each eligible case can receive a maximum reimbursement of NT$ 60,000 per year. As of December, 2019, 29,744 people had applied the program.

Chapter 2 Workforce Development

Section 1 Care Worker Workforce

1. Diverse channels of training: In order to increase the human resources of care personnel, the Ministry has been working with relevant agencies and organizations to actively promote specific human resource development measures. According to the Care Personnel Training Implementation Plan published by the Ministry, any applicant over the age of 16 in good physical health with a passion for care services need to may enroll in complete no less than 90 hours of training on basic care techniques and passing the assessment, the applicant will receive his/her qualification as a care personnel. The core courses for care personnel training have been made available as online courses starting from March, 2018 in order to make the trainings more accessible. Alternatively, applicants may also sign up to take the National Technician Skills Test organized by the Ministry of Labor as a way to earn their certificate as a qualified care personnel. On top of that, the Ministry also encourages long-term care service facilities to apply for the "Train and Apply" Program (which is subsidized by the Ministry of Labor to help applicants become employed right after they complete their training. In terms of education in schools, through the Ministry of Education's involvement MOHW has been actively encouraging universities to develop more practical curricular for long-term care and off-campus internships while continuing to assist senior and vocational high schools to develop long-term care curriculum so as to increase the supply of manpower and facilitate collaboration between industry and academia.

2. Attracting talent involvement and ensuring retention: Pertinent regulations and policies stipulate that care personnel reaching required service seniority may become eligible candidates for promotion as home service supervisor, case manager at relevant units or even proprietors of long-term care institutions. This is to ensure paths of promotion and career advancement for relevant personnel and encourage them to start their own healthcare businesses. Meanwhile, the Ministry has also been using various promotional channels such as Facebook and microfilms to promote better understanding of care givers in the eyes of the general public and thereby promoting their professional image.
3. Results of relevant policies: By the Ministry's estimation, the demand for care personnel in 2019 came to roughly 39,000 and as of the end of December, 2019, the actual number of native Taiwan citizens who involved themselves in the field of longterm care services came to 53,212 - an increase of 18,131 people (roughly 52%) compared to the 35,081 people at the end of 2018. Based on the Ministry's survey, among the newly employed care service personnel with less than a year of work seniority, a fifth of them have undergraduate degree or higher educational backgrounds. This reflects the fact that the trend of younger generation and people of higher levels of education seeking employment in care giving industry is gradually growing.

Section 2 Social Workers and Medical Professional Workforce

In an effort to boost the quantity and quality of professional long-term care workers while addressing the need for long-term care service personnel training, the Ministry has planned and promoted long-term care training courses of various categories, classified into three levels: Level I - Level III. In order to accomplish the goal of enhancing the outcome of training, the Ministry has officially launched a digital learning platform for professional long-term care workers in March, 2017 for the promotion of common Level I courses in the digital format. The platform provides trainees with convenient access to training courses and learning materials.

In 2019, the Ministry offered qualification training and continuing education courses for long-term medical personnel, social worker and case managers. Eligible candidates for training include physicians (including dentist and TCM physician), nurses, physical therapists, occupational therapists, nutritionists, pharmacists, respiratory therapists, speech therapists, counseling psychologists, clinical psychologists, social workers, care managers and so forth. As of the end of 2019, more than 30,000 trainees have completed their training.

Chapter 3 Propaganda and Service Quality

Section 1 Propaganda

1. Focus of communication: In order to help the general public better understand the contents and implications of Long-Term Care Plan 2.0 policy, the focus of promotion in 2019 includes: the 1966 Long-term Care Hotline", the Long-Term Care payments and benefits mechanism (the 4 subsidies for Long-term Care), dementia care services, reablement services, promotion of caregivers' image and key measures such as the "special deduction for long-term care" and so forth.
2. Status of implementation:
   (1) Production of promotional materials: Produced promotional materials including TV commercials, teasers, microfilms, radio broadcast segments, cheat sheets, leaflets, posters, banners, stickers to be featured on the "Long-term Care" section (website:https://1966.gov.tw/LTC/mp-201.html) for greater exposure and to be used by the general public for relevant purposes.
   (2) Projection through various traditional media: through different media such as TV, radio, outdoor media, printed media and online media (i.e. news network, portal website, MOHW's Facebook fan page, Line@ and the "Long-term Care" section on MOHW's website), relevant contents have been projected based on the consumption habits of the general public to ensure effective dissemination of long-term care information. The Ministry has also resorted to using physical channels by issuing correspondences to 22 municipal governments to distribute posters, leaflets and information on long-term care to their district medical institutions, health stations, long-term care management centers, village/borough chief offices, district offices, household registration offices, land offices and other venues where the general public would visit for official businesses in addition to posting relevant information on websites, public e-signages, chaser lights and so forth to ensure immediate exposure for the general public.
   (3) Implement promotional activities:
      A. Local promotion of Long-term Care 2.0 - the certification of "LTC Literate Village/Borough Chiefs": In 2019, the Ministry completed its promotional campaign across 22 municipalities by briefing village/borough chiefs in different regions on the contents of long-term care services so as to boost their literacy in long-term care while serving as the front-line personnel in reporting their local long-term care cases. The Ministry has certified as many as 2,491 village/borough chiefs, which translates to approximately 32.1% of all village/borough chiefs in Taiwan.
      B. "Owning Your Longevity Future" lifestyle exhibition: The event was hosted at Songshan Cultural Park between November 15 through November 19 in 2019. Through interactions with the general public of all age groups and offering simulated experiences of aging, the event was designed to help participants imagine an ideal living environment for senior citizens and better understanding the resources and benefits of long-term care 2.0, thereby flipping the people's stereotypical association to aging and helping them to embrace new lifestyles for seniors.

The first of the certification event" for "Literate Village/Borough Chiefs" took place at MOHW's Taoyuan Hospital.

The opening press conference for "Owning Your Longevity Future" featured Vice President Chen Chien-Jen, Minister without Portfolio Lin Wan-I and MOHW Minister Chen Shih-Chung.

The participants learned more about long-term care related resources by flipping various interactive cards. Through the interactive devices, the participants were able to see what they may look like in their old age through image simulation.

(4) 1966 Long-Term Care Hotline: ever since the hotline became operational on November 24, 2017, the hotline has been functioning as a quick and convenient way for the general public to apply for long-term care services and calls are taken by responsible care management personnel at the corresponding municipalities. Not only that, fees for the first 5 minutes of the call have been waived to encourage the general public to take advantage of this measure. In 2019, the cumulative total of received calls came to 292,121 (a growth by 113% compared to 2018) and the daily average number of calls for 2019 reached 800 calls per day (113% growth compared to 2018).

Section 2 Service Quality

1. In order to find out user satisfaction for Long-term Care Service 2.0, the Ministry conducted a telephone survey at the end of December 2019. With a sample size of 1,203 , here is a summary of results from the survey: (1) the users' overall satisfaction for long-term care services came to 91.2%; (2) users' satisfaction for the long-term care hotline (1966) and long-term care management center (including the promptness of household visits and explanations) came to 94.6%; (3) the users' satisfaction in terms of how long-term care services have helped to reduce the overall burden (i.e. providing care, psychological stress and covering the expenses for services) for primary caregivers came to 88%.
2. In order to appraise the efficacy of long-term care institutions so as to improve long-term care service quality and provide better long-term care options for the general public, both the Long-Term Care Services Act and Evaluation Procedure for Long-Term Care Institutions stipulated that the competent authority is responsible for appraising long-term care institutions, which can either pass or fail the appraisal. Pursuant to Paragraph 3 and subsequent paragraphs in Article 53 of the Long-Term Care Services Act, when a long-term care institution fails to pass appraisal, the institution shall be ordered to remedy the failure.If the failure is not remedied by the deadline, a fine will be imposed; if the failure is not remedied by the deadline, cumulative penalties may be imposed. In serious cases, the business may be suspended for not less than one month and not more than one year. If the failure is still not remedied upon expiry of the suspension period, the permit for the establishment may be revoked. Depending on the types of long-term care institutions, the appraisal of institutions is classified into home services, community-based services and institutional services. The appraisal of the first two types shall be implemented by local competent authorities while institutional services, including integrated services, shall be appraised by the central competent authority. In response to the establishment of new long-term care service institutions and to integrate the different appraisal standards for different types of institutional services, the Ministry has commissioned the implementation of "Home services and Community-based Long-Term Care Institution Appraisal Standards and Pilot Program" and "Institutional Long-Term Service Care Facilities, Nursing Homes and Welfare Organization for Seniors Appraisal Standards Integration and Pilot Program" in 2018 to formulate the templates of appraisal standards for home services

and community-based long-term care institution as a working reference for municipal governments to ensure the consistency in long-term care service quality across Taiwan. With regard to institutional services, the Ministry has planned to implement appraisal of institutional services in 2020 after announcing the appraisal standards at the end of 2019.

3. The role and function of community integrated service center (A) is to assist those in need of long-term care to formulate care service plans, connecting them to relevant long-term care services and follow-up on service quality. To ensure the service quality for A, the Ministry has published a guideline for the assessment of community integrated service center (A) operations in 2019 to serve as a reference for local governments in relevant evaluations.
4. To improve service quality of senior citizens' welfare institutions and in accordance with the Regulations for Evaluating and Rewarding Enforcement for Senior Citizens' Social Welfare Organizations, institutions that received an A or higher grade were commended for their performance; institutions that received C or D grades were required to make the necessary rectifications within a given time before being re-evaluated again. In 2016, 134 senior citizens' social welfare organizations underwent accreditation evaluation, which is performed once every 4 years. 7 were rated C and 1 was rated D in the evaluation and after MOHW's supervision and instructions to rectify the issues identified, the ratings for the 8 aforementioned institutions improved to B (7) and D (1) respectively. (Note: for the sake of fairness, a resolution has been made so that institutions going through secondary evaluation may receive no higher than B for rating) Results for the evaluation are shown in Table 5-5.

Table 5-5 **2016 Senior Citizens' Social Welfare Organization Accreditation Results**

Source: Social and Family Affairs Administration

Level	The number of senior citizens' social welfare organizations	Percentage (%)	Passing rate (%)
Excellent	16	11.9	94.0
A	75	56.0	
B	35	26.1	
C	7	5.2	
D	1	0.8	
Total	134	100.0	

Note: Senior Citziens' Social Welfare Organizations are to be appraised once every 4 years and the next appraisal is due in 2020.

5. In an effort to improve care quality available at nursing homes, the Ministry has been implementing nursing home accreditation in accordance with Nursing Personnel Act and Regulations for Accreditation of Nursing Institutions. As of December 2019, the number of standard nursing homes came to 554 and between 2015 and 2018, 536 nursing institutions have reviewed for the accreditation; 487 institutions have passed the accreditation while 49 did not. After the results of the accreditation have been determined, local competent authority has been asked to follow-up on the issues for rectification and follow-up in order for the Ministry to review the aforementioned institutions' status of improvement. Nursing homes that fail the evaluation as outlined in the Regulations Governing Accreditation of Nursing Homes would be required to make relevant rectifications within a given time as stipulated in Paragraph 2, Article 31 of the Nursing Personnel Act to maintain the quality standard for service provided by such institutions. Table 5-6 details the accreditation results.

Table 5-6 **2019 Nursing Home Accreditation Results**

Source: Department of Nursing and Health Care

Level	The number of the nursing homes	Percentage (%)	Passing rate (%)
Passed	160	90.4	90.4
Failed	17	9.6	
Total	177	100	

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6 Communicable Disease Control

Managing communicable diseases requires disease surveillance, outbreak investigation, preparedness, research, and proper immunization. Additionally, relevant regulations must keep pace with global trends and changing health needs to construct a solid framework that can ensure the health and wellbeing of the people.

Chapter 1 Overview of the Communicable Disease Control System

In order to prevent the incidence and prevalence of communicable diseases, Taiwan has enacted the Communicable Disease Control Act and related regulations. The Act specifies the obligations and rights associated with the control of communicable diseases among government agencies, medical institutions, healthcare workers, and the general public. It also formalizes the roles of healthcare workers in dealing with an epidemic.

Section 1 Regulations and Framework for Communicable Disease Control

1. Laws and Regulations Governing Communicable Disease Prevention

The Communicable Disease Control Act and the HIV Infection Control and Patient Rights Protection Act serve as the two main regulations governing infectious disease prevention and control. Revised regulations in relation to communicable diseases issued in 2019 are shown in Table 6-1.

2. Administrative Framework for Communicable Disease Control

Taiwan Centers for Disease Control (Taiwan CDC), MOHW is responsible for the formulation and review of communicable disease control policy and supervises six regional control centers that provide local authorities with guidance regarding disease control and quarantine operations. Local authorities are responsible for formulating and implementing disease control plans.

3. Laboratory Testing Framework

Taiwan Centers for Disease Control is responsible for laboratory testing and research relating to communicable diseases in Taiwan and has established a comprehensive service network for the inspection of communicable diseases. Besides the 12 CDC laboratories, there are 268 certified institutions, 8 contracted laboratories for novel influenza A virus infections, 1 controlled high-risk pathogen and toxin testing, 8 contracted laboratories for enterovirus/ influenza testing and 8 contracted laboratories for tuberculosis testing. Meanwhile, the "Manual for Infections Specimen Collection" and the "Quality Management Plan of Infections Specimen Collection and Transportation" for local health bureaus have been formulated to ensure the quality and safety of specimen collection and transportation.

Table 6-1 **List of Revised Regulations Issued in Relation to Communicable Diseases, 2019**

Source: Taiwan Centers for Disease Control

Date of Amendment	Name of Regulation / Legal Order	Objective of Revision
January 31	Regulations Governing Management of Infectious Biological Materials	The regulation has been established so that appropriate supervisory mechanisms can be created to strengthen biosafety and biosecurity management for highly dangerous pathogens and biotoxins so as to prevent major incidents of biohazard by enforcing stringent control of relevant biotoxins and pathogens.
March 29	The Categories of Communicable Diseases and Preventive Measures for Category IV and V Communicable Diseases	In light of the gradual decline in the Zika fever epidemic around the world and that an inter-departmental joint response mechanism has been established, Zika fever epidemic has been down-adjusted to Category II communicable disease as the preventive measures are akin to those for dengue fever and chikungunya.
May 29	Fee Standards for Biological Products, Centers for Disease Control, Ministry of Health and Welfare	In conjunction with the Guide to Good Manufacturing Practice for Medicinal Products as part of the Pharmaceutical Good Manufacturing Practice Regulations, in an effort to maintain the quality of pharmaceutical products, the need to upgrade the equipment for the production of snake antivenoms, fee standards have therefore been adjusted in accordance with the actual production costs for snake antivenoms.
June 4	Regulations Governing Awards for the Control of Communicable Diseases	The regulations have been amended in conjunction with the down-adjustment of Zika fever to Category II Communicable Diseases and in order to maintain monitoring and encourage medical personnel to actively report suspicious cases so that early intervention can be implemented.

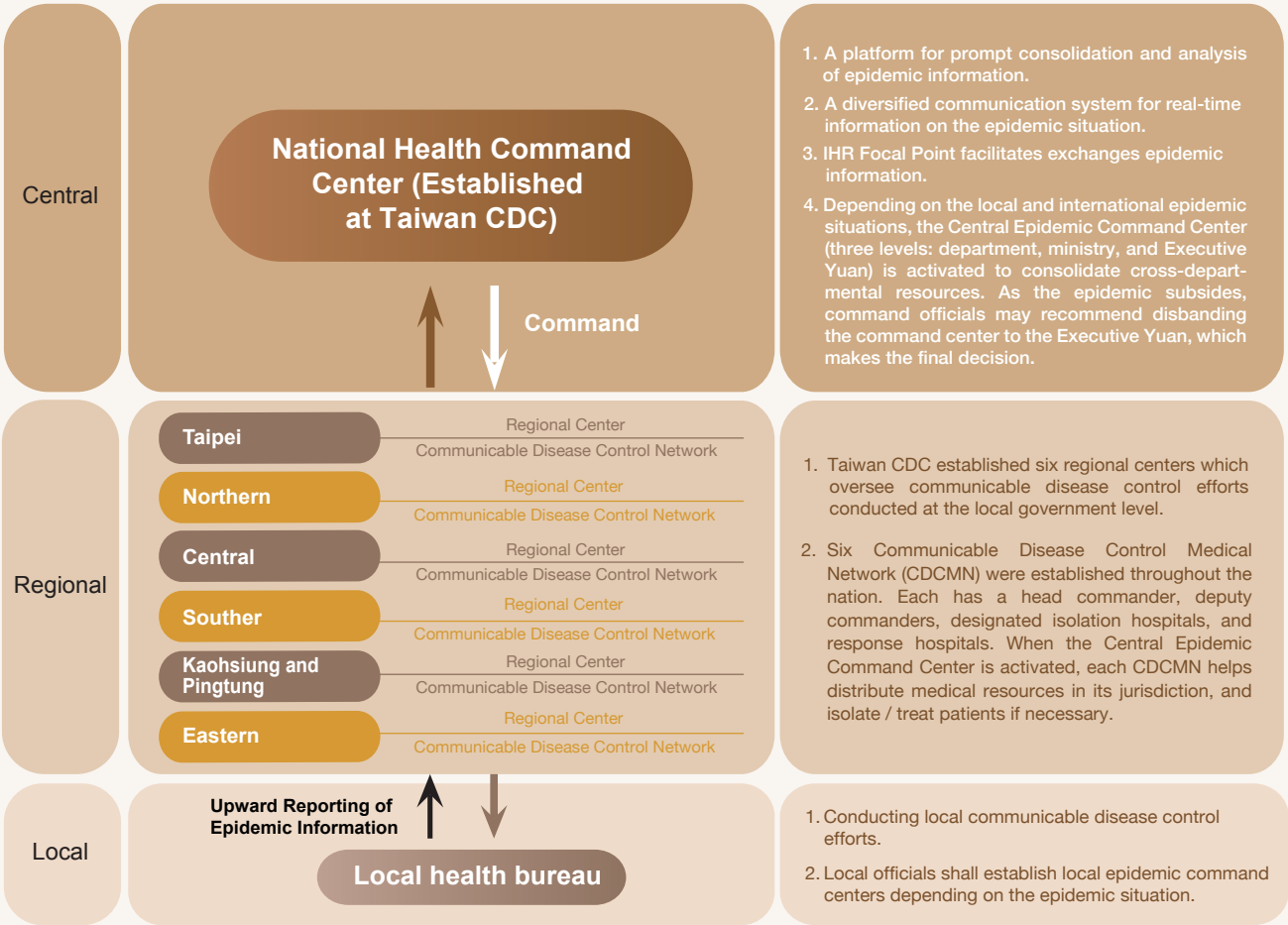
4. National Response Framework for Communicable Disease Control

The National Health Command Center, established in 2005, is responsible for compiling health-related information from central and local government agencies and other institutions. The collected information is then analyzed and converted into real-time data to support overall disease prevention and serve as a reference for the commander to make decisions. Taiwan has also established an International Health Regulation Focal Point (IHR Focal Point) to liaise with other countries to help coordinate responses to major outbreaks and public health emergencies of international concern.

Our national response framework for infectious disease outbreaks operates through a three-tiered hierarchy comprising of national, regional and local authorities that implement strategic efforts to prevent diseases from spreading. When an outbreak occurs, the health authorities at each level work to evaluate the nature of the disease, and then submit a report to the city or county magistrate (at the local level) and to the Executive Yuan (at the central government level), to determine whether the Central Epidemic Command Center (CECC) needs to be activated. If the CECC activation is deemed necessary, then a commander will be appointed to oversee the operations of the CECC. Taiwan is divided into six regional communicable disease medical networks and each is headed by a director and a deputy director. When the CECC is activated, the six regional communicable disease medical networks will help coordinate the allocation of medical resources and manage the outbreak in their region. The organization of the national response framework is shown in Figure 6-1.

Figure 6-1 National Response Framework for Communicable Disease Control

Source: Taiwan Centers for Disease Control



Section 2 Disease Surveillance and Investigation Mechanisms

Disease surveillance aims to quickly detect the incidence of diseases and to establish a pattern of progression so policymakers can arrive at a sound decision. The number of notifiable disease cases in 2019 is shown in Appendix II. The status of disease surveillance and outbreak investigation is as follows:

1. Diversified Surveillance Systems for Communicable Diseases: the various communicable disease reporting and surveillance systems that have been established including the School-based Disease Surveillance System, Surveillance System for Populous Institutions, Real-time Outbreak and Disease Surveillance System, and automated reporting of infectious diseases from laboratories. Data is also collected from NHI databases and death records reported to the MOHW. Varied media channels are used to gather and analyze information relating to domestic and international outbreak situations to better monitor outbreaks.
2. Integration of Disease Reporting Systems: In 2019, cross-ministerial exchange of data continued to integrate disease information from three organizations - the Council of Agriculture (Executive Yuan), the MOHW's Food and Drug Administration, National Health Insurance Administration, and Centers for Disease Control. The integration has enhanced the overall effectiveness of disease surveillance.
3. Investigation of Outbreaks: Authorities must examine a sudden unexplained rise in the incidence of a disease cluster. In 2019, the MOHW investigated 2,005 suspected disease clusters.

Chapter 2 Control of Major/ Emerging Communicable Diseases

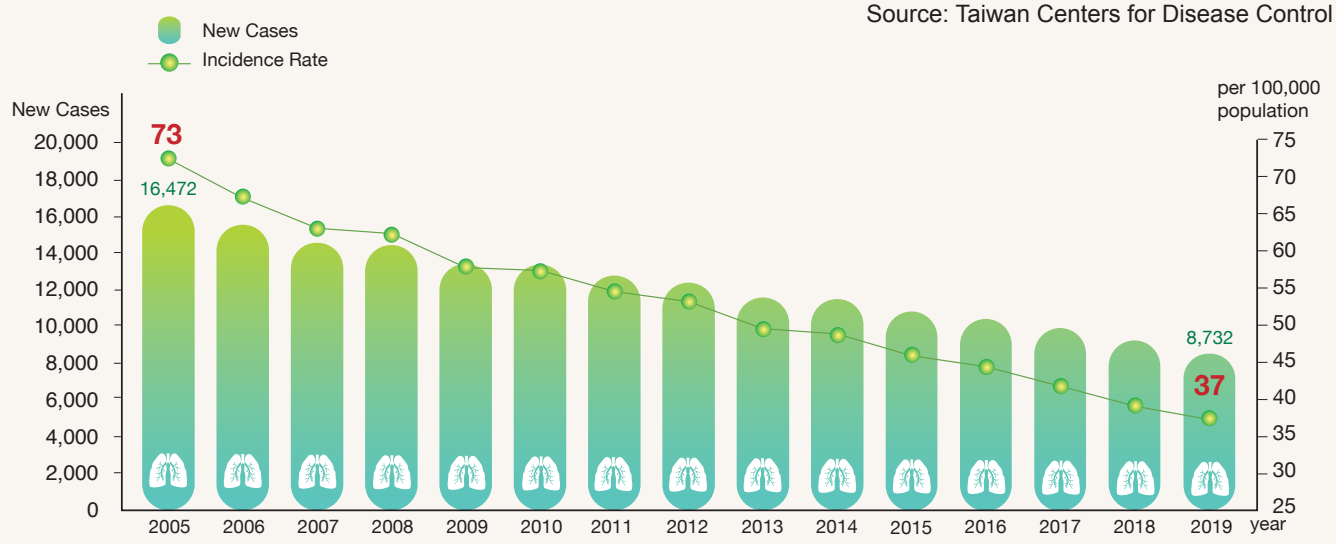
Section 1 Tuberculosis

The MOHW has continued to introduce new diagnostic techniques and drugs, with the aim of shortening the tuberculosis diagnosis and treatment period and raising the coverage rate for latent tuberculosis infection treatments. Outcomes achieved in 2019 are as follows:

1. In 2019, the number of confirmed cases of tuberculosis was 8,730, with a national TB incidence rate of 37 cases per 100,000 population. Since 2005, the incidence rate has fallen by 49% (Figure 6-2), indicating that Taiwan has an effective TB control strategy.
2. More than 98% of bacteriologically positive TB patients have participated in the Directly Observed Treatment, Short-course (DOTS) program.
3. Implemented the “DR-TB Consortium”, patients in the 2017 cohort treated under a dedicated medical treatment and care system had a 24-month treatment success rate of 80%.
4. Improved contact investigation to an average of 14 contacts for each index TB case to lower the risks of further transmission.
5. A Latent TB Infection Treatment (LTBI) Program has been implemented in conjunction with the Directly Observed Preventive Therapy (DOPT) program. In 2019, the number of people undergoing LTBI testing was 101,842, 14,630 people tested positive in the screening and 82% had agreed to receive the treatment. In 2019, 12,041 people underwent LTBI treatment and the higher treatment rates reflect more effective reduction incidence for high-risk groups in the future.
6. For active case finding, the MOHW has been conducting a nationwide TB screening program for the target population and identified 467 TB cases in 2019.

Figure 6-2 **Reported TB Cases, 2005 - 2019**

Source: Taiwan Centers for Disease Control



Section 2 Communicable Disease of the Enteric Tract

1. Enterovirus

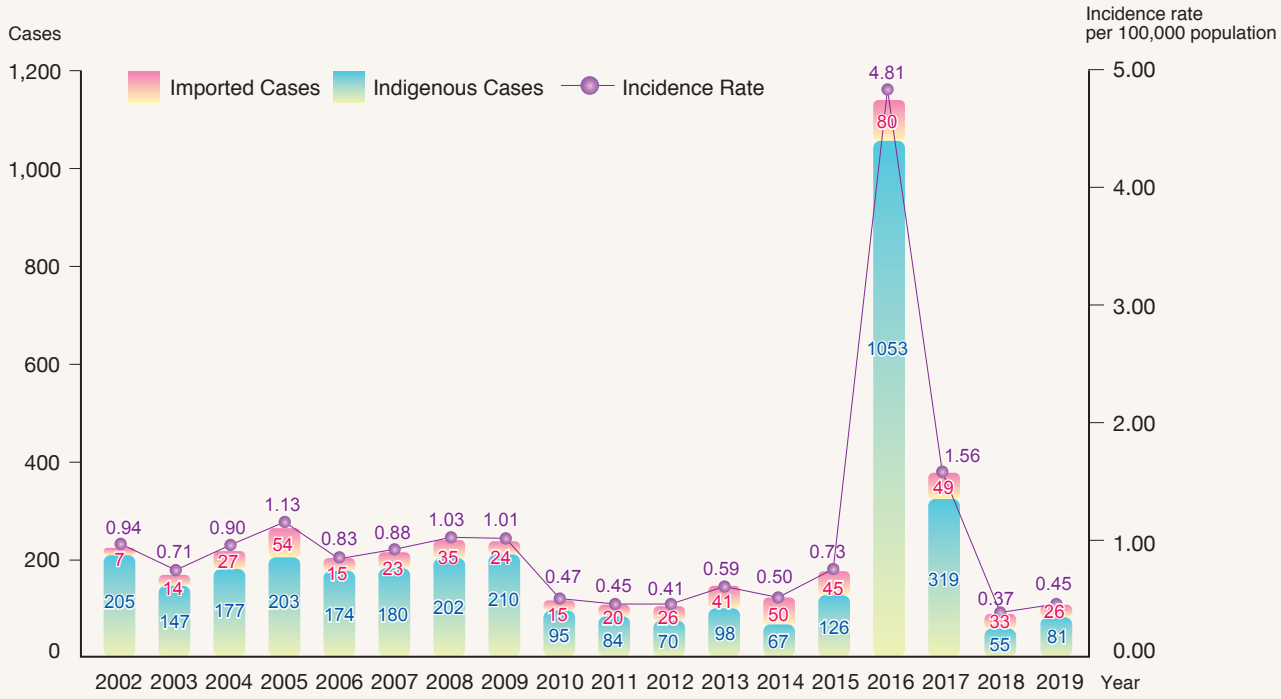
In 2019, there were 69 confirmed cases of severe enterovirus infections, with 4 deaths that translated to a mortality rate of 5.8%, which was lower than the average for the past 10 years. This shows that our prevention strategies are close to the core to successful epidemic prevention. Our primary prevention strategies involve the deployment of diverse monitoring systems to strengthen real-time disease monitoring; close collaboration with municipal governments to utilize local resources for the inculcation of community health education while strengthening hygiene and disease prevention audit in venues such as educational and medical institutions, post-partum nursing institutions and other public venues that children frequently visit; creation of severe enterovirus infection medical care network and designation of responsible hospitals along with the implementation of “Enterovirus Care Quality Improvement Solution” starting from 2016 while collaborating with medical association in the organization of large-scale education and training events to boost existing healthcare systems’ response capabilities and medical care quality for patients suffering from severe enterovirus.

2. Acute Hepatitis A

There were 107 confirmed cases of Acute Hepatitis A in 2019 (26 imported cases and 81 indigenous cases). According to relevant disease monitoring data, the number of confirmed cases for Acute Hepatitis A in Taiwan began to increase steadily from June 2015 and reached a record high of 1,133 confirmed cases in 2016. In light of the outbreak of Acute Hepatitis A, the MOHW launched the Free Hepatitis A Vaccination for Contacts of Confirmed Cases Pilot Program and the Expanded Government-Funded Hepatitis A Vaccination Pilot Program for contacts of confirmed cases, patients with newly diagnosed gonorrhea and syphilis, and people infected with HIV between 2016 and 2019. In addition, starting from 2018 onward, the MOHW has been providing 1 free dose of the government-funded vaccine for those in contact with confirmed cases of acute hepatitis A as post-exposure immunization. The numbers of confirmed cases for 2018 and 2019 were 88 and 107, respectively, and the numbers reflect a noticeable decline in terms of incidence and that our preventive measures have been effective as shown in Figure 6-3.

Figure 6-3 Number and Incidence Rate of Confirmed Acute Hepatitis A Cases

Source: Taiwan Centers for Disease Control



Section 3 Vector-borne Communicable Diseases

In 2019, there were 640 confirmed cases of dengue fever, including 540 imported cases and 100 indigenous cases. The male-to-female ratio for the confirmed cases was 1.33:1. The indigenous cases were mainly concentrated in Kaohsiung City and Tainan City, while the remaining 4 counties having only sporadic cases; the total number of confirmed chikungunya was 116, with 95 being imported and the remaining 21 cases being local. The male-to-female ratio for the confirmed cases came to 1:1.9. While the number of imported cases for dengue fever and chikungunya for 2019 was the highest in the past decade, the MOHW was able to quickly stop the disease from spreading further without any fatal cases. This reflects our success in our communicable disease prevention. Figure 6-4 shows the number of indigenous dengue cases by year, and Figure 6-5 illustrates the number of imported dengue cases by year. The number of confirmed cases of chikungunya is shown in Figure 6-6. The major prevention and control strategies implemented are as follows:

1. With the number of imported cases gradually growing over the years, the MOHW has continued to conduct body temperature checks for passengers at ports of entry, proactively stopping suspicious cases for further examination and testing as well as conducting NS1 rapid screening and testing for suspected cases. Furthermore, the MOHW has also promoted the use of NS1 antigen rapid test kits in primary care clinics and increasing the number of supervisory visits at hospitals to reduce the incubation period.
2. Every month, the Ministers of the MOHW and the Environmental Protection Administration (EPA) attend the Executive Yuan Coordination Meeting on the Prevention of Major Mosquito-borne Communicable Diseases. This meeting intends to strengthen communication between the central government and local government agencies concerning the prevention of vector borne communicable diseases.
3. The National Mosquito-borne Diseases Control Research Center has continued to work with high-risk county and city governments to train professional workers and apply scientific evidence to carry out preventive efforts. The MOHW has also created vector map information and provided information on high-risk neighborhoods based on the results of vector density monitoring to remind residents to actively eradicate potential breeding spots for mosquitoes.

Figure 6-4 **Confirmed Cases of Dengue Fever, by Year (Indigenous cases)**

Source: Taiwan Centers for Disease Control

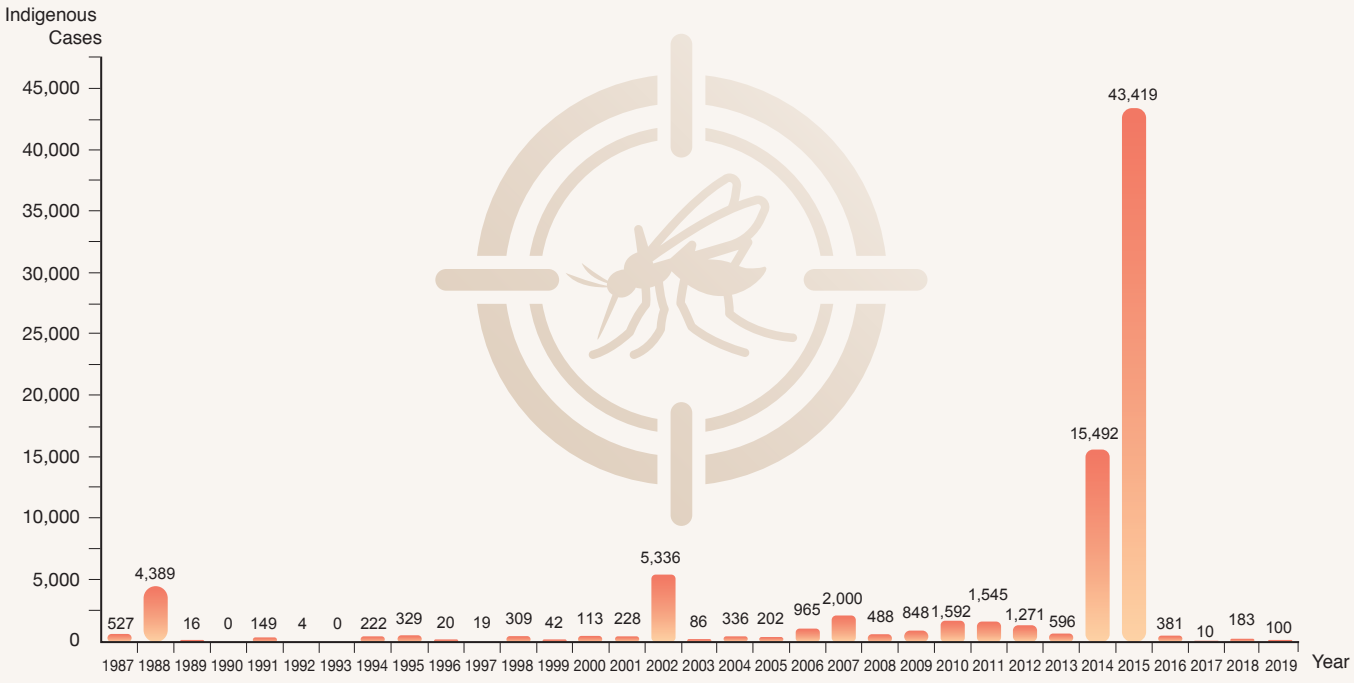


Figure 6-5 **Confirmed Cases of Dengue Fever, by Year (Imported cases)**

Source: Taiwan Centers for Disease Control

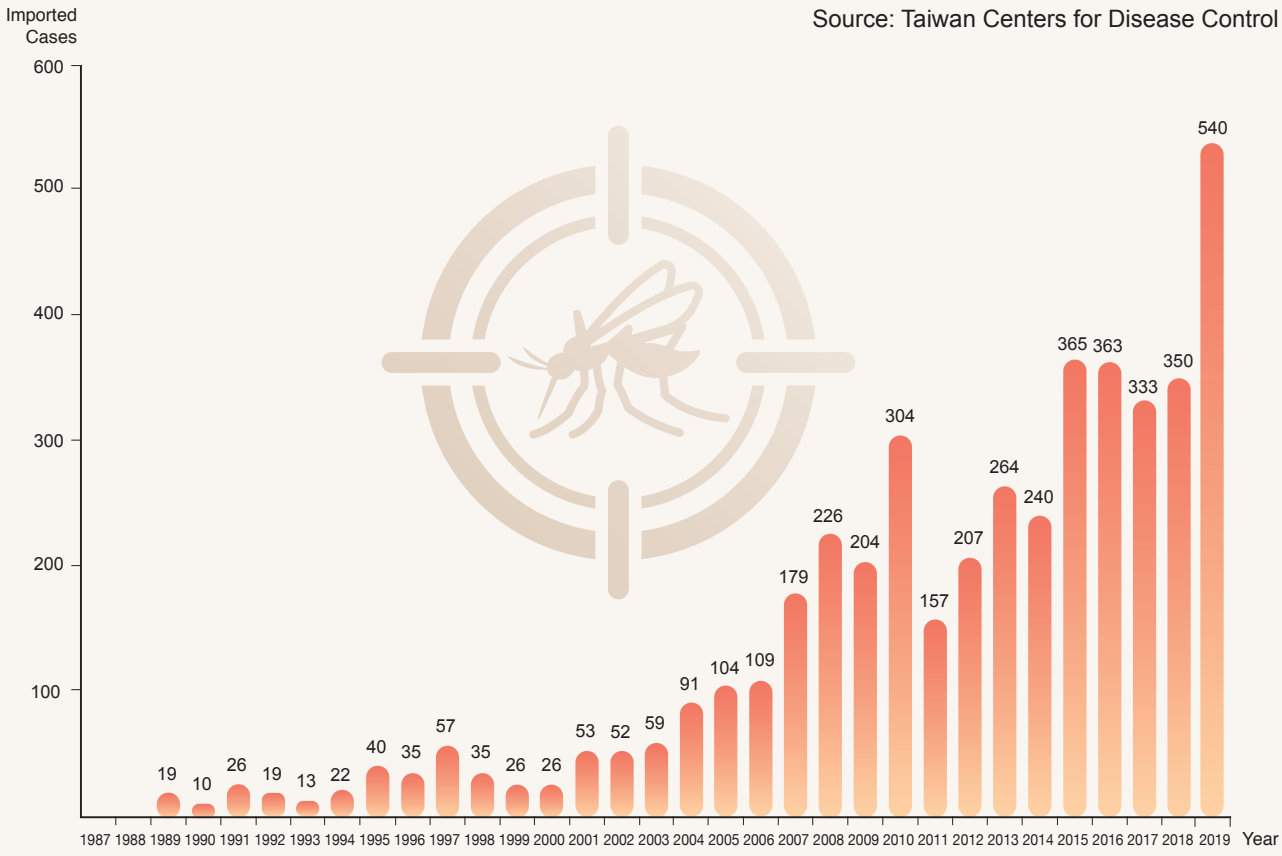
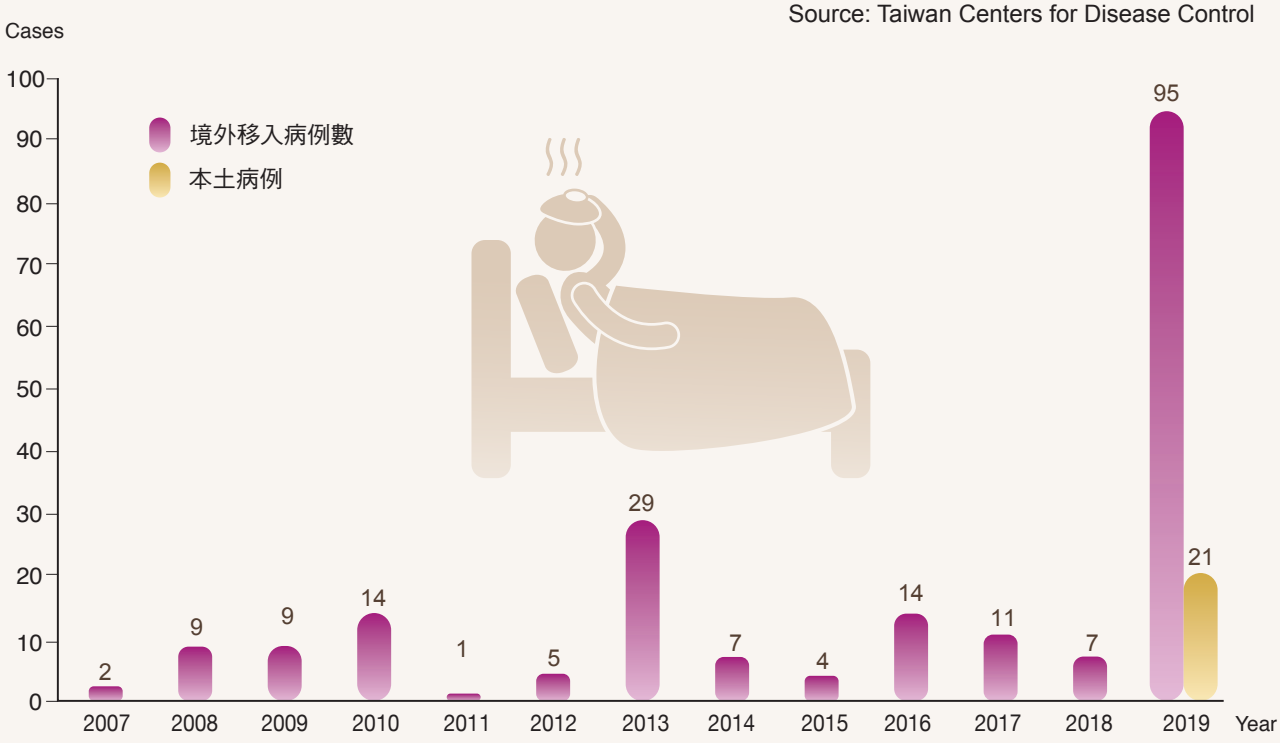


Figure 6-6 **Confirmed Cases of Chikungunya Infection, by Year**

Source: Taiwan Centers for Disease Control



Section 4 Communicable Diseases Transmitted by Blood or Body Fluids

1. HIV infection

Between 1984 and the end of 2019, there were a cumulative total of 39,667 reported cases of HIV among Taiwanese nationals. Of those infected, 18,923 developed full-blown AIDS, which led to 7,002 deaths. In 2019, there were 1,755 new reported cases. Compared to 2018, there had been 1,991 new reported cases, which translates to a decline of 12%; the male-to-female ratio for those infected is 38:1. Among the newly infected, 95% of them had contracted the disease through unsafe sex, particularly unsafe homosexual sex. These constituted 83% of all contracted cases for the year. The outcome of disease prevention in 2019 is as follows:

(1) Cooperated with NGOs and established five LGBT-friendly centers to provide men who have sex with men (MSM) group with consultations and testing services. Additionally, education and health services were also provided via social media. In 2019, 10,000 people received screening services.

(2) Continued to implement the “Harm Reduction Program”. Newly reported cases of substance abuse had fallen from 72% in 2005 to 1% in 2019.

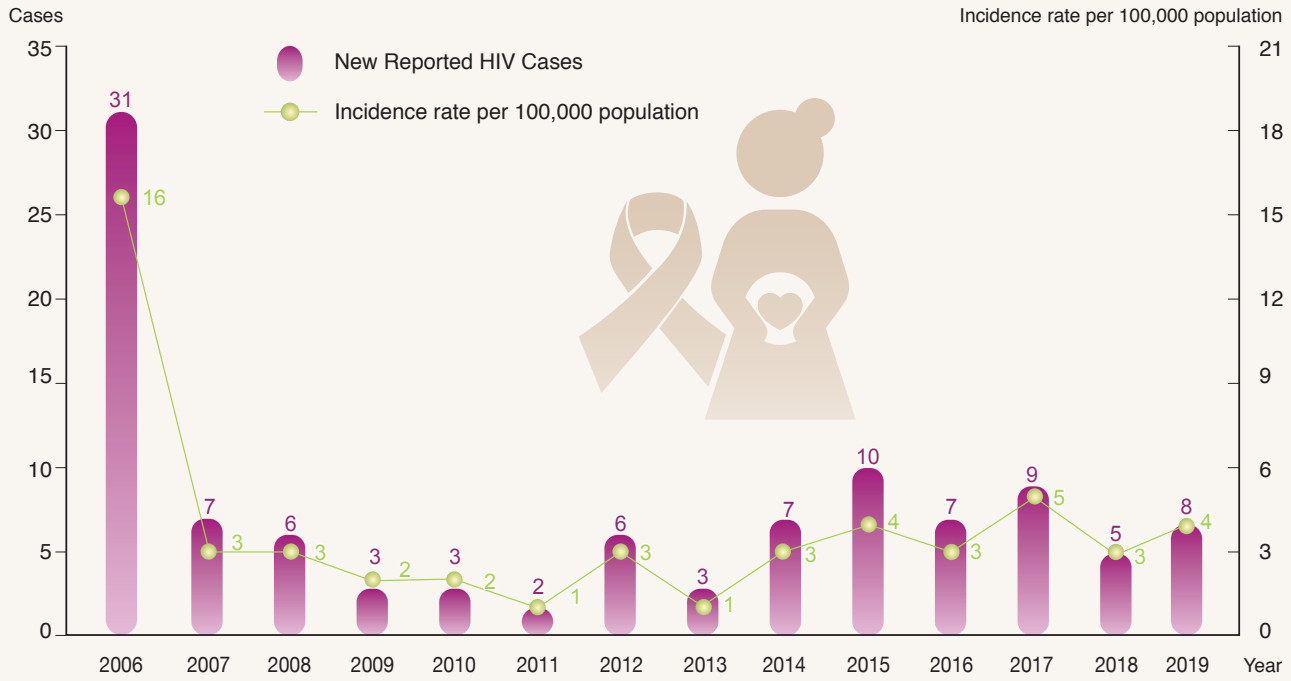
(3) For privacy concerns and convenience purposes, the MOHW has offered HIV screening consultation and referral services through its Free HIV Anonymous Screening and Consultation Project. The MOHW provided screening for approximately 38,000 people, and in 2019, we also supplied self-screening kit for AIDS through means of manual distribution, automatic kiosks and convenient store pick-ups for online orders. More than 54,000 people have benefitted from this service.

(4) The MOHW continued to promote “HIV Screening and Pre-Exposure Prophylaxis (PrEP) Project for 2018-2019” by working with departments of health and 38 other institutions to provide holistic, integrated care services for 1,620 people.

(5) To prevent vertical transmission of HIV, the MOHW implemented a universal HIV screening for pregnant women and provided ART for prevention. In 2019, 8 new cases were found through the screening of pregnant woman but thanks to the preventive measures, there had been 0 cases of vertical transmission. See Figure 6-7

Figure 6-7 **New HIV Cases and Positive Incidence Rate under the Universal Screening Program for Pregnant Women, by Year**

Source: Taiwan Centers for Disease Control



2. Acute viral hepatitis B and C

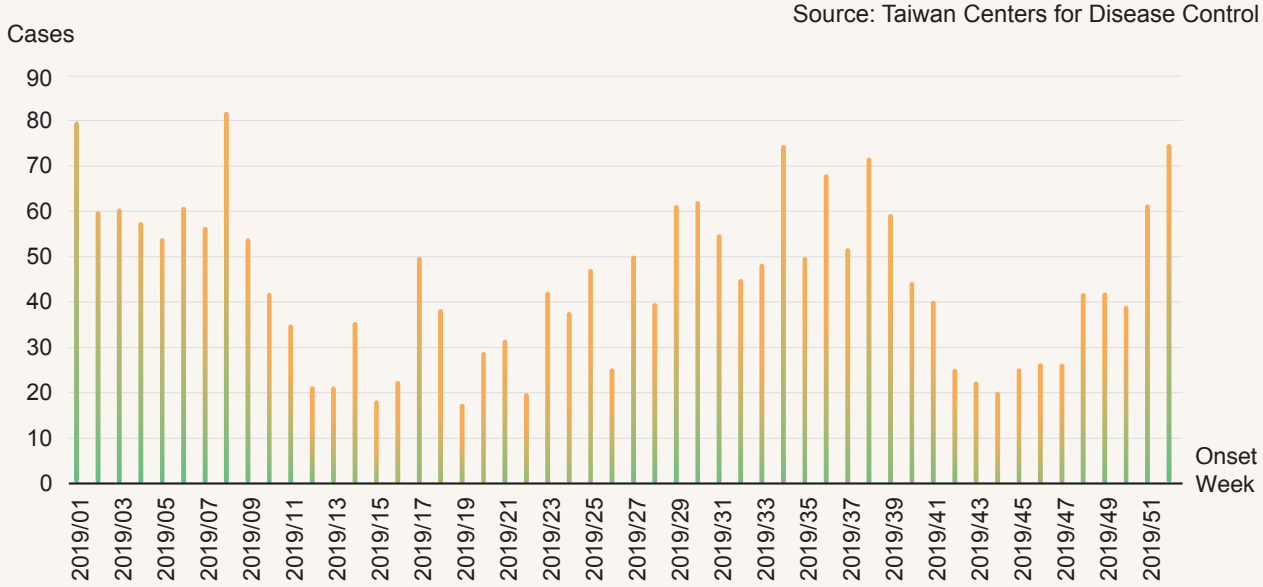
The numbers of confirmed cases of acute viral hepatitis B and C in 2019 were 111 and 626, respectively. The continued screening of pregnant women for hepatitis B during prenatal care visits and the immunization of newborns against hepatitis B have caused the carrier rate in children at age 6 to approximately fall from 10.5% to 0.8%.

Section 5 Seasonal influenza

1. In 2019 there were 2,325 confirmed cases of influenzarelated complications, resulting in 388 deaths and a fatality rate of 16.9%, as shown in Figure 6-8.
2. The MOHW launched the "Influenza Vaccine Immunization Program" in November 2019, targets nine groups, including children aged above 6 months and before entering elementary school. The MOHW also subsidized the immunization treatment fee for all the other eligible targets who did not receive the immunization collectively in schools. In 2019, a total of 5.997 million immunizations were administered.
3. In accordance with the "Strategic Plan for Influenza Peak Period," the MOHW implemented rigorous monitoring of the infection rate, strengthed the quality of medical care available for acute cases, and ensured that resources can be deployed effectively. The agency has increased the number of locations at which subsidized immunization is available to over 4,300, and has increased the number of people eligible for subsidized influenza antivirals.

Figure 6-8 **Confirmed Cases of Severe influenza-related complications in 2019**

Source: Taiwan Centers for Disease Control



Section 6 Control of Emerging Infectious Diseases

1. Implemented a total of sixteen military simulations and one live exercise for severe biological incidents or terrorist attacks in special municipalities and cities. The simulation exercises involved relevant response personnel to perform designated duties and mobilization of laboratory biosafety contingency teams as designed in standard operating procedures. The simulations were highly acknowledged by the Executive Yuan
2. The MOHW participated in one of the sessions for 2019 Joint Jinhua Maritime Exercise and Hai An Field Exercise No.10 and took part in the NCB Drill involving an unmanned aerial carrier by performing rapid pathogen screening and identification on unknown powder found on site
3. Established an international exchange network to expand Taiwan's international presence:
   (2) The MOHW sent representatives in July, August, and November 2019 to attend the Biological Disaster Emergency Response and Preparedness Conference in the United States, the Options for the Control on Influenza X in Singapore, and ESCAIDE 2019 in Sweden, respectively.
   (2) The MOHW hosted the 2019 Emerging Communicable Disease Prevention and Clinical Care Symposium and invited experts on communicable disease response preparedness from Hong Kong and Taiwan to be keynote speakers for the event
4. Implemented the infectious disease contingency plan exercise at hospitals responsible for

pandemic response in the Communicable Disease Control Medical Network, with the Middle East respiratory syndrome coronavirus as the simulation scenario. The exercise was a semi-noticed drill in which the participating hospitals were informed of only the scheduled time of the exercise to test 6 participating response hospitals for their response capacity and degree of response preparedness.

Section 7 Control of Imported Communicable Diseases

Taiwan implements all necessary quarantine measures for ships, aircraft, and people. Seaport and airport authorities are required to establish health and safety work teams to prevent the importation and exportation of communicable diseases.

1. Quarantine at international ports

In 2019, 29,033,313 people entered Taiwan. Of these people, 27,335 were identified as symptomatic by the infrared thermometer screening stations at Taiwan's airports and seaports; of those symptomatic people, 289 people were confirmed to be infected with notifiable communicable diseases. Prior to the outbreak of COVID-19 epidemic when relevant information was still scarce, Taiwan preemptively activated corresponding response measures in December 2019 and implemented onboard quarantine of direct flights from Wuhan to prevent imported cases from spreading the virus locally.

2. Prevention of Travel-Related Communicable Diseases

Travel clinics were set up to provide counseling to travelers regarding appropriate vaccines and preventive medication. In 2019, travel clinics at 32 contracted hospitals provided services to 38,337 patients.

Chapter 3 Communicable Disease Preparedness and Response, and Infection Control

The MOHW continues to maintain the Communicable Disease Control Medical Network (Figure 6-9) and implements periodic inspections of isolation beds at hospitals responsible for pandemic response. Regular training and drills are also conducted to enhance preparedness.

Figure 6-9 **Communicable Disease Control Medical Network**

Source: Taiwan Centers for Disease Control

Region	Response Hospital
North	Sinwu Branch, Taoyuan General Hospital, MOHW (17 isolation beds)

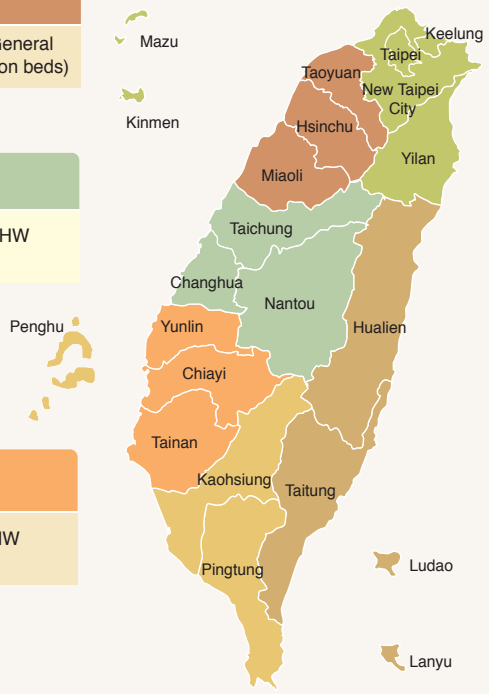
Region	Response Hospital
Taipei	Heping Fuyou Branch, Taipei City Hospital (29 isolation beds)

Region	Response Hospital
Central	Taichung Hospital, MOHW (20 isolation beds)

Region	Response Hospital
East	Hualien Hospital, MOHW (7 isolation beds)

Region	Response Hospital
South	Tainan Hospital, MOHW (22 isolation beds)

Region	Response Hospital
Kaohsiung and Pingtung	Pingtung Hospital, MOHW (9 isolation beds)



Note: In 2019, the total number of isolation hospitals was 134. In each region, there is one response hospital and one supporting hospital.

Section 1 Pandemic Influenza Preparedness and Response

1. To innovate the management of anti-epidemic materials and enhance stockpile efficiency, the MOHW has:

(1) Established an e-commerce procurement platform, ensured the circulation and exchange mechanism for protective equipment as well as a Level III Inventory Management System for anti-epidemic supplies: protective clothing, N95 masks, surgical masks, etc.

(2) Maintained a stockpile of influenza antivirals that covers 10-15% of the population, and the scope of application for these antivirals is expanded during the influenza peak season.

2. Established an inter-ministerial emergency response mechanism to better respond to avian influenza outbreaks in Taiwan.

(1) Through an inter-ministerial platform and relevant meetings, the agricultural institutes encouraged livestock farmers, and animal disease prevention personnel to receive influenza vaccination. The inoculation rate was 100%.

(2) Monitored possible mutations in the avian influenza virus and the risk of poultry-to-human transmission and supervised the health surveillance of poultry farm workers conducted by the local health authorities. No instances of new human infection were reported.

3. Monitored influenza virus antigenicity, drug resistance, genetic mutation and the emergence of new strains. Virus strains from Taiwan were sent to the WHO reference laboratories in Japan and the US as a reference for vaccine strain selection.

Section 2 Healthcare-associated Infection Control and Laboratory Biosafety Management

1. Since 2017, the frequency of hospital infection control inspection has been changed from at least once per year to at least once every two years. In 2019, a total of 229 hospitals were inspected by local health bureaus. The initial pass rate was 95.9%, and all of the hospitals that failed the initial inspection passed the re-inspection.
2. The inspection of infection control in general nursing homes, psychiatric homes, and welfare institutions for children and youths was implemented in 2019, with inspectors visiting 358 general nursing homes, 35 psychiatric homes, and 118 welfare institutions. The passing rates for these facilities came to 99.7%, 100%, and 100%, respectively; institutions that required rectification have also passed their reevaluation.

3. Strengthened multi-channel surveillance on multidrug-resistant organisms (MDROs).

(1) The Antimicrobial Resistance Management and Surveillance System were launched in March 2017, providing two reporting mechanisms, including the Electronic Data Interchange mechanism and a manual uploading mechanism. The system collects the results of antimicrobial susceptibility tests and related data of the important bacteria in the WHO Priority Pathogens List. More than 150 hospitals were enrolled in 2019.

(2) Established a surveillance plan for antimicrobial resistance to collect the strains of key pathogens as listed by the WHO to monitor their antibiotic resistance and key resistance genes.

4. In response to WHO's emphasis on antibiotic resistance issues, activities to support World Hand Hygiene Day and World Antibiotic Awareness Week activities were held.

5. Laboratory biosafety management

(1) Implemented laboratory biosafety inspections at domestic high-containment laboratories and installation units with highly dangerous pathogens and toxin use/storage by conducting on-site inspections to ensure these highly sensitive premises are secured:

A. 14 storage installations and 21 high containment laboratories / installation units with highly dangerous pathogens and toxin use/storage were chosen for inspection. All inspected units were able to rectify identified oversights within the specified period to achieve a 100% correction rate.

B. 7 domestic laboratories/storage facilities for controlled pathogens and toxins were inspected, with 100% inspection completion rate. All inspected units were able to rectify identified oversights within the specified period to achieve a 100% correction rate.

(2) Assisted 14 domestic biotechnology-related laboratories in completing their "Laboratory

Biological Risk Management System". As of the end of 2019, there were 74 such laboratories that have introduced this system as demonstration units that would help the government in the promotion and improvement of self-management capacities for laboratories.

(3) There were 600 installation units that possess and use risk group 2 or above pathogens and biotoxins, with their categories and numbers shown in Table 6-2.

Table 6-2 **Numbers of Entity Types by Laboratory Biosafety Management in 2019**

Source: Taiwan Centers for Disease Control

Types note \ Category	Government Agency	Medical Institution	Academic Research Institution	Other	Subtotal	Total
Institutional Biosafety Committees	25	171	68	300	564	570
Biosafety Specialist	0	0	0	6	6	

Notes: If the number of employees in installation units keeping or using risk group 2 or above pathogens and biotoxins is more than 5, the installation unit shall be set up as an "Institutional Biosafety Committees (IBCs)." If the number is less than 5, a biosafety specialist shall be assigned. Both IBCs and biosafety specialists shall be reported to the Taiwan Centers for Disease Control, MOHW.

Section 3 Research and Laboratory Testing

1. A total of 150, 509 specimens were tested, of those, 19,191 were found to contain a pathogen or tested positive for a related antibody, yielding a positive rate of 12.8%.
2. The MOHW has applied "whole genome sequencing" in the investigation of TB clusters to improve the accuracy of correlation between individual cases and construct a genome database
3. The MOHW implemented the Tuberculosis Prevention and Control Collaboration Project under the New Southbound Policy to engage the TB laboratories in Vietnam in bilateral exchanges and visits to provide assistance with biosecurity operation, inspection quality management and various drug-resistance experimentation technologies.
4. Under the Global Cooperation and Training Framework (GCTF), the MOHW collaborated with the Ministry of Foreign Affairs and American Institute in Taiwan (AIT) to jointly host the International Workshop on the Programmatic Management of Drug-Resistant Tuberculosis. Representatives from 8 countries were invited to take part in in-depth discussions on the management of drug-resistant TB cases, the treatment and diagnosis and other aspects of the disease. Not only that, the MOHW also made special arrangements for the demonstration of TB screening and sharing of treatment experience by our doctors in the hopes of facilitating exchange of international experience, boosting the capacity of joint-regional defense against drug-resistant TB and mitigate its threat to the global community.
5. A total of 14,034 specimens from suspected cases with arbovirus infections were tested. Among them, there were 541 imported cases of dengue fever, 4 cases of Zika virus infection and 97 cases of chikungunya virus infection. In addition, the MOHW has also identified 100 indigenous cases of dengue fever, 21 indigenous cases of chikungunya, 449 cases of scrub typhus, 30 cases of endemic typhus fever and 3 cases of hantavirus infection. These cases have been promptly reported to serve as reference for vector-borne disease prevention and diagnosis.
6. Sent influenza virus isolates to the WHO Influenza Collaborating Centers to participate in global influenza surveillance.
7. Applied the "Automatic nucleic acid detection platform" for pathogen detection in diarrhea clusters, which can shorten the test time and assist in the detection of emerging pathogens.
8. Implemented community-based surveillance of enterovirus and respiratory viruses and provided a systematic reference for infectious disease early warning indicators, public health prevention actions, laboratory diagnostic technique and vaccine developments.

9. Continued to collect and diversify the Taiwan Pathogenic Microorganism Genome Database (TPMGD) and biomaterial inventory. Presently, the database contains more than 34,800 entries of genetic sequencing, with 1,308 strains of influenza virus, 2,024 strains of enterovirus and 4,232 strains bacteria in the inventory. The inventory has provided the resources needed in biomaterial applications submitted by 14 academic units, thereby proven its value in aiding academic researches and test kit development.
10. Assisted with the investigation of suspected cluster of cases of Hepatitis C at the Hemodialysis Room by analyzing a total of 11 cases; 3 of which were confirmed to be highly correlated to the incident and the remaining 8 were found to be unrelated.
11. Assisted Taiwan Blood Services Foundation to analyze the nature of correlation in alleged cases of hepatic viral infection transmitted through blood transfusion to clarify the correlation of the pathogen to the blood donor and receiver so that relevant aid can be administered. There were a total of 7 cases of contention but none of the blood donors and receivers in these cases were found to be correlated with regards to the infection.
12. Evaluated existing standard inspection process for HIV to establish a working reference in the formulation of relevant prevention policies and revision of AIDS Prevention Handbook so as to shorten the time required for HIV confirmed diagnosis for treatments to be implemented as early as possible.

Chapter 4 Immunization

Section 1 Current Immunization Status and Trends

To sustain Taiwan's immunization policy, an “Immunization Fund” was established in accordance with Article 27 of the Communicable Disease Control Act in 2010. The Fund serves as a stable funding source to implement new immunization policies each year. In 2018, the scope of the publicly funded hepatitis A vaccine became available to every national and was included in the routine vaccination program for children. At present, there are 10 free routine vaccines for young children that can prevent 15 infectious diseases. For the current schedule of vaccination for children, please visit the website for the Taiwan Centers for Disease Control at: https://www.cdc.gov.tw/Category/List/IpWZqtnmkJfQPfgnaP4lnw.

A “National Immunization Information System” was established to monitor and track the immunization status of young children. Children's routine vaccination coverage rate has been maintained, as shown in Figure 6-10. To deal with the side effects of immunizations, the MOHW has established the “Vaccine Injury Compensation Program (VICP)” to enable victims to receive the assistance they are legally entitled to.

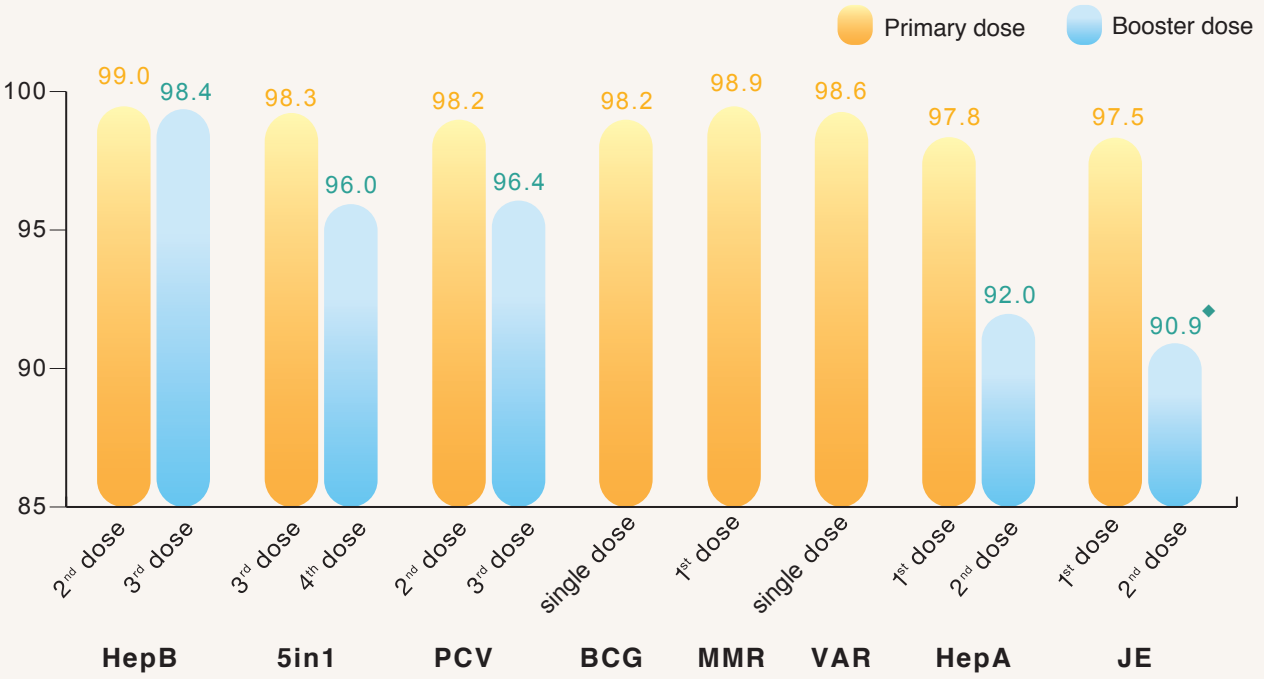
Section 2 Development and Manufacture of Antiserums/vaccines

In an effort to safeguard the health of citizens, Taiwan Centers for Disease Control has opted to manufacture snake antivenom immunoblobulin domestically by commissioning the National Health Research Institute’s bioproduction plant to produce snake antivenom immunoblobulin into freeze dried antivenom for the treatment of those bitten by poisonous snakes.

1. **Produced 465.8 kilograms of snake antivenoms.**
2. **The National Health Research Institute’s bioproduction plant was commissioned to produce 4,200 doses of freeze dried antivenin.**
3. **Supplied 3,971 doses of freeze dried antivenin for domestic patients suffering from poisonous snake bites.**

Figure 6-10 **Immunization Coverage Rate for Children in 2019**

Source: Taiwan Centers for Disease Control



- HepB: Hepatitis B vaccine
- 5in1: Diphtheria, tetanus, acellular pertussis, inactivated polio and Haemophilus influenza type b conjugate vaccine
- PCV: Pneumococcal 13-valent conjugate vaccine
- BCG：Bacille Calmette-Guérin vaccine
- MMR: Measles, mumps and rubella combined vaccine
- VAR: Varicella vaccine
- HepA: Hepatitis A vaccine
- JE: Japanese encephalitis vaccine

Note:

- A portion of children who received 3 doses of inactivated Japanese encephalitis vaccine should receive 1 dose of live chimeric JE vaccine after the age of 5.

※ Statistical period: As of end of December 2019.

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7 Management of Food and Drugs

Taiwan Food and Drug Administration (TFDA) spares no efforts in workings to protect the health of consumers. To achieve this goal, the key working points of the agency in 2019 focus on: bolstering legal standards and review mechanisms; solidifying food businesses supervisions; establishing a detailed supply chain monitoring system; improving national laboratory capacity and capability; setting up risk precautionary and management mechanisms; and proactively bolstering consumer protection and communication channels, so as to provide an environment ensuring drug safety and effectiveness, as well as food safety and health to our consumers.

Chapter 1 Management of Food

Taiwan Food and Drug Administration (hereafter referred to as TFDA) continued to implement its "Five-Point Food Safety" policy to achieve inter-domain integration of five major aspects: source management, production management, market inspection, manufacturer's responsibility and supervision by the citizens in order to create a comprehensive network of food safety.

Section 1 Food Regulatory Standards and Product Reviews

1. Regulatory Standards

In an effort to strengthen food management related regulations in Taiwan, the Act Governing Food Safety and Sanitation (hereinafter referred to as the Food Safety Act) and "Health Food Control Act" have been amended in 2019, with relevant regulations undergoing careful review. More than 40 articles were added and amended and for details on these changes, please visit TFDA's website at http://www.fda.gov.tw/ENG/index.aspx and search for relevant announcements.

2. Product inspection and review

In 2019, TFDA registered the inspection for specific foods and additives as shown in Table 7-1.

Table 7-1 Number of Registered Specific Food Products and Additives, 2019

Source: Taiwan Food and Drug Administration

Category		Effective Licenses
Imported foods in tablet or capsule form		6,982
Health foods		388
Genetically modified foods		149
Special dietary foods	Formulas for certain diseases	230
	Infant and follow-up formula	118
Domestic capsule and tablet vitamin products		1,239
Vacuum-packed ready-to-eat soybean food		72
Food additives		6,033
Total		15,211

Section 2 Food Management at the Source

1. Expand the scope of inspection items and reinforce border control

(1) "Regulations for Systematic Inspection of Imported Food" revised in 2019 adding three dairy products and products of deer-derived. In addition, according to Article 30 of "Act Governing Food Safety and Sanitation", 27 item (including the pumpkin seeds, fresh aquatic products) have been added for the inspection of imported foods completed the revision, a total of 2,640 item numbers that required to be inspected at the border.

(2) In 2019, approximately 718,766 batches of food and related products were inspected; noncompliant products were returned or destroyed in accordance with pertinent regulations.

2. Facilitation of international exchange to gradually expand overseas markets

TFDA cooperation with interagency and put efforts on assisting Taiwan food products to expand our overseas markets as well as enhance Taiwan's international competitiveness in food industry.

The Directorate General for Health and Food Safety (DG SANTE) had sent the audit team to Taiwan in 2019, to conduct on-site inspection.

Section 3 Monitoring the Food Safety Chain

1. TFDA has been implementing post-market monitoring plan for surveillance items of including pesticide residues, veterinary drug residues, mycotoxins and heavy metals in sample inspections for foods in high-risk groups sold in the market. 10,835 food samples were inspected in 2019, with the results shown in Table 7-2.

Table 7-2 **Results of Post-Market Surveillance of Food, 2019**

Source: Taiwan Food and Drug Administration

Surveillance Items	Results		
	Samples Taken	Conforming Cases	Compliance (%)
Pesticide residues	5,164	4,679	90.6
Veterinary drug residues	4,260	4,239	99.5
Mycotoxins	800	761	95.1
Heavy metals	611	606	99.2

2. Selective Inspection of Specific Cases

In 2019, more than 150,000 food businesses have been audited for GHP compliance by health agencies, among them, 80% food businesses get satisfied results. After second audit to the other 20% food businesses, the final compliance rate is over 90%. 460,000 food and related products were also inspected and the compliance rate is 99%.

3. Through means of onsite inspection for overseas sources, border inspection for imports and post-market inspection, TFDA has sought to improve the hygiene and safety of food in market circulation. Efforts were made to step up the monitoring of livestock and aquatic products that have higher failure rate. The compliance rate for 2019 came to 97.9%.

Section 4 Food Safety and Sanitation Management

1. Aligning our laws and standards with international standards

In an effort to harmonize with pertinent international regulations, TFDA reviewed existing"Standards for Pesticide Residue Limits in Foods," "Standards for Veterinary Drug Residue Limits in Foods," "Standards for Specification, Scope, Application and Limitation of Food Additives" and "Food Sanitation Standards" in 2019 and updated the list of 7,244 residue limits for pesticides, 1,439 residue limits for veterinary drugs, the scope of use, limits and specifications for 792 food additives and 28 sanitation standards.

2. Improvement to food business registration system

In an effort to improve food logistics (including food delivery platform) management, TFDA has announced on April 26 2019 regarding the scale of logistic operators that will be required to register and the schedule for implementation. As of the end of 2019, the total number of registered food businesses has reached approximately 470,000.

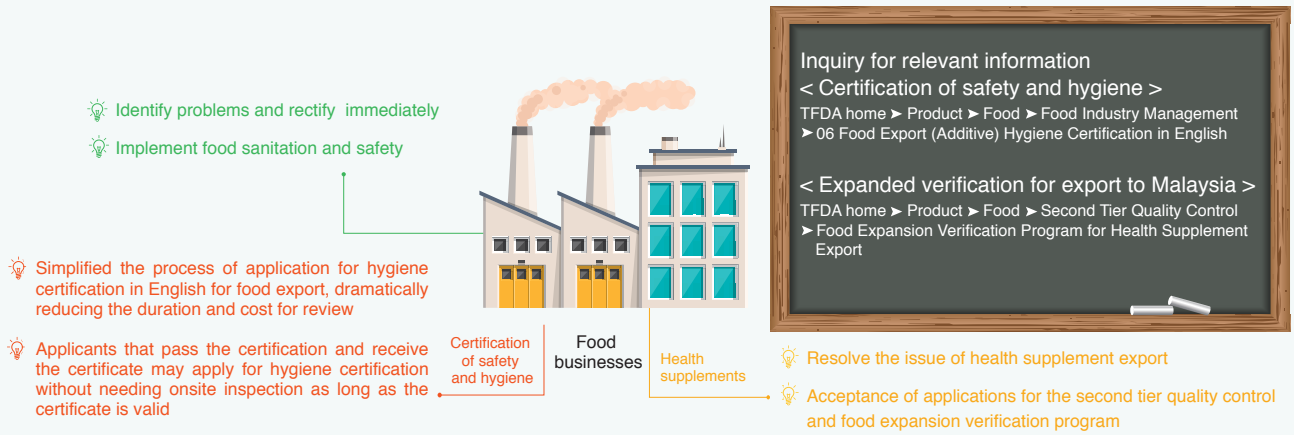
3. Enhancing the self-management at food production factories

In 2019, "all categories" of food manufacturing factories shall have sanitation control personnel.

Section 5 Food Sanitation and Safety Management System Certification

According to Paragraph 5, Article 8 of the Act Governing Food Safety and Sanitation, any food business has been declared its category and scale by the central competent authority shall obtain the certification of sanitation and safety management system. At the end of 2019, 10 categories that comprise 456 food businesses have completed their inspection and certification, including edible oils and fats and commodities whose capital is more than NTD 30 million or canned food without any capital limit. If food businesses pass the certification of "The Second Tier Quality Control" along with "Food Expansion Verification Program", TFDA will be able to issue approval documentations that are equivalent to GMP certification to help food businesses to export as shown in Figure 7-1.

Figure 7-1 Benefits of passing Food Sanitation and Safety Management System Certification



Chapter 2 Medicinal Products Management

To ensure the safety and quality of drugs, the Food and Drug Administration actively promotes drug administration reform, improves the process of medicinal product regulations and registration, fosters the competitiveness of pharmaceutical industry, manages the medicinal product source, prohibits illegal drugs and enhances the management of controlled drugs.

Section 1 Drug Regulatory Standards & Product Approval

1. TFDA continued to improve upon current regulations of drugs and pushed for amendments to be made to 9 Articles of pharmaceutical related regulations in 2019. Relevant details on these amendments can be found on TFDA's website under Drugs>Laws & Regulations & Guidance>Announcements.

Table 7-3 **Amendments to Regulations or Guidance Governing Drug Management, 2019**

Source: Taiwan Food and Drug Administration

Date	Title	Key Amendments
February 14	Amendment of specific articles of "Regulations for Registration of Medicinal Products"	In conjunction with the availability of E-submission, the review process has been simplified while steps have been taken to ensure labels that are easy for consumers to identify the dates of manufacturing and expiry dates.
March 6	Announcement for the "Regulations for the Notification of Drug Patent Linkage Agreements"	In order to prevent agreements that are unfair or restrict competition/ hinder the market launch of other generic drugs, this Procedure has been established pursuant to Item 2 of Article 48-19 of the Pharmaceutical Affairs Act.
April 2	Announcement of "Guidelines for Good Practices for Positron Emission Tomography Drugs Dispensation"	To further improve the quality of positron drug prepared by medical institutions so as to ensure drug safety for the general public.
May 20	Announcement of the clinical benefits for children and reevaluation of risk for drugs containing benzocaine	Drugs containing benzocaine could potentially cause a rare but serious side effect called methemoglobinemia, with children being at higher risks to this adverse side effect. And as such, such drugs' clinical benefits for children and risks need to be reevaluated.
July 1	Announcement for "Regulations for the Patent Linkage of Drugs"	This Procedure has been established in accordance with the Pharmaceutical Affairs Act to facilitate the implementation of patent linkage of drugs.
July 31	Amendment to Article 6-1 of "Pharmaceutical Affairs Act" that a drug category of trace or track system shall be established	Revised 38 items in the high-concern category and added preparations containing ephedrine or pseudoephedrine (not including the controlled drugs) to the declaration of drug trace and track.
August 20	Announcement for the effective date for "Regulations for the Patent Linkage of Drugs"	The Executive Yuan has announced that Patent Linkage of Drugs as prescribed in Chapter 4 of the Pharmaceutical Affairs Act shall be promulgated on August 20, 2019, with relevant decrees for the Pharmaceutical Affairs Act to be promulgated on the same day.
November 18	Announcement for "Guidelines on the Designation of Drugs for Children or Rare Severe Diseases"	This guideline has been established to encourage pharmaceutical companies to develop drugs for the treatment of children or rare severe illnesses to simplify and expedite the review process for the aforementioned drugs.
November 18	Amendments to "Abbreviated Review Mechanism for New Drug Application", "Priority Review Mechanism for New Drug Application", "Accelerated Approval Mechanism for New Drug Application" and "Guidelines for Breakthrough Therapy Designation"	1. Relevant review procedures have been simplified for new drugs containing new chemical entities that have been approved by the US FDA, EMA or PMDA for market launch. 2. For drugs that meet unmet medical needs, existing mechanisms for priority review and accelerated approval have been revised. 3. Guidelines for breakthrough therapy designation have been revised for drugs that have been proven by early clinical evidence to have significant breakthrough in terms of improvement over existing methods of treatment for severe or rare diseases in Taiwan.

2. Drug registration management: In 2019, there were 291 IND applications, 182 clinical trial reports, 100 new drug applications and 146 generic drug applications approved by TFDA.

Section 2 Source Management for Medicinal Products

1. By the end of 2019, there were all 143 domestic and 941 overseas pharmaceutical manufacturers (from 50 countries) that are compliant with PIC/S GMP guidelines.
2. By the end of 2019, there were 264 items of active pharmaceutical ingredients (API) from 27 domestic manufacturers have met the GMP standards and 1,697 GMP permits issued for importers.

Section 3 Supply Chain Monitoring for Drugs

1. In order to ensure proper drug storage and transportation quality, the Ministry has continued to enforce the standards of GDP by stipulating all dealers of drugs involving cold chain distribution to become compliant before the end of 2021. By the end of 2019, 691 drug dealers have become GDP compliant.
2. Drug Quality Monitoring
   (1) In 2019, TFDA received 1,063 reports of alleged quality defects in total. After thorough assessment, 7 have been chosen for recall. TFDA has actively monitored international drug quality alerts for 1,436 items and selected 44 relevant alerts to be published under the "Notification and Safety Watch Section" on TFDA's website.
   (2) In 2019, the TFDA completed lot release for 433 batches, totally 14,983,050 doses of biologics. TFDA successfully blocked two batches containing a total of 10,700 vials of noncompliant influenza vaccines based on their records for temperature during transit.
   (3) The drug quality monitoring results for 2019 are shown in Table 7-4. The unqualified products were handled as required by law.

Table 7-4 **Results of Drug Quality Testing, 2019**

Source: Taiwan Food and Drug Administration

Tested Items	No. of reported case	Compliant cases	Compliance rate (%)
Quality surveillance on the oral preparations of spasmolytics, antiviral agents, urologicals, antidiabetic agents and antihyperlipidemic agents	119	116	97.5

3. Since the establishment of the "Counterfeit and Defective Drugs Elimination Team" in 2010, the average annual violation rate has dropped significantly from its initial 11.81% to 2.66% in 2019 as shown in Figure 7-2. In 2019, the competent authorities found 6,255 violations for illegal advertising of food, drugs and cosmetics, with total fines amounting to NTD 181 million. The illegal advertising rate fell from 13.93% in 2010 to 4.89% in 2019, as shown in Figure 7-3.

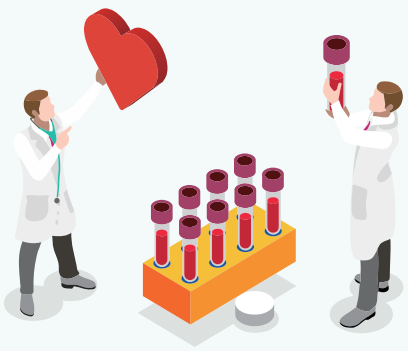


Figure 7-2 **Violation Rate of Illegal Drugs 2010-2019**

Source: Taiwan Food and Drug Administration

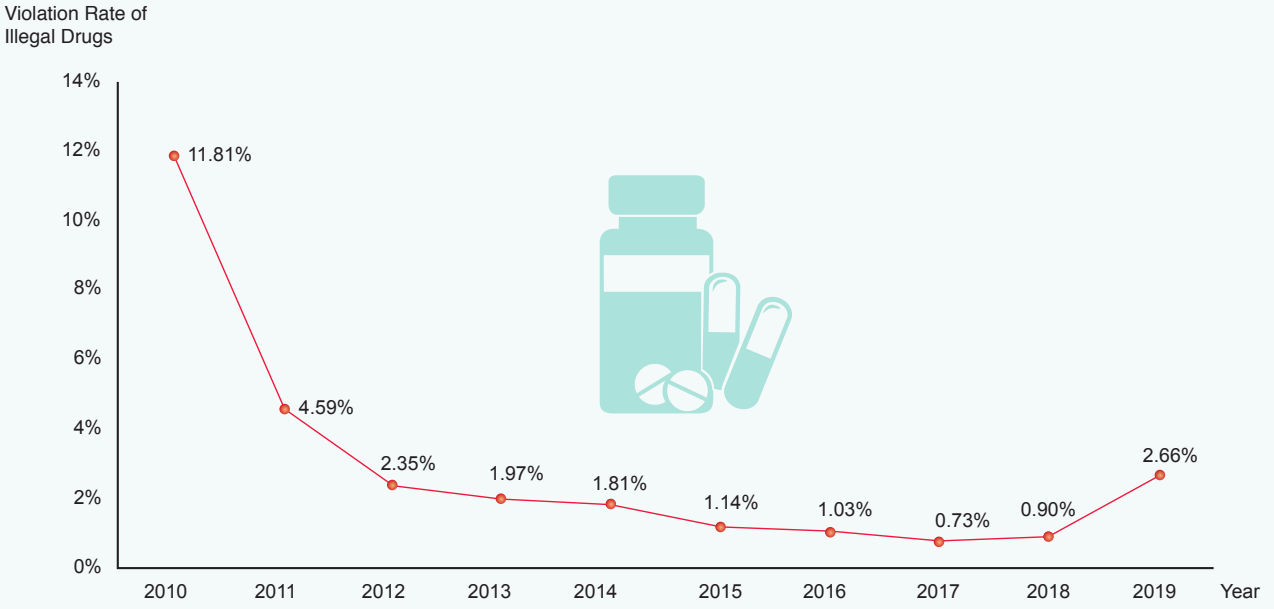
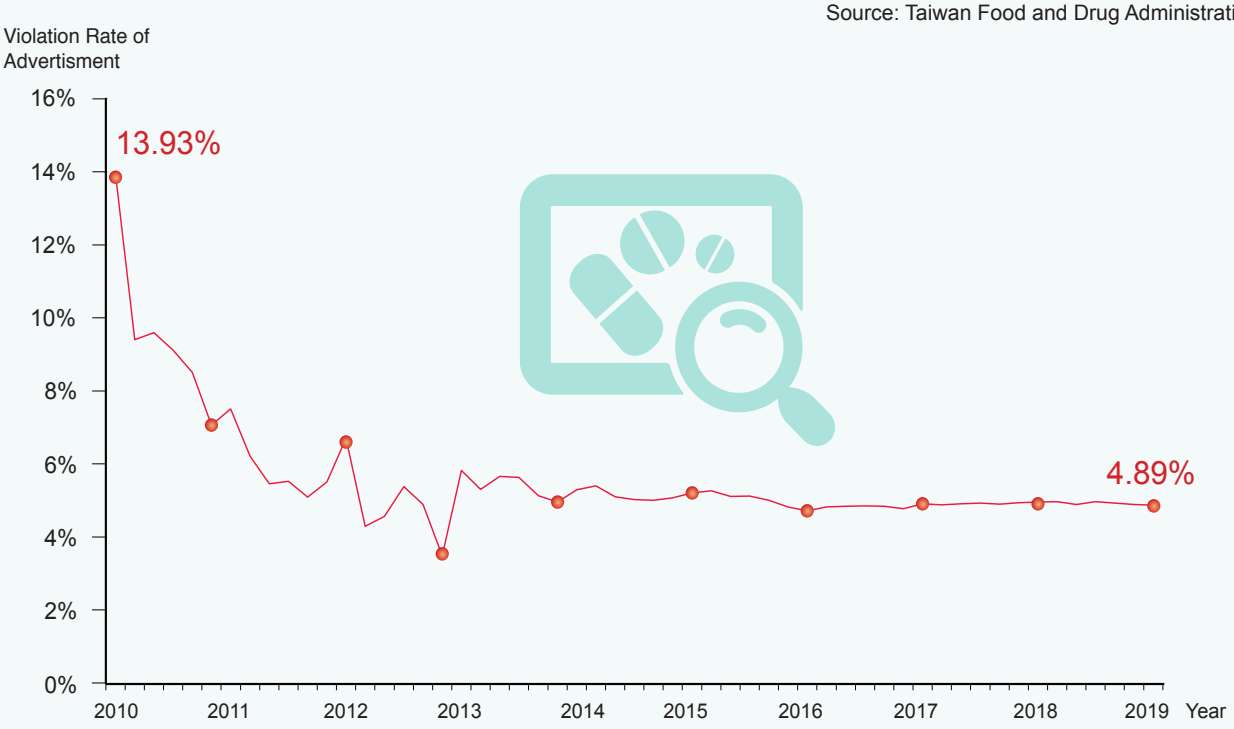


Figure 7-3 **Violation Rate of Food and Drug Advertisement 2010-2019**

Source: Taiwan Food and Drug Administration



Section 4 Management of Drug Safety

1. Drug safety monitoring in 2019: TFDA received 15,747 domestic reports on adverse drug reaction and monitored 88 cases of local and international drug safety alerts. In addition, the Administration conducted drug safety assessment for 34 items and published 21 drug risk communications.
2. In 2019, 199 drug injury relief applications were received, and 117 were approved, the approval rate vis 63.2% and NTD 19,938,310 in total.

Section 5 Management of Controlled Drugs

1. A management system was established in accordance with the Controlled Drug Act and in 2019, the Controlled Drugs Review Committee of the MOHW held two meetings. The Committee announced the addition of 30 controlled drugs on January 2, April 11 and December 5 2019.
2. As of the end of 2019, there were 15,905 institutions and business operators with controlled drug registration certificates and 58,840 practitioners with controlled drug prescription licenses.
3. In 2019, a total of 17,678 on-site inspections were conducted, with a 3.51% violation rate. Violators all received relevant penalties.
4. To implement and promote "New-generation Anti-drug Strategy," in 2019 we introduced Portable Raman Spectrometer for border checks. Inspection personnel checked a total of 8,297 batches of active pharmaceutical ingredients (APIs), and all of the APIs' information was consistent. While performing the border checks, we build the spectroscopic database in total of 1,669 items, including APIs, illegal drugs and controlled drugs. TFDA had purchased 98 standards of illegal drugs and new substances and created 85 standard items in the mass spectrogram databases in 2019, as well as actively developed the recommended test methods.
5. Totally 136 lecturers have trained by hosting seed instructor training and also established 8 anti-drug resource centers cooperating with 183 outreach point to strengthen the drug abuse prevention and control network.

Section 6 Management of Chinese Medicine

1. In an effort to facilitate sustainable development for traditional Chinese medicine for the health and well-being of all citizens, the Ministry established the Chinese Medicine and Pharmacy Development Act, which the President announced for promulgation on December 31 2019. The enactment of the Act has laid the founding principles for the development of traditional Chinese medicine in Taiwan and set a new milestone in its course of development.
2. In order to boost the quality of dose preparation for Chinese Medicine, the Ministry amended Article 74 and 77-1 of the Regulations for Registration of Medicinal Products and published the amendments on October 7 2019, stipulating that the inspection specifications for Chinese medicine preparation must be compliant to the contents of the latest version of Taiwan Herbal Pharmacopeia.
3. The Third Edition of Taiwan Herbal Pharmacopeia was officially implemented on June 1 2019. Its content feature a total of 357 items, with 55 new additions of Chinese medicine materials, 2 TCM concentrated preparations and 6 endemic herbs in Taiwan along with scientific and systematic methodologies to provide a comprehensive framework of quality control for Chinese medicine materials. In conjunction with the official implementation of the pharmacopeia, the English version of the pharmacopeia was published in December 2019 as a reference for exporters of TCM products to promote the internationalization for Taiwan Herbal Pharmacopeia.
4. In 2019, 91 GMP Chinese medicine factories completed 47 follow-up inspections according to Regulations of Medicine Manufacturer Inspection, and the pass rate came to 93.6%.
5. In conjunction with the operations to ensure effective operations of manufacturing facilities of traditional Chinese medicine, the Ministry has assembled a team of experts to perform onsite visits at various facilities for supervision and assistance. In 2019, the team made 31 visits in total and held 16 sessions of training.
6. Border inspections for 21 Chinese medicinal ingredients such as ginseng, and angelica were performed on the 4,010 batches (equivalent to 13,582 metric tons) declared by importers in 2019. 24 batches were found to be noncompliant and rejected/disposed accordingly. In addition, TFDA also conducted quality monitoring of commercially available Chinese medicines by focusing on the testing for heavy metals, sulfur dioxide, aflatoxins and so forth. In 2019, 602 items were inspected and among which 23 were found to be noncompliant. The violations were handled according to pertinent regulations. Administrative penalties of illegal Chinese medicine advertisements were issued for 630 cases, with fines totaling NTD 16.03 million.
7. To boost Chinese medicine practitioners' competency and knowledge, MOHW has held 6 seminars on the differentiation of different Chinese medicine materials for manufacturers or dealers of Chinese medicine. In addition, TFDA also held the "2019 Chinese Medicine Cultural Tour - Taking a stroll in Dadaocheng for a personal experience with herbal ingredients" event as a way to promote general knowledge and awareness for Chinese medicine for the general public. The event attracted approximately 3,500 participants.

Chapter 3 Management of Medical Devices and Cosmetics

To effectively ensure the safety and quality of medical devices and cosmetics, a comprehensive quality management policy was drafted, taking various aspects into considerations, including international regulatory harmonization, source control, pre-market gatekeeping, post-market monitoring and supply chain management.

Section 1 Regulatory Standards of Medical Devices and Cosmetics and Product Review

1. The regulatory environment was changed to enhance harmonization with international regulations, and the revisions in 2019 are shown in Table 7-5.
2. In 2019, the Ministry completed the review of a total of 158 applications of medical device registration with no similar predicate. The average review duration is 151 days, which is similar to that of the other countries. In addition, 1,051 medical device international standards and 110 medical device guidance documents were recognized to enhance review consistency and transparency. (Information on the registration review is shown in Table 7-6.)
3. In order to strengthen the domestic medical devices management system and to align with international regulations and standards, the "Medical Devices Act" was drafted. The Legislative Yuan passed the third reading of the Act on December 13, 2019 and the Act with 85 articles was announced on January 15, 2020 under the Presidential Decree. The new Act can help ensure the safety, efficiency and quality of medical devices used by our citizens and usher in a new era for medical device management in Taiwan.

Table 7-5 Important Amendments and Revisions to Regulations Governing Medical Devices and Cosmetics in 2019

Source: Taiwan Food and Drug Administration

Date	Name	Key Changes of the Revision
July 29	Amended Article 8 and Annex I of Article 3 of the Regulations for Governing the Management of Medical Device	Classification, categories, item names and identification were added to clarify identification and use and to align with international management model.
August 14	Announced the "2019 List of Medical Devices Recognized Standards"	Announced that 1,051 international medical device standards would be recognized to ensure the safety and effectiveness of products in the market.
September 2	Announced the pre-clinical testing guidance for "tooth shade resin material (F.3690)" and "Vascular graft prosthesis (E. 3450)"	Business can use the guidance as a reference for research and development of product and registration and market approval; Inspectors can also use the guidance as a reference to ensure the safety and effectiveness of the products in the market.
November 18	Announced the "Guidance for Manufacturers: Cybersecurity for Networked Medical Devices"	For medical device manufacturers, the guidance provides key points related to cybersecurity for product design, research and development, application of registration and market approval and post-market considerations, to ensure that medical devices can meet the cybersecurity requirements.

Table 7-6 Statistics of Medical Devices and Cosmetics Applications for Reviews in 2019

Source: Taiwan Food and Drug Administration

Items	Medical Devices Registration	Registration for Specific Purpose Cosmetics
Number of applications received	5,244	1,497
Number of applications reviewed	5,113	1,495

Valid Licenses: 45,839 for medical devices, 14,687 for medicated cosmetics

4. A comprehensive counseling network was established to offer advices on medical devices and cosmetics regulations. In total, 21,733 consultation calls were received, of which 12,808 calls were related to cosmetics regulations. The network promptly responded to questions from all walks of life and posted FAQ on the website of the Food and Drug Administration. The medical device project counseling mechanism has facilitated the successful approval and market launch of domestic innovative medical devices such as the "Powered lower extremity exoskeleton" and "Magnetic Controlled Capsule Endoscope".
5. In light of the trends related to international regulatory harmonization, the "Cosmetic Hygiene and Safety Act" was announced by the President on May 2, 2018. The effective date was set on July 1, 2019 by the Executive Yuan, except for provisions related to the information of labelling on the outer packaging or containers of cosmetics, which will become effective on July 1, 2021. In 2019, with authorization by the "Cosmetic Hygiene and Safety Act", 30 sub-regulations and orders were announced to accelerate the construction of a better environment for use of cosmetics.

Section 2 Source Management of Medical Devices and Cosmetics

1. By the end of 2019, there were totally 809 registrations with valid GMP compliance for domestically manufactured medical devices; 4,549 registrations with valid quality system documentation (QSD) compliance for imported medical devices. In addition, there were 55 manufacturers who comply with voluntary cosmetics Good Manufacturing Practices.
2. At the end of 2019, there were 31,241 registered cosmetics on the cosmetic products notification portal. Compared with 2018, 15,177 products were added.

Section 3 Quality Chain Monitoring of Medical Devices and Cosmetics

1. The quality monitoring results of medical devices and cosmetics are shown in Table 7-7.
2. The Food and Drug Administration and the local health bureaus jointly inspected the packaging labels of medical devices and cosmetics. The results are shown in Table 7-8.

Table 7-7 **Results of Medical Devices and Cosmetics Surveillance in 2019**

Source: Taiwan Food and Drug Administration

Name of Project	Total Cases	Inspection Items			
		Quality		Package Labeling	
		Number of Conformity	Conformity Rate (%)	Number of Conformity	Conformity Rate (%)
Quality surveillance of marketed medical masks in Taiwan	33	28	84.8	30	90.9
Sterility and balloon reliability surveillance of urethral catheter in Taiwan	25	22	88.0	19	76.0
Medical devices, total	**58**	**50**	**86.2**	**49**	**84.5**
Survey on formaldehyde, methyl alcohol, benzene and phthalate esters in marketed nail polishes in Taiwan	50	49	98.0	46	92.0
Quality monitoring for safrole in marketed cosmetic products in Taiwan	20	19	95.0	20	100
Quality monitoring for preservatives in marketed cosmetic products in Taiwan	100	100	100	91	91.0
Cosmetics, total	**170**	**168**	**98.8**	**157**	**92.4**

Table 7-8 **Statistical Analysis of Joint Inspection of Medical Devices and Cosmetics in 2019**

Source: Taiwan Food and Drug Administration

Product Name	Inspected Number	Number of Conformity	Conformity Rate (%)
Endosseous dental implants	63	58	92
Nonpowered flotation therapy mattress	10	10	100
Medical devices sold on the Internet (including contact lenses, ear thermometers, sphygmomanometers and blood glucose meters)	162	100*	62
Teeth whitening products, fragrant powder cosmetics	58	53	91

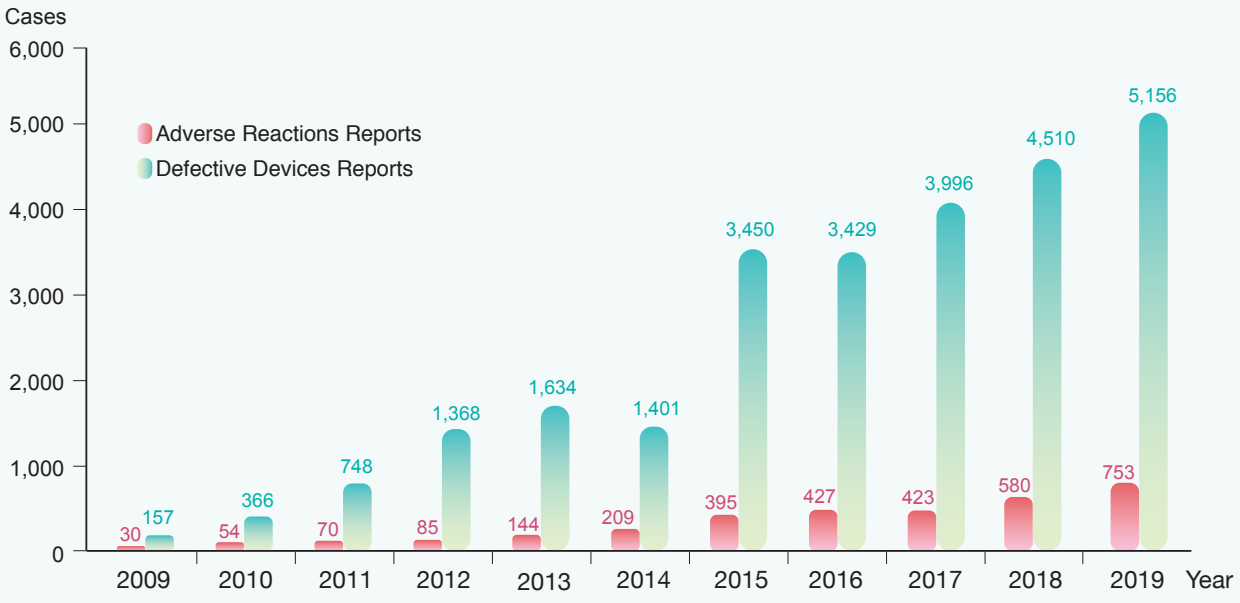
*Most violations were related to people selling medical devices online without pharmaceutical dealer permit licenses.

Section 4 Safety Management of Medical Devices and Cosmetics

1. In 2019, Taiwan National Adverse Drug Reactions Reporting System received 5,156 reports of defective medical devices and 753 reports of adverse reactions to medical devices (Figure 7-4). At the same time, through active monitoring of 2,081 safety vigilance information related to medical device from Taiwan and overseas, and the Ministry also translated and issued 175 alerts online for public reference.
2. In 2019, there were 94 reports of adverse events for cosmetics, 228 safety alerts related to monitored cosmetics, and 183 consumers “red and green light alerts.”

Figure 7-4 **Number of Reported Defective Medical Devices and Adverse Reactions to Medical Devices, by Year**

Source: Taiwan Food and Drug Administration



Chapter 4 National Laboratories and Risk Management

TFDA continues to improve the functions of national laboratory, construct testing techniques in line with international trends, enhence the development of testing technology, support administrative management by testing technology, implement risk management as well as crisis management mechanisms and complete food and drug safety management system to effectively reduce risks and the impact of crises.

Section 1 Missions and Functions of National Laboratories

1. In response to the needs of various types of product inspection, TFDA actively develop rapid and accurate inspection methods to ensure food and drug safety. In 2019, 5,249 inspections were carried out and the number of inspected items came to 20,262. Moreover, TFDA assisted prosecutors, policemen, investigator, judiciary and customs in product investigation, and provided technical support for government agencies.
2. TFDA continued to improve and expand testing capacity and capability and also formulated technical documents for use to all relevant interested parties. In 2019, TFDA published 25 announcements on new, revised and corrected testing methods for food products, and 43 articles on recommended testing methods for foods, 4 for cosmetics, 1 article on medical devices and 5 articles on drugs and abused drugs.
3. In 2019, the National Laboratories took part in 16 international proficiency tests for food, medicine and medical devices, with all outcomes being satisfactory as the Laboratories' testing capabilities received international recognition.
4. The Laboratories hosted conferences such as the "2019 APEC International Workshop on Food Safety and Threat from New Psychoactive Substance" in 2019 to facilitate technical exchanges and sharing of experience.
5. On November 20 2019, TFDA signed an MOU with EU OCABR (officially controlled authority batch release) network on Participation of EU OCBAR Network Activity to share relevant information and data on biological batch release and follow-up on nonconforming items and so forth.

Section 2 Risk Management and Crisis Management Mechanisms

1. Organizational risk management:

TFDA held its "Risk Management and Crisis Handling Workshop" on October 24 2019 to present actual case studies of risk management by administrative agencies and crisis management as examples to illustrate the overall concept for risk identification and crisis prevention. In addition, TFDA also organized a training on "Risk Management for Compound Disaster" in order to go over relevant response and preparation for potential hazards, 208 trainees took part in the training.

2. Handling of major crisis:

On December 19 2018, TFDA established the "TFDA African Swine Fever Response Taskforce", which has been responsible for relevant tasks such as "Network platform management and dissemination", "Strengthening border control and post-marketing audit", "Joint abattoir audit", "ASF inspections and studies" and so forth ever since its establishment.

Section 3 Local and Private Laboratory Accreditation and Management

1. Through the "Regional Integrated Laboratory Testing System," TFDA continuously coordinate and assist designated testing items to help local health bureau's self-test ability rate to reach 90%. At the end of 2019, 1,090 items passed the laboratory accreditation of the TFDA, and the pass rate of designated testing items was 98.3%.
2. In order to expand the domestic testing capacity, the number of private testing institutions and items accredited by TFDA reached 144 and 1,718 items, which is 9.9% higher than last year, as shown in Figures 7-5 and 7-6. The satisfaction rate of the drug and cosmetics proficiency test reached 87.5%.
3. In response to the carcinogenic impurities found in sartan medicines and impurities in ranitidine, a medication which decreases stomach acid production, TFDA called on private laboratories urgently to take part in the emergent testing and declared the laboratories with the capacity to test for the impurities of sartan (3 labs) and ranitidine (4 labs).

Figure 7-5 **TFDA-Accredited Testing Institutions, by Year**

Source: Taiwan Food and Drug Administration

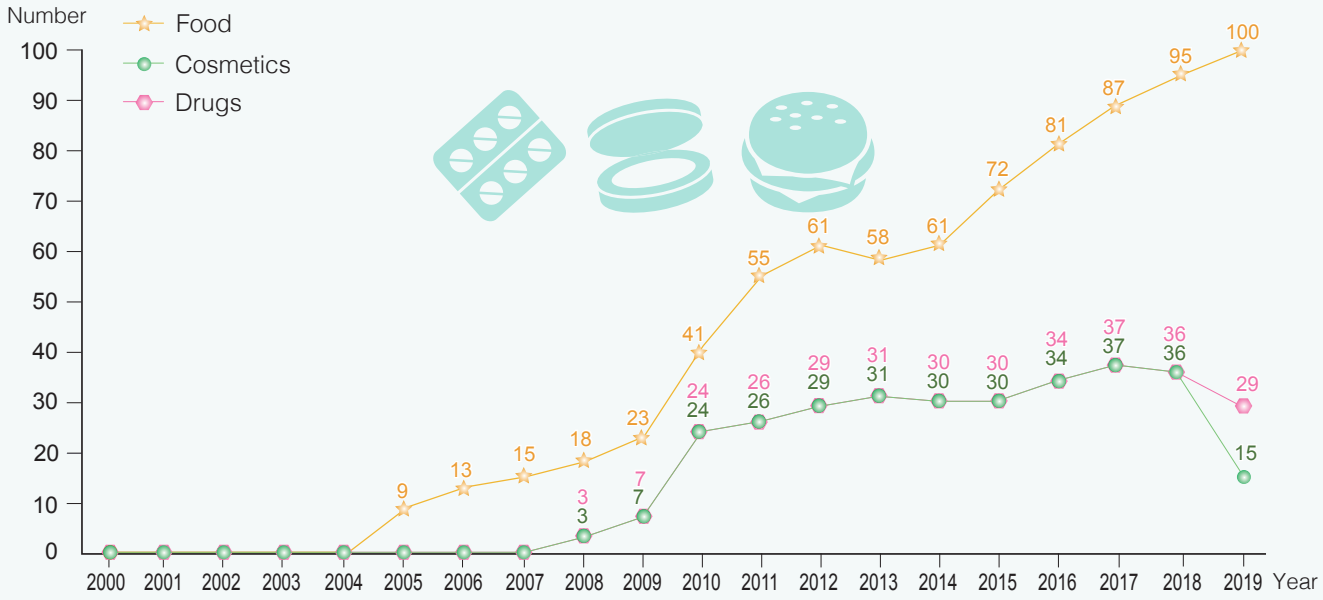
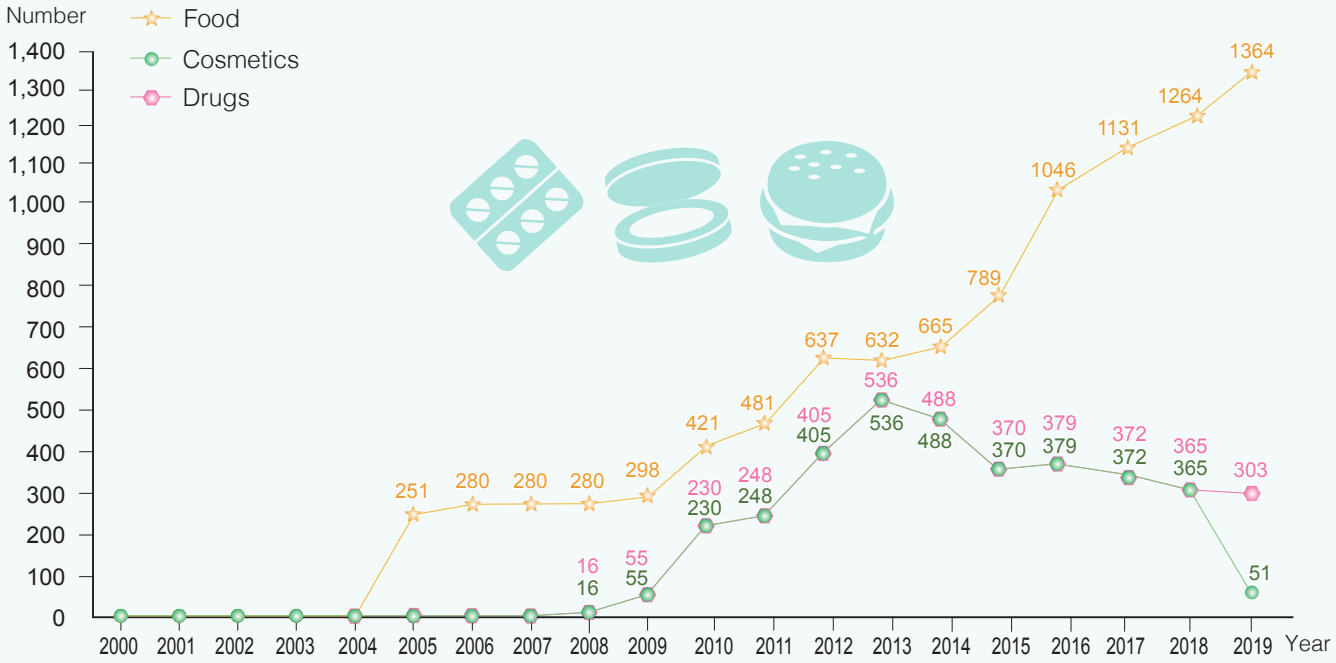


Figure 7-6 **Increase in Accredited Items of TFDA-Accredited Testing Institutions**

Source: Taiwan Food and Drug Administration



Chapter 5 Consumer Protection and Communication

Through the new communication channels, by means of "offline to online" new media marketing methods, the safety risk education and governance messages were circulated, and a new health education and policy marketing model was established, in an attempt to achieve effective policy advocacy.

Section 1 Keeping Consumers Informed

1. The "Articles of Food and Drugs" (Website: http://article-consumer.fda.gov.tw/) website was set up to provide information and knowledge on food and medicine. Sections such as "Rumor Buster" and "Rumors Collection Mailbox" were established for rumor clarification and rumor collection. By the end of 2019, more than 430 articles were posted on the website, accumulating 2,161,483 visitors.
2. The latest health education information is posted to the Facebook fan page "TFDA" (Website: https://www.facebook.com/tfda2014.tw/) which has more than 110,000 followers.
3. The TFDA collected rumors and provided clarification through the "Food and Drugs Rumor Buster" section on its official website. In this section 400 messages were released, with more than 31.57 million hits and articles being referenced for more than 2,700 times by the media.
4. TFDA has opened a section "New Psychoactive Substance" on its website for the general public. People can look for information such as the latest situation in new psychoactive substance inspection in Taiwan, a list of approved institutions for drug abuse urine tests, the list of illegal drugs that can be tested by using urine sample rapid test kits, and the monthly/annual "Drug Abuse Cases and Testing Statistics" report (as shown below).

Section 2 Consumer Communication and Campaigns

1. The national food safety hotline "1919" and citizen service hotline "02-27878200" have received more than 64,000 calls made in 2019. The service rate for the hotlines has exceeded 90%, with the callers' satisfaction also at 80%.
2. In 2019, TFDA took part in a total of five large fairs/events such as Food Taipei and Taiwan Culinary Exhibition in Taipei, Taichung and Kaohsiung with "Time Machine of FUN" as the motif of content display. By promoting relevant information on food safety such as prevention of food poisoning, reading the label on food packaging on so forth, the goal was to help participants acquire essential concepts and knowledge of food safety through fun and interactive ways.
3. In 2019, TFDA collaborated with 17 private organizations and hosted a total of 346 sessions of drug abuse prevention promotion. Not only that, TFDA also worked with 3 KOL in the domain of sports to promote tips on refusing drugs on their Facebook and Instagram, along with a typesetting flash crowd activity that attracted the participation of 200 people. The activity ended up drawing 1.169 million views online.
4. TFDA held a large-scale fair in 2019 featuring the theme of "The Way to Safe Drug Use - Let Pharmacists Be Your Guide" on top of with 219 seminars on the promotion of drug safety. These events attracted a total of 10,000 participants and they reflect TFDA's hopes of disseminating the right values and knowledge in communities and schools so as to boost the general public's knowledge for safe usage of drugs.

2019 Drug Abuse Cases and Testing Statistics Annual Report

After reading this article, scan the QR Code.
Please fill-in the questionnaire to give us your advice.

8 National Health Insurance and National Pension

To protect people against financial hardship due to birth, old age, illness, death, disability and unemployment; a sound social security system has been established under the principles of mutual assistance and risk sharing.

Chapter 1 National Health Insurance

Section 1 Current Status of National Health Insurance

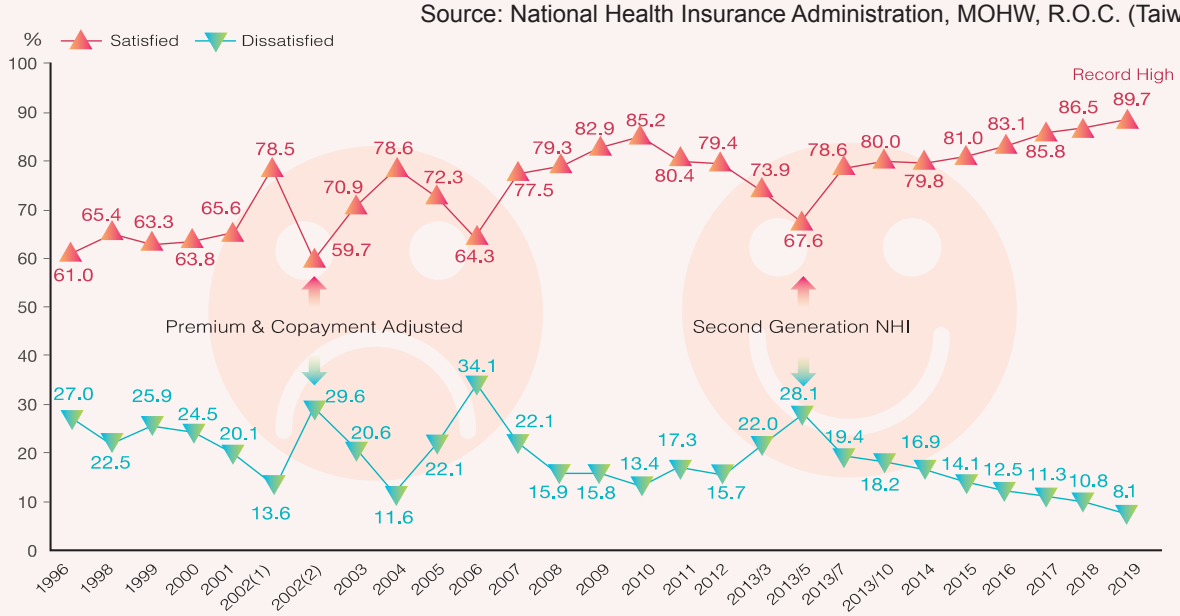
After many years of hard work, Taiwan's National Health Insurance (NHI) has attracted global attention for its "universality, affordability, convenience, and high customer satisfaction." It has maintained not only a satisfaction rate of over 80% domestically (Figure 8-1), but has also attracted numerous foreigners to Taiwan to learn about its advantages.

By the end of 2019, the total number of insured people was 24.02 million, and the NHI coverage rate hovered around 99.84%. As much as 92.6% of the medical institutions in Taiwan have signed contracts with the National Health Insurance Administration (NHIA) enabling improved healthcare access.

Health insurance funding mainly derives from insurance premiums paid by the insured, their employers and the government; a small portion also comes from external financial resources, such as Public Welfare Lottery Surpluses and Welfare Surcharge on Tobacco Products. At the end of 2019, the cumulative surplus of NHI amounted to NT$176.7 billion. Although the statutory stock is met, an annually declining trend is noted since 2017.

Figure 8-1 Trends in satisfaction with National Health Insurance

Source: National Health Insurance Administration, MOHW, R.O.C. (Taiwan)



Section 2 Universal Coverage and Easy Access to Healthcare

In 2019, the total number of outpatient visits was 367.61 million; the total number of hospitalizations was 3.53 million. While the average number of outpatient visits per person per year was 15.37 (combining Western medicine, Chinese medicine and dental clinics), the number of hospitalizations per person per year was 0.15. The average length of hospital stay was 1.38 days.

By the end of 2019, the number of health facilities having contracts with NHI reached 29,120, of which 21,435 were contracted hospitals and clinics that account for 92.6% of the total medical institutions nationwide. The insureds may choose their healthcare providers.

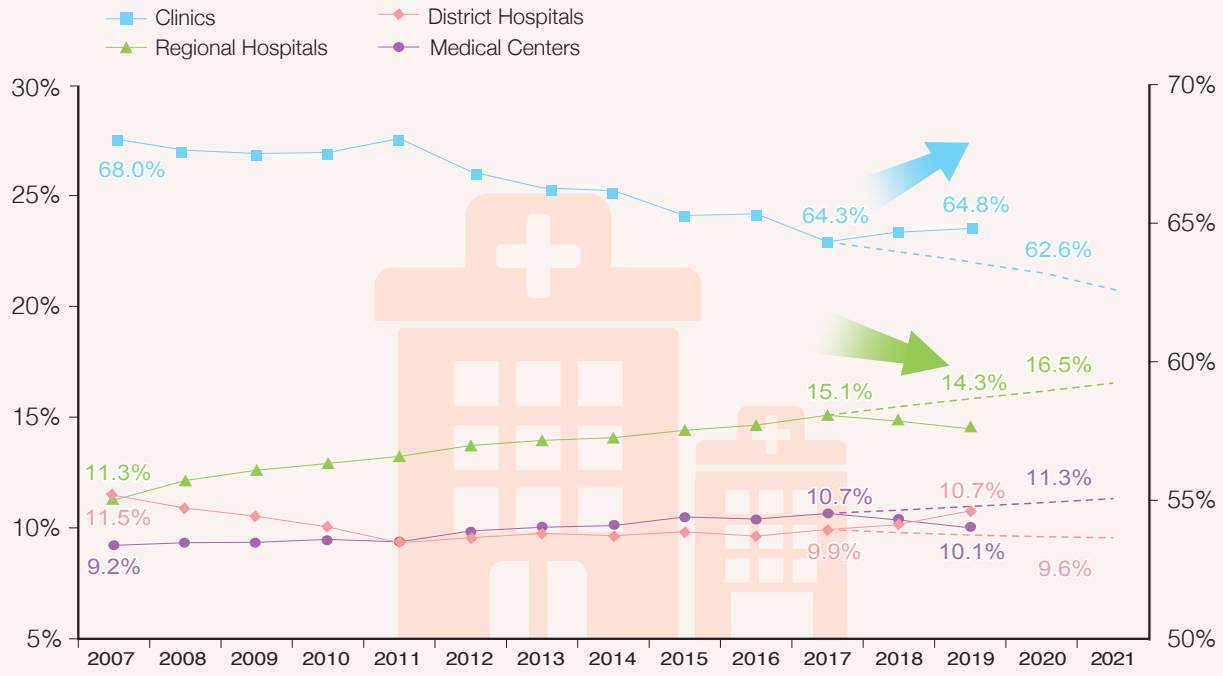
Since 2017, the Ministry of Health and Welfare (MOHW) has been working to enhance the system's efficiency and cost-effectiveness; i.e. primary care physicians (PCPs) will gradually play an important role as entry point or gatekeepers to Taiwan's healthcare system. MOHW has formulated six major strategies and related measures to encourage people to see their PCPs as coordinators of health-related services. If the PCP deems it medically necessary for the patient to see a specialist, the patient will be referred accordingly. This plan calls for major medical centers to focus on intensive care and medical research, and for primary care facilities to serve as the gatekeepers for public health. The proportion of outpatient visits for all levels of institutions in Taiwan in the last 10 years showed a gradually rising trend in clinics and district hospitals since 2017, but a slight decline in regional hospitals and medical centers. (Figure 8-2)

The vertical integration of the healthcare system is being actively promoted by NHIA by applying a patient-centric approach to the evaluation of people's care requirements so that they can be transferred to an appropriate district hospital, clinic or long-term care institution for proper care or treatment. A total of 79 strategic alliances had been established by the end of 2019 involving 7,143 contracted institutions (including 24 medical centers, 83 regional hospitals, 308 district hospitals, 6,569 clinics, 1 pharmacy, 143 home nursing care institutions, 11 recovery homes, 1 midwifery clinic, and 3 home respiratory care units).

To promote tiered medical care and improve referral efficiency, an electronic referral platform that strengthened the referral process and two-way communications was introduced by the NHIA in 2017. The system was used by 11,391 institutions during the course of 2019 and approximately 1.37 million referrals were made.

Figure 8-2 **Trends in Western Medicine Outpatient Visits at Each Level**

Source: National Health Insurance Administration, MOHW, R.O.C. (Taiwan)



Note : The dotted line section is the estimation using the compounded annual growth rate of cases over the last 10 years since 2018 without hierarchy of medical services.

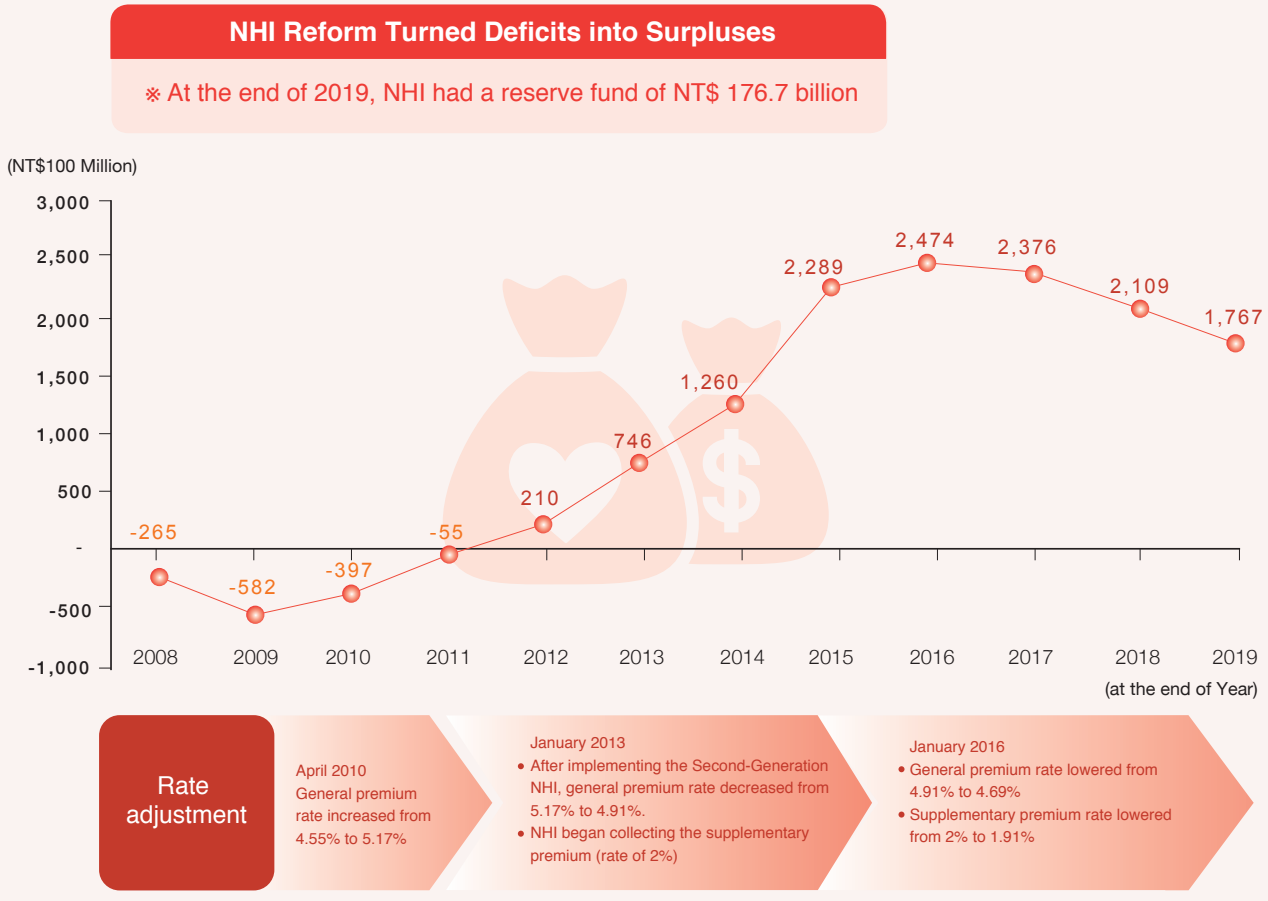
Section 3 Improving Finances by Establishing a Linkage Mechanism between Revenues and Expenditures

After implementing the Second-Generation NHI, the distribution of health-insurance burden has become more equitable due to the expansion of the premium base that includes increased supplementary premium and the government contributions, and the resulting funding gap was significantly reduced. At the end of 2019, the balance sheet for the year headed up NT$176.7 billion as shown in Figure 8-3.

In consideration of the sustainable development of the NHI system, the National Health Insurance Committee (NHIC) has established the "National Health Insurance Financial Balance and Revenue / Expenditure Linkage Mechanism" for evaluating the NHI rates in the next year. According to the 2019 evaluation, the rate of the general premium remained at 4.69%, while the rate of the supplementary premium was 1.91%. Although the current finances can still be maintained, due to factors such as population ageing and medical technology advancements, there will still be financial pressures in the long run. The MOHW will continue to review and discuss a more stable financial system to ensure long-term financial stability and a fairer burden-sharing among insureds.

Figure 8-3 **Reserve Fund, Before and After Implementation of the Second-Generation NHI**

Source: National Health Insurance Administration, MOHW, R.O.C. (Taiwan)



Section 4 Diverse Payment Methods and Rational Management

The main payment method for NHI medical services has been “Fee-for-Service (FFS)”. To effectively control the growth in medical expenses, the Global Budget Payment System was introduced in 2002 and this has kept the annual growth in medical expenditure at approximately 5%. In addition, the payment strategies, such as case payment and pay-for-performance (P4P) reform were implemented to change medical practice and enhance the quality of medical services. In 2010, the Taiwan Diagnosis Related Groups (Tw-DRGs) was first implemented, and phase 2 continued in 2014.

The “NHI High-utilization Patient Counseling Program” provided counseling to people that made more than 90 outpatient visits in the preceding year. If there was no significant improvement after one year of counseling and the user was determined by a review physician to be engaging in abnormal seeking of medical care, no payments will be made unless they seek treatment at designated institutions (except in the case of emergency). In terms of counseling effectiveness, counseling of people who used outpatient services more than 90 times in 2018 saw the number of average visits reduced by 17.38% in 2019. Medical costs were also reduced by approximately NT$389 million.

The Integrated Home Care Plan had 219 participating care providers at the end of 2019 including 2,701 institutions. A total of 66,055 people were provided with care services during the course of 2019.

Post-Acute Care (PAC) program established “PAC Teams” at district and regional hospitals for the treatment of stroke, burn, traumatic nerve injury, fragility fracture, heart failure and frail elderly patients. PAC Teams provide such patients with integrated care during the golden treatment period such as intensive physiotherapy, occupational therapy, and language therapy as well as social workers and nutritionists. A total of 38 teams and 210 hospitals are currently in the program. More than 35,000 cases were accepted at the end of 2019. In 80% of the patients clear progress was made in their function, over 80% of patients returned to home smoothly.

As part of the continuing reviews of ensure reasonable payment schedules, with respect to the NHIC agreement, NT$1.2 billion of the budget (NT$4.3942 billion) increased from the “Change to Cost of Medical Services Index” to the hospital global budget was earmarked for adjusting the payments for emergency and critical care services. The adjustments included: An increase by 4-80% in the Relative Value Unit (RVU) of 116 critical care items; a RVU increase by 20% in 278 surgery or treatment items unadjusted or adjusted under 2 times over the years. In response to the unreasonable classification of surgery items as reflected by medical professionals, the number of items was increased from 13 to 18. In addition, the RVU of the inpatient nursing fee for acute general and economy beds (including psychiatric beds) in basic diagnosis and treatment was increased by 3%; the RVU of the inpatient diagnostic fee was increased by 13.5%, and the regulation to add a 20% modifier to the diagnostic fee for inpatients aged over 75 was added. For district hospitals, a 10% modifier for the outpatient diagnostic and treatment fee of evening clinics was added. In addition to a 50% modifier for the emergency diagnostic and treatment fee of pediatricians, the regulation for adding a 50% modifier to the diagnostic and treatment fee for other specialists when treating children aged under 6 was added. As all pediatric surgery items were upgraded to modifiers for children as of October 2017, considering the inseparability between anesthesia and operation safety and quality, the anesthesia fee for children was also upgraded to a modifier for children accordingly. These adjustments all took effect as of January 1, 2020. The clinic global budget also allowed 11 examinations and dermatological treatment services at the clinic level as of April 2019. The budget also set aside NT$995.7 million to increase 6 RVUs in the diagnostic and treatment fee for some clinics with a daily volume below 30 patients. The RVU for “wound treatment“ and “change dressing-wound care“ at the clinic level was also increased by 20%. These adjustments took effect as of September 1, 2019.

Differences over professional review opinions led to members of the public calling for the NHIA to publish the names of reviewers for the sake of accountability. The NHIA thus launched the “Named Professional Double Review” pilot project in 2016 for the medical expenditure within the hospital global budget. The “Professional Double Review” means two physicians are assigned to review specific cases, while the “Named Review” is divided into the “Named Reviewer for Individual Deduction Cases” and “Named Group” categories. The first category was trialed on 7 departments (pediatrics, obstetrics and gynecology, otorhinolaryngology, ophthalmology, neurology, psychiatry, and urology) in selected regions. The trial was announced each quarter after surveying the physician’s intention. Recently, the project has been trialed in selected regions as of October 1, 2020 on departments including obstetrics and gynecology, urology, otorhinolaryngology, and psychiatry.

New complete oral drugs for treating Hepatitis C (HCV) with improved cure rate, reduced side effects, and a shorter course of treatment began to launch as of 2015. For more HCV patients to receive treatments with these new drugs as early as possible, they were added to the NHI coverage as of January 2017, and the NHIA has earmarked a budget up to NT$15.5 billion for funding these HCV drugs to benefit over 75,000 patients. Viral testing 12 weeks after the completion of the treatment course found that the treatment was successful on 98.1% of the cases, with no detectable viral count.

Section 5 Disclosure of Information to Improve Quality

Information on NHI services such as the quality of care at contracted medical service providers, scope of payments, the financial reports submitted by each hospital, the current status of medical services at each hospital (e.g., number of beds, number of outpatient claims and RVUs), average daily nurse-to-patient ratio, and the quality of care at individual hospitals are all published on the NHIA global website. Such information provide the general public and interested parties with a macroscopic view of medical institutions' business performance. The exposure of serious violations is also to push for improvements in care quality by medical service providers.

NHIA has set up a "Medical Materials Price Comparison Website" to push for greater transparency in medical materials. The general public can now compare the prices for out-of-pocket or balance billing items (such as drug-eluting coronary stents, special function artificial intraocular lens, and artificial hip joints) charged by each hospital. The function/material classification and description of balance billing items can be found on the website, which provides reference for the public while seeking medical attention. In order to provide a more convenient way, the website can be accessed through the APP on the mobile device, and the relevant information can also be accessed on the NHI open data website for external applications.

The NHIA website has also established a "Patient Opinion Sharing Platform" to allow public review of new drugs under consideration for NHI coverage. The platform will continuously update new drugs and new implant materials. The patients/patient groups/caregivers can make suggestions or provide their experiences of care and treatment outcomes.

Section 6 Caring for the Disadvantaged and Safeguarding Remote Areas

1. Subsidies for the Economically Disadvantaged

(1) Besides subsidizing premiums for specific underprivileged groups, there are other assistance measures as shown in Table 8-1.

Table 8-1 **2019 NHI Premium Subsidies for the Disadvantaged**

Source: National Health Insurance Administration, MOHW, R.O.C. (Taiwan)

Item	Beneficiaries	Total Assisted	Total Contribution
Premium Subsidies	Low-income households, lower- middle-income households, unemployed veterans, unemployed laborers and their families, disabled persons, unemployed indigenous peoples below age 20 or above age 55	3.346 million persons	NT$ 26.2 billion
Relief Fund Loans	People qualified "economic hardships"	2,140 cases	NT$ 160 million
Payment by Installment	People unable to fulfill their payment obligations at once	88,000 cases	NT$ 2.58 billion
Charity Donation Referrals	People unable to pay their premiums	4,115 cases	NT$ 14.69 million

(2) Since June 2016, NHI has implemented "Decoupling of the Payment of Premiums from the Right to Receive Medical Care," (NHI card unlocking) after which people can seek medical treatment as long as they apply for insurance.

(3) Using Feedback Fund of Public Welfare Lottery to Reduce the Financial Burden of Health Care for the Disadvantaged: Assistance provided in 2019 included payment of NHI premium arrears and fees associated with treatment. Assistance was provided 48,000 cases of people, with approximately NT$272 million in total.

2. Caring for Indigenous People and Underserved, Remote Populations

(1) Plan for Improving Health Care in Remote Regions via Integrated Delivery Systems: As of 2019, 50 mountainous and offshore island areas were included in the project, and the people in

these regions are exempted from copayments. 26 contracted institutions are involved serving more than 480,000 people. Overall, local people showed 93% satisfaction rate for this project.

(2) Plan for Improving Health Care Treatment in Areas with Insufficient Resources: the program was started in 2012 possessing a special budget to encourage district hospitals in underserved areas or nearby regional hospitals to provide 24-hour emergency care, internal medicine, surgery, obstetrics & gynecology and pediatric outpatient/inpatient care. The maximum subsidy for each hospital amounted to NT$15 million, the maximum annual subsidy for the hospitals that had no 24-hour emergency service but can provide the other needed medical services will be reimbursed NT$1 million. Furthermore, the regional hospitals of the "Emergency Responsible Hospitals for Medical Underserved Areas" caring for patients with triage level 1 or 2 will be given NT$1 per point for the first 10 days of hospitalization, and the guaranteed amount for each hospital is capped at NT$5 million. In 2019, 93 hospitals participated in the project.

(3) In 2019, the NHIA has been devoting an additional NT$710 million in underserved areas. It aims to encourage dentists, physicians, and Chinese medicine physicians to work in these regions to deliver better local services. In 2019, 599 contracted institutions rotated in these underserved areas serving more than 710,000 people.

(4) According to national health insurance Act and Article 60 of the Enforcement Rules of the National Health Insurance Act, residents in underserved regions are entitled to a 20% copayment discount for the outpatient, emergency and home care services.

3. Caring for Patients with Major Illnesses and Injuries or Rare Diseases

(1) The insured acquiring a major illness and injury certificate can be exempted from the copayments. By the end of 2019, over 960,000 major illness/injury certificates were issued (the number of patients was over 900,000, accounting for 3.8% of the total insured), while the expenses for major injury/disease in 2019 stood at about NT$213.9 billion (accounting for 27.7% of total annual medical expenditure).

(2) People with rare MOHW-certified diseases that appear on NHI's major injury/disease list, could not only be exempted from copayments, but also be fully covered for the use of medicines designated by the MOHW as necessary treatment for these rare diseases. As of the end of 2019, 11,077 major illness and injury certificate were approved.

Section 7 Using Technology to Increase Efficiency

Taiwan is one of the few Asian countries to use smart chip cards as insurance certificates. It has improved administrative efficiency, and allowed health insurance cards to record major illnesses/ injuries, drug allergies, health notifications (including prescriptions, testing and examinations). The card can also remark the owner's designation for organ donation, hospice & palliative care, DNR (do not resuscitate), or advance decision (living will).

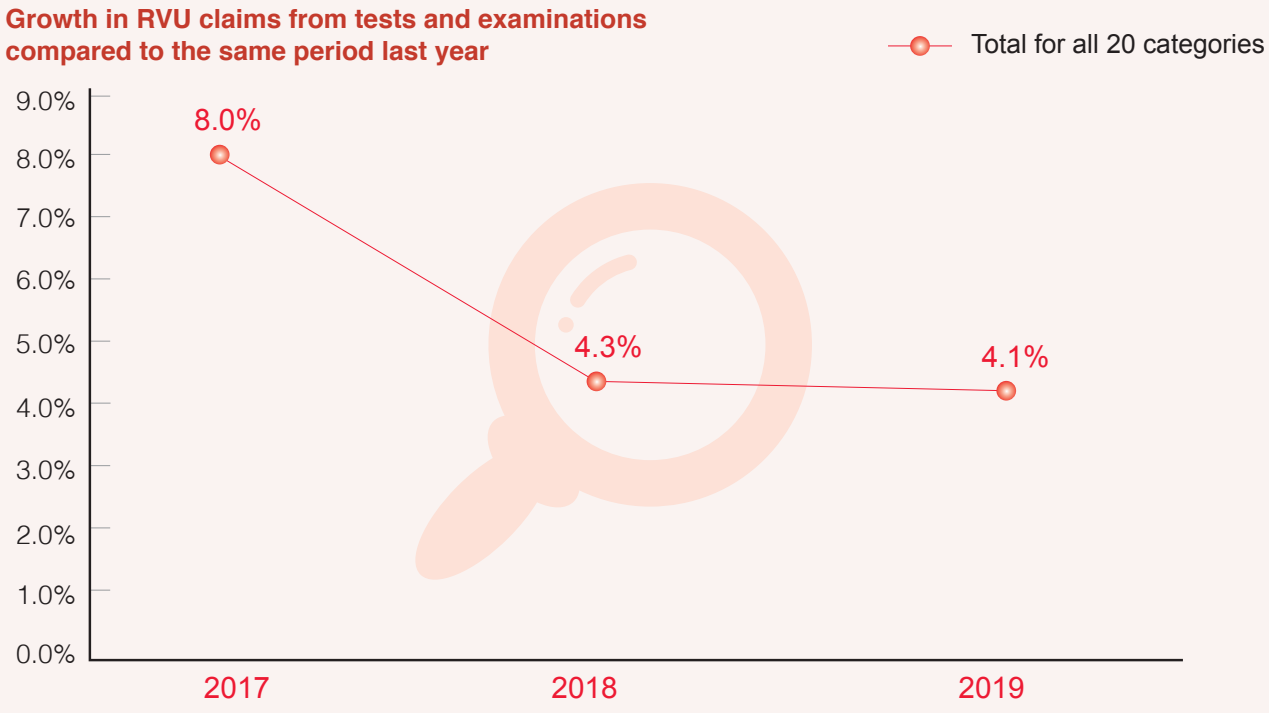
The uploading, retrieval and sharing of medical images was added to the services provided by NHIA's "NHI MediCloud System" in 2018. Twelve query services had been added by the end of 2018 including: PharmaCloud (Western medication record), traditional Chinese medication record, drug allergies, special controlled medication record, specific clotting factor medication record, test/examination records and results, dental treatment and surgical records, rehabilitation care, surgical records, discharge summaries, and Centers for Disease Control immunizations. Query services were activated by 26,966 medical institutions in 2019, with an average of 34 million queries per month. Around 87.5% of all those seeking treatment used the query service. Further analysis of patients whose medication records were queried showed that the rate of redundant prescriptions by multiple medical service providers in six categories (antihypertensive, anti-hyperlipidemic, hypoglycemic, sedative-hypnotic, anti-psychotic, and antidepressant) have been decreasing every year. The system is therefore effectively helping to prevent redundant medication. It is estimated that about NT$7.7 billion were reduced on repeated drugs between 2014 to 2019. The RVU claim for 20 types of outpatient examinations, including computed tomography (CT) scan, magnetic resonance imaging (MRI), and blood tests tended to decline annually as of 2017, as shown in Figure 8-4. This thus saved about 350 million RVUs in 20 types of main examinations and 530 million RVUs in all 44 types examinations during 2018-2019.

The NHIA picture archiving and communication system has collected approximately 1.3 billion medical images including CT and MRI scans as of 2018. Hospitals and schools have partnered with the industry to apply for access to anonymized CT/MRI medical imagery. These will be used to realize the goal of precision medicine through deep learning and training of AI models.

To enhance public control over their own health and medical treatment, people can now register with the “My Health Bank “system to query or download their personal medical information including outpatient, inpatient, medication, surgery, allergies, test (examination) results, imagery or pathology tests, discharge summaries, organ donation/ palliative care consent/advanced decision, adult preventive health exam results, screening results for 4 types of cancer, and immunization records. The content and functionality of My Health Bank is continuing to be refined as well. The “NHI Express” app for logging into My Health Bank over a verified mobile phone was added in 2018, and recording of information from selfpaid health exams, dependent management functions and major illness/ injury reminder functions was added in 2019. At the end of 2019, My Health Bank had been used by 1.63 million people more than 19.55 million times.

Figure 8-4 Growth in RVU Claims for 20 Categories of Managed Outpatient Tests and Examinations

Source: National Health Insurance Administration, MOHW, R.O.C. (Taiwan)



Chapter 2 National Pension System

Taiwan's National Pension Insurance (NPI) was established on October 1, 2008 to cover citizens aged between 25 and 65 years old who do not participate in related social insurances for military personnel, civil servants and teachers, laborers, or farmers. By providing basic economic security for insured persons and their families when insured persons become old or face maternity, disability,or death, NPI is a key milestone on the road to comprehensive social security. Establishment of NPI marked the start of a new era for Taiwan.

Section 1 Status of National Pension System

1. There were 3,230, 918 insured persons of NPI in December 2019. (Table 8-2)
2. Insurance premium rate: 9% (Insurance Premium = Monthly Insured Amount x Insurance Premium Rate).

Table 8-2 **Insured Persons and Ratios of NPI, December 2019**

Source: Bureau of Labor Insurance, Ministry of Labor, R.O.C. (Taiwan)

Classification	Insured Persons	Ratio (%)
General Insured Persons	2,775,350	85.90
Low-Income Households	68,462	2.12
Persons with Severe or Extremely Disability	91,727	2.84
Persons with Medium Disability	72,659	2.25
Persons with Mild Disability	58,294	1.80
Middle-low income persons (income less than 1.5-fold minimum cost of living)	117,098	3.62
Middle-low income persons (income less than 2-fold minimum cost of living)	47,328	1.46
Total	3,230,918	100.00

3. Insurance Premium Subsidy rate : General insured persons receive 40% (NT$658 a month) in government subsidies. For middle-low income insured persons or disabled insured persons with mild or medium disability, the government will subsidy 55% (NT$905) or 70% (NT$1,151) of the premiums. For low-income households insured persons or disabled insured persons with a severe or extremely-disability, the government will subsidy 100% (NT$1,645) of the premiums.
4. Monthly insurance amount: NT$18,282.
5. Premium Payment Rate of the Insured: From the establishment of NPI (on October 1, 2008) to December 2019, receivable premiums of insured persons were more than NT$358.1 billion and more than NT$201.3 billion was received. The payment rate was 56.21%.
6. Payment items, NPI Benefit Recipients and Payments. (Table 8-3)
7. Financial Status of the NPI Fund: By the end of 2019, a total of NT$369.2 billion of the NPI fund was utilized in diversified of assets allocation , including domestic bank savings (8.9%), domestic and foreign debt securities (30.5%), and domestic and foreign equity securities (47.7%) to ensure safety and profit.

Table 8-3 **NPI Benefit Recipients and Payments, 2019 (separated by gender)**

Source: Bureau of Labor Insurance, Ministry of Labor, R.O.C. (Taiwan)

Payment Type		Recipients (Persons)			Payment Amounts (NT$1,000s)		
		Male	Female	Total	Male	Female	Total
Insurance Payments	Old Age Pension Payments	491,442	611,031	1,102,473	20,995,833	27,467,447	48,463,280
	Maternity Payments	0	19,109	19,109	0	693,090	693,090
	Mental/Physical Disability Pension Payments	4,515	3,137	7,652	187,132	145,684	332,816
	Funeral Payments	8,459	3,820	12,279	773,122	349,116	1,122,238
	Surviving Family Pension Payments	70,620	23,541	94,161	3,291,218	1,096,541	4,387,759
	Subtotal	575,036	660,638	1,235,674	25,247,305	29,751,878	54,999,183
Other Payment	Old Age Pension Payments	194,436	341,663	536,099	8,770,922	15,339,415	24,110,337
	Mental / Physical Disability Basic Guaranteed Pension Payments	10,301	9,751	20,052	610,359	575,144	1,185,504
	Aboriginal Pension Payments	16,232	25,780	42,012	704,213	1,111,885	1,816,097
	Subtotal	220,969	377,194	598,163	10,085,494	17,026,444	27,111,938
Total		796,005	1,037,832	1,833,837	35,332,799	46,778,322	82,111,121

Note: Recipients of lump sum payments are accumulative number of persons each year. Recipients of pension payments are the recipients at the end of the year.

Section 2 National Pension System Reform and Important Results

1. For those passing away before March 1, 2016, the amendment to Article 18-1 of the National Pension Act as promulgated on December 11, 2019 allows beneficiaries to claim for surviving family pension payments in the last five years retroactively before the date of application, provided that no application shall be made in the month of death.
2. Three conferences were convened to review the NPI schemes in 2019. Issues including the implementation of enrolment, collection of premiums, payment benefits and financial resources were discussed with an eye to future reforms.
3. The MOHW continues to request the Bureau of Labor Funds of the Ministry of Labor to enhance the performance of utilization of the NPI Fund. The total profit in 2019 was NT$38.958 billion, with a rate of return of 12.03%, higher than the projected rate of return of 4.11%.
4. The “Regulations for Payment by Installation and Deferred Payment of the NPI Premium and Interest” was promulgated on January 4, 2019 to loosen the requirements for payment by installation for citizens aged 65 and older or citizens with severe or extremely disabilities to reduce the economic burden of insured with an outstanding balance.
5. The MOHW continues to oversee the Bureau of Labor Insurance(BLI) to undertake systematic collection of premiums in arrears. In 2019, more than NT$6.5 billion in arrears was collected.
6. To improve the accuracy rate for the administration of NPI benefit, the MOHW has urged the BLI to improve databases and auditing mechanism. In 2019, there were 1,453 overpayment cases, a decrease of 41.68% compared to that in 2018.
7. The MOHW has cooperated with the Council of Indigenous Peoples, BLI and local governments to promote the NPI by using diverse promotion channels, and by visiting people who have premiums in arrears. Over 253,000 people were visited and more than 38,000 promotion events were conducted in 2019.
8. The MOHW continued with the “Countermeasures for the 10-Year Deadline of Paying NPI Premiums”. By the end of December 2019, six periods were overdue 10 years, the collection rate was increased from 51.28-58.63% to 71.59-76.89%.

9 Social Welfare

In order to ensure appropriate care for disadvantaged groups following globalization, urbanization, low birth rates, population aging, rapid change of social structure and family function, the government has planned and integrated welfare policies that used to be divided into women, children and youth, the elderly, and the disabled persons. By combining family and community resources, it meets the visions which are guaranteed rights, supportive families, a friendly society, and progress for all.

Chapter 1 Children and Youth Welfare

The Social and Family Affairs Administration (SFAA) of the MOHW adopted measures relating to the "Plan for Addressing the Declining National Birth Rate (2018-2022)" of the Executive Yuan to facilitate related government departments to co-build a birth-friendly environment. These measures included: promoting the child-raising allowance and public childcare services and subsidized childcare services for children aged under 2 to provide total care services for children aged under 2; promoting laws and regulations for children and youth; constructing a social safety net; preventing children and youth abuse and negligence; providing early intervention services for children with development delay; and offering support services for children requiring special needs. In addition, the SFAA provided children and youth with more welfare and protection services through the following policies.

Section 1 Related las and regulations

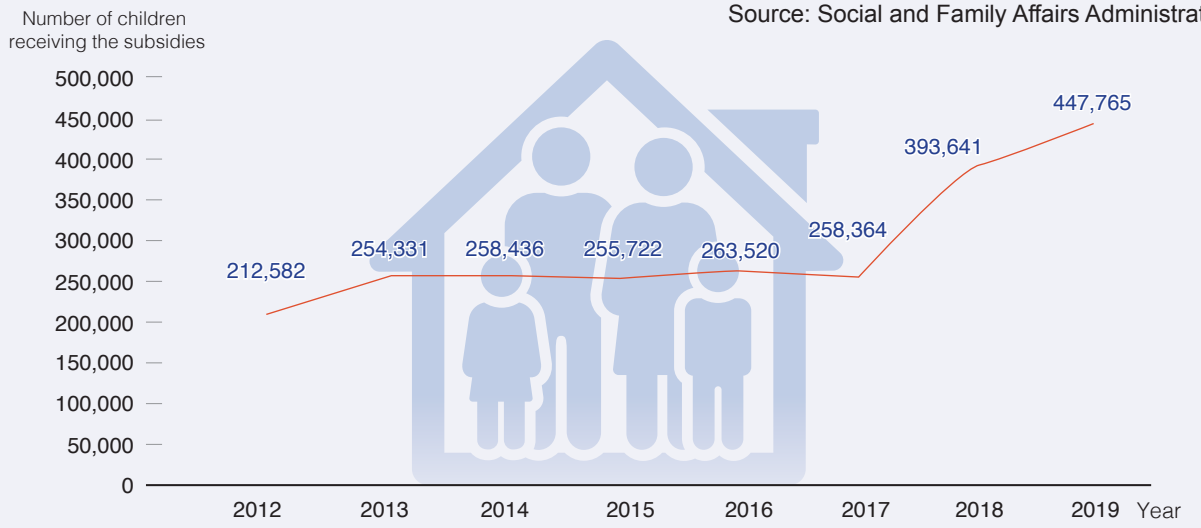
To enhance the treatment efficiency of child protection cases, eliminate unqualified personnel and institutions, reduce the death rate of children aged under 6, and severely punish improper behaviors on children and the recurrence of violent behaviors, the "Protection of Children and Youth Welfare and Rights Act" was amended on April 24, 2019 to optimize the protection for the rights, interests, and safety of children and youth. To protect the right of children and youth in all situations to participate in and express opinions at the "Welfare and Right of Children and Youth Promoting Group of the Executive Yuan", the "Implementation Act of the Convention on the Rights of the Child" was amended on July 19 in the same year, stating the need for participation of children and youth in the process of promoting the Convention on the Rights of the Child (CRC) to respect and protect "the right to be heard" of children and youth.

Section 2 Welfare and subsidization

1. Child-raising allowance for children aged under 2: Based on the economic condition of different families, an allowance of NT$2,500-NT$5,000 will be granted to each child aged under 2 each month. In addition, an additional NT$1,000 will be granted each month to families with three or more children to cover higher expenses. In December 2018, a total of 263,006 children aged under 2 were benefited, accounting for 74.84% of all children aged under 2 in that month (351,426 children). In 2019, a total of 447,765 children received a total allowance of over NT$8,727,200,000 accumulatively, as shown in Figure 9-1.
2. Living assistance for vulnerable children and youth: A subsidy amounting to NT$2,047-NT$2,479 is granted each month to children and youth in hardship from middle-low income households; children and

Figure 9-1 **Subsidization of Child-Raising Allowance Over the Years**

Source: Social and Family Affairs Administration



youth, as well as their offspring, in hardship resulting from pregnancies or births; children and youth evaluated by competent authorities of the county (city) government to be nurtured without supportive capabilities, to have no legal supporters or that their living is not be supported by legal supporters. In 2019, 121,890 children were benefited with a total of over NT$2,498,090,000.

3. Emergency living assistance for children and youth from vulnerable families: Emergency living assistance of NT$3,000 will be granted monthly to disadvantaged children and youth in hardship, from vulnerable families, with emergency financial difficulty, or requiring childcare. In 2019, a total of 2,754 families and 4,345 children and youth were subsidized with over NT$86,020,000 in total.
4. National Health Insurance Subsidies for Children and Youth from Middle-low-income Families: The children and youth under 18 years old from middle-low-income families were subsidized for national healthcare insurance. In 2019, there were 1,323,109 person-times benefiting from the subsidies totaling more than NT$824,500,000.
5. Medical Subsidies for Children under 3 Years Old: Part of the clinic (emergency) charges and hospitalization expense were automatically reduced for national health insured children under 3 years old during their doctoral visits. In 2019, the subsidies were offered to 14,525,291 person-times and exempted their parents from the burden of more than NT$1,965,010,000 in payments.
6. Medical Subsidies for Disadvantaged Children and Youth: In order to provide children from disadvantaged families with suitable health care, payment assistance was offered for NHI arrears; intervention, training, and evaluation fees for children with developmental delays; nursing fees during hospital stays; and copayments. There were 8,412 recipients of subsidies totaling more than NT$119,470,000.

Section 3 Protecting the Interests and Rights

1. Establishing a multidisciplinary communication platform: The Executive Yuan and the MOHW have respectively established a multidisciplinary policy-making and coordination mechanism for the central and local governments, NGOs, experts and scholars, and representatives of children and youth to coordinate, research, review and consult upon matters relating to children and youth welfare policies and the implementation of CRC.
2. Implementing Children and Youth's Safety Projects: Safety implementation on physical, home, traffic, campus, playground, waters, employment, internet and all the other aspects for children and youth was promoted. The Children and Youth's Accident and Injury Prevention Task Force was formed to regularly manage and evaluate the performance of the departments and agencies and actively provide a safe growth environment for children and youth.
3. Maintaining the Rights and Interests of Children and Youth without Household Registration/ Nationality: The latest status of the local governments on maintaining the rights and interests of children and youth without household registration/nationality was regularly followed up in order to protect their rights in schooling, fostering and medication. In 2019, 229 out of 397 cases were concluded and the other 168 cases are still under follow-up.
4. Promoted children and youth's human rights and improved children and youth's development and social participation
   (1) In 2019, a total of 34 NGOs were subsidized to implement projects and organized events for promoting and developing the rights of children and youth in collaboration with the local governments. 57,247 person-times in total were benefited.
   (2) The "Taiwan Girl's Day" press conference was held on October 8, and a traveling campus film festival themed "Girl Up!" was held from October 11 to December 11 to publicize the concept of valuing girls and investing in girls, calling on all sectors regardless of age and gender to work together to realize gender equality.
   (3) In 2019, local governments and NGOs cultivated a total of 355 representatives of children and youth to participate in the policy making and coordination of children and youth affairs to enforce the social participation and ensure the right to be heard of children and youth. In addition, children and youth empowerment (including empowerment for children and youth in special circumstances) projects were subsidized to benefit 15,542 person-times.
   (4) In 2019, the representatives of children and youth of counties and cities elected 53 children and youth to make recommendations for issues relating to the affairs on children and youth rights and interests for the multidisciplinary policy-making and coordination mechanism of the Executive Yuan and the MOHW.

Section 4 Childcare Services

1. Subsidies for public and quasi-public childcare: Families that sent children under the age of 2 to quasi-public home-based childcare workers or privately-owned baby care centers received monthly subsidies between NT$6,000 to NT$10,000 in subsidies each month; those that used public

institutions run by private baby care centers received monthly subsidies between NT$3,000 to NT$7,000 in subsidies each month. The third and each additional child after that received another NT$1,000 in subsidies per month. In 2019, abovementioned subsidies totaled NT$2,528,500,695 and there were 40,715 beneficiaries as of December, 2019.

2. At the end of 2019, there were 71 centers of family childcare service that oversaw 26,272 childcare providers caring for 25,379 children under the age of 2 (Figure 9-2). Among registered childcare providers, 22,878 or 87.08%, had a technician certificate for childcare providers. Of these, 21,459 signed contracts under the quasi-public policy for a contracting rate of 88.93%.

   (1) At the end of 2019, there were 1,141 baby care centers with 29,114 children under care in Taiwan as shown in Figure 9-3. These included 925 private baby care centers with 21,913 children under care. 735 were contracted under the quasi-public policy so the contracting rate was 93.99%; there were 216 public institutions run by private baby care centers(including 84 public community baby care centers) with 7,201 children under care.

   (2) To increase the supply of public childcare places, fund under the Forward-Looking Infrastructure Program was secured by the MOHW to continue the roll-out of public community baby care centers. 133 community care centers were approved at the end of 2019 and 84 have now been established.

   (3) Community-based family support included 166 public-privately collaborative resource centers for childcare that provided child care consultations, parental education, and other services approximately 20,210,000 times.

Section 5 Placement Services

1. Promotion of Institutional Placement

   (1) The MOHW encouraged and commissioned NGOs to undertake placement services to aid children and youth in need of placement assistance. At the end of 2019, there were 119 placement institutions (Table 9-1).

   (2) In 2019,subsidies for institutional professional fees, facilities, institutional student learning effectiveness enhancement and placement service improvement programs, totaled NT$155,279,937.

2. Re-evaluation of children and youth residential institutions rated C and D in the evaluation: In 2018, a total of 12 residential institutions in eight counties and cities, including New Taipei City, Taoyuan City, Miaoli County, Changhua County, Yunlin County, Pingtung County, Hualien County, and Taitung County, were rated C or D at the “Children and Youth Residential Institutions Joint Evaluation”. After the periodic guidance for improvements by professionals or institutions with outstanding performance selected by respective competitive authorities, they were re-evaluated by respective competitive authorities.

3. Assisting local governments to commission NGOs to conduct family foster care services, with 1,027 households registering as qualified foster families, 364 reserved foster families and 1,550 placed children and youth in 2019.(Table 9-2).

Figure 9-2 **Family Childcare Providers and Children**

Source: Social and Family Affairs Administration

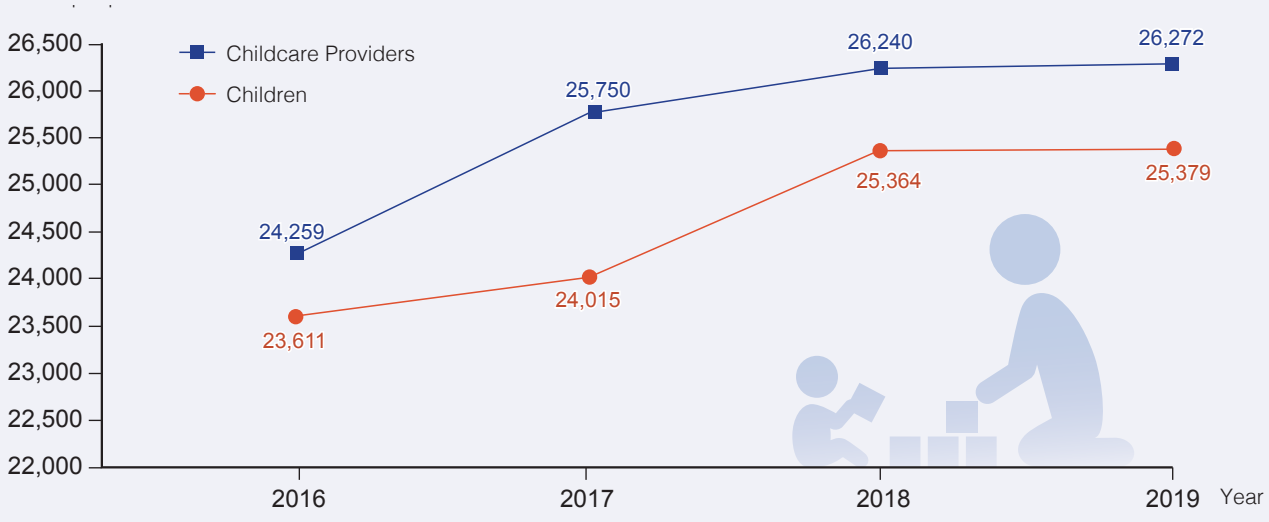


Figure 9-3 **Volume of Baby Care Centers and Children**

Source: Social and Family Affairs Administration

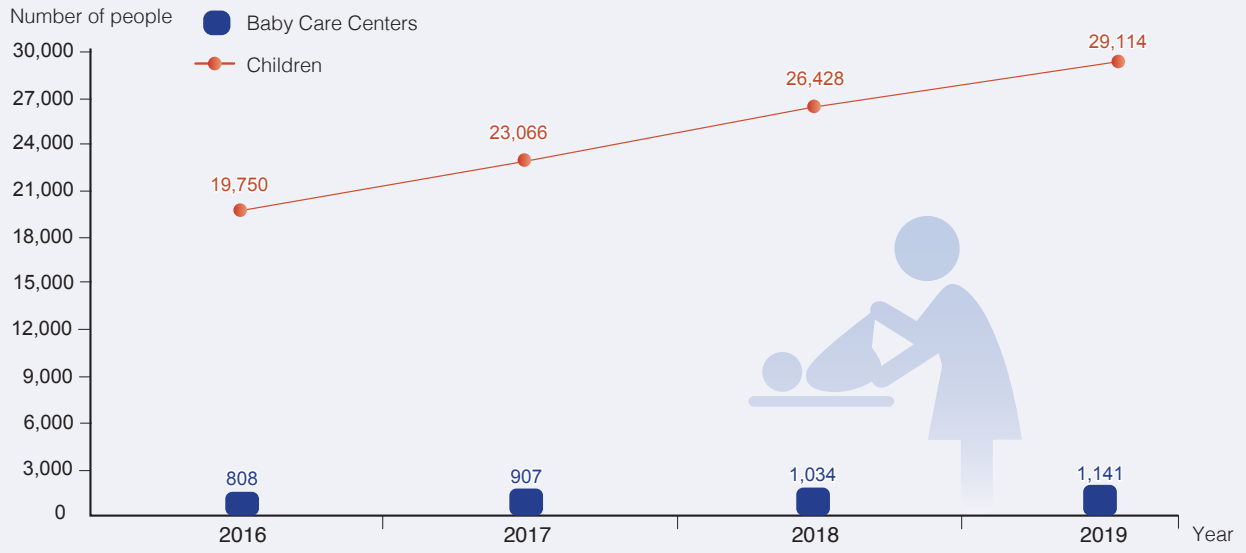


Table 9-1 **Institutions Specializing in the Placement and Education of Children and Youth, 2015-2019**

Source: Social and Family Affairs Administration

Year		2015	2016	2017	2018	2019
Number of Institutions		122	121	124	122	119
Approved Number of Beds		5,004	5,094	5,211	5,076	4,878
Children	Males	1,771	1,702	1,583	1,485	1,398
	Females	1,704	1,617	1,565	1,500	1,397

Table 9-2 **Foster Care Homes and Children, 2015-2019**

Source: Social and Family Affairs Administration

Year		2015	2016	2017	2018	2019
Families (Households)		1,326	1,299	1,193	1,018	1,027
Children	Males	804	786	769	766	762
	Females	858	836	852	839	788

4. Enhancing the Management System of Children and Youth Placement and Follow-Up (Placement System): For competent authorities to inquire unqualified directors and personnel of placement institutions, the Placement System is connected to the MOHW's protection information system to simplify administrative operating procedures.

Chapter 2 Welfare for Women and Family Support

The EY approved the "Social Security Net Enhancement Program" on February 26, 2018 to review current policies and change the focus of service intervention into "family-focus", integrate and connect with all systems based on the principles of "risk prevention", "single window", and "integrated service", and deploy social welfare centers and services for vulnerable services to build a complete social security net. In addition, to discover children with development delay and provide them with early intervention and family support as early as possible, besides constantly deploying resources, multidimensional service programs and related assistance measures were planned to fulfill the comprehensive needs of families and ensure their access to suitable services.

Section 1 Women's Welfare

Social services for women are aimed to empower women from women's standpoint. Key achievements in 2019 follow:

1. In collaboration with NGOs, the government promoted support services to boost women's welfare and to enhance women's capabilities,and to create opportunities for further development. The total subsidies in 2019 were NT$36.96 million yuan.

2. By strengthening capacity of 30 women's welfare centers, the MOHW linked government and private resources to improve welfare, rights, legal and learning services for women. In 2019, the centers provided services for 369,273 times.

3. By operating the Taiwan Women's Center, which serves as a platform for promoting women's welfare, women's rights, and gender mainstreaming, and interaction with international women's organizations and between public and private agencies. In 2019, there were 57 domestic organizations used its facilities. The center also welcomed 73 domestic organizations and foreign guests, and 110,000 visits made to the center.

4. The "Women Welfare Business Coordination Meeting and Women Issues Communication Platform" was held in local governments in terms of three major aspects: "Women Issues Keynote Discussion", "Service Featured Projects Sharing", and "Consensus and Inclusivity"; and the "Featured Services' Achievements Exhibition Area" was planned for 22 local governments and 30 women centers to share experience and learn from one another, enhance service competence, and thereby cohere and the annual development goals and consensus for promoting nationwide women welfare services.

Section 2 Services for Vulnerable Families

1. Roll-out of social welfare service centers to enhance the delivery of welfare services: 154 social welfare service centers were progressively completed over multiple years to create a safety net for families. A total of 131 centers were completed by 2019, and approved subsidization for a total of 843 social workers nationwide (737 social workers and 106 supervisors); accepted the reports and completed the visits of about 36,383 families, including listing 15,480 families for case management, referring 3,245 families to other units, reporting 266 families for protection, and provided welfare consultation services for 16,772 families.

2. Strengthening services for vulnerable families through public-private partnerships: The roll-out of social welfare centers and additional manpower for service organizations were used to re-build the private-public partnership so that vulnerable families could receive timely assistance. NGO groups that previous serviced children and youth in families at high risk were redirected to provide multi-dimensional services for vulnerable families or other specialized service programs to strengthen preventive services in community. In 2019, we subsidized a total of 32 NGOs to hire 69 social workers in implementing the "Multiple Services for Vulnerable Families Program", and accepted the referral of 2,190 vulnerable families from social (family) welfare service centers for the featured Family Support Service Program.

3. Continued to implement the outreach program for disadvantaged children under the age of 6: Tracking and counseling mechanism for 7 categories of children under the age of 6 including those that did not enroll for elementary school as required by law, and did not complete their scheduled vaccinations, etc. was strengthened. When high-risk families were identified by household registries, social services, health clinics (public health nurses) and schools, the local department of social services was notified to visit and check on the family. In 2019, a total of 1,631 such visits were conducted.

Section 3 Services for early intervention families

1. Local governments were supervised to set 28 reporting and referral centers. In 2019, 26,471 children with developmental delay were reported and the nationwide reporting rate was 13.4% (Figure 9-4).

2. In 2019, local governments were supervised to set 54 case management centers, and- helped developmentally delayed children apply for 53,814 intervention subsidies totaling NT$472,243,675 (Figure 9-5).

Figure 9-4 National Reporting Rate of Developmentally Delayed Children, by Year

Source: Social and Family Affairs Administration

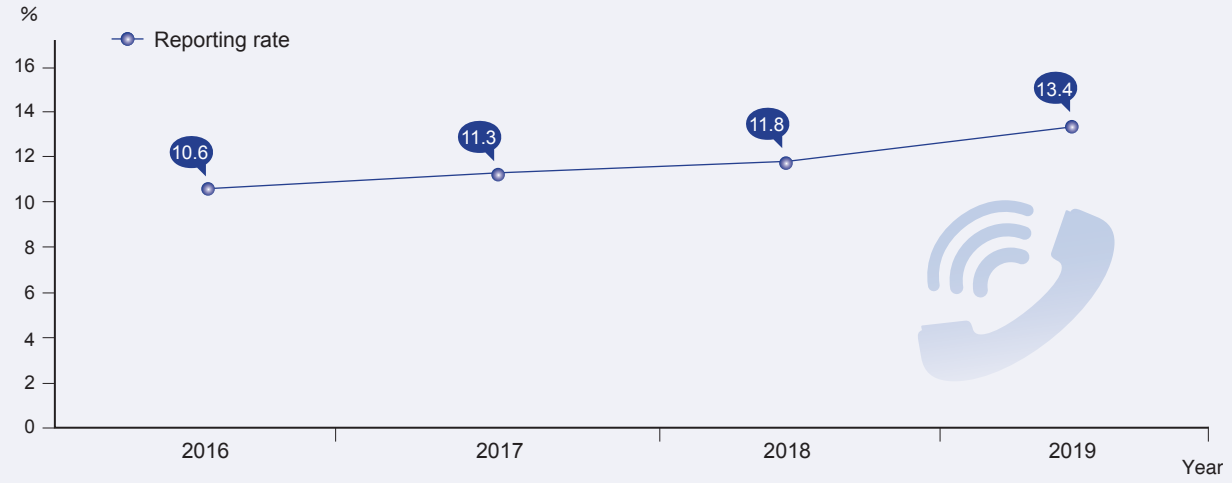
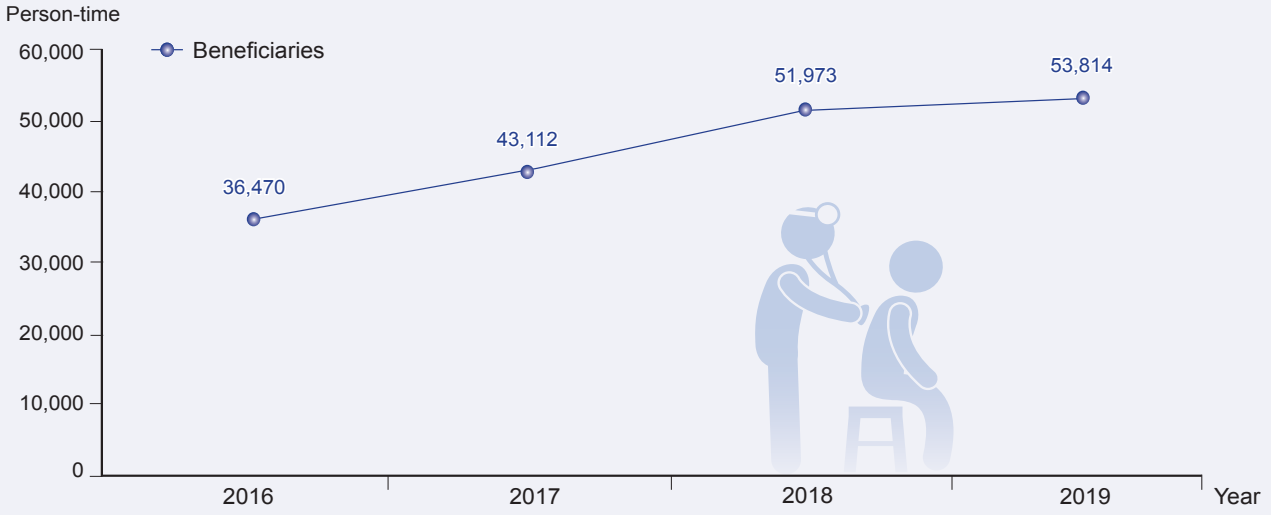


Figure 9-5 Subsidies for Early Intervention, by Year

Source: Social and Family Affairs Administration



3. In 2019, 13 local governments promoted community-based intervention services in 92 townships and villages with insufficient early intervention resources.

Section 4 Services for Families with Special Needs

1. Adoption Service for Children and Youth: Starting from May 30, 2012, unless there is a direct family or stepfamily relationship, all adoptions must be screened and evaluated by placement institute for children and youth or incorporated foundations and preference must be given to domestic adoptive parents. At the end of 2019, there were nine approved institutions (with 13 service stations). These institutions matched 289 children with adoptive parents in 2019 (142 were adopted domestically and 147 overseas).
2. Assistance for Families in Hardship: In 2019, emergency assistance for livelihood, children living allowance, children nursery allowance, medical subsidies, subsidies of litigation, education subsidies for children, and career development loans are available for families in hardship. There were 20,079 families receiving these benefits for a total of 130,701 times, with total subsidies exceeding NT$458,950,000.

3. Support for Pregnant Teens

(1) A teen pregnancy hotline (0800-25-7085) and website (https://257085.sfaa.gov.tw/) provided assistance and consultation to minors who became pregnant. In 2019, there were 706 calls to the hotline, 117,662 visits to the website, and 479 consultation mails and online inquiries received.

(2) In 2019, counties and cities provide case management service for those with teenage pregnancy and underage parents, covering economic subsidization, healthcare, childcare service, referral, fostering, and adoption, these services were used 9,679 times.

Chapter 3 Welfare for the Elderly

At the end of September 1993, the population of people aged over 65 was 1,485,200, accounted for 7.09% of the total population, meeting the social indicator for an aging society. In March 2018, Taiwan became an aged society. By the end of 2019, the elderly population 3,607,127 people, accounting for 15.28% of the total population. In response to the trend towards an aged society, apart from promoting elderly welfare services in terms of economic security, heal maintenance, and living care, the MOHW extensively deploys community are stations and promote elderly social participation to enforce the active ageing policy.

Section 1 Income Security for the Elderly

1. Monthly living allowances of NT$3,731 or NT$7,463 are offered to guarantee the economic security and basic living standard of lowermiddleincome elder people. In 2019, there were 156,783 elder people who received a total of more than NT$12,175,720,000 in subsidie.
2. To provide senior citizens with an additional option for economic security by helping them convert real estate they own into cash that can be collected monthly, the Senior Citizens Welfare Act now encourages financial service providers to offer commercial reverse mortgage services. At the end of 2019, the service was offered at 15 banks with 4,080 applications received.

Section 2 Health Care for the Elderly Fees Subsidization

1. In order to reduce the economic barrier to health care due to NHI premiums and copayments for elder people with economic difficulties, premiums are fully subsidized for lower-middle income elderly persons aged 70 and above. In 2019, these subsidies were provided to 83,903 people.
2. Daily subsidies of NT$1,800, with an annual limit of NT$216,000, are offered to pay the attendant care during hospitalization for lower-middle income elder people who are in the care of MOHW-commissioned institutional care facilities. In 2019, four institutions received these subsidies to care for a total of 112 people.
3. To subsidize the denture installation for near-poor senior citizens, we introduce eight subsidization plans based on the missing tooth condition of senior citizens to meet individual needs. In 2019, a total of 5,888 elderly people were benefited.

Section 3 Care for Elder People

1. To compensate near poor families for losing economic gains from sacrificing employment to take care of elderly family, a elderly care allowance of NT$5,000 each month was provided for families with elderly people requiring special care. In 2019, a total of 8,597 people were subsidized with a sum of over NT$42.95 million.
2. Ongoing efforts to improve care for living alone elder people, carring on a 24-hour emergency assistance network. A center for tracking missing elderly had found 1,539 out of 2,482 reported missing people since 2001 through the end of 2019.
3. Guidance was provided for institutions to improve service quality and diversify operations to meet the elderly care needs. By the end of 2019, there are 1,091 permitted elderly care institutions.
4. In recognition of Dr. MacKay's contributions to helping the week and supporting the poor, the "MacKay Project" was implemented on June 1, 2011. The same discounts for senior citizens in public transportation and long-term care service are provided for those with long-term services and contributions or special contributions for Taiwan. A total of 294 foreign senior citizens were found to have satisfied the criteria by the end of 2019.
5. We subsidized NGOs with outstanding performance to establish the elderly consultation service center and provide the "Old Friend Hotline (0800-228585)" service to provide elderly consultation services. The hotline handled close to 700 calls per month on average.

Section 4 Social Participation by Elder People

1. In 2019, 524 services and activities are available for seniors. seniors benefitted from discounts of up to half off on public transit and entry into health and leisure centers and cultural and educational facilities. These subsidized activities and financial incentives encourage the elderly to participate activities in community to promote physical and mental health.
2. In 2019, mobile tours of culture, health, and leisure for seniors were made possible by the subsidized purchase of 18 multifunctional buses by 16 cities and counties. Services included welfare and health consultations as well as leisure, culture, and entertainment activities. Participating cities and counties hosted 7,249 tours with total attendance of 327,650 seniors.
3. We organized the "JoJo's Playground", "Silver LOHAS" sports carnival for senior welfare institutions, the "Silver Collar Health Energy Cup Gateball Tournament" to advocate the "active ageing" and "intergenerational fusion" concepts through nationwide events friendly to and respecting elderly people.
4. Local governments were encouraged to work with village offices and community groups to establish 3,954 community support sites as shown in Figure 9-6. The sites provide care visits, telephone visits and referral services, catering services, and heal promoting activities. We began the guidance for 1,934 community care stations to deepen are service in 2019 by setting up the Community Long-Term Care Station (C).

The "Silver LOHAS" sports carnival for senior welfare institutions was held at the Greater Taichung International Expo Center on October 2, 2019.

Double Ninth Family Day: JoJo's Playground was held at the Bitan East Bank Plaza in Xindian on October 6, 2019.

The "Silver Collar Health Energy Cup Gateball Tournament" was held at the Taipei Municipal Stadium on October 24, 2019.

Figure 9-6 Distribution of Nationwide Community Care Points

Source: Social and Family Affairs Administration

Central region	
Miaoli	155
Taichung	447
Nantou	115
Changhua	265
Yunlin	118

Outlying Islands	
Kinmen	30
Lienchiang	8
Penghu	45

Southern Region	
Chiayi County	141
Chiayi City	29
Tainan	391
Kaohsiung	368
Pingtung	302

Northern Region	
Keelung	86
Taipei	282
New Taipei	396
Taoyuan	342
Hsinchu County	77
Hsinchu City	44

Eastern Region	
Yilan	117
Hualien	114
Taitung	82

Chapter 4 Welfare for Persons with Disabilities

In response to the increasing number of persons with disabilities, diversification of individual needs, and international trends, the MOHW defined disabilities with respect to WHO's International Classification of Functioning, Disabilities and Health (ICF). By integrating with Taiwan's welfare policies for disabilities and based on the needs of persons with disabilities, the "Act to Implement the Convention on the Rights of Persons with Disabilities", and the "People with Disabilities Rights Protection Act", the government implemented the "New System for Disabilities Evaluation and Needs Assessment" in 2012 to provide services according to the evaluation and assessment to protect the rights and interests and the economic security of persons with disabilities, promote their social participation, and enhance their living quality through comprehensive and continuous services. At the end of 2019, there were 1,186,740 persons with disabilities in Taiwan, accounting for 5% of the population.

Section 1 Rights Protection for Persons with Disabilities

1. The Convention on the Rights of Persons with Disabilities (CRPD) adopted by the UN General Assembly in 2006 defined the international standard for protecting the human rights of persons with disabilities. To domesticate the CRPD into domestic law, the Act to Implement the CRPD was announced by the President on August 20, 2014, and took effect in the same year on December 3, the International Day of Persons with Disabilities. The MOHW provided a priority review list of 372 sections/674 articles of legislations and administrative measures and published the initial national report in 2016 in accordance with the schedule set out by the Act to Implement the CRPD. A review meeting by a committee of international experts was held in 2017 and a total of 85 concluding observations were proposed by the committee as a reference for future reviews or amendments to related legislation, policies or administrative measures in Taiwan. In 2019, the government proposed an action plan in

response to the concluding observations made by the international review committee on the initial national CRPD report. The plan will be progressively implemented by each ministry in a strategic manner so that domestic initiatives on disabled persons will focus on human rights. We will submit Taiwan's second national report by December 3, 2020.

2. "New System for Disabilities Evaluation and Needs Assessment" for persons with disabilities was formally enacted on July 11, 2012. Persons with disabilities' body structures, body functions, activities and social participation were evaluated by a professional assessment team. Single point of contact was created for people to receive personalized and diverse welfare services. In 2019, there were 317,272 people applied for disability card, with 287,534 people who met the criteria and 287,803 who underwent needs assessment.

Section 2 Financial Security for Persons with Disabilities

1. In 2019, persons with disabilities who meet the criteria for household income and assets received monthly life subsidies of NT$3,628, NT$4,872, or NT$8,499. There were 348,357 recipients per month on average, and the total amount was NT$21,280,240,000.
2. The subsidies for day care and residential care for persons with disabilities exceeded NT$8,967,774,000 in 2019 and benefitted 48,329 recipients each month on average.

Section 3 Life Care for Persons with Disabilities

1. Personalized Care for Persons with Disabilities (Home and Community Care): services that improve living quality and social participation among persons with disabilities include home care, supportive service for independent life, daily living reconstruction, day care, homebased care services, and residence/housing in community. 6,926,496 people with disabilities benefitted from the total subsidies of about NT$2,436,800,000 in 2019.
2. Home Supports for Persons with Disabilities: To support and ease the burden of those home-based caregivers, we provide temporary and short-term supports, trainings and lessons for the caregivers, and family support visits. 3,635,479 people with disabilities benefitted from the total subsidies of about NT$951,240,000 in 2019.
3. Localizing and Downsizing of Institutional Care: At the end of 2019, there were 269 welfare institutions for persons with disabilities. There were total of 22,374 beds which provided services for 18,043 residents. The primary services were day care, art education, vocational activities, and health care. To support institutions downsizing their facilities into community-based facilities, the MOHW reduces the maximum subsidized beds. In 2019, the MOHW implemented the "Directions for Social Welfare Subsidization", which reduces the maximum number of subsidized beds from 150 beds to 99 beds for new institutions. In addition, with the operations to commission, conduct, and execute the Article 19 of the "Act to Implement the Convention on the Rights of Persons with Disabilities," the MOHW adjusted the service model of institutions and established the mechanism to transform institution care into community-based services with the Public Welfare Lottery Subsidization Fund Program.

Section 4 Assistive Devices for Persons with Disabilities

1. A nationwide joint meeting on assistive device resources and integrated services took place and a web portal was established to consolidate information.
2. A system for assistive devices was established across central and local government. Centers for multifunctional assistive devices provided consultations, education and training, website maintenance, exhibitions, and promotional activities. In 2019, there were 33 assistive device centers across Taiwan to provide assessment and consultation for people in need of devices as well as promotion and maintenance services.
3. Persons with disabilities continued to receive subsidies cover assistive devices. 68,937 people with disabilities benefitted from the total subsidies of about NT$653,820,000 in 2019.
4. In order to assist persons with disabilities, the elderly, and others with mobility issues caused by stairs, assistance was provided to local governments of twelve cities and counties to install stair climbers for persons with disabilities from the public welfare lottery subsidized programs by the end of 2019.
5. A comprehensive plan for subsidizing medical assistive devices to persons with disabilities was implemented on July 11, 2012. In 2019, there were 11,162 payments (58% to males, 42% to females) totaling NT$61,214,194.

Section 5 Social Participation for Persons with Disabilities

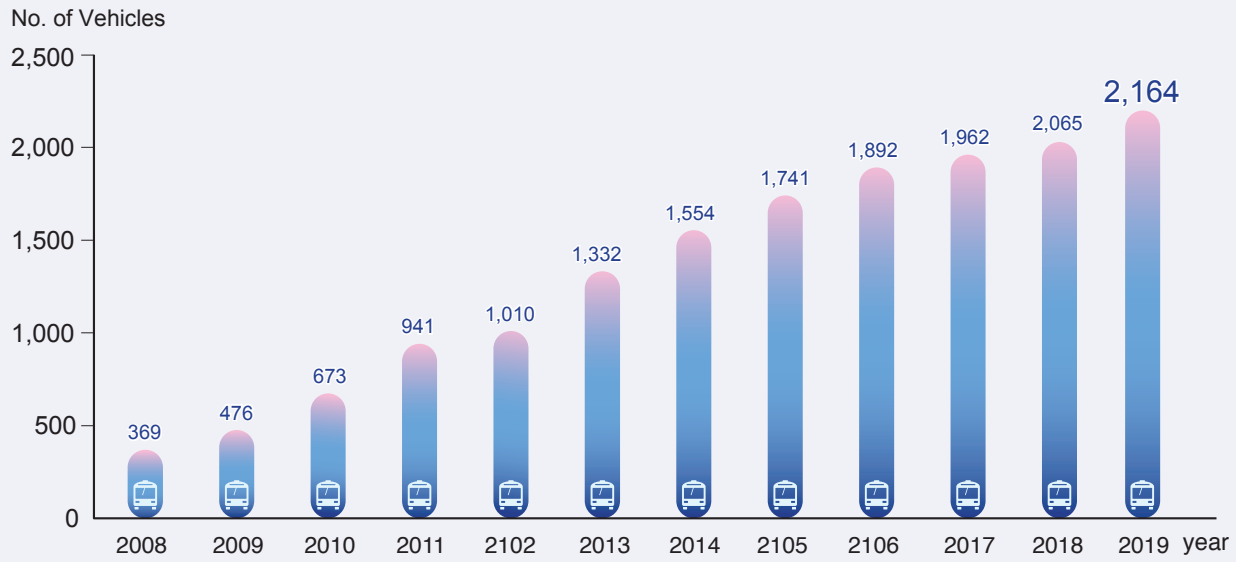
1. In 2019, 349 cases and NT$11,983,938 were granted to NGOs not only for leisure activities, training programs, and others for persons with disabilities, but also establishing barrier-free web pages, facilities, and equipment used by persons with disabilities.

The ceremony of 23rd Golden Eagle Model Persons with Disabilities Awards was held at Chang Yung-Fa Foundation, on November 30, 2019.

2. The ceremony of 23rd Golden Eagle Model Persons with Disabilities Awards were held on November 30, 2019 to commemorate International Day of Persons with Disabilities. There were 10 persons with disabilities invited to share their life stories to encourage more persons with disabilities to live uniquely.
3. Subsidies and certifications were offered to qualified guide dog training and advocacy programs. In 2019, there were 36 in-service guide dogs and 109 puppies in training.
4. By the end of 2019, 26,934 designated parking lots were established, and 355,872 special license plates and disabled parking permits were issued.
5. In 2019, there were 2,164 “Rehabilitation Bus” in Taiwan (Figure 9-7) and total ridership of 4,117,010 were offered.
6. Guidance was provided for local governments to establish the sign language and communication access real-time translation (CART) information centers, the scope of service, and procedures. By the end of 2019, there were 315 certified sign language interpreters and 243 CART personnel.

Figure 9-7 **Number of “Rehabilitation Bus”, 2008 - 2019**

Source: Social and Family Affairs Administration



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10 Social Assistance and Social Work

- Chapter 1 Social Assistance
- Chapter 2 Social Work
- Chapter 3 Community and links to other resources

Chapter 1 Social Assistance

We always follow the principle of "providing care actively, respecting needs, and enabling selfsufficiency" in social assistance business. Various measures are taken, laws and regulations are reviewed at regular intervals, and unemployment benefits and the welfare service system of social work are considered, so as to guarantee that people in need can get appropriate assistance.

Section 1 Living Support

Life assistance for low-income households means providing persistent financial assistance for families whose monthly income per person is below the minimum living expenditure and whose properties do not exceed the annualamount announced by the central government or competent authorities of municipalities. The 2015 amendment to the "Public Assistance Act" stipulates that the living assistance for low-income families is adjusted every four years based on the growth in consumer price index (CPI) to protect the rights and interests of vulnerable people. Table 10-1 shows the minimum cost of living in each special municipality, county, and city in the last five years.

The current subsidies provided by various local governments for low-income households include family subsidy, school subsidy, and children subsidy. According to Article 12 of the Public Assistance Act, competent authorities should increase the original cash amount received by members of low-income households who are elderly, pregnant for three months or longer, or disabled by no more than 40%. In order to avoid providing too much financial assistance, which could influence the willingness to work, Article 8 of the Public Assistance Act states that the monthly assistance amount received by every person according to this law or other laws should not exceed the basic wage declared by the government. The major items of life assistance for low-income households handled by the government in 2019 are shown in Table 10-2.

Besides making cash payments, various local governments should provide additional benefits, including nutritional supplements to pregnant women (including nutrition subsidies for single mothers and newborns), birth allowance, priority of living in social housing, subsidy for residential

rent, subsidy for simple residence repair cost and loan interest subsidy for purchased or self-built residences,subsidy for students' nutrition lunch fee, and subsidy for hospitalization fee, so as to meet the basic needs of low-income and middle-low-income households.

Table10-1 **Minimum Cost of Living of Each Special Municipality, County, and City in the Last 5 Years**

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

Region / Year	Taiwan	Taipei	Kaohsiung	New Taipei	Taichung	Tainan	Taoyuan	Fujian Province	
								Kinmen	Lienchiang
2015	10,869	14,794	12,485	12,840	11,860	10,869	12,821	9,769	
2016	11,448	15,162	12,485	12,840	13,084	11,448	13,692	10,290	
2017	11,448	15,544	12,941	13,700	13,084	11,448	13,692	10,290	
2018	12,388	16,157	12,941	14,385	13,813	12,388	13,692	11,135	
2019	12,388	16,580	13,099	14,666	13,813	12,388	14,578	11,135	

Table10-2 **Key Living Support Measures Provided to Low-Income Households, 2019**

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

Subsidy Item	No. of Subsidies	Total Subsidy Amount (NTD)
Family Living Support	1,287,531	5,528,501,091
Student Living Support	521,076	3,180,432,745
Workfare Programs	32,239	569,349,095
Holiday Bonus	711,789	595,989,464

In order to assist low-income and middlelow-income households in standing on their own, Article 15 of the Public Assistance Act stipulates that "Municipality and county (city) competent authorities shall, according to needs, provide persons in low-income or middle-to-low-income households who are able to work with vocational training, employment services, business initiation aid, or work relief programs." The governments at various levels have provided employment services positively according to such regulations, and offer other employment services and subsidies like entrepreneurship training, subsidies for start-up loan interest, subsidies for travel during the job search period, and subsidies for temporary child care and day care during a job search or vocational training period. In addition, citizens can apply for a living allowance during the vocational training period to maintain family living to ease their worries.

With respect to lifting the poor out of poverty, the Ministry of Health and Welfare enacted The Regulation of Active Anti-proverty Strategies on June 6, 2016. In 2019, the local government and nongovernment social welfare groups implemented 39 schemes to promote employment and the overcoming of poverty, and the amount of the subsidies was NT$29,814,500.

Section 2 Medical Subsidies

According to Articles 18 and 19 of the Public Assistance Act, the existing medical subsidies for low-income and middle-low-income households include the following items:

1. Premium subsidies: The subsidies for health insurance premiums in 2019 were over NT$6,201,560,000.
2. Co-payment Fee Subsidies: In order to relieve the health care burdens of low-income households, Article 49 of the National Health Insurance Law clearly stipulates that "In case where the low-income households eligible under the Public Assistance Act make medical visit, the central competent authority in charge of social affairs shall prepare budget to pay for that." The subsidies for some medical fees (including outpatient service and hospitalization fees) received by low-income households in 2019 was over NT$1,681,330,000.
3 Subsidies for medical fees not covered by national health insurance: In order to meet the medical needs of low-income and middle-low-income households, various local governments have also established relevant regulations to stipulate the allowance standard of medical fees. The assistance covered 5,792 people, and the total amount of the subsidies was NT$192,430,000 in 2019.

Section 3 Emergency Relief

According to Article 21 of the Public Assistance Act, timely assistance shall be provided for people falling into difficulties due to emergencies, and their economic difficulties must be relieved. People still in difficulties after receiving assistance from the governments of municipalities and counties (cities) shall be reported to our department for relief according to the Operation Directions for Emergency Relief Application Approval and Appropriation Control by Ministry of Health and Welfare. The emergency relief project of "Immediate Care" shall be initiated, and the local village office, non-governmental public interest groups, and associations of counties (towns, cities, and districts) shall visit and take care of such groups. The results are presented in Table 10-3.

Table10-3 Emergency Relief in 2018-2019

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

Type \ Year		2018		2019	
		Beneficiaries (People)	Relief Payment Amount (NTD)	Beneficiaries (People)	Relief Payment Amount (NTD)
Emergency Relief from Municipal and County (City) Authorities		34,469	221,302,550	32,545	219,497,526
from MOHW	Emergency Relief	1,006	11,560,000	184	2,690,000
	Immediate Care	12,098	174,155,300	10,641	151,074,414

Section 4 Disaster Relief

In recent years, extreme climates happen frequently and disasters keep pouring in, so high attention is paid to various kinds of disaster prevention work.Disaster prevention and rescue work is developed and advanced continuously, including disaster reduction,disaster preparedness, emergency handling and restoration. Meanwhile, the role functions of social administration are reviewed and improved all the time. The Social Assistance and Social Work Division of the Ministry of Health and Welfare mainly takes charge of "residential

relocation for victims," "material preparation for people's livelihood," and "consolation and care for victims." Only by making full preparations before the disaster, can we deal with various problems when disasters happen.

1. When the flood season and typhoon season were coming every year, the local government would take special measures including temporary sheltering for victims, social assistance and vulnerable protection according to Disaster Prevention and Response Act. In 2019, various counties and cities prepared 5,772 shelters for victims, which could accept 2,490,634 people. In 2019, a total of 137 temporary shelters were opened for 2,282 people due to four disasters, such as typhoon Danas.
2. The mode of "regional union & real-time assistance" and "one person for one case" is established, and the local government is divided into five regions according to the geographic area. They will support the nearby disaster- stricken counties and cities, and service patterns are developed according to the disaster types. Victims are provided with services covering real- time assistance, trauma counseling, psychological support and demand investigation. During the 0206 earthquake in Tainan in 2016, Kaohsiung City, Pingtung County, Chiayi County, Chiayi City, Taichung City, and Changhua County recruited local social workers to provide assistance there. After the Penghu plane crash in July 2014, local governments began to launch the one-on-one care mechanism through social workers. From then on, local governments activate the one-on-one are mechanism in each major disaster to help victims overcome the mishap.

Section 5 Assistance for the Homeless

Counseling and Shelter Service for vagrants provides three-stage services including "emergency service, transition service and stabilization service," and to help vagrants rebuild and adapt to their life on the premise of respecting their basic human rights and considering regional differences.

There were 3,040 homeless people registered with the local governments at the end of 2019. Over 70% were located in 6 municipalities including Taipei City. In contrast, there were 7 counties/cities with less than 50 homeless people. Furthermore, there were no homeless people in Kinmen County, Lienchiang County and Penghu County, which shown a great difference between various places in the number of vagrants.

According to Article 17 of the Public Assistance Act, the local government shall for mulat autonomous regulations or methods of vagrant training according to the number of vagrants, vagrant assistance scale and needs within its jurisdiction. The existing measures are as follows:

1. Shelters for Homeless People: For homeless people without a living place, the governments also initiatively provide temporary shelters (such as vagrant hospice) for homeless vagrants who wander on the streets or are unwilling to accept the agency's arrangement. Such places can be treated as their temporary and short-term shelter from the cold. By the end of 2019, 10 public vagrant hospices (including 7 hospices founded by the government but managed privately) had been established.
2 Living maintenance: In order to maintain vagrants'basic living safety, the Ministry of Health and Welfare has planned budgets to help municipalities and counties (cities) handle vagrant businesses during recent years. The government and relevant associations have united the forces of nongovernmental organizations to provide street services and guarantee basic life maintenance for vagrants, including hot food, bathing, protection against cold, haircut, clean clothing, sleeping bag, and hygiene.
3. Employment Assistance Program: Coordinating with the labor authority to provide vocational training for vagrants having working competence or willingness, or discussed with relevant units to provide employment opportunities for them by assessing their characteristics. For example, cultivating vagrants' working habit through providing work relief program instead of giving outright grant, or offered counselling services, so as to improve vagrants' self-reliance ability and help them return to families and social life.
4. Cold Weather Care Services: The Ministry of Health and Welfare issued Plan on Strengthening the Care for Vulnerable People in Cold Weather and Spring Festival Holidays on 10 Nov. 2014. When the Central Weather Bureau published a special report about low temperature below 10°C, the local government and non-governmental organizations shall initiatively provide the caring service in cold weather, and offer hot to vagrants.

In 2019, services for 629,942 vagrants was provided, including giving caring service to 595,929 vagrants, helping 273 vagrants return home, welfare referral to 3,366 vagrants, recommending employment opportunities to 13,238 vagrants, helping 549 vagrants lease a house, settling down 4,145 vagrants, and medical services 12,257 people.

Section 6 Children Future Education and Development Account (CFEDA)

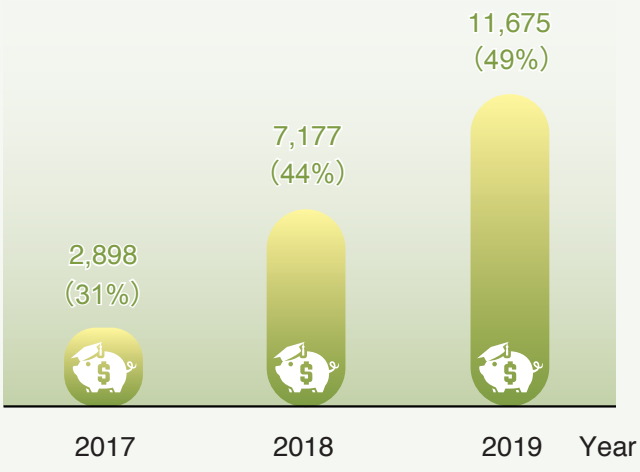
Under the "Savings Accounts for Future Education and Development of Children and Youth" program, through the cooperation between the government and poor families, parents of eligible children can deposit up to NT$15,000 a year, and the government contributes the same amount. Besides encouraging families in poverty to make long-time savings (18 years), education of financial management and family services are provided. During the saving process, social workers will accompany

and provide guidance for these families to reduce the risks that families or children or youth may encounter. After the program began on June 1, 2017, the president promulgated the "Act Governing Savings Accounts for Future Education and Development of Children and Youth" on June 6, 2018 to optimize the program's legality.

By the end of 2019, a total of 11,675 people applied for account opening, with an application rate of 49%, including 3,967 children and youth from low-income families (34%), 7,123 children and youth from middle-low-income families (61%), and 585 children and youth from long-term placement (5%). In terms of deposit amount, 2,129 people (18%) deposit NT$500/month, 1,894 people (16%) deposit NT$1,000/month, and 7,652 people (66%) deposit NT$1,250/month. The amount of savings accumulates NT$345,104,061.

By the end of 2019, a total of 2,897 people have not opened a saving accounting, social workers visited 2,595 people, with a completion rate of 90%. Major services provided by social workers included care visits and psychological support, follow-up guidance, consultation services, and administrative assistance.

Figure 10-1 Children Future Education and Development Account (CFEDA) Number of Applicants and Accounting Opening Rate Over the Years



Chapter 2 Social Work

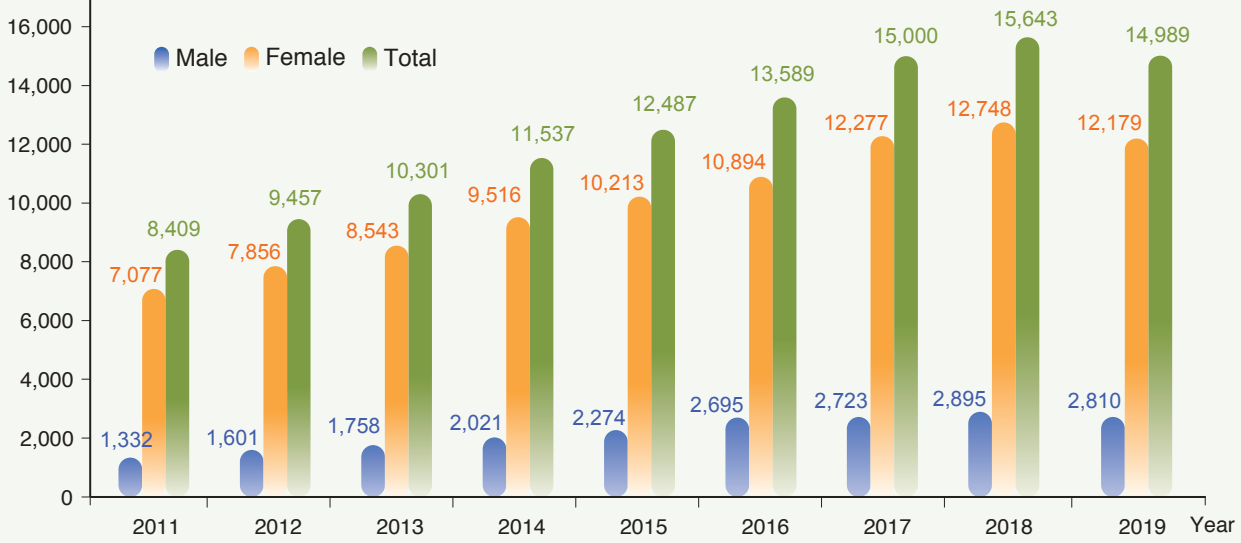
Social workers are an important foundation for the government to promote welfare policies. While all social welfare policies and measures need social workers to promote, apart from making efforts in enriching the workforce, optimizing the labor conditions and benefits, and protecting the personal safety of social workers, the MOHW includes the dangerous profession compensation as part of the salary of social workers to ensure that the remuneration system of social workers is reasonable, in order to improvement the practice environment of social workers. We strive to provide a friendly work environment for social workers, hoping to encourage social workers to choose social work as full-time and long-term profession and thereby ensure the quality of services for the vulnerable through optimizing the professional system of and improving the work environment for social work.

Section 1 Social Work System

Social work as a profession has become an international trend. Since the "Social Worker Act" was promulgated and implemented on April 2, 1997, a total of 12,739 persons have passed the social worker examination and 12,223 of them held a license by the end of 2019. There are 7,774 registered practicing social workers. In terms of age, 5.09% are aged under 25, 16.41% are aged 25-29, 20.99% are aged 30-34, 21.51% are aged 35-39, and 35.99% are aged 40 and older. By the end of 2019, there are 29 social workers running 29 registered social worker firms. The total number of full-time social work employees in both the public and private sectors 14,979 persons (including 689 indigenes, 4.6%), including 12,172 women (81.26%) and 2,810 men (18.74%); 6,238 persons (41.65%) working in the public sector and 8,741 persons (58.35%) in the private sector, as shown in 10-2.

Figure10-2 **Social Workers Assigned to Social Welfare Tasks in Public and Private Agencies, 2011-2019**

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)



1. Talent cultivation

(1) The Ministry of Education was invited to encourage the schools to adjust their curriculum planning according to the social worker examination system, so as to cultivate excellent social workers at front line.

(2) We conducted qualification review for practical social work experience and business according to the test-free subjects of professional social workers stipulated by the Ministry of Examination. By the end of 2019, 77 committee meetings were held, and 12,159 application cases for social worker were reexamined.

(3) One social worker evaluation by specialty was conducted according to the "Regulation for Qualification by Category and Continuing Education of Specialized Social Workers". By the end of 2019, a total of 582 specialist social workers were accepted, including 226 medical social workers (38.8%), 160 mental health social workers (27.5%), 133 children, youth, women, and family social workers (22.9%), 34 geriatric social workers (5.8%), and 29 disability social workers (5%).

(4) The professional competencies of social workers are improved according to the "Regulations Governing the Continuing Education and License Renewal of Social Workers" and the "Regulation for Qualification by Category and Continuing Education of Specialized Social Workers". In 2019, a total of 3,345 reviews on continuing education score were conducted.

2. Protection of Social Workers' Rights

(1) In order to provide social workers with a friendly work environment and encourage them to choose full-time and long-term jobs,the Ministry of Health and Welfare discussed with the Personnel Administration Department of Executive Bureau and Ministry of Personnel about measures like post adjustment and professional tables. The social work profession system was included in the "Social Security Net Enhancement Program" policy communication platform for coordination across government departments to facilitate the promotion of related policies.

(2) Every year we update the "Guidelines for Subsidizing Social Welfare Promotion" with respect to the labor conditions of social workers in the private sector. In 2016, we added the license allowance for specialized social workers. In 2017, we increased the professional service fee for social workers and social work worker supervisors from NT$33,000 to NT$34,000 and from NT$37,000 to NT$38,200 respectively. In addition, based on the "Salary Adjustment for Public Social Workers" and MOHW's "Subsidization for Salary Adjustment of Private Social Workers" program approved by the EY in June and September 2019 respectively, we added the dangerous professional compensation to the salary structure of social workers taking effect on January 1, 2020 to make the pay more reasonable and improve the quality of work environment for social workers.

(3) To protect the labor rights of social workers, the"Social Worker Labor Grievances and Communication Platform"was established on March 31, 2018. A labor disputes and grievances process was also issued on August 24, 2018. On August 16, 2018, we held the "Audit System Establishment for Professional Service Fee Subsidization Consultative Meeting" with local governments, the Ministry of Labor (MOL), experts, scholars, and representatives of base-level social worker organizations. In December 12 2019, we held the "Social Worker Labor Protection Working Meeting" with local governments and the MOL. By October 2019, a total of 34 complaints were accepted by the Social Worker Labor Complaints and Communication Platform, and six complaints were confirmed with violation of the Labor Standards Act, as shown in Table 10-4. All confirmed violation cases were punished by law and referred to competent authorities to provide guidance for improvement. In addition, the social worker labor complaints handling procedures were revised according to past experience to enhance the effectiveness of case investigation.

Table10-4 Table of Social Worker Labor Complaints

Reasons for Complaint	Number of Cases	Number of Violations	Percentage
Incomplete Salary Payment	18	2	11%
Working Hours Dispute	5	2	40%
Other Labor Disputes	11	2	18%
Total	34	6	18%

Section 2 Manpower allocation and utilization for social workers

To maximize the workforce efficiency of social workers through nationwide workforce coordination, in 2018 the EY rolled the "Plan to "Local Government Social Worker Workforce Allocation and Employment Augmentation Plan" into the "Social Safety Net Enhancement Program" to hire 2,145 social workers.

In 2019, we approved the subsidization of related funds for local governments to hire 2,440 social workers (including 1,580 new social workers and 860 social workers in the Augmentation Plan). At the end of 2019, there were a total of 1,998 social workers (including 1,235 new hires, and 763 people already hired under the previous social worker augmentation program.) Employment rate was 78% for new social workers and 89% for those previously hired under the social worker augmentation plan. The overall employment rate was therefore 82%.

Section 3 Occupational Safety of Social Workers

In order to intensify social workers' operating safety, the Ministry of Health and Welfare has brought relevant measures about social workers' personal safety into Social Workers Act, Law on Welfare and Rights Protection of Children and Juveniles,and Family Violence Prevention Act. The Executive Bureau issued Act on Operating Safety of Social Workers (2015-2017) in 2015. The relevant strategies were reviewed in 2018 prior to their continued implementation in order to realize the three goals of "Secure employment", "Safe service" and "Stable management". The specific measures are as follows:

1. The "table for high-risk and general-risk businesses of social workers" should be completed, and the subsidy for risky operation paid to social workers. From 2015 to 2019, the total number of beneficiaries of subsidy for risky operation was 3,867, 4,153, 4,243, 4,568 and 3,895. By the end of 2019, the total amount of subsidies was NT$142,390,192. Table 10-5 shows the amount and vacancy of subsidization.
2. Promoting the "Social Worker Personal Safety Protection Program" with funds from the Public Welfare Lottery Subsidization Fund: The social welfare departments (bureaus) (including social welfare NGOs and institutions) of municipal and local governments were subsidized to adopt measures for protecting the personal safety of social workers, including facilities and equipment, graded sources for in-service education/training, emotional support, stress release courses, mental health, assault support, and practice safety insurance fees. NT$7,961,000 in subsidies were given to 32 projects in 2019.

Table10-5 **Summary of social worker risk allowance funding between 2015-2019**

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

Year	Standard risk No. of people	High risk No. of people	Total No. of people	Amount of subsidy (NTD)	Notes
2015	1,192	2,675	3,867	11,512,800	The secondary reserve was tapped in 2015 so allowances were only paid from October through to December
2016	1,182	2,971	4,153	27,776,000	
2017	1,382	2,861	4,243	27,718,699	
2018	1,548	3,020	4,568	29,517,515	
2019	1,210	2,685	3,895	45,865,178	
Total				142,390,192	

3. All the strategies and implementation measures approved by the Executive Yuan under the "Occupational Safety for Social Workers Plan" on August 1, 2018 were merged into the supporting measures of the Strengthening Social Safety Net Program in 2019. Risk allowances were included in the review of the remuneration structure. The salary system was implemented in 2020.

Chapter 3 Community and links to other resources

Communities are the miniature as well as bedrock of society. At the MOHW, community development aims to enhance the community awareness and identification of residents. We also empower community talents to proactively discover the common needs of communities and provide local care and services through self-help and mutual assistance and integration of various resources to build a self-determined, energetic, happy, and sustainable and healthy community. In recent years, volunteerism has become a trend. Besides serving people, it helps self-assurance and self-growth and enhance social linkage. We regularly implement the evaluation, survey, research, education and training, encouragement, and commendation of volunteerism, hoping to motivate more people to engage in volunteerism and thereby secure the ceaseless supply of volunteerism considered as a positive social force. We constantly enhance the transparency of charity donations destined for social welfare funds and enforce social accountability through public supervision to promote social welfare and protect the rights and interests of donors. For citizens in living hardships to access social welfare through the consultation of a single window, build a social safety net, and integrate various resources, we have set up the 1957 Social Welfare Consultation Hotline for citizens in need to access full information and related services, including reporting and referral, with only one call.

Section 1 Community Development

Our community development follows the pattern of mass organization according to Regulation on Community Development Work. Construction is conducted among communities, including Construction of public facilities, production and welfare development and spiritual and ethical development. and social welfare enters the communities. In this way, the wellbeing of people living in communities is enhanced.

As for community development, the folk force is utilized to advance various welfare services. We try to integrate community residents' consciousness,promote harmony and goodneighborliness, and increase living quality by issuing community periodicals and holding activities. The effects of 2019 are as follows:

1. 6,919 community development associations nation-wide; 3,605 community activity centers.
2. Community-oriented social welfare flagship plans, human resource training, disaster prevention and preparedness advocation, and proposal empowerment were conducted, and subsidies were provided for 123 cases; the total amount was NT$9,605,000.
3. Organized the national welfare community observation tour and national community development task force that were attended by more than 1,400 people.
4. Organized competition to recognize outstanding communities in community development for 2019. A total of 41 communities from 9 counties and cities in the southern region participated in the competition, 4 of them won the Bronze Excellence Award, 9 of them won the Excellence Award, 11 of them won the Outstanding Award, 12 of them won the Grade A Award, and 3 of them won the Characteristic Award.
5. A sum of NT$1,212,770,000 was subsidized for the refurbishment project of a total of 293 community activity centers under the Forward-Looking Infrastructure-Long-Term Care MOHW Stations Refurbishment Project to deploy long-term care service stations to expand the capacity of community service.

Section 2 Promoting Volunteerism

To promote voluntary service development, apart from promulgating the “Volunteer Service Act” in 2001, the “MOHW Volunteer Service Information Integration System” and “Materials and Volunteer Workforce Management for Major Disaster” were built to manage volunteer data and assist with disaster rescue. In 2019, the MOHW commended 15,973 volunteers, 47,897 volunteers held the “Volunteer Service Honor Card”, with which holders enjoy free admissions to a total of 157 scenic areas nationwide.

There were 1,100,411 (4.7% of the total population) volunteers organized into 21,284 volunteer groups nationwide in 2019 as shown in Fig.10-3. These including 346,881 men (30%) and 753,530 women (70%). In the respect of service scope, the education type had the highest population (380,963)(34.6%), 371,503 (33.8%) education volunteer service workers the second highest, environmental protection type (186,785) (16.9%).

In terms of age, 264,241 volunteer workers 25.43% are aged 65 and older, the highest; 246,889 volunteer workers 23.76% are aged 55-64, as shown in Figure 10-4. In 2019, they served 480,888,039 people, and the duration of service was 95,656,981 hours,equivalent to 45,989 full-time workers.

In the last 5 years, the number of elderly volunteer workers has increased year by year, as shown in Figure 5. (including the proportion of elderly volunteer workers in all volunteer workers) The number of elderly volunteer workers in the elderly population of Taiwan is also increasing year by year, as shown in Figure 6 .This shows that the number of elderly volunteer workers has been increasing in recent years, and the government’s efforts to encourage elderly volunteerism is a success. Servicing aged elderly people with young elderly people can not only encourage volunteerism engagement in society but also create elderly opportunities, wisdom inheritance, and social inclusiveness.

Figure10-3 Number of Volunteers, 2011-2019

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

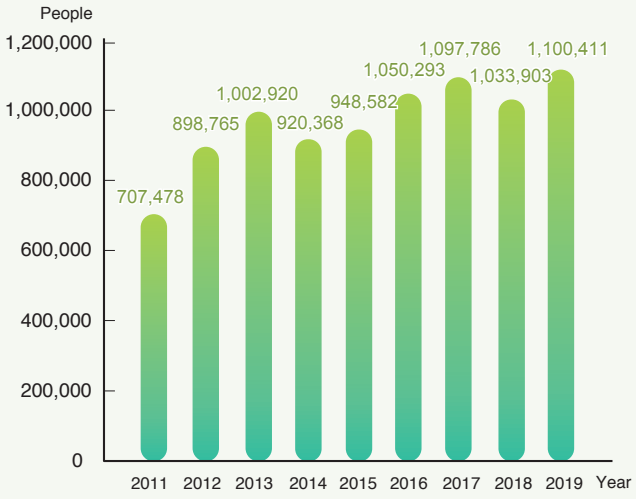


Figure10-4 Age Groups of Volunteers, 2019

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

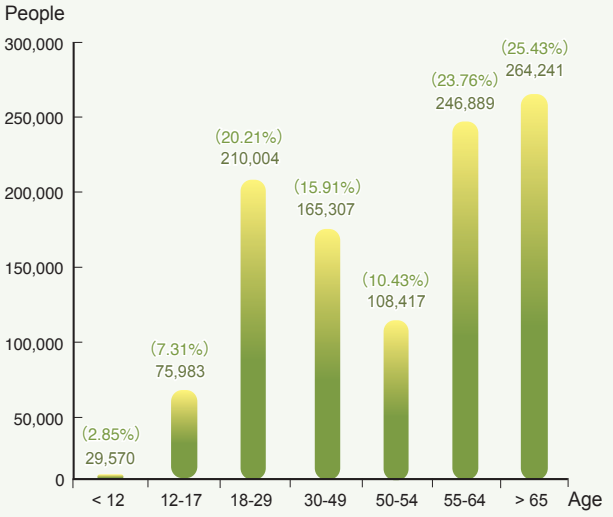


Figure10-5 Number of of Volunteer Workers Aged 65+ in the Population of People Aged 65+ in the Last 5 Years (including the proportion of elderly volunteer workers in all volunteer workers)

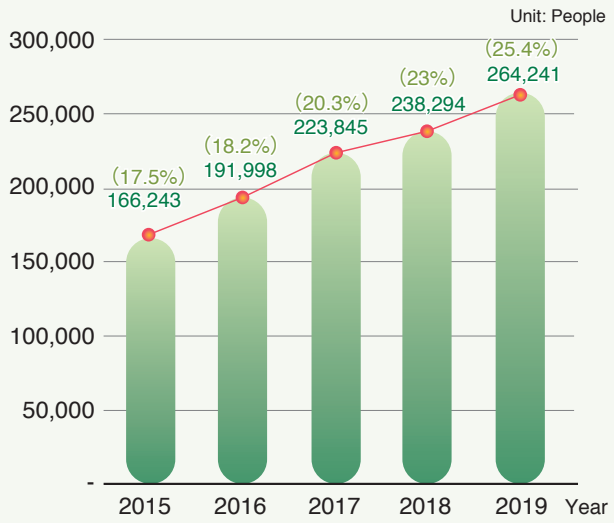
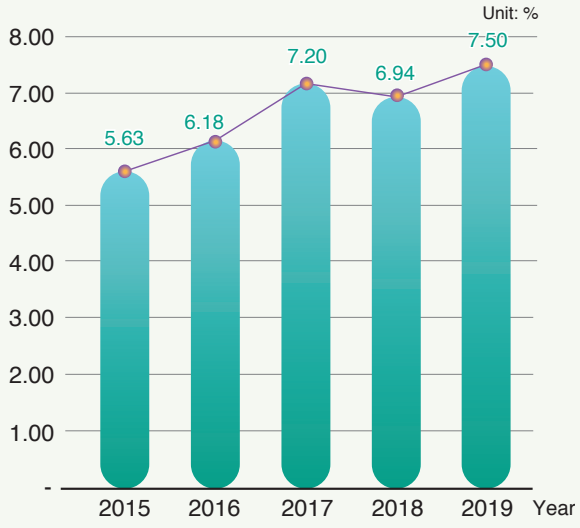


Figure10-6 Proportion of Volunteer Workers Aged 65+ in the Population of People Aged 65+ in the Last 5 Years



Section 3 Charity Donations Destined for Social Welfare Funds

In order to manage the behavior of contribution solicitation, and to properly utilize social resources,the government issued Charity Donations Destined For Social Welfare Funds Implementation Regulations in 2006. It stipulates that contribution solicitation activities shall be initiated for social and welfare services,cultural and educational undertakings, social charity, foreign aid, international humanitarian assistance, and other undertakings affirmed by other competent authorities. In 2019, the MOHW approved 529 applications for donations from 464 groups, with a total of donations amounting to NT$4,382,268,173. Although the number of applications increased, the amount of donations reduced. (Table 10-6 shows the details) .

Table10-6 Statistics for approved fund-raisers between 2017 and 2019

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

Year	Number	Groups	Anticipated donations	Actual donations
2017	448	386	17,123,882,494	4,548,172,240
2018	485	423	16,241,762,754	5,038,433,097
2019	529	464	18,392,537,780	4,382,268,173

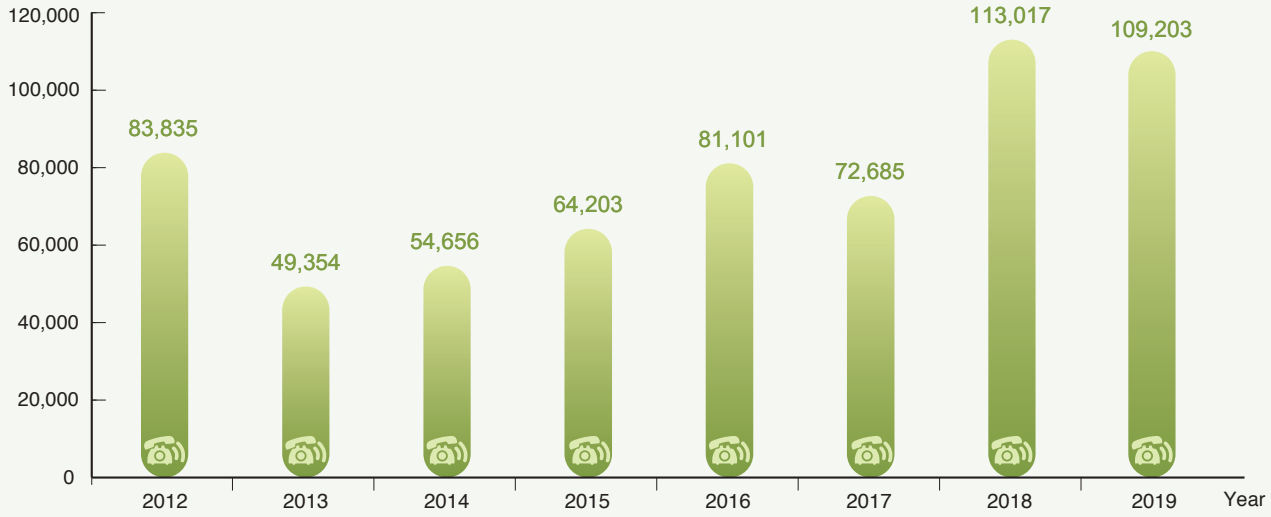
Section 4 1957 Welfare Consulting Hotline

The 1957 Social Welfare Consultation Hotline was officially activated on November 17, 2006. To improve the hotline's service quality, we began to commission the Taiwan Fund for Children and Families (TFCF) to provide round the clock toll-free consultation, reporting, and referral services of social welfare over the 1957 Social Welfare Consultation Hotline for families or individuals in living hardships. In 2019, the TFCF hired 35 professional social workers to provide services from 08:00-22:00 every day. When case reporting and referral are required, they will report cases to the local governments to arrange visits or provide related services for the case.

The analysis on the incoming calls during 2012-2019 as shown in Figure 10-7 shows that the volume of incoming calls has increased significantly in the last two years, suggesting that the public's demand for acknowledgement of policy making and social welfare is rising, thus increasing the volume of incoming calls.

Figure10-7 Call statistics for the MOHW 1957 Consultation Hotline between 2012 and 2019

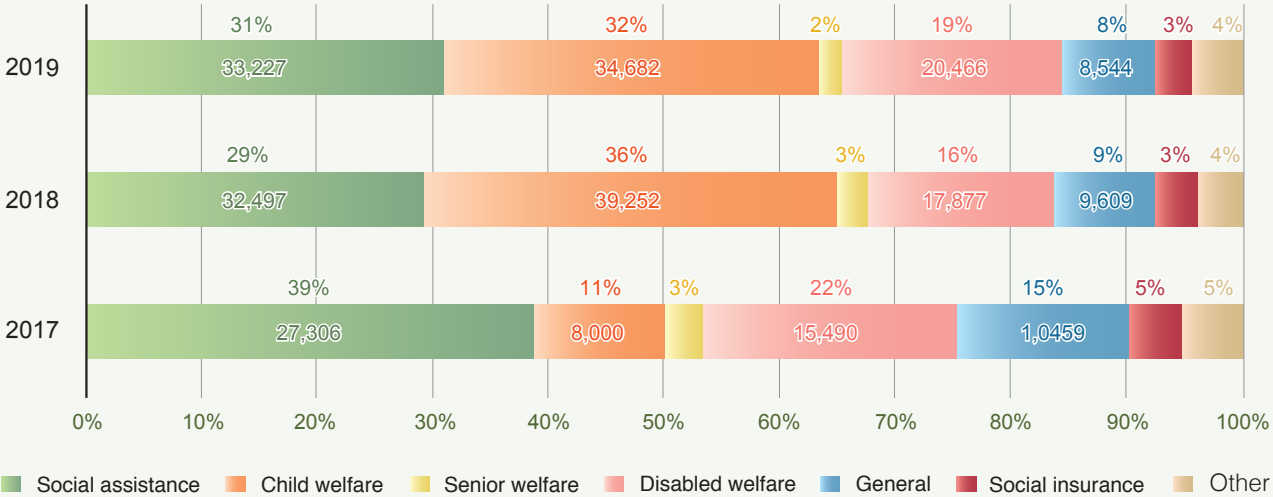
Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)



The analysis on the category of inquiries over the 1957 Social Welfare Consultation Hotline between 2017 and 2019 shows that public assistance, child and youth welfare, and disability welfare are the most commonly inquired categories, and an ongoing increase in public assistance and disability welfare is observed, and a significant growth by five times in the inquiry for child and youth welfare, as shown in Figure 10-8.

Figure10-8 Analysis of calls made to the MOHW 1957 Consultation

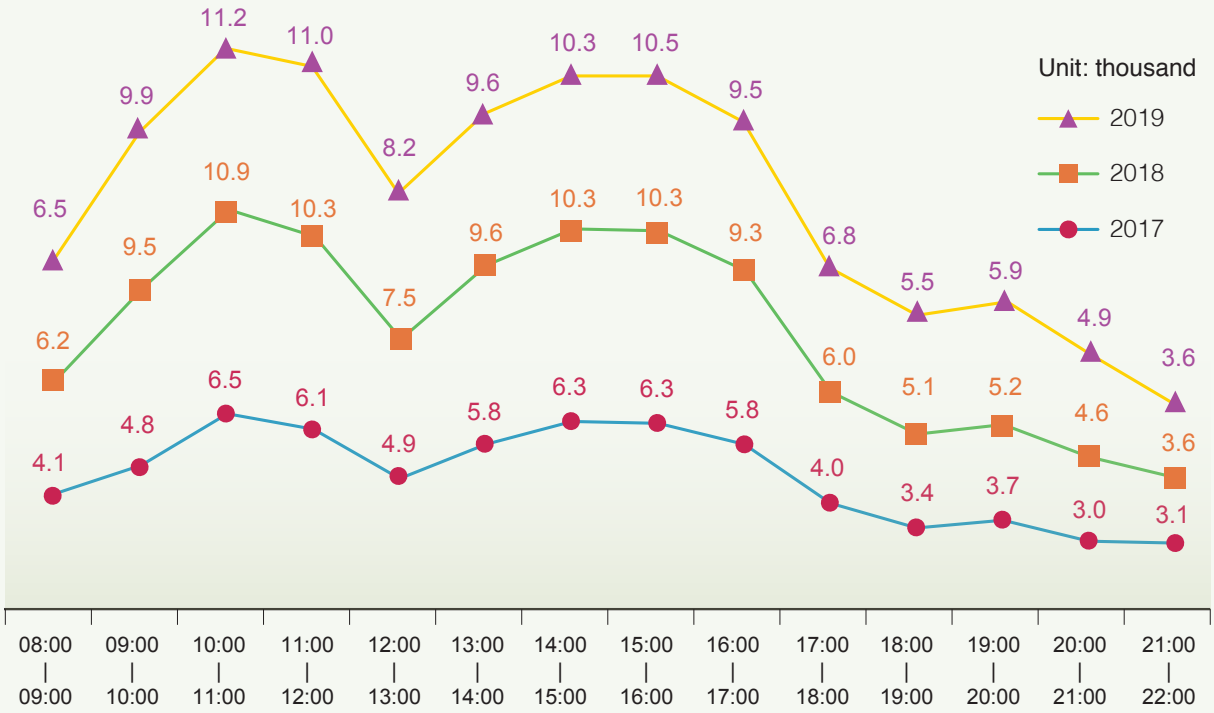
Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)



In terms of the daily service time, as shown in Figure 10-9, the peak hours lie at 09:00 - 11:00 and 15:00-17:00, while the volume of incoming calls tends to reduce at the meal and break times and in the evening.

Figure10-9 **Volume of Incoming Calls of the 1957 Social Welfare Consultation Hotline During 2017-2019**

Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)



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Please fill-in the questionnaire to give us your advice.

11 Sexual Violence Prevention and Protective Services

Chapter 1 Prevention of Gender-Based Violence

Gender-based violence (GBV) refers to violent acts directed at an individual in terms of physical, gender, and psychological harms and sufferings. Common patterns include intimate partner violence (IPV), sexual assault, sexual harassment, and abuse on children, elderly people, and persons with disabilities. In addition to laws and policies, by establishing a cross-ministerial coordination network, reporting system, and information platform; raising the awareness of GBV prevention; and encouraging social workers to engage in protective social work as full-time and long-term profession, we effectively enforce GBV prevention to build a safe and friendly society.

Section 1 Inter-departmental Network Integration Mechanism

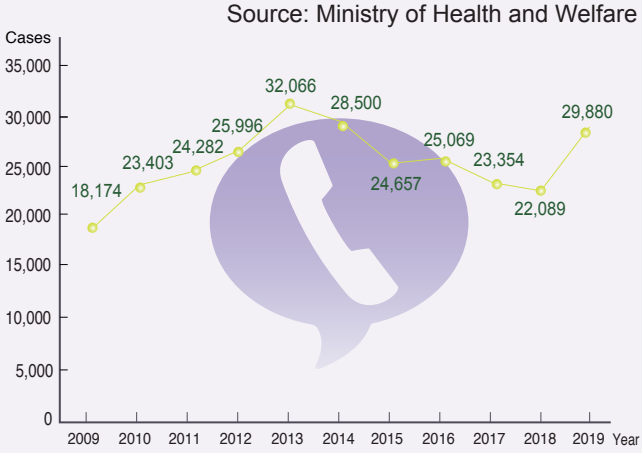
1. Established an inter-departmental communication platform: In 2019, three meetings were held on the promotion of domestic violence and sexual assault prevention, which reviewed the current situation of the gender violence prevention and protection service network, and proposed suggestions for improving inter-professional network coordination and intervention strategies.
2. Organizing "GBV Prevention and Protection Service Consensus Camp": To empower local resources in communities and build the community-based support network, we organized the "Community Violence Prevention: Building A Social Safety Net Together" consensus camp on March 9-10, 2018 at Mellow Fields Hotel in Tianmu. At the consensus camp, community base-level organizations, NGOs, and social welfare, police, and healthcare representatives from local governments discuss and share practical experience in given topics to promote related responsible units of the municipal, county (city) governments and communities in the jurisdiction to reach a cooperation consensus and provide an opportunity for communities to understand their roles and functions. A total of 200 people participated in the camp.
3. The 6th Purple Ribbon Awards ceremony was held: The "6th Purple Ribbon Award" ceremony was held in November 2019 to honor the members of the prevention and control network who have made achievements in protective service, and to honor workers who made outstanding contributions in protecting against gender-based violence. The 12 winners came from various protective services, including social administration, police administration, health care, education, and judicature.

Section 2 Reporting System and Information Platform

1. Implemented the statutory responsibility report and established the National Protection Information System and Case Management Process Control System: "Promoting Care E Plan." A case tracking management mechanism was put in place, and an information sharing platform was established for the use of a prevention and control network by related staff. In 2019, a total of 233,634 cases on adult protection, sexual assault, and child and youth protection were reported over the "Social Safety Net: e-Care Together—Online Help Seeking/Reporting Platform".
2. 113 Protection Hotline: Statistics show that there were 29,880 cases meeting the protection criteria from calls to the 113 hotline in 2019, including 17,754 cases on adult protection (the highest), 11,283 cases on child and youth protection (the second highest), and 843 cases of sexual assault, as shown in Figure 11-1.

Figure 11-1 Case Number of the 113 Protection Hotline, 2009-2019

Source: Ministry of Health and Welfare



Section 3 Promoting Prevention of Gender- Based Violence

1. Operation of the Anti-GBV Resources Website and Publishing the Anti-GBV e-Newsletter: By August 31, 2019, the website accumulated a total of 22,029 entries of data; published 6 e-newsletters with topics on "Extortion: Sexual Assaults with Power and '#Me Too' Movement", "Silent Cry: Intelligent Persons with Disabilities and Sex Violence", "Special Issue on the 20th Anniversary Seminar of Domestic Violence Prevention", "Soothing Wounds: Trauma Informing Practice", "Online GBV: Technology Vs. Power and Control", and "Helpless Victims: Migrant Workers and Sex Violence"; added six animations with topics covering economic violence, elderly abuse, trauma informing, teenage parents, online GBV, and male participation; added 38 videos to the video section with topics covering child and youth protection, domestic violence, sex violence, sexual harassment, and human trafficking. The website was operated and maintained by the MOHW as of September 2019.

2. Promoted the primary violence prevention plan in communities: Subsidies were used to guide community groups in conducting gender-based violence prevention and education activities, and in fostering a concept of zero-violence and zerotolerance in communities. 22 counties and cities and 88 plans were subsidized in 2019, with 462 communities participating.

Section 4 Long-term Employment for Social Workers Specializing in Protective Services

1. Plan of strengthening local government social worker assignment and career development: Subsidized local governments' social workers.In 2019, the plan subsidized 495 social workers who engaged in child protection and domestic violence and sexual assault prevention, with subsidies amounting to more than NT$147 million.
2. Implementation of the Protective Social Worker Manpower Audit Plan: A manpower audit of protective social workers was completed by municipal, county and city governments in 2019 with results reported to the MOHW. In accordance with the "Protective Social Workers Qualification Requirements and Standard for Determining the Scope of Duties", education and training were conducted by local governments based on the protective social worker training plan issued by the MOHW. Personnel that underwent the training were also entered into the "Social Worker Human Resource Management System."
3. Enforcing the Protective Social Workers Training Implementation Plan: To improve the quality of professional service provided by social workers specializing in protective services, we organized three sessions of "Orientation Training for New Protective Social Workers: L1 and L2 Common Courses for Strengthening the Social Safety Net" for 309 protective social workers from local governments and NGOs. In addition, we commissioned National Taiwan Normal University to organized seven sessions of "Protective Social Workers Supervision Keynote Training" and "Practical Supervision Skills and Drills Workshop" for a total of 236 supervisors of protective social workers to improve the professional competence of frontline supervisors and thereby ensure the quality of case services.

Chapter 2 Prevention of Domestic Violence

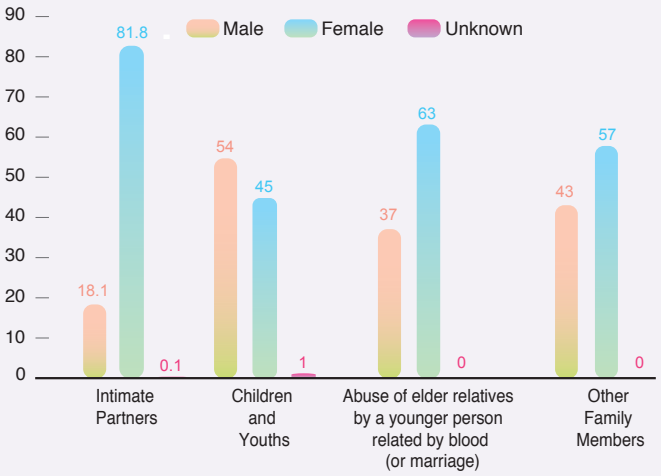
To prevent domestic violence and protect the rights and interests of victims, we promoted and supervised local governments to proactively develop various victim protection support programs and deploy related service resources, strengthen the offender treatment program and develop preventive service programs. In addition, we improved the professional competence of personnel through education and training. In 2018, we began to cooperate with the confirmation of the mechanism for division of labor and cooperation of protective services in the public and private sectors and the expansion of the function of the domestic violence protection network to enhance the efficiency of case handling and deepen victim services.

Section 1 Status of Domestic Violence Services

The Domestic Violence Prevention and Control Act (hereinafter referred to as the Domestic Violence Act) was promulgated on June 24, 1998, and nearly 100,000 victims have been reported every year since then. In 2019, most of the reported cases involved intimate violence, with women being the majority of victims (81.8%). Meanwhile,cases of "violence by other family members" also mostly involved female victims (57%). The majority of victims in "child protection cases,"on the other hand, were male (54%). The majority of victims in "Abuse of elder relatives by a younger person related by blood (or marriage)" cases were female (63%) (see Figure 11-2).

Figure 11-2 Reported Victims of Domestic Violence by Gender, 2019

Source: Ministry of Health and Welfare



During 2015-2019, the number of elderly (aged 65 and older) abuse cases increased slightly each year from 7,245 persons in 2015 to 10,504 persons in 2019, accounting for 2.5‰ and 2.9‰ of the nationwide elderly population respectively, as shown in Table 11-1.

In 2019, the municipal and county (city) governments provided more than 1.13 million assistance for the protection of victims of domestic violence, and the total amount of assistance provided was NT$602,390,069. The main subsidies were subsidies for shelter, emergency support,psychological rehabilitation, medical costs, lawyers,and litigation costs (see Table 11-2).

Table 11-1 **Elderly Victims of Domestic Violence in the Last 5 Years**

Source: Department of Statistics, Ministry of Health and Welfare

	Number of elderly victims of domestic violence	Nationwide elderly population	Proportion in nationwide elderly population
2015	7,245	2,938,579	2.5‰
2016	8,344	3,106,105	2.7‰
2017	9,083	3,268,013	2.8‰
2018	9,805	3,433,517	2.9‰
2019	10,504	3,607,127	2.9‰

Table 11-2 **Domestic Violence Protective Assistance Incidents and Monetary Amounts, by Year**

Source: Ministry of Health and Welfare

Item / Year	2015	2016	2017	2018	2019
Protective Assistance Incidents	1,196,998	1,295,786	1,312,095	1,309,184	1,137,300
Protective Assistance Monetary Amounts (NT$)	576,498,676	577,721,960	743,362,409	961,394 ,330	602,390,069

Section 2 Diverse Intervention for Victims of Domestic Violence

In response to the multiple needs of the victims of domestic violence at different stages of recovery, we constantly assist local governments in promoting domestic violence prevention in collaboration with NGOs with the Public Welfare Lottery Subsidization Fund. The relevant programs are as follows:

1. Shelter program for victims of domestic violence: Subsidies were provided for partnerships between local governments and NGOs to provide emergency shelter and placement services for victims. In 2019, 7 cases received NT$4,920,736 in subsidies to provide shelter/placement services 14,442 times. Eight cities and counties also received subsidies in 2019 for organizing medium and long-term shelters to meet the protection requirements of victims at different stages of rehabiliation.
2. The domestic violence office near court: The local government entrusted the civil society to set up 19 domestic violence service offices near the court, providing legal services, for victims, accompanying court appearances, shelter services, providing legal services,accompanying court appearances and shelter services to the victims, and the subsidies reached NT$4,410,000 in 2019, serving more than 120,000 persons.
3. Counseling and treatment program for children and juvenile witnessing the family violence: Assist the local government to develop a program for children and juvenile witnessing the family violence in conjunction with professional groups. In 2019, the program subsidized 14 cases,totaling NT$10,841,100 and serving 20,000 persons.
4. Service plan for domestic violence victims of local tribes and new residents: assist local governments to handle the services for domestic violence victims of local tribes and new residents. In 2019, 8 cases were subsidized, totaling NT$4,821,500 and serving over 120,000 people.
5. Domestic violence services for new immigrants: In 2019, approximately NT$3.907 million in subsidies were distributed to 5 domestic violence protection programs for new immigrants. The programs were used around 42,000 times. Local governments also received counseling on using the new immigrant development fund to set up personal protection programs for new immigrants. A total of NT$3.907 million in subsidies were provided to 5 programs.
6. One-stop Service for Domestic Violence Program: The program aims to assist local governments in developing victim-centered one-stop services (at least three items, such as victim accompaniment and support, service for child and youth witnesses, victim employment service, and self-reliance service) in collaboration with NGOs. In 2019, we subsidized a sum of over NT$34 million for 14 programs from 9 counties and cities to provide protection and assistance for over 52,000 victims, guidance for over 15,000 child and youth witnesses, and employment service for over 2,900 victims.

Section 3 Intervention for Domestic Violence Offenders

1. Supervising local governments in implementing treatment programs: In 2019, a total of 6,006 persons required treatment; treatment was completed for 2,112 persons, treatment was in progress for 2,686 persons, treatment was not implemented for 614 persons, and referral of 594 persons for violation of the restraining order.

3. In 2019, we subsidized 184 mental health social workers and 19 supervisors for local governments. Through the cross-check of the Management Information Systems of Protective Services and Psychiatric Care , for offenders combined with psychotic disorders in cases involving child and youth protection, domestic violence, and sexual assault from cases activated in both systems. Mental health social workers were assigned to perform periodic assessment of violence risk, suicide risk, psychotic condition, family functions, and multiple needs; and provide integrated services for the cases and their families. The dispatch rate of mental health social workers for the cases in 2019 was up to 86.30%.

3. Preventive Service for Offenders of Domestic Violence

   (1) The 0800-013-999 male hotline was established to consult men in domestic conflicts and reduce the chance of violence. In 2019, the hotline received 22,161 calls and serving 19,795 person-times (including 8,447 indepth services, 11,331 general consultation services and 17 emergency case services).

   (2) Surplus from the public welfare lottery subsidize domestic violence offender prevention plans, which are co-handled by local governments and NGOs and include. In 2019, there were 33 plans subsidized, with total subsidized of NTD41.48 million, and services provided 40,599 person-times (Including direct guidance, case management, follow-up care, and professional training.)

Section 4 Quality of Domestic Violence Prevention and Education

1. Continued to promote the “Domestic Violence Safety Net Program”: For victims of domestic violence assessed to be in a life-threatening situation, cross-platform conferences were convened by municipal, county and city governments every month to draw up a safety program for victims. A total of 540 crossnetwork platform conferences were conducted in 2019 with 10,546 cases put up for discussion. Intervention by the preventive network reduced the level of risk in 5,746 cases, or 54%.

2. “Elder abuse in Taiwan survey”: We commissioned the National Taipei University of Nursing and Health Sciences to conduct the Taiwan Elderly Abuse Survey to infer the prevalence of elderly abuse in Taiwan. The results show that the overall prevalence is 7.79%, and the types of abuse by prevalence from high to low are: mental abuse (6.64%), physical abuse (3.36%), financial abuse (1.33%), negligence (0.62%), and sexual abuse (0.09%).

3. Strengthened the professional knowledge of domestic violence prevention and control personnel: In 2019, administrative training for social workers on domestic violence prevention was conducted, Training was completed by a total of 454 people.

4. Increasing the sensitivity of elder protection alerts: For responsible reporting personnel to understand elderly protection in order to strengthen network cooperation, we organized two sessions of training for 99 responsible reporting in 2019.

5. Education and training for treatment personnel: 103 mandatory, optional, and group education courses on domestic violence prevention/ awareness and parental education counseling were reviewed in 2019.

Chapter 3 Prevention of Sexual Assault and Sexual Harassment

Sexual assault and sexual harassment issues tend to involve issues including gender inequality and power and control. In addition, the general public often holds gender misconception over victims of sexual assault and sexual harassment. To enhance the willingness to accept service intervention and receive proper services of victims of sexual assault and sexual harassment, multiple and appropriate treatment services are provided for victims and offenders of sexual assault and sexual harassment, and sexual assault and sexual harassment prevention education is arranged for the public, and the professional service competence and handling skills of online prevention personnel are strengthened to protect the rights and interests of service recipients.

Section 1 Status of Sexual Assault Services

1. Overview of sexual assault services

   (1) In 2019, over 8,000 victims were reported, where 82% were female, including 42% aged 12-18, and 8% were probable or confirmed persons with disabilities; 85% of suspects were male, including 36% aged 12-24. The majority of cases (71%) were “sexual assault by someone known to the victim; 5% were sexual assault by a stranger. Most of them (46%) were friends (friends of family/ neighbors/ ordinary friends/classmates) and internet friends; then “relatives” (11%), including past/present direct-blood relatives, past/present parents, family, or other family relationships, and other relatives.

   (2) In 2019, the domestic violence and sexual assault prevention centers of municipal, county and city governments assisted sexual assault victims 340,891 times and distributed in NT$159,730,000 in assistance funds. Most of the assistance

consisted protective and assistance measures such as shelter services, assistance with police report and interviews, economic assistance, assistance with medical examination/treatment, and legal aid.

2. Overview of sexual harassment services

All relevant organs (units) accepted 831 cases of sexual harassment complaints in 2019. The cases are as follows:

(1) A total of 647 cases were established, 143 cases were not established, and 41 cases were dropped. Most cases were accepted by the police (78.9%), then the employer of the offenders (17.2%).

(2) Most victims were female (95.52%), and most offenders were male (87.52%). “Strangers to each other” (68.01%) is the most common type of relationship between both parties, then “internet friends of each other” (5.41%). “Public areas” are the most common crime scene (38.31%), then the “virtual environment-technology equipment (e.g. internet)” (18.77%). “Surprise kisses, embracing, and touching the breasts, hip, or other private parts” are the most common behaviors (44.35%), then “showing or circulating porn pictures (files) (19.79%), and then “intimidating, degrading, hostile, or harassing language or attitude” (13.84%).

Section 2 Diverse Intervention for Victims of Sexual Assault and Sexual Harassment

1. Protection and assistance for victims of sexual assault: set up victim service and subsidy standards, and guided the prevention and treatment centers to provide victims with emergency rescue, medical treatment, medical examination to obtain evidence and emergency resettlement, etc. More than 340,000 people were served, and the amount of support was more than NT$150 million in 2019.
2. Traumatic rehabilitation service for victims of sexual assault: From 2017 onwards, the public welfare lottery reward fund was used to subsidize the civil society to conduct the plan of the “sexual assault victims rehabilitation center construction,”which provided rehabilitation services to people suffering sexual abuse when there was lack of judicial assistance in the early years. More than 5,000 people were served in 2019.
3. Improvement of the inspection and identification of sexual assault: 3,375 victims were provided with injury certificates in 2019, of which 2,009 cases were sent to the Criminal Police Station for testing.
4. Promoted the plan to “reduce repetitive victim statements in sexual assault cases”: Police,prosecutors, social workers, medical and other service teams worked together to improve the quality of interrogation and reduce repeated representations of victims. 1,494 cases in 2019 entered this service.
5. “Competitive Plan for Constructing Sexual Harassment Prevention and Control Service System”: In 2019, 9 counties and municipalities were subsidized for 110 professional trainings,3,933 victims were given legal counseling and psychological counseling services, and more than 1,010,000 people were benefited. 14,279 sexual harassment prevention measures were subject to on-site inspection.

Section 3 Intervention for Sexual Assault Offenders

1. Active coordination for the establishment of venues for compulsory treatment of sexual assault offenders after completing sentences: By the end of 2019, there were six venues accepting 70 offenders.
2. Community intervention provided for sexual assault offenders. In 2019 a total of 7,489 offenders underwent treatment and counseling,including 1,757 offenders who completed the intervention and 4,717 who were still undergoing intervention. There were 4 offenders referred for compulsory treatment, 685 who did not completed intervention due to explained excuses,and 326 punished for failure to show.

Section 4 Quality of Prevention and Education on Sexual Assault and Sexual Harassment

1. Serious Sexual Assault Cases Review Meeting: In 2019, a total of two meetings were held to review 10 cases covering three categories: child and youth/disability/elderly care institution sexual assaults or indecent assaults; campus sexual assaults and indecent assaults; and migrant worker sexual assaults. Resolutions of the meetings included setting up the 1955 foreign worker complaint hotline and the 113 protection hotline; including contents for foreign workers in health education and NGO assistance resources; discussion of including in policy planning the transfer of migrant worker agents suspected for breaking the law from the current position; inventory of the proportion of persons with disabilities in nationwide child and youth placement institutions; education and training on issues relating to persons with disabilities for current institutional employees; and strengthening subsequent planning.
2. Professional training on prevention of sexual assault and sexual harassment: Two “Professional Training Class for New Sexual Assault Prevention Personnel” were conducted in 2019. The course covered topics in human sexual development, sexual assault within institutions, sexual assault of disabled people, legal protection and initiatives for victims of sexual assault, as well as medical

care and protection of sexual assault victims. Three supplementary classes on “Introduction to sexual assault”, “Introduction to victims of sexual assault” and “Introduction to sexual trauma” were also offered. A total of 110 people took part in the training. To enhance the professional competence of personnel handling and investigating sexual harassment cases, We organized six sessions of “Elementary and Intermediate Professional Training for Sexual Harassment Investigators” under the “2019 Sexual Harassment Prevention Quality Improvement Program”, with 409 people completing the training.

3. Strengthening of preventive education: In 2019, MOHW subsidies and rebates from Taiwan Public Welfare Lottery were provided. More than 1,010,000 people in 9 counties (cities) benefited from the subsidies. E-learning materials on “Prevention of sexual assault in children and juvenile institutions” were completed in the same year to help frontline personnel learn about sexual assault in institutions and improve their professional knowledge and skills.
4. Education and training for treatment personnel: 71 sessions about sexual assault prevention, including the core and advanced courses, were reviewed by MOHW in 2019.

Chapter 4 Children and Youth Protection

To comply with the inherent right to life, survival, and development of the child and youth, and the provision of an environment suitable for the growth of children and youth as emphasized by the CRC, we improve the quality of protective services for children and youth by establishing a service process, structural assessment tools, and timeliness and quality control mechanism for child and youth protection against sexual exploitation; and empower resources relating to parenting education services. In response to the “Social Safety Net Enhancement Program”, in February 2018 we began to combine multifaceted risk information across government departments by integrating the child and youth protection, high-risk family reporting, and related service systems for a comprehensive assessment of the protection and risk factors of children and youth. We also provided comprehensive treatments for child and youth protection to improve the quality and education of child and youth protection to enforce the protection of child and youth safety and well-being.

Section 1 Overview of child protection services

In response to the “Social Safety Net Enhancement Program”, we integrated child and youth protection with the high-risk family system. There were 73,973 cases about child and youth protection, including 64,199 cases (87%) reported by responsible reporting personnel and 9,774 cases (13%) by citizens; 40,511 cases (55%) were assigned under protection service, 5,916 (8%) cases under welfare service, and 27,546 cases (37%) under other services. In addition, we provided subsequent treatment services for 11,113 victims of child and youth abuse, including 4,832 boys (43%) and 6,281 girls (57%).

Section 2 Multi-dimensional child protection services

1. “Child and Youth Protection: Development of Diversified Compulsory Parenting Education and Support Service Integration Program” implemented by local governments: We subsidized local governments to implement the program with the Public Welfare Lottery Subsidization Fund from the Ministry of Finance. The program contents included the provision of diversified parenting education for child and youth protection through home-based services combined with digital media. In 2019, we subsidized nine programs with a sum of NT$11 million.
2. MOHW supported the establishment of regional integrated child protection centers: To help frontline workers accurately identify child abuse cases and strengthen cooperation between the medical facilities and social administration agencies, the MOHW began promoting the establishment of regional integrated child protection centers at the regional hospital and higher levels from July, 2018 onwards as part of the Strengthen Social Safety Net program. In 2018, apart from providing assistance in the medical examination and treatment of 244 child abuse cases, we organized 248 education and training activities for 2,889 participants. In internet cooperation, we organized 201 case review meetings and internet liaison meetings with 563 participants.
3. Supervised the implementation of the Institute of Watch Internet Network (iWIN) by municipal, county and city governments: With respect to the Letter Wei-Bu-Hu-Zi No. 1081461210, on November 25, 2019 we reminded the competent authorities of municipal and county (city) governments to voluntarily report the status of each case on the iWIN system referred from iWIN after completion and timely keep complainants updated with the progress to capture the progress after case assignment. If there are doubts regarding the timeliness of case handling, the case handling unit may notify the MOHW. In 2019 the service volume of iWIN system was 3,139 cases, including 1,170 cases (37.27%) with “dangerous contents”, the highest; and 998 cases (31.79%) with “erotic contents”, the second highest.

4. To assist local governments in enforcing parenting education on child and youth protection, we completed the production of the e-learning teaching materials "Happiness Knocks" for parenting education on child and youth protection in 2019. To facilitate public access to these resources, a link to "Happiness Knocks" is set on the Social Safety Net section of the MOHW website for social workers and parenting education personnel of child and youth protection to when providing services for family treatment or parenting education. We also actively supervised local governments to enforce parenting education. In 2019, there were 3,402 cases sanctioned for parenting education according to the "Protection of Children and Youth Welfare and Rights Act" by municipal and county (city) governments, and a total of 18,347 hours of parenting education was provided.

Section 3 Children and Youth Sexual Transaction Prevention

1. Legal system: The Regulations on the Prevention and Control of Sexual Exploitation of Children and Juvenile were amended according to the Presidential Decree on November 29,2017 and January 3, 2018. The amendments include: the diversified treatment for victims, the expansion of responsibility scope of informant the scope of the personnel, and the increase of the criminal responsibility of perpetrator. In response to the second amendment of the act, we amended the following two by-laws accordingly: "Enforcement Rules of the Child and Youth Sexual Exploitation Prevention Act" (promulgated on June 26, 2018 and taking effect as of July 2, 2018) and the "Regulations Governing Counseling Education for Offenders of Child and Youth Sexual Exploitation" (promulgated on January 11, 2019 in connection with the amendment announced by the Ministry of Justice and taking effect on the date of promulgation).
2. Enforcing victim protection and assistance: In 2019, there were 1,372 statutory report cases, including 675 cases (49.2%) by the police, the highest; 495 cases (36.08%) by teachers, the second highest; and 138 cases (10.06%) by social workers. There were 1,134 victims, 714 local social work personnel accompanying in investigation, 118 persons receiving emergency placement, 119 persons decided for short-term placement and 115 persons decided for medium- and long-term placement by the court. Guidance, treatment, and follow-up services were provided for 500 persons, including care visits, counseling, study guidance, economic assistance, family treatment, employment, and medical resources.

Section 4 Child protection service quality and education

1. Hosting of "Review meetings for serious child abuse cases": To learn from the mistakes in serious child abuse cases and optimize the child and youth protection network, we held serious child abuse meetings in May, September, and December in 2019 with experts, scholars, the related departments of the central government, and representatives from local governments. Major resolutions included the countermeasures for filicide with suicide cases, design of common fundamental interdisciplinary courses for child and youth protection, discussion of implementation of early parenting experimental project and development of care measures for child custody transfer, inclusion of families with child and youth suicide cases in the "Care Visit Procedure for Suicide Prevention", optimization of the procedure for vaccination prompting visit, and inclusion of the "Breakup Education" in the syllabus of schools of all levels.
2. Strengthening of professional child protection training: In 2019, two sessions (5 days each) of education and training were arranged for a total of 109 new child and youth protection social workers nationwide; 18 sessions of education and training on child and youth protection SDM safety assessment (2.0), risk assessment, and risk re-assessment for 793 nationwide frontline child and youth protection social workers (87%) to equip them with the required operating competence. In addition, while child and youth safety is often affected by conflicts in intimate relationships, to strengthen the cooperation of cases involving child and youth protection and adult protection at the same time, three "Child and Youth Protection and Adult Protection Exchange and Cooperation Workshops" were organized in December 2019 to promote communication and dialogues between both parties and develop feasible principle of cooperation.
3. Enforcing schedule tracking for child abuse cases: A timer alert function was implemented for the "Domestic Violence, Sexual Abuse and Child Protection Information System". The IT system is used to remind social workers of the time limit when handling child abuse cases.

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Please fill-in the questionnaire to give us your advice.

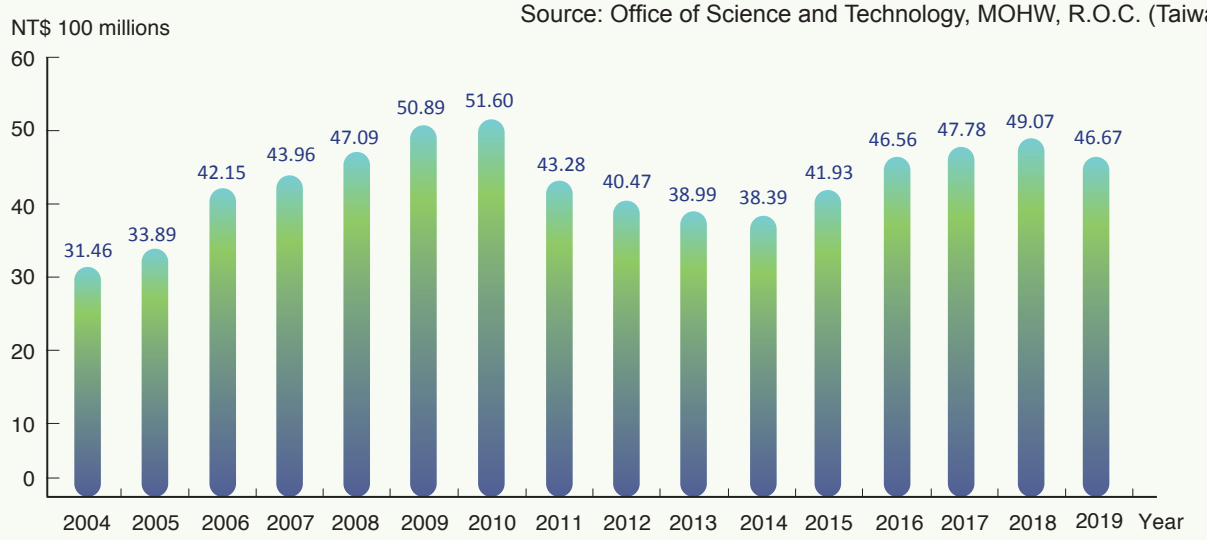
12 Research, Development, and International Cooperation

Chapter 1 Technological studies on health and welfare

The budget for technological development in 2019 was NT$ 4.66 billion, as shown in Figure 12-1, accounting for 2.5% of MOHW's budget. This funding was mainly used for empirical studies, innovation, translational research, and health and welfare data analysis and statistics compilation in accordance with public health and social welfare policies. We commissioned or subsidized 787 research projects, and the actual application rate for technological achievements was 76%.

Figure 12-1 Annual R&D Budget Trends

Source: Office of Science and Technology, MOHW, R.O.C. (Taiwan)



Section 1 Task-oriented research to support evidence-based policymaking

1. Infectious disease prevention and control

(1) In order to enhance the efficiency of infectious disease testing, we used recombinase polymerase amplification (RPA) to design the plasmodium examination process and developed several multiple real time polymerase chain reaction (multiplex RT-PCR) test kits for multiple pathogens. In addition, the development of the enzyme-linked immunosorbent assay (ELISA), or immunochromatographic test (ICT) quick test, for Chikungunya and the ELISA rapid test for integrated arbovirus was completed to effectively identify the infection of dengue fever, Chikungunya fever, and Zika virus.

(2) Adopted smart technologies in communicable disease prevention and control efforts, including developing AR games combined with the anime character designed based on disease personification for dengue fever; creating a warning system using marquee image and text capture; developing an automated media and public opinion collection mechanism; and enhancing the AI malaria blood smear analysis technology and LINE@ chatbot.

(3) Increased the capacity of the medical product, Antivenom of Tr. Mucrosquamatus and Tr. Gramineus, by over 36 times and reduced the number of immunized horses required to produce the same amount of snake venom plasma by 4-10 times. The improvement reduced the number of horses raised year by year and greatly decreased the operating cost of the National Antivenom Hyperimmune Horse Farm.

2. Public health promotion

(1) Intervention programs were developed for elderly diet, nutrition and health promotion.

(2) The "Taiwan's National Health Literacy Action Plan" was developed, and the synchronous distance learning of health literacy was provided for community health professionals.

(3) Conduct surveillance to track progress on the prevention and control of NCDs, including the progress of the relevant SDGs adopted by all UN nations.

(4) The preventive service programs for different age groups were being assessed, and the results of incorporation with risk assessment of chronic diseases, frailty assessment in elderly people (age 65 and over), and bone mass measurement for women at the age of 65 may serve as a reference for policy making in the future.

(5) The research developed and validated 5 Patient Decision Aids (PDAs) for common cancers (Lung Cancer, Breast Cancer, Colorectal Cancer, Prostate cancer, Head & Neck Cancer) to support the treatment and proposed policy advice for future implementation.

3. Food and drug management

(1) We established multiple testing techniques for more than 120 chemical substances of different types (20 types were added compared to the year before last year) to significantly enhance the capacity to discover unexpected substances to safeguard food safety for people.

(2) The recommended residue limit of 197 pesticides was established to strengthen the management of pesticide residue in food. In addition, 34 articles on food chemical test methods were published to provide a reference for food examination and enhance examination competence.

(3) In response to the global incident of suspected presence of carcinogens in antihypertensives, stomach medications, hypoglycemic drugs, three test methods (NDMA, NDEA, and NMBA) were established for the first time, eight test methods for medicated cosmetics, and one national standard for virus NAAT were established. In addition, four testing methods for Synthetic cannabinoids and PEA emerging drugs were developed to ensure drug use safety.

(4) Provided guidance for the development of four advanced high-value-added drugs and six innovative medical devices to achieve new R&D milestones, accelerate product launch, and benefit the public. In addition, assistance was provided for the application for launch of four domestic drugs to enhance competitiveness and expand the global market for the domestic pharmaceutical industry.

4. Research, development and promotion of traditional Chinese medicine

(1) In 2019, the daycare model for traditional Chinese medicine was established. Laser acupuncture on points in the head can help delay the cognitive degeneration of dementia cases. For residents of long-term care institutions using powdered “Ding-Chuan-Tang” and “Ban-Sia-Hou-Pu-Tang” with a lower “pneumonia hospitalization rate” than those without using them, these two scientific traditional herbal medications can help enhance the service quality of long-term care institutions and reduce related expenses.

(2) The investigation and analysis of the abnormal substances in 35 types of traditional Chinese medicine materials and comparison with international standards were completed to provide references for management.

(3) In 2019, a total of 50 papers were published in four volumes of the Journal of Traditional and Complementary Medicine (JTCM), raising the status of JTCM at the fifth place in “Complementary and Alternative Medicine” of CiteScore.

(4) The analytical methods for quality control of Chinese herbs or decoction pieces were continued to develop and establish. A total of 128 herb items of data were provided as basis for the quality control specifications, and collected in the Quality Analysis of Traditional Chinese Medicines database for the reference of the industry, government, academia, and research to enhance the drug use safety of citizens.

(5) Significant improvement in sleep, depression, anxiety, and cognitive activities are noted in 100 sub-health participants after practicing the baduanjin qigong exercise, which can be used as the basis for the promotion of Chinese medicine in preventive medicine.

(6) The bioactive fractions and ingredients which possess the fat-lowering effects are explored from the indigenous crop green amaranth for the development of the functional health foods. Furthermore, the results will increase the economic benefit for indigenous peoples.

5. Improved healthcare systems

(1) Nursing workforce monitoring is an important indicator for promoting nursing workforce development and healthcare system optimization. With the data from online the survey platform of nursing capacity in hospital, the nursing workforce database and statistics automated analysis system were constructed to capture the current status of nursing workforce and services, deploy nursing resources, and disclose government information as the reference of nursing policy.

(2) The regenerative medicine industry promotion planning and analysis report and regenerative medicine regulations and management mechanism development research report were completed to provide a direction to plan policies for quality management of regenerative medicine technology and talent cultivation of the regenerative medicine industry.

6. Omnidirectional reinforcement of National Health Insurance system

(1) Optimizing NHI services: The efficiency of NHI payment and financial system was enhanced with data governance as the core; and the opinion on NHI

policies and service quality of stakeholders was monitored to constantly reform the NHI system.

(2) Optimizing healthcare resource allocation: The NHI payment system was optimized for the reasonable allocation of NHI resources. Health big data analysis was applied to enhance the use of precision medicine and administrative efficiency.

(3) Building one-stop service for the smart health cloud: New-typed e-government services were established by implementing AI and integrating with mobile devices, cloud computing, and big data application to enhance the quality of NHI service.

7. Oral health survey on people aged 6-18 in Taiwan

understand the oral cavity and health conditions of children and youth aged 6-18 in Taiwan, we commissioned institutions to conduct the "2018 Oral Health Survey: Aged 6-18 Group". The survey in 8 counties and cities conducted in 2019 shows that the experience of dental caries in permanent teeth of 12-year-old tends to decline comparing to the 2012 survey.

8. GBV prevention and protection resources and services

(1) Elder abuse survey: The results show that prevalence rate of overall elder abuse is 7.99%, and the prevalence rate of abuse in order is mental abuse (5.95%), physical abuse (3.56%), financial abuse (1.40%), negligence (0.86%), and sexual abuse (0.03%). These data will be used as a reference for assessing and establishing elder protection.

(2) Taiwan Against Gender-Based Violence (TAGV) website: The website contains over 22,029 entries of data, including e-newsletters, animated pictures, and videos to fully preserve important GBV prevention assets with digital technology and core technology on the TAGV to enhance the public awareness of GBV prevention and strengthen the social education function of websites.

(3) Establishing the risk prediction model with big data for protection services: Account management of protection cases is achieved through big data analysis to understand the risk factors and protection factors of protection events in families, establish a risk prediction model to strengthen primary prevention and risk early warning, enforce victim protection and offender recurrence prevention, and provide recommendations for policy making to enhance the effectiveness of making and implementation of protective policies.

9. Improving welfare service system

(1) Strengthen the social welfare system: Strengthen various functions of a system, to improve analysis performance; establish a social welfare data warehouse to develop subjected-oriented analytical models; integrate social welfare resources to facilitate the access to resources and services, and plan accessible and better service channels.

(2) Constantly development of evidence-based social welfare research: Review existing childcare allowances and establish the manuals for using service quality indicators of childcare resource centers and provide them for use by childcare resource centers; analyze social welfare regulations to assess the needs and feasibility to enact a Social welfare Fundamental Act in Taiwan; and survey the status of use and improvement of daily life of persons with disabilities using subsidized cochlear implant and hearing aids.

10. Upgrading the National Long-term Service Information System

To strengthen the functions of the long-term care service database, to integrate three major systems: Care Service Management Information System, Long-term Care Facility & Long-term Care Personnel Related Management Information System, and Long-term Care System for Payment Review; and build a cross-system integrated interface and service-oriented framework, hoping to build a better long-term care database to facilitate the quality control and audit of long-term care services.

Section 2 Developing innovative and translational research

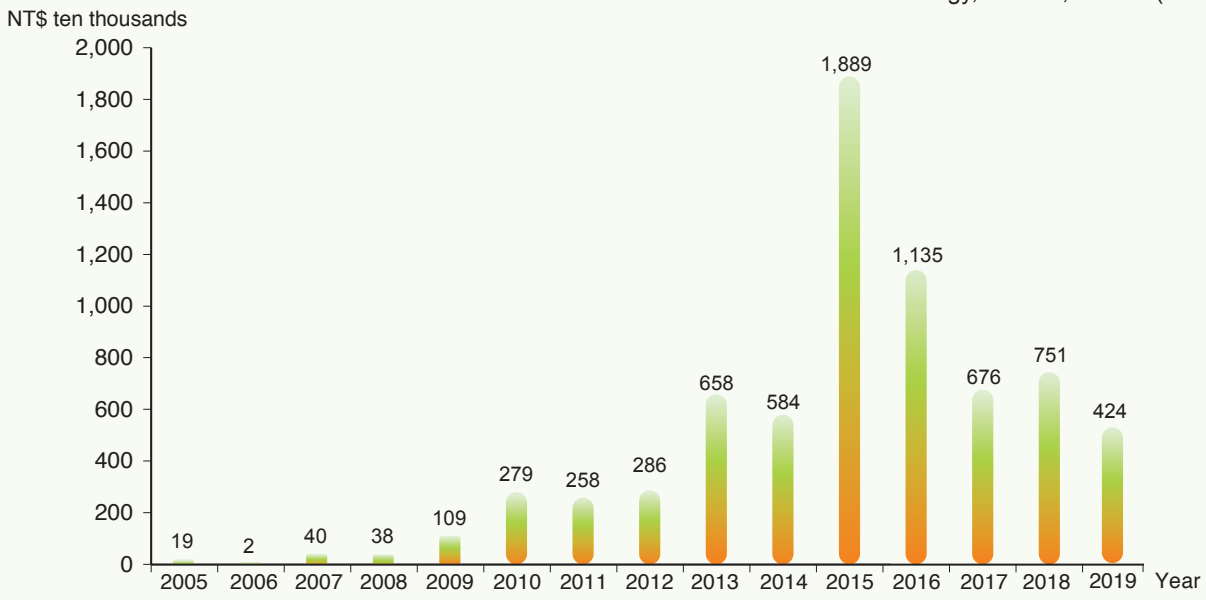
1. Technology transfer and patent licensing

(1) We transformed three research and development results in 2019, including the "therapeutic or preventive drugs for neurodegenerative diseases" and "revitalizing medicinal herbs for relieving metabolic syndrome" of the National Research Institute of Chinese Medicine, and the "Constituents and Methods of Drugs Released in Cells" of the National Health Research Institutes.

(2) The total income from research and development results was NT$ 5,235,357, as shown in Figure 12-2.

Figure 12-2 **Annual R&D Revenue Trends**

Source: Office of Science and Technology, MOHW, R.O.C. (Taiwan)



2. Innovative application services of biological databases

(1) National Biobank Consortium of Taiwan (NBCT): 25 biobanks have been invited to join the consortium to drive the domestic biotechnology development and international cooperation.

(2) The Taiwan Rare Disease Network (TRDN): Co-established with the Taiwan Foundation of Rare Disorders and Taiwan Human Genetics Society, the network has accepted cases from 488 families and completed the DNA sequencing of 770 cases and whole exome sequencing (WES) of 240 cases, with a confirmation rate of 70%, setting a foundation for the subsequent development of diagnostic tools and drugs for rare disorders.

(3) The "Taiwan Brain Tissue Resources Consortium" issue: Helped break through regulatory limits by defining brain extraction as "collection," which allowed Taiwan's first harvesting of brain tissue for donation on November 19, 2019.

(4) The Value-Added MedChem Innovation Center (VMIC): Established in response to the "Asia-Pacific Biopharmaceutical R&D Industrial Center" policy, the VMIC has engaged in cooperation with 22 biotech companies and 10 academic and research institutions, as well as signed 63 outsourcing contracts over the last 3 years. To help the center provide better-quality services and accelerate Taiwan's biotech R&D momentum, it moved into the National Biotechnology Research Park on December 31, 2019.

Officials mark the start of Taiwan's precision medicine initiative

Establishment of the TRDN

Awards ceremony for brain banking achievements

Inauguration of the VMIC

3. Initiated Phase III of the Cancer Research Program (2018–2021)

In the promotion of sharing and integration of cancer research information, we have established the databases for leukemia and childhood cancers. At the same time, the databases which cover 90% of patients in Taiwan for acute myeloid leukemia (AML) and pre-leukemia has been constructed, and the registration interface of the custom-built clinical database for pancreatic cancer has also been completed. To facilitate the data retrieval across institutions, a common data module has been designed by cancer types and research requirements such as cancer registration information and genetic variations of the patients.

4. To Promote Innovation and Competitiveness of Clinical Trials Project

Implemented the clinical trial to facilitate the launch of the "Vstrip" H. pylori Antigen Rapid Test independently developed by Taiwan-based Panion & BF Biotech. This is the first from Taiwan and the first offshore in the USA H. pylori antigen rapid test (in-vitro diagnostic device) approved for launch by the US FDA for detecting H. pylori antigen in human stool.

Section 3 Application Service of Health and welfare Research

1. Management of applications service platform

In 2019, the Health and Welfare Data Science Center (HWDC) continuously promoted management and review mechanism for big data application to strengthen data security management in conformity with the international standard. It also completed the third-party verification of the 13 data anonymization processes and acquired related certificates.

2. Service content and quantity

By the end of 2019, 104 databases were opened for public use. The service capacity increases annually, as shown in Table 12-1.

3. Establishing social welfare thematic databases

In 2019, the "Disadvantaged and Vulnerable Groups Data Linkage Application Project" was implemented to link the data from the information systems of different welfare services with the big data model. The policy-related thematic databases were established with the purpose of strengthening the cross-check functions of surveys and official data, compiling the population lists, conducting official statistics, and improving the quality of social welfare statistics.

Table 12-1 HWDC Service Capacity Over the Years

Source: Department of Statistics, MOHW, R.O.C. (Taiwan)

	2017	2018	2019	Increase percentage from 2018 (percentage point)
Equipment Occupancy (%)	47.0	67.1	72.4	(5.3)
MOHW	78.4	86.1	95.9	(9.8)
HWDC Branch	37.7	57.9	66.3	(8.4)
Number of year-end valid cases	504	537	636	18.4
Actually used cases in the year	10,240	14,508	17,405	20.0
Cases carried out for review	5,511	7,652	9,216	20.4
Service man-days	10,490	15,149	20,743	36.9

Chapter 2 International cooperation

In this era of globalization, Taiwan actively participates in international health cooperation and emergency humanitarian assistance by contributing our skills in medicine and sharing our experiences and achievements.

Section 1 Joining international organizations

1. World Health Organization

Taiwan's participation in various mechanisms, activities and meetings of the World Health Organization (WHO) not only safeguards the health right of all citizens but also plays an indispensable role in the world health and epidemic prevention system.

The 72nd World Health Assembly (WHA) was held in Geneva, Switzerland from May 20 to 28, 2019. Although Taiwan was not invited, Minister Shih-Chung Chen led the Taiwan WHA Action Team to Geneva to conduct 71 bilateral talks with important countries, such as the USA and international organizations. These meetings promoted in-depth exchange of important health issues and shared Taiwan's achievements and contributions in medicine and health, showing international community Taiwan's determination to participate in global health affairs professionally and practically, contributing health expertise to maintain health and human rights.

2. Asia-Pacific Economic Cooperation (APEC)

Minister Shih-Chung Chen led a delegation to the "Life Science Innovation Forum Executive Committee Meeting" in Puerto Varas of Chile and the 9th APEC High-Level Meeting on Health and the Economy in August 2019. Besides being a speaker for the "Embracing the Digital Future in Support of Healthy Aging in APEC" event, Minister Chen also held bilateral forums with member economies, including the USA, Japan, Malaysia, and Chile, to seek support for Taiwan's "APEC Digital Healthcare" initiative promoted at APEC. Furthermore, we successfully secured APEC funding and organized the "APEC Conference on Smart Healthcare for Non-Communicable Diseases (NCDs) and their Risk Factors Prevention and Control" in April 2019 and the "APEC Conference on Medical Information Sharing for Enhancing Medical and Disease Management" in August 2019.

In October 2019, the APEC Medical Devices Regulatory Science Center of Excellence Pilot Workshop was held in Taipei to train over 44 industry, government, and academia seed instructors from 8 APEC member economies, including Indonesia, Malaysia, Papua New Guinea, the Philippines, Russia, Singapore, Chinese Taipei and Thailand, to promote the regulatory harmonization for medical devices in different countries.

Bilateral talk between Minister Shih-Chung Chen and USHHS Secretary Alex Azar

Minister Shih-Chung Chen and Palau Health Minister Emais Roberts

“Taiwan Can Help” van shuttled across Geneva

President Ing-Wen Tsai met the Taiwan WHA Action Team

APEC Conference on Smart Healthcare for Non-Communicable Diseases (NCDs) and their Risk Factors Prevention and Control

APEC High-Level Meeting on Health and the Economy

APEC Medical Devices Regulatory Science Center of Excellence Pilot Workshop

Section 2 International exchange and assistance

1. International cooperation and exchange

(1) International cooperation

A. In January 2019, Deputy Minister Chi-Kung Ho signed the “Memorandum of Understanding between the Republic of China (Taiwan)-Ministry of Health and Welfare and the Flemish Policy Domain Welfare, Public Health and Family ” with the Secretary General of Welfare, Public Health and Family and the Administrator General of the Agency for Care and Health of Flemish Region, Belgium to exchange best practices on topics including elderly and long-term care, health information digitization, hospital management and accreditation, and to enhance policy planning.

B. In April 2019, the US-Taiwan MOU on Cooperation on International Parental Child Abduction was signed to promote cooperation to help resolve disputes over the minor custody between parents. The UN Convention on the Rights of Children (CRC) is an universal international convention. The MOU marks out Taiwan’s concern about the rights of children in response to the CRC spirit.

C. In May 2019, Minister Shih-Chung Chen signed a MOU with the Geneva University Hospitals of Switzerland for the research and analysis of disaster medicine to further engage in regional disaster rescue and international humanitarian aid. In October, the Geneva University Hospitals of Switzerland was invited to offer the “International Emergency Medical Team Training Workshop” to improve capacity and quality of the domestic medical response to disasters.

Signed the “Memorandum of Understanding between the Republic of China (Taiwan)-Ministry of Health and Welfare and the Flemish Policy Domain Welfare, Public Health and Family” with Belgium

MOU and the EMT workshop with the Geneva University Hospitals

ICSW North East Asia Regional Conference

SEWF

AFID Conference

D. In November 2019, dementia care experts of the Norwegian National Advisory Unit on Ageing and Health visited Taiwan to exchange Norway's practice of Person-centered dementia care training modules and nursing instructor training courses and signed the Agreement on Cooperation in the Dementia Care Training Module to expand international partnership and create opportunities for cooperation in training the trainer for dementia care.

(2) Attended 146 international conferences or seminars, organized 56 international conferences in Taiwan, and invited 816 foreign visitors from 61 countries in 2019.

A. Attending international conferences

(a) In July 2019, Deputy Minister Li-Chiung Su participated in the ICSW North East Asia Regional Conference in Mongolia to share "The Strengthening Social Safety Net in Taiwan" and visited the Mongolian General Agency for Labor and Welfare Service to promote social worker exchange between Taiwan and Mongolia.

(b) Recommended Traditional Chinese medicine experts to become members of the Traditional Medicine Working Party of the European Directorate for the Quality Medicines (EDQM). In 2019, these experts participated in two European Parmacopoeia compilation meetings in France to learn the trend of revision, management, and development of traditional medicine in the European Pharmacopoeia.

(c) In October 2019, Executive Yuan Minister without Portfolio, Feng Tang, led a delegation to the Social Enterprise World Forum (SEWF) in Ethiopia, East Africa, facilitating the SEWF committee to support Taiwan to host the 2020 Asia Pacific Social Enterprise Summit. Representatives from Taiwan also set a forum booth to promote Taiwan's achievements in social enterprise promotion.

(d) In December 2019, we participate in the Conference of Asian Federation on Intellectual Disabilities (AFID) in Kathmandu, Nepal, to understand the efforts and current status in education, employment, living care, and rights protection for intellectual and developmental disabilities (IDDs) in different countries. We also acquired the opportunity to organize the AFID Conference in Taiwan for the third time in 2027.

B. Hosting international conferences

(a) In April 2019, Taiwan, the USA, and Japan organized the "International Workshop on the Programmatic Management of Drug-Resistant Tuberculosis" under the Global Cooperation and Training Framework (GCTF) with the participation of 15 TB prevention experts from 8 countries. Former USHHS Secretary Tom Price addressed at the workshop to mark out the substantial Taiwan-USA friendly relationship and enhance the capacity of regional defense through international experience exchange.

(b) In May 2019, the Taiwan-U.S. Health and Welfare Policy Symposium was held with a theme, "Driving Better Outcome, Achieving Collective Impact", with about 300 participants. Seven US health and welfare officials and experts were invited to share their practical experience in current important public health and social welfare issues.

(c) In October 2019, the 7th Joint Conference of Taiwan and Japan on Medical Products Regulation was held in Taipei. Attendees included 45 representatives from the Ministry of Health, Labor and Welfare, industries of Japan and over 200 industrial representatives from Taiwan. They shared development progress and trend of medical products regulations, the regulations for precision medicine and in-vitro diagnostic devices, and the ICH E17 guideline on multi-regional clinical trials (MRCT), electronic drug labeling, OTC drug promotion policies, and medical device priority review mechanism.

(d) In October 2019, the “Global Health Forum in Taiwan” was held with a theme, “Urban Life of the 21st Century: Sustainable, Safe and Healthy.” Attendees included 8 ministers/deputy ministers and 83 health/ environmental protection experts from 33 countries to investigate ways to build healthier urban environment with existing resources from health and environment point of views respectively and to demonstrate an idea to create “Healthy Earth, Healthy Living” through transnational, cross-ministerial, and interdisciplinary collaborations.

(e) In October 2019, the “Disaster Preparedness and Response International Conference” was held to share experience in emergency medicine and humanitarian aid with domestic and international experts. Besides reviewing the history of disaster preparedness and response development in Taiwan, the coordination mechanism and activation framework were also explained for the reference of future disaster preparedness and response in Taiwan.

(f) In November 2019, the American Chamber of Commerce in Taipei and American Institute in Taiwan held the “2019 U.S.-Taiwan Liver Health Forum” and invited Vice President Chien-Jen Chen and Minister Shih-Chung Chen to deliver keynote speeches. The forum provided recommendations and opportunities for cooperation for Taiwan government, academia and AmCham Taipei members to build Taiwan as the Liver Health Management Center of Excellence in Asia.

(h) In December 2019, we held the “International Symposium on Dementia Prevention and Care” and invited the Alzheimer's Disease International (ADI) and international scholars from the USA and Japan to exchange with domestic experts. A total of 323 participants arranged a visit to the dementia-friendly communities and related care centers. By sharing international experience, we raised public awareness of dementia prevention and care.

International Workshop on the Programmatic Management of Drug-Resistant Tuberculosis

Taiwan-U.S. Health and Welfare Policy Symposium

Joint Conference of Taiwan and Japan on Medical Products Regulation

Global Health Forum in Taiwan

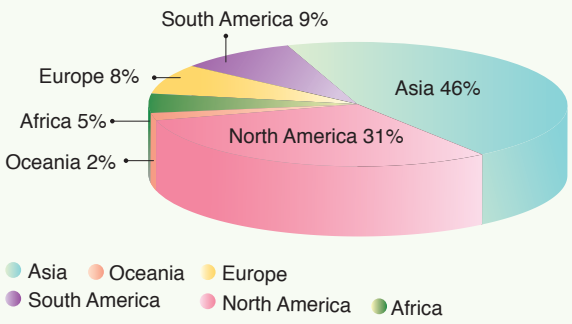
Disaster Preparedness and Response International Conference

U.S.-Taiwan Liver Health Forum

C. Foreign Visitors: 816 foreign guests from 61 countries visited in 2019. We shared information on health and welfare policy, medicine, food, health insurance, technology and bilateral cooperation, as shown in Figure 12-3.

Figure 12-3 **Foreign Visitors by Region of Origin, 2019**

Source: Ministry of Health and Welfare, R.O.C. (Taiwan)



2. International Medical Aid

Facing global climatic anomalies and frequent disasters, we have shown compassion by offering international assistance in health care while demonstrating Taiwan's significance to the international community.

International Symposium on Dementia Prevention and Care

(1) Taiwan International Health Action (TaiwanIHA): It is a task force formed by the Ministry of Foreign Affairs (MOFA) and the MOHW to conduct international medical and health cooperation and emergency medical aid with respect to the MOFA's overall foreign policy and to engage in international aid projects through collaboration with domestic and international NGOs to expand the international aid network. In 2019, the Craniofacial Medical Team Empowerment Project in Indonesia was implemented in collaboration with the Noordhoff Craniofacial Foundation for medical technology exchange and health education. The Craniofacial Seed Medical Personnel Training Program for the New Southbound Policy (NSP) partner countries was also organized to train surgical and dental medical personnel in the NSP partner countries, including Indonesia and Vietnam. Through collaboration with the Association for Medical Doctors of Asia (AMDA), endoscopic medical instruments were donated to the Nepal Hospital to improve its examination capacity and overall care quality.

(2) Global Medical Instruments Support & Service Program (GMISS) collects usable and essential medical equipment from hospitals in Taiwan and donates to the needed countries in accordance with our diplomatic policy. In 2019, 680 medical devices were donated in 8 shipments to the Cambodia, Peru, Mongolia, Papua New Guinea, the Solomon Islands, Kiribati, Laos, and Eswatini.

(3) Taiwan International Healthcare Training Center (TIHTC) promotes diplomatic relations by training health care professionals in regions short of medical resources. TIHTC trained 122 foreign healthcare professionals from 21 countries in 2019.

(4) Cooperation with the MOFA continued in 2019 to commission domestic hospitals to implement the "Medical Cooperation Project with Pacific Allies and Friends Countries", including the "Taiwan Health Center Program" in the Marshall Islands, the "Taiwan Medical Program" in Palau, Nauru, and Tuvalu, and the "Mobile Medical Team Program" in Fiji and Papua New Guinea. All projects were funded by the MOFA.

Section 3 New Southbound Policy

President Tsai Ing-Wen launched the New Southbound Policy (NSP) in 2016. The New Southbound Medical Cooperation and Industrial Chain Development program was chosen to be one of the five flagship projects in 2017.

2019 Milestones:

1. The “One Center, One Country” project was activated in June 2018. In 2019, seven domestic medical centers were commissioned to provide six services: talent training, industry matching, Taiwanese business health consultation services, building a culture-friendly medical environment, industrial regulations and market survey, and information integration in priority countries including India, Indonesia, the Philippines, Vietnam, Thailand, Malaysia (plus Brunei), and Myanmar. As of 2019 a total of 694 medical personnel were trained, 98 companies were matched to acquire orders valuing US$4.4 million in NSP partner countries. In 2019, although Taiwan’s overall export to seven NSP partner countries reduced by 12.6%, the export of healthcare products (medications and medical instruments) increased by 7.5%, better than the overall export, suggesting that concrete achievements have seen in the Medical and Health NSP.
2. In 2019, we held a kickoff press conference of the “Marketing Taiwan’s Advanced Dental Materials to Expand Market Share in NSP partner countries” and made Chinese and English versions of a promotional film “Taiwan’s Soft Power beyond Knowledge: Total Oral Healthcare” to drive growth of medical device industry.
3. Published the Guideline on Regulations for Registration of Traditional Chinese Medicinal Products in Vietnam. Held three international conferences/training courses domestically and abroad to share Taiwan’s experience in quality management of traditional medicine, integration of Traditional and Modern medicine and clinical medication experience with Thailand, Vietnam, and Malaysia.
4. In October 2019, the “Workshop on Universal Health Coverage: National Health Insurance System, Smart Hospital and Taiwan Experience” was held in Manila, the Philippines to share Taiwan’s experience in national health insurance, particularly the achievements in management with cloud technology.
5. We engaged in the prevention, exchange, and cooperation on dengue fever and tuberculous with Indonesia and Vietnam respectively. We sent our epidemic prevention experts to these countries for technical exchange and organizing training courses and achievement presentations.
6. In November 2019, Taipei Hospital, MOHW participated in the “Indonesian International Advanced Heathcare Management Workshop” to share Taiwan’s experience. The visit received wide media coverage in Surabaya, Indonesia. During the visit, Taipei Hospital signed a MOU with the Muhammadiyah Hospital Association in East Java.
7. In November 2019, we held the “Medical and Health NSP Vendor Conference”. Executive Yuan Minister without Portfolio, Chen-Chung Deng, and Deputy Minister Chi-Kung Ho were invited to give speeches. Five vendors shared their experience of NSP market entry and the “One center, One country” cooperation strategy. The event attracted approximately 200 participants from government departments, hospitals, medical associations and enterprises.

Taiwan Dental System International Marketing Launch Conference

Forum on Dental Health Care Industry Between Taiwan and Philippines

Traditional Medicine GMP Course held in Vietnam

Assisted Indonesian elementary schools to establish dengue prevention volunteer teams

Medical and Health NSP Vendor Conference

A transnational natural product research team was established at the signing of a multi-party MOC between Taiwan and Vietnam

International Advanced Heathcare Management Workshop

Joint Forum for Traditional Medicine Under the New Southbound Policy

8. We signed the memorandum of cooperation (MOC) with the Institute of Himalayan Bioresource Technology, (IHBT) under the Council of Scientific and Industrial Research (CSIR-IHBT) of India to facilitate joint R&D of medicinal plant sources in Taiwan and India.
9. We subsidized the “2019 Healthcare+ Expo Taiwan” to integrate the strengths of Taiwan’s healthcare services to drive and create value. The event was a big success. Over 550 domestic and overseas healthcare institutions and biotech enterprises participated in the expo. It attracted over 170,000 visitors, including over 2,800 international professionals, which 1,300 from the NSP partner countries.

Section 4 Internationalization of medical services

1. Background:

We tried to display the advantages of our medical care services and quality of care through promoting the internationalization of medical care services so as to advance the development of our medical industry and increase international competitiveness.

2. Goal:

(1) To coach hospitals to establish their key strengths, to develop medical brands, to provide diversified medical services, and to cooperate with professionals from different industries so as to expand the innovative strategies for the future medical industry.

(2) To develop the international health industry, and to lead the development of industries covering biotech, pharmacy, medical devices, information and health care.

Symposium on Traditional Medicine and Modern Medicine Integration held in Malaysia

Taiwan-India MOC on medical plant research

Healthcare+ Expo Taiwan

3. Achievements:

(1) The “Taiwan Task Force for Medical Travel” has been founded as the platform for information exchange and experience sharing. 87 organizations have been coached to establish a foreigner-friendly environment.

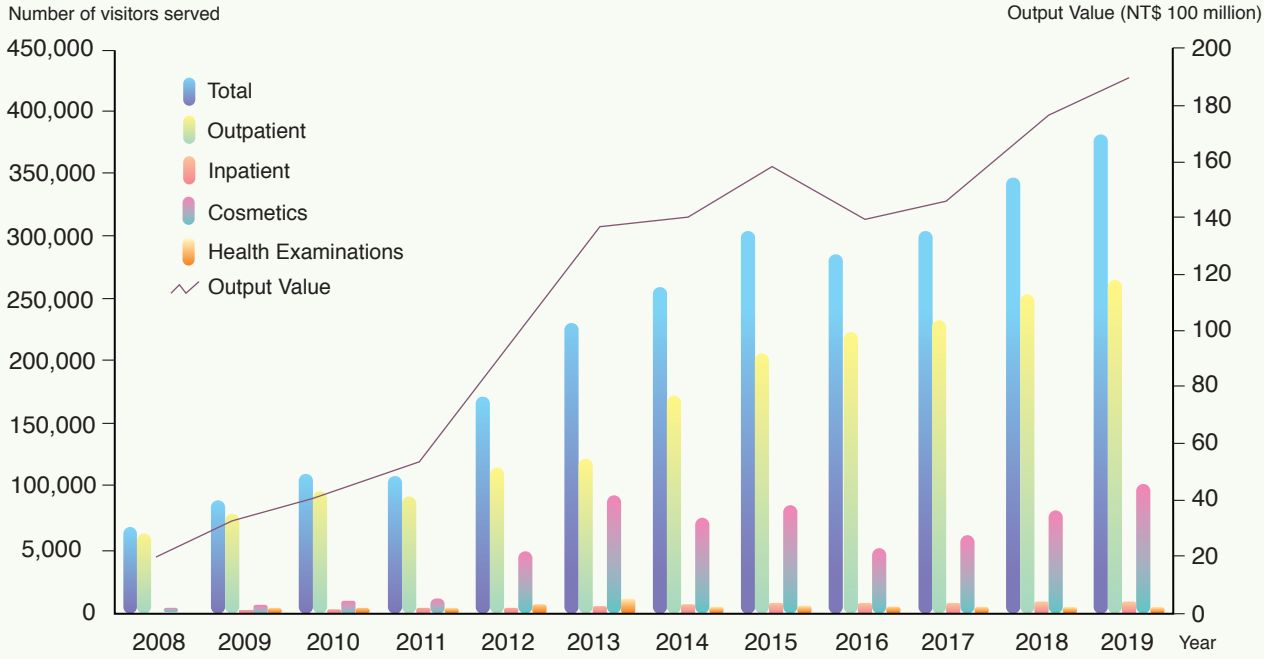
(2) The regulations were relaxed and streamline of legislation was released. 78 hospitals are allowed to invite people from the Mainland to have health examination and aesthetic medicine in Taiwan. This provides a convenient way of visiting Taiwan.

(3) Figure 12-4 shows the number of people receiving international medical services and the output value from 2008 to 2019.

(4) The “Taiwan Medical Travel” website was revamped and a Malaysian language edition added. The 6 languages now supported include Traditional Chinese, English, Simplified Chinese, Vietnamese, Indonesian, and Malaysian. The website had been viewed more than 11.66 million times by the end of, 2019.

Figure12-4 **No. of personnel and value of International Medical Services**

Source: Ministry of Health and Welfare, R.O.C. (Taiwan)



68,545	89,507	110,664	109,133	173,311	231,164	259,674	305,045	286,599	305,618	347,990	381,496
63,388	78,553	96,850	92,931	115,569	123,107	174,342	208,198	224,164	233,545	254,299	266,819
1,102	1,818	2,157	3,150	3,845	4,293	6,078	6,970	7,220	7,325	8,503	8,589
2,983	5,234	8,532	9,843	48,075	93,137	74,946	85,003	50,685	60,672	80,729	101,997
1,072	3,902	3,125	3,254	5,822	10,627	4,308	4,874	4,530	4,076	4,449	4,091
20.29	41.49	41.49	54.14	96.23	136.48	141.35	158.96	139.90	147.27	171.35	189.99

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Appendices

- Appendix 1 Health and Welfare Indicators
- Appendix 2 Notifiable Disease Statistics
- Appendix 3 Technical Term Keys

Appendix 1 Health and Welfare Indicators

Table 1 Population Indicators

Data source: Ministry of the Interior, R.O.C. (Taiwan)

Year	Total population	Population structure			Crude birth rate	Crude death rate	Natural increase rate	Total fertility rate	Fertility rate of teenage girls	Population density
		0-14 years	15-64 years	Above 65 years						
	1,000 persons	%	%	%	‰	‰	‰	Per woman	‰	persons/ Km^2
1995	21,357	23.8	68.6	7.6	15.5	5.6	9.9	1.8	17	590
2000	22,277	21.1	70.3	8.6	13.8	5.7	8.1	1.7	14	616
2005	22,770	18.7	71.6	9.7	9.1	6.1	2.9	1.1	8	629
2009	23,120	16.3	73.0	10.6	8.3	6.2	2.1	1.0	4	639
2010	23,162	15.6	73.6	10.7	7.2	6.3	0.9	0.9	4	640
2011	23,225	15.1	74.0	10.9	8.5	6.6	1.9	1.1	4	642
2012	23,316	14.6	74.2	11.2	9.9	6.6	3.2	1.3	4	644
2013	23,374	14.3	74.2	11.5	8.5	6.7	1.9	1.1	4	646
2014	23,434	14.0	74.0	12.0	9.0	7.0	2.0	1.2	4	647
2015	23,492	13.6	73.9	12.5	9.1	7.0	2.1	1.2	4	649
2016	23,540	13.3	73.5	13.2	8.9	7.3	1.5	1.2	4	650
2017	23,571	13.1	73.0	13.9	8.2	7.3	1.0	1.1	4	651
2018	23,589	12.9	72.5	14.6	7.7	7.3	0.4	1.1	4	652
2019	23,603	12.8	72.0	15.3	7.5	7.5	0.1	1.1	4	652

Table 2 Life Expectancy and Mortality Rate

Data source: Ministry of the Interior, Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Life expectancy at birth (years)			Healthy life expectancy (HALE) at birth (years)	Under-five mortality rate	Adult mortality rate (Aged 15-60 years)
	Total population	Male	Female	Total population		
	Years	Years	Years	Years	Per 1,000 live births	Per 1,000 persons
1995	74.5	71.9	77.7	…	9.0	131.4
2000	76.5	73.8	79.6	…	8.5	119.0
2005	77.4	74.5	80.8	69.5	6.9	112.8
2009	79.0	76.0	82.3	70.8	5.6	101.0
2010	79.2	76.1	82.5	71.0	5.5	99.2
2011	79.1	76.0	82.6	70.8	5.7	99.0
2012	79.5	76.4	82.8	71.6	5.1	96.3
2013	80.0	76.9	83.4	71.8	4.7	93.6
2014	79.8	76.7	83.2	71.6	4.6	94.5
2015	80.2	77.0	83.6	71.9	5.0	92.0
2016	80.0	76.8	83.4	71.8	4.8	94.1
2017	80.4	77.3	83.7	72.1	4.6	90.0
2018	80.7	77.5	84.0	72.3	4.9	88.6
2019	80.9	77.7	84.2	…	4.6	88.2

Table 3 National Health Expenditure

Data source: Directorate-General of Budget, Accounting and Statistics, Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	NHE as percentage of GDP	National Health Expenditure (NHE)		Public sector ratio	NHE per Cpaita		GDP per Capita	
	%	NTD millions	USD millions	%	NTD	USD	NTD	USD
1995	5.1	378,679	14,295	71.7	17,805	672	347,526	13,119
2000	5.3	547,807	17,541	62.0	24,693	791	465,574	14,908
2005	6.2	745,620	23,170	57.4	32,804	1,019	529,556	16,456
2009	6.7	869,252	26,293	57.6	37,665	1,139	559,807	16,933
2010	6.3	884,640	27,951	58.1	38,228	1,208	607,596	19,197
2011	6.4	913,413	30,995	57.6	39,382	1,336	614,922	20,866
2012	6.3	929,311	31,374	59.0	39,935	1,348	630,749	21,295
2013	6.4	974,250	32,726	58.7	41,733	1,402	654,142	21,973
2014	6.3	1,017,106	33,490	58.8	43,459	1,431	694,680	22,874
2015	6.2	1,052,773	32,992	59.0	44,870	1,406	726,895	22,780
2016	6.3	1,108,119	34,275	58.4	47,122	1,458	746,526	23,091
2017	6.4	1,149,199	37,753	59.2	48,787	1,603	763,445	25,080
2018	6.6	1,206,968	40,019	59.2	51,186	1,697	777,898	25,792
2019	…	…	…	…	…	…	…	…

Table 4-1 Medical facilities- Number of medical institutions

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Number of medical institutions							
		Hospital			Clinic			
			Western medicine	Chinese medicine		Western medicine	Chinese medicine	Dentistry
	No.	No.	No.	No.	No.	No.	No.	No.
1995	16,104	787	688	99	15,317	8,680	1,933	4,704
2000	18.082	669	617	52	17,413	9,402	2,461	5,550
2005	19,433	556	531	25	18,877	9,948	2,900	6,029
2009	20,306	514	496	18	19,792	10,361	3,217	6,214
2010	20,691	508	492	16	20,183	10,599	3,289	6,295
2011	21,135	507	491	16	20,628	10,815	3,411	6,402
2012	21,437	502	488	14	20,935	10,997	3,462	6,476
2013	21,713	495	482	13	21,218	11,105	3,548	6,565
2014	22,041	497	486	11	21,544	11,277	3,637	6,630
2015	22,177	494	486	8	21,683	11,313	3,705	6,665
2016	22,384	490	485	5	21,894	11,395	3,772	6,727
2017	22,612	483	478	5	22,129	11,499	3,839	6,791
2018	22,816	483	478	5	22,333	11,580	3,917	6,836
2019	22,992	480	476	4	22,512	1,1663	3,975	6,874

Table 4-2 Medical facilities- Number of beds

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Number of beds			Number of beds per 10,000 population				
		Hospital	Clinic		Hospital			Clinic
						Acute beds		
							Acute general beds	
	Beds	Beds	Beds	Beds	Beds	Beds	Beds	Beds
1995	112,378	101,430	10,948	52.6	47.5	31.3	30.1	5.1
2000	126,476	114,179	12,297	56.8	51.3	33.3	31.0	5.5
2005	146,382	129,548	16,834	64.3	56.9	34.4	31.8	7.4
2009	156,740	134,716	22,024	67.8	58.3	35.0	32.1	9.5
2010	158,922	135,401	23,521	68.6	58.5	35.0	32.0	10.2
2011	160,472	135,431	25,041	69.1	58.3	35.0	31.9	10.8
2012	160,900	135,002	25,898	69.0	57.9	34.8	31.7	11.1
2013	159,422	134,197	25,225	68.2	57.4	34.3	31.1	10.8
2014	161,491	133,518	27,973	68.9	57.0	34.0	30.9	11.9
2015	162,163	133,335	28,828	69.0	56.8	33.9	30.8	12.3
2016	163,148	133,499	29,649	69.3	56.7	34.0	30.9	12.6
2017	164,590	134,134	30,456	69.8	56.9	34.2	31.1	12.9
2018	167,521	135,496	32,025	71.0	57.4	34.6	31.5	13.6
2019	168,266	135,257	33,009	71.3	57.3	34.6	31.4	14.0

Table 4-3 Medical facilities-Medical force

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Number of Registered Health Workforce					Number of Registered Health Workforce per 10,000 Population				
		Western medicine physicians, Doctors of Chinese medicine, Dentists	Western medicine physicians	Pharmacists (assistants)	Registered professional nurses		Western medicine physicians, Doctors of Chinese medicine, Dentists	Western medicine physicians	Pharmacists (assistants)	Registered professional nurses
	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons
1995	118,243	34,516	24,462	19,224	56,743	55.4	16.2	11.5	9.0	26.6
2000	159,212	41,915	29,585	24,404	79,176	71.5	18.8	13.3	11.0	35.5
2005	199,734	28,844	34,093	26,750	104,786	87.7	21.5	15.0	11.7	46.0
2009	233,553	54,521	37,880	29,587	125,081	101.0	23.6	16.4	12.8	54.1
2010	241,156	55,897	38,887	30,001	128,955	104.1	24.1	16.8	13.0	55.7
2011	250,258	57,564	40,002	31,300	133,336	107.8	24.8	17.2	13.5	57.4
2012	258,283	59,069	40,938	32,015	137,641	110.8	25.3	17.6	13.7	59.0
2013	265,759	60,736	41,965	32,668	140,915	113.7	26.0	18.0	14.0	60.3
2014	271,555	62,295	42,961	33,162	142,708	115.9	27.2	18.3	14.2	60.9
2015	280,508	63,806	44,006	33,516	148,223	119.4	27.7	18.7	14.3	63.1
2016	289,174	65,202	44,849	33,908	153,509	122.8	28.6	19.1	14.4	65.2
2017	299,782	67,428	46,356	34,526	159,621	127.2	28.6	19.7	14.6	67.7
2018	312,887	69,069	47,471	34,838	167,803	132.6	29.3	20.1	14.8	71.1
2019	326,691	71,766	49,542	35,316	172,966	138.4	30.4	21.0	15.0	73.3

Table 5 Notifiable diseases

Data source: Taiwan Centers for Disease Control

Year	Confirmed cases															
	Cholera	Diphtheria	Japanese encephalitis	Hansen's disease	Malaria	Measles	Meningococcal meningitis	Mumps	Pertussis	Poliomyelitis	Congenital rubella syndrome	Rubella	Neonatal tetanus	Tetanus	Tuberculosis	Yellow fever
	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons	Persons
1995	3	–	27	10	38	–	9	181	26	–	–	2	…	13	10,836	–
2000	8	–	13	4	42	6	16	375	47	–	–	29	…	24	13,910	–
2005	2	–	35	9	26	7	20	1,158	38	–	–	7	…	16	16,472	–
2009	3	–	18	7	11	48	2	1,068	90	–	–	23	–	12	13,336	–
2010	5	–	33	5	21	12	7	1,125	61	–	–	21	–	12	13,237	–
2011	3	–	22	5	17	33	5	1,171	77	–	–	60	–	10	12,634	–
2012	5	–	32	13	12	9	6	1,061	54	–	–	12	–	17	12,338	–
2013	7	–	16	7	13	8	6	1,170	51	–	–	7	–	24	11,528	–
2014	4	–	18	9	19	26	3	880	78	–	–	7	–	9	11,326	–
2015	10	–	30	16	8	29	3	773	70	–	–	7	–	12	10,711	–
2016	9	–	23	10	13	14	8	616	17	–	–	4	–	14	10,208	–
2017	2	–	25	10	7	6	12	636	34	–	1	3	–	11	9,759	–
2018	7	–	37	7	7	40	6	600	30	–	–	10	–	4	9,179	–
2019	–	–	21	10	7	141	8	594	32	–	–	25	–	6	8,732	–

Remark:
1. Mumps and tetanus are cases reported.
2. There are no local malaria cases.
3. “Leprosy” was renamed as “Hansen’s disease” in 2008.

Table 6 Food and drug administration

Data source: Taiwan Food and Drug Administration

Year	Food poisoning cases			Number of pharmaceutical companies			
		Number of patients	Deaths		Pharmacies	Medicine and medical device sales industry	Medicine and medical device manufacturing industry
	Cases	Persons	Persons	No.	No.	No.	No.
1995	123	4,950	–	34,846	4,862	29,314	670
2000	208	3,759	3	43,641	6,397	36,536	708
2005	247	3,530	1	55,802	7,673	47,198	931
2009	351	4,642	–	58,524	7,450	49,814	1,260
2010	503	6,880	1	60,222	7,558	51,289	1,375
2011	426	5,819	1	63,274	7,699	54,090	1,485
2012	527	5,701	–	64,024	7,620	54,843	1,561
2013	409	3,890	–	65,280	7,701	55,926	1,653
2014	480	4,504	–	66,678	7,866	57,125	1,687
2015	632	6,235	–	67,597	7,922	57,945	1,730
2016	486	5,260	–	69,610	7,907	59,871	1,832
2017	528	6,237	–	71,083	7,950	61,244	1,889
2018	398	4,616	–	72,520	8,048	62,514	1,958
2019	502	6,935	2	74,294	8,129	64,144	2,021

Table 7 Major causes of death

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Infant mortality rate	Maternal mortality rate	All causes of death		Major causes of death				
					Malignant neoplasms	Heart disease	Pneumonia	Cerebrovascular disease	Diabetes mellitus
	Per 1,000 live births	Per 100,000 live births	Deaths	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population
1995	6.5	7.7	117,954	647.7	136.4	64.7	18.4	79.0	39.2
2000	5.8	7.8	124,481	569.4	141.6	48.8	15.6	61.1	42.7
2005	5.0	7.3	138,957	530.0	141.2	48.3	21.0	48.9	39.4
2009	4.0	8.3	142,240	466.7	132.5	47.7	25.3	32.8	26.6
2010	4.2	4.2	144,709	455.6	131.6	47.4	25.6	30.6	25.3
2011	4.2	5.0	152,030	462.4	132.2	47.9	24.8	31.3	26.9
2012	3.7	8.5	153,823	450.6	131.3	47.9	24.4	30.8	26.5
2013	3.9	9.2	154,374	435.3	130.4	47.7	22.5	30.3	25.8
2014	3.6	6.6	162,886	443.5	130.2	50.2	24.7	30.4	26.0
2015	4.1	11.7	163,574	431.5	128.0	48.1	24.6	27.9	24.3
2016	3.9	11.6	172,418	439.4	126.8	50.3	26.9	28.6	24.5
2017	4.0	9.8	171,857	424.3	123.4	48.5	26.5	27.5	23.5
2018	4.2	12.2	172,859	415.0	121.8	48.8	27.4	26.1	21.5
2019	3.8	16.0	175,424	408.2	121.3	43.6	30.0	26.7	22.3

Year	Major causes of death						Major causes of cancer death				
	Accident injury	Chronic lower respiratory disease	Hypertensive disease	Nephritis, nephrotic syndrome and nephrosis	Chronic liver disease and cirrhosis	Intentional self-harm (suicide)	Trachea cancer, bronchus and lung cancer	Liver and intrahepatic bile ducts cancer	Colon, rectum and anus cancer	Female breast cancer	Prostate cancer
	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality rate per 100,000 population	Standardized mortality ratio per 100,000 female population	Standardized mortality ratio per 100,000 male population
1995	62.6	23.5	15.3	19.9	22.8	7.8	26.7	27.2	13.3	9.7	4.2
2000	46.5	21.9	7.5	17.9	22.6	10.6	28.0	27.0	15.3	10.3	5.7
2005	34.0	20.0	7.0	17.9	21.3	16.6	27.4	27.3	15.5	11.0	6.6
2009	27.7	14.9	11.5	12.5	16.6	14.7	25.9	26.2	14.8	10.6	5.9
2010	24.4	14.8	12.2	12.4	16.1	13.8	25.8	25.2	14.6	11.0	6.1
2011	24.1	16.2	12.9	12.6	16.5	12.3	26.0	25.3	15.0	11.6	6.4
2012	23.8	16.4	13.3	12.1	15.6	13.1	25.4	24.7	14.9	11.6	6.7
2013	22.4	14.9	12.9	11.9	14.8	12.0	25.3	24.2	14.9	11.6	6.6
2014	23.7	15.3	13.5	12.5	14.8	11.8	25.3	23.3	15.3	11.9	6.5
2015	22.8	14.6	13.2	11.8	13.6	12.1	24.7	22.8	14.9	12.0	6.4
2016	23.1	15.1	13.5	12.4	13.4	12.3	24.4	22.2	14.6	11.8	6.8
2017	21.9	13.3	13.3	12.4	12.6	12.5	23.1	21.6	14.4	12.6	6.9
2018	21.1	12.7	12.8	12.3	11.6	12.5	22.8	20.3	14.0	12.5	6.6
2019	20.0	12.6	12.9	10.7	11.2	12.6	22.8	18.8	14.9	13.1	7.1

Remark:

1. The standardized mortality rate is worked out according to the world's standard population age structure of 2000 gained by WHO.
2. The classification of causes of death has followed ICD-10 since 2008, and selecting the underlying cause of death has followed ICD-10 version 2016 since 2019.

Table 8 Social insurance

Data Source: NHIA, MOHW and BLA, MOL.

Year	National health insurance							National annuity	
	Beneficiaries	Coverage	Index of health care utilization					Number of insured objects	Percentage in people at 25-64 years of age
			Outpatient visits per beneficiary	Inpatient visits per 100 beneficiaries	Average costs per outpatient case	Average costs per inpatient case	Average length of stay		
	1,000 persons	%	Times	Cases	Points	Points	Days	1,000 persons	%
1995	19,123	…	…	…	…	…	…	…	…
2000	21,401	…	14.0	12.3	725	38,337	8.7	…	…
2005	22,315	…	14.5	13.2	909	51,406	9.9	…	…
2009	23,026	99.3	14.2	13.4	1,072	54,775	9.9	4,015	29.4
2010	23,074	99.4	14.3	13.5	1,087	54,794	9.9	3,872	27.9
2011	23,199	99.5	14.8	13.8	1,106	55,346	9.9	3,784	27.1
2012	23,281	99.5	14.8	13.8	1,135	55,661	9.8	3,726	26.5
2013	23,463	99.6	14.8	13.5	1,192	57,259	9.9	3,678	25.9
2014	23,622	99.6	14.9	13.7	1,223	58,662	9.7	3,584	25.2
2015	23,737	99.7	14.7	13.9	1,257	59,076	9.5	3,510	24.6
2016	23,815	99.7	14.9	14.1	1,297	61,458	9.7	3,425	24.0
2017	23,880	99.8	14.8	14.2	1,386	63,245	9.4	3,349	23.5
2018	23,948	99.8	15.1	14.5	1,427	65,411	9.4	3,287	23.1
2019	24,020	99.8	15.4	14.8	1,469	66,023	9.3	3,231	22.7

Note:
1. “Beneficiaries” refers to all those who are eligible for enrollment under National Health Insurance Act.
2. Coverage = Number of people enrolled in NHI / Total number of people in the country eligible for NHI x 100.
3. Data source for index of health care utilization was updated on 6 Oct. 2020.
4. The length of hospitalized stay is equivalent to the sum of acute and chronic bed days.

Table 9 Social assistance

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Low-income households				Middle-low-income household			
	Number of households	Proportion in total number of households	Population	Proportion in total population	Number of households	Proportion in total number of households	Population	Proportion in total population
	Households	%	Persons	%	Households	%	Persons	%
1995	48,580	0.8	114.707	0.5	…	…	…	…
2000	66,467	1.0	156,134	0.7	…	…	…	…
2005	84,823	1.2	211,292	0.9	…	…	…	…
2009	105,265	1.3	256,342	1.1	…	…	…	…
2010	112,200	1.4	273,361	1.2	…	…	…	…
2011	128,237	1.6	314,282	1.4	35,420	0.4	120,042	0.5
2012	145,613	1.8	357,446	1.5	88,988	1.1	282,019	1.2
2013	148,590	1.8	361,765	1.5	108,589	1.3	334,391	1.4
2014	149,958	1.8	357,722	1.5	114,522	1.4	349,130	1.5
2015	146,379	1.7	342,490	1.5	117,686	1.4	356,185	1.5
2016	145,176	1.7	331,776	1.4	119,081	1.4	358,161	1.5
2017	142,814	1.7	317,257	1.3	117,776	1.4	350,425	1.5
2018	143,941	1.6	311,526	1.3	115,570	1.3	338,468	1.4
2019	144,863	1.6	304,470	1.3	115,937	1.3	334,237	1.4

Remark: The new social assistance law has been implemented since 1 Jul. 2011; the identification standard becomes loose, and middle-low-income households are included.

Table 10 Social welfare

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Children and youth welfare (below 18 years of age)				People with disabilities				
	Population	Proportion in total population	Life assistance for vulnerable children and youths		Population	Proportion in total population	Proportion in population of physical disabilities		
			Person-times	Amount			Below 18 years of age	18-64 years of age	Above 65 years of age
	Persons	%	Person-times	Expressed in NTD millions	Persons	%	%	%	%
1995	6,289,974	29.5	…	…	393,630	1.8	…	…	…
2000	5,779,069	25.9	…	…	711,064	3.2	7.2	58.0	34.9
2005	5,242,928	23.0	824,842	1,715	937,944	4.1	6.5	58.5	34.9
2009	4,745,159	20.5	1,222,200	1,959	1,071,073	4.6	5.9	57.1	37.0
2010	4,595,767	19.8	1,355,253	2,054	1,076,293	4.7	5.8	57.6	36.6
2011	4,469,350	19.2	1,348,606	1,998	1,100,436	4.7	5.6	57.4	37.0
2012	4,380,203	18.8	1,466,688	2,880	1,117,518	4.8	5.6	57.6	36.8
2013	4,258,385	18.2	1,406,040	2,781	1,125,113	4.8	5.3	57.2	37.5
2014	4,149,792	17.7	1,401,476	2,742	1,141,677	4.9	5.1	56.7	38.2
2015	4,043,357	17.2	1,385,684	2,709	1,155,650	4.9	4.9	56.1	39.0
2016	3,987,202	16.9	1,382,965	2,797	1,170,199	5.0	4.8	55.2	40.0
2017	3,900,662	16.5	1,339,627	2,708	1,167,450	5.0	4.6	54.6	40.8
2018	3,778,520	16.0	1,309,150	2,635	1,173,978	5.0	4.5	53.6	41.9
2019	3,702,207	15.7	1,239,001	2,498	1,186,740	5.0	4.4	52.4	43.2

Table 11 Protective services

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan)

Year	Child and youth protection		Child and youth protection			Sexual abuse	
	Number of battered children and youths	Child and Youth Abuse Rate	Number of victims declared	Protection and assistance for victims		Protection and assistance for victims	
	Persons	Per 1,000 people	Persons	Person-times	Expressed in NTD millions	Person-times	Expressed in NTD millions
1995	…	…	…	…	…	…	…
2000	…	…	…	…	…	…	…
2005	9,897	1.9	58,614	…	…	…	…
2009	13,400	2.8	83,728	478,769	327	101,482	65
2010	18,331	3.9	98,720	601,567	344	100,942	60
2011	17,667	3.9	94,150	871,146	406	140,326	74
2012	19,174	4.3	98,399	915,859	391	158,258	71
2013	16,322	3.8	110,103	988,586	469	177,258	78
2014	11,589	2.8	95,663	1,127,819	534	199,846	109
2015	9,604	2.3	95,818	1,191,465	577	219,024	114
2016	9,461	2.4	95,175	1,297,726	612	218,852	124
2017	9,389	2.4	95,402	1,323,396	743	229,525	173
2018	9,186	2.4	96,693	1,309,184	961	245,515	153
2019	11,113	3.0	103,930	1,499,713	869	340,891	160

Table 12-1 International comparisons- Population

Data source: Ministry of the Interior and 2019 World Population Data Sheet, Population Reference Bureau

Country	Population				
	Crude birth rate	Crude death rate	Natural increase rate	Total fertility rate	Dependency Ratio
	2019	2019	2019	2019	2019
	‰	‰	‰	Per woman	%
R.O.C.(Taiwan)	8	7	0	1.1	39
Japan	7	11	–3	1.4	68
Republic of Korea	6	6	1	1.0	38
United States	12	9	3	1.7	53
Canada	10	8	3	1.5	50
United Kingdom	11	9	2	1.7	57
Germany	10	12	–2	1.6	54
France	11	9	2	1.8	61
Australia	13	6	6	1.7	53
New Zealand	12	7	5	1.7	54

Data source:
1. International data is expressed in western calendar.
2.*Dependency ratio refers to the number of dependents (aged 0-14 and 65 and over) raised by per 100 persons in working age (15-64).

Table 12-2 International comparisons- Life expectancy and mortality rate

Data source: Ministry of Interior, Department of Statistics, MOHW, R.O.C. (Taiwan), 2020 World Health Statistics; OECD Health Statistics

Country	Life expectancy and mortality rate			
	Life expectancy at birth			Neonatal mortality rate
	Total Population	Male	Female	
	2018	2018	2018	2018
	Years	Years	Years	Per 1,000 live births
R.O.C.(Taiwan)	80.7	77.5	84.0	2.6
Japan	84.2	81.1	87.3	0.9
Republic of Korea	82.7	79.7	85.7	1.6
United States	78.7	76.2	81.2	3.9
Canada	82.0	79.9	84.1	3.5
United Kingdom	81.3	79.5	83.1	2.8
Germany	81.0	78.6	83.3	2.3
France	82.8	79.7	85.9	2.7
Australia	82.8	80.7	84.9	2.3
New Zealand	81.8	80.0	83.5	2.8

Note: Data in this table is the data in the recent year of each country.

Table 12-3 International comparisons- Health expenditure

Data source: Department of Statistics, MOHW, R.O.C. (Taiwan); OECD Health Statistics

Country	Health expenditure	
	Health expenditure ratios	
	Current health expenditure as a share of GDP	Public current health expenditure as a share of current health expenditure
	2018	2018
	%	%
R.O.C.(Taiwan)	6.1	63.5
Japan	10.9	84.1
Republic of Korea	8.1	59.8
United States	16.9	84.5
Canada	10.7	69.7
United Kingdom	9.8	77.1
Germany	11.2	84.5
France	11.2	83.4
Australia	9.3	69.3
New Zealand	9.3	79.2

Remark: Relevant health care indexes are summarized according to A System of Health Accounts (SHA) issued by OECD, Health Expenditure and Financing and Current Health Expenditure (CHE).

Appendix 2 Notifiable Diseases Statistics

Table 1 Number of Confirmed Cases of Acute Notifiable Disease, 2019

Source: Taiwan Centers for Disease Control

Category	Disease	Total	Indigenous Case	Imported Case
I	Smallpox	0	0	0
	Plague	0	0	0
	Severe Acute Respiratory Syndrome (SARS)	0	0	0
	Rabies	0	0	0
II	Diphtheria	0	0	0
	Typhoid Fever	21	4	17
	Dengue Fever	640	100	540
	Meningococcal Meningitis	8	8	0
	Paratyphoid Fever	8	2	6
	Poliomyelitis	0	0	0
	Acute Flaccid Paralysis[3]	64	63	1
	Shigellosis	147	103	44
	Amoebiasis	352	157	195
	Malaria	7	0	7
	Measles	141	82	59
	Acute Hepatitis A	107	81	26
	Enterohaemorrhagic Escherichia coli Infection	1	1	0
	Hantavirus Hemorrhagic Fever with Renal Syndrome	3	2	1
	Hantavirus Pulmonary Syndrome (HPS)	0	0	0
	Cholera	0	0	0
	Rubella	25	7	18
	Chikungunya Fever	116	21	95
	West Nile Fever	0	0	0
	Epidemic Typhus Fever	0	0	0
	Anthrax	0	0	0
	Zika Virus Infection	4	0	4
III	Pertussis	32	32	0
	Tetanus[4]	6	5	1
	Japanese Encephalitis	21	19	2
	Congenital Rubella Syndrome	0	0	0
	Acute Hepatitis B	111	107	4
	Acute Hepatitis C	626	622	4
	Acute Hepatitis D	0	0	0
	Acute Hepatitis E	7	3	4

Source: Taiwan Centers for Disease Control

Category	Disease	Total	Indigenous Case	Imported Case
III	Acute Hepatitis, Unspecified	0	0	0
	Mumps[4]	594	584	10
	Legionnaires' Disease	281	266	15
	Invasive Haemophilus Influenzae Type b (Hib) Infection	3	3	0
	Neonatal Tetanus	0	0	0
	Enteroviruses Infection with Severe Complications	69	68	1
IV	Herpesvirus B Infection	0	0	0
	Leptospirosis	111	110	1
	Melioidosis	46	45	1
	Botulism	0	0	0
	Invasive Pneumococcal Disease	447	445	2
	Q Fever	23	18	5
	Endemic Typhus Fever	30	27	3
	Lyme Disease	0	0	0
	Tularemia	0	0	0
	Scrub Typhus	449	442	7
	Complicated Varicella	57	56	1
	Toxoplasmosis	16	12	4
	Severe Complicated Influenza	2,325	2,315	10
	Brucellosis	0	0	0
	Listeriosis	164	163	1
V	Rift Valley Fever	0	0	0
	Marburg Haemorrhagic Fever	0	0	0
	Yellow Fever	0	0	0
	Ebola Virus Disease	0	0	0
	Lassa Fever	0	0	0
	Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Infections	0	0	0
	Novel Influenza A Virus Infections	0	0	0

Notes:
1. Date of Download: Data were downloaded on May 1, 2020.
2. Day of disease onset is used as the basis of analysis for all acute notifiable diseases.
3. No wild poliovirus has been detected in Taiwan since 1984. Nationwide surveillance of acute flaccid paralysis has been used for detecting cases of poliomyelitis since the implementation of the Eradication Program for Measles,Congenital Rubella Syndrome, Poliomyelitis, and Neonatal Tetanus in 1992.
4. Tetanus and mumps are cases reported by the physician without laboratory testing of specimens.
5. Zika virus infection was transferred from a category IV to a category II notifiable disease on March 29, 2019.

Table 2 Number of Confirmed Cases of Chronic Notifiable Disease, 2019

Source: Taiwan Centers for Disease Control

Category	Diseases	Number of Confirmed Notifiable
II	Multidrug-Resistant Tuberculosis (MDR-TB)	79
III	Tuberculosis	8,732
	Syphilis	9,397
	Congenital syphilis	0
	Gonorrhea	4,523
	Human Immunodeficiency Virus Infection	1,755
	Acquired Immunodeficiency Syndrome (AIDS)	1,005
	Hansen's Disease	10
IV	Creutzfeldt-Jakob Disease	0

Notes:
1 Date of Download: Data were downloaded on May 1, 2020.
2. Caseloads of MDR-TB were calculated based on the registration date by Taiwan CDC. Tuberculosis caseloads were based on the notification date. Other chronic notifiable diseases were analyzed based on the diagnosis date.

Appendix 3 Technical Term Keys

Number	acronym	noun
1.	ADLs	Activities of Daily Living
2.	AED	Automated External Defibrillator
3.	AFHC	Alliance For Healthy Cities
4.	AMDA	Association of Medical Doctors of Asia
5.	APEC	Asia–Pacific Economic Cooperation
6.	APP	Application
7.	CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
8.	CHE	Current Health Expenditure
9.	CRC	Convention on the Rights of the Child
10.	CRPD	Convention on the Rights of Persons with Disabilities
11.	ECDC	European Centre for Disease Prevention and Control
12.	FACS	Food safety Accreditation and Certification System
13.	FFS	Fee for Service
14.	GDP	Gross Domestic Product
15.	GDP	Good Distribution Practice
16.	GMP	Good Manufacture Practice
17.	GHSA	Global Health Security Agenda
18.	GMISS	Global Medical Instruments Support & Service Program

Number	acronym	noun
19.	HAART	Highly Active Antiretroviral Therapy
20.	HACCP	Hazard Analysis and Critical Control Points
21.	HPV	Human Papillomavirus
22.	HRH	human resources for health
23.	IADLs	Instrumental Activities of Daily Living
24.	IDS	Integrated Delivery System
25.	IHR	International Health Regulations
26.	IUHPE	International Union of Health Promotion and Education
27.	LGBTI	Lesbian, Gay, Bisexual, Transgender and Intersex
28.	LTBI	Latent Tuberculosis Infection
29.	MPOWER	Monitor, Protect, Offer, Warning, Enforce, Raise
30.	NCDs	Noncommunicable Diseases
31.	NHE	National Health Expenditure
32.	OECD	Organization for Economic Co-operation and Development
33.	P4P	Pay-for-Performance
34.	PAC	Post-Acute Care
35.	PACS	Picture archiving and communication system
36.	PGY	Post-Graduated Year
37.	PIC/S GMP	The Pharmaceutical Inspetion Convention and Pharmaceutical Inspection Co-operation Scheme：Guide to Good Manufacturing Practice for Medicinal Products
38.	PPP	Purchasing Power Parity
39.	QSD	Quality System Documentation
40.	TaiwanIHA	Taiwan International Health Action
41.	SDGs	Sustainable Development Goals
42.	TIHTC	Taiwan International Healthcare Training Center
43.	Tw-DRGs	Taiwan Diagnosis Related Groups
44.	UHC	universal health coverage
45.	WHA	World Health Assembly
46.	WHO	World Health Organization

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