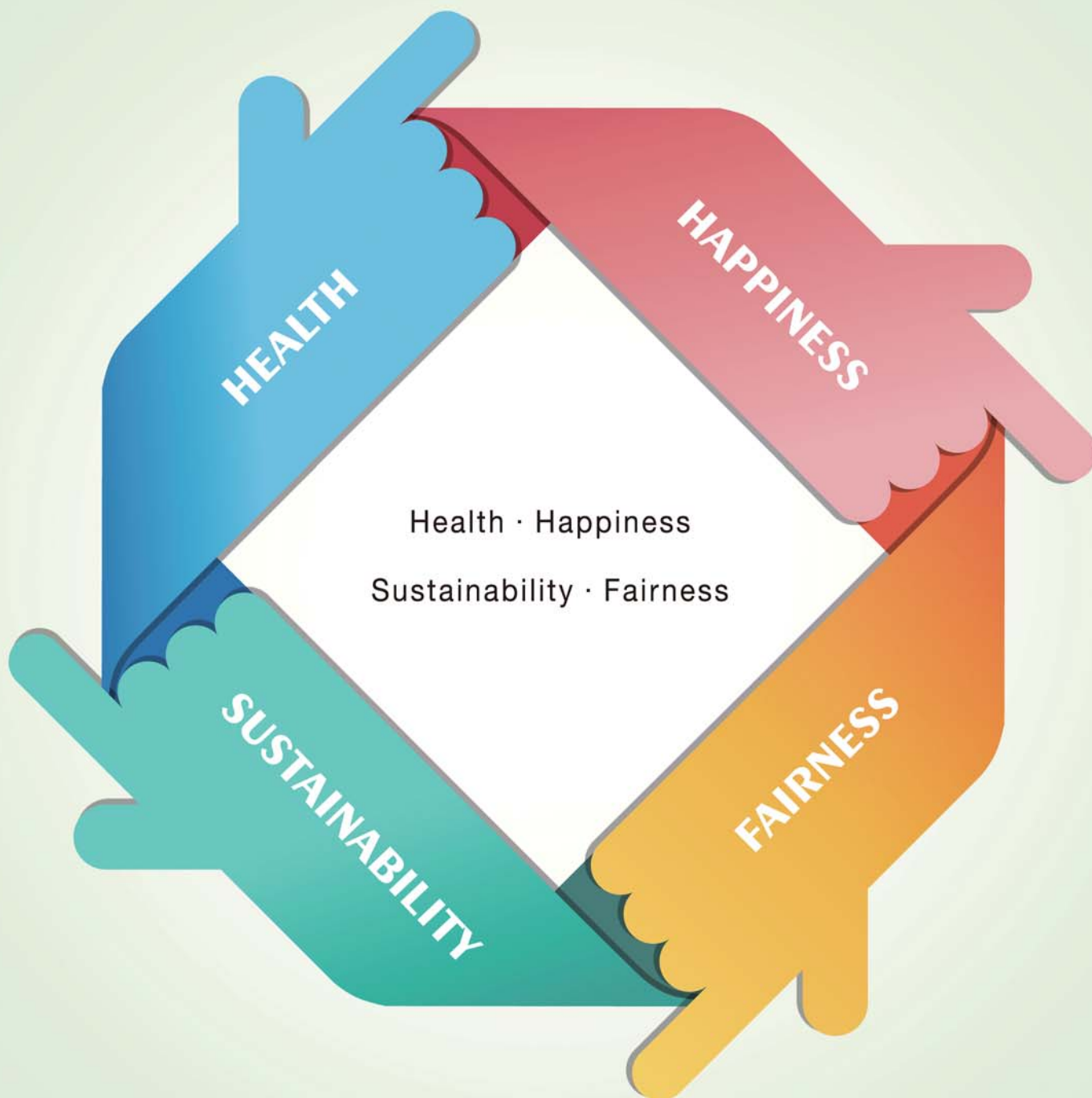




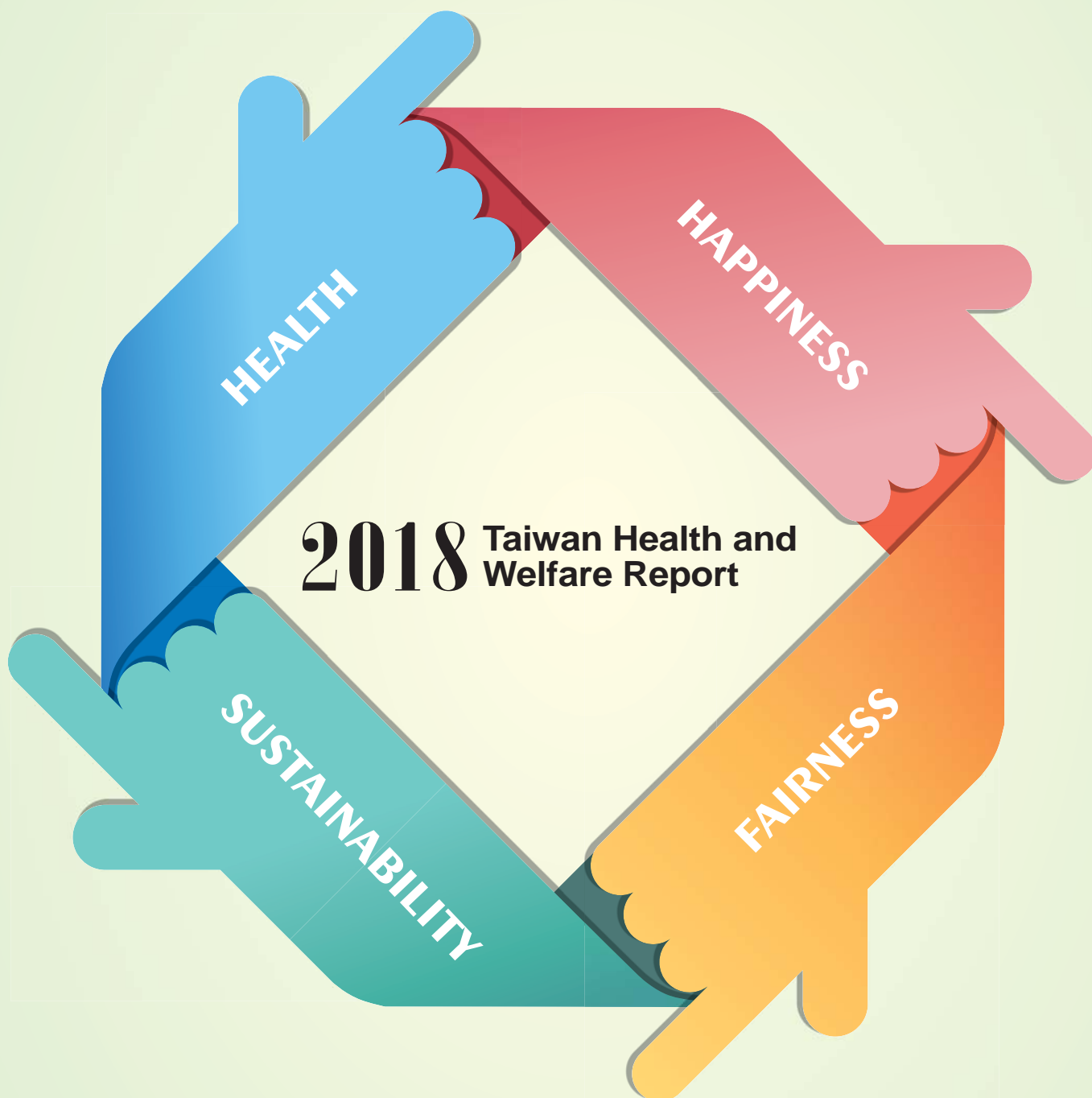
# 2018 Taiwan Health and Welfare Report







Health · Happiness · Fairness · Sustainability



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

# Foreword

The Ministry of Health and Welfare (MOHW) applies a human-oriented approach and life-course perspective to its operations. It oversees health promotion, epidemic prevention, regulation of food and pharmaceuticals, social insurance and welfare, social assistance and protective services. These missions are deeply interlinked with people's lives. Important policies and administrative results promoted by the MOHW in 2017 include milestones that are worth sharing.

In 2017 the old-age dependency ratio in Taiwan reached 19% and exceeded the youth-age dependency ratio (18%) for the first time. A similar phenomenon is observed in many OECD member countries (see Figure 2-3 and Table 2-6 in Chapter 2). Taiwan's old-age dependency ratio is higher than the young-age dependency ratio in Japan (47% versus 20%) and Germany (32% versus 20%). With regard to indicators related to life-extension policies, the size of the elderly population has been increasing proportionately each year, with many implications for health and welfare policies. Thus "Healthy Life Expectancy" initiatives and related strategies focus on helping older adults maintain their health. This can reduce health care costs while enabling elders to help others.

Community health building plans implemented in 2018 inventoried community assets for diverse uses. Following the eight aspects of WHO's Global Age-Friendly Cities project, age-friendly communities were established through partnerships and public-private sector coordination. Implementation of Stage 2.0 of the Long-term Care Plan began in January 2017, expanding the plan's focus to preventive measures related to health care and reduction of disabilities, promotion of active aging, and integration of in-home hospice care and in-home treatment services to enable seniors to live in familiar environments and reduce family care burdens. To prevent epidemics in long-term care institutions and nursing homes, the MOHW organized an **Examination of Infection Control in Senior Citizen Welfare Institutions** in 2017 to conduct on-site investigations of non-conforming institutions and raise safety standards.

To "ensure customer satisfaction nationwide by ensuring the satisfaction of internal customers," the following efforts and actions were undertaken in 2018:

To prevent physicians from occupational burnout, and to protect their rights and patients' rights to optimal medical treatment conditions, the MOHW will apply the Labor Standards Law to all physicians beginning September 1, 2019. The MOHW has promoted supplementary measures to mitigate possible impacts from applying the law. **Guidelines for Protection of Labor Rights and Interests and Work Time of Resident Physicians** were published in March 2017 and implemented on August 1, 2017. Pilot programs integrating the care system to increase the number of nurse practitioners address human resource issues in hospitals. A two-way referral system has been implemented and hierarchical medical care is being promoted. In 2017, hospitals arranged NT\$6 billion to increase payments for projects related to emergency and critical care. Since October 2017, 167 diagnosis and treatment payment items have been added. Restrictions related to child surcharges have been relaxed for 1513 types of surgeries and with regard to general surgery regulations, surcharges for emergency calls on holidays and surcharges for pediatricians. Forty-nine payment items have been added for general diagnosis and treatment in rural and regional hospitals. To strengthen the service capabilities of Western medicine clinics and expand their service range, these have been assigned a budget of NT\$250 million. Since May 2017, diagnoses and treatments related to influenza A antigen and 25 other items can be performed in basic hospitals.

Finally, we must apply a vision of “healing the nation” to the welfare of Taiwan’s citizens. A series of tragedies, including a student committing a murder in Taipei’s MRT in 2014, an unemployed man climbing over a school wall and randomly killing a girl in 2015, and another unemployed man killing a girl with a knife in 2016 while her pregnant mother was near her, have led to public debate over perceptions of safety. This concern has fostered multi-agency and public-private cooperation in matters related to welfare, social work, education, mental health, labor, employment services, internal affairs and public order. The focus has shifted from individuals to family and community. Risk assessment and early prevention are vital in reducing various risk factors. In 2017, the MOHW established the Social Safety System Strengthening Plan, which was checked and ratified by the Executive Yuan on February 26, 2018, and has been described by the premier as the most active and ambitious plan developed in response to social needs.

Health, safety, public health and social welfare programs can be efficiently administered using multiple service systems. We thank our partner institutions, local governments, civil groups, and each family and social group for support. We will continue to realize our vision and fulfill our mission.

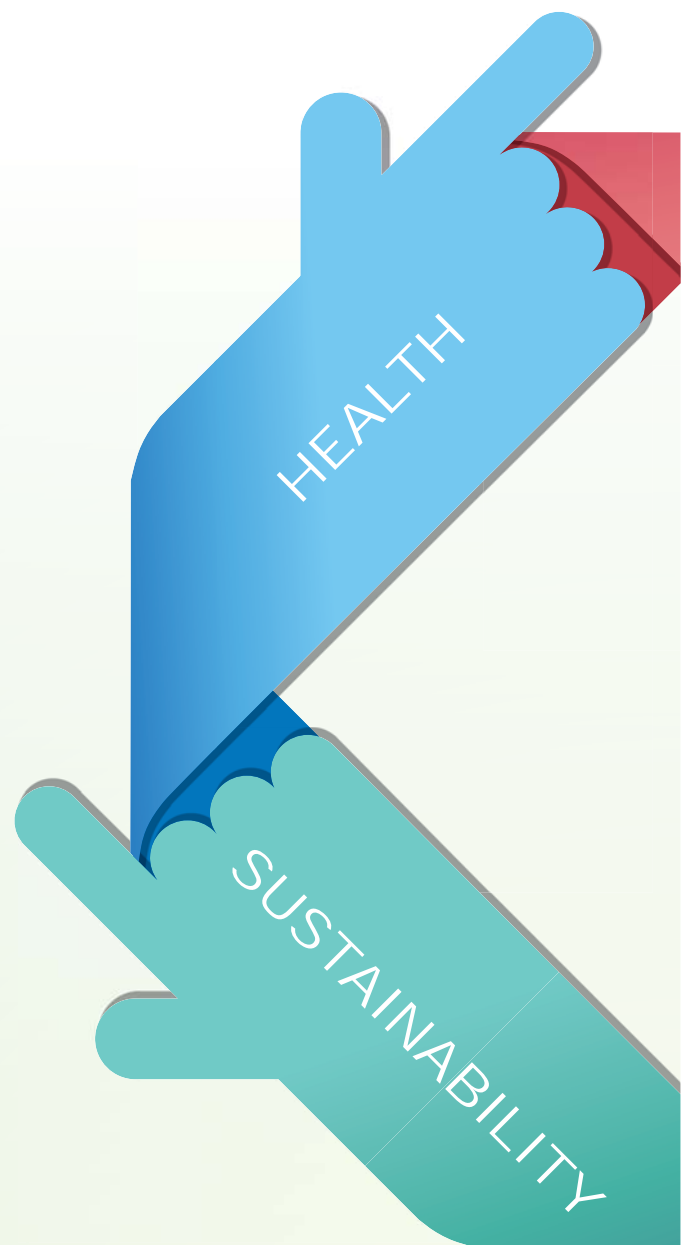
Minister of Health and Welfare

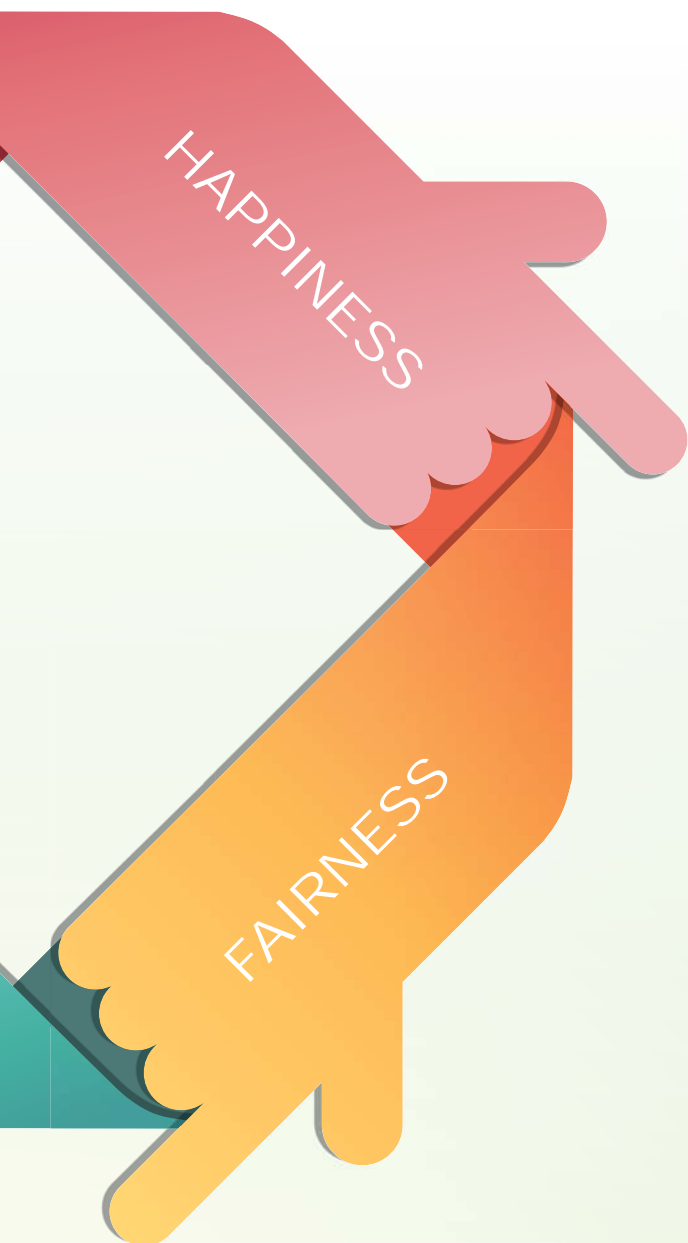
*Shih-Chung Chen*



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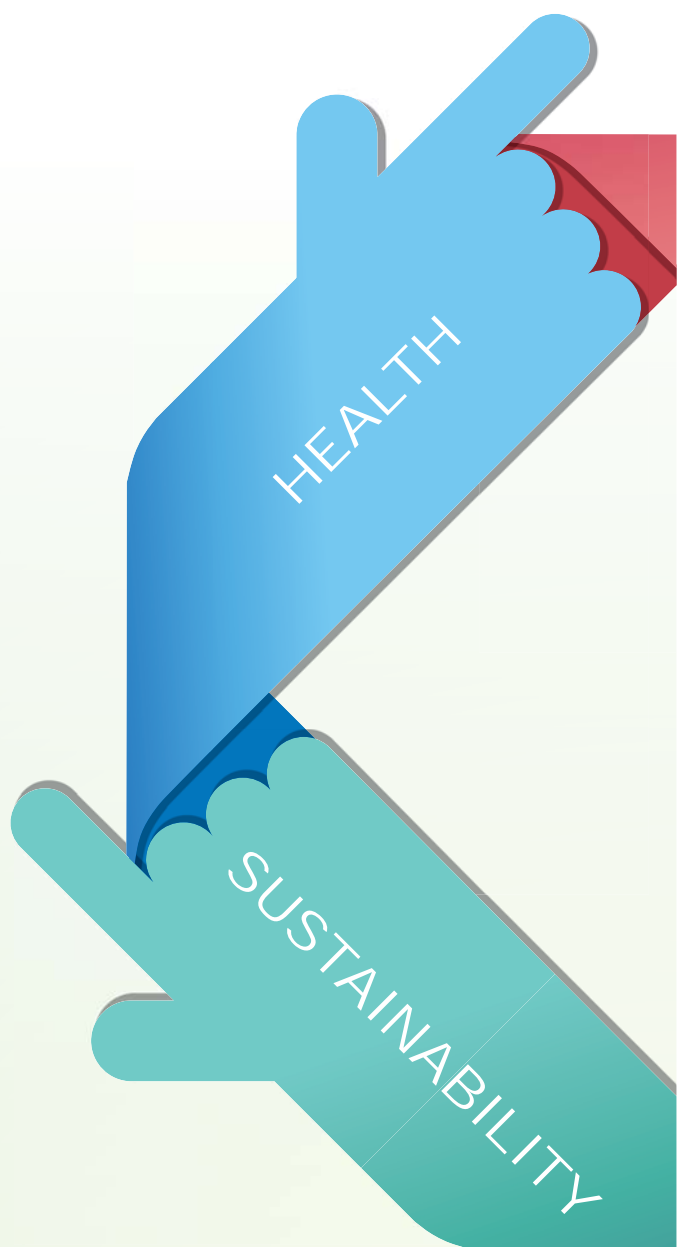
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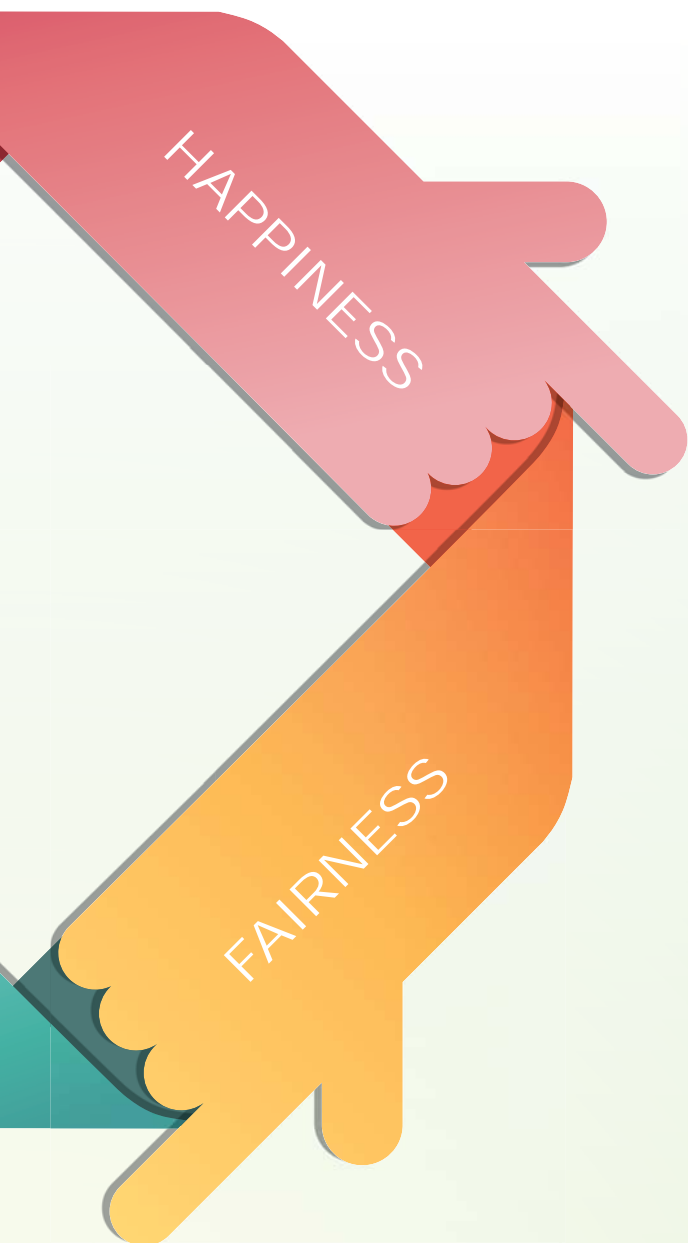
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# 01

## Organization and Policy

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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 human-centric health and welfare network was thus formed to improve the people's health and well-being.

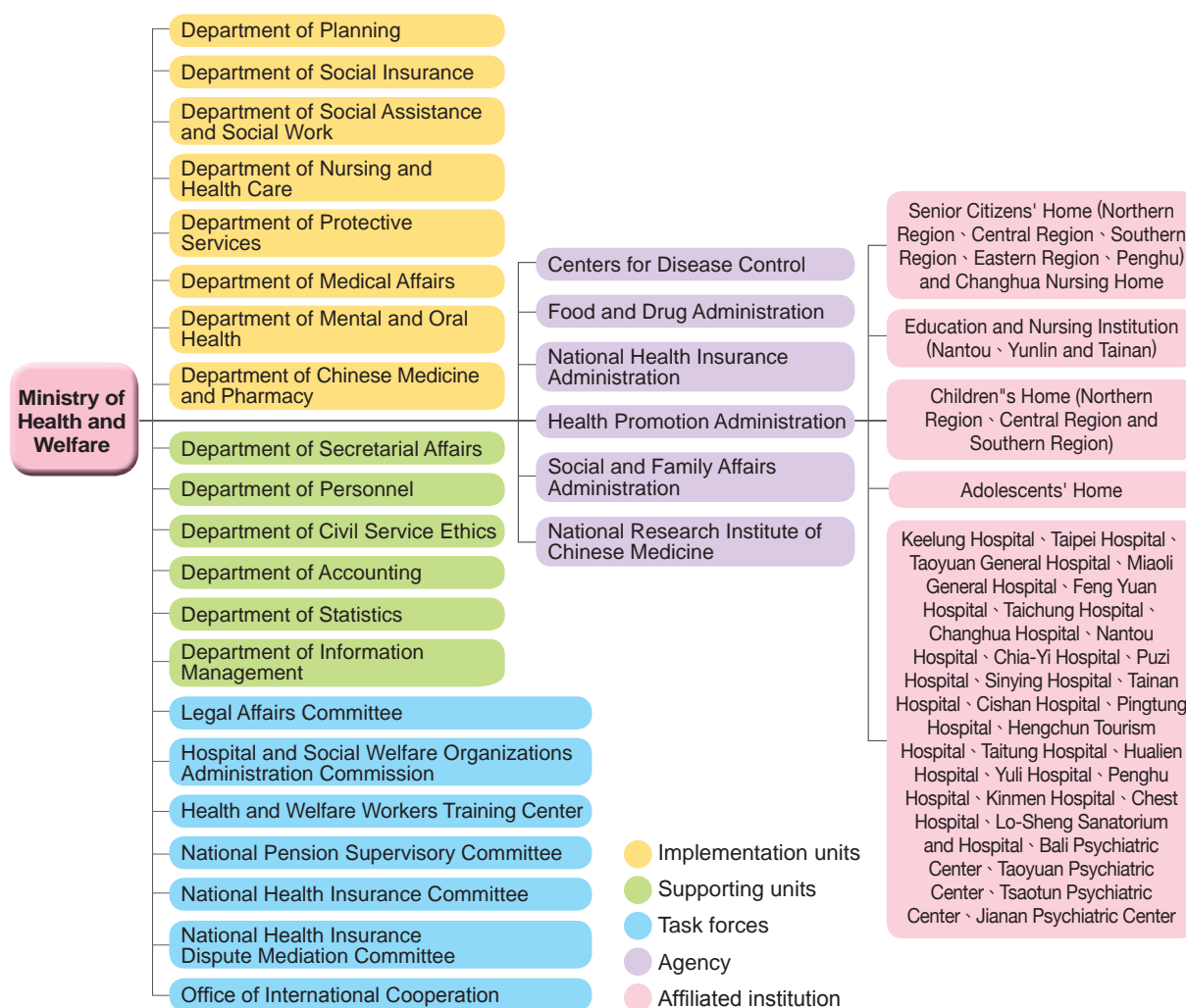
In response to the needs of social and national development, the MOHW adheres to global and innovative thinking with localized strategies. Our ministry diligently planned administrative measures and formulated a blueprint for comprehensive health and welfare policies that promote the wellbeing of all

citizens. By providing services that satisfy the needs of the general public, we hope to become the most trusted government agency and safeguard the health of the nation.

### 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 eight 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)

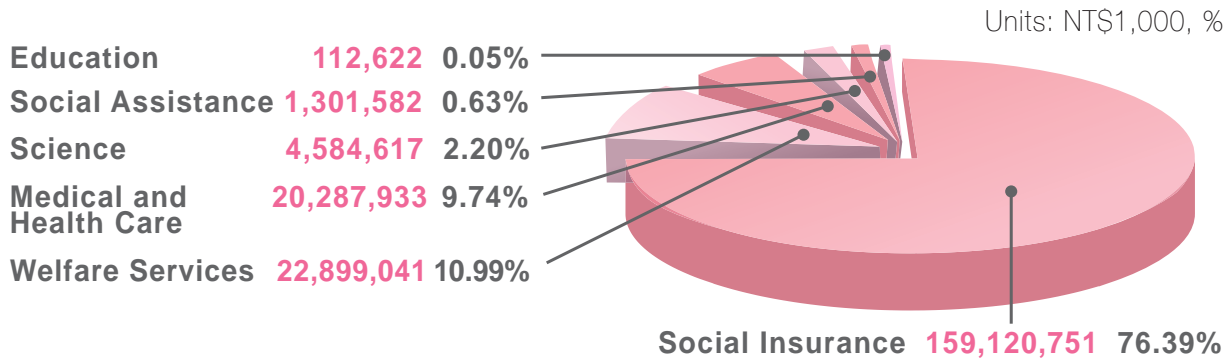


## Chapter 2 Expenditure

The total expenditure of 2017 on health and welfare was NT\$208,306,546,000, comprising NT\$159,120,751,000 for social insurance (accounting for 76.39% of the total), NT\$22,899,041,000 for

welfare services (10.99%), NT\$20,287,933,000 for medical and health care (9.74%), NT\$4,584,617,000 for science (2.20%), NT\$1,301,582,000 for social assistance (0.63%), and NT\$112,622,000 for education (0.05%), as illustrated in Figure 1-2.

**Figure 1-2 Distribution of 2017 Health and Welfare Final Accounts**



## Chapter 3 Administrative Goals

### Section 1 Annual Objectives

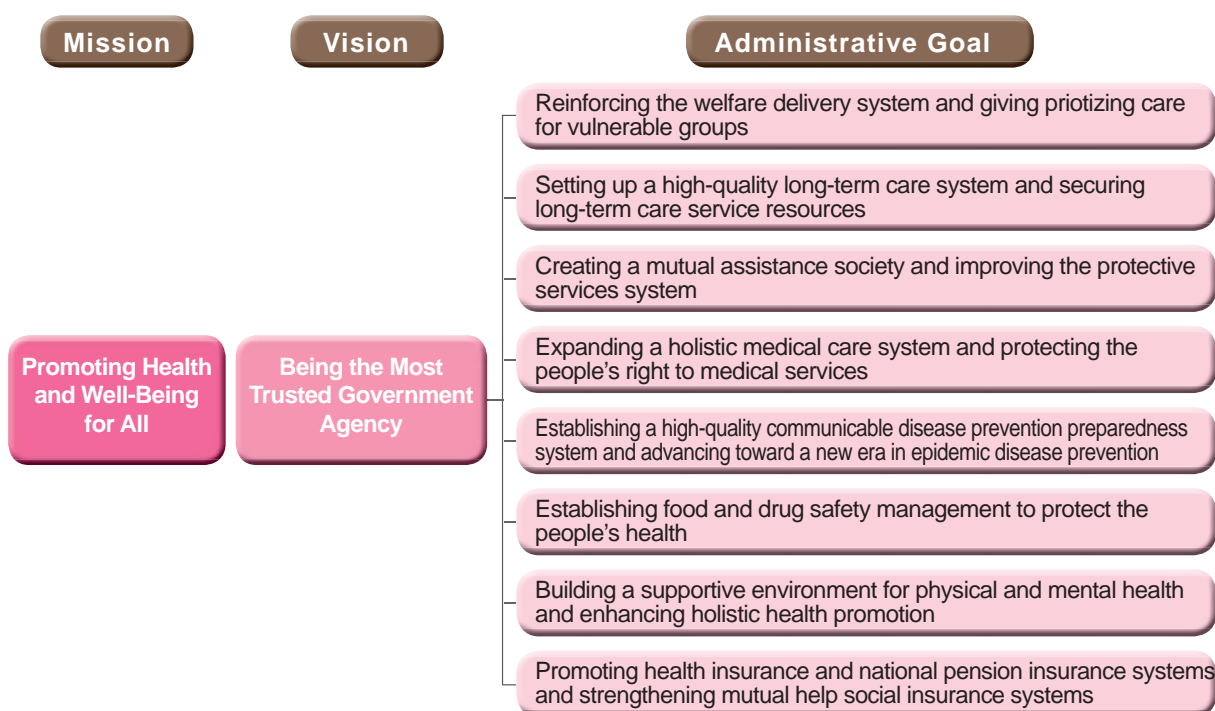
In accordance with Policy Guidelines of the Executive Yuan, mid-term administrative planning and approved budgets, as well as socioeconomic trends and future development demands of the MOHW, the MOHW established administrative planning goals for 2017 (Figure 1-3), including the following important executive strategies:

1. Reinforcing the welfare delivery system and giving priority to care for vulnerable groups
  - (1) Promoting "Convention on the Rights of the Child" to improve welfare and protect rights and interests of children and youth; establishing high-quality and diverse child care models to satisfy the need for family caregiving.
  - (2) Promoting "Convention on the Rights of Persons with Disabilities", implementing a new system for assessing the needs of people with disabilities, arranging comprehensive welfare services for people with disabilities, improving service efficiency, and realizing services in local areas.
2. Setting up a high-quality long-term care system and preparing holistic long-term care service resources
  - (1) Establishing a comprehensive long-term care service system, promoting "the Long-Term Care Services Act", integrating long-term care institutions, and strengthening manpower to improve the quality and capabilities of long-term care services.

- (2) Continuing to expand community care centers and day care resources in local area to boost the accessibility of community care services, and establishing a healthy, active, happy, and friendly aged society.
  - (3) Providing care to the vulnerable groups, promoting integrated healthcare to the elderly who are living alone, implementing community care services for the elderly with dementia, and popularizing dementia-related services in each community.
3. Creating a mutual assistance society and improving the protective services system
    - (1) Protecting the economic life of vulnerable groups, setting up "Accounts for Children and Teenager's Future Education and Development" to help lift them out of poverty.
    - (2) Cultivating community organizations to build a mutual assistance network, training a diverse range of volunteers, and expanding capabilities for volunteer's services in community to realize welfare service in local communities.
    - (3) Establishing professional social work systems and enriching social workers in local government to improve service quality and capabilities.
    - (4) Strengthening the three-level sexual violence preventive services system.
    - (5) Constructing a protection network for children and youths, intervening early with respect to high-risk families, and providing supporting services.
  4. Expanding the holistic medical care system and protecting the people's right to medical services

- (1) Reconstructing the primary health care network, establishing community health care management centers to improve health care at the community level, promoting hospice care, and improving the quality of end-of-life care.
  - (2) Improving the working environment of medical personnel, and protecting physicians' working right. Promoting medical dispute resolution mechanisms to enhance harmonious physician-patient relationships.
  - (3) Balancing the distribution of medical care resources, establishing an emergency health care network, safeguarding the health of people living in remote regions, and caring for vulnerable groups.
  - (4) Continuing to reform the hospital accreditation system with patient safety as the core objective.
  - (5) Improving nurses' workplace and innovating their career models to retain practicing nurses and encourage nurses who left the professional field to return.
  - (6) Improving the quality of traditional Chinese medicine services, and enhancing the manpower and competence of traditional Chinese medicine practitioners to ensure consumers' safety.
  - (7) Strengthening technology research in health and welfare, cultivating talents, and converting research and development results into practical policy-related applications.
  - (8) Promoting international health cooperation in accordance with Taiwan's New Southbound Policy; implementing multilateral, bilateral, international, and cross-straits cooperation and exchange in health and welfare.
5. Establishing a high-quality communicable disease prevention preparedness system and advancing toward a new era in epidemic disease prevention
    - (1) Deploying a comprehensive communicable disease prevention system, and proactively implementing diversified disease surveillance and investigation mechanisms.
    - (2) Ensuring the stability of immunization funding, and implementing routine vaccinations to strengthen the immune systems of citizens.
    - (3) Strengthening screening and counseling services, and providing appropriate medical treatments and a patient management system to reduce the incidence of tuberculosis and halt the growth of AIDS.
    - (4) Implementing communicable disease surveillance and investigation mechanisms, and actively participating in international cooperation to prevent the entry of communicable diseases into the country.

**Figure 1-3 Administrative Goals of the MOHW, 2017**



6. Establishing food and drug safety management to protect the people's health
  - (1) Promoting life-cycle management of foods, drugs, and cosmetics to ensure citizens' safety, and reestablishing the reputation of MIT food and drug products.
  - (2) Integrating collaboration and cooperation for the central and local governments, and promoting cross-ministry cooperation to suppress the use of illegal drug and contaminated food products and to reduce drug abuse.
  - (3) Enhancing the transparency of food product information disclosure and improving the food and drug safety system.
  - (4) Implementing safety management for traditional Chinese medicine and traditional Chinese medicine materials.
7. Building a supportive environment for physical and mental health and advocating holistic health promotion
  - (1) Promoting the New Generation Health Plan, establishing a friendly environment for maternal health, and enhancing health promotion for indigenous people and immigrants.
  - (2) Creating healthy lifestyles and environments, focusing on citizens' healthy diet habits and obesity control, and building a smoke-free and betel nut-free environment.
  - (3) Strengthening cancer prevention, improving the follow-up rate for screening positive cases for four major types of cancer, increasing the quality of cancer care, and promoting a cancer navigation plan for new cancer patients.
  - (4) Developing an elderly database and analyzing health data of different regions to facilitate evidence-based administration.
  - (5) Advocating "Health in All Policies," and strengthening e-Health communication to improve citizens' health literacy.
  - (6) Implementing a holistic mental health promotion plan to improve citizens' well-being.
  - (7) Improving dental care services for people with special needs, promoting dental health services and education for children under five years old, and cultivating their good dental hygiene habits.
8. Promoting health insurance and national pension insurance systems and strengthening mutual help social insurance systems
  - (1) Implementing the linkage mechanism between expenditures and revenues to maintain a fiscal balance, and strengthening care for the vulnerable groups.
  - (2) Reviewing efficiency of current payment

system, reducing improper use of health insurance resources, and improving medical services quality and public information.

- (3) Continuing to promote the National Pension System and establishing a comprehensive system for providing economic security for the elderly.

## Section 2 Gender Equality Policy

In order to reach the objective of gender equality by incorporating the gender perspective into the operations of institutions and strengthening the planning, implementation, and evaluation of the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and important gender equality policies and measures; and to continue promoting gender mainstreaming tools, improving the quality of promotion and expanding effectiveness, the MOHW stipulated the Gender Mainstreaming Promotion Plan (2014-2017), which achieved the following important outcomes:

1. The risk assessment ratio for intimate relationship violence cases increased from 94% to 96.9%.
2. The rate of mandatory treatment adjudicated by court on request from sexual assault inflictors with high recidivism rate in communities reached 100%.
3. The rate of service coverage under Stage 1.0 of the Long-Term Care Plan increased from 33.2% to 37.6%. In 2017, Stage 2.0 began, which expanded the range of service subjects and service items.
4. Within Stage 2.0 of the Long-Term Care Plan, dementia care policy was promoted, which included improvement of dementia care service capabilities, expansion of dementia care resources, establishment of 134 Community Service Stations for Dementia, and strengthening of case-service management in communities.
5. Subsidize local governments and civil organizations to conduct parent education, and the participants increased from 52,182 to 112,850. Besides, the proportion of male participants increased. These courses sought to change the traditional gender stereotypes and promote gender equality in families.
6. The rate of home-based and institutional baby care service increased from 12.12% to 16.16%. The child care management system developed steadily.
7. The Key Subject Physician Cultivation at State Expense System was established. Due to the improvement of health insurance payment standards in five major divisions, provision of subsidies to resident physicians, and provision of assistance in the case of birth-related incidents, the recruitment rate of resident physicians in departments of

gynecology and obstetrics increased from 89% to 100%.

8. The achievement rate related to the annual increase of total nursing personnel by 2,000 employees increased from 133.7% to 520%. The number of male nurses has been growing each year.
9. The rate of referral personnel participating in gender mainstreaming courses increased from 85.81% to 90.7%, providing them with more in-depth gender awareness.
10. Gender influence evaluations of medium- and long-term individual plans and expansion of gender statistical indicators were continued. Besides, continue to pay attention on demand for the work promoting gender equality about gender equality policy agenda and CEDAW, with a priority given to gender-related budget.



The MOHW promoted gender equality and had honor to win the first prize, innovation award, and practice award in the 16th Golden Carnation Award presented by the Executive Yuan.

### Section 3 New Southbound Policy

The New Southbound Policy was launched by President Tsai Ing-Wen in September 2016. In view of the international recognition of Taiwan's medical achievements, medical cooperation and industrial link development were included among the five flagship projects of the New Southbound Policy in 2017. The MOHW closely cooperates with the Ministry of Foreign Affairs, the Ministry of Economic Affairs, the Ministry of Science and Technology, the Ministry of Education, the Tourism Bureau, and the Overseas Community Affairs Council to build up a medical supply chain in order to achieve the following goals:

1. Leverage Taiwan's medical soft power to develop medical networks and increase the influence of Taiwan in New Southbound countries.
2. Increase trade opportunities and output value of Taiwan's medical industry through comprehensive healthcare cooperation and supply chain connectivity.
3. Strengthen the focus on preventing infectious diseases at the border and build a safer regional

disease prevention network.

The following results were achieved in 2017:

1. Training was provided to 199 medical personnel from New Southbound Policy partner countries.
2. In cooperation with National Taiwan University Hospital, National Cheng Kung University Hospital, and Hualien Tzu Chi Hospital, the MOHW implemented medical cooperation plans in Myanmar, Indonesia, Vietnam, and the Philippines, signed three MOUs, assisted in the training of medical personnel, organized four international conferences in Indonesia, implemented the Medical Service Long-Term Station Plan in Myanmar and promoted tuberculosis and rabies prevention plans in the Philippines.
3. For the import of certain food products, Indonesia's Ministry of Agriculture requires test reports issued by accredited overseas laboratories. Three laboratories in Taiwan recommended by TFDA received accreditation from the Indonesian government. Food businesses can directly export their products to Indonesia after inspection in Taiwan, reducing repeat testing, time and costs for importing products into New Southbound countries, and thus, facilitating bilateral trade and economic relations.
4. The Taiwan Food and Drug Administration (TFDA) and Malaysia's National Pharmaceutical Regulatory Agency (NPRA) reached a consensus regarding the following: the food products that pass both the verification of the "Secondary Tier Quality Control" and the "Food Expansion Verification Program" can apply for the export certification from the TFDA. Upon receipt of the export certification, Taiwan businesses can apply for dietary supplement registration from NPRA, allowing them to overcome the trade barriers for Taiwan's exports to Malaysia.
5. The Taiwan Healthcare+(THP) international trade and commerce platform was built and currently comprises over 500 high-quality services and products and 140 organizations, including 13 hospitals, 62 TOP medical teams, and 65 biotechnology companies. The platform forms the image of the Taiwan brand, demonstrates Taiwan's innovative biotechnologies to Southeast Asian countries via international promotion, and thus expands their business opportunities.
6. Key Performance Indicators for Emerging Diseases were planned and introduced, helping 21 APEC members achieve the "Healthy Asia Pacific 2020" initiative. In July 2017, the "Emerging Diseases" indicator proposed by Taiwan was submitted to Australia and was preliminarily approved by the Health Working Group.



# 02

## Health and Welfare Indicators

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Rising incomes, improved living environment and nutrition, advances in medicine and health care, and greater health awareness have led to an 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 2017, Taiwan had a registered population of 23.57 million, an increase of 1.33‰ from 2016. There were 11.72 million males, an increase of 0.03‰, and 11.85 million females, an increase of 2.63‰. The sex ratio (the ratio of males to females in a population) was 98.89%.

At the end of 2017, there were 651 people per square kilometer, similar to the previous year. The densest city was Taipei, at 9,872 people. The least dense area was Taitung, at 62 people, followed by Hualien, at 71 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 2007 and 2017, the proportion of the population aged 0-14 dropped from 17.6% to 13.1%. On the other hand, the proportion of the population aged 65 and above exceeded 7.0% in 1993, rendering Taiwan an aging society. In 2017, the proportion of elderlies rose to 13.9%. The trend in population aging is significant. (Figure 2-1)

Regarding gender differences, females accounted for a greater proportion of aging population than the males. In 2017, females accounted for higher proportion 14.9% of elderlies than males which accounted for 12.8%. On the other hand, females accounted for lower proportion 12.5% of young population than males which accounted for 13.7%. (Figure 2-2).

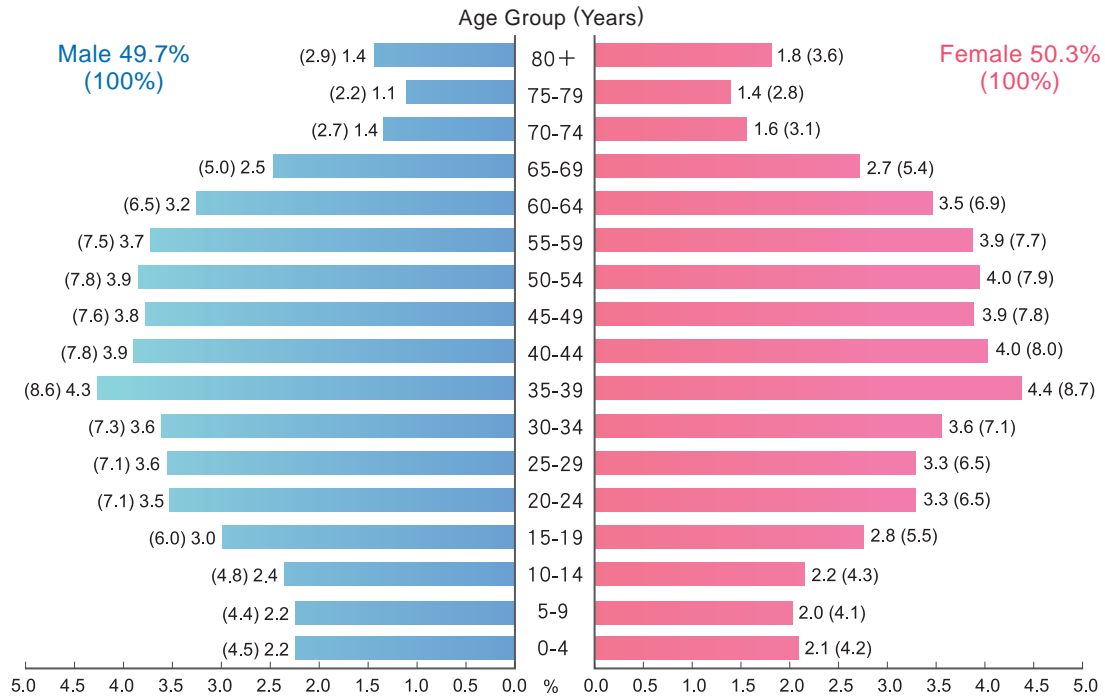
**Figure 2-1 Population Age Structure**

Source: Ministry of the Interior



**Figure 2-2 2017 Population Age Structure, by Gender**

Source: Ministry of the Interior

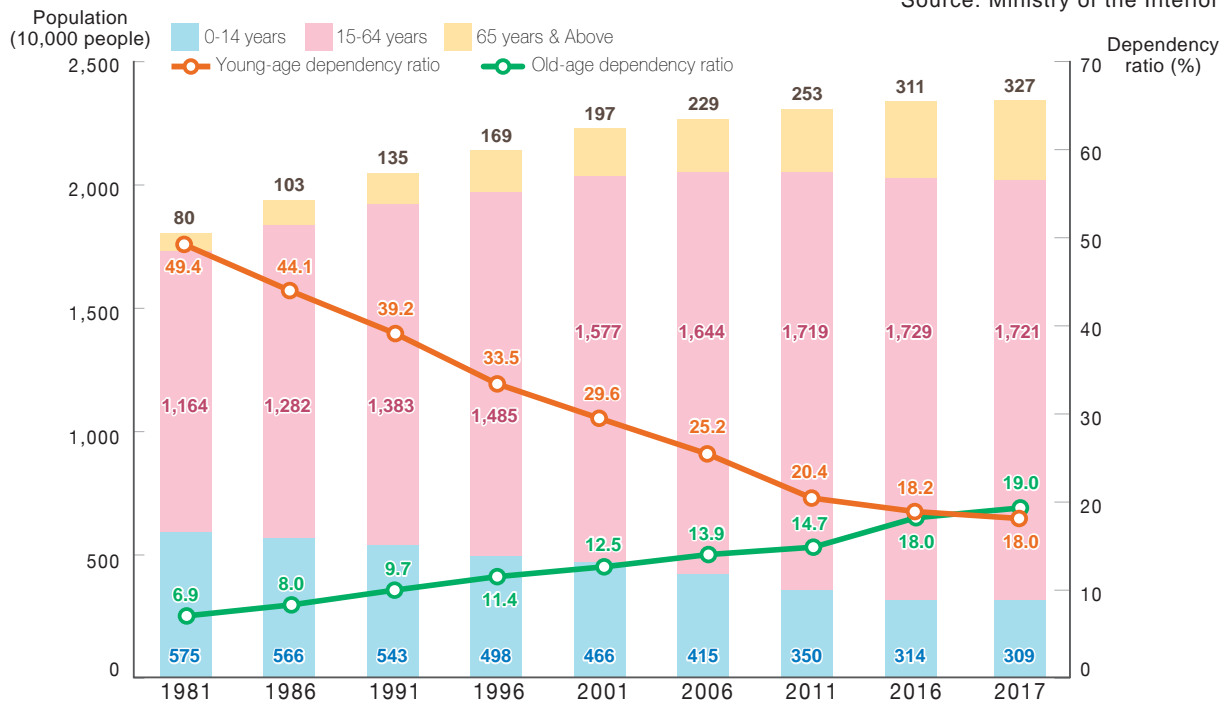


The dependency ratio [(population aged 0-14 + population aged 65 and above)/population aged 15-64\* 100] fell from 56.3% in 1981 to 37.0% in 2017. This was primarily due to the rapid decrease in the young-age dependency ratio [population aged 0-14/

population aged 15-64\* 100] from 49.4% to 18.0%, and the steady increase in the old-age dependency ratio [population aged 65 and above/population aged 15-64\* 100] from 6.9% to 19.0% (Figure 2-3).

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

Source: Ministry of the Interior



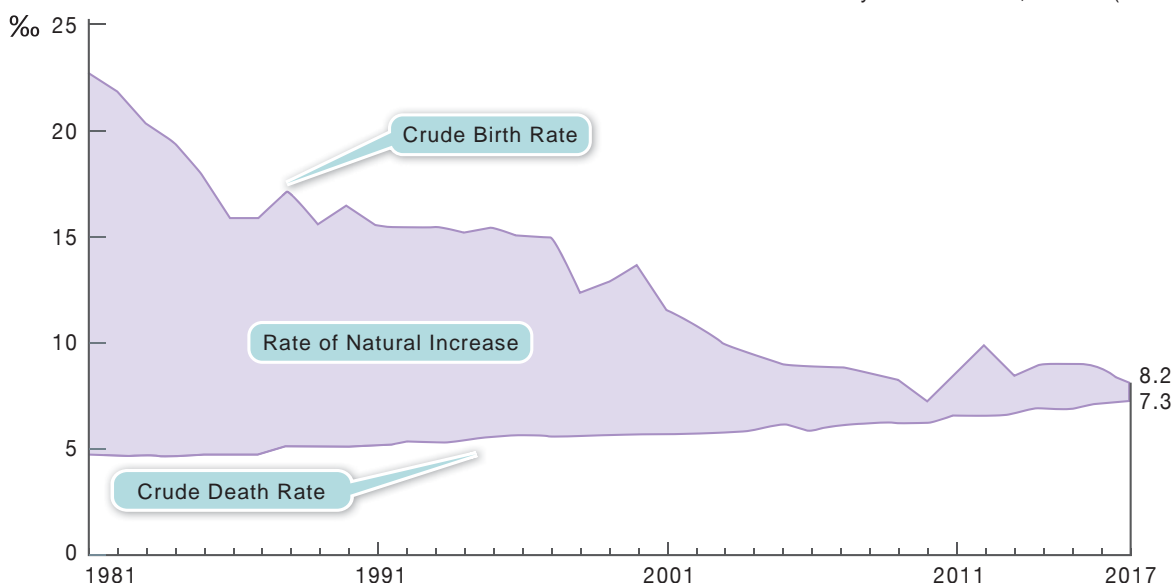
## Section 2 Birth and Death

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 8.2‰ in 2017. The crude mortality rate (deaths/mid-

year population\* 1,000) rose from 5‰ in the 1980s to 7.3‰ in 2017, 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 1.0‰ in 2017 (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)



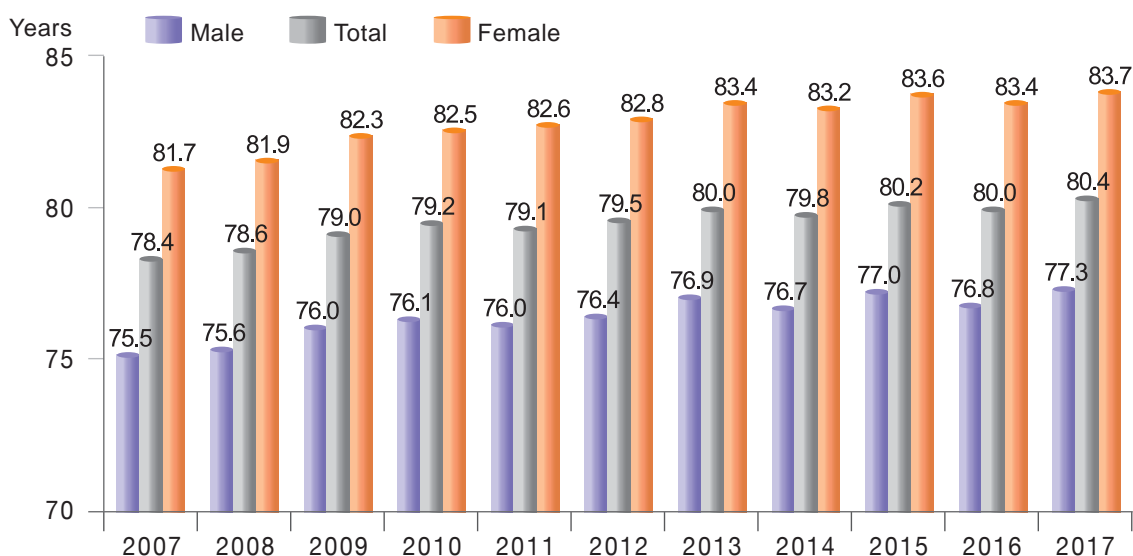
## Section 3 Life Expectancy

Life expectancy at birth was 80.4 in 2017, representing an increase of 2.0 years over the past decade. Life expectancy at birth increased by 1.8 years to 77.3 for

males, and by 2.0 years to 83.7 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

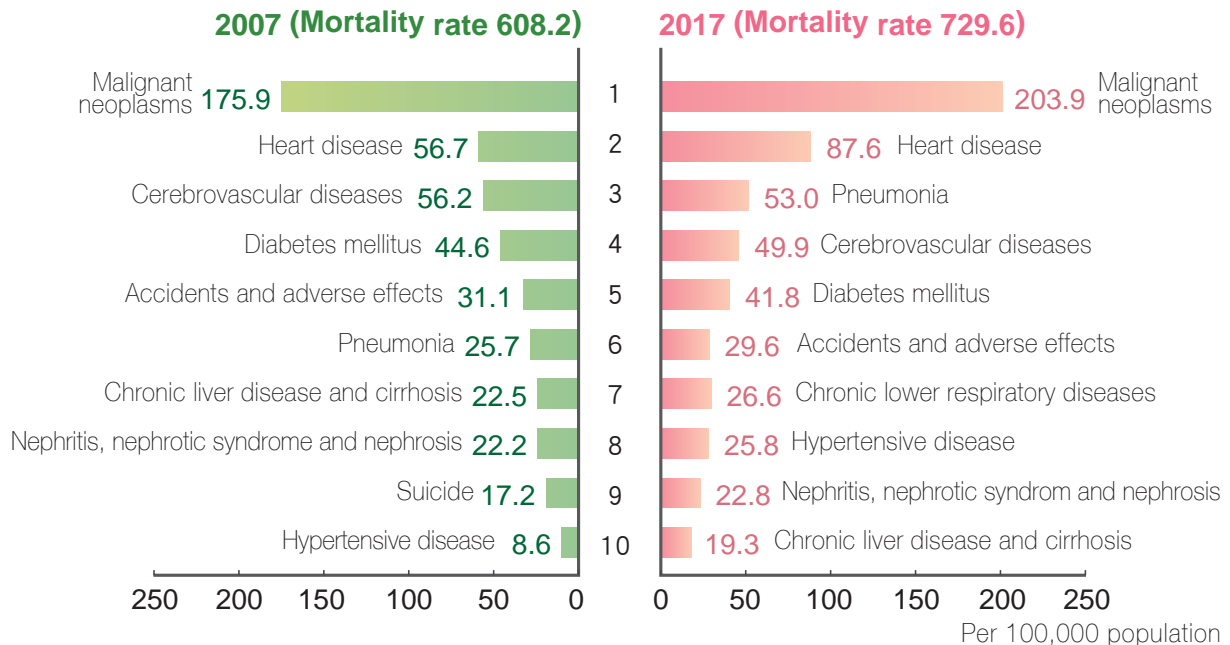
Economic transformation, better quality of life, and improved health care have led to changes in the leading causes of death. In 1952, acute and communicable diseases took the most lives in Taiwan; today, malignant neoplasms, accidents, and chronic diseases such as cardiovascular diseases represent the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

In 2017, there were 171,857 deaths and the crude mortality rate was 729.6 per 100,000 population, a decrease of 0.5% compared to 2016 and an increase of 20.0% compared to 2007. The standardized mortality rate [based on the WHO standard world population age structure for 2000] was 424.3 people per 100,000 population, a decrease of 3.4% compared to 2016 and a decrease of 13.7% compared to 2007.

In 2017, the ten leading causes of death accounted for 76.8% of all deaths, and were primarily chronic diseases. In descending order by mortality rate they were (1) malignant neoplasms, (2) heart disease, (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 disease and cirrhosis. Compared to 2007, pneumonia, and hypertensive diseases rose in the rankings; cerebrovascular diseases, diabetes mellitus, accidents and adverse effects, nephritis, nephrotic syndrome and nephrosis, chronic liver disease and cirrhosis, and suicide fell in the ranking in 2017 (Figure 2-6).

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

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



### Section 2 Cancer Incidence and Causes of Cancer Death

#### 1. Cancer Incidence

According to 2015 cancer registry data, the incidence rates of cancer for males and females were 483.6 and 411.8 per 100,000 population

respectively. If adjustments were made based on the WHO constructed standard world population age structure from 2000, the age-standardized incidence rates for males and females became 336.5 and 273.1 people per 100,000 population, respectively (Table 2-1).

**Table 2-1 Incidence of Ten Leading Cancers, 2015**

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

Male			
Rank	Cancer Site	No. of Cases	Age-Standardized Incidence Rate (Per 100,000 Population)
1	Colon	8,968	52.1
2	Liver and Intrahepatic Bile Ducts	7,884	46.5
3	Lungs, Bronchus, and Trachea	7,660	44.2
4	Oral Cavity, Opharynx, and Hypopharynx	6,965	42.3
5	Prostate	5,106	29.4
6	Esophagus	2,415	14.2
7	Stomach	2,351	13.2
8	Skin	2,044	11.6
9	Non-hodgkin's Lymphoma	1,425	8.8
10	Bladder	1,510	8.5
	Total	56,642	336.5
Female			
Rank	Cancer Site	No. of Cases	Age-Standardized Incidence Rate (Per 100,000 Population)
1	Female Breast	12,360	73.0
2	Colon	6,611	34.9
3	Lungs, Bronchus, and Trachea	5,426	28.5
4	Liver and Intrahepatic Bile Ducts	3,536	18.2
5	Thyroid	2,729	17.9
6	Uterus	2,440	14.1
7	Ovary, Fallopian Tube, and Broad Ligament	1,434	9.0
8	Skin	1,755	8.7
9	Cervix	1,485	8.6
10	Stomach	1,498	7.7
	Total	48,514	273.1

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:  $\Sigma (\text{Age-Specific Incidence Rate} \times \text{Standard Age-Specific Population}) / \text{Standard Total Population}$ .

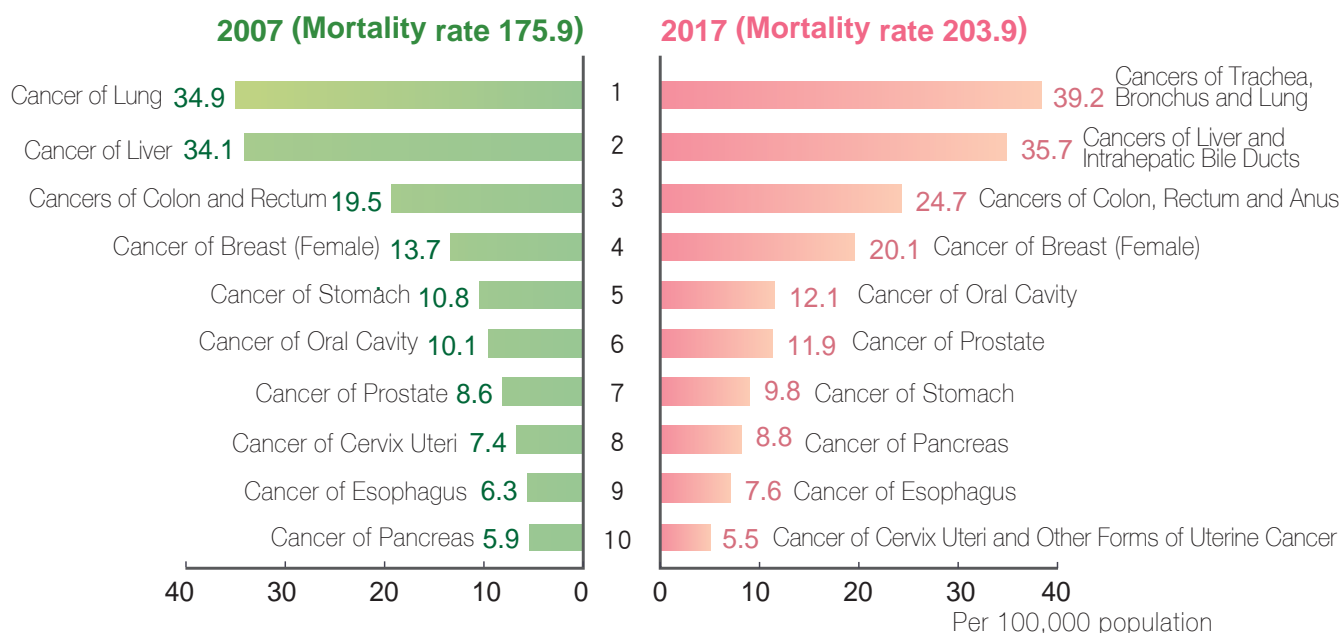
## 2. Causes of Cancer Death

In 2017, there were 48,037 deaths due to malignant neoplasms accounting for 28.0% of total deaths and a crude mortality rate of 203.9 per 100,000 population. This represented an increase of 0.4% compared to the previous year and an increase of 15.9% compared to 2007. The standardized cancer mortality rate in 2017 was 123.4 per 100,000 population, a decrease of 2.7% compared to 2016 and a decrease of 13.5% compared to 2007.

The ten leading causes of cancer death in 2017 were cancers of the (1) trachea, bronchus and lung; (2) liver and intrahepatic bile ducts; (3) colon, rectum and anus; (4) breast (female); (5) oral cavity; (6) prostate; (7) stomach; (8) pancreas; (9) oesophagus; (10) cervix and uterus (with exact cancer position not identified). Compared to 2007, cancers of the oral cavity, prostate, and pancreas rose in the rankings, while cancers of the stomach and uterus fell (Figure 2-7).

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

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



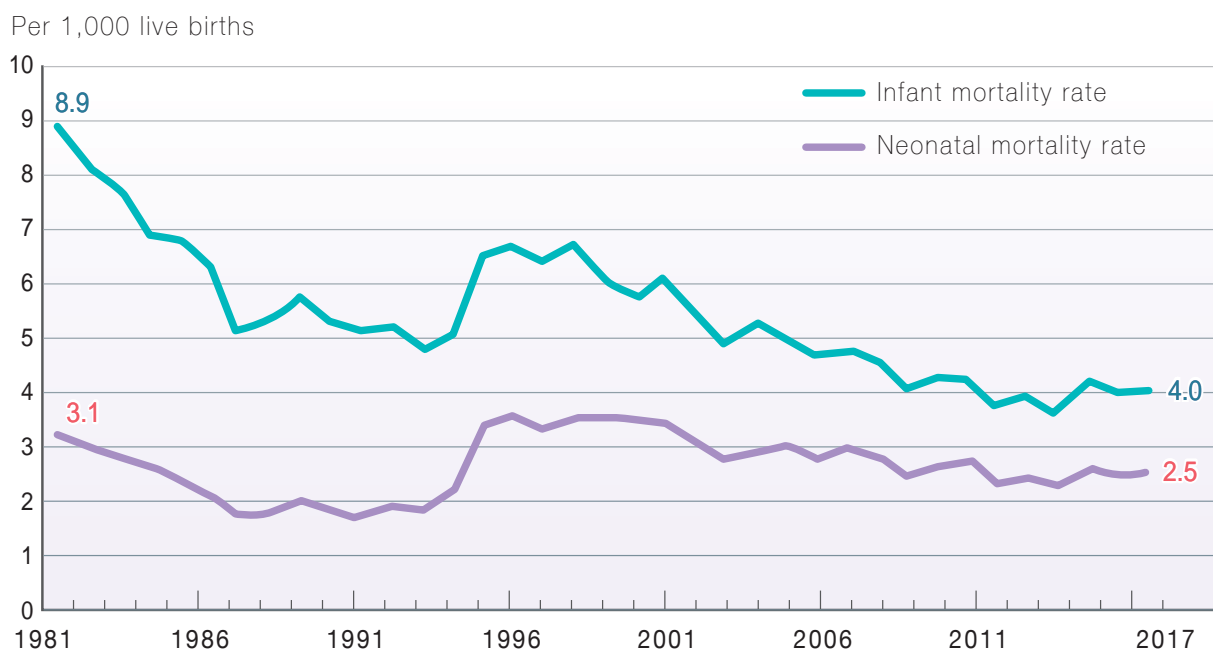
### Section 3 Infant and Neonatal Mortality Rates

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 2017, the infant mortality rate declined to 4.0‰, compared to 8.9‰ in 1981. Over the same period, the neonatal mortality rate dropped from 3.1‰ to 2.5‰ (Figure 2-8).

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

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



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



## Chapter 3 National Health Expenditure (NHE)

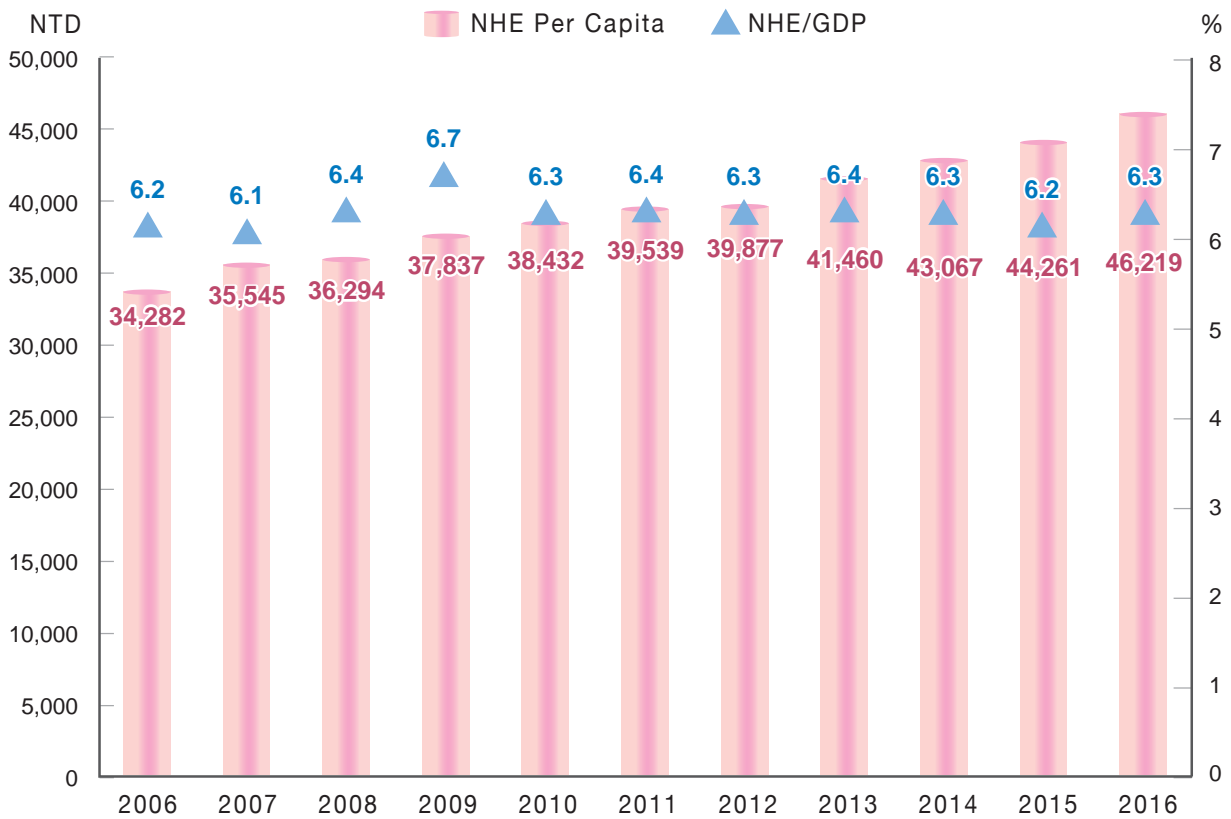
Good health care is a basic need in modern society and a major indicator of a country's advancement. After steadily rising since 1991, NHE surpassed NT\$1086.9 billion in 2016. The expansion of international medicine, development of biomedicine

and technology, and a rapidly aging population are expected to contribute to continued increases in NHE.

NHE as a share of GDP increased from 6.2% in 2006 to 6.3% in 2016. Per capita NHE increased from NT\$34,282 in 2006 to NT\$46,219 in 2016, for an average annual increase of 3.0% (Figure 2-9).

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

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





## Chapter 4 Social Welfare Indicators

### Section 1 Low-Income and Middle-to-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 2017, there were 260,590 low-income and middle-to-low-income households (142,814 and 117,776 households, respectively), with a total of 667,682 members (317,257 and 350,425, respectively). They accounted for 3.0% of all households and 2.8% of the total population.

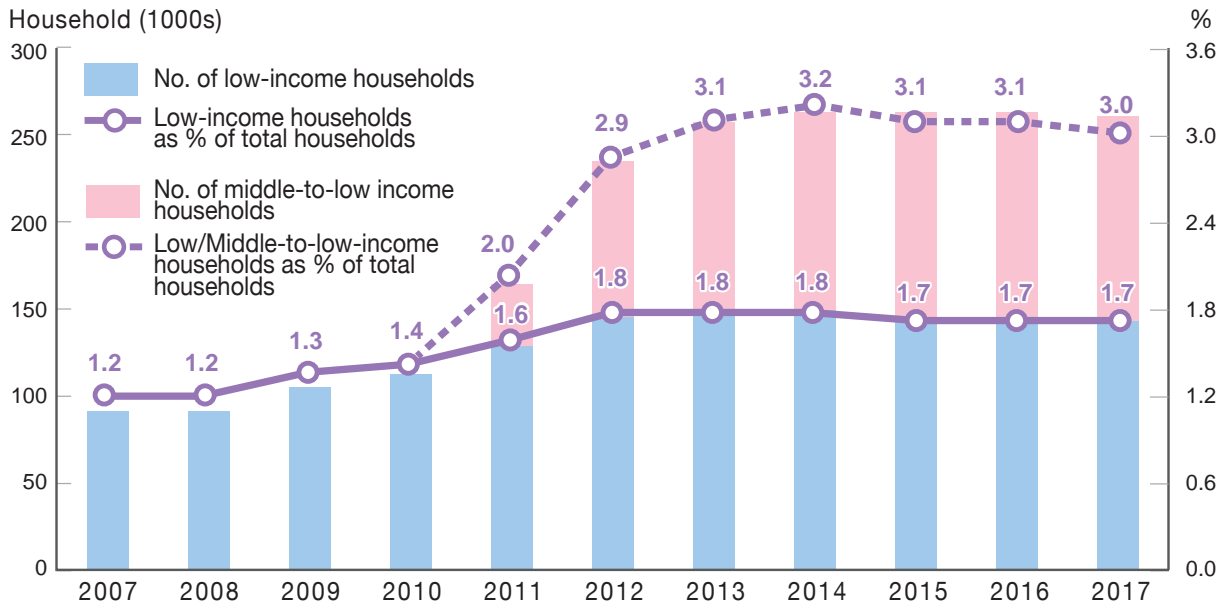


Among all members of low-income and middle-to-low-income households, there were 341,664 males and 326,018 females, for a male to female ratio

of 1.05, compared to a national average of 0.99 (Figures 2-10, 2-11).

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

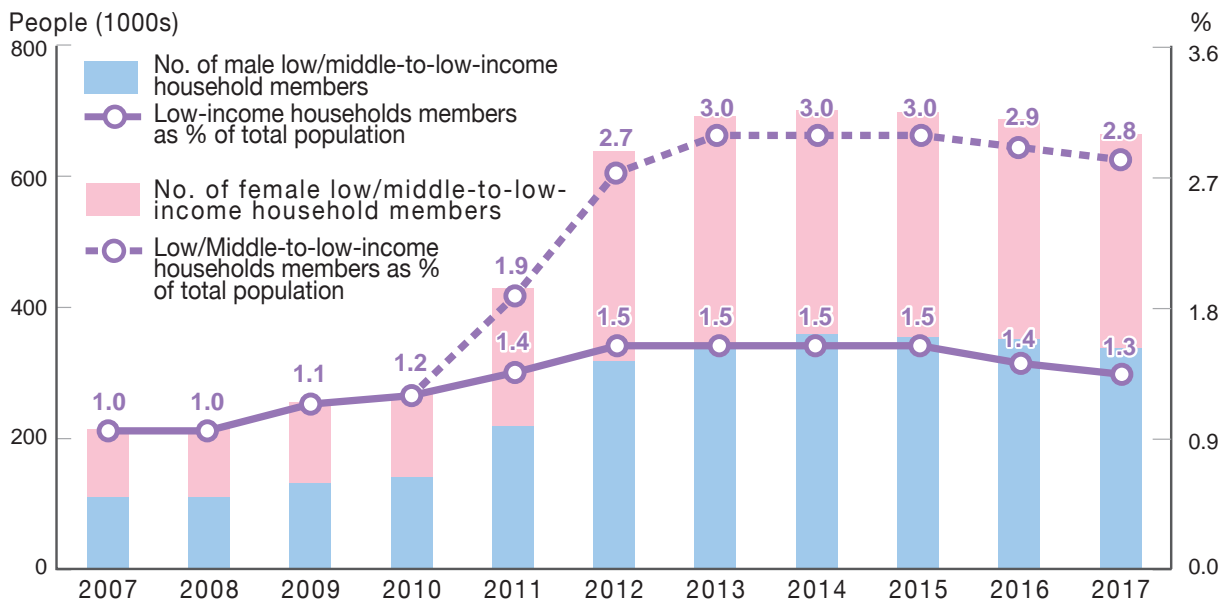
Source: Ministry of Health and Welfare, R.O.C. (Taiwan)



Notes: Since July 2011, middle-to-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-to-Low-Income Household Members, by Year**

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



Notes: Since July 2011, middle-to-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 2017, 1,167,450 people were identified as disabled, accounting for 5.0% of the total population and consisting of 658,682 males (56.4%) and 508,768 females (43.6%).

From 2007 to 2017, the number of disabled persons increased by 146,690, or 14.4%, primarily

attributed to an aging population and a higher risk of disability facing the elderly. In terms of age, the percentage of disabled persons 0 - 17 years old fell by 14.9%. On the other hand, disabled persons aged 18 to 64, and 65 and older increased by 8.8%, and 28.2%, respectively (Table 2-2).

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

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

Year (End)	Gender (Persons)			Age group (Persons)			As % of total population
	Total	Male	Female	0-17 Years	18-64 Years	65 Years & Above	
<b>2007</b>	1,020,760	590,306	430,454	63,512	586,160	371,088	4.4
<b>2008</b>	1,040,585	599,664	440,921	63,509	597,090	379,986	4.5
<b>2009</b>	1,071,073	615,621	455,452	63,440	611,154	396,479	4.6
<b>2010</b>	1,076,293	616,675	459,618	62,705	619,809	393,779	4.6
<b>2011</b>	1,100,436	629,179	471,257	61,833	631,413	407,190	4.7
<b>2012</b>	1,117,518	636,287	481,231	62,051	644,023	411,444	4.8
<b>2013</b>	1,125,113	639,969	485,144	59,570	643,185	422,358	4.8
<b>2014</b>	1,141,677	648,807	492,870	58,737	646,992	435,948	4.9
<b>2015</b>	1,155,650	655,444	500,206	56,885	648,486	450,279	4.9
<b>2016</b>	1,170,199	662,800	507,399	55,702	645,588	468,909	5.0
<b>2017</b>	1,167,450	658,682	508,768	54,051	637,568	475,831	5.0

### Section 3 Domestic Violence

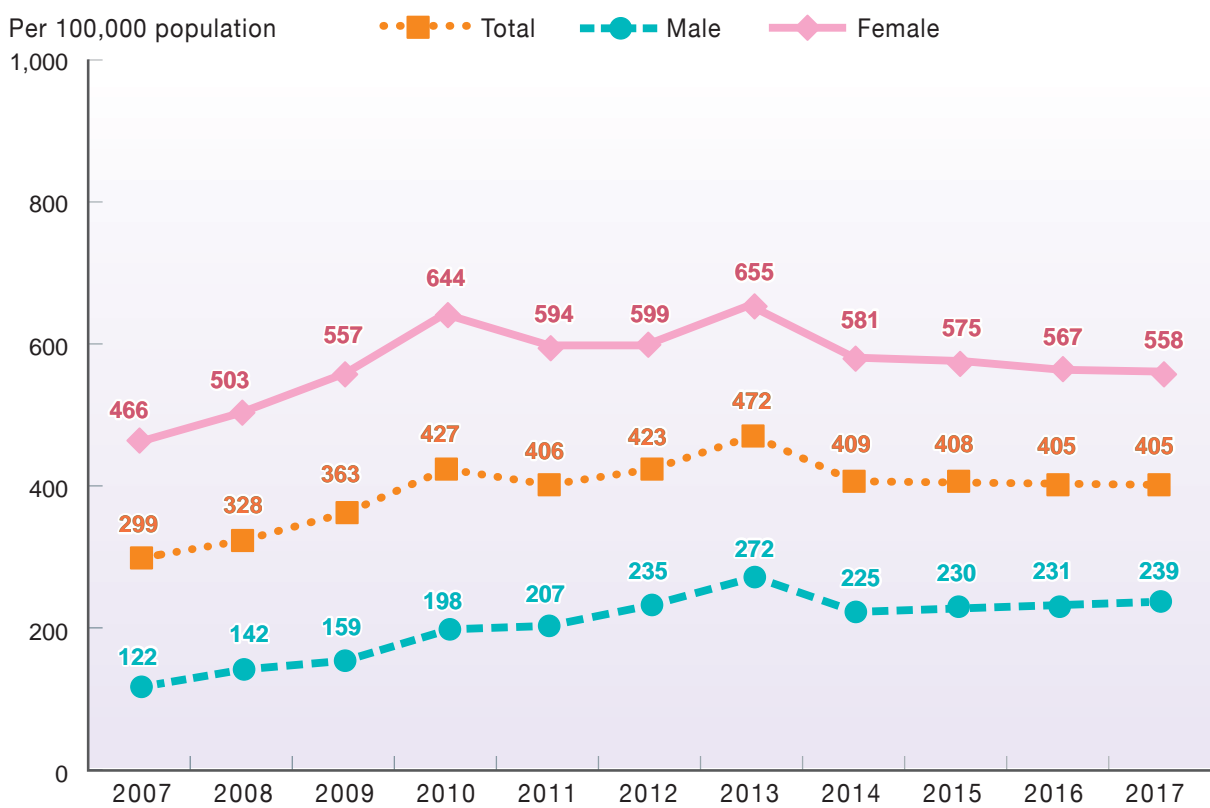
Taiwanese government has recently been raising public awareness of domestic violence. The launch of the "113 hotline" for reporting domestic violence, a strengthened notification system and better support networks have led to an annual increase in reported cases. In 2017, there were 405 reported victims per 100,000 population, an increase of 106 compared to 2007. By gender, there were 239 male

victims per 100,000 population, and 558 female victims per 100,000 population. Female victims outnumbered male counterparts by a factor of 2.3 (Figure 2-12).

As for type of cases, spouses, former spouses, or cohabitating partners accounted for 54.7% of the total cases; child abuses accounted for another 13.3%; and elder abuses accounted for 6.3% (Figure 2-13).

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

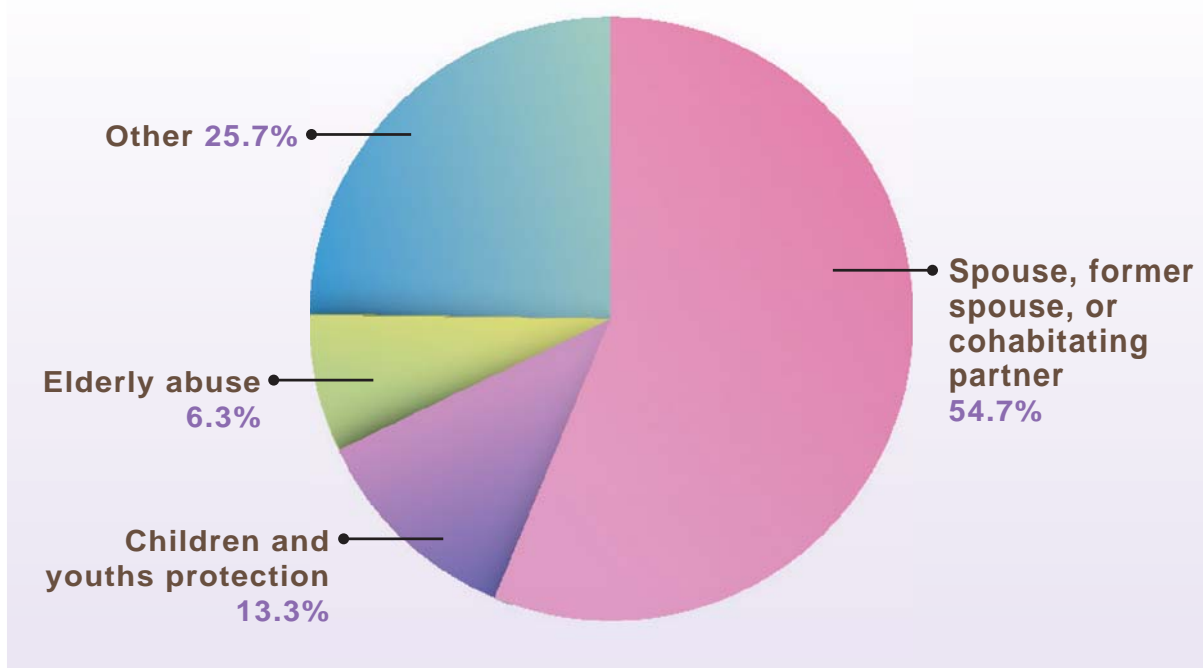
Source: Ministry of Health and Welfare, R.O.C. (Taiwan)



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

**Figure 2-13 Domestic Violence Reported Cases by Type, 2017**

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



#### Section 4 Infant Centers

At the end of 2017, there were 907 public and private infant centers that cared for 23,066 infants, accounting for 2.8% of the total population of infants younger than 3. The infant acceptance rate has increased with years. To ensure quality of care,

the stipulated ratio of caregivers to infants in infant centers is 1:5. The number of people receiving services in infant centers has been increasing and so has the number of caregivers, teachers, and teacher assistants, reaching 5,623 by the end of 2017 (with teacher-infant ratio equal to 4.1) (Table 2-3).

**Table 2-3 Infant Centers**

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

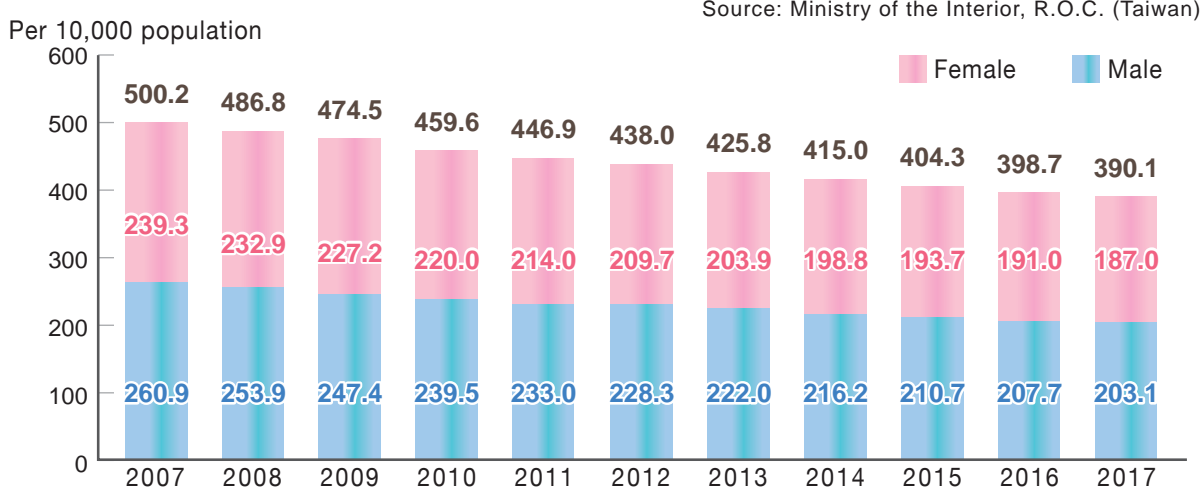
Year (End)	Number (institutions)	Number of institutions		Number of enrolled infants	% of the total population of infants aged under 3 years old	Number of caregivers, teachers, and teacher assistants	Infant center Teacher-infant ratio
		Private	Public Nongovernmental				
2014	659	587	72	14,845	1.8	3,710	4.0
2015	735	643	92	17,246	2.0	4,305	4.0
2016	808	710	98	19,750	2.4	4,924	4.0
2017	907	784	123	23,066	2.8	5,613	4.1

## Section 5 Economic Security of Children and Youths

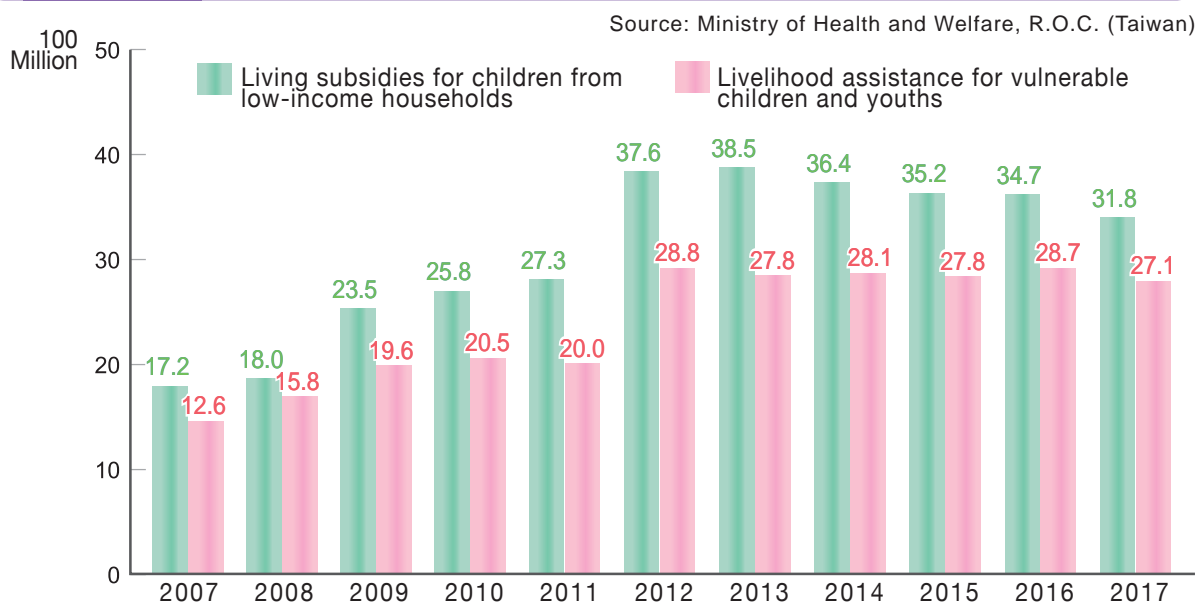
Due to the low birth rate, the population of children and youths has been decreasing. At the end of 2017, the number of people aged younger than 18 years old was 3,900,662, which was 86,540 less than in 2016 and 1,101,461 less than in 2007, indicating a 22.0% decrease over the 10-year period. With regard to gender, the male and female young population decreased by 2.2% and 2.1%, respectively, since 2016 and by 22.2% and 21.9%, respectively, since 2007.

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 2017, living subsidies provided to children from low-income families and children and youths from vulnerable families amounted to NTD3.18 billion and NTD2.71 billion, respectively, which was 8.5% and 5.8% less than in 2016, 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**



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



Notes: Since July 2011, middle-to-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 1 Life Expectancy

In Taiwan, female and male life expectancy at birth in 2016 was 80.0 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 81.5 years. Male life expectancy at birth in OECD member states was highest in Switzerland at 81.7 years; in Taiwan, male life expectancy was 76.8 years. Female life expectancy at birth was highest in Japan at 86.6 years; in Taiwan, female life expectancy was 83.4 years (Table 2-4).

### Section 2 Rate of Natural Increase

The rate of natural increase in Taiwan in 2017 was 1‰, ranking 19th among OECD member states and lower than the OECD median of 2‰.

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 1.2 in 2017, which was lower than in OECD member states. This rate in all OECD member states, excluding Israel, Mexico, and Turkey, was lower than the replacement level of 2.1. For the same period, Taiwan's crude birth rate was 8‰ and the mortality rate was 7‰, ranking 31st and

26th among OECD member states, respectively and lower than the respective OECD medians of 11‰ and 9‰. Generally, demographic structures in OECD member states were trending toward low birth rates (Table 2-5).

### Section 3 Dependency Ratio

Among OECD member states, the highest dependency ratio in 2017 was in Japan, at 67%, followed by Israel at 64% and Sweden at 61%. The dependency ratio in Taiwan was 37%, which was lower than in other OECD member states.

In 2017, the old-age dependency ratio (population aged 65 and above/population aged 15-64 × 100) in Taiwan was 19%. If ranked among OECD member states, Taiwan would have been 32nd. Taiwan's old-age dependency ratio was higher than that in Israel, Chile, Turkey, and Mexico. There was 1 elderly person per 5.3 young and mid-year population in Taiwan. The aging index (population aged 65 and above/population aged 0-14 × 100) of Taiwan was 106%. If ranked among OECD member states, Taiwan would have been 22nd. 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 2-6).



**Table 2-4 Life Expectancy at Birth in Taiwan and OECD member states, 2016**

Source: Ministry of the Interior, R.O.C. (Taiwan); 2017 World Health Statistics

Ranking	Country - Life expectancy at birth (age of 0)	Both sexes (age)	Male (age)	Female (age)
	<b>OECD Median</b>	<b>81.5</b>	<b>79.0</b>	<b>83.9</b>
1	Switzerland	83.7	81.7	85.6
2	Spain	83.5	80.5	86.3
3	Italy	83.4	81.0	85.6
3	Japan	83.4	80.2	86.6
5	France	82.7	79.5	85.7
5	Luxembourg	82.7	80.1	85.3
7	Australia	82.5	80.4	84.6
8	Norway	82.5	80.7	84.2
8	Sweden	82.4	80.6	84.1
10	Iceland	82.2	80.4	84.1
11	Israel	82.1	80.3	83.9
12	Canada	81.9	79.8	83.9
13	Austria	81.8	79.3	84.1
14	Ireland	81.8	79.9	83.6
15	Netherlands	81.7	80.0	83.2
16	Belgium	81.5	79.0	84.0
17	Finland	81.5	78.6	84.4
18	Greece	81.5	78.9	84.0
19	Republic of Korea	81.4	78.0	84.8
19	New Zealand	81.4	79.5	83.2
19	Portugal	81.3	78.1	84.3
22	Slovenia	81.2	78.2	84.3
22	United Kingdom	81.2	79.4	83.0
24	Germany	81.0	78.6	83.5
25	Denmark	80.9	79.0	82.8
26	R.O.C. (Taiwan)	80.0	76.8	83.4
27	Czech Republic	79.1	76.1	82.1
28	Chile	78.8	76.3	81.4
29	United States	78.8	76.4	81.2
30	Turkey	78.1	75.4	81.0
31	Estonia	78.0	73.3	82.2
31	Poland	78.0	73.9	82.0
33	Slovakia	77.3	73.8	80.7
34	Hungary	76.2	72.6	79.7
35	Latvia	74.9	69.8	79.6
36	Mexico	74.8	72.1	77.5



**Table 2-5 Population Status of Taiwan and OECD Member States**

Source: Ministry of the Interior, R.O.C. (Taiwan); 2017 World Population Data Sheet, Population Reference Bureau

Ranking	Country – Ranked according to rate of natural increase	2017 Mid-year population (Millions)	Population forecast (Millions)		Multiple ratio of population	Total fertility rate (Per Woman)	Crude birth rate (‰)	Crude mortality rate (‰)	Rate of natural increase (‰)
		2017	2030	2050	2050 vs 2017	2017	2017	2017	2017
<b>OECD Median</b>		<b>10.7</b>	<b>11.3</b>	<b>12.7</b>	<b>1.2</b>	<b>1.6</b>	<b>11</b>	<b>9</b>	<b>2.0</b>
1	Israel	8.3	10.3	13.8	1.7	3.1	21	5	16.0
2	Mexico	129.2	147.5	164.3	1.3	2.2	20	5	15.0
3	Turkey	80.9	89.7	94.8	1.2	2.1	17	5	12.0
4	Chile	18.4	20.0	21.1	1.1	1.8	14	6	8.0
5	Ireland	4.8	5.3	5.9	1.2	1.9	14	7	7.0
6	Australia	24.5	29.7	37.1	1.5	1.8	13	7	6.0
6	New Zealand	4.8	5.1	5.3	1.1	1.9	13	7	6.0
8	Iceland	0.3	0.4	0.4	1.3	1.8	12	7	5.0
9	United States	325.4	357.7	396.8	1.2	1.8	12	8	4.0
10	Canada	36.7	41.2	47.1	1.3	1.6	11	8	3.0
10	France	65.0	68.5	72.3	1.1	1.9	12	9	3.0
10	Luxembourg	0.6	0.7	0.7	1.2	1.4	10	7	3.0
10	Norway	5.3	5.9	6.7	1.3	1.7	11	8	3.0
10	Sweden	10.1	11.3	12.4	1.2	1.9	12	9	3.0
10	Switzerland	8.5	9.1	9.9	1.2	1.5	11	8	3.0
10	United Kingdom	66.2	71.7	77.7	1.2	1.8	12	9	3.0
17	Denmark	5.8	6.1	6.3	1.1	1.8	11	9	2.0
17	Republic of Korea	51.4	52.7	49.2	1.0	1.2	8	6	2.0
19	Austria	8.8	9.4	9.8	1.1	1.5	10	9	1.0
19	Belgium	11.3	12.0	12.7	1.1	1.7	11	10	1.0
19	Czech Republic	10.6	10.7	10.4	1.0	1.6	11	10	1.0
19	Netherlands	17.1	17.9	18.1	1.1	1.7	10	9	1.0
19	R.O.C. (Taiwan)	23.6	24.1	22.7	1.0	1.2	8	7	1.0
19	Slovakia	5.4	5.4	5.0	0.9	1.4	11	10	1.0
25	Finland	5.5	5.8	5.9	1.1	1.6	10	10	0.0
25	Poland	38.4	36.9	32.6	0.8	1.4	10	10	0.0
25	Slovenia	2.1	2.0	1.9	0.9	1.6	10	10	0.0
25	Spain	46.6	46.1	44.4	1.0	1.3	9	9	0.0
29	Estonia	1.3	1.3	1.1	0.8	1.6	11	12	-1.0
30	Germany	83.1	84.3	83.2	1.0	1.5	9	11	-2.0
30	Italy	60.5	60.0	57.5	1.0	1.3	8	10	-2.0
30	Japan	126.7	119.1	101.9	0.8	1.5	8	10	-2.0
33	Greece	10.7	10.4	9.1	0.9	1.3	8	11	-3.0
33	Hungary	9.8	9.7	9.5	1.0	1.5	10	13	-3.0
33	Latvia	1.9	1.7	1.5	0.8	1.7	11	14	-3.0
33	Portugal	10.3	10.0	9.2	0.9	1.4	8	11	-3.0

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

**Table 2-6 Dependency Ratio in Taiwan and OECD Member States, 2017**

Source: Ministry of the Interior, R.O.C. (Taiwan); 2017 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 (%)				
<b>OECD Median</b>		<b>16</b>	<b>66</b>	<b>18</b>	<b>52</b>	<b>24</b>	<b>27</b>	<b>111</b>
1	Japan	12	60	28	<b>67</b>	20	<b>47</b>	233
2	Israel	28	61	11	<b>64</b>	46	<b>18</b>	39
3	Sweden	18	62	20	<b>61</b>	29	<b>32</b>	111
4	Finland	16	63	21	<b>59</b>	25	<b>33</b>	131
4	France	18	63	19	<b>59</b>	29	<b>30</b>	106
6	Belgium	17	64	19	<b>56</b>	27	<b>30</b>	112
6	Denmark	17	64	19	<b>56</b>	27	<b>30</b>	112
6	Italy	14	64	22	<b>56</b>	22	<b>34</b>	157
6	United Kingdom	18	64	18	<b>56</b>	28	<b>28</b>	100
10	Estonia	16	65	19	<b>54</b>	25	<b>29</b>	119
10	Greece	14	65	21	<b>54</b>	22	<b>32</b>	150
10	Latvia	15	65	20	<b>54</b>	23	<b>31</b>	133
10	New Zealand	20	65	15	<b>54</b>	31	<b>23</b>	75
10	Norway	18	65	17	<b>54</b>	28	<b>26</b>	94
10	Portugal	14	65	21	<b>54</b>	22	<b>32</b>	150
16	Australia	19	66	15	<b>52</b>	29	<b>23</b>	79
16	Germany	13	66	21	<b>52</b>	20	<b>32</b>	162
16	Iceland	20	66	14	<b>52</b>	30	<b>21</b>	70
16	Ireland	21	66	13	<b>52</b>	32	<b>20</b>	62
16	Netherlands	16	66	18	<b>52</b>	24	<b>27</b>	113
16	Spain	15	66	19	<b>52</b>	23	<b>29</b>	127
16	United States	19	66	15	<b>52</b>	29	<b>23</b>	79
23	Austria	14	67	19	<b>49</b>	21	<b>28</b>	136
23	Canada	16	67	17	<b>49</b>	24	<b>25</b>	106
23	Czech Republic	15	67	18	<b>49</b>	22	<b>27</b>	120
23	Mexico	27	67	6	<b>49</b>	40	<b>9</b>	22
23	Switzerland	15	67	18	<b>49</b>	22	<b>27</b>	120
28	Hungary	14	68	18	<b>47</b>	21	<b>26</b>	129
28	Slovenia	15	68	17	<b>47</b>	22	<b>25</b>	113
28	Turkey	24	68	8	<b>47</b>	35	<b>12</b>	33
31	Chile	20	69	11	<b>45</b>	29	<b>16</b>	55
31	Poland	15	69	16	<b>45</b>	22	<b>23</b>	107
33	Luxembourg	16	70	14	<b>43</b>	23	<b>20</b>	88
34	Slovakia	15	71	14	<b>41</b>	21	<b>20</b>	93
35	Republic of Korea	13	73	14	<b>37</b>	18	<b>19</b>	108
35	R.O.C.(Taiwan)	13	73	14	<b>37</b>	18	<b>19</b>	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  
 5. The country data used in this table are based on the 2017 or latest data released by each respective country (if a country's 2017 data is not available, the data from the latest available year is used instead)

## Section 4 Mortality Rate

According to the latest WHO data, in 2015, among developed countries Republic of Korea had the lowest standardized mortality rate for malignant neoplasms at 168.4 deaths per 100,000 population, compared to a rate of 215.5 deaths in Taiwan. For transport accidents the United Kingdom was the lowest at 2.9 deaths per 100,000 population, compared to a rate

of 13.9 deaths in Taiwan. The United Kingdom also had the lowest suicide rate, at 7.5 deaths per 100,000 population, compared to a rate of 15.1 deaths in Taiwan. Japan led in neonatal mortality rate, with 0.9 deaths per 1,000 live births, compared to a rate of 2.5 deaths in Taiwan. Since 2005, the suicide rates decreased in all countries apart from the United States, the United Kingdom, and Australia (Table 2-7).

**Table 2-7 Standardized Mortality Rates of Major Countries**

Source: Ministry of Health and Welfare, 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)	
	2005	2015	2005	2015	2005	2015	2005	2015
<b>R.O.C. (Taiwan)</b>	235.0	215.5	23.7	13.9	20.3	15.1	2.9	2.5
<b>Japan</b>	196.6	173.8	7.1	3.6	22.1	16.6	1.4	0.9
<b>Republic of Korea</b>	210.0	168.4	20.6	11.2	29.9	25.8	2.8	1.5
<b>United States</b>	212.9	185.3	16.6	12.6	11.2	13.8	4.5	3.9
<b>Canada</b>	226.9	204.1	10.2	6.9	11.2	11.1	4.1	3.6
<b>United Kingdom</b>	237.9	217.7	5.8	2.9	6.7	7.5	3.5	2.7
<b>Germany</b>	217.5	199.6	6.7	4.2	11.4	10.6	2.5	2.3
<b>France</b>	225.1	196.8	8.9	4.8	17.1	13.1	2.5	2.6
<b>Australia</b>	212.4	189.5	8.6	5.9	10.6	12.8	3.5	2.3
<b>New Zealand</b>	226.2	211.4	12.1	8.1	12.7	11.8	3.1	4.1

Notes: 1. If the data for a specific year are not available, the latest available data are used instead.

2. The standardized mortality rates for malignant neoplasms, transport accidents, and suicide were calculated based on the 2010 OECD standards for calculating population.

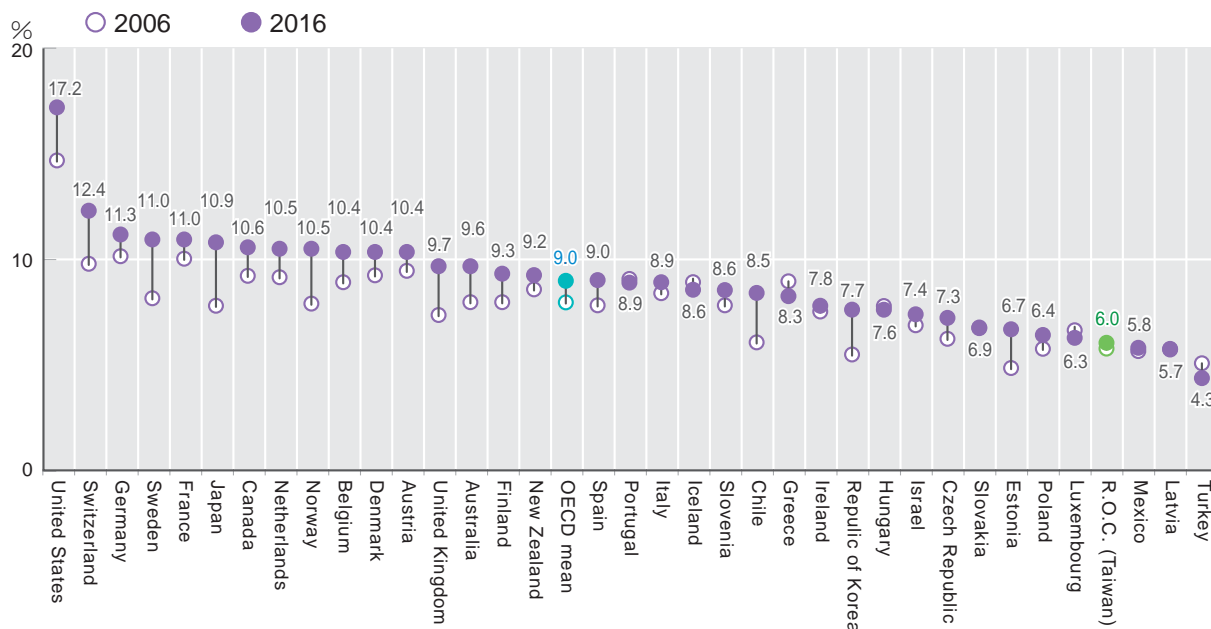
## Section 5 Health Expenditure

In 2016, Taiwan's current health expenditure (CHE) per capita at purchasing power parity (PPP) basis was USD2,897, which was lower than the OECD median of USD4,033. If ranked among OECD member states, Taiwan would have been 22nd. GDP per capita on a PPP basis in Taiwan was USD48,535, which was higher than the OECD median of USD41,649 and ranked 13th when compared to OECD member states. CHE accounted for a 6.0% share of Taiwan's GDP, a relatively low amount that was 2.9 percentage points below the OECD median (Table 2-8).

In comparison to 2006, the share of CHE in GDP increased in most OECD member states, with the highest increase of 3.0 percentage points in Japan, followed by 2.8 percentage points in Sweden. A decrease was observed in seven countries, including Iceland and Greece. The share of CHE in Taiwan's GDP increased by 0.1 percentage points, which was lower than the OECD mean of 1.0 percentage point and higher than the increase in nine countries, including Portugal, Hungary, and Luxembourg (Figure 2-16).

**Figure 2-16 CHE/GDP Proportion**

Source: Ministry of Health and Welfare, R.O.C. (Taiwan), OECD Health Data



**Table 2-8 Comparisons of CHE Per Capita and GDP Per Capita Between R.O.C. (Taiwan) and OECD Member States, 2016**

Source: Ministry of Health and Welfare, R.O.C. (Taiwan), Directorate General of Budget, Accounting and Statistics, R.O.C.

Country	Order	CHE Per Capita (USD PPPs)	Order	GDP per capita (USD PPPs)	Order	CHE / GDP (%)
<b>OECD Median</b>		<b>4,033</b>		<b>41,649</b>		<b>8.9</b>
United States	1	9,892	5	57,467	1	17.2
Switzerland	2	7,919	3	63,959	2	12.4
Luxembourg	3	7,463	1	109,653	32	6.3
Norway	4	6,647	4	63,527	9	10.5
Germany	5	5,551	11	49,260	3	11.3
Ireland	6	5,528	2	70,723	24	7.8
Sweden	7	5,488	10	49,852	4	11.0
Netherlands	8	5,385	6	51,289	8	10.5
Austria	9	5,227	8	50,424	12	10.4
Denmark	10	5,205	9	50,162	11	10.4
Belgium	11	4,840	14	46,594	10	10.4
Canada	12	4,753	15	44,930	7	10.6
Australia	13	4,708	12	49,093	14	9.6
France	14	4,600	18	41,889	5	11.0
Japan	15	4,519	19	41,649	6	10.9
Iceland	16	4,376	7	50,854	20	8.6
United Kingdom	17	4,192	17	43,022	13	9.7
Finland	18	4,033	16	43,162	15	9.3
New Zealand	19	3,590	20	38,990	16	9.2
Italy	20	3,391	22	37,937	19	8.9
Spain	21	3,248	23	36,162	17	9.0
<b>R.O.C. (Taiwan)</b>	<b>22</b>	<b>2,897</b>	<b>13</b>	<b>48,535</b>	<b>33</b>	<b>6.0</b>
Slovenia	23	2,835	26	33,113	21	8.6
Israel	24	2,822	21	38,041	27	7.4
Portugal	25	2,734	28	30,563	18	8.9
Repulic of Korea	26	2,729	24	35,557	25	7.7
Czech Republic	27	2,544	25	35,047	28	7.3
Greece	28	2,223	32	26,793	23	8.3
Slovakia	29	2,150	27	31,228	29	6.9
Hungary	30	2,101	31	27,552	26	7.6
Estonia	31	1,989	29	29,763	30	6.7
Chile	32	1,977	35	23,397	22	8.5
Poland	33	1,798	30	27,901	31	6.4
Latvia	34	1,466	33	25,654	35	5.7
Turkey	35	1,088	34	25,117	36	4.3
Mexico	36	1,080	36	18,628	34	5.8



# 03

## An Environment Conductive to Health

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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). As outlined in the UN "Health in All Policies" initiative, health-promoting policies are systematically

incorporated into cross-departmental decisions in order to effect synergies. Policy makers hope to improve health by considering all aspects of decision-making.



The UN's objective of sustainable development has become a common direction of administration in all countries. In coordination with the National Council for Sustainable Development, our ministry formulated sustainable development goals for Taiwan and established an environment conducive to health in pursue of a healthy sustainable society. Furthermore, in accordance with the 2012 World Health Assembly (WHA) "25 by 25" objective [to

reduce preventable deaths due to noncommunicable diseases (cardiovascular diseases, cancer, diabetes, and chronic respiratory disease) by 25% by 2025], the MOHW incorporated the 9 global targets and 25 indicators contained in the objective into its policies. Taking a whole-of-government, a whole-of-society and a life course approach, policies are formulated to improve health at the individual, societal, national, and global levels.

## Chapter 1 Healthy Childbirth and Growth

In order to promote health among pediatric populations, the MOHW actively promote health among pregnant women, children, and adolescents.

### Section 1 Maternal Health

#### 1. Prenatal Care

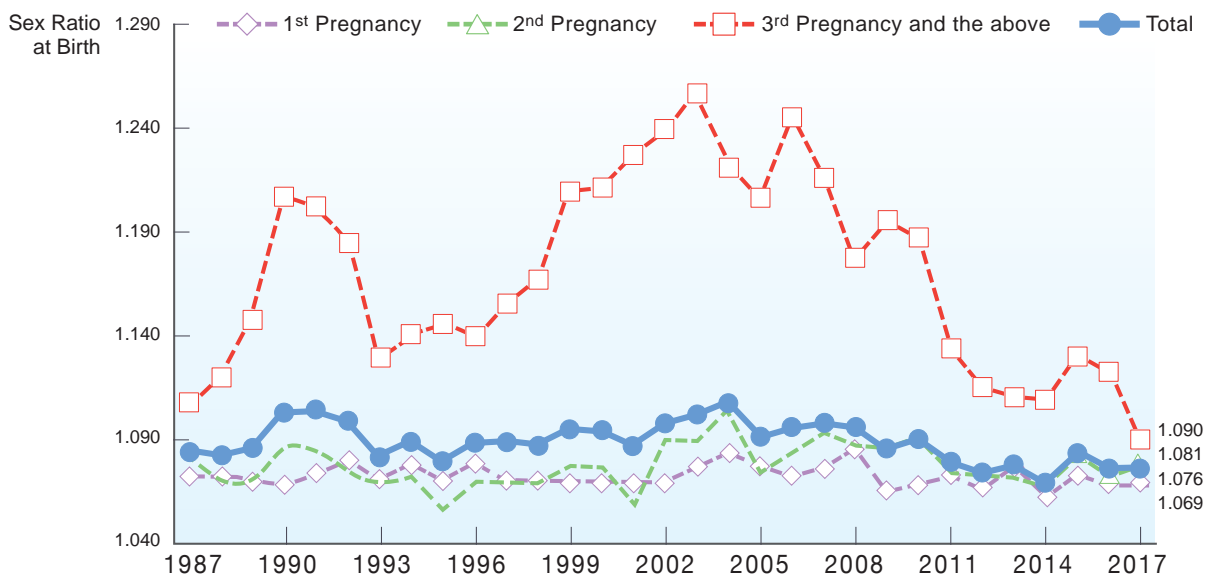
- (1) The average utilization rate of the 10 prenatal examinations and one ultrasound examination offered to pregnant women was estimated to be 94.7% in 2017, there were 1,740,612 prenatal checks performed, and expectant parents qualified for two prenatal health education guidance.
  - (2) Subsidized Group B Streptococcus Screenings. In 2017, there were 169,649 GBS screenings, with a coverage rate of 87.5% and a positive rate of 21.2%.
  - (3) Subsidized prenatal genetic testing is offered to those at high risk of passing on a genetic disease. In 2017, 1,379 abnormalities were detected in 46,413 cases. All were offered follow-up consultations.
2. A free hotline (0800-870-870), an app, and a website (<http://mammy.hpa.gov.tw>) were established to provide obstetric care information to expectant mothers. In 2017, there were 19,220 calls to the hotline, 2,168,961 visits to the website, and the app had 41,261 downloads.
  3. In accordance with the "Public Breastfeeding

Act," by the end of 2017 a total of 2,223 public breastfeeding rooms had been established, and another 1,187 breastfeeding rooms had been established.

4. In line with WHO policy on breastfeeding, the MOHW has promoted Baby-Friendly Medical Institution accreditation. In 2017, there were 180 hospitals accredited, with total coverage reaching 78.1% of all births in Taiwan. The exclusive breastfeeding rate under 6 months of age was 44.8%, beating the world average of 38% and bringing Taiwan closer to the WHO global target of 50% by 2025.
5. Sex Ratio at Birth (SRB): The sex ratio naturally ranges between 1.04 and 1.06. However, preference for boys over girls has been historically common in Asian societies. The government implemented care-related regulations to protect fetuses' right to life, eliminate gender discrimination and prevent social issues caused by male-female imbalance. A task force was established to reduce the rate of inappropriate abortions. The task force worked with local health departments, checked local SRB data, and provided guidance to institutions offering birth and prenatal checkup services. It continues to conduct promotion works and propose initiatives. As a result of the aforementioned efforts, the sex ratio in Taiwan decreased from 1.090 in 2010 to 1.076 in 2017 (Figure 3-2). According to Taiwan's sustainable development goals, the expected sex ratio at birth in Taiwan in 2020 will be 1.068.

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

Source: Health Promotion Administration







## Chapter 2 Unhealthy Habits

Major unhealthy habits include smoking/chewing betel nuts, poor diet, sedentary life styles, and external factors such as accidents. Tobaccos and betel nut are both group 1 carcinogens. They along with accidents are among the 10 leading causes of death. Taiwan thus must continue to work toward rejecting tobaccos and betel nuts 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 2017 were as follows:

1. The MOHW launched a model to promote healthy food and beverages to catering industries and restaurants around campus. It guided caterers (breakfast joints, convenience stores, beverage shops, and fast-food restaurants) to develop healthy breakfast combo, low-sugar/sugar-free beverages, and other healthy food products. The

objective aimed to promote a supply system for healthy food and maintain students' healthy diet.

2. The MOHW has promoted "The Population Nutrition Act" legislation to enhance people's nutrition and nutrition literacy and build a healthy eating supportive environment.

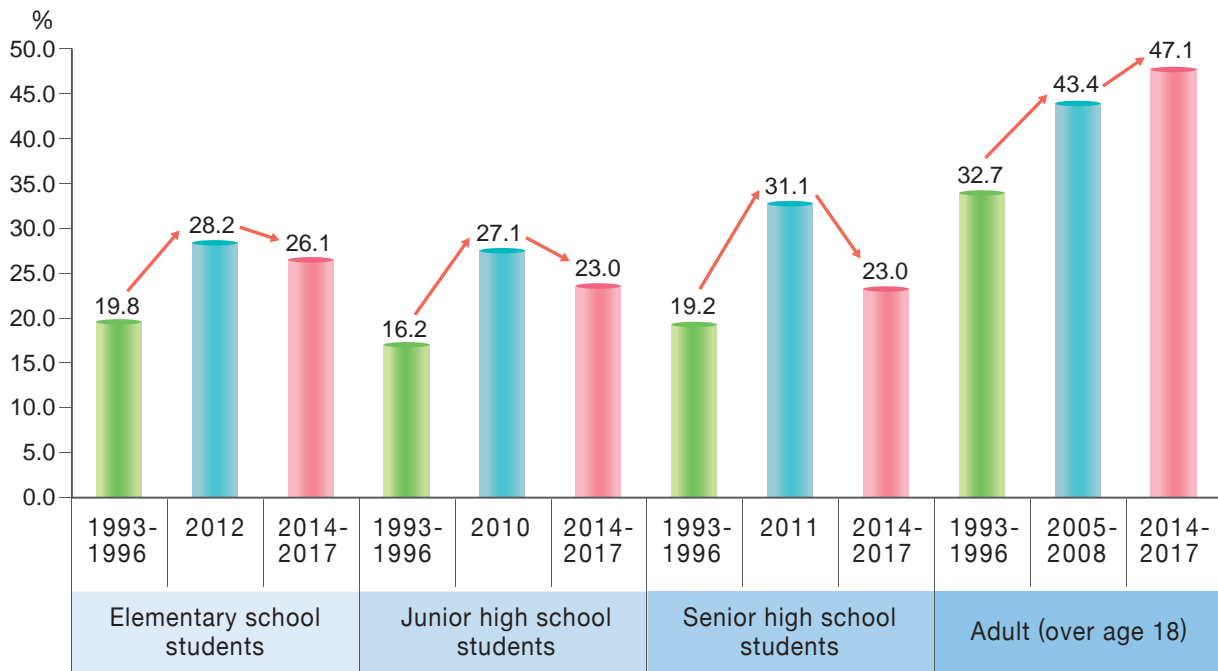
3. The Nutrition and Health Survey in Taiwan (NAHSIT) included the following data on the prevalence of overweight and obesity (Figure 3-4):

- (1) The rate of overweight/obese elementary school students decreased from 28.2% in 2012 to 26.1% in 2014-2017; the rate among junior high school students decreased from 27.1% in 2010 to 23.0% in 2014-2017; and the rate among senior high school students decreased from 31.1% in 2011 to 23.0% in 2014-2017. These figures showed a general decrease in the overweight/obese prevalence among children.

- (2) The rate of overweight/obese adults increased from 32.7% between 1993-1996 to 43.4% between 2005-2008 (a rise of 32.7%). On the other hand, the report of 2014-2017 was 47.1%, indicating the rise in overweight/obesity rate had slowed significantly.

**Figure 3-4 Overweight and Obese Rate in Taiwan**

Source: 1993-1996 and 2014-2017 Nutrition and Health Survey in Taiwan



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  $\geq 24$  kg/m<sup>2</sup> were designated as overweight or obese.

## Section 2 Tobaccos and Betel Quid

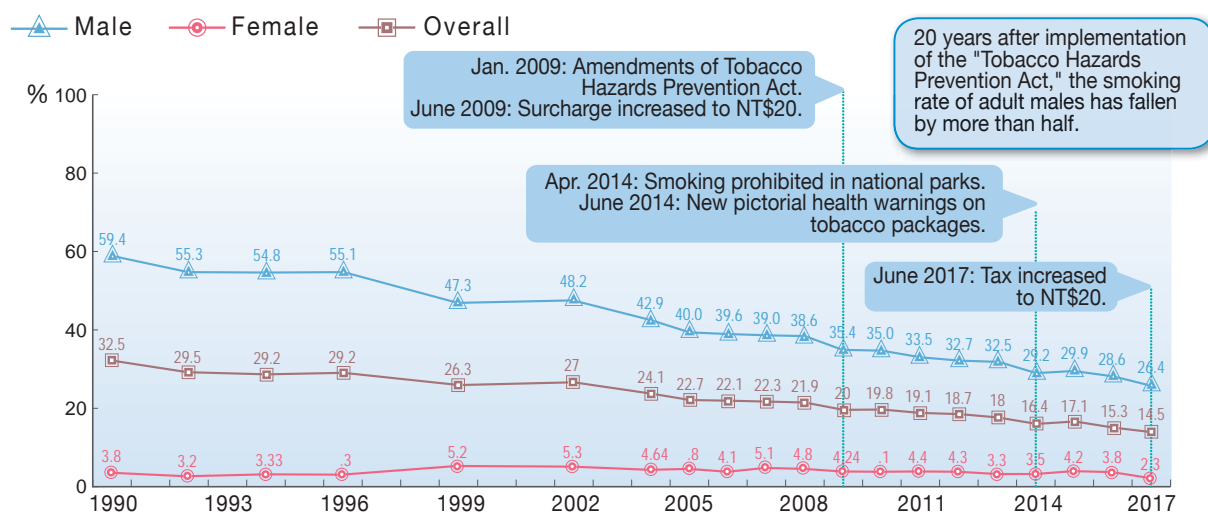
### 1. Tobacco Control

A steep decline in tobacco use followed the launch of the "Tobacco Hazards Prevention Act" in 1997. The adult smoking rate fell from 29.2% in 1996 to 14.5% in 2017 (Figure 3-5). Smoking rate of junior high school students fell from 6.6% in 2004 to 2.7% in 2017, a decline of 59.1%; smoking rate of high

school and vocational school students fell from 15.2% in 2005 to 8.3% in 2017, a decline of 45.4% (Figure 3-6). Taiwan is gradually moving toward the WHO's noncommunicable disease target for 2025 to achieve a 30% reduction in the prevalence of tobacco use. Moreover, the secondhand smoke exposure rate in public places where prohibit smoking fell from 23.7% in 2008 to 6.4% in 2017.

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

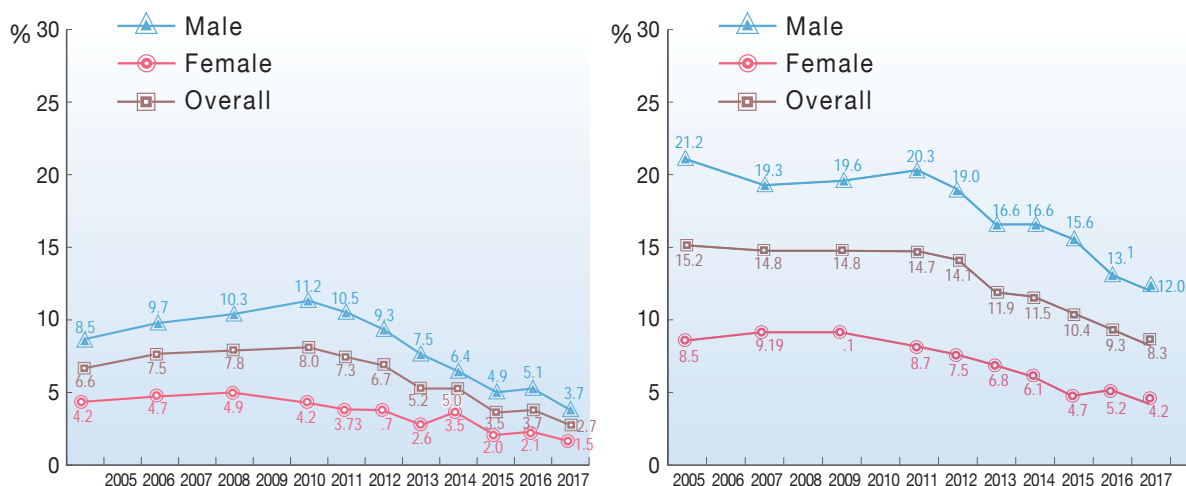
Source: Health Promotion Administration, Ministry of Health and Welfare, R.O.C. (Taiwan)



- Notes: 1. From 1999 to 2017, 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 2017 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.  
 3. Data from 1990 to 1996 were derived from household interviews conducted by the Taiwan Tobacco & Liquor Corporation. Data for 1999 carried out by Professor Lee-Lan Yen. 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". Data from 2004 to 2017 was based upon smoking-related information of the general public collected via telephone interviews conducted by the HPA for the "Adult Smoking Behavior Survey".

**Figure 3-6 Taiwan Adolescent Smoking Rates, by Year**

Source: HPA's 2004-2017 Global Youth Tobacco Survey



- Notes: An adolescent smoker was defined as someone who had attempted to smoke in the last 30 days, and any amount of smoking is counted.

Taiwan implemented the Framework Convention on Tobacco Control and the MPOWER measures: Monitor; Protect; Offer; Warning; Enforce; Raise. Taiwan's achievements are as follows:

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

A. To bring Taiwan's tobacco control policies in accordance with international trends, the MOHW proposed a revised draft of the "Tobacco Hazards Prevention Act." Revisions included enhanced management of e-cigarettes, ban on flavored tobacco, enlargement of warning images, expanded ban on indoor smoking in public places, increased penalties for recidivists, a ban on tobacco sponsorship, revision of regulations and treatment subsidies, and a ban on the use of cigarette-imitating items in commercials. The act was examined and approved by the Executive Yuan during the 3581st meeting on December 21, 2017, and directed to the Legislative Yuan for discussion. The Legislative Yuan completed the first reading of the "Tobacco Hazards Prevention Act" on December 29, 2017, and directed it to the Social Welfare and Environmental Hygiene Committee for further inspection.

B. Since 2012, the MOHW has promoted smoke-free sidewalks around campus. By December 2017, local communities announced that smoking was prohibited on sidewalks, near campus entrances and parent pick-up/drop-off zones at approximately 2,581 senior high and lower level schools across 22 cities and counties. The rules covered 69.1% of campuses at the high school and vocational school levels and below.

C. In 2017, local health departments conducted more than 5.27 million inspections of over 760,000 businesses, and recorded 7,232 violations totaling fines of NT\$68.09 million.

(2) Comprehensive Smoking Cessation Programs

A. Taiwan offers "Comprehensive Smoking Cessation Programs." They include second-generation cessation services, a smoking cessation helpline, "Quit and Win" campaign, cessation classes offered by local health departments, and pharmacist consultations. In 2017, smokers used these services 982,186 times. Second generation smoking cessation services were utilized 733,109 times, which helped over 54,000 smokers to quit. In the short-term, the reduction in the number of smokers would likely lower health expenditures by more than NT\$300 million.

Long-term economic benefits could surpass NT\$22.9 billion.

B. In 2017, there were 65,443 calls made to the free smoking cessation helpline (0800-636363).

(3) Effectiveness of smoking prevention in adolescents

A. The MOHW cooperates with local governments to regulate tobacco sellers. In 2017, over 450,000 inspections uncovered 425 cases of tobacco being sold to minors, leading to total fines exceeding NT\$3.68 million. Another 470,000 inspections uncovered 2,166 cases of minors smoking, with smoking cessation classes completed in 1,892 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 department and the effectiveness assessment of the Youth protection Projects since 2014.

According to 2017 inspection results, 31.8% of tobacco sellers didn't refuse to sell tobacco to minors. Among these targeted shops, the violation rate of convenience store is 11.8%; the violation rates in betel nut stands and traditional grocery stores are 46.2% and 31%, respectively, marking a significant improvement from 2016 violation rate of 46%.

C. An interactive experience technology was created for the purpose of tobacco education in Taiwan. The technology appeals to students and other people by educating them about third-hand smoke, e-cigarettes, and tobacco cessation via an interactive game.

2. Betel Quid Hazards Prevention Program

(1) The MOHW worked with various agencies, and NGOs to build betel quid-free environments. In 2017, cessation services were provided to more than 6,000 people, helping approximately 2,000 of them quit.

(2) Oral cancer screenings are offered to betel quid chewers and smokers aged 30 and older, and to indigenous people aged 18 and older who chew betel quid. The percentage of males who were aware of betel quid that causes cancer rose from 39.9% in 2007 to 51.2% in 2017. Over the same time period, the percentage of betel quid users among males over the age of 18 fell by more than half, from 17.2% to 6.1%.

(3) In order to determine whether the total area used for growing betel quid continues to

decline as desired, the MOHW monitored the conversion of abandoned betel quid farms into other crops. In 2014-2016, subsidies were provided to assist converting 116 hectares of land. In 2017, guidance measures and inclusion of betel quid farms were adjusted; 604 hectares of land were converted.

### Section 3 Healthy Environments

In accordance with the WHO's 1997 Jakarta Declaration, our ministry 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) Healthy Cities and Communities

In 2017, community health building plans were implemented by organizations in 19 counties and cities and 99 communities (82 public health center and 17 community units). Established 99 Cross-Department promoting platforms. Inventory and utilization were conducted using community assets as the basis. "Age-Friendly Communities" were built in accordance with eight aspects of the WHO's guide "Age-Friendly Cities."

##### (2) Health-Promoting Schools

- A. Since 2002, the MOHW and Ministry of Education have jointly promoted health in schools. In 2017, there were 4,029 schools at the university and college level or below fully implementing health-promoting school concepts.
- B. At the 15<sup>th</sup> World Congress on Public Health in 2017, teachers' and students' healthy behaviors in Taiwan's schools of different levels were compared and discussed and Taiwan's promotion results were shared.

##### (3) Workplace Health Promotion

Since 2007, the MOHW has offered "healthy workplace certification", with 18,274 workplaces qualified by the end of 2017. In 2017, there were 28 workplaces awarded for excellence in health promotion and two individuals gained recognition for outstanding contributions.

#### 2. Healthy Hospitals

- (1) In 2017, the Health-Promoting Hospitals, promoted since 2006, integrated age-friendly and smoke-free environments, as well the idea of low carbon hospitals. "Healthy Hospital Certification" was established and 91 hospitals have been certified. The International

Conference on Health Promotion and Healthcare Institutions was held. Healthy hospitals were recognized with Exemplary Award, Excellence Award, and Restructuring Award; 42 awards were given for creative programs.

- (2) Subsidies were provided to 21 local health departments and 106 healthcare institutions to implement the "Plan to Encourage Healthcare Institution Participation in Health-Promotion Work."

##### (3) Promotion of Low Carbon Hospitals

By the end of 2017, 174 hospitals in Taiwan were promoting energy-saving initiatives. The MOHW held three environmental awareness workshops, provided on-site guidance to 15 hospitals, and offered professional consultations.

#### 3. Advocating Physical Activity

A key element of regular exercise, walking, was named by the WHO as the easiest form of exercise to put into practice and as the physical activity it most recommends. Since 2002, our ministry has promoted the "10,000 Steps a Day, Health is Here to Stay" campaign. Key achievements in 2017 were as follows:

- (1) The MOHW and Ministry of Education jointly held the 2017 National Sports Conference. It was agreed that the Sports Administration (SA) and HPA would jointly build an environment for senior citizens sports and active communities and protect sports and health rights of Taiwan's citizens. A policy plan was released, involving 300 individuals and associations from industry, government, and academia.
- (2) Sports and Health Teachers Training was arranged for medical and sports experts. In total, 1,598 sports and health instructors completed the training and participated in the organization of the Sports and Health Group course aimed at health promotion among elderlies in communities. 229 course sessions were conducted in 15 counties and cities. The service was provided to 4,716 people, among whom 89.4% were adults aged 65 years or older. Two course sessions were selected in northern, central, southern, and eastern Taiwan for guidance and evaluation. All participants demonstrated a significant progress in multiple functional fitness examination items.

- (3) Preparation of the National Physical Activity Index, leaflets, and tool kits was completed, providing physical activity recommendations based on empirical evidence.
  - (4) According to a survey by the SA, Ministry of Education, the percentage of persons 13 years old and above who engaged in regular exercise rose from 20.2% in 2007 to 33.2% in 2017.
4. Prevention of Accidents and Injuries
- (1) In order to build safe home environments for youngsters, 20,552 homes were inspected in 2017.
  - (2) The Children's Health Handbook provides the "Table for Assessing Children's Accidents and Injuries" and "Steps for Preventing Children's Accidents and Injuries."
  - (3) The Tips for Elderly Falls Prevention handbook was published. Exercises to reinforce balance and strength to prevent falls were promoted at locations where senior citizens often appear.

### 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 age-friendly cities, health awareness among elderly persons, and the prevention of major chronic diseases and cancer.

#### Section 1 Health Promotion for Middle-Aged and Older People

1. To diagnose and treat diseases early, free preventive health screenings for adults are offered once every three years for people aged 40–64, and annually for people aged 65 and above. The screenings are available at 6,652 health institutions and via community screening services. In 2017, 1.88 million people received the services for a screening rate of 93%.
2. Local health departments and health institutions hold health promotion activities for seniors at community care access points. These activities contain eight aspects: healthy eating, regular exercise, fall prevention, health examinations, oral health, tobacco hazards prevention, chronic disease education, and mental health promotion. In 2017, 849 courses were arranged in 2,519 community care access points; 22,326 seniors participated in the activities.
3. The MOHW sponsored team competitions to raise health awareness among seniors. In 2017, 35,000

people participated in the competitions within senior teams (representing villages and towns). Local health departments appointed 61 county and city-level teams. The average age of the participants was 72 years, with their total age reaching 170,000 years. Over 500,000 seniors participated in the competitions over the period of seven years.

4. In 2013, all 22 cities and counties became age-friendly cities. Consequently, Taiwan achieved the highest coverage rate of age-friendly cities in the world. Drawing on this foundation, there were 410 entries to the 2017 Healthy City and Age-Friendly City Awards; 96 of the entries won awards.
5. In 2014, the MOHW launched the Project for Universal Age-Friendly Healthcare Organizations. By the end of 2017, there were 469 healthcare institutions certified as age friendly (including 182 hospitals, 216 health centers, one health clinic and 70 long-term care facilities).

#### Section 2 Control of Major Chronic Diseases

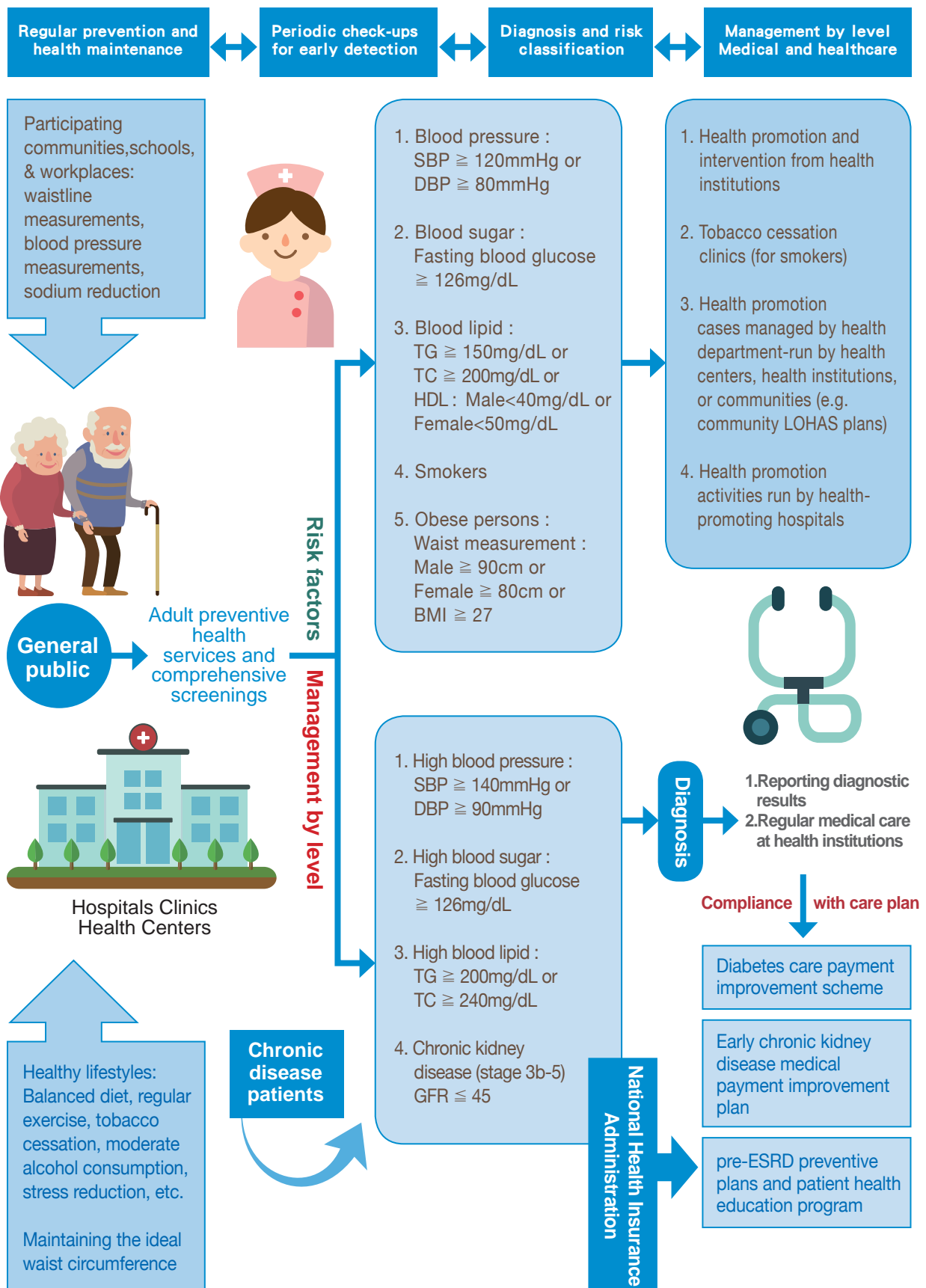
##### 1. Control of Major Chronic Diseases

- (1) Due to education for the general public on controlling metabolic syndrome, the rate of public recognition of ideal waist measurement rose from 28.7% in 2006 to 53.5% in 2017. Campaigns were held to increase the awareness of and to prevent the "Three Highs" (high blood pressure, high blood sugar, high blood fat/lipids) and other chronic disease prevention information. Also, the establishment of a chronic disease control framework (Figure 3-7) inspired cities and counties to work with local health institutions to provide integrated screenings.
- (2) The MOHW promoted a diabetes shared care network comprising 242 diabetes health promotion institutions. It also established 540 diabetes support groups.
- (3) Kidney disease prevention and education was promoted. 178 kidney disease health promotion institutions were established to provide better disease control through case management.
- (4) At the end of 2017, 2,880 blood pressure monitoring stations are available at various public locations.

##### 2. Menopause Health

In 2017, women made 7,991 calls to a toll-free menopause hotline. 66 activities were arranged, including menopause camps, lectures/consultations, and educational training. 4,030 participants attended these events.

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



### Section 3 Cancer Prevention

The MOHW has been implementing the 3rd Phase National Cancer Prevention and Control Program. The program features three key points: lowering cancer risk, performing cancer screenings, and implementing the Cancer Navigation Plan.

#### 1. Reducing Cancer Risk

Four major risk factors are associated with cancer: smoking, insufficient physical activity, bad 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 cavity, colon, and breast. In 2017, 5.076 million screenings detected precancerous lesions in close to 50,000 patients and malignant

tumors in over 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 2017, there were 217 health institutions that implemented the Plan to Enhance the Quality of Cancer Screenings, Diagnosis, and Treatment in Hospitals. A notification system in clinics alerted patients to the screenings and there was a single referral pathway for positive results.
- (3) In order to ensure the quality of cancer screenings, officials conduct periodic reviews of health institutions that offer such screenings. In 2017, accreditations were given to 120 institutions that conduct cervical cancer screenings, 204 that conduct mammograms, and 147 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.

**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, 2017**

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

Cancer Type	Screening Volume (Thousands)	Screening Rate (%)	Precancerous Lesions	Cancer Cases	Follow-up Rate for Positive Screenings
Cervical Cancer	2,167	72.5	9,655	3,951	93.6
Breast Cancer	847	39.9	-	4,535	91.9
Colon Cancer	1,284	41.0	35,075	2,596	74.9
Oral Cavity Cancer	784	50.1	3,435	1,231	84.3
<b>Total</b>	<b>5,076</b>	<b>-</b>	<b>48,165</b>	<b>12,313</b>	<b>86.2*</b>

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 (telephone survey).
- 2. Breast cancer: the rate of women aged 45-69 who have received a screening for breast cancer within the past two years.
- 3. Colon cancer: the rate of people aged 50-69 who have received a screening for colon cancer within the past two years.
- 4. Oral cavity cancer: the rate of betel nut chewers (including those who quit) or smokers aged 30 and older who have received a screening for oral cavity cancer within the past two years.
- 5. Precancerous lesions: A type of benign (non-malignant) morphological changes in the tissue, which are, however, characterized by a high risk of malignant transformation.
- 6. Follow-up rate for positive screenings: (the number of cases screened as positive that completed a follow-up)÷ (the number of cases screened as positive).
- 7. \* Mean value of the follow-up rates for positive screenings for the four major types of cancer: (total follow-up rate for positive screenings for the four major types of cancer ÷ 4) × 100%.



**Table 3-2 Cancer Detection Rates for the Four Major Types of Cancer, 2017**

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

Cancer Type	Cancer detection rate (Estimates based on 100% follow-up of positive cases)		
	Precancerous Lesions	Cancer	Total
<b>Cervical Cancer</b>	1/98	1/344	1/76
<b>Breast Cancer</b>	-	1/177	1/177
<b>Colon Cancer</b>	1/24	1/336	1/23
<b>Oral Cavity Cancer</b>	1/185	1/515	1/135

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	Colon Cancer	Oral Cavity Cancer (including oropharynx and hypopharynx)
<b>Stage 0</b>	97.6	96.9	87.2	76.6
<b>Stage 1</b>	96.3	88.6	82.3	80.3
<b>Stage 2</b>	90.0	69.9	69.7	70.5
<b>Stage 3</b>	74.7	55.6	59.9	56.0
<b>Stage 4</b>	29.1	21.9	11.6	34.7

Notes: Analyzed hospital-reported data on the five-year survival rate for four major types of cancer by stage, from 2011 to 2015 (patient tracking through 2016)

### 3. Improving the Quality of Cancer Care

- (1) Accreditation for cancer hospitals began in 2008. By the end of 2017, 59 hospitals had been certified; over 80% of all cancer patients in Taiwan were covered by the service.
- (2) The MOHW subsidized the establishment of cancer resource centers by private organizations and hospitals to provide comprehensive support and care for cancer patients and their families.

- (3) The MOHW commissioned 92 hospitals nationwide to conduct a cancer patient navigation program. Case managers specializing in tumor cases actively contact patients to encourage them to receive treatment within three months. More than 90,000 new cancer patients participate in the program each year, and 90% of participants receive their first course of treatment within three months.

## Chapter 4 Health Communication, Information, and Surveillance

### Section 1 Health Communication

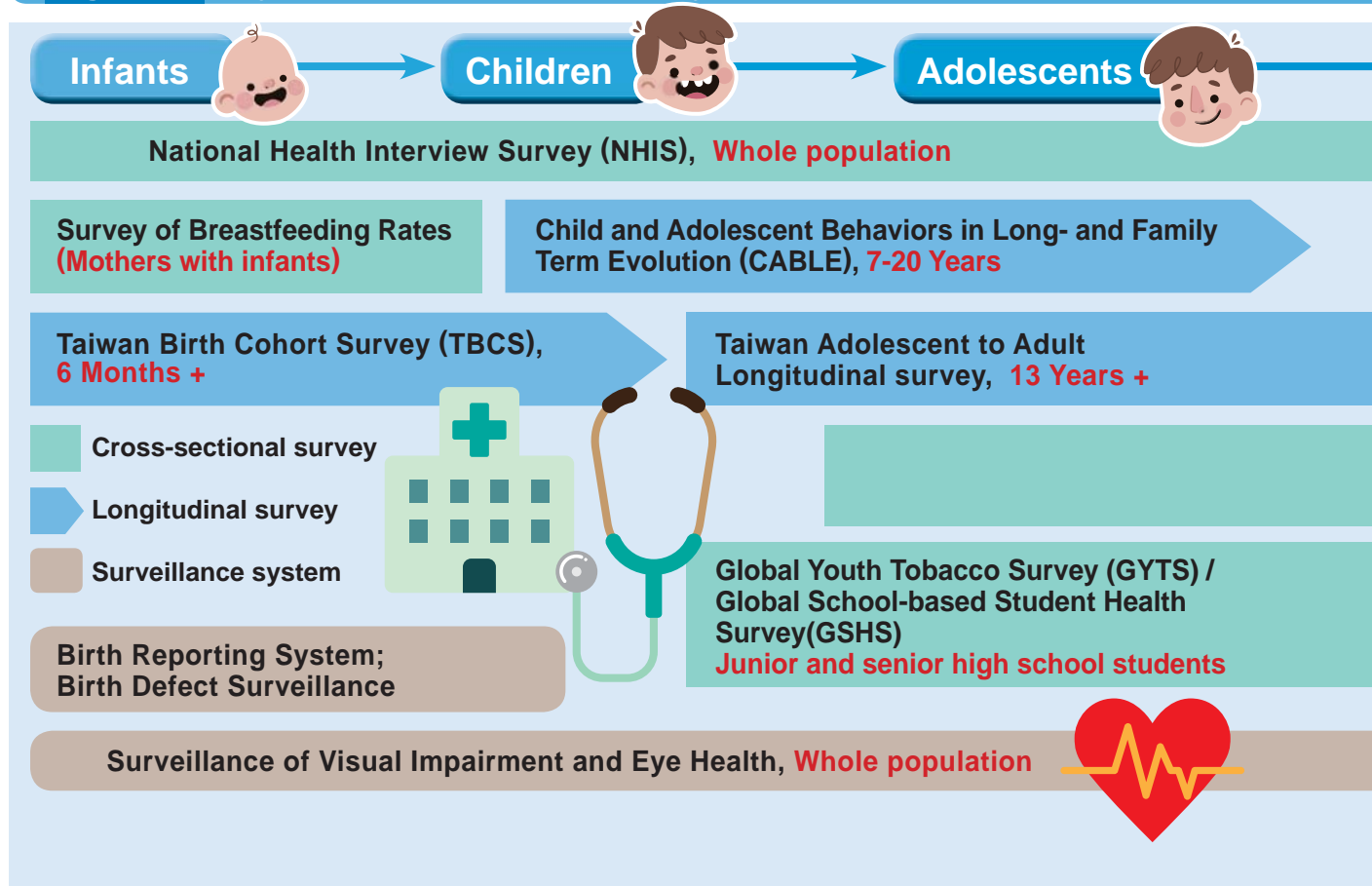
The media, professional associations and civic organizations are utilized to transmit accurate health information. It also involves the provision of websites and reference materials focused on specific health-related matters for the use of all citizens. Furthermore, the effective integration of cloud-based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

#### 1. Health Communication

- (1) Setting Health Education Goals: health education policy in 2017 focused on the coordinated implementation of several key areas to improve citizens' health self-management: "Embracing Your Happy Event via the i-Baby Information Service Website," "Awareness about e-Cigarette Prevention," "Prevention of Infectious Diseases," "Food Literacy," and "Cherishing Medical Resources and Medical Insurance Services."

- (2) To promote development and quality of health education materials, "Health Literacy and Communication Index" were established and developed with reference to domestic and international evaluation criteria applied to educational materials and included 21 indicators in 6 aspects.
- (3) "Saving Lives and Exploring Happiness – Create Your Health" activity was held in September 2017 to select materials for dissemination of health information. 588 entries were received, among which 271 complied with the "Health Literacy and Communication Index" and had been uploaded to the Health 99 Education Resource website.
- (4) The Health 99 website is visited 370,000 times on average each month. In total, 4,689 materials have been uploaded to the website, including leaflets, manuals, posters, and multimedia.
- (5) We use social media such as Facebook and LINE@ to disseminate accurate health information, and take the initiative to promote health information and issues.

**Figure 3-8 Major Health Surveillance and Surveys**



2. The MOHW invited 166 staffs to participate in two health education workshops centering on "Sponsorship Experience Sharing & Work Review" and "Professional Advancement" in 2017.

3. 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 self-management in Taiwan:

- (1) NCI IC card authentication and organization registration functions were added on the "Wellness" platform website. The mobile app was provided with two applications related to the prevention of chronic diseases, including "Foot Photo Capture" and "Water Intake Record," as well as with a "Friends" function aimed at improving user interaction.
- (2) Field testing: The MOHW established one biodata measurement site for field testing, and successfully uploaded the obtained data to cloud-based platforms. Users of the field testing service showed a 95% satisfaction rate.
- (3) In 2017, the "Wellness Cloud 2.0" platform was

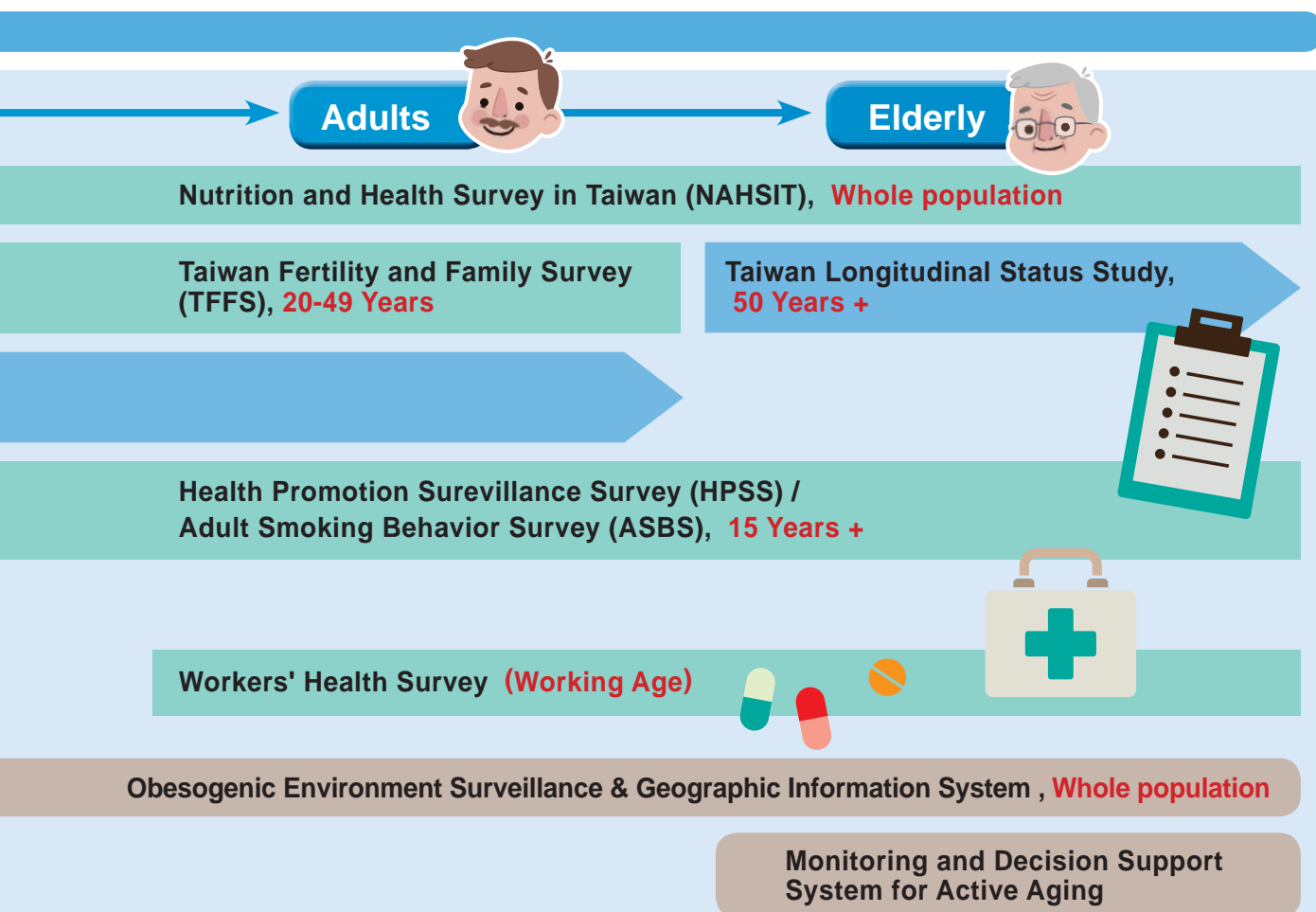
used 2.66 million times. Over 23,000 people became its registered members. The mobile app was downloaded over 10,000 times and its rating reached 4.7 points.

- (4) The MOHW has continued to implement the government's data transparency policy; by the end of 2017, 221 sets of data became accessible.

**Section 2 Health Surveillance**

The MOHW conducts health surveillance and surveys to collect data that can be used to formulate policies:

- 1. The MOHW has established the noncommunicable disease surveillance system and continuously conducts health surveillance and surveys on the whole population and people of different age groups (Figure 3-8).
- 2. The MOHW makes efforts to improve framework and capacity of reporting, registration and monitoring system, and provides convenient and user-friendly online query for health indicators from the surveillance and survey data.



# 04



## Health Care

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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 2017 are shown below:

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

**Table 4-1 Status of Medical Institutions, 2017**

Source: Department of Statistics, Ministry of Health and Welfare

Type of Medical Institution		No. of Institutions
Medical Care Institutions	Hospital	483
	Clinics	22,129
Pharmacies		7,950
Nursing Institutions	General Nursing Homes	532
	Psychiatric Nursing Homes	42
	Home Care Practices	567
	Post-Natal Nursing Institutions	243
Blood Donation Institutions	Blood Donation Centers	5
	Blood Donation Stations	13
Pathology Institutions		11
Other Medical Institutions	Midwifery Practices	23
	Medical Laboratories	389
	Medical Radiological Institutions	54
	Physical Therapy Practices	148
	Occupational Therapy Practices	28
	Denture Clinics	48
	Mental Counseling Clinics	70
	Psychotherapy Clinics	43
	Speech Therapy Centers	28
	Dental Technology Centers	876
	Hearing Centers	20
	Home Respiratory Care Practices	1
	Optometry Practices	10
Nutrition Advisory Organizations	27	

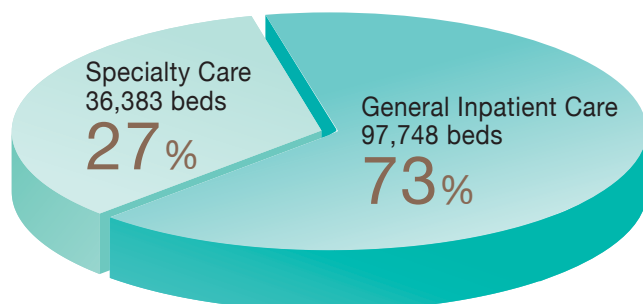
## 2. Current Status of Hospital Beds

There were 133,335 beds in medical care institutions (including general beds, special beds, and beds in clinics), with general beds for acute care, general beds for chronic care, beds for

psychiatric acute care, and beds for psychiatric chronic care included among general beds in hospitals. There were an average of 56.8 beds for every 10,000 people in Taiwan (Figure 4-1).

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

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



Acute Inpatient Care	73,191 beds
Long-Term Care	3,327 beds
Psychiatric Care	7,399 beds
Chronic Psychiatric Care	13,661 beds
Tuberculosis Care	2 beds
Hansen's Disease Care	168 beds

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, intensive care beds for psychiatric patients, isolation beds, positive pressure isolation room negative pressure isolation room, beds for bone marrow transplant patients, integrated post-acute care hospital beds, surgery recovery beds, infant beds, hemodialysis beds, peritoneal dialysis beds, etc.

## Section 2 Emergency Health Care and Rescue

The MOHW continued to reinforce development of the emergency health care and rescue network while extending integrated response mechanisms.

1. Table 4-2 depicts the number of hospitals designated to provide emergency care at the end of 2017. Taiwan currently has 43 medical sub-regions; each of which has at least one hospital designated for moderate grade emergencies or above.

**Table 4-2 Number of Hospitals Designated for Emergency Treatment in 2017, by Grade**

Source: Ministry of Health and Welfare

Emergency Treatment Grade	Grade	Severe	Moderate	Total
No. of Institutions	39	81	79	199

2. The 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 2017, special incentives were offered in 17 locations to effect these objectives.

3. Incentives remain in place to encourage academic medical centers and hospitals designated for severe grade emergencies 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 108 acute and critical care doctors to assist in 25 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 2017, there were approximately 8,691 automated external defibrillators (AEDs) in Taiwan, equivalent to 36.98 AEDs for every 100,000 people. 4,788 locations are designated as "safe locations" (meaning that location has an AED, and that at least 70% of employees there have completed CPR and AED training).

5. In 2017, the MOHW continued to raise the quality of emergency pediatric care. Under the plan, remote hospitals designated for moderate 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 2017, 15 hospitals in 15 cities/counties were participating.

### Section 3 Hospice and Palliative Care

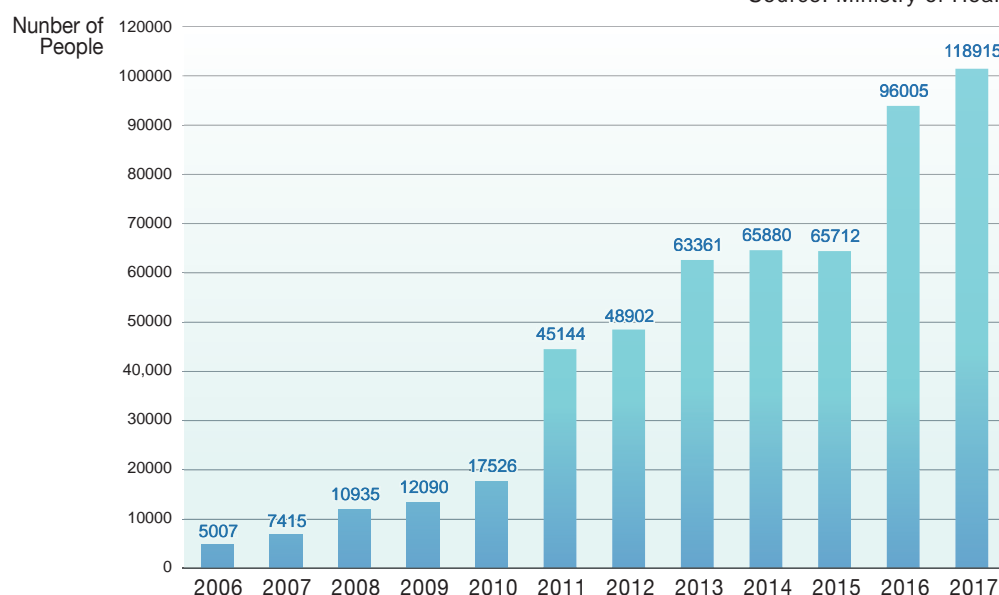
1. Implementation of the Hospice Palliative Care Act on June 7, 2000 paved the way for doctors (patients' informed consent) to focus on eliminating suffering, and offering support to terminally ill patients, in lieu of curative- and rescue-oriented care.
2. Beginning in 2006, a special project has been urging medical care institutions and the general public to participate in hospice and palliative care, while encouraging NHlenrolled persons to record consent on their NHI IC cards. As of the end of 2017, a total of 556,892 people, accounting for 2.36% 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).

3. As of 2017, 66 Taiwanese hospitals provided hospice services to inpatients, 149 hospitals participated in a collaborative hospice care provision program, 105 institutions provided home hospice care, and 247 facilities were involved in community-based hospice care services. Medical teams provide an interconnected network of hospice and palliative care services for inpatient care, outpatient care and home care.

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

Source: Ministry of Health and Welfare



### 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 2017, 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. 30,458 patients received services under this Plan in 2017.
- (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 2017, topical fluoride treatment was provided to 1.07 million people, with 74.8% of children aged 3-6 receiving this service at least once that year.
- (2) Starting from September 2014, the MOHW has been providing dental fillings of permanent molars for all first-grade and second-grade elementary school students. In 2017, 390,000 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 2017, a coverage rate of around 90% of 1.17 million children obtained this service.

## Chapter 2 Mental Health and Psychiatric Care

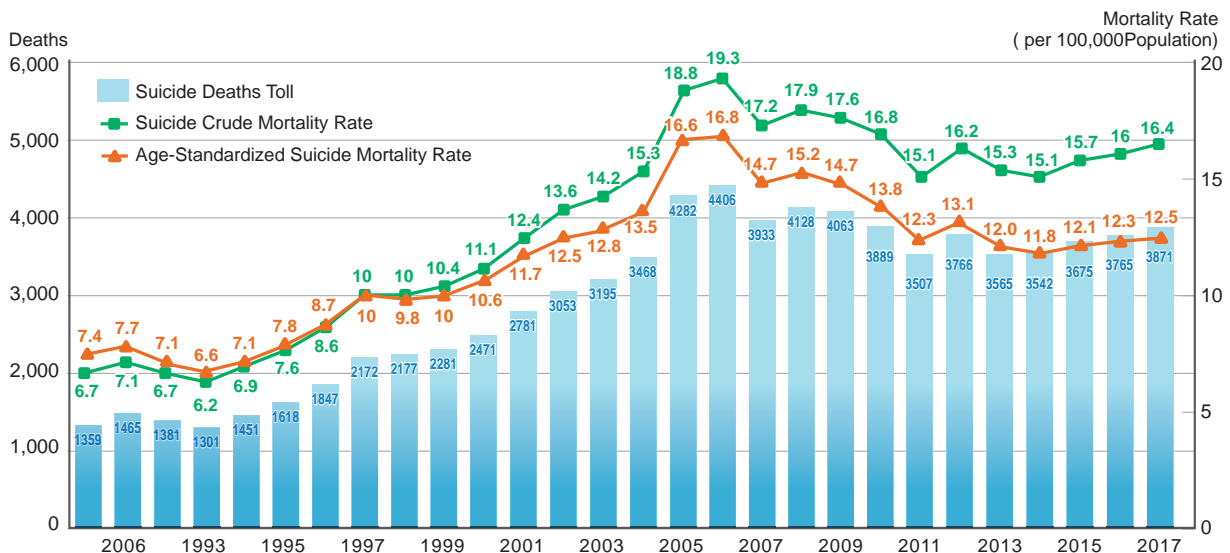
### Section 1 Mental Health Promotion

1. The MOHW has been promoting mental health education resources for pregnant women. In 2017, 303 guidance activities were held to promote mental health of women (including pregnant women).
2. To enhance the wellbeing and mental health for the public, the MOHW commissioned 22 county/city governments, department of health, to effect the "Mental Health Network Promotion Project" in 2017. 427 lectures on mental health in the workplace involving 23,890 participants were organized. Toll-free or subsidized psychological counseling services were provided to 28,265 people. For World Mental Health Day, the local governments arranged 27 press conferences and 204 activities in October 2017 involving 38,990 spectators.
3. The MOHW has set up a toll-free, 24-hour suicide prevention hotline (0800-788995). In 2017 it provided expert counseling to 76,511 people, assisted 11,590 potential suicide victims, and directly prevented 427 suicide attempts.

4. The MOHW continued to implement reporting of all suicide-related cases, arranged outreach visits, helped people with risk of suicide. In 2017, Taiwan had 30,619 reported suicide attempts, and authorities made 202,890 outreach visits.
5. In 2017, there were 3,871 suicides in Taiwan, representing a standardized suicide rate of 12.5 people per 100,000 people (Figure 4-3). The long-term trend has been falling for the suicide rate, which peaked in 2006. Since then, the standardized suicide rate has fallen by 26%, and for eight years since 2010, suicide has not been one of the top ten leading causes of death in Taiwan. Taiwan nevertheless still has a medium high suicide rates compared to international peers. Henceforth, the MOHW will continue to strengthen the social safety net, to promote outreach visits, to provide suicide prevention gatekeepers, and other prevention strategies.
6. In 2017, the MOHW promoted the "Mental Health Promotion Plan for Aborigines," aiming to improve the cultural sensitivity of mental care experts working in remote villages, compile mental health educational materials suitable for aboriginal culture and provide psychological counseling services in accordance with the needs of aborigines.

**Figure 4-3 Taiwan's Suicide Deaths and Suicide Mortality Rate, 1990-2017**

Source: Ministry of Health and Welfare



### 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, improve service quality for regional mental health and arrange education/training

programs.

2. In 2017, Taiwan had 495 psychiatric care institutions. They possess 21,060 beds including 7,399 beds for emergency psychiatric patients and 13,661 beds for chronic psychiatric patients. These figures equate to approximately 8.93 beds for every 10,000 people. There were also 67 daytime psychiatric rehabilitation



- institutions capable of serving 3,176 persons, 144 psychiatric rehabilitation institutions that offered accommodation (with 6,086 beds), psychiatric day care centers (capable of serving 6,317 persons), and 42 psychiatric nursing homes (with 3,805 beds).
- The MOHW subsidized county and city governments to recruit 96 outreach associates. In 2017, 139,569 outreach visits were made to 729,008 patients.
  - Mandatory hospitalizations and mandatory community care for severe patients are carried

out in accordance with the "Mental Health Act." In 2017, there were 876 applications (including 818 applications for mandatory hospitalization and 58 applications for mandatory community care).

- In 2017, the MOHW carried out evaluation inspections of 32 psychiatric medical care institutions (including psychiatric teaching hospitals), 63 psychiatric rehabilitation institutions, and 17 psychiatric nursing homes. Furthermore, occasional follow-up guidance was conducted for 49 institutions. (Table 4-3)

**Table 4-3** The Number of Psychiatric Care Institutions in Taiwan in 2017, and Evaluation Results

Psychiatric Care Institution Category		No. of Institutions	Total No. of Beds	2017 No. of Evaluated Institutions	Evaluation Results		
					Outstanding	Acceptable	Not acceptable
Psychiatric hospitals	Non-teaching hospitals	35	21,060	25	0	25	0
	Teaching hospitals	11		7	-	7	0
General hospitals with a psychiatric care department		158		-			
Clinics with a psychiatric care department		291		-			
Psychiatric rehabilitation institutions	Daytime only	67	3,176	18	-	17	1
	With residential accommodation	144	6,086	45	-	42	3
Psychiatric nursing homes		42	3,805	17	-	17	0

### Section 3 Control of Drug Addiction

- Subsidized alternative therapy for drug addiction was introduced in 2006. As of the end of 2017, a total of 177 institutions throughout Taiwan were providing alternative therapy, with a cumulative total of 43,796 patients treated. In 2017, on average 8,383 patients received treatment daily. The number of new HIV cases among drug addicts per year has fallen from 2,425 in 2005 to 44 in 2017.
- Taiwan had 168 designated drug addiction treatment institutions. The Department of Health and regional psychiatric care networks' core hospitals were responsible for providing continuing education and training to medical personnel, with 28 training activities arranged in 2017.
- The MOHW continued to implement the "Subsidy Program for the Treatment of Non-Opiate Addicts" launched in July 2014. In 2017, 17 institutions were established and 1,678 people benefited from the program.

- The MOHW's Tsaotun Psychiatric Center received funding to develop the "Community Treatment and Rehabilitation Model for Users of Schedule III and Schedule IV Drugs." In 2017, 43 drug users received treatment under this program, and 45 staffs completed the necessary training. The MOHW also subsidized eight NGOs to carry out the "Drug Addict Psychological Counseling and Social Rehabilitation Work Plan." Under this program, 178 people obtained assistance in settlement; 6,977 people received transition counseling; 2,745 people received group counseling; 5,540 people received vocational skills training, employment counseling, and job matching services.
- The MOHW incentivized to health institutions that provided drug and alcohol addiction treatment in correctional facilities. In 2017, four health institutions offered services at seven correctional facilities. They provided 323 addiction treatment clinics that served 4,893 patients, health education

for 12,878 inmates, group therapy for 4,868 inmates, 1,245 prisoner release referrals, and 1,163 follow-ups.

6. The MOHW continued to implement the "Alcohol Addiction Treatment Plan." In 2017, subsidies were provided to help 1,618 people. Moreover, since September 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." In 2017, subsidies were provided to eight institutions, there were 679 referrals, and alcohol addiction treatment was provided to 513 people.

## 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 "Midwives Act," the "Dietitian Act," the "Nursing Personnel Act," the "Physical Therapists Act," the "Occupational Therapist Act," the "Medical Technologists Act," the "Medical Radiological 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 2017, Taiwan had 308,826 practicing health professionals including 67,633 physicians (both Western and traditional Chinese medicine doctors and dentists), 35,141 pharmacists, 9,774 medical technologists, 6,490 radiologic technologists, 164,099 registered nurses, 212 midwives, and 3,353 dietitians.

### 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 2017, 51,300 people received their medical licenses in Taiwan.
3. Post-graduate general medical training is offered to strengthen holistic care. In 2017, Taiwan approved 39 teaching hospitals and 90 collaborating hospitals to provide postgraduate year (PGY) training programs. 1,396 medical graduates received training under this scheme.
4. A system of postgraduate clinical training for dentists has been put in place to ensure quality oral health care. As of 2017, Taiwan certified 431 institutions (87 hospitals and 344 clinics) offer this training. 810 dentists received training under this project.
5. Taiwan has been providing the nurse practitioner training since since 2006 to enhance the quality of nursing. As of 2017, 6,962 clinical nurse specialists received licenses under this program (3,707 clinical nurse specialists in internal medicine and 3,255 clinical nurse specialists in surgery).
6. To ensure that newly minted health practitioners can receive superior clinical training, in 2007 the MOHW launched the "Clinical Practitioner Training Program." As of 2017, 1,981 individual training programs at 140 participating hospitals trained 28,252 health workers; 85.57% of medical workers received this training within two years of gaining a license.
7. 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 2017, this scheme assisted 39 training hospitals in providing a two year physician training to 359 new Chinese medicine physicians. The MOHW has also promulgated the "Certification Guidelines in Relation to the Training of Responsible Physicians in Chinese Medical Care Institutions." In 2017, Taiwan trained 159 instructor physicians and 92 instructor pharmacists accordingly. Also in 2017, the MOHW sought a consensus on the specialist physician training of Chinese medicine. Acupuncture and Chinese internal medicine were selected to develop training courses and inspection criteria. The MOHW subsidized five teaching hospitals to develop objective structured clinical examination in traditional Chinese medicine doctors for competence, and prepare for the oral exams of the specialist physician training of Chinese medicine in the future.
8. Taiwan promotes TCM institutions to provide characteristic and multifaceted care. As such, in 2017, six teaching hospitals established integrated Western/

Chinese cooperation health care model, TCM day care model, TCM long-term care model and TCM drug rehabilitation model. These initiatives hopefully would enhance the effectiveness of Taiwan's TCM and provide people with diverse treatment options.

### Section 3 Creating Employ-Friendly Work Environments

1. To prevent physicians from occupational burnout, and to protect their rights, the MOHW and the Ministry of Labor have jointly planned to apply the Labor Standards Law to all physicians beginning September 1, 2019. Flexible work hours will be insisted in accordance with the provisions of Article 84-1 of the Labor Standards Law. To mitigate the possible impact of applying the Labor Standards Law to physicians, the MOHW has been actively promoting a series of measures, including integration of the hospitalist care system and increase of the number of clinical nurse specialists in order to increase medical care manpower in hospitals. The agency has determined the number of cases to be completed during professional training, formulated learning milestones and introduced a two-year general medicine training course in order to ensure physicians' competence. Moreover, the MOHW has promoted levels of care, implemented a system of referral, examined the financial costs and revised the NHI payment system. The following programs have been implemented: governmental sponsorship for medical students at key departments, training of medical personnel among aborigines and on outlying islands, rewards for physicians working in remote areas, support of remote areas and outlying islands by medical centers, and eased regulations regarding physicians' reporting. These measures aimed to improve local medical manpower in remote areas and outlying islands. Since August 1, 2017, the MOHW has been implementing the Guidelines for Labor Rights Protection and Work Hours of Resident Physicians in order to improve work hours of resident physicians.

2. To reduce malpractice risks and to foster harmonious doctor-patient relationships, the MOHW has been implementing the "Plan for Encouraging Medical Facilities to Implement Birth-related Dispute Management Pilot Projects" since 2012. The MOHW has also promoted the enactment of a "Birth-related Injury Compensation Statute." Their results are outlined below.

(1) By the end of 2017, 294 OB/GYN clinics and hospitals participated in the "Plan for Encouraging Medical Facilities to Implement Birth-related Dispute Management Pilot

Projects." 503 birth injury claims were received, of which 480 were processed; around 415 families received compensation totaling NT\$ 401.51 million. Consequently, the number of birth-related medical malpractice lawsuits has fallen 70%. This drastic reduction in malpractice risk in turn has helped to boost OB/GYN resident physician recruitment. During the past three years, 100% of OB/GYN resident physician vacancies were successfully filled.

- (2) The "Birth-related Injury Compensation Statute" passed its Third Reading in the Legislative Yuan on December 11, 2015. Taiwan's president formally promulgated the 29-article Statute on December 30, 2015, and the law came into effect on June 30, 2016. As of the end of 2017, 301 applications were received under the new Statute, of which 260 had been resolved. A total of NT\$ 119.9 million in relief funding has been paid out. Hospitals and clinics have established internal risk management mechanisms and implemented reporting of major birth injuries. Taiwan desires to better analyze malpractice claims' root causes so improvements can be made accordingly.

- (3) Actively promoting alternative dispute resolution mechanisms:

A. The MOHW has guided medical facilities to establish care groups, strengthen internal mechanisms, and implement timely explanations, communication and assistance to enhance the physician-patient relationship.

B. The MOHW has worked to strengthen local government authorities' in alternative dispute resolution in medical malpractice. Taiwan aims to foster effective doctor-patient communication.

C. The MOHW has been training forensic physicians to undertake medical appraisal. As of the end of 2017, the number of medical dispute appraisal cases commissioned by the judicial authorities fell by 43%, the number of dispute cases handled by local Public Health Bureaus fell by 22.2%, the average length of time to complete the appraisal process decreased by 35%, and the average time to resolve a dispute stood at 6 months.

3. To address Taiwan's nursing shortages, in May 2012 the MOHW launched a reform plan to retain practicing nurses and encourage nurses who left the profession to return. Achievements include the following:

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

Adding more Nurses: at the end of 2017, 163,736 registered nurses worked in Taiwan, an increase of over 27,000 compared to before nursing reforms were enacted. The turnover rate fell from 13.14% in 2012 to 9.88% in 2016, the lowest rate since 2010. The total vacancy rate fell from 7.2% in 2012 to 5.96% in 2016.

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

- A. Amendment of the Establishment Standards for Medical Institutions in 2013, the Establishment Standards for Medical Institutions was amended to raise the standards for nursing personnel in medical institutions.
- B. In 2015, nurse-patient ratios were officially added to the criteria for hospital evaluations. The standard for evaluation is the "average whole-day nurse-patient ratio" for emergency and general beds in hospitals; the ratio for medical centers is  $\leq 9$ , including  $\leq 7$  for daytime nurses; the ratio for regional hospitals is  $\leq 12$ ; the ratio for local hospitals is  $\leq 15$ . In 2015, the "average whole-day nurse-patient ratios" for all 114 hospitals evaluated were in line with requirements. All 114 hospitals in 2015 and 151 hospitals in 2016 that applied for evaluations passed.
- C. In 2015, a budget of NT\$2 billion was allocated to boost inpatient nursing payments, and link inpatient insurance payments to the nurse-patient ratio. The nurse-patient ratio is used as the baseline to determine the average whole-day nurse-patient ratio; assessors then add an additional 9% to 11% to that number to arrive at the proper payouts. In 2017, the bonus bracket was expanded from level 3 (9-11%) to level 5 (3-14%), encouraging hospitals to achieve the necessary threshold for nurse-patient ratios.
- D. Abolishing the responsibility system: the Article 84-1 of the Labor Standards Act will not apply to nurses anymore starting from January 1, 2014.
- E. Implementing the Labor Standards Act:
- (a) Any violation of the Labor Standards Act will be included in hospital evaluations. Public health bureaus will include labor inspections at hospitals as key focus areas in their evaluations.
- (b) Promotion and communication of the Labor Standards Act has been strengthened. The nurse rostering guidelines under the Labor Standards Act have been compiled

and revised.

- (c) Raising Salaries and Benefits

Ministry of Labor surveys have shown that nurse salaries rose by approximately 11% since 2011.

- (d) Implementing the Elite Nurses Program for Remote/Rural Regions:

Taiwan's Executive Yuan approved "Elite Nurses Program for Remote/Rural Regions" to train 200 publicly funded nursing students from 2015 to 2018. In 2017, 130 students enrolled in the program.

## 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 2017 are as follows:

1. The MOHW drew up the "2018-2019 Taiwan Treatment Quality and Patient Safety Goals for Hospitals" (Table 4-4).
2. The Taiwan Patient Safety Reporting System (TPR) has been used to effect a patient safety culture. In 2017, 7,283 healthcare organizations participated in the TPR, and preliminary statistics indicate that around 69,234 cases were reported.
3. The Shared Medical Decision Making Platform has been established. As of the end of 2017, 81 decision support tools (including decision support tables, films, and other materials) were uploaded. 210 hospitals participated in the promotion of 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 4-4** 2018 - 2019 Taiwan Treatment Quality and Patient Safety Goals for Hospitals

Source: Taiwan Patient Safety Net, Ministry of Health and Welfare

No.	Eight Major Performance Objectives
1	Improving communication between health workers
2	Managing patient safety in the event of abnormal situations
3	Improving surgical safety
4	Preventing patient falls and reducing the degree of injury
5	Improving safe use of pharmaceuticals
6	Implementing infection control
7	Improving intravenous catheter care
8	Encouraging patients and family members to participate in patient safety tasks

## 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 2017, accreditation had been granted 423 hospitals and 131 teaching hospitals (Tables 4-5 and 4-6).
2. As part of the MOHW's efforts to promote reform of the hospital accreditation system, the accreditation standards applying to regional hospitals and local

hospitals have been simplified. The number of articles reduced from 188 to 122 and the number of individual assessment items reduced from 1,297 to 550 (a decrease of 58%). The 12 articles falling under 13 categories (Human Resources) have been retained so they can serve as a benchmark for the regular evaluation and assessment frameworks.

3. Adhering to the principle that only subject any hospital to accreditation review or inspection once a year, the MOHW has worked to streamline every aspect of accreditation, inspection and certification. It has integrated the accreditation and inspection cycles to accommodate each hospital's needs. The number of survey items has been reduced from 40 to 24, a 40% reduction.

**Table 4-5** Hospital Accreditation Results

Source: Ministry of Health and Welfare

Accreditation Results	Hospital Accreditation - Qualified			
	Medical Centers	Regional Hospitals – Would-be Academic Medical Centers	Regional Hospitals	District Hospitals
No. of Institutions	19	3	81	320

**Table 4-6** Hospital Accreditation Results

Source: Ministry of Health and Welfare

Accreditation Results	Physicians and Medical Personnel Teaching Hospitals Accredited	Medical Personnel (Non-Physicians) Teaching Hospitals Accredited
No. of Institutions	114	17

### Section 3 Organ Donations and Transplantations

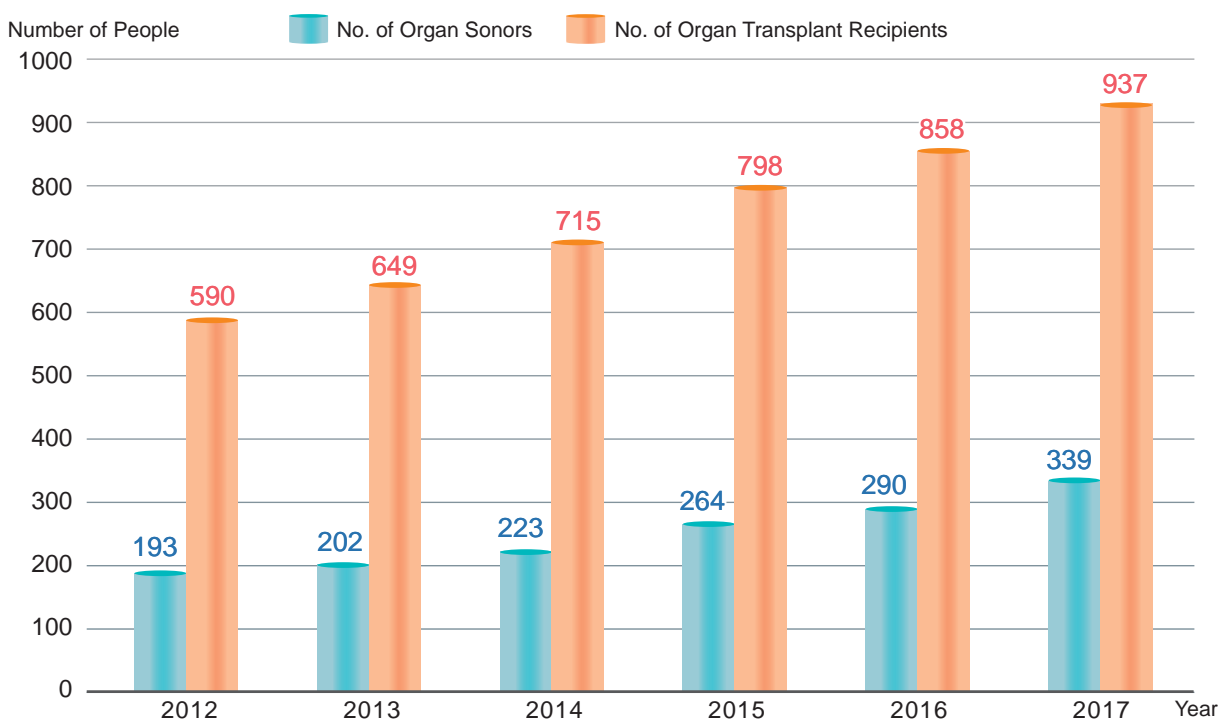
The world is facing a shortage of available organs for transplantation. As of the end of 2017, over 9,000 patients in Taiwan awaited organ transplantation; however, only about 800 patients annually are able to receive an organ transplant (Figure 4-5).

To encourage organ donation, in 2002 the MOHW established the Taiwan Organ Repository 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 nations — 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," aiming to improve the quality of organ donations and transplantations. Furthermore, in 2017, the MOHW published the "Guidelines for Donation of Organs after Circulatory Death" in order to expand the range of organ donation sources and protect the rights of donors. The guidelines provide reference for national medical institutions and present a milestone in the development of organ donations.

**Figure 4-4 Organ Transplant Donors and Recipients in Taiwan, 2012 - 2017**

Source: Ministry of Health and Welfare



### Section 4 Promoting Electronic Medical Records (EMR) Adoption

The MOHW has been promoting the adoption of electronic medical records (EMR). Standards for health examination report sheets have been announced and implemented on a trial basis. EMR symposiums were held in northern, central, and southern Taiwan. Nine observation tours were conducted in outstanding hospitals and health clinics practicing EMR in northern, central, and southern Taiwan. Tutorials on the implementation of EMR were conducted in five hospitals. One hospital was

inspected for EMR information security. The MOHW has been promoting My Health Bank, which provides citizens with a channel for self-managed medical records. In the end of 2017, the National Health Insurance Cloud Health System provided cross-institutional access to imaging records. A program for the future operations of the EMR Exchange Center has been formulated. The MOHW has promoted diversification of EMR exchange and developed and expanded the exchange standards, aiming to reduce communication-, time-, and finance-related costs.

## Chapter 5 Healthcare in Remote Regions

### Section 1 Health Care Tailored to Local Needs

To safeguard the health of people living on outlying islands and remote regions, the MOHW has taken the following measures:

1. The MOHW Penghu Hospital's Cardiovascular Care Center has been officially operating since December 4, 2013. By December 2017, the Center had provided treatment to 593 people. Percutaneous cardiopulmonary support (PCPS) and intra-aortic balloon pump (IABP) were purchased in 2017 in order to enhance emergency and acute care services, improve the quality of treatment for patients with cardiovascular diseases, tailor care to local needs and reduce travel-related inconveniences for patients and their families.
2. The MOHW Penghu Hospital's Chemotherapy Center was established in October 2015. By December 2017, the Center had completed treatment of 1,217 people. The Center provides safe evidence-based cancer diagnosis and treatment, promotes provision of convenient, timely, and appropriate treatment and medical care and seeks to improve patients' quality of life, 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 started using in November 2015. By December 2017, the Center had provided treatment to 181 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 and rights.
4. In 2017, the MOHW assisted the MOHW Kinmen Hospital in purchasing a new model of the digital mammography system, which has improved the quality of cancer screening and treatment services provided to Kinmen residents.
5. The accessibility of services has increased, meeting various medical needs of people living in remote regions and regions with insufficient medical resources. The quality of local treatment has improved, bringing Taiwan toward social justice with equality in health. Under the Plan for Strengthening Efficacy of Hospitals in Remote Regions and Regions with Insufficient Medical Resources implemented since 2016, the number of specialists providing outpatient, inpatient, emergency, attendant, and surgery services

in Fengbin Township in Hualien County, Chenggong Township in Taitung County, and Hengchun Township in Pingtung County has increased.

6. 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 2017, 1,970 outpatient services were provided and 44,832 people were examined with this service. Patients' satisfaction with outpatient service and emergency care increased by 1.2% and 1.6%, respectively.
7. Establishing Health Information Networks for Remote Regions: As of the end of 2017, to ensure effective medical care provision in remote districts and to enhance the quality of medical care, medical information systems along with 363 mobile medical stations were established at 72 health centers in Hsinchu County and 14 other counties. Additionally, in order to enable residents of remote communities (including aboriginal communities) to benefit from medical center level diagnostic expertise and advisory services, our ministry has been effectively using the Picture Archiving and Communication System (PACS). In 2017, the Taoyuan Hospital of MOHW supported medical image analysis in 17,177 cases.
8. Since 2006, the Improvement Plan for Areas with Insufficient Resources has been implemented to enhance medical care services in areas with insufficient emergency care resources. Local medical institutions have cooperated and established 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. In 2017, rewards were provided for 17 locations (including Qingjing Farm, Sun Moon Lake, and Dawu and Chenggong townships in Taitung County). Emergency treatment services were provided to over 9,000 patients in areas with insufficient resources. The areas have benefited from 24-hour emergency treatment services.

## 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. In 2017, the MOHW continued to execute the "Plan to Provide Incentives to Encourage Medical Centers and First-Aid Hospitals to Support Emergency Treatment and Care Services on Outlying Islands and Districts with Insufficient Medical Resources." Therefore, several hospitals in Taiwan proper have partnered up with hospitals in remote regions. Taipei Veterans' General Hospital and nine other hospitals have been supporting Kinmen Hospital, Penghu Hospital, Penghu Branch of Tri-Service General Hospital, and Lienchiang County Hospital by providing 21 critical care physicians.

1. In 2012, the MOHW established the Aeromedical Service Review Mechanism to supervise medical evacuations. In accordance with the "National Aeromedical Approval Center Standard Operating Procedures for Emergency Medical Evacuation from Outlying Islands," Taiwan provides emergency medical consultations on a 24-hours-a-day basis, evaluates the necessity of providing aeromedical through coordination of aircraft and Coast Guard Administration vessels on an individual basis. Prior to the establishment of the National Aeromedical Approval Center, the average number of aeromedical service provision per month was 43.18. Since the Center's establishment, this figure has fallen steadily; in 2017, the monthly average dropped to 21.77 instances, representing a decline of 49.58%.
2. In accordance with the provisions of the Emergency Medical Care Law, and the Regulations Governing Management of Emergency Helicopters, if the case is deemed necessary, then assistance will immediately be provided to effect emergency evacuation to Taiwan proper for treatment. In 2017, there were 235 air evacuations. The opening of a cardiac catheterization room at Penghu Hospital on December 4, 2013 reduced the number of cardiac emergency patients in Penghu to 6 people in 2017, a reduction of 78.57%; as of the end of November 2017, cardiac catheters were successfully applied to 578 patients. The reduction in the need for air evacuation has led to improvements in healthcare localization and quality of medical care.
3. In accordance with the provisions of the "Regulations Governing the Subsidization of Transportation Expenses for Inhabitants of Mountainous Districts and Outlying Islands Requiring Treatment for Serious or Emergency Illnesses or Injuries," persons deemed

stable enough to arrange their own travel, subsidies are provided to cover half of the expenses of air (or sea) transportation for up to four times yearly. If a physician confirms the necessity for continued treatment, such subsidies can now be provided for up to six journeys. Subsidies are also available to cover the transportation expenses for accompanying medical personnel in cases of aeromedical evacuation.

## Section 3 Training and Retaining Staffs

In order to replenish grassroots personnel and human resources in remote regions, the training system for government-supported physicians has been implemented since 1975. During four decades, 6,557 government-supported physicians received training and were assigned to regions with insufficient human resources or difficulties in provision of specialized care services. The program was suspended in 2009 as the goal of balanced human resources was achieved and step-by-step tasks had been fulfilled. In view of the increased demand for physicians in future, the MOHW resumed the Plan for Training of Government-Supported Physicians in Key Subjects in 2016, planning to train 500 government-supported physicians in 2016-2020. The physicians who have completed the training are assigned to remote regions for six years in order to shift human resources to these areas.

# Chapter 6 Healthcare for Specially Targeted Groups

## Section 1 Healthcare for Indigenous People

According to the Council of Indigenous People, as of December 2016, there were 539,426 indigenous people in Taiwan, accounting for 2.3% of its total population. Due to concentration of indigenous people in remote regions and mountainous areas, medical care resources available to these groups are less accessible and comprehensive than in urban areas. In order to ensure equality of healthcare rights among citizens of Taiwan and to increase accessibility of health insurance and medical care in indigenous communities, the MOHW promoted the following policies:

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

To ensure a more equitable allocation of medical resources in remote districts, since 1969 the MOHW has trained health workers through the "Plan for the Training of Medical Personnel for Aboriginal Communities and Outlying Islands." Through 2017, 985 health workers (including 535 indigenous people)



received training under this program, including 529 doctors (including 265 indigenous people) and 456 other medical personnel (including 270 indigenous people). 57 trained government-supported physicians work in clinics in indigenous communities, accounting for approximately 70% of appointed physicians.

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

(1) In order to improve medical equipment resources in clinics in remote indigenous communities and outlying islands, the MOHW has provided assistance for treatment, information facilities renovation, refurbishment, building extension, and purchase of medical transports in indigenous communities in different cities and counties of Taiwan. In 2017, 128 facilities were renovated with support from the agency.

(2) Hospital information systems (HIS) have been improved to expand medical care to remote villages. As of the end of 2017, Hospital information systems and 363 mobile healthcare stations were established in 53 clinics in Hsinchu County and 11 other counties.

(3) Implementing the Startup Subsidies Plan for Medical Personnel in Aboriginal Communities: Medical personnel have been encouraged to open a practice in indigenous communities. According to the agency's Key Points for Medical Startups in Aboriginal Communities, each practice can receive a subsidy of up to NT\$500,000. In 2017, two medical institutions were opened with support from the subsidies.

(4) Introducing travel allowances for injured patients needing urgent care in indigenous communities: To provide appropriate treatment to patients with severe and emergency injuries, they have been provided with travel allowances of NT\$600-1,000 (maximum 10 per year) depending on the distance to the hospital. In 2017, NT\$13 million were spent on the travel allowances.

(5) Implementing the Plan for Building Health in Aboriginal Tribes: The MOHW has sought to cultivate healthy lifestyle habits in residents, increase their health awareness, encourage integration of health concepts into daily life, and promote residents' participation in community health issues in order to promote community health and improve health promotion and quality of life. As of 2017, 53 Tribe Health Centers were established in indigenous communities. The centers have improved tribe health cognition, strengthened promotion of organizational operations, created health autonomy models, increased life and cultural sensitivity, and trained health-related personnel.

## 3. Improving Health Equality among Indigenous Communities

In order to reduce the disparity in life expectancy of indigenous people and improve their health equality, since August 2017, the MOHW has held nine meetings with related departments, exploring the ways to influence health factors. The agency has examined the gaps in individual, family, and tribal health issues of indigenous people, as well as various healthcare policies, effectiveness of administrative management, and vertical and horizontal cooperation relations between organizations. Ten action plans against health inequalities have been formulated, with implementation scheduled for May 2018.

## 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 in 1987-2017 amounted to 530,512, of which 176,828 spouses had foreign nationality (19,202 male; 157,626 female) and 353,684 spouses came from Mainland China, Hong Kong, and Macao (24,023 male; 329,661 female). According to the Department of Household Registration of the Ministry of the Interior, in 2017, 138,034 Taiwanese couples (276,068 residents) registered marriage. With regard to spouse nationality, 254,971 spouses were Taiwanese, 12,147 spouses had foreign nationality (3,873 male; 8,274 female) and 8,950 spouses (1,431 male; 7,519 female) came from Mainland China (including Hong Kong and Macao). As of the end of 2017, the number of new immigrants in Taiwan reached 530,000. Most immigrants were female. Our ministry has promoted the following policies to improve prenatal 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, prenatal health, prenatal examinations, and prenatal nutrition. In 2017, the utilization rate for the health management card was 90.37%.

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 2017, 10,962 patients received such subsidies valuing NT\$5,320,187.

3. To reduce new immigrants' treatment difficulties

caused by the language barriers, local health departments applied for the Training Program for Interpreters Among New Residents with the Ministry of the Interior's "New Resident Development Fund" in 2011. Local health departments 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 2016, 226 health centers in 17 counties and cities participated in this program training 350 interpreters. In 2017, 17 counties and cities applied for the program.

4. To provide reproductive health information more effectively to people from diverse backgrounds, in 2017, the MOHW commissioned the publication of the "Children's Health Booklet" and "Maternal Health Booklet" in five languages: English, Vietnamese, Indonesian, Khmer, and Thai. Taiwan distributes the booklets to medical institutions, and their PDF versions are available for downloading from the publications section of the Health Promotion Administration website, so that new immigrants and their family members can be well informed.
5. Operation Consent Form, Anesthesia Consent Form, and documents related to hospitalization and hospital discharge procedure and emergency treatment procedure are available in seven languages: Simplified Chinese, Korean, English, Vietnamese, Indonesian, Thai, and Burmese.

### Section 3 Healthcare for Rare Disease Patients

1. As of 2017, Taiwan has officially identified 218 rare diseases, along with 99 drugs for treating them and 40 nutritional supplements for use in relation to them. Rare diseases have also been included in the categories of major illnesses and injuries under National Health Insurance program, thereby increasing assistance for these unfortunate patients.
2. A logistics center for special nutrition foods and emergency orphan drugs for treating patients with rare diseases has been established; in 2017, the center supplied drugs and special nutrition foods to rare disease on 1,335 occasions. The MOHW also provides subsidies to cover rare disease related expenses not covered by the NHI. They include rare disease diagnosis, treatment, examinations (both in Taiwan and overseas), and home medical care equipment. In 2017, subsidies were provided on 1,827 occasions.
3. Taiwan has established 14 genetic counseling centers in medical centers, providing hereditary

and rare diseases, medical services (including prenatal genetics testing, neonatal screenings, and hereditary disease examinations, and genetics counseling). In addition, a genetics counseling website has been set up to provide information about hereditary and rare diseases.

4. Strengthening Rare Disease Prevention Education: 13 advocacy activities were held for patients, patient groups, businesses, and healthcare institutions.
5. Following the revision of the "Rare Diseases and Orphan Drug Act," the Regulations on Rare Disease Medical Subsidy were renamed into the Regulations on Rare Disease Medical Care Fee Subsidy; the revised regulations were announced on September 8, 2017. The regulation's Article 7 Clause 3 appendix was added to the subsidy criteria in Article 2 Paragraph 1 Clause 7 and Article 5 Paragraph 4. On September 22, 2017, the subsidy criteria in the Regulations on Rare Disease Medical Subsidy Article 2 Paragraph 1 Clause 7 and Article 5 Paragraph 4 were annulled.
6. The Regulations governing the Incentives and Subsidies for Rare Disease Prevention and Treatment were enacted on June 6, 2016. Every year, an open solicitation is held for applicants. In 2017, 16 rare disease control subsidy programs were implemented. The Regulations Governing Healthcare Services for Rare Diseases and Rare Genetic Defects were promulgated and enacted on September 2, 2016. In 2017, the Commission Program for Rare Disease Care Services was executed. Specialists were commissioned to conduct interviews and inform patients about the effects of related diseases. The program outlined the content and methods for psychological support, maternity attentiveness, and care counseling services provided to patients and their families. The MOHW has formulated 2017-2019 Rare Disease Care Service Plan and solicitate institutions willing to provide patients and their families with related services; 9 medical centers have joined the program.

### Section 4 Groups with Special Health Needs

- 1 Healthcare for Patients Affected by Polychlorinated Biphenyl (PCB) Poisoning
  - (1) In 1979, while a food manufacturer in Taichung was processing rice bran oil, polychlorinated biphenyl (PCB) that was being used as a heat transfer fluid along with PCB heat denatured byproducts leaked into the edible oil via cracked plastic pipes. More than 2,000 victims in Taichung and Changhua consumed the contaminated

oil. Subsequent investigation has shown, early symptoms of PCB poisoning include acne, skin hyperpigmentation, and excessive eye discharge. Problems that develop later include damages to the liver, the immune system, and the nervous system. In April 1979, the former Department of Health, under the then-Taiwan Provincial Government, registered Yu Cheng patients so they could get blood tests, and receive needed healthcare services. People responsible for the contamination disposed of their properties, and died in prison; therefore, the government and the general public stepped in to care for these victims.

- (2) To protect the rights of patients affected by PCB contamination, the "Yu Cheng Patients Health Care Services Act" was promulgated by presidential order on February 4, 2015. Benefits include making both first-generation and second-generation Yu Cheng patients exempt from NHI copayments for outpatient (and emergency) services, making first-generation patients exempt from NHI co-payments for inpatient expenses, and entitling them to free annual health checkups at special clinics. The act expands the definition of first-generation victims to include all victims born in 1980 or earlier. It further guarantees the rights of victims, establishes a health care promotion group, and ensures a solatium payment for surviving family members of victims who died before implementation. On November 16, 2016, an amendment was made to revise articles 4 and 12 to ease criteria for confirming victims, expanded family members who qualify for the solatium payment to include surviving parents, and extended the deadline to collect payment until August 9, 2020.
  - (3) As of the end of 2017, there were a total of 1,889 registered Yu Cheng patients, including 1,263 first-generation patients and 626 second-generation patients. In 2017, there were a total of 20,094 instances of subsidies being provided to cover Yu Cheng patient outpatient (and emergency) service co-payments, and 132 instances of subsidies being provided to cover inpatient copayments. There were also 632 instances of free health examinations being provided to Yu Cheng patients, and 202 applications for the payment of solatiums to the family members of deceased Yu Cheng patients were 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 for Hansen's disease patients to provide high-quality care for these patients.

- (2) As of 2017, five hospitals have been designated to diagnose and treat Hansen's disease: National Taiwan University Hospital, MacKay Memorial Hospital, Taichung Veterans General Hospital, National Cheng Kung University Hospital, and Lo-Sheng Sanitarium. Hansen's patients could thus seek treatment more conveniently.

3. Human Rights Protection and Care for HIV Patients

Taiwan imported Zidovudine (ZDV/AZT) drugs in 1988. In 1997, the country also offered the highly active antiretroviral therapy (HAART) for free to patients. Highlights of the MOHW's efforts in 2017 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. In 2017, the MOHW assisted with the handling of five complaints.
- (2) Health and Care
  - A. As of the end of 2017, 69 hospitals in Taiwan were designated for the treatment of HIV/AIDS. 84% of HIV patients received medication; 90% of HIV patients had an undetectable viral load.
  - B. In order to strengthen health self-management among HIV/AIDS patients, in 2017 the MOHW implemented the Plan for the Improving of Service Quality in Hospitals Designated for the Treatment of HIV/AIDS. 69 hospitals designated for the treatment of HIV/AIDS participated in this plan by providing health education and consultation services to 27,201 patients.
  - C. Local health bureaus/centers and case managers track patients to urge them to seek regular treatment. Consultation and testing services are also provided to partners of HIV/AIDS patients.
  - D. Subsidies are provided to NGOs that assist with HIV patient care, treatment arrangements, emergency accommodation, and provision of case management services. In 2017, placement was offered in 167 cases, and case management services were provided to 304 patients.

# 05



## Long-Term Care Services

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Taiwan's population structure is affected by low birth rate and an increase in life expectancy. The population aged 65 years and older has been growing rapidly. As of the end of March 2018, seniors aged 65 years and older accounted for 14.05% of Taiwan's population making it as aged society. This percentage is expected to reach 20.6% by 2026, which will make Taiwan a "super-aged" society with every fifth person being 65 years old or older. This has increased the urgency to establish a sound long-term care system, to develop human capital and institutional resources, and to ensure service quality. The MOHW's National Ten-year Long-Term Care Plan 2.0 (hereafter referred to as "Long-Term Care Plan 2.0") was ratified by Executive Yuan in November 2016 and implemented in January 2017. The plan aims to promote an Integrated Community Care Service Network to meet the long-term care needs of Taiwan's aging population.

Improving upon Long-Term Care 1.0, 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. It also has integrated home hospice care and home-based medical care. It also desires to achieve the ideal of "aging in place" to meet the growing demand for elders' services. As such, the plan has called for establishing a community-based care service system that would support diversified services in family-based, home-based, community-based and residential cares. The goals of the Long-Term Care Plan 2.0 are outlined in Table 5-1.

The Long-Term Care Plan 2.0 takes into account demographic factors regarding long-term care needs. Notably, the plan has increased the number of service categories from 4 to 8, enhanced the flexibility of existing Long-Term Care Plan 1.0 services, and expanded the number of service items from 8 to 17. Table 5-2 lists more detailed information.

**Table 5-1 Goals of the Long-Term Care Plan 2.0**

Source: Long-Term Care Plan 2.0 (approved edition)

<b>Goals</b>	To establish a quality, reasonably priced, universal long-term care service system to accomplish communitarian ideals; to provide citizens needing long-term care with basic services and opportunity to enjoy old age in a familiar environment, and to relieve burdens on their families.
	To achieve aging in place, provide diversified services: family-based, home-based, community-based and residential cares; to popularize the care service system and to establish community-based care to improve the quality of life for care recipients and their caregivers.
	To expand primary prevention efforts, to advocate preventive healthcare and active aging, to delay the onset of disabilities, to promote health and welfare of seniors and to improve their quality of life.
	To provide multi-purpose community-based support services, to streamline home-based hospice care, to relieve stress on family members and to ease burdens related to long-term care.

**Table 5-2 Comparison of Target Service Groups and Service Items under Long-Term Care Plan 1.0 and Long-Term Care Plan 2.0**

Source: Long-Term Care Plan 2.0 (approved edition)

	Long-Term Care Plan 1.0	Long-Term Care Plan 2.0
<b>Target Service Recipients</b>	<ol style="list-style-type: none"> <li>1. Senior citizens aged over 65</li> <li>2. Mountain indigenous people aged over 55</li> <li>3. Citizens aged over 50 with mental or physical disability</li> <li>4. Solitary elderlies aged over 65 who only require assistance with Instrumental Activities of Daily Living (IADLs)</li> </ol>	<p><b>In addition to the target service recipient categories covered by Long-Term Care Plan 1.0, the following 4 additional target groups have been added:</b></p> <ol style="list-style-type: none"> <li>5. People with dementia (aged 50 and over)</li> <li>6. Plain indigenous people with functional limitations (aged 55-64)</li> <li>7. Citizens aged under 49 with mental or physical disability</li> <li>8. Frail senior citizens aged over 65 who only require assistance with Instrumental Activities of Daily Living (IADLs)</li> </ol>
<b>Service Items</b>	<ol style="list-style-type: none"> <li>1. Care services (including home care, day care, and family care)</li> <li>2. Transportation services</li> <li>3. Nutritional food delivery services</li> <li>4. The purchase and rental of the assisting instruments and the improvement of household barrier-free environments</li> <li>5. Home nursing care</li> <li>6. Home-based/community-based rehabilitation</li> <li>7. Respite care services</li> <li>8. Long-term care institution services</li> </ol>	<p><b>In addition to the service items covered by Long-Term Care Plan 1.0, the following additional service items (Items 9 – 17) have been added:</b></p> <ol style="list-style-type: none"> <li>9. Dementia care services</li> <li>10. Integrated services for communities in indigenous districts</li> <li>11. Small-size multi-function services</li> <li>12. Support service centers for family caregivers</li> <li>13. Integrated community care service networks (with the establishment of community integrated service centers, combined service centers and LTC stations around the blocks)</li> <li>14. Community-based preventive care</li> <li>15. Programs to prevent or delay disability and dementia</li> <li>16. Integration of discharge planning services</li> <li>17. Integration of home-based medical care</li> </ol>

## Chapter 1 The Long-Term Care Service System

### Section 1 The Long-Term Care Services Act

1. Revision of the Long-Term Care Services Act: A partial revision of the Long-Term Care Services Act was promulgated by the President on January 26, 2017. In order to expand the funding sources for long-term care provision, Article 15 of the Act was revised to add Estate Tax, Gift Tax and Tobacco Tax as designated funding sources for long-term care. In addition, in order to help ensure that existing long-term institutions can continue to operate, Article 22 of the Act has been revised to stipulate that residential long-term care institutions that were established prior to the coming into effect of the Act are exempted from certain juristic person status requirements, except in the case where such an institution expands or relocates. Article 62 of the Act has also been revised, so that long-term care institutions that were authorized to provide long-term care services under other legislation prior to the coming into effect of the Act may continue to operate pursuant to other legislation, and are exempted from the requirement to restructure and obtain a new operating permit within 5 years of the coming into effect of the Act. The purpose of these revisions is to strengthen the development of the integrated community-based care network provided for by Long-Term Care Plan 2.0.

2. On June 3, 2017, Taiwan enacted Long-Term Care Services Act, which contains 1 statute and 8 sub-statutes: (1) Long-Term Care Institutions Statute; (2) Implementation Rules for the Long-Term Care Services Act; (3) Measures Governing Long-Term Care Institution Accreditation; (4) Measures Governing Long-Term Care Service Personnel Training, Certification, Continuing Education and Registration; (5) Measures Governing Incentives to Stimulate the Development of Long-Term Care Service Resources; (6) Standards for the Establishment of Long-Term Care Institutions; (7) Measures Governing the Authorization and Management of Long-Term Care Institution Establishment; (8) Measures Governing Review of Applications by Long-Term Care Institutions to Lease Publicly-owned Real Estate Property; (9) Measures Governing Supplementary Training for Foreigners Employed as Home Carers. The Long-Term Care Institutions Statute passed its Third Reading in the Legislative Yuan on 29 December 2017.

### Section 2 Care Management System

To facilitate the implementation of Long-Term Care Plan 2.0, and to coordinate the operation of different

long-term services and resources, the Long-Term Care Management Centers in individual counties and cities will be recruiting care managers to provide an integrated "one-stop" contact window for applications, evaluations, care plans, and coordinating and delivering long-term care services.

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

1. An intensive care management model will be utilized for the allocation of care manager, while taking into account the disparities between urban and rural areas in terms of workforce availability and service capabilities. In principle, the caseload for each care manager is 200 recipients, and 1 supervisor for every 7 care managers. In addition, in order to strengthen the service provision capabilities of care management personnel, starting from 2017 1 administrative assistant has been allocated for every 10 care managers and supervisors. The MOHW has already approved the employment of a total of 971 care management personnel at counties and cities throughout Taiwan, up from 618 in 2016 (the total of 971 personnel includes 439 care managers, 73 care management supervisors, and 106 administrative assistants).
2. Adjustment of care manager pay grades: The number of care manager pay grades has been expanded from three to seven (ranging from 280 points/NT\$33,908 per month to 376 points/NT\$45,534 per month), with the aim of attracting and retaining high-quality personnel.
3. To improve care manager training, and to respond effectively to the increasing number of care recipients and service items; the MOHW has considered expanding the scope of training of case managers in policy issues, practical assessment, local cultures to enhance their professionalism.

### Section 3 Service System and Resource Development

1. Constructing the integrated community care service networks

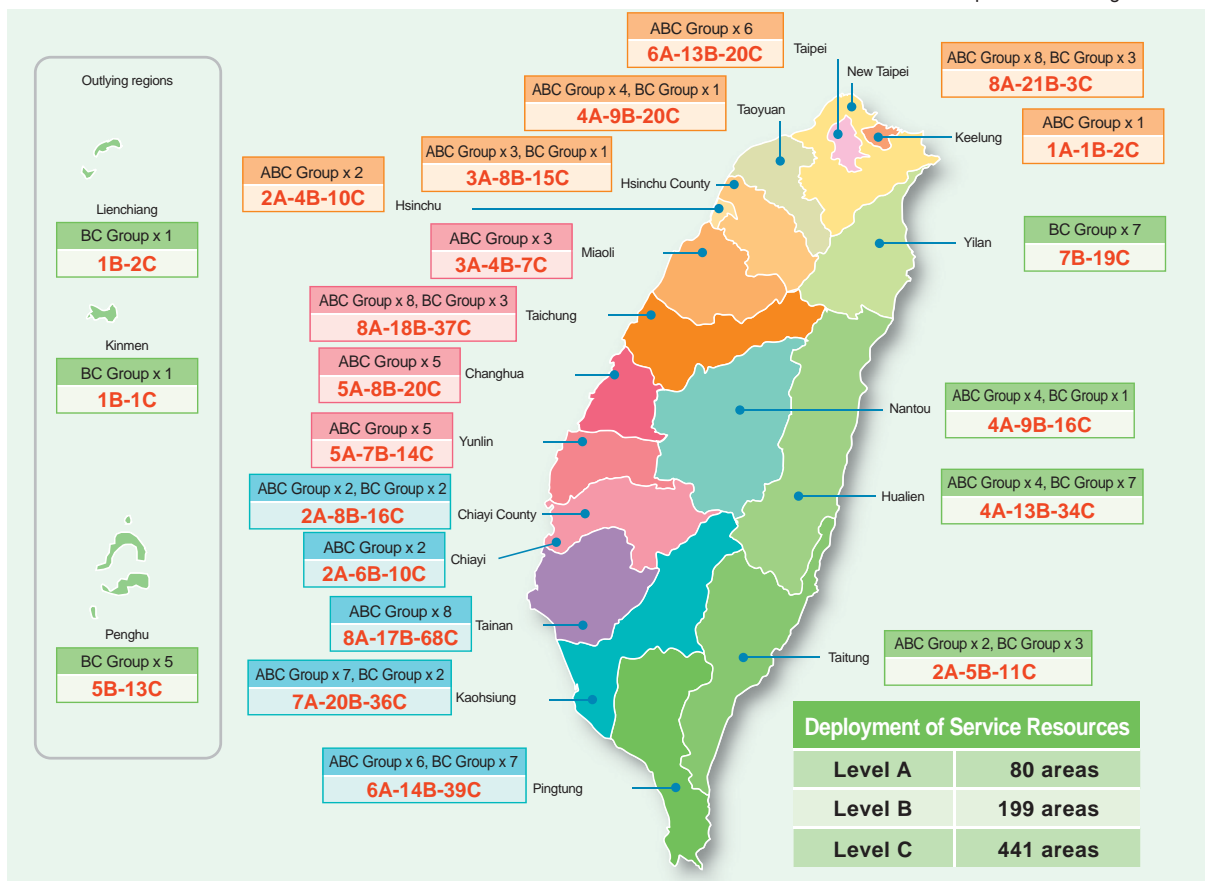
While prioritizing the expansion of home care provision and making day-care more widely available, the MOHW has been working to integrate different services into community-based integrated care service networks. The basic principle involves the cultivation of community integrated service center ("A"), combined service center ("B"), and LTC stations around the blocks ("C") throughout Taiwan; individual county and city governments are being 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 the local long-term care management center. The necessary long-term care services are evaluated and connected by care managers or community integrated service center. In 2017,

720 organizations collectively established 80 community integrated service centers, 199 combined service centers, and 441 LTC stations around the blocks ("80A-199B-441C"). Details for each city and county are shown in Figure 5-1.

**Figure 5-1 Integrated community care service networks in counties and cities of Taiwan**

Source: Department of Long-Term Care



**2. Development and Deployment of Service Resources:**

(1) Improving Service Utilization of Long-Term Care: in 2017 long-term care services (listed in Table 5-3), the growth in day care services stood as the most prominent at 92% higher than the previous year 2016. This category's growth rate was (in descending order) family care, home care, day care, nutritional food delivery services for elderlies (all above 65% growth compared to 2016). Furthermore, our ministry has been utilizing the Care Management Information System to count the number of people served by long-term care services at the end of the year. After adjusting the data to exclude repeated counts, we observed significant differences with respect to some figures.

**(2) Hasten Resource Provisioning**

The overall rate of growth in service resources has been highest in the family care, where its number of family care services has grown by 240% from 2016 to 2017; a growth of more than 26% was observed in day care services and nutritional food delivery services (Table 5-4).

As of the end of December 2017, the number of institutional care facilities for Taiwanese elderlies rose to 1,100, and the total number of beds available nationwide reached 62,460 (Table 5-5).

As of the end of December 2017, the number of Taiwan's nursing homes rose to 528, and the total number of beds available in nursing homes nationwide reached 41,316 (Table 5-6).

**Table 5-3** Number of Persons Receiving Long-Term Care Services over the Last 10 Years

Unit: people

Source: Department of Long-Term Care

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Home Care	22,305	22,017	27,800	33,188	37,985	40,677	43,331	45,173	47,134	79,137
Day Care (including day care centers for people with dementia)	339	618	785	1,213	1,483	1,832	2,344	3,002	3,663	7,029
Family care	1	11	35	62	110	131	146	200	210	390
The purchase and rental of the assisting instruments and the improvement of household barrier-free environments (number of times)	2,734	4,184	6,112	6,845	6,240	6,817	6,773	7,016	9,663	8,008
Nutritional food delivery services	5,356	4,695	5,267	6,048	5,824	5,714	5,074	5,520	5,516	9,090
Transportation services (number of times)	7,232	18,685	21,916	37,436	46,171	51,137	54,284	57,618	59,588	10,351
Long-term care institutions	1,875	2,370	2,405	2,755	2,720	2,850	3,127	3,426	4,104	4,527
Home nursing care	1,690	5,249	9,443	15,194	18,707	21,249	23,933	23,975	22,359	9,970
Home-based/community-based rehabilitation	1,765	5,523	9,511	15,439	15,317	21,209	25,583	25,090	27,237	12,013
Respite care	2,250	6,351	9,267	12,296	18,598	32,629	33,356	37,346	46,339	21,270
Total number of people served (adjusted)								84,295	90,603	113,706

Notes:

1. Before 2016:

- (1) The figures for the purchase and rental of the assisting instruments and the improvement of household barrier-free environments and transportation services refer to the number of times served; for other items, the figures refer to the number of people served by the end of December.
- (2) Home nursing care, home-based/community-based rehabilitation, and respite services refer to the cumulative number of people served in a year.
- (3) For the purchase and rental of the assisting instruments and the improvement of household barrier-free environments, nutritional food delivery services, and long-term care institutions, the budgets were primarily handled by the respective county and city governments.

2. After 2017:

- (1) The dividing line is used to indicate that different methods and standards were used to calculate the number of people served.
- (2) For 2017, and with respect to home care, day care, family care, nutritional food delivery services, transportation services, home nursing care, home-based/community-based rehabilitation, and respite care, the number of people served refers to the number of people served by the end of the year based on the Care Management Information System, which adjusts the data to exclude repeated counts.
- (3) Total number of people served: Excluding the people served in the nutritional food delivery services and long-term care institutions.
- (4) For 2017, the numbers of people served in the nutritional food delivery services were 9,090, included 6,293 low-income or medium-and-low-income people.



**Table 5-4** Number of Institutions Providing Long-Term Care Services over the Last 10 Years

Unit: institution

Source: Department of Long-Term Care

Item	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Home care	124	127	133	144	149	160	168	173	200	238
Day care (including day care centers for people with dementia)	31	39	66	78	90	120	150	178	205	259
Family care	4	16	23	16	17	20	22	21	25	85
Nutritional food delivery services	166	204	201	159	169	190	209	197	197	249
Transportation services	31	42	43	39	43	42	41	41	40	48
Home nursing care	487	495	489	451	478	483	486	493	518	505
Home-based/ community-based rehabilitation	62	88	122	112	111	125	143	143	129	211
Respite care	1,390	1,439	1,444	1,052	1,510	1,509	1,549	1,565	1,760	872

Note: Figures for home nursing care, home-based/community-based rehabilitation, and respite care before 2016 refer to the number of institutions established in Taiwan over the year; figure for 2017 indicates the number of contracted institutions in Taiwan.

**Table 5-5** Number of Senior Citizens' Social Welfare Organizations and Residents over the Last 10 Years

Source: Department of Statistics

Year	No. of institutions	Total number of beds					Actual number of residents (persons)	Occupancy rate (%)
		Long-term care beds	Nursing care beds	Beds for patients with dementia	Aged home beds	Total (Number of beds)		
2008	1,043	3,970	41,990	0	7,224	53,184	38,300	72.0
2009	1,066	4,419	43,180	0	6,968	54,576	40,183	73.6
2010	1,053	4,796	43,586	0	6,684	55,066	41,515	75.4
2011	1,051	4,660	44,794	90	6,545	56,089	42,824	76.4
2012	1,034	5,748	45,642	144	5,303	56,837	42,769	75.2
2013	1,035	5,959	46,652	220	4,844	57,675	43,496	75.4
2014	1,063	4,447	48,935	280	5,618	59,280	45,298	76.4
2015	1,067	4,340	49,565	406	5,558	59,869	46,264	77.3
2016	1,082	4,544	50,756	453	5,329	61,082	47,192	77.3
2017	1,100	4,470	52,481	459	5,050	62,460	48,315	77.4

**Table 5-6 Number of Nursing Homes and Residents over the Last 10 Years**

Source: Data for 2008–2012 is from the Department of Statistics; data for 2013 – 2017 is from the Department of Nursing and Health Care.

Year	Number of Nursing Homes	Number of beds	Actual number of residents (persons)	Occupancy rate (%)
2008	347	21,461	18,416	85.8
2009	367	23,077	19,785	85.7
2010	390	25,849	20,774	80.4
2011	423	28,476	21,151	74.3
2012	447	30,447	22,471	73.8
2013	470	33,302	27,605	82.9
2014	486	35,383	29,933	84.6
2015	499	37,161	31,772	85.5
2016	508	39,002	33,271	85.3
2017	528	41,316	34,698	84.0

### 3. Improving Long-Term Care Service Evaluation Tools and Informatization

The MOHW is improving upon Long-Term Care Plan 1.0 to build a better long-term care assessment tools and informatization for Long-Term Care Plan 2.0.

- (1) Implementing the care management assessment scale: in line with the increasing number of service recipients and service items under Long-Term Care Plan 2.0, the MOHW implemented an updated care management assessment scale that could evaluate the long-term care needs of distinct demographic groups in April 2017; it could also rate the severity of long-term disability and the payment amount. The assessment scale covers six domains: (1) Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs); (2) Communication skills; (3) Special and complex care needs; (4) Short-term memory evaluation, emotional and behavioral states; (5) Home environment, family support and social support; (6) Care burden in primary caregivers.
- (2) Device standardization: to ensure that assessment is standardized and consistent, the scale was embedded in mobile devices (tablet computers) to perform assessment. Based on the assessment results, devices automatically use compound factors to determine the level of clients' long-term care needs. This standardized procedure has enhanced the objectivity of care managers, who previously utilized their professional experience of care managers, which was highly susceptible to bias and confounding factors. As such, device standardization will help ameliorate consistency and efficiency. Hopefully, care recipients would receive appropriate care services resulting in a fairer resource distribution.

### 4. Care Services for People with Dementia

- (1) Strengthening community-based service capacity for people with dementia: to ease access to care for people with dementia, and to reduce the burden on their families, Long-Term Care Plan 2.0 makes it possible for people with dementia aged 50 or over and their caregivers to obtain appropriate care close by, and to strengthen community-based service capacity for such clients. The MOHW has expanded the establishment of Support Center for People with Dementia and their Their Families (SPDF). Additionally, to meet the caregivers' needs at different stages of people with dementia, the MOHW has implemented an innovative project that involves the establishment of Integrated Dementia Care Center (IDCC) in counties and cities throughout Taiwan. In this way, the ministry hopes to provide 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. In the end, the MOHW wishes to promote dementia health literacy, and contribute to a safer environment for people with dementia.
- (2) Achievements: as of 2017, a total of 134 SPDFs were established; 2,859 people with dementia or high clinical suspicion of dementia benefited from their services. SPDFs conducted cognitive promotion and dementia alleviation activities (attended by 42,311 participants), hosted family care interviews (with 10,059 participants), implemented diverse friendly community projects (with 25,870 participants), organized training courses for caregivers (attended by 11,411 participants), provided family support

group services (utilized by 7,534 participants), held family mutual support sessions (attended by 4,212 participants) and performed safety evaluations (with 4,844 participants). As of the end of December 2017, 20 Integrated Dementia Care Centers were established; 9,130 people with dementia or suspected to have dementia had benefited from their services. These support centers implemented educational sessions for citizens (attended by 31,436 participants), sponsored talent training sessions for professionals (attended by 10,324 participants) and conducted goal achievement workshops (attended by 4,662 participants).

#### 5. Establishment of Long-Term Care Management Center Branch Offices in Indigenous Communities, Offshore Islands and Other Areas with Inadequate Resources

Recognizing the relative lack of long-term care resources in indigenous communities, offshore islands and other areas with inadequate resources, in 2010 the MOHW began to promote the establishment of Long-Term Care Management Center Branch Offices, so as to develop a localized, diversified comprehensive service model. As of the end of 2017, funding support had been provided for the establishment of 46 Branch Offices, of which 20 were located in indigenous communities. Through the establishment of Long-Term Care Management Center Branch Offices, the MOHW aims to provide localized long-term care services, develop care management models and integrated long-term care networks that are suited to local conditions, and expand the long-term care resources available to individual communities, so as to facilitate the ongoing development of long-term care services in remote and disadvantaged districts.

## Chapter 2 Workforce Development

### Section 1 Care Worker Workforce

1. Improving pay levels: To encourage Taiwanese citizens to take up careers in the area of long-term care services, and to improve care service personnel retention rates, besides providing supplementary pay for those care workers engaged in providing services to people with dementia (reflecting the special demands of providing care to persons with dementia) and supplementary pay for care workers who hold care worker vocational qualifications, the MOHW has also arranged for the provision of supplementary payments to compensate for the reduction in overtime pay resulting from the introduction of the new "One Fixed Day Off and One Flexible Rest

Day" in Labor Standard Law, and for an increase in transportation subsidies for care workers working in remote districts. In addition, the MOHW has undertaken planning for a new home care service payments and benefits standards, with the target of ensuring that care workers' monthly pay averages NT\$32,000, so as to improve the actual amount of compensation that care workers receive.

2. Strengthening workforce training/education: cognizant of the fact that many service recipients are suffering from various forms of disabilities, the caregiver training has been revised to incorporate professional courses covering care for people with physical and mental disabilities, dementia care, and indigenous cultural sensitivity to meet varied needs. Moreover, the Ministry of Labor's "Train and Apply" program encourages long-term care service providers to develop their own training, apply the acquired know-how, and to plan online training courses to lessen the geographical constraints of on-site training. Concerning training of foreign care workers, Article 64 of the Long-Term Care Services Act stipulates that employers may apply for the supplementary training determined by our ministry.

3. Promoting collaboration between industry and academia: our ministry and the Ministry of Education have been encouraging universities develop a more practical curriculum for long-term care and off-campus internships to facilitate students' transition to work after graduation. Likewise, the MOHW has worked with the Ministry of Education to develop a long-term care curriculum in vocational high schools, to ingrain students with respect for caregivers, and to expand human resources.

4. Strengthening career development:

Our ministry has been actively developing multiple career paths for care workers. In addition to the potential promotion of senior home care workers to home care supervisors, the ministry has revised the relevant sections of the Long-Term Care Services Act to empower care workers attaining certain seniority to manage a long-term care institution. Furthermore, care workers are also encouraged to start their own business in long-term care, thereby sweetening the professional outlooks of this field.

### Section 2 Social Workers and Medical Professional Workforce

Given that the quantity and quality of professional long-term care workers are key factors in establishing a quality, comprehensive long-term care system, our ministry has completed planning for various categories of long-term care training courses that are consistent, continuous and complete. These

courses are classified into three levels: Level I (basic courses), Level II (advanced courses), and Level III (integrated courses). On 12 July 2013, our ministry promulgated a new Level II curriculum for long-term care social worker training. We also notified municipal, county and city governments of the new curriculum, and asked them to help increase the public awareness of the curriculum.

To reach our ministry's training targets, we have officially launched a digital learning platform for professional long-term care workers in March 2017. The platform provides these workers with convenient access to training courses and learning materials. By the end of 2017, the courses have been completed approximately 13,000 times. To expand the quantity and quality of professional long-term care workers, we have been working together with local governments and health organizations to effectuate these training initiatives.

Overall, from 2010 to the end of December 2017, approximately 67,000 social work and medical professionals have been trained, we estimate that at least 15,000 workers will be trained annually soon.

## Chapter 3 Propaganda and Service Quality

### Section 1 Propaganda

Long-Term Care Plan 2.0 aims to establish a high-quality, affordable and universal long-term care service that will reduce the burden on family caregivers and enhance the quality of life for both care recipients and caregivers. To enhance the general public's understanding of, and support for, the Long-Term Care Plan 2.0 policy, the MOHW has undertaken the following propaganda activities:

#### 1. Focus Communication

- (1) Long-Term Care Plan 2.0 policy forum series: from March – September 2017, 16 Long-Term Care Plan 2.0 policy forums were held in 12 counties and cities throughout Taiwan. They provided a platform for explaining and discussing the practical operational mechanisms of the Long-Term Care Plan 2.0, conducted dialogues with civil groups, and encouraged organizations to collectively develop long-term care resources to better serve their communities.
- (2) Achievement showcase for the comprehensive community care service system: such a showcase was held in December 2017. County and city governments and service units were invited to share their experiences, and popularize their achievements through various means: exhibition booths, videos, and practical

discussions. Approximately people participated in the event.

- (3) Explanatory briefing for the new long-term care payments and benefits standards: from December 2017 – mid January 2018, representatives from county and city governments, caregivers, and ABC operators were invited to hold 9 explanatory briefings about the new long-term care standard. These events were attended by more than 3,500 people.

#### 2. Promotion Activities

- (1) Long-term Care Spring Recruitment Expo: from April–May 2017, the University of Kang Ning, Asia University, and Chia Nan University of Pharmacy & Science held long-term care recruitment expos in northern, central, and southern Taiwan, to strengthen industry-academia partnership. 196 long-term care service institutions and 3,500 job seekers (from 45 tertiary institutions with elderly care and long-term care programs) participated in these events. Furthermore, 6 experience sharing sessions involving schools, industry representatives, caregivers, and service users were also held.
- (2) Press conference for the launch of the 1966 Long-Term Care Service Hotline: the 1966 Long-Term Care Service Hotline was launched for the purpose of establishing a simple and easy-to-remember number to facilitate applications for long-term care services. On November 24, 2017, a press conference attended and hosted by Premier William Lai, Spokesperson Hsu Kuo-yung, Minister of Health and Welfare Chen Shih-Chung was held to publicize the dedicated hotline. About 200 participants were present at this event.

#### 3. Communication via the Mass Media

- (1) Long-Term Care Plan 2.0 press conferences: as of December 2017, our Ministry had held 23 Long-Term Care Plan 2.0 press conferences, which served to improve the people's understanding of the plan. Through our ministry's live Facebook broadcast, these events garnered more than 210,000 visits, and reached more than 590,000 people.
- (2) Promotional posters, advertisements, and articles relating to the Long-Term Care Plan 2.0 were published in magazines and newspapers. Brochures and posters presenting an overview of the Long-term Care Plan 2.0 were printed and distributed to relevant organizations. In addition, large quantities of these brochures were distributed to county and city governments' long-term care management centers to increase their visibility.

- (3) Television, radio and outdoor advertising: Long-Term Care Plan 2.0 promotional films were made to present information such as the “1966 Long-Term Care Service Hotline,” “Discharge and Transition to Long-term Care,” and the “Image of Caregivers,” are shown via TV channels, outdoor advertising, and other promotional channels. Premier William Lai was invited to record a radio broadcast for the 1966 Long-Term Care Service Hotline that was subsequently broadcasted on national radio stations.
- (4) Promotion using online media: through varied online media (e.g. new sites, web portals, our ministry’s Facebook fan page, Line, and the long-term care policy website), various types of Long-Term Care Plan 2.0 promotional materials have been disseminated. Our ministry’s Facebook fan page has more than 50,000 followers.
- (5) Our ministry has established the 1966 Long-Term Care Service Hotline to assist families with elderly relatives who are no longer able to look after themselves due to their age, illness or disability. Callers will get to speak to service staff from their local county/city long-term care management centers. The first 5 minutes of the call is free in the hope to encourage its use.

operation of which has been outsourced to private-sector organizations, and non-profit senior welfare institutions. As regards the accreditation evaluation results, 16 institutions (11.9% of the total) were rated as Excellent, 75 (56%) were rated A, 35 (26.1%) were rated B, 7 (5.2%) were rated C, and 1 (0.8%) was rated D (Table 5-7).

2. To enhance the quality of care services provided at nursing homes, nursing home accreditation has been performed in accordance with the Nursing Personnel Act and the Regulations Governing Accreditation of Nursing Homes. From 2014 – 2017, a total of 507 nursing homes that have been operational for 1 year have applied for accreditation, of which 479 received accreditation, while 28 did not fulfill the requirements indicating a success rate of 94.47%. In 2017, a total of 126 nursing homes underwent accreditation process, of which 111 were successful, and 15 were unsuccessful denoting an overall pass rate of 88.10%. Table 5-8 details the accreditation results.
3. 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 achieved an A or higher grade were commended for their results; institutions that received C or D grades were required to make the necessary improvements within a given time, and be re-evaluated for progress. Nursing homes that fail the evaluation as outlined in the Regulations Governing Accreditation of Nursing Homes would have to amend within a given time, failing which could subject them to legal sanctions to maintain industry-wide standards.

## Section 2 Service Quality

1. Accreditation evaluations for senior welfare institutions are performed once every 3 years. In 2016, 134 citizens’ welfare institutions underwent accreditation evaluation; these included institutions directly run by or supervised by the MOHW, as well as public institutions run by municipal, county or city governments, public institutions the

**Table 5-7 2016 Senior Citizens’ Welfare Institution Accreditation Results**

Source: Social and Family Affairs Administration

Level	The number of senior citizens’ welfare institutions	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: Accreditation evaluations for senior citizens’ welfare institutions are performed once every 3 years, hence the use of the previous results as a benchmark.

**Table 5-8 2017 Nursing Home Accreditation Results**

Source: Department of Nursing and Health Care

Level	The number of the nursing homes	Percentage (%)	Passing rate (%)
Passed	111	88.10	88.10
Failed	15	11.90	
Total	126	100.0	

# 06



## Communicable Disease Control

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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 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 2017 is shown in Table 6-1.

### 2. Administrative Framework for Communicable Disease Control

The Centers for Disease Control (CDC), Ministry of Health and Welfare 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.

**Table 6-1 List of Revised Regulations Issued in Relation to Communicable Diseases, 2017**

Source: Taiwan Centers for Disease Control

Date of Amendment	Name of Regulation / Legal Order	Objective of Revision
February 16	Regulations Governing Inspection and Implementation of Infection Control Measures in Healthcare Institutions	Adjustments were made to the frequency at which infection control inspections of healthcare institutions are conducted by local authorities
May 5	Regulations Governing Management of the Health Examination of Employed Aliens	In response to the revision of specific labor laws, the relevant regulations were revised to facilitate practical operations.
June 15	Regulations Governing Laboratory Testing for Communicable Diseases and Management of Laboratory Testing Institutions	In order to simplify the central competent authority's procedures for appointing laboratory testing institutions, relevant regulations were revised to facilitate practical practices.
July 27	Regulations Governing Collection of Quarantine Fees at Ports	The standards for quarantine fee were reviewed for charging according to the tonnage of ships, and implemented on January 1, 2018.
October 16	Regulations Governing Implementation and Inspection of Infection Control Measures in Long-term Care and Correction Organizations (Institutions) and Places	Revisions were made to allow graduates of vocational high school nursing or nurse midwifery programs to become infection control specialists.
October 17	Regulations Governing Quarantine at Ports	Revisions were made to clarify regulations regarding quarantine inspection for ships, and to facilitate practical practices pertaining to cross-institutional quarantine.
December 29	The Categories of Communicable Diseases and Preventive Measures for Category IV and V Communicable Diseases	Included listeriosis among Category IV disease, and implemented on January 1, 2018.

### 3. Laboratory Testing Framework

The 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 12 CDC laboratories, there are 271 certified institutions, 1 appointed RG4 institution for communicable disease testing, 8 contracted laboratories for enterovirus/ influenza testing, 8 contracted laboratories for tuberculosis testing, and 1 commissioned tuberculosis molecular testing laboratory. 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.

### 4. National Response Framework for Communicable Disease Control

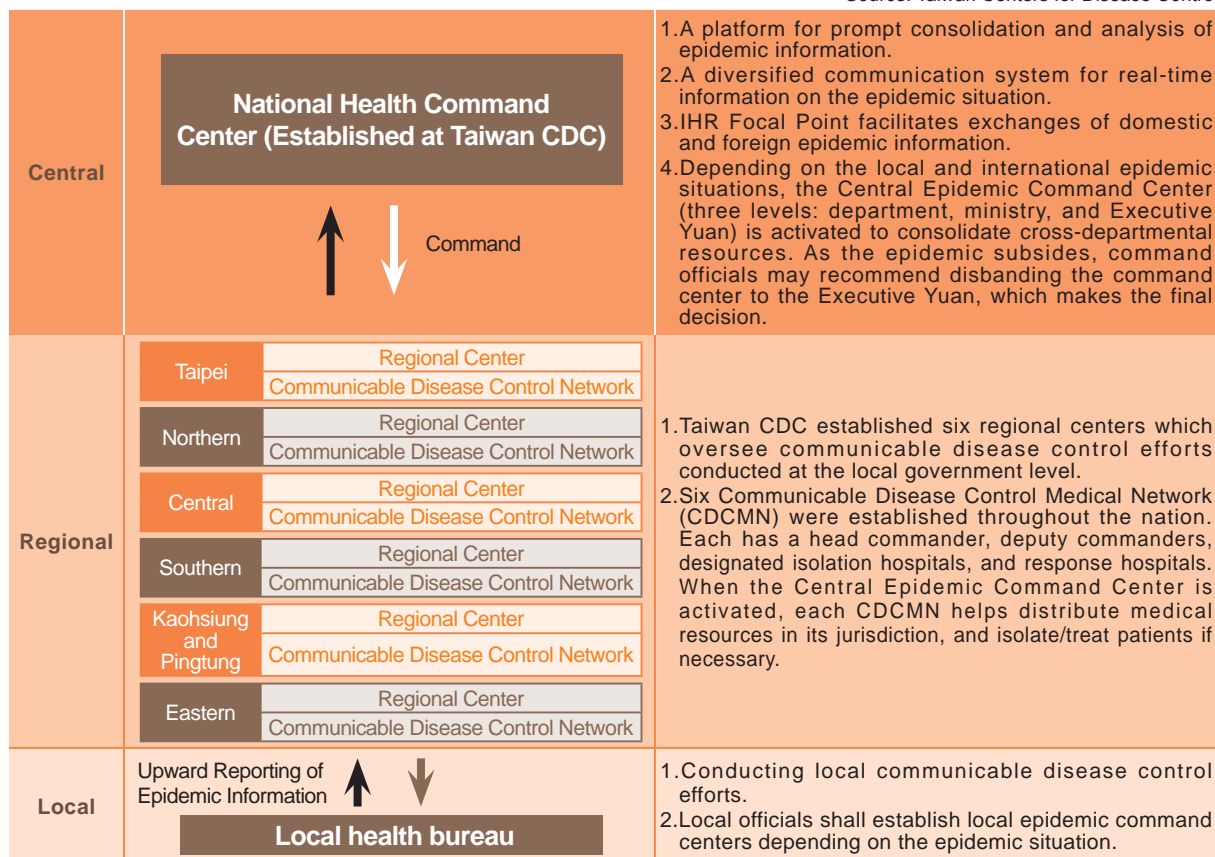
The National Health Command Center, established in 2005, is responsible for compiling health-related information from central and local government agencies and other institutions. The collected information is then analyzed and converted into real-time data to support overall disease prevention and serve 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 CECC. Taiwan is divided into six regional communicable disease medical networks and each is headed by a director and a deputy director. When 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 2017 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 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 2017, cross-ministerial exchange of data continued to integrate disease information from three organizations - the Council of Agriculture (Executive Yuan), the Ministry of Health and Welfare'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 2017, the MOHW investigated 1,471 suspected disease clusters.

## Chapter 2 Control of Major/Emerging Communicable Diseases

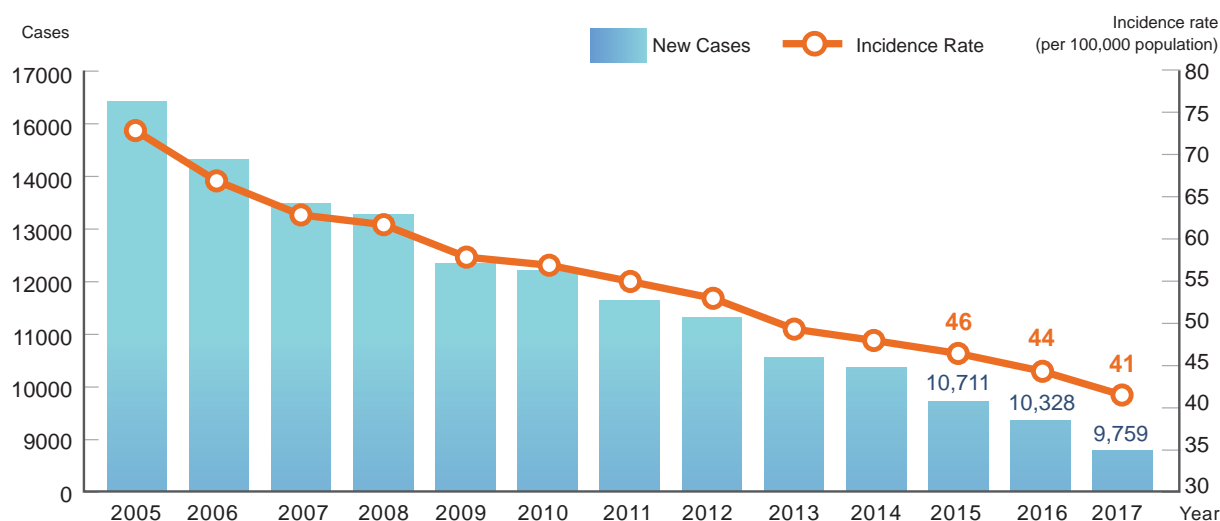
### Section 1 Tuberculosis

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. The accomplishments are as follows:

- 1.** In 2017, the number of confirmed cases of tuberculosis was 9,759, with a national TB incidence rate of 41 cases per 100,000 population. Since 2005, the incidence rate has fallen by 43% (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.** Multidrug resistant TB (MDR-TB) patients in the 2015 cohort treated under a dedicated medical treatment and care system had a 24-month treatment success rate of 74%.
- 4.** Improved contact investigation has led to an average of 12 contacts for each confirmed TB case.
- 5.** A Latent TB Infection Treatment (LTBI) Program has been implemented in conjunction with the Directly Observed Preventive Therapy (DOPT) program; in 2017, the number of people undergoing LTBI testing was 58,379, of which 10,910 were eligible for treatment. 8,510 LTBI individuals, about 70% of those LTBI cases, were under LTBI treatment, which is a 30% increase compared to 2016.

**Figure 6-2** Reported TB Cases, 2005 - 2017

Source: Taiwan Centers for Disease Control



6. For active case finding, the MOHW has been conducting nationwide TB screening program for target population and leading to 368 diagnosed TB cases in 2017.
7. Routine HIV screening is provided for TB patients aged between 15 and 49. In 2017, the HIV testing coverage rate among this target group was 95%.
8. The MOHW delegation attended the 48th Union World Conference on Lung Health in Mexico, and was invited to speak in a workshop on strategies to end tuberculosis.
9. In line with the World Health Organization's (WHO) initiative to eliminate tuberculosis worldwide, the "Strategies for Ending TB by 2035" parallel session was held during the "2017 Global Health Forum in Taiwan." Both local and foreign experts attended to share experience and exchange ideas about TB control strategies.

## Section 2 Communicable Disease of the Enteric Tract

### 1. Enterovirus

There were 24 cases of severe enterovirus infection in 2017, including 1 death. The fatality rate was 4.2 %, lower than the 10-year average. During the winter of 2017, several cases of complications arising from enterovirus D68 infections were discovered. Given that this was the first time such cases have been observed, the MOHW promptly introduced a series of

contingency measures, including revisions to relevant guidelines and improvements to the quality of clinical care provided by medical personnel, with the objective of reducing the threat of a severe enterovirus D68 outbreak.

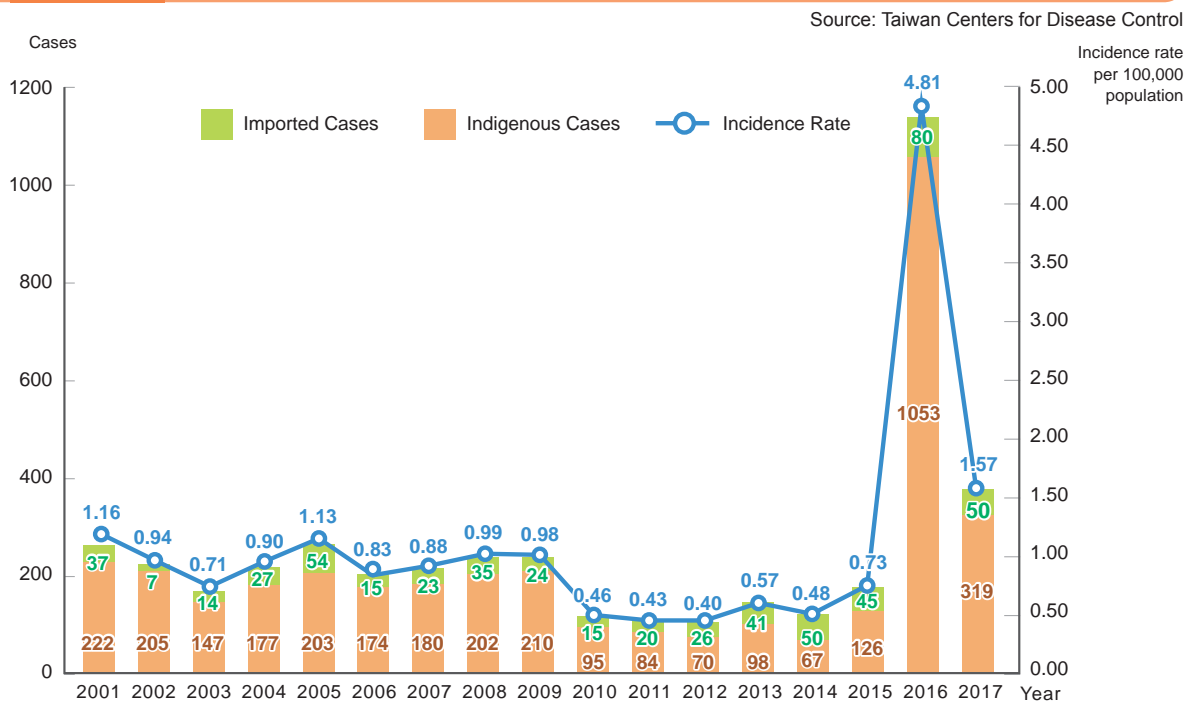
### 2. Hepatitis A

There were 369 confirmed cases of Hepatitis A in 2017, including 50 imported cases and 319 indigenous cases, as shown in Figure 6-3. To keep this disease under control, the MOHW introduced free hepatitis A vaccination for individuals who had close contact with patients with acute viral hepatitis A and expanded the publicly funded hepatitis A vaccination pilot program, aiming to inoculate all people in high-risk groups, including those who have been in contact with people infected with Hepatitis A, HIV, syphilis and/or gonorrhoea. As a result, the incidence of hepatitis A fell from 4.81 per 100,000 people in 2016 to 1.57 per 100,000 people in 2017.

## Section 3 Vector-borne Communicable Diseases

In 2017, there were 343 confirmed cases of dengue fever, of which only 10 were indigenous cases - the lowest figure in 10 years and a testament to our preventive efforts. Figure 6-4 shows the Incidence of Dengue Fever by Year (indigenous cases), and Figure 6-5 illustrates the Incidence of Dengue Fever by Year (imported cases). New strategies for

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



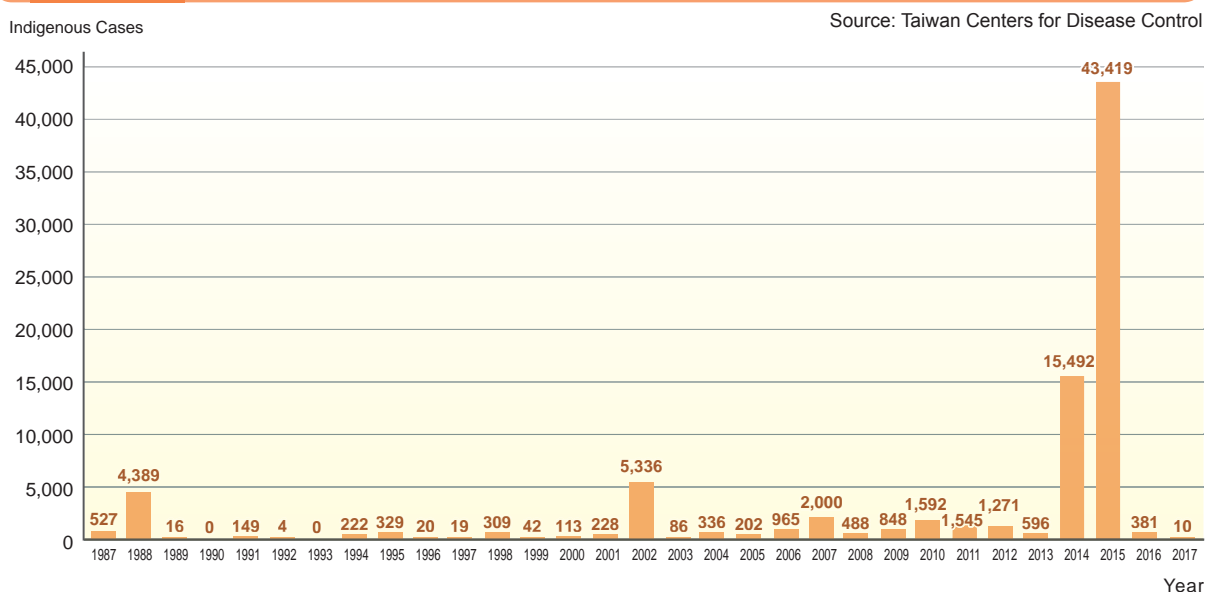
dengue prevention and control implemented are as follows:

1. The MOHW has continued to conduct body temperature checks for passengers at ports of entry, as well as NS1 rapid screening and testing for suspected cases. Furthermore, we have also promoted the use of NS1 antigen rapid test kit in primary care clinics to reduce the incubation period.
2. Every month, the Ministers of the MOHW and the Environmental Protection Administration (EPA) attend the Executive Yuan Coordination

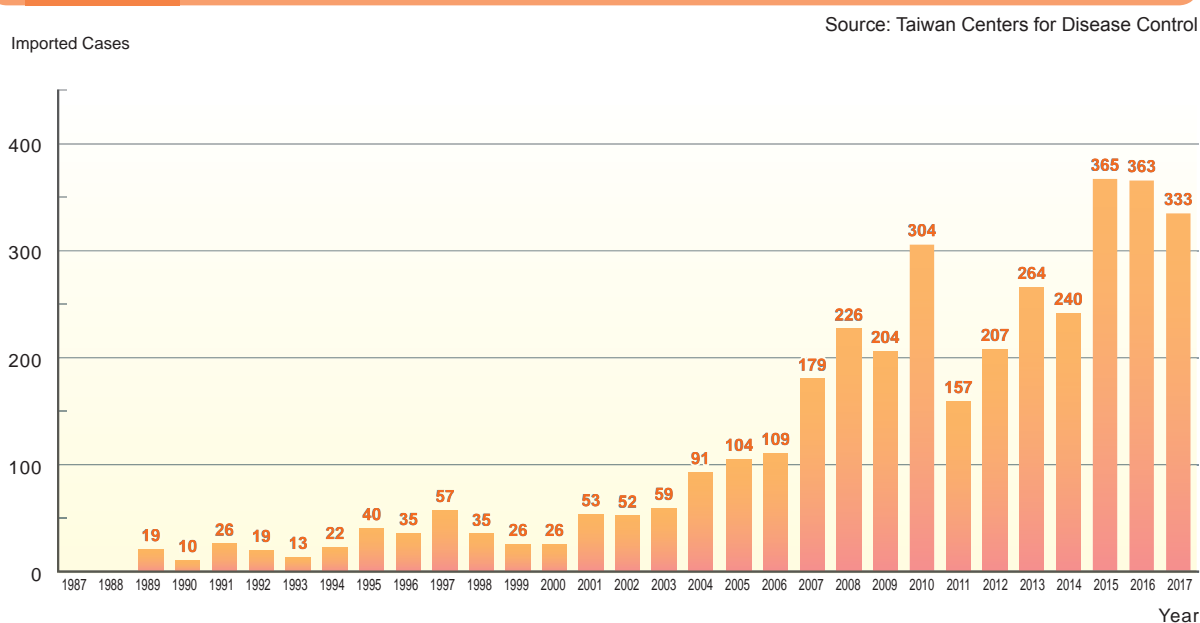
Meeting Regarding the Prevention of Major Mosquito-borne Communicable Diseases. This meeting intends to strengthen communication between the central government and local government agencies concerning the prevention of vector-borne communicable diseases.

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 facilitate preventive practices.

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



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



## Section 4 Communicable Diseases Transmitted by Blood or Body Fluids

### 1. HIV/AIDS

Between 1984 and the end of 2017, there were a cumulative total of 35,930 reported cases of HIV among Taiwanese nationals. Of those infected, 16,809 developed full-blown AIDS, which led to 6,065 deaths. In 2017, there were 2,514 new reported cases., 96% of which contracted the disease through unsafe sex. 85% of whom were men who became infected through unsafe homosexual sex. The accomplishments in 2017 were as follows:

- (1) Cooperated with NGOs and established four 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, serving over 5,000 people.
- (2) Continued to implement the “Harm Reduction Program”. 174 medical institutions across the country provided opioid substitution therapy services.
- (3) 44 medical institutions were entrusted to implement the “Free Anonymous HIV Screening and Consultation Service Plan,”

serving 42,026 people, and the HIV-positive rate was 1.7%.

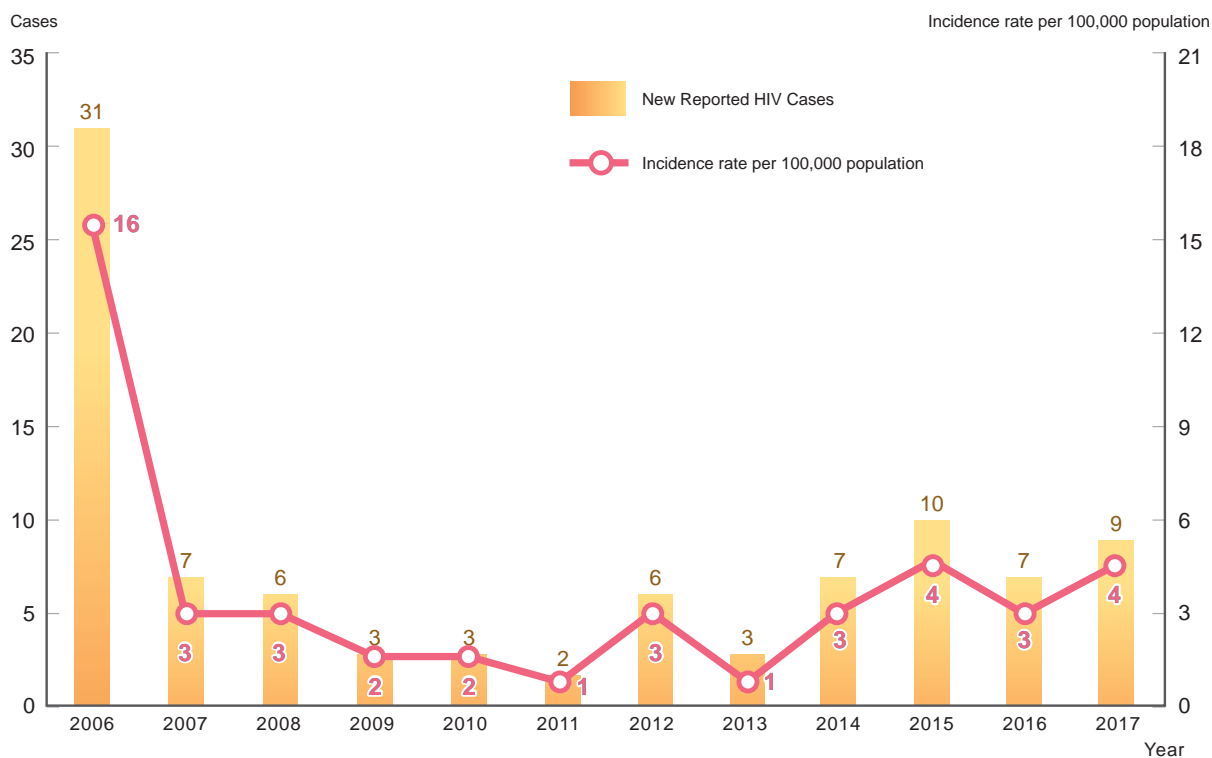
- (4) The “HIV Self-Testing Program” was implemented which people can obtain the self-testing kit from 278 locations and 24 vending machines set up by the health authorities of 19 counties and 4 non-government organizations. A 24-hour free hotline was set up to provide health information and counseling, serving a total of 17,788 people. 167 new cases were found in this way.
- (5) To prevent vertical transmission of HIV, the MOHW implemented a universal HIV screening for pregnant women and provided ART for prevention. In 2017, 9 new cases were found through the screening of pregnant women, as shown in Figure 6-6.

### 2. Hepatitis B and C

The numbers of confirmed cases of acute viral hepatitis B and C in 2017 were 151 and 327, 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%.

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

Source: Taiwan Centers for Disease Control



### Section 5 Seasonal influenza

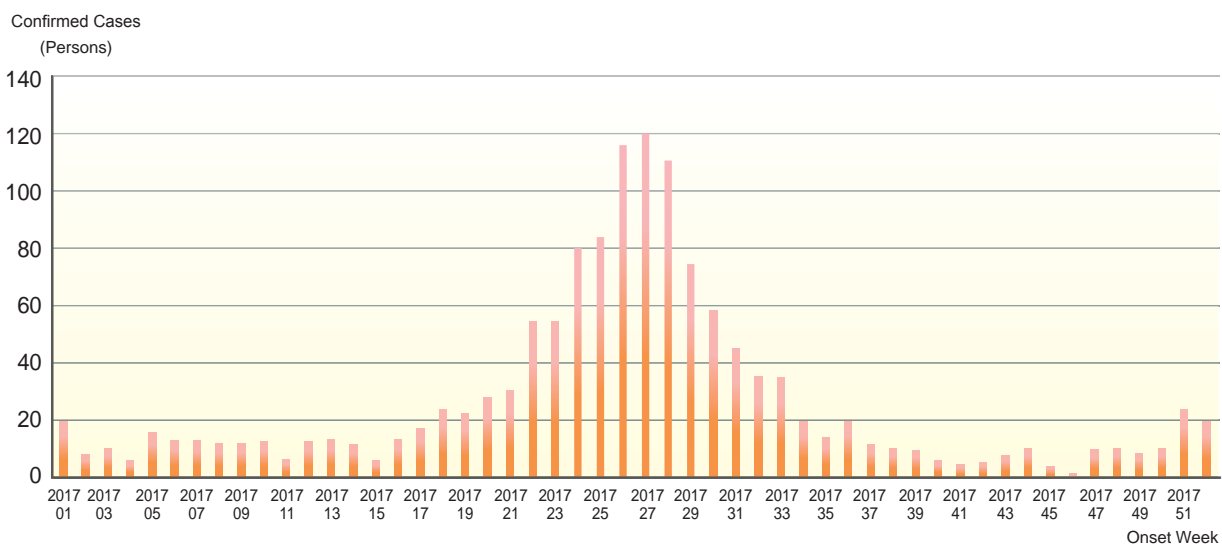
1. In 2017 there were 1,359 confirmed cases of influenza-related complications, resulting in 224 deaths and a fatality rate of 16.5%, as shown in Figure 6-7.
2. An annual influenza vaccination program is launched in every October. Nine categories of people including preschool children aged over 6 months are covered. The MOHW subsidizes the cost of vaccinations for all categories except group vaccinations in schools. In 2017, the MOHW purchased 6 million units of influenza vaccine,

and the percentage of Taiwan's population that received the influenza vaccination was 25.4%.

3. In accordance with the "Strategic Plan for Influenza Peak Period," the MOHW implemented rigorous monitoring of the infection rate, strengthened 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 4,000, and has increased the number of people eligible for subsidized influenza antivirals.

**Figure 6-7 Confirmed Cases of Severe influenza-related complications in 2017**

Source: Taiwan Centers for Disease Control



## Section 6 Control of Emerging Infectious Diseases

1. Held the “Conference on Public Health Event Management at IHR Designated Point of Entry.” Experts from Entry Port EU Cooperation Center of WHO International Health Regulations were invited to give speeches and exchange ideas with domestic experts, relevant central ministries and the institutions of seven designated port customs, immigration inspection, quarantine and safety inspection, so as to continuously improve the overall resilience and competitiveness of our international ports.
2. Formulated the “Contingency plan for severe biological incidents or terrorist attacks”. The training and simulation exercises for the investigation of suspected bioterrorist attacks and emerging infectious diseases were conducted for laboratory biosafety contingency teams.
3. The hand-held microbial ATP fluorescence detector was used to establish a rapid screening program for biosafety and expand the testing capacity of emerging infectious diseases.
4. Established an international exchange network to expand our international presence:
  - (1) Participated in the “First Scientific International Conference on Chemistry, Biology, Radioactivity and Nuclear Weapons” and the “International Symposium on Epidemic Prevention in 2017” in Italy and Thailand.
  - (2) Attended the “APEC Workshop on Building Capacity in Infection Control and Outbreak Containment to Novel Pathogens in Healthcare Setting” in Singapore, and exchanged experiences with the APEC economies to improve emerging infectious disease preparedness and response.
5. Procured 1,200 pieces of surgical N95 masks featuring flat-fold design and body fluid and blood penetration resistance for emerging infectious disease prevention. This type of N95 masks is registered as Medical Device Class II in Taiwan and approved by NIOSH in the US.
6. In order to strengthen disease control and preparedness in correctional institutions, the course “The Management of Clusters of Common Communicable Diseases in Correctional Institutions” was held to enhance the knowledge and skills of correctional officers.

## 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 2017, 26,396,941 people entered Taiwan. Of these, 26,707 were identified as symptomatic by the infrared thermometer diagnostic stations at Taiwan's airports and seaports. Of those, 164 people were later confirmed to be infected with a notifiable communicable disease.

### 2. Prevention of Travel-Related Communicable Diseases

Travel clinics were set up to provide counseling to travelers regarding appropriate vaccines and preventive medication. In 2017, travel clinics at 28 contracted hospitals provided services to 23,686 patients.

## Chapter 3 Communicable Disease Preparedness and Response, and Infection Control

The MOHW continues to maintain the “Communicable Disease Control Medical Network” (Figure 6-8) and implements periodic inspections of isolation beds at hospitals responsible for pandemic response. Regular trainings and drills are also conducted to enhance preparedness.

## 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 antiepidemic 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.
  - (3) Continued to implement the voluntary vaccination program for A/H5N1. In 2017, 5,441 people got vaccinated.

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

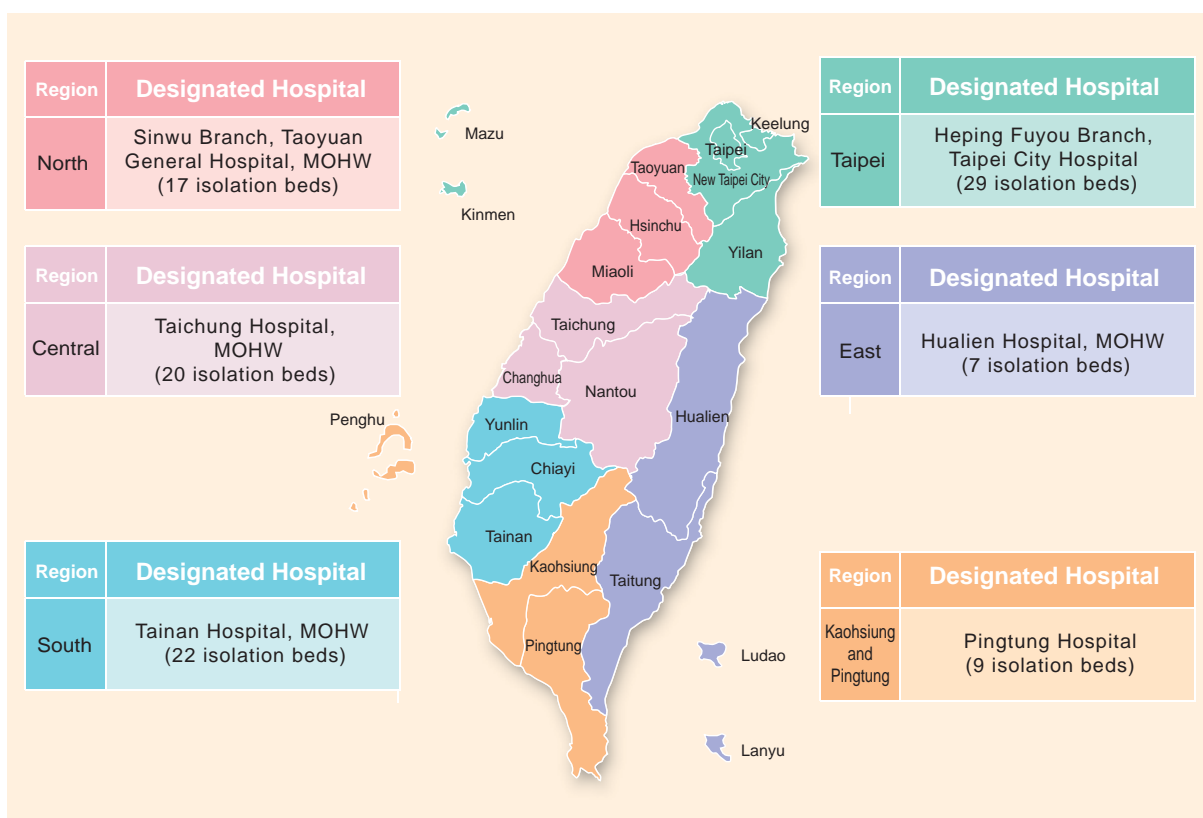
- (1) Utilized the "Executive Yuan Coordination Meeting for the Prevention of Avian Influenza and Other Major Zoonotic Communicable Diseases" as an inter-ministerial platform, the agricultural institutes encouraged livestock related workers and animal epidemic prevention personnel to receive influenza vaccination. The inoculation rate was 97.5%.
- (2) Monitored possible mutations in the avian

influenza virus and the risk of poultry-to-human transmission and supervises 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.

**Figure 6-8 The Communicable Disease Control Medical Network**

Source: Taiwan Centers for Disease Control



Note: In 2017, the total number of isolation hospitals was 132. In each region, there is one designated hospital and one supporting hospital.

## Section 2 Healthcare-associated Infection Control and Laboratory Biosafety Management

1. In 2017, infection control inspection in elderly welfare institutions was implemented for the first time. 830 institutions underwent on-site inspections. The initial pass rate was 97.1%, and all of the institutions that failed the initial inspection passed the re-inspection.
2. 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 2017, a total of 224 hospitals were inspected by local health bureaus.
3. Established an infection control inspection information system for long-term care institutions and hospitals to facilitate the analysis and management of information, streamline the administrative process and reduce manpower load of the inspection operation.
4. Strengthened multi-channel surveillance on multidrug-resistant organisms (MDROs).
  - (1) The Antimicrobial Resistance Management and Surveillance System was launched in March of 2017, providing two reporting mechanisms, including the Electronic Data Interchange mechanism and a manual uploading mechanism. The system collects the results of antimicrobial susceptibility test and related data of the important bacteria in the WHO Priority Pathogens List. More than 80 hospitals were enrolled in 2017.
  - (2) Detected important drug resistance genes of MDROs such as carbapenem-resistant Enterobacteriaceae (CRE) through the National Notification Disease Surveillance system.
5. Implemented the national program to promote care bundles for prevention of ventilator-associated pneumonia (VAP) and catheter-associated urinary tract infections (CAUTI). For the 36 hospitals participated in the program for three consecutive years, the incidence of VAP and CAUTI decreased by 33% and 16%, respectively. The program has achieved its goal of reducing the consumption of medical resources while maintaining patient safety.
6. In response to WHO's emphasis on antibiotic resistance issues, activities to celebrate World Hand Hygiene Day and World Antibiotic Awareness Week activities were held.
7. Laboratory biosafety management
  - (1) Implemented laboratory biosafety inspections. 16 domestic high-containment laboratories and installation units with highly dangerous pathogens use or store were subjected to on-site inspections, and the completion rate of these inspections was 100%.
  - (2) Cooperated with the International Trade Bureau of the Ministry of Economic Affairs and the Customs Department of the Ministry of Finance to promote express customs clearance of "Human Cell Lines for Research." The new provision went into effect from December 1, 2017.
  - (3) Assisted 22 domestic biotechnology related laboratories in introducing the "Laboratory Biological Risk Management System" to enhance self-management capabilities of the laboratories.
  - (4) There were 456 installation units that possess and use risk group 2 or above pathogens and biotoxins, as shown in Table 6-2.

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

Source: Taiwan Centers for Disease Control

Types <sup>note</sup>	Government Agency	Medical Institution	Academic Research Institution	Other	Total
Institutional Biosafety Committees	16	152	50	230	448
Biosafety Specialist	0	0	0	8	8

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 of the Ministry of Health and Welfare.



### Section 3 Research and Laboratory Testing

1. A total of 118,923 specimens were tested, of those, 18,383 were found to contain a pathogen or tested positive for a related antibody, yielding a positive rate of 15%.
2. A total of 3,939 specimens from suspected cases with arbovirus infection were tested. Among them, there were 4 imported cases with Zika virus infection. No indigenous Zika cases were identified in Taiwan.
3. Provided molecular diagnoses for seven anti-tuberculosis drugs that reduce discordances between phenotypic and genotypic drug susceptibility testing results and shorten diagnosis to treatment time to improve the treatment success rate.
4. Continued the operation of PulseNet Taiwan to detect food-borne disease clusters, which has successfully identified a salmonellosis and traced its origin to pigs and poultries. Used whole genome sequence-based genotyping method to generate genetic profiles of bacterial isolates, which are comparable among laboratories of PulseNet International.
5. Implemented the 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.
6. Completed technology transfer for Dengue NS1 Antigen Rapid Test Kit, and helped participating companies complete the registration of in vitro diagnostic device licensing.
7. Established the first cross-institutional “Salmonella DNA Fingerprint Database” by which Salmonella Anatum and S. Brancaster were found to have significantly increased in prevalence in 2017 and that their major genotypes were also prevalent in the isolates recovered from carcasses of chickens and pigs. These findings indicate the epidemiological connection among the bacterial strains originated from human and food animals, which contributed to the tracking, surveillance and investigation of the disease.
8. Sent H7N9 virus isolates to the WHO Influenza Collaborating Centers to participate in global influenza surveillance.
9. Applied the “High-throughput multiple diarrhea pathogen detection platform” to detect diarrhea, which can shorten the test time and assist in the detection of emerging pathogens.
10. Held the “International Training Workshop on Laboratory Diagnosis for Dengue/Zika/Chikungunya.” Specialists from 18 countries were invited to participate in the training to promote communicable disease prevention within the Asia-Pacific region.



## 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 policy each year. In 2017, 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. The immunization schedule for these vaccinations is shown in Table 6-3.

**Table 6-3 Routine Vaccinations for Children, and Immunization Schedule**

Source: Taiwan Centers for Disease Control

Age of inoculation	Vaccine type
Within 24 hours of birth	● HBIG 1
	● Hep B 1
1 month	● Hep B 2
2 months	● DTap-Hib-IPV 1 (5-in-1) ● PCV 1
4 months	● DTap-Hib-IPV 2 (5-in-1) ● PCV 2
5 months	● BCG 1 (recommended vaccination time is 5-8 months after birth)
6 months	● Hep B 3 ● DTap-Hib-IPV 3 (5-in-1)
6 months to elementary school age	● Influenza
12 months	● MMR 1 ● Varicella 1
12 – 15 months	● PCV 3 ● Hep A 1
1 year and 3 months	● JE 1
1 year and 6 months	● DTaP-Hib-IPV 4 (5-in-1)
1 year and 6 months to 1 year and 9 months	● Hep A 2
2 years and 3 months	● JE 2
Between 5 years and 1st grade in elementary school	● Tdap-IPV 1 ● MMR 2 ● JE 3 (provided to children who completed 3 doses of inactivated vaccine)

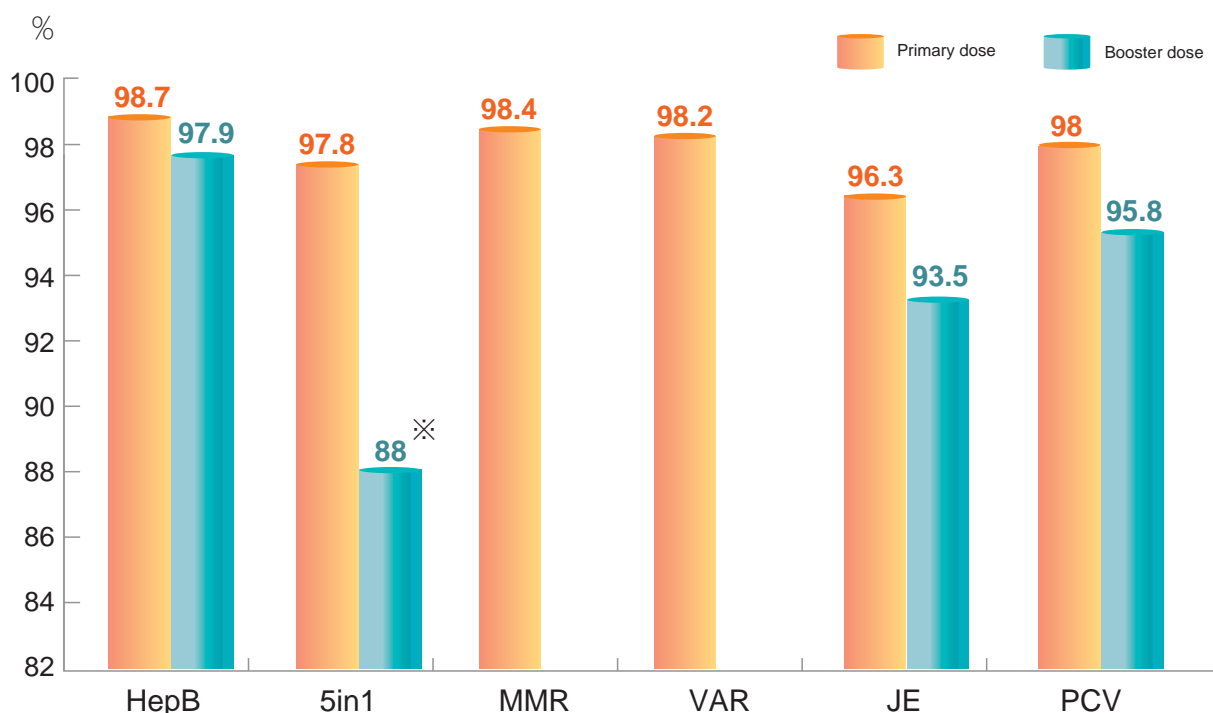
Notes: After January 1st, 2018, Hep A will target children who are more than 12 months old and born after January 1, 2017, as well as the pre-school children in 30 mountainous townships and 9 neighboring mountainous towns.

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 6-9. To deal with the side effects

of immunizations, the government has established the “Vaccine Injury Compensation Program (VICP)” to enable victims to receive the assistance they are legally entitled to.

**Figure 6-9 Immunization Coverage Rate for Children in 2017**

Source: Taiwan Centers for Disease Control



- Notes: ◆ HepB: Hepatitis B vaccine  
 ◆ 5in1: 5-in-1 vaccine (Diphtheria, tetanus, acellular pertussis, inactivated polio and Haemophilus influenzae type b conjugate vaccine)  
 ◆ MMR: Measles, mumps and rubella combined vaccine  
 ◆ VAR: Varicella vaccine  
 ◆ JE: Japanese encephalitis vaccine  
 ◆ PCV: Pneumococcal conjugate vaccine  
 ※ Statistical period: As of end of December 2017  
 ※ Due to the adjustments made to the timing of the 5-in-1 vaccine's fourth dose (effective from May 2017, the fourth dose will be given to a child at 18 months of age instead of 27 months of age), the current figure is above 94%.

## Section 2 Development and Manufacture of Antiserums/vaccines

1. The total production of snake antivenoms from hyperimmunized horses was 400 kilograms.
2. The production of snake antivenoms outsourced

to the National Health Research Institutes (NHRI) totaled 3,005 vials.

3,3,641 doses of antivenoms are available for use in Taiwan.



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**07**

# 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 2017 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 pre-warning and management systems; 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

The Food and Drug Administration of the Ministry of Health and Welfare (hereinafter referred to as the Food and Drug Administration) took advantage of industry self-discipline, government management, and private participation to ensure food safety, improve the management ability of the food industry, and advance food safety management.

### Section 1 Food Regulatory Standards and Product Reviews

1. Actively promote the Act Governing Food Safety and Sanitation (hereinafter referred to as the Food Safety Act). The regulations have been revised, as shown in Table 7-1.

**Table 7-1 Amendments to Food Safety and Sanitation Management Regulations and Standards, 2017**

Source: Taiwan Food and Drug Administration

Date	Name/Overview	Objective of Revision	
March 1	Amendments "Food Businesses Shall Establish Traceability System of Food Products"	Add that food businesses in 3 categories (i.e. edible vinegars, egg products, and infant and young child foods) are required to establish in different stages starting.	
May 18	Announcement "Order of The Labeling Principles of Food Cleanser"	Strengthen labeling control on food cleansers and request for disclosure of component information.	
July 13	Amendments "Enforcement Rules of the Act Governing Food Safety and Sanitation"	Amended 31 articles of the implementation rules in response to the amendments to several provisions of the Act Governing Food Safety and Sanitation.	
July 17	Amendments "Review Principles for Health food Registration"	Disclosure of document disclosure, test quality, and ethical requirements with the relevant regulatory certifications information attached.	
August 4	Amendments "Regulations for Systematic Inspections of Imported Food"	Aquatic products and dairy products into the scope of systemic product inspections strengthen source management.	
November 15	Amendments "Act Governing Food Safety and Sanitation"	Stipulated requirements for the preservation of food source-related documents by food businesses, and revised the relevant provisions in response to the establishment of the new criminal regulation confiscation system.	
November 17	Promulgate the regulation of "Restaurants in Hotels Should Comply with the Regulations on Food Safety Control System"	It is required that at least one of the restaurants in the international tourist hotels or five-star hotels shall implement the system of HACCP.	
December 25	Amendments "Mandatory and Prohibitory Provisions of Standard Contract for Mail Order Purchase of Food or Food Services"	Revision of "mail-order" to "distance sales," and amendments to regulation names and regulatory content.	
December 29	Promulgate the regulation of "Regulations Governing the Labeling of Health Food"	It is required to add warnings regarding purposes, drug distinctions and recommended consumption amount in "Notes" of health food labeling.	
January-December	Food labeling regulations	Regulations Governing the Labeling of Prepackaged Vinegar	Implemented labeling regulations for vinegar for consumption, food products sold from vending machines, and butter products.
		Regulations Governing the Labeling of Food Products Sold by Vending Machines	
		Regulations Governing the Product Names and Labeling of Prepackaged Butter, Cream, Margarine and Fat Spreads	
January-December	"Standards for Pesticide Residue Limits in Foods," "Standards for Veterinary Drug Residues Limits in Foods," "Application Scope, Limitation, Specifications, and Standards for Food Additives" and food sanitary standards.	The new or amended items are all listed as follows: 380 pesticides, 6,753 items of the maximum residue limits for pesticides; 144 kinds of veterinary drugs, 1,456 items of the maximum residue limits for veterinary drug; 794 items of food additives have a scope of use, limits, and specifications; a total of 39 food hygiene standards.	

2. For the registration and inspection of specific foods, the number of approved licenses is shown in Table 7-2.

**Table 7-2 Number of Registered Specific Food Products, 2017**

Source: Taiwan Food and Drug Administration

Category		Effective Licenses
Imported foods in tablet or capsule form		7,053
Health foods		358
Food additives		6,403
Genetically modified foods		130
Special dietary foods	Formulas for certain diseases	186
	Infant and follow-up formula	125
Domestic vitamin products in tablet or capsule form		1,245
Vacuum-packed ready-to-eat soybean food		3
Total		15,503

### Section 2 Food Management at the Source

1. At the end of the 2017, “ Food and Medicinal Business Operators Registration Platform” has been informed of more than 430,000 food industry practitioners, including 6,005 food additive businesses, with about 154,983 products registered.
2. In 2017, food traceability system announcements have included 22 categories of food businesses.
3. Border Inspection of Imported Food
  - (1) According to Article 30 of the Act Governing Food Safety and Sanitation: imported food items announced by the competent authorities must be categorized using custom exclusive commodity items. As of the end of 2017, TFDA has promulgated total of 2,582 commodity items subject to import food inspections.
  - (2) About 694,000 batches of food and related products were inspected in 2017, an increase of 7.37% compared with the 2016. Products that did not pass the inspections were returned or destroyed according to regulations.

### Section 3 Monitoring the Food Safety Chain

1. The Food and Drug Administration cooperated with local health bureaus to implement the post-food market monitoring plan. The results of these actions are shown in Table 7-3. Unqualified operators are investigated and punished as required by law.
2. Selective Inspection of Specific Cases
  - (1) High-violation, high-risk, and high-concern projects were subject to selective inspection, and 48 projects and 6 administrative joint projects were inspected in 2017.
  - (2) The monitoring of livestock and aquatic products and agricultural products of high concern or high failure rate was strengthened. Taking the imported agricultural products as an example, the average pass rate in the year of 2015 was 84.1%, and the rate in 2016 was 92.1%, while in 2017, when the inspection number of products with high failure rate was increased by more than three times, the pass rate was 95.6%.

**Table 7-3 Results of Post-Market Surveillance of Food, 2017**

Source: Taiwan Food and Drug Administration

Surveillance Items	Results		
	Samples Taken	Conforming Cases	Compliance (%)
Agricultural chemical residues	4,465	3,884	87.0
Veterinary drug residues	2,732	2,704	99.0
Mycotoxins	591	574	97.1
Heavy metals	650	647	99.5

#### Section 4 Food Safety and Sanitation Management

1. From 2010 to the end of 2017, more than 20,000 catering businesses passed the graded evaluation of food and beverage hygiene management.
2. In 2017, food safety monitoring plan and conduct testing added five new types food import businesses categories; the manufacture, processing and preparation industries were extended to all food manufacturing industries and the program was implemented in stages.
3. The “Food and Medicinal Business Operators Registration Platform” system data was provided to the health bureaus of the Taipei City and New Taipei City governments in 2017. The “Food and Medicinal Business Operators Registration Platform” system was used to create a “Excellence and Good for Food” Business Operators Map and support the “Search-and-Find Campaign” game.

#### Section 5 Food Sanitation and Safety Management System Certification

492 operators, i.e., 10 types of manufacturers of canned foods, food additives, dairy products, special nutritious foods and edible oils, flour, starch, salt, sugar, and soy sauce with business capital of more than NT\$30 million, were informed of the need to conduct safety management system verification as of the end of 2017.

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. To continually ensure the comprehensiveness of medicinal products regulations, amendments in 2017 are listed in Table 7-4.
2. Drug registration management: In 2017, 298 new clinical trial applications were submitted, 194 clinical trials study reports, 166 new drug applications were approved, and 286 generic drug applications were approved.

#### Section 2 Management of Manufacturers

1. As of the end of 2017, there were a total of 137 domestic manufacturers and 937 overseas manufacturers of western medicinal products obtained the certification of PIC/S (Pharmaceutical Inspection Co-operation Scheme) GMP.
2. As the end of 2017, for the active pharmaceutical ingredients, 264 items of 26 domestic manufacturers met the GMP requirements, and 1,555 import licenses were obtained through GMP reviews.

## 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

**Table 7-4 Amendments to Regulations Governing Drug Management, 2017**

Source: Taiwan Food and Drug Administration

Date	Title	Key Amendments
January 17	Announcement Revision of Human Cell Therapy Products Clinical Trial Application Procedures	To simplify clinical trial application procedure to facilitate the process of human cell therapy products
March 3	Key Points for the Review and Registration of New Drugs	To achieve greater harmonisation, and to enhance the transparency of reviews, amendments were reference for the preparation of technical document
August 10	Announcement for Enhancement Measures for Clinical Trial Protocol Review Process	Three Announcement for clinical trial applications includes establishing cell therapy/gene therapy products clinical trials fast-track review mechanism, streamlining first in human trials review process, and refining IND amendment management based on the degree of changes.
August 22	Announcement of Informed Consent Form Format for Clinical Trial	Amended the contents of the informed consent form to increase the safety and welfare
October 31	Advance notice concerning the "F04" Regulation Code Entry draft	Applications to import active pharmaceutical ingredients for human use should be submitted to the Taiwan Food and Drug Administration based on Regulations for the Inspection and Examination of Imported Medicaments.
December 5	Announcement of revisions to Regulations for Registration of Medicinal Products	Amended documents requirement to active pharmaceutical ingredients file applications for registration, change or extension. Added the requirement for excipients dossier review on applications of post-approval changes of package insert
December 25	Advance notice concerning "Regulations for Registration of Medicinal Products, Article 39 Table 2, Article 40 Table 4, Article 49-1, have been approved by the central health authority, which technical documents on Active Pharmaceutical Ingredients can be substituted by other documents.	Considering international drug management and achieving good manufacturing practices of active pharmaceutical ingredient in Taiwan, the Taiwan Food and Drug Administration has announced that technical documents of active pharmaceutical ingredients used in drug products (instruction drugs, and over-the counter drugs) can be replaced by synthetic processes, inspection, methods, and results of active pharmaceutical ingredient



### Section 3 Supply Chain Monitoring for Drugs

1. The implementation details and schedules of the “Good Manufacturing Practices for medicinal products (Part III Distribution)” was announced, and inspection were conducted. As the end of 2017, 642 companies had applied for GDP inspections and 273 had passed their inspections.

#### 2. Drug Quality Monitoring

- (1) The results of quality control on medicinal products on the market are listed as follows: 895 cases of suspected defective drug, 29 cases of drug with suspected therapeutic inequivalence issues and 928 cases of international drug quality (recall) alerts.
- (2) In 2017, the TFDA completed lot release for 421 batches, 13,829,585 doses of biologics.
- (3) The drug quality monitoring results for 2017 are shown in Table 7-5. The unqualified products were handled as required by law.

**Table 7-5 Results of Drug Quality Testing, 2017**

Source: Taiwan Food and Drug Administration

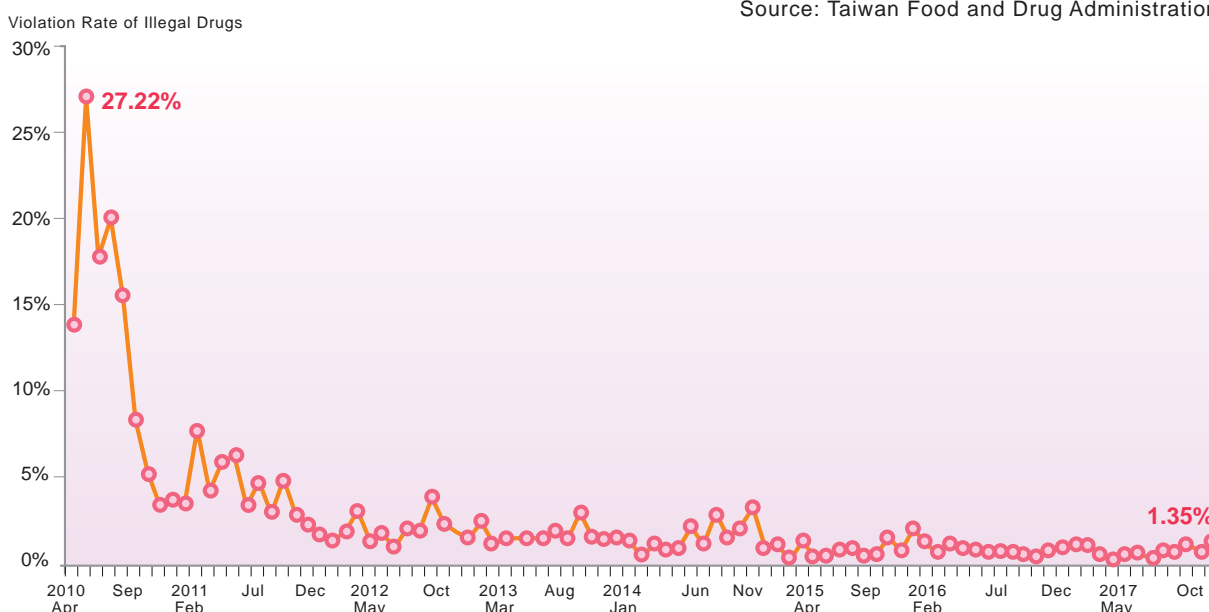
Tested Items	Tested	Passed	Pass Rate (%)
Study of Quality Surveillance on the Topical Steroids Preparations (Triamcinolone Acetonide) and Oral Steroids Preparations (Dexamethasone)	71	70	98.6
Microbiological Survey of Oral-Gastrointestinal Gels and Suspensions	43	39	90.7
Total	114	109	95.6

3. Since its establishment in 2010, the “Counterfeit and Defective Drugs Elimination Team” has maintained an average of at least 1,500 inspections per month. The counterfeit and defective drugs confiscation rate dropped significantly from 27.22% in the early days (in April, 2010) to 1.35% (in December, 2017). See

Figure 7-1. 8,081 cases of illegal advertising of food, drugs, and cosmetics were punished, and the fines amounted to NT\$199 million. The illegal advertising rate dropped from 13.93% (in January, 2010) to 4.91% (in December, 2017), as shown in Figure 7-2.

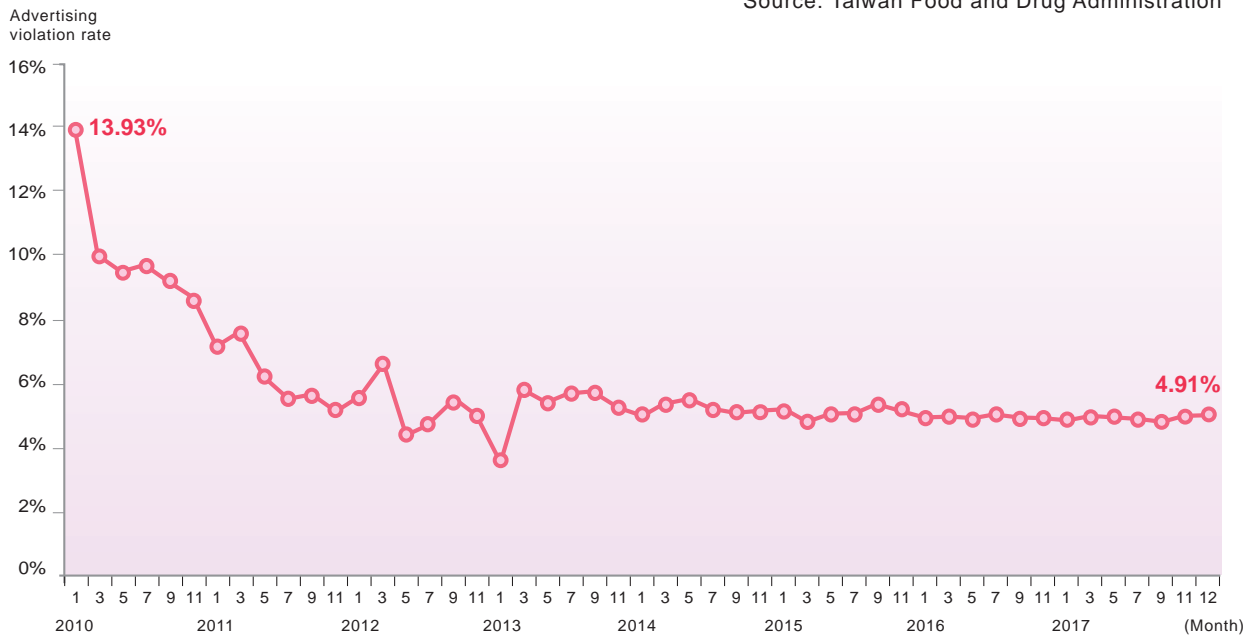
**Figure 7-1 Violation Rate of Illegal Drugs 2010-2017**

Source: Taiwan Food and Drug Administration



**Figure 7-2 Food and Drug Advertisement Violation Rate**

Source: Taiwan Food and Drug Administration



#### Section 4 Management of Drug Safety

In 2017, 190 drug injury relief applications were received, and 122 were approved, the approval rate vis 67% and NT\$23,016,909 in total.

#### Section 5 Management of Controlled Drugs

1. Establish management system in accordance with the regulations on the “Controlled Drugs Act”. The revisions to the scheduling of controlled drugs in 2017 are shown in Table 7-6.
2. As of the end of 2017, there were 15,682 institutional operators with controlled drug registration certificates and 54,831 practitioners with prescription licenses.
3. In 2017, a total of 17,230 on-site inspections were conducted, with a 3.41% violation rate. Violators all received relevant penalties.
4. Totally 153 lecturers have trained by hosting seed instructor training in 2017 and also established 8 anti-drug resource centers cooperating with 90 outreach point to strengthen the drug abuse prevention and control network.

**Table 7-6 Amendment to the Schedules of Controlled Drugs, 2017**

Source: Taiwan Food and Drug Administration

Date	Schedule	Name of Controlled Drug(s)
January 5	II	Methoxymethamphetamine (MMA), including 2-MMA, 3-MMA, and 4-MMA
		(2-Methylaminopropyl) Benzofuran (MAPB), including 2-MAPB, 3-MAPB, 4-MAPB, 5-MAPB, 6-MAPB, and 7-MAPB
	III	Methoxyethylamphetamine [methoxy-N-ethylamphetamine (MEA)], including 2-MEA, 3-MEA, and 4-MEA
		5-Methoxy-N-methyl-N-isopropyltryptamine (5-MeO-MIPT)
		Butylone (bk-MBDB)
		Fluoroamphetamine (FA)
	June 23	II
III		Methyl- $\alpha$ -ethylaminopentiophenone (MEAPP), including 2-MEAPP, 3-MEAPP, and 4-MEAPP
		2-(Dimethylamino)-1-(3,4-methylenedioxyphenyl)-1-butanone [Dibutylone, Methylbutylone (bk-DMBDB)]
		Methyl-N-((1-(5-Fluoropentyl)-1H-indazol-3-yl)carbonyl)valinate (5-Fluoro-AMB)
December 13	II	Methyl- $\alpha$ -pyrrolidinohexiophenone (MPHP), including 2-MPHP, 3-MPHP, and 4-MPHP
	III	Methyl- $\alpha$ -methylamino-valerophenone [Methylpentedrone (MPD)], including 2-MPD, 3-MPD, and 4-MPD
		1-(1,3-benzodioxol-5-yl)-2-(ethylamino)-1-pentanone (N-ethylpentylone, ephylone)
		Chloroethcathinone (CEC, Chloro-N-ethylcathinone), including 2-CEC, 3-CEC, and 4-CEC

## Section 6 Management of Chinese Medicine

1. On July 31, 2017, "Regulations for Registration of Medicinal Products" was amended to standardize the items and contents recorded in test specifications and test methods of Chinese medicine products. It also clarified that the stability tests of Chinese medicine products shall conform with the standards promulgated by the central health authority.
2. In 2017, 94 GMP Chinese medicine factories completed 51 follow-up inspections according to the "Regulations of Medicine Manufacturer Inspection", and the pass rate was 96.1%.
3. Investigation and prosecution of illegal Chinese medicine advertisements were issued in 655 cases, with fines totaling NT\$16.42 million. The unqualified products were all handled as required by law.
- 4.21 Chinese herbal raw materials such as ginseng and astragalus were subject to the border inspection system. In 2017, 3,166 items were reported and 847 were inspected. 37 unqualified products were returned or destroyed as required by law.
5. The quality monitoring of commercially available

Chinese medicines materials focuses on the testing for heavy metals, sulfur dioxide, aflatoxins, and residual pesticides. In 2017, 344 Chinese herbal medicines and 250 Chinese medicine preparations were tested. The pass rates were 93.9% and 99.6%, respectively. In addition, 2,463 package labels were inspected. The pass rate was 98.4%, and the unqualified products were handled as required by law.

## Chapter 3 Management of Medical Devices and Cosmetics

To effectively ensure the safety and quality of medical devices and cosmetics, a complete quality management policy was established from the international regulatory harmonization, production source control, pre-market gatekeeping, post-market monitoring and supply chain management.

### Section 1 Medical Device and Cosmetics Regulation Standard and Product Review

1. The regulatory environment was adapted to international regulations, and the revisions in 2017 are shown in Table 7-7.

**Table 7-7 Important Amendments and Revisions to Regulations Governing Medical Devices and Cosmetics in 2017**

Source: Taiwan Food and Drug Administration

Date	Name	Objective of Revision
January 9	Publication of "Priority Review Program for Medical Devices"	Aimed at accelerating the development and approval of innovative medical devices, as well as promoting the accessibility of safe and effective medical devices to patients who have rare or life-threatening diseases or disabled people.
February 15	Promulgate "List of Preservatives and Antimicrobials Allowed in Cosmetic Products"	Amended limit- and use-related regulations with respect to 69 preservative ingredients and 18 antimicrobials ingredients in cosmetic products.
March 16	Revised the "Registration of Requirements of Distance sales of medical Devices by pharmaceutical Companies (Pharmacies)"	A total of five class II medical devices, namely blood pressure tourniquets, Menstrual cups, Motorized vehicle for medical purposes, Powered wheelchairs and otolaryngology drug application devices, and throat cloth application device, promoting consumers can now be purchases through distance sales.
December 8	Promulgate "Regulations governing 15 ingredients such as Safrole that are ingredients prohibited for use in cosmetic products"	With effect from July 1, 2018, the import, production, sales, supply or intended sales, and supply and display of cosmetic products that contain one or more ingredients from a list of 15 (including safrole) shall be prohibited. Starting from July 1, 2018, the import, manufacturing, sales, supplement or intend to sell, and display cosmetics containing 15 components (e.g. Safrole) is prohibited.
December 15	Promulgated "Guidance for Medical Device Software Validation"	Provided as a reference for developers of medical software products.

2. In 2017, a total of 164 cases of registration review for innovative medical devices with no similar products were completed, an increase of 14% over 2016. Development of 60 domestic preclinical testing guidance documents were

completed, 918 medical device, international standards and 110 product guidance for medical devices were recognized to enhance review consistency and transparency. The registration data are shown in Table 7-8.

**Table 7-8 Statistics of Medical Devices and Cosmetics Applications for Reviews as of 2017**

Source: Taiwan Food and Drug Administration

Items	Medical Devices Registration	Medical Devices Advertisement	Medicated Cosmetics Registration
Number of received applications	5,251	292	1,499
Number of closures	5,096	286	1,470
Valid Licenses: 46,797 for medical devices (an increase of 3,469 compared to 2016), 16,724 for medicated cosmetics			

Note: Based on the Judicial Yuan's interpretation, the review of cosmetics advertisements was halted on January 1, 2017.

3. A comprehensive counseling network for medical materials and cosmetics regulations was established. 18,185 consultation calls were received, of which 9,592 calls for cosmetics regulations consultations. The network promptly responded to questions from all walks of life and posted Q&A on the website of the Food and Drug Administration.

4. The supporting mechanism for manufacturers of innovative medical devices was implemented, successfully assisting the domestic products such as "hepatitis B virus load test kit," "hepatitis D total antibody reagent," "a dengue fever NS1 antigen quick test reagent," "automated external cardiac shock defibrillator" and "sleep respiratory therapy device" to be approved for selling.

### Section 2 Source Management of Medical Devices and Cosmetics

1. All medical device manufacturers were brought under the regulation of medical device GMP. At the end of 2017, valid GMP compliance letters for domestically made medical devices were 704 items; valid quality system documentation compliance letters for imported medical devices were 3,925 items, valid voluntary cosmetic GMP 47 manufacturers.

2. At the end of 2017, there were 7,228 registered cosmetics in cosmetic products notification portal, an increase of 5,469 over 2016.



### Section 3 Quality Chain Monitoring of Medical Devices and Cosmetics

1. The quality monitoring results of medical equipment and cosmetics are shown in Table 7-9. The unqualified products were handled as

required by law.

2. The Food and Drug Administration and the local health bureau jointly inspected the packaging labels of medical equipment and cosmetics. The results are shown in Table 7-10.

**Table 7-9 Results of Medical Devices and Cosmetics Surveillance in 2017**

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 (%)
Survey of Di(2-ethylhexyl)phthalate (DEHP) in Polyvinyl Chloride (PVC) Medical Devices in Taiwan	29	29	100	28	96.6
Survey on the Quality of Marketed Surgical and Medical Masks in Taiwan	28	17	60.7	27	96.4
Medical devices, total	57	46	80.7	55	96.5
Survey on Estrogens in Cosmetic Products in Taiwan	52	52	100.0	52	100
Survey on Formaldehyde, Methanol, Benzene and Phthalate Esters in Marketed Nail Polishes in Taiwan	50	42	84.0	50	100
Cosmetics, total	102	94	92.2	102	100

**Table 7-10 Statistical Analysis of Medical Device and Cosmetic Joint Inspection Data, 2017**

Source: Taiwan Food and Drug Administration

Product Name	Number of Inspected Counties/Cities	Number of Inspected Stores/Street Vendors	Product Labeling		
			Inspected Number	Number of Conformity	Conformity Rate (%)
Ear thermometer	9	58	132	124	93
Infrared physiatric device	9	28	32	26	81.3
Automated blood cell separator and environmental control box for storing platelet concentrate	3	21	28	28	100
Hearing aid	9	56	71	42	59
Medical devices, total	30	163	263	220	83.7
Hair cosmetics	10	51	88	84	95.4
Lotion			95	94	99
Hair dye products			67	63	94
Cosmetics, total	10	51	250	241	96.4

## Section 4 Safety Management of Medical Devices and Cosmetics

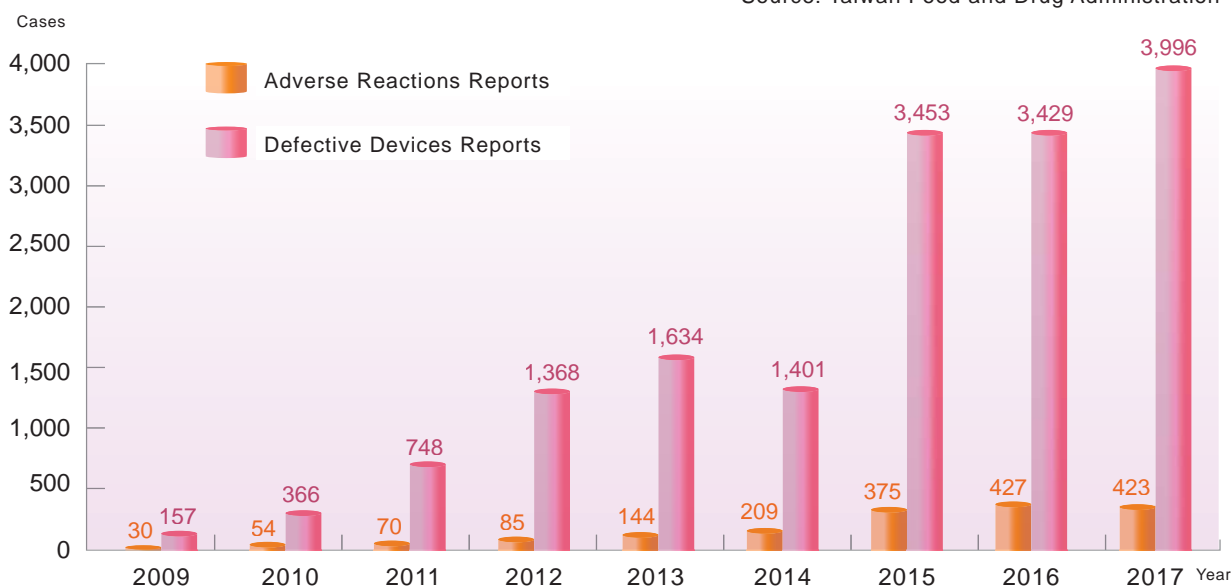
1. In 2017, submissions to the Taiwan National Adverse Drug Reactions Reporting System included 3,996 reports of defective medical devices and 423 reports of adverse reactions to medical devices (Figure 7-3). The TFDA, which

actively monitors medical device 2,159 safety vigilance information from Taiwan and overseas, translated and issued 139 alerts online for reference by all sectors of society.

2. In 2017, there were 83 reports of adverse events for cosmetics, 223 safety alerts monitored, and 128 consumers “red and green light alerts.”

**Figure 7-3** Reported Defective Medical Devices and Adverse Reactions to Medical Devices, by Year

Source: Taiwan Food and Drug Administration



## Chapter 4 National Laboratory and Risk Management

Continue to improve the functions of national laboratory, construct inspection techniques in line with international trends, improve the development of inspection technology and support administrative management by testing technology; Implement risk management and crisis management mechanisms, 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. First, in response to the needs of various types of product inspection, actively develop rapid and accurate inspection methods to quickly clarify the beginning and end of emergencies, propose strategies, and resolve public concerns through press releases and the media. In 2017, 8,669 inspections were carried out, and the number of inspected items was 43,991 including inspection and registration of product application

purpose, lot release testing for biologics, customs inspection of condoms, and inspection of emergencies, etc., and inspection technology and support were provided to government agencies.

2. Purchase instruments to expand the inspection capacity, improve inspection technology, and formulate technical documents for use by all sectors. For food products, it announced 28 new or revised testing methods and recommended 36 testing methods, for cosmetics products, it publicly recommended six testing.

### Section 2 Risk Management and Crisis Management Mechanisms

1. The basic course of “risk and crisis management training” is set up to improve crisis management and resilience.

2. In response to the “0303 Pseudo-drug Event,” three-level Emergency Command Center was set up in 2017. Improvement were made, and emergency response mechanism was put in place.

### Section 3 Local and Private Laboratory Accreditation and Management

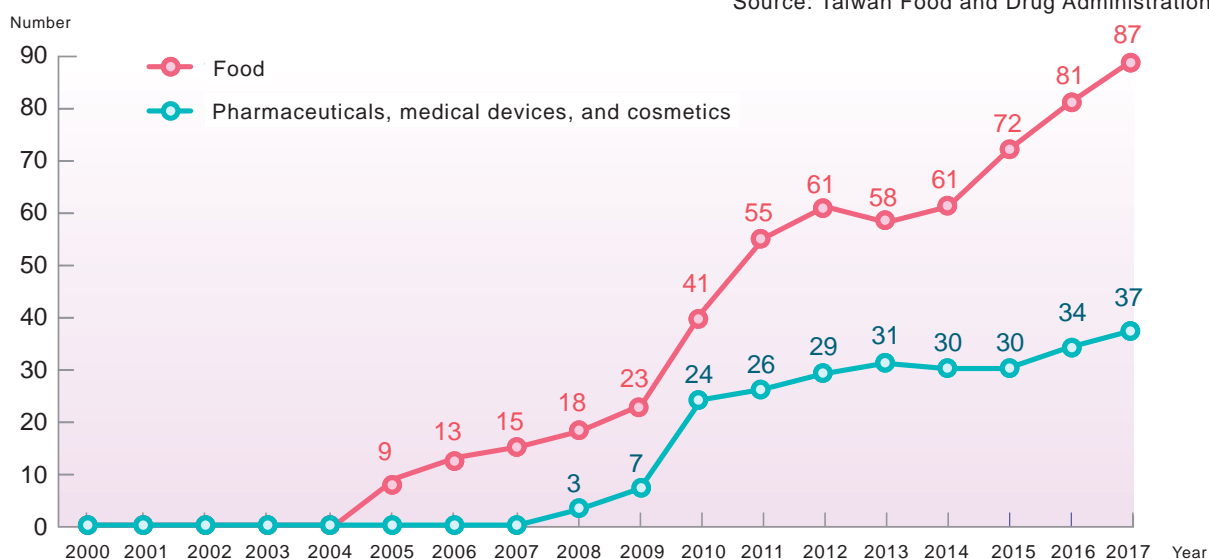
1. Through the “Health Bureau Joint Division Inspection System,” the special labor division of inspection was supported. The local health bureau’s self-inspection rate was improved to 85%. As the end of 2017, 761 items passed the laboratory certification of the Food and Drug Administration of Ministry of Health and Welfare, and the pass rate of project was 97.2%.
2. In order to expand the domestic inspection capacity, the number of private inspection institutions and projects approved by the Food

and Drug Administration reached 124 and 1,503 items, which is 7.8% higher than last year, as shown in Figures 7-4 and 7-5. The satisfaction rate of the drug and cosmetics test reached 84.1%.

3. To promote the exemption of similar inspection, the B list of the exporting country’s public inspection agency system of Japanese Ministry of Health, Labour and Welfare, a total of four certification inspection agencies, was registered. The certification system is internationally affirmed.

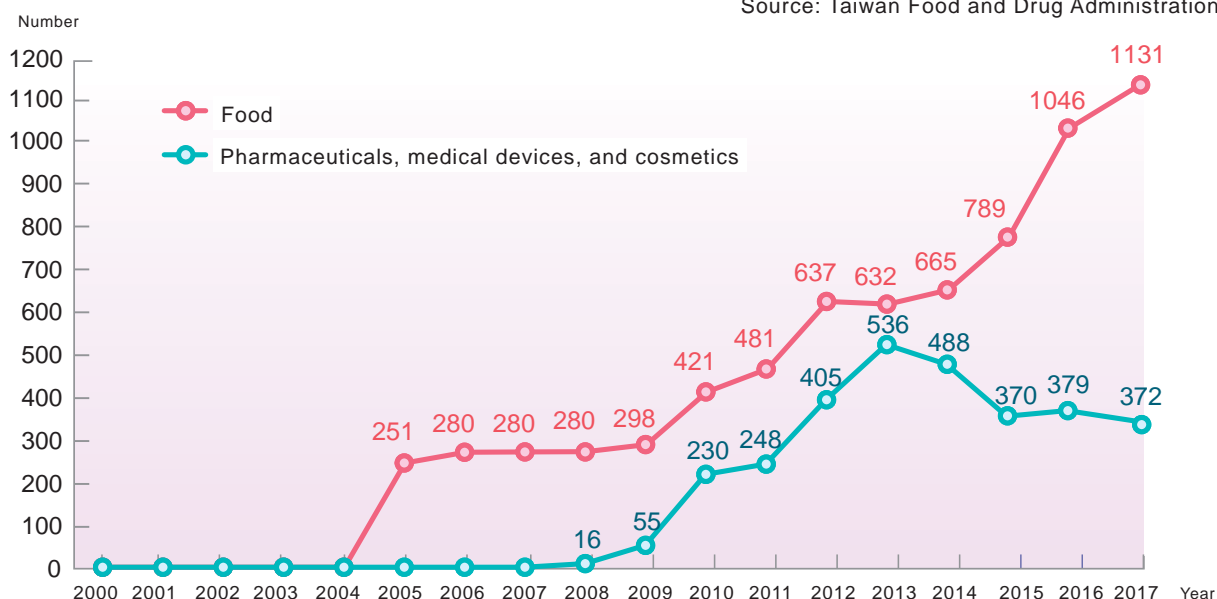
**Figure 7-4 TFDA-Accredited Testing Institutions, by Year**

Source: Taiwan Food and Drug Administration



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

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 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 to rumor collection. By the end of 2017, more than 420 articles were posted on the website, accumulating 543,700 visitors.
2. The latest health education information is posted to the Facebook fan page “TFDA” which has more than 74,000 followers.
3. The FDA collected rumors and provided clarification through “Food and Drugs Rumor Buster” on its official website. 307 messages were released, with more than 3.91 million hits and articles being referenced for more than 1,891 times by the media.



4. “New generation Anti- drug Strategy \_ New Psychoactive Substances and Drugs Abuse Information Section” provide information on the detection of New Psychoactive Substances (NPS), Drug Abuse Case and Testing Statistics, approved drug abuse urine test institutions and drug list that can be detected using urine test screening kit.

### Section 2 Consumer Communication and Campaigns

1. As of the end of 2017, the national food safety telephone number “1919” received over 70,000 calls, and the satisfaction rate reached 80%.
2. Efforts were made to publish the special manuscript “Knowledge on the Table” on the national newspaper which used the comics to convey the knowledge of food safety and sanitation; produce a special magazine of “Be Careful When Eating Outside,” showing the matters needing attention when eating outside and barbecue in graphic form; teach student to read labels and choose the right snacks, so that the concept of food safety can take root.
3. Cooperated with 25 NGOs to hold 1,566 drug prevention activities and published 2 new anti-drug posters on the anti-drug website cumulated 500,000 browsing people in 2017.
4. Promote awareness for safe drug use by establishing 8 national educational resource centers for drug use, 19 medicinal resource center and schools, 351 community drug use inquiry stations and carrying out 438 educational activities, 176 advocacy lectures in communities and schools for safe drug use.



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# 08

## National Health Insurance and National Pension

To help 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, but has also attracted numerous

foreigners to Taiwan to learn about its advantages. By the end of 2017, the total number of insured people was 23.88 million, and the NHI coverage rate hovered around 99.7%. 92.8% 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: Public Welfare Lottery Surpluses and Welfare Surcharge on Tobacco Products. At the end of 2017, the cumulative surplus of NHI was NT\$238.6 billion, showing that finance status of NHI was in good shape.



2018 Policy Consensus Camp held by the National Health Insurance Administration on November 24, 2017

### Section 2 Universal Coverage and Easy Access to Healthcare

In 2017, the total number of outpatient visits was 361.32 million; the total number of hospitalizations was 3.36 million. While the average number of outpatient visits per person per year was 15.2 (combining Western medicine, Chinese medicine and dental clinics), the number of hospitalizations per person per year was 0.14. The average length of hospital stay was 1.3 days.

By the end of 2017, the number of health facilities having contracts with NHI reached 28,339, of which 21,080 were contracted hospitals and clinics that account for 92.8% of the total medical institutions nationwide. The insureds may choose their healthcare providers.

Since June 2016, 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.

### 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 expanded the premium base that includes increased supplementary premium and the government contributions, and the resulting funding gap was significantly reduced. At the end of 2017, the balance sheet for the year headed up NT\$238.6 billion as shown in Figure 8-1. Since 2016, the baseline to levy supplementary premium on the income from professional practice, stock earnings, interest earnings and rental earnings was adjusted from NT\$5,000 to NT\$20,000. Moreover, the premium collection auditing and monitoring were strengthened. The total amount of supplementary premiums collected in 2017 was

approximately NT\$44.8 billion.

For a sustainable health insurance system based on fiscal responsibility, the “NHI Financial Balance and Revenues and Expenditures Linking Mechanism” was developed. Considering the annual premium rates in 2016 and 2017, the general premium rate was reduced from 4.91% to 4.69%, and the supplementary premium rate was reduced from 2% to 1.91% starting January 1, 2016. In 2017, a review indicated that a further rate adjustment was not warranted.

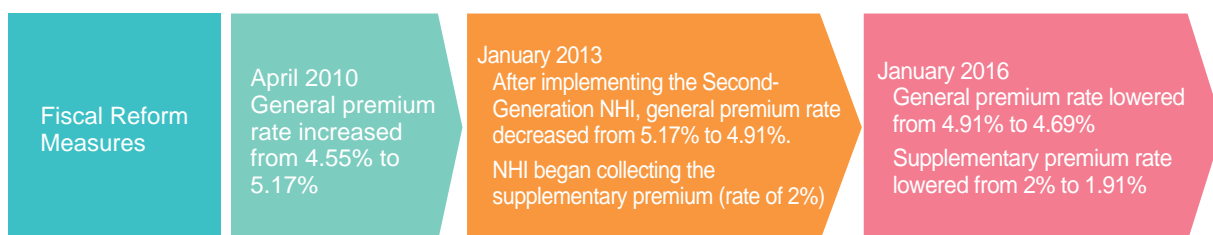
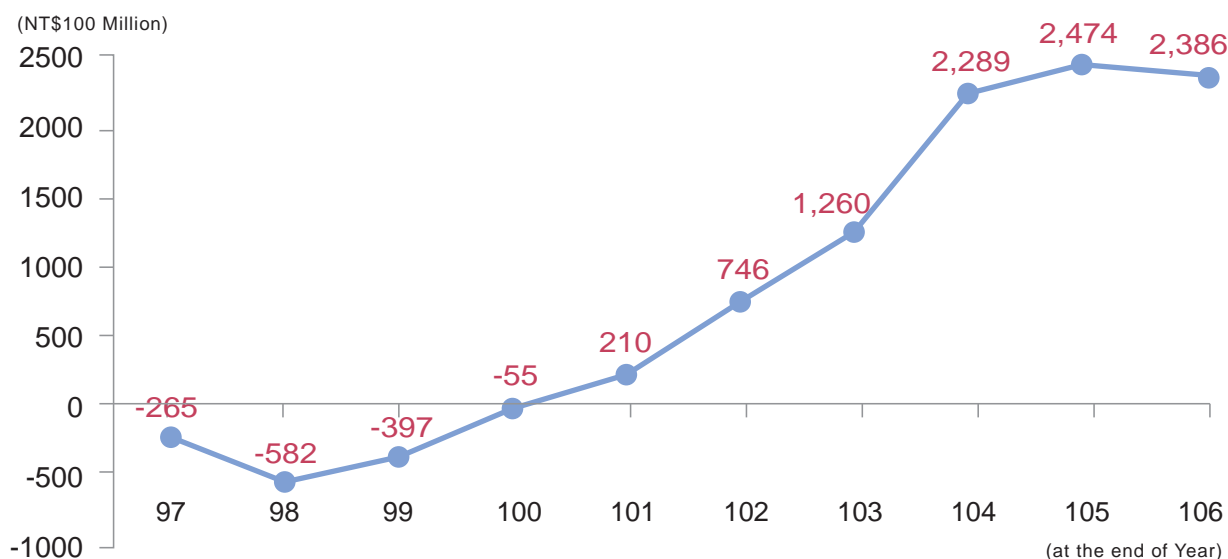
Presently, the system is financially sound; however, due to factors such as an aging population and recent medical advances, financial pressure will continue to mount in the foreseeable future. The MOHW will keep refining the insurance system to ensure its long-term stability and a fairer burden-sharing among insureds.

**Figure 8-1 Reserve Fund, Before and After Implementation of the Second-Generation NHI**

Source: National Health Insurance Administration, MOHW

#### NHI Reform Turned Deficits into Surpluses

- ※At the end of 2017, NHI had a reserve fund of NT\$ 238.6 billion
- ※NHI achieved fiscal balance and has a large reserve fund



## Section 4 Diverse Payment Methods and Rational Management

The main payment method for NHI medical services has been “Fee-for-Service” (FFS). Since July 2002, the Global Budget Payment System has begun to come into play to better control the growing medical expenses. In 2017, the healthcare expenditure grew at 5.6% annually. Meanwhile, through diverse payment methods such as Case Payment and Pay-for-Performance (P4P) reform programs, quality of care can be improved through encouraging first-contact care, increasing coordination of services, and reducing redundant or improper care. On January 1, 2010, Taiwan Diagnosis Related Groups (Tw-DRGs) was enforced, while its second phase was enforced on July 1, 2014.

Moreover, NHI High-utilization Patient Counseling Program was launched in 2001, and expanded in 2013. About 47,000 people who visited a doctor over 90 times in the previous year were enrolled in program for medical treatment. If there were no obvious improvement within a year, and a specialist determines that the patient needs further treatment, the patient would then be limited to a designated institution for more management (emergency excluded). If the patient chooses a non-designated institution, he/she would then be liable for all incurred expenses. Patients received counseling about future management in 2017 for their high health utilization rates (90 plus visits) in 2016. After counseling these high-risk patients, the average number of their office visits dropped by 18%, and their medical expenses decreased by about NT\$425 million.

To provide the medical care to disabled/incapacitated patients, the Integrated Home Care Services were executed on February 15, 2016 to improve Taiwan’s fragmented home care services. As of the end of 2017, 195 home care teams have participated involving 2,024 institutions and 32,759 health workers.

For patients who acquired disability after intensive care, they were given active rehabilitation during treatment window, so that they can recover quickly to minimize the need for follow-up home care. NHI Post-acute Integrated Care Program was introduced to patients suffering stroke, burns, traumatic nerve injury, bone fractures, heart failure and other debilitated elderly patients. The regional hospitals and community hospitals of the “Post-acute Care Team” provide physical therapy, occupational therapy, speech therapy, social work support, nutrition and other integrated team care during treatment window according to

each patient’s needs. Currently, 38 teams and 200 hospitals have participated in the program. The cumulative number of people receiving this service reached more than 11,000 in 2017. 88% of patients significantly ameliorated their functions, and their Activities of Daily Living (ADLs) improved from 39 to 64 points. 88% of patients returned home swiftly.

To promote a hierarchically integrated medical system, the allocated hospital budget in 2017 was increased based on the rising healthcare costs, which were used to adjust the payment for acute intensive care cases (totaling NT\$6 billion) and the treatment schedule of remote and/or regional hospitals (totaling NT\$2.2 billion). Since October 1, 2017, Taiwan has increased the payment for 167 medical treatment items, higher reimbursements for 1,513 types of pediatric surgeries, for emergency holiday higher reimbursements, for pediatrician higher reimbursements, and loosened the requirements of general surgery. The reimbursement of 49 basic medical expenses in remote areas and regional hospitals was also increased. A budget of NT\$250 million was allocated to expand the service capacity of primary care facilities. Since May 1, 2017, 25 medical treatment items including the influenza A virus antigen panel can be performed in primary care facilities.

Responding to public demand for health reviewers to reveal their names, the NHIA has implemented the “Professional Double-Review and Name-Released” pilot scheme concerning hospital global budgets since October 2016. For the “Double-Review,” specific cases are reviewed by two physicians; for the “Name-Released,” depending on the reviewing physicians’ preference, there are two possible categories: “individual name release” and “group name release.” The former had a trial run with 7 departments: pediatrics, obstetrics, otolaryngology, ophthalmology, neurology, psychiatry and urology; the latter will have their names released on the NHIA website according to their specialties. The consent rate climbed to 51% as of the end of 2017. After the pilot program, the number of disputed medical expenses decreased from 104,000 in 2015 to 55,000 in 2017. Therefore, it seems to have achieved the goal of “minimizing variations in clinical judgment and enhancing rational decision making.”

Previously, hepatitis C treatment required a long-acting interferon once a week, and daily oral administration of ribavirin for six months to a year. Since the introduction of new oral drug having a higher hepatitis C’s cure rate, fewer side effects,

and shorter course of treatment; the NHIA has covered this drug beginning January 2017, and allocated NT\$2.43 billion to cover this new drug in 2017. The Gastroenterological Society of Taiwan helped prioritize healthcare resources in this regard. Approximately 9,538 people have benefited from this policy thus far.

**Section 5 Disclosure of Information to Improve Quality**

The NHIA website discloses information regarding health care services including the quality of contracted healthcare institutions and the scope of benefits. The implementation of the Second Generation NHI reinforced medical information disclosure such as the hospital financial reports, the service situation of each hospital (e.g. the number of hospital beds, the number of patient visits and payment points), the average daily ratio of nurse to patient and the quality of service each hospital offered. This information enable the public to understand the operational efficiency of medical institutions from a macro perspective, and to force institutions to improve their quality through publicizing major violations.

To promote transparency in copayment, the NHIA has established a “Price Comparison Platform of Self-paid Medical Devices” to allow people to compare the prices of hospital out-of-pocket payment, NHI payment prices, and insured copayments (such as drug-eluting vascular stents, healing crystals, ceramic hip implants, etc.)

The NHIA website has also established a “Patient Opinion Sharing Platform” (<https://www.nhi.gov.tw>) 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 Care for the Disadvantaged in 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.
  - (2) Since June 7, 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 2017 included payment of NHI premium arrears and fees associated with treatment. Assistance was provided 68,000 cases of people, with approximately NT\$212 million in total.

**Table 8-1 2017 NHI Premium Subsidies for the Disadvantaged**

Source: National Health Insurance Administration, MOHW

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	3.038 million persons	NT\$ 25.02 billion
Relief Fund Loans	People qualified "economic hardships"	2,324 cases	NT\$ 170 million
Payment by Installments	People unable to fulfill their payment obligations at once	77,000 cases	NT\$ 2.17 billion
Charity Donation Referrals	People unable to pay their premiums	6,799 cases	NT\$ 23.69 million

## 2. Caring for Indigenous People and Underserved, Remote Populations

- (1) **Plan for Improving Health Care in Remote Regions via Integrated delivery Systems:** in November 1999, the NHIA launched this project to address the issues of insufficient medical resources in mountainous regions and on outlying islands. As of 2017, 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 460,000 people. Overall, local people showed 95% 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 regional hospitals in underserved areas 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. 90 hospitals participated in the program in 2017. To continue the project in 2014, new regional hospitals were added to the "Emergency Responsible Hospitals for Medical Underserved Areas." Hospitals caring for patients with level 1 or 2 trauma will be given NT\$1 per point for 10 days of hospitalization. The guaranteed amount for each hospital is capped at NT\$5 million. In 2017, 9 regional hospitals participated in the project.

(3) The NHIA has been devoting an additional NT\$640 million annually in underserved areas. It aims to encourage dental, Chinese and Western medicine practitioners to work in these regions to deliver better local services. In 2017, 268 contracted institutions rotated in these underserved areas serving more than 590,000 people.

(4) According to 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/Injuries or Rare Diseases

(1) The insured who has obtained an Major Illness/Injury Certificate can be exempted from the copayments. By the end of December 2017, over 950,000 Major Illness/Injury Certificate were issued (the number of patients was 890,000 accounting for 3.7% of the total insured), while the expenses for major injury/disease in 2017 stood at about NT\$191.5 billion (accounting for 27.35% 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 December 2017, 9,759 Major Illness/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 also can record the owner's organ donation designation, and his/her willingness to receive hospice palliative care and/or cardiopulmonary resuscitation.

To diversify services, the "Multiple Authentication Internet Platform" was established on January 2006. By the end of 2017, 188,000 insured institutions had used the system. Each month about 1.53 million online updates were made accounting for over 76% of such information update.

As of the end of 2017, 15.45 million applications to withhold supplementary insurance premiums were completed online accounting for more than 90% of all such records.

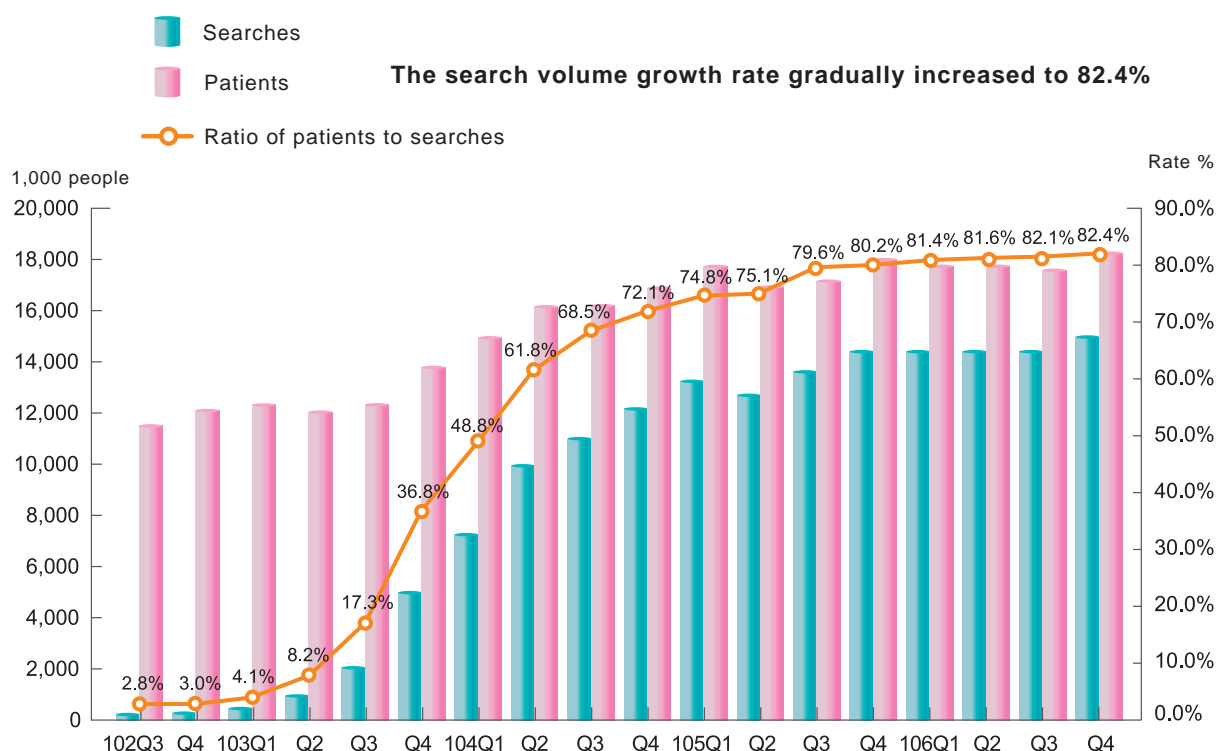
In 2013, the NHIA established the "NHI PharmaCloud System" for doctors and pharmacists

to check the patient medication records in real time to avoid duplicative, inappropriate use of prescription drugs, and to reduce harmful drug interactions and side effects. In 2016, the system was upgraded to the "NHI MediCloud System." As of the end of March 2017, 11 items were listed: cloud drug history (Western medicine), Chinese medicine drug history, drug allergies, specifically controlled substances, specific clotting factors, examination records/results, dental treatment and surgery, rehabilitation care, surgical records, and discharge records. In 2017, 24,478 medical institutions made inquiries, and the average number of monthly inquiries was 28 million. The inquiry rate for medical treatment was about 82.4% as shown in Figure 8-2. Upon closer inspection of patients' medication history with six types of drugs: antihypertensives, antihyperlipidemic agents, antihyperglycemic agents, sedatives, anti-psychotics and anti-depressants; one could see that the rate of duplicative prescriptions has gradually declined over the years since the system's inception.

To give the public a better grasp of the complex issues associated with healthcare, people can use the "registered" NHI card, Citizen Digital

**Figure 8-2 Use of the NHI MediCloud System (including the NHI PharmaCloud system)**

Source: National Health Insurance Administration, MOHW





Certificate or download personal medical data through “My Health Bank.” The full medical history includes outpatient care, inpatient services, medications, surgical history, drug allergies, test results, imaging or pathological examinations, discharge medical records, organ donation designation or consent for hospice palliative care, adult preventive health guidelines and vaccination records. At the end of 2017, 590,000 people used My Health Bank 4.58 million times.

## 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 3,349,164 insured persons of NPI in December 2017. Data on the different categories of insured persons are shown in Table 8-2.



**Table 8-2 Insured Persons and Ratios of NPI, December 2017**

Source: Bureau of Labor Insurance

Classification	Insured Persons	Ratio (%)
General Insured Persons	2,882,608	86.1
Low-Income Households	71,218	2.1
Persons with Severe or Extremely Disability	94,018	2.8
Persons with Medium Disability	74,782	2.2
Persons with Mild Disability	62,229	1.9
Middle-low income persons (income less than 1.5-fold minimum cost of living)	118,475	3.5
Middle-low income persons (income less than 2-fold minimum cost of living)	45,834	1.4
Total	3,349,164	100

2. Insurance premium rate: 8.5% (insurance premium is calculated based on monthly insured amount and insurance premium rate).
3. Insurance Premium Subsidies: In principle, the government will subsidy 40% (NT\$622 monthly) of NPI insurance premiums for each insured person. For middle-low income insured persons or disabled insured persons with mild or medium disability, the government will subsidy 55% (NT\$855) or 70% (NT\$1,088) 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\$1,554) 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 2017, receivable premiums of insured persons were more than NT\$290.9 billion and more than NT\$162.5 billion was received. The payment rate was 55.88%.

#### 6. Payment items

- (1) Insurance Payments: Include old age pension payments, maternity payments, mental/physical disability pension payments, funeral payments, and surviving family pension payments.
- (2) Other Payments: Include old age basic guaranteed pension payments, mental/physical disability basic guaranteed pension payments, and aboriginal pension payments.
- (3) NPI benefit payments are described in Table 8-3.

**Table 8-3 NPI Benefit Recipients and Payments, 2017**

Source: Bureau of Labor Insurance

	Payment Type	Recipients (People)	2017 Payment Amounts(NT\$1,000s)
Insurance Payments	Old Age Pension Payments	901,854	38,908,076
	Maternity Payments	19,901	701,274
	Mental/Physical Disability Pension Payments	6,752	302,183
	Funeral Payments	14,581	1,332,258
	Surviving Family Pension Payments	79,943	3,647,832
	Subtotal	1,023,031	44,891,625
Other Payment	Old Age Basic Guaranteed Pension Payments	613,157	27,486,000
	Mental/Physical Disability Basic Guaranteed Pension Payments	20,879	1,228,220
	Aboriginal Pension Payments	39,701	1,705,955
	Subtotal	673,737	30,421,170
Total		1,696,768	75,311,800

Note: Recipients of lump sum payments are accumulated of the persons per month over the course of the year. Recipients of pension payments are the recipients at the end of the year.

7. Financial Status of the NPI Fund: At the end of 2017, the accumulated value of the fund was NT\$264.07 billion. The fund aims to build a diverse investment portfolio. Major holdings include domestic bank deposits (7.9%), domestic and foreign debt securities (31.2%), and equity securities (48.1%). The portfolio should balance risk and returns.

## Section 2 National Pension System Reform and Important Results

1. The “2017 National Pension Prospects and Challenges Seminar” was held, and 207 people from all fields were invited to participate in the exchange of ideas on national pension policy and implementation, and various suggestions on the future reform direction of the national security system were widely collected.
2. The MOHW continues to oversee the Bureau of Labor Funds of the Ministry of Labor (BLF) to draft 2017 yearly utilization plans, and to improve the performance of the NPI Fund. At the end of December 2017, total earnings were NT\$21.221 billion and the annualized rate of return was 8.04%.
3. The MOHW continues to oversee the Bureau of Labor Insurance of the Ministry of Labor (BLI) to undertake systematic collection of premiums from citizens in arrears. In 2017, more than NT\$5.2 billion in arrears was collected.

4. To improve the accuracy rate for the administration of NPI benefit, the MOHW has urged the BLI to improve databases and auditing mechanism. In 2017, there were 1,763 overpayment cases, a decrease of 11.3% compared to that in 2016.

5. Formulating the principle of “improving the payment rate of the insured persons of NPI”, the MOHW cooperated with the Council of Indigenous Peoples, the BLI, and local governments to formulate a plan for increasing the payment rate of the insured persons. In 2017, besides using diverse channels to disseminate NPI information, local governments visited citizens who owed premiums, visited 269,000 people in total. There were 37,000 promotional events.

6. The “Ten-year deadline to supplement NPI premiums” countermeasures were enacted. The Council of Indigenous Peoples, the BLI and local governments are required to actively handle the affair to ensure that the people can receive the payment benefits in the future.





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# 09

## 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

At the end of 2017, Taiwan had 3,900,662 children and youth, accounting for just 16.5% of the total population. In order to ease the impact of low birth rate, the SFAA worked with related agencies to promote supportive measures for children and youth, in accordance with the Population Policy White Paper issued by the Executive Yuan in 2013. The Social and Family Affairs Administration took various actions in support of children and youth

(Figure 9-1) jointly with the relevant departments and agencies to alleviate the phenomenon of low birth rates. Meanwhile, it also pushed for the Implementation Act of Convention on the Rights of the Child. By the end of 2017, it had reviewed the lists of the act and order, proposed the initial state report under the Convention on the Rights of the Child, and conducted an international review.

### Section 1 Subsidies for Children and Youth

1. Allowances for Unemployed Parents with Children under 2 Years Old: Monthly allowances of NT\$2,500 - 5,000 are available for families with a marginal tax rate under 20% within the past one year and with at least one parent who did not work due to childrearing responsibility. In 2017, there were 258,364 children (accounting for 65.64% of the children under 2 years old) of subsidies totaling more than NT\$5,069,590,000.
2. Emergency Living Subsidy for Children and Youth of Vulnerable Families: Each high-risk family which suffered from misfortune and financial difficulty with children in need of care

**Figure 9-1 Supportive Measures for Children and Youth**

Social and Family Affairs Administration

Age Project	0	1	2	3	4	5	6	
Economic Support Measures	Child-care subsidy for employed parents with qualified childcare providers							
	Allowances for Unemployed Parents with Children under 2 Years Old							
	Special for preschool children Deductions							
				Preschool Subsidies			Free Tuition for 5 Year Olds	
	Assistance for Families in Hardship (Living / nursery allowances for children)							
	Living Subsidies for Children of Low Income and Disadvantaged households							
Low-Cost High-Quality Child Care Measures	Public-privatel collaborative infant centers			Non-Profit Preschools				
	Public-private collaborative Resource centers for childcare							
	The Centers of Family Childcare Service							
Friendly Workplace Measures	Allowances for Unpaid Parental Leave							
	Family Care Leaves							
Preventive Healthcare Measures	Health Care Subsidies for Children under 3 Years Old							
	Intervention and Transportation Subsidies for Children with Developmental Delays							
	NHI Subsidies for Children and Youth of Middle-to-Low-Income Households							
	Children's Preventive Health Care Services							
Personal Safety Protection Measures	Three-Level Preventive Measures							

No wealth Exclusion    
  Partial Wealth Exclusion    
  Vulnerable Groups

was given an emergency living subsidy of NT\$3,000 per person every month as assistance in the economic hardship. In 2017, there were 3,617 families and 5,611 children and youth of subsidies totaling more than NT\$104,500,000.

3. Health Care Allowance for Children and Youth of Middle-To-Low Income Families: The children and youth under 18 years old of low- and middle-income families were subsidized for national healthcare insurance. In 2017, there were 1,260,239 recipients of subsidies totaling more than NT\$892,270,000.
4. Health Care Subsidies for Children under 3 Years Old: Part of the clinic (emergency) charges and hospitalization expense were automatically reduced for children under 3 years old who are covered under the national healthcare insurance during their doctoral visits. In 2017, 15,265,253 persons were offered free medical treatment and exempted their parents from the burden of more than NT\$1,947,210,000 in payments.
5. 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 5,384 recipients of subsidies totaling more than NT\$98,960,000.

## Section 2 Protecting the Interests And Rights of Children And Youth

1. Established a Communication Platform for the Welfare and Rights of Children and Youth: Both the Executive Yuan and the MOHW established task force group to promote the welfare and rights of children and youth. The group



2017 Taiwan's Girls' Day Press Conference and Forum

conducted coordination, research, reviews, and consultation for children and youth welfare policies and implemented the Convention on the Rights of the Child.

2. Implemented Children and Youth's Safety Projects: Safety implementation on in 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. Maintained 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 2017, 19 out of 228 cases were concluded and the other 209 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 2017, events advocating the rights of children and youth are carried out in cooperation with local governments and 42 NGOs. 62,137 persons in total were benefited.
  - (2) In 2017, in reference to STEM (Science, Technology, Engineering, Mathematics), press conferences and technology camps were organized to promote the concept of Taiwan's Girls' Day (October 11) with the idea of "Innovation and Bravery with Women's Power." Female influencers in the science and technology industries were invited to convey the essence of gender equality, diversified exploration and self-affirmation through their own experiences and called on everyone to build a gender-inclusive society.
  - (3) In 2017, the SFAA subsidized children and youth empowerment work camps. Assistance was offered to local governments and NGOs to cultivate children and youth representatives of 379 who could foster greater social participation and free expression among their peers with total attendance of 13,701.

### Section 3 Placement Services

#### 1. Promotion of Institutional Placement

(1) The MOHW encouraged and commissioned NGOs to participate in youth placement to aid children in need of assistance. At the end of 2017, there were 124 placement institutions (Table 9-1).

(2) In 2017, subsidies for institutional professional fees, facilities and equipment, after-school program, and welfare services, totaled NT\$57,178,314.

2. Conducted Joint Evaluation over the Institutions Specialized in the Placement and Education of Children and Youth: In 2017, the MOHW developed the indicators and plans of 2018 joint evaluation over the institutions specialized in the placement and education of children and youth including 9 institutions under the MOHW at the provincial level and 88 institutions under the jurisdictions of 20 cities and counties such as New Taipei City. 97 institutions are expected participate in the joint evaluation.

3. Promoting Foster Care: Guideline is developed and provided to local governments and NGOs which are commissioned to provide foster care. In 2017, there were 1,193 households registered to serve as foster care homes, 284 reserve foster care homes, and 1,662 children and youth receiving foster care (Table 9-2).

4. Enhanced the Management System of Youth Placement and Follow-Up: In 2017, the MOHW implemented the system connection to the system of Angench of Corrections, Ministry of Justice, the protection and high-risk information system of the MOHW and encouragement plan of online registration of the institutions specialized in placement and education. The local governments were given access to the online system in order to log the evaluation result of the institutions specialized in placement and education (regularly or irregularly) so that the MOHW can supervise the performance of the local management by evaluating and random inspection.

**Table 9-1** Institutions Specializing in the Placement and Education of Children and Youth, 2012-2017

Source: Social and Family Affairs Administration

Year		2013	2014	2015	2016	2017
Number of Institutions		126	124	122	122	124
Approved Number of Beds		4,985	4,991	5,004	5,094	5,211
Children	Males	1,842	1,818	1,771	1,702	1,583
	Females	1,700	1,683	1,704	1,617	1,565

**Table 9-2** Foster Care Homes and Children, 2013-2017

Source: Social and Family Affairs Administration

Year		2013	2014	2015	2016	2017
Families (Households)		1,275	1,289	1,326	1,299	1,193
Children	Males	899	847	804	786	769
	Females	905	896	858	836	852

## Chapter 2 Welfare for Women and Family Support

In consideration of the changes in the society over the past 10 years, the Social Welfare Promotion Committee, Executive Yuan revised the Taiwan Family Policy in the 23rd committee meeting on May 26, 2015. The major five goals are: (1) develop a holistic care and support system to facilitate the family's function; (2) construct

economic security and friendly workplaces to realize work-family balance; (3) implement violence prevention and living justice to promote family harmony and peaceful life; (4) strengthen family education and gender equality to boost positive family relationships; (5) advocate family values and inclusion to enhance family cohesion and integration. The revised family policy consisting of 33 items and 98 measures, was implemented starting 2016.

## Section 1 Women's Welfare

Social services for women are aimed to empower women from women's standpoint. Key achievements in 2017 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 2017 were NT\$6,124,280.
2. By strengthening capacity of 26 women's welfare centers, the MOHW linked government and private resources to improve welfare, rights, legal and learning services for women. In 2017, the centers provided services for 1,709,484 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 2017, there were 50 domestic organizations used its facilities. The center also welcomed 67 domestic organizations and foreign guests, and 11,000 visits made to the center.
4. In 2017, the SFAA empowered local governments to provide women's welfare services. It selected 12 cities and counties to conduct guidance plans: New Taipei, Taoyuan, Tainan, Kaohsiung, Miaoli county, Chiayi city, Chiayi county, Pingtung, Yilan, Hualien, Taitung and Penghu. Expert oversight teams evaluated local government needs, diagnosed problems then gradually customized women's welfare services according to local characteristics. The SFAA also helped local governments build longterm service oversight mechanisms.

## Section 2 Services for Disadvantaged Families

### 1. Services for Single-Parent Families

- (1) In 2017, 6 single parent service centers consolidated local welfare resources and NGOs held 13 support groups and welfare promotion activities for single parents.

- (2) In 2017, 204 single parents (male-to-female ratio of 1:14.7) received subsidized tuition, miscellaneous school fees, course credit fees, and child care fees so they could attend college or university, high school or vocational school.

- (3) In 2017, there were 120 family (social) welfare service centers that provided integrated and preventive services.

2. Services for New Immigrants: In 2017, 35 new immigrants service centers provided management service for 13,798 cases, established 79 community service station and proposed 88 service plans for new immigrants.
3. In 2017, NGOs were subsidized to conduct 39 related programs offamily visits, afterschool child care, and parental education for disadvantaged families with children or youths to 400,287 people.
4. In 2017, the SFAA subsidized 77 NGOs that employed 218 social workers for home visits. The social workers visited 25,630 households, served 10,337 cases, and assisted 19,010 children and youths. The reported recurrence rate was lowered to 9%.

## Section 3 Childcare and Early Intervention Services

1. Childcare subsidies for employed parents with qualified child-care providers: Parents (or guardians) who both work, or singleparent families in which the parent works, were qualified for subsidies of NT\$2,000 - 5,000 each month for children under 2 years of age who go to daycare. In 2017, there were 90,133 children who benefited from a total of NT\$1,578,854,494 in subsidies.

### 2. Childcare Services

- (1) At the end of 2017, there were 72 centers of family childcare service that oversaw 55,397 childcare providers (including relative care) caring for 46,024 children under the age of 2 (Figure 9-2). Among registered childcare providers, 25,750, or 87.09%, had a technician certificate for childcare providers.

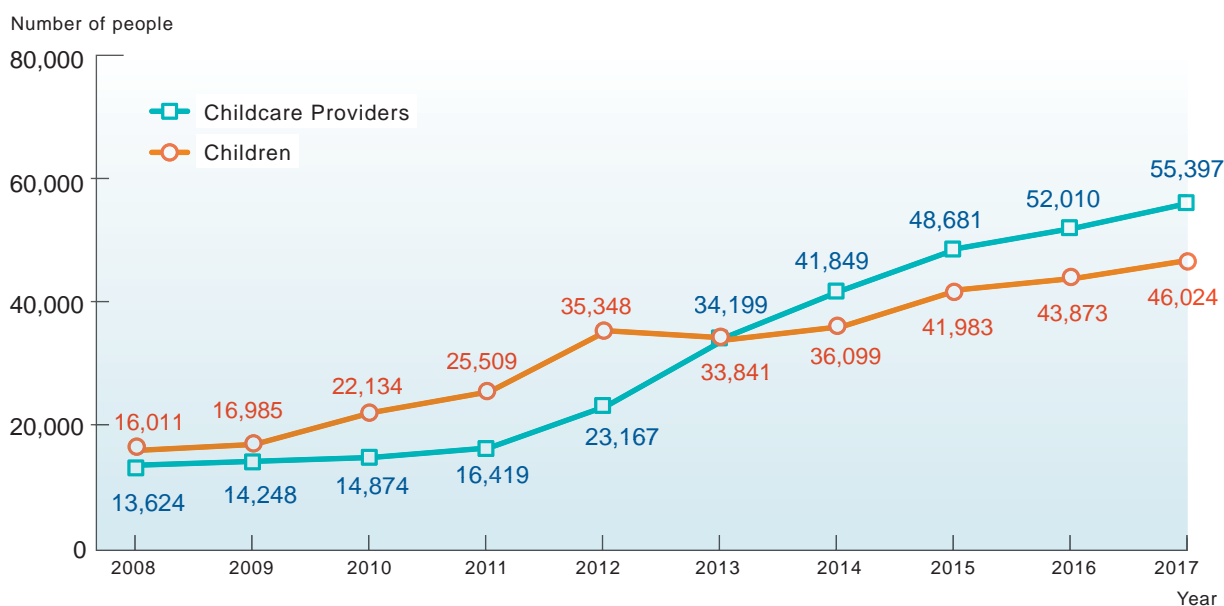


(2) At the end of 2017, there were 907 infant centers cared for 23,066 children (Figure 9-3), consisting of 784 private infant centers that cared for 17,772 children and 123 public/private collaborative infant centers (including 17 public community infant centers) that cared for 5,294 children.

(3) Community-Based Family Support includes 127 public-private collaborative resource centers for childcare that had provided childcare consultations, parental education, and other services approximately 10,310,000 times.

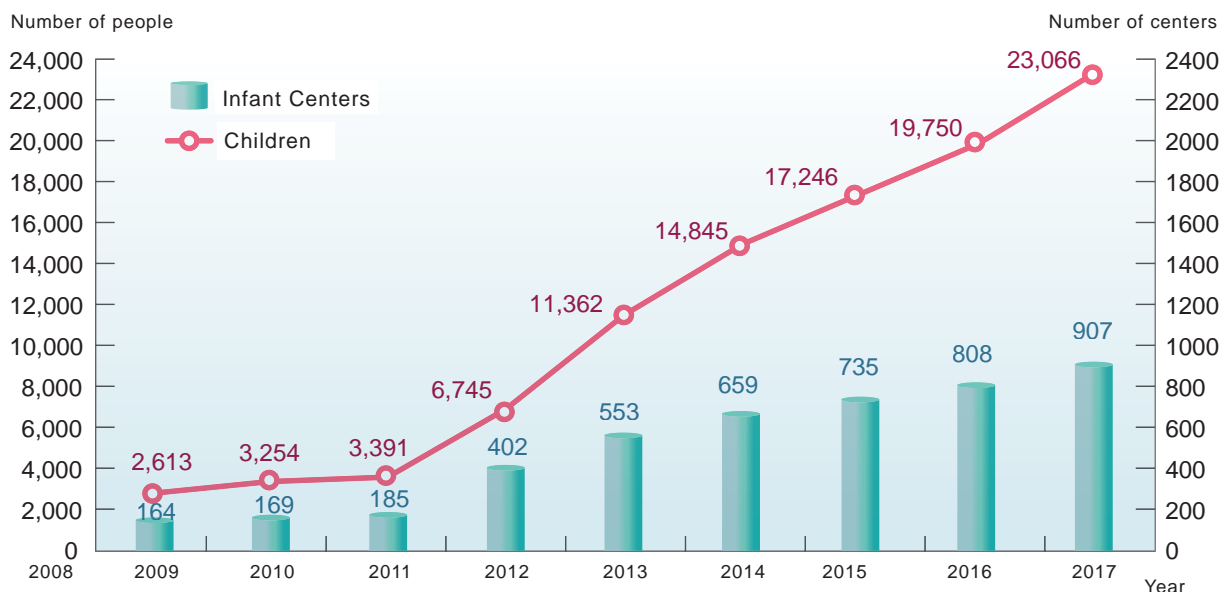
**Figure 9-2 Family Childcare Providers and Children**

Source: Social and Family Affairs Administration



**Figure 9-3 Volume of Infant Centers and Children**

Source: Social and Family Affairs Administration



### 3. Early Intervention for Children with Developmental Delay

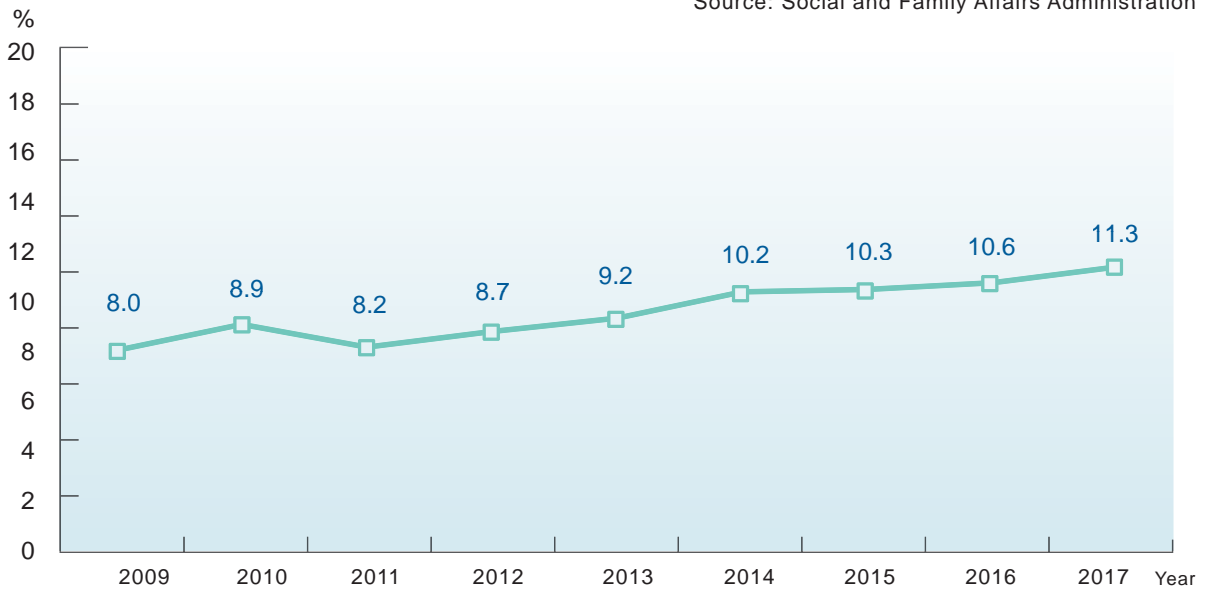
- (1) Local governments are supervised to set 28 reporting and referral centers. In 2017, 23,535 children with developmental delay are reported and the nationwide reporting rate was 11.3% (Figure 9-4).
- (2) In 2017, local governments are supervised to set 54 case management centers, and

local governments helped developmentally delayed children apply for 43,112 intervention subsidies worth a total of NT\$402,097,101 (Figure 9-5).

- (3) In 2017, 11 local governments promoted community-based intervention services in 68 townships and villages with insufficient early intervention resources.

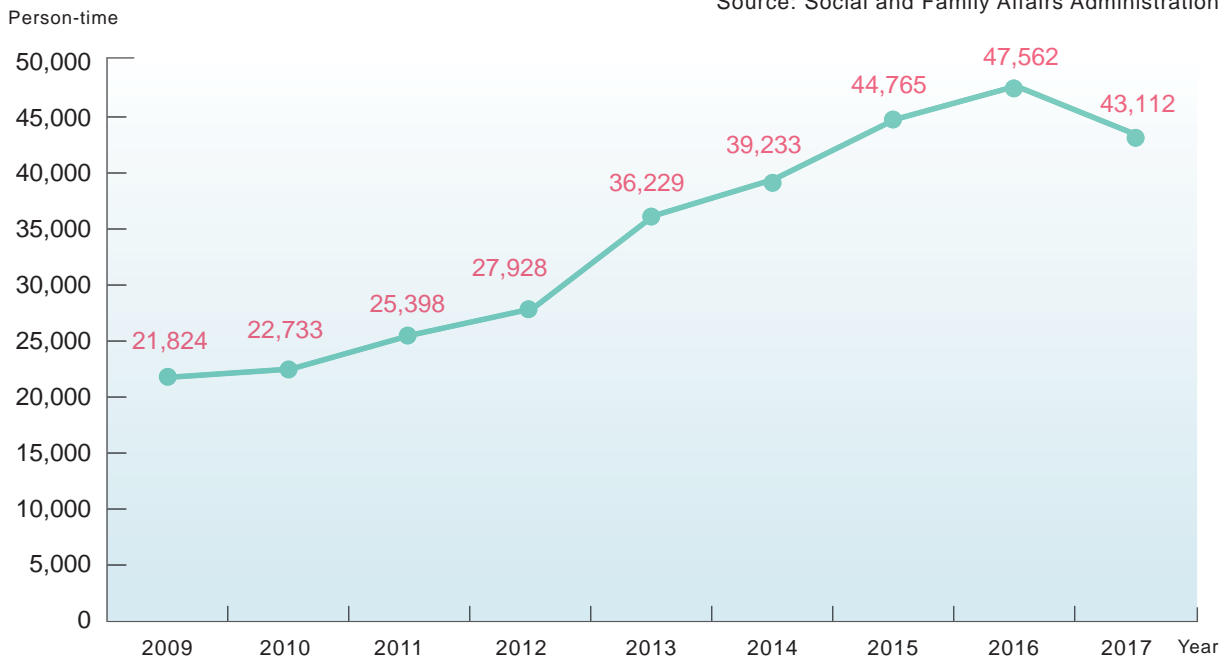
**Figure 9-4 National Reporting Rate of Developmentally Delayed Children, by Year**

Source: Social and Family Affairs Administration



**Figure 9-5 Subsidies for Early Intervention, by Year**

Source: Social and Family Affairs Administration



## 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 approved children and youth adoption providers and preference must be given to domestic adoptive parents. At the end of 2017, there were nine approved institutions (with 13 service stations). These institutions matched 267 children with adoptive parents in 2017 (116 were adopted domestically and 151 overseas).
2. Assistance for Families in Special Hardship: In 2017, emergency relief assistance, living allowances for children, nursery allowances, health care subsidies for injury or illness, litigation subsidies, education subsidies for children, and career development loans are available for families in special hardship. There were 20,093 families receiving these benefits for a total of 127,947 times, with total subsidies exceeding NT\$439,860,000.
3. Support for Pregnant Teens
  - (1) A teen pregnancy hotline (0800-25-7085) and website (<http://www.257085.org.tw>) provide assistance and consultation to minors who became pregnant. In 2017, there were 828 calls to the hotline, 91,529 visits to the website, and 907 consultation mails and online inquiries received.
  - (2) Each city and county provides case management and assists with financial subsidies, health care, child care, and referrals for foster care and adoptions. In 2017, these services were used 4,240 times.

## Chapter 3 Welfare for the Elderly

At the end of 2017, there were 3,268,013 elderly people in Taiwan, accounting for 13.86% of the population. Becoming an aging society in 1993, the MOHW adopted a three-pronged policy approach focused on economic security, health promotion, and long term care. Measures that meet the psychological, social, educational, and leisure needs of elderly people contribute to agefriendly environments conducive to health, safety, and lifelong learning in order to sustain the vitality, dignity, and autonomy of elder people.

## 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 lower-middle-income elder people. In 2017, there were 134,365 elder people who received a total of more than NT\$10,626,730,000 in subsidie.
2. Monthly special care allowances worth NT\$5,000 were offered to lower-middleincome caregivers who sacrificed employment to care for an elderly family member. In 2017, there were 9,360 such allowances worth a total of NT\$46,930,000.
3. In order to help elder people enjoy greater economic security by turning their property into monthly income, a pilot reverse mortgage mechanism was launched on March 1, 2013. The "Senior Citizens Welfare Act" encourages financial regulators to urge banking institutions to offer commercial reverse mortgage loans. There were 11 banks offering this service by the end of 2017.

## Section 2 Health Care for the Elderly

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 2017, these subsidies were provided to 919,691 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 2017, four institutions received these subsidies to care for a total of 229 people.
3. Subsidies are offered for denture installation to improve oral hygiene of disadvantaged elderly people and remain their quality of life and dignity. In 2017, 4,994 people received the subsidies.

### Section 3 Care for Elder People

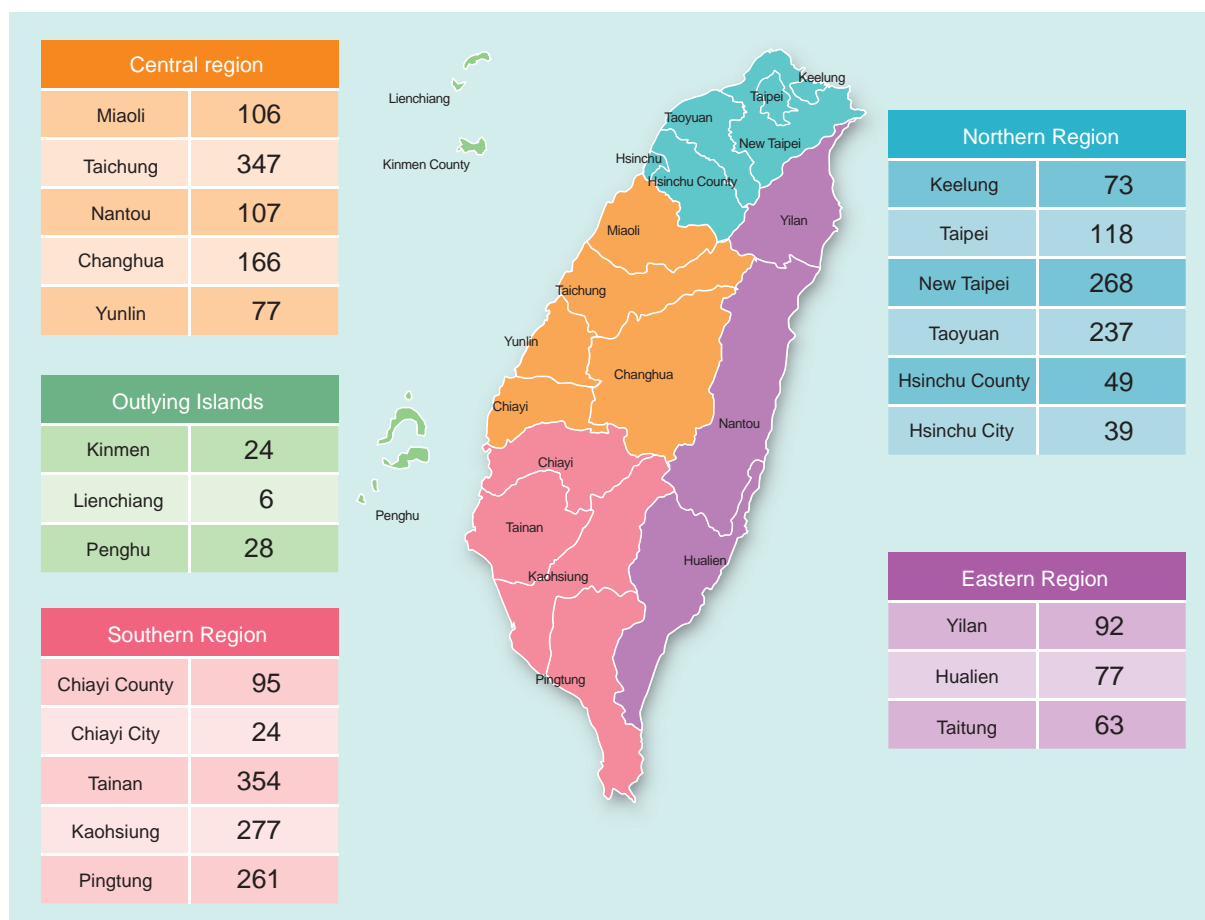
1. Ongoing efforts to improve care for living alone elder people, including a 24-hour emergency assistance network. A center for tracking missing elderly had found 1,394 out of 2,307 reported missing people since 2001 through the end of 2017.
2. Ongoing efforts to encourage the institutions on service quality improvement and diversified operations to meet the elder people's needs. By the end of 2017, there are 1,100 permitted elderly care institutions.
3. In recognition of the contributions Dr. George Mackay made to the poor in Taiwan, starting from June 1, 2011, Mackay Project was launched for foreigners living in Taiwan. The Project offers Alien Permanent Resident Certificates from the National Immigration Agency to foreigners who met the following qualifications: had lived in Taiwan at least 20 years, were physically located

in Taiwan for at least 183 days each of those years, at least 65 years old, and were formally recognized for long-term dedication or special contributions to Taiwan by MOI. They will enjoy the discounts just like all Taiwanese elderly citizens for discounted public transit. At the end of 2017, a total of 269 foreigners were qualified.

4. A subsidized, private elderly consultation center operates a specialized hotline that answers a variety of questions for the elderly (0800-228585). The hotline handled close to 1,000 calls per month on average.
5. Following encouragement from the SFAA, local governments cooperated with village offices and community organizations to establish 2,888 community care stations (Figure 9-6). Volunteer staff contributed through home visits, phone calls, referrals, food services, and health promotion activities.

**Figure 9-6 Distribution of Nationwide Community Care Points**

Source: Social and Family Affairs Administration



## Section 4 Social Participation by Elder People

1. In 2017, 734 services and activities are available for seniors. Elder people 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 people to leave the home and be more active.
2. In 2017, 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 4,591 tours with total attendance of 212,972 seniors.
3. In 2017, for Double Ninth Festival, or Senior Citizens' Day, the SFAA held an elderly croquet tournament; LOHAS elderly care institution sports day and family themed elderly singing competition. Nationwide activities centered on care and respect for elders is aimed to promote active aging and generational harmony.



Longevity - ; LOHAS Elderly Care Institution Sports Day held on October 25, 2017



2017 Family Themed Elderly Singing Competition held on October 28, 2017

## Chapter 4 Welfare for Persons with Disabilities

In response to the growing number of persons with disabilities, diverse individual needs, and international trends, the MOHW has adopted a new system for assessing the needs of persons with disabilities. The system, which is based on the WHO's International Classification of Functioning, Disabilities and Health (ICF), was implemented in 2012 and is used to determine services and support to provide. At the end of 2017, there were 1,167,450 persons with disabilities in Taiwan, accounting for 4.95% of the population. Taiwan's welfare policy for persons with disabilities is based on actual needs as well as the "Act to Implement the Convention on Rights of Persons with Disabilities," "People with Disabilities Rights Protection Act" and a white paper on protecting the rights of people with disabilities. After being assessed by the new mechanisms, the disability policy is aimed to ensure economic security, diverse continuity of services, accessible environments, and opportunities for social participation for persons with disabilities.

### Section 1 Rights Protection for Persons with Disabilities

1. A major milestone for persons with disabilities was reached in 2006 when the United Nations adopted the Convention on the Rights of Persons with Disabilities (CRPD). A legal basis for the CRPD was established in Taiwan when the "Act to Implement the Convention on the Rights of Persons with Disabilities" was announced by Presidential Order on August 20, 2014, and enacted on the International Day of Persons with Disabilities later that year on December 3. Acting in accordance with the schedule stipulated in the Act to Implement the Convention on Rights of Persons with Disabilities, the MOHW drafted a priority review list about the legislation and administrative measures (372 parts and 674 articles) and issued the first national report. In 2017, the ROC's Initial CRPD Report Review Meeting was held and the International Review Committee proposed 85 concluding observations as a reference for future reviews and admenment on regulations, plocies and administrative measures. According to the Tracking, Supervision, and Planning for Concluding Observations of International Review Committee on Convention on the Rights of Persons with Disabilities, all departments and agencies are expected to cooperate with the MOHW to develop all aspects for persons with disabilities in the direction of human rights.

2. A new system for assessing the needs of persons with disabilities, particularly related to body structures and functions, activities and social participation, as well as its reliance on professional assessment teams, was formally enacted on July 11, 2012. A one-stop window was also created for people to receive a range of personalized and diverse welfare services. In 2017, there were 467,409 people who applied for disability card, with 428,160 people met the criteria and 444,307 who underwent needs assessment.

## **Section 2 Financial Security for Persons with Disabilities**

1. In 2017, persons with disabilities who meet the criteria for household income and assets receive monthly life subsidies of NT\$3,628, NT\$4,872, or NT\$8,499. There were 350,587 recipients in benefit each month on average, and the total amount was NT\$21,282,890,000.
2. Day care and residential care subsidies for persons with disabilities exceeded NT\$8,504,320,000 in 2017 and benefitted an average of 44,554 recipients each month.

## **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 chances among persons with disabilities include home care, supportive service for independent life, daily living reconstruction, day care, home-based care services, and residence/housing in community. By the end of 2017, more than NT\$1,772,810,000 was spent to benefit a record of 5,910,113 recipients.
2. Home Support for Persons with Disabilities: Temporary and short-term care, training and practicing for the caregivers, and family care visits provide diverse care channels for households with persons with disabilities and reduce the burden on caregivers. By the end of 2017, more than NT\$804,480,000 was spent for a record of 3,400,456 recipients.
3. Localizing and Downsizing of Care Institutions: At the end of 2017, there were 271 welfare institutions for persons with disabilities with a total of 22,429 beds and 18,450 patients. Primary services included day care, art education, work activities, and inpatient care. The MOHW also helped the institutions downsize and include in the community to improve service accessibility.

## **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 governments. Centers for multifunctional assistive devices provided consultations, education and training, website maintenance, exhibitions, and promotional activities. In 2017, there were 29 assistive device centers across Taiwan to provide assessments and consultations for people in need of devices as well as promotion and maintenance services.
3. Persons with disabilities continued to receive subsidies to cover assistive devices. In 2017, more than NT\$831,530,000 of subsidies was spent on a record of 92,887 recipients.
4. In order to assist persons with disabilities, the elderly, and others with mobility issues caused by stairs, assistance is provided to local governments of seven cities and counties to install stair climbers for persons with disabilities from the public welfare lottery subsidized programs by the end of 2017.
5. In 2017, the government provided subsidies for health, rehabilitation, and assistive device center plans to 10 hospital. It provided assistive device consultations, assessment, and customized design, so persons with disabilities can enjoy independent and autonomous lives with more than NT\$4,630,450 of subsidies spent on a record of 87,883 recipients.
6. A comprehensive plan for subsidizing medical assistive devices to persons with disabilities was implemented on July 11, 2012. In 2017, there were 10,780 payments (69% to males, 31% to females) totaling NT\$81,445,464.

## **Section 5 Social Participation for Persons with Disabilities**

1. In 2017, 492 cases of subsidies, totaling NT\$14,536,009, were made available to NGOs that hold leisure, entertainment, training, and other activities for persons with disabilities, and helped establish barrier-free web pages, facilities, and equipment used by persons with disabilities.
2. Activities were held on December 2, 2017 to commemorate International Day of Persons with Disabilities. There was a special ceremony to present The 21st Golden Eagle Awards to outstanding person with disabilities. 10

winners were invited to share their life stories to encourage more persons with disabilities to start a new life.

3. Subsidies and certifications were offered to qualified guide dog training and advocacy programs. In 2017, there were 41 in-service guide dogs and 134 puppies in training.
4. By the end of 2017, measures were taken to provide parking for persons with disabilities and to identify qualified users with an establishment of 21,349 designated parking lots, a distribution

of special license plates, and an issue of more than 350,000 disability parking permits.

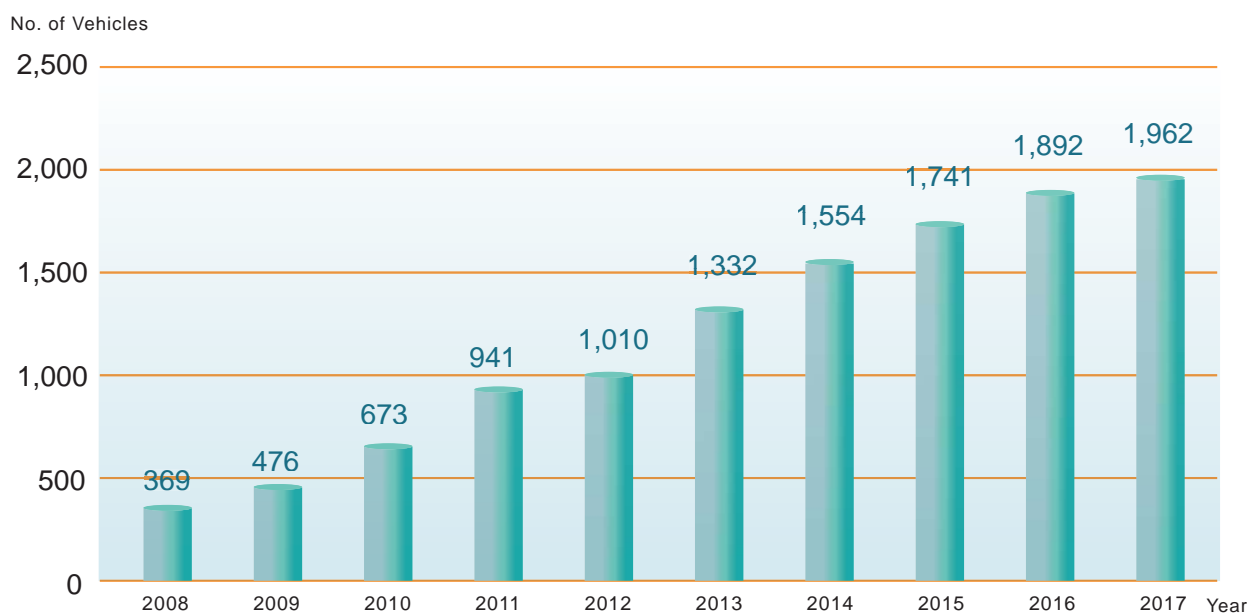
5. In 2017, there were 1,962 "Rehabus" vehicles in Taiwan (Figure 9-7) and total ridership of 3,630,158.
6. In 2017, local governments were guided on establishing channels for sign language interpretation and setting scopes for services and standard procedures. There were 301 certified sign language interpreters.



The 21st Golden Eagle Award Ceremony

**Figure 9-7** Number of "Rehabus" Vehicles, 2008 - 2017

Source: Social and Family Affairs Administration



# 10



## Social Assistance and Social Work

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We always follow the principle of “providing care actively, respecting needs, and enabling self-sufficiency” in social assistance. 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.

## Chapter 1 Social Assistance

### Section 1 Current Status of Social Assistance

Before the Public Assistance Act was modified on December 29, 2010, the majority of social assistance went to people with the lowest incomes. Assistance was seldom given to the low-income population (the new poor) with respect to work competencies, family property or the supporting of relatives, as such groups did not meet the requirements for assistance. In order to alleviate the phenomenon of working poverty and allow people receiving assistance to stand

on their own, the poverty line was lifted to cover low and middle-income households. We adjusted the method for calculating the minimum living expenditure according to the ratio of disposable income adopted by most countries in the European Union and OECD, in order to offset a “poverty line” that is more academically accurate and in line with international conventions.

According to the modified mode for calculating the minimum living expenditure, the minimum living expenditure of low-income households in Taiwan Province was adjusted to NT\$10,244 from NT\$9,829 in June 2011, and the minimum living expenditures during the most recent five years are shown in Table 10-1. By the end of 2017, 142,814 low-income households (317,257 people) and 117,776 low and middle-income households (350,425 people) had been approved in various counties and cities. In total, 667,682 vulnerable people were included. Compared with the situation before the law was modified in June 2011, 146,153 households (391,554 people) were added, and the number of beneficiaries was increased by 1.4 times, as shown in Figure 10-1.

**Table 10-1 Minimum Cost of Living Over the Past 5 Years**

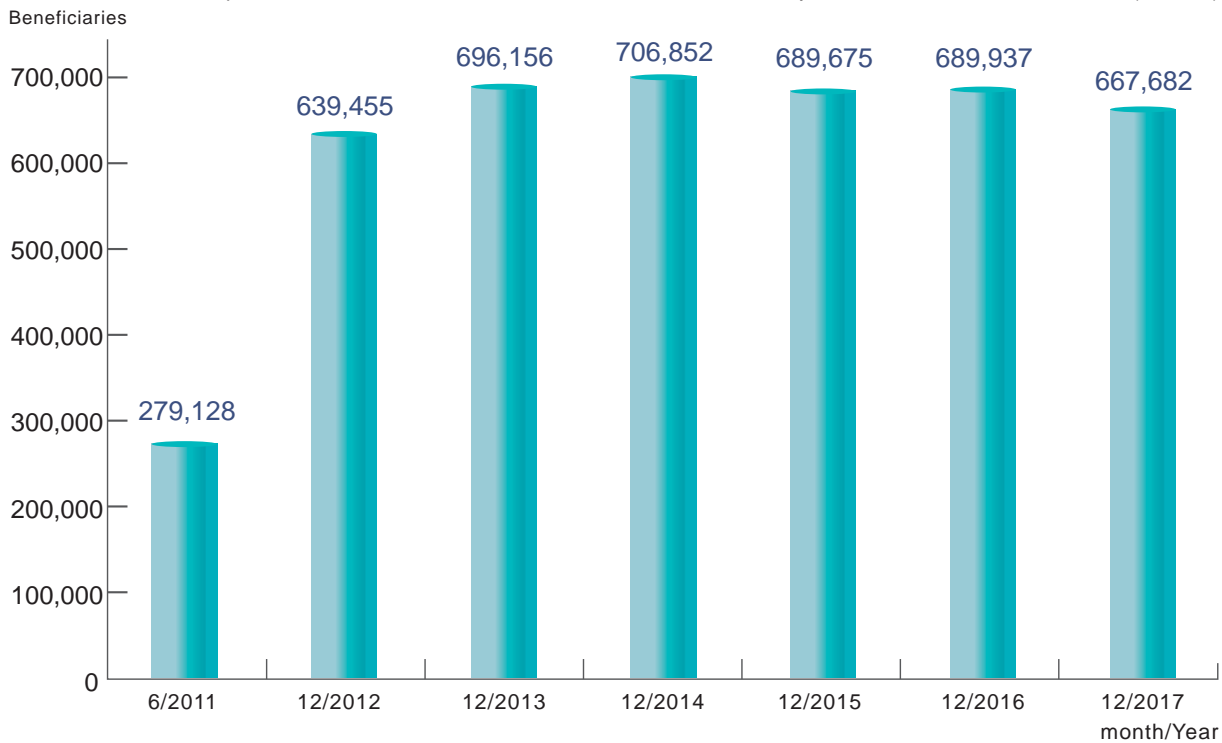
Source: Department of Social Assistance and Social Work, Ministry of Health and Welfare, R.O.C.(Taiwan)

(NTD)

Region Year	Taiwan	Taipei	Kaohsiung	New Taipei	Taichung	Tainan	Taoyuan	Fujian Province	
								Kinmen	Lienchiang
2013	10,244	14,794	11,890	11,832	11,066	10,244	-	8,798	
2014	10,869	14,794	11,890	12,439	11,860	10,869	-	9,769	
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	

**Figure 10-1 Beneficiaries after Revision of Social Assistance Regulations**

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



## Section 2 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 annual amount announced by the central government or competent authorities of municipalities. The Public Assistance Act was modified in 2015, and it clearly stipulates that the life assistance fee for low-income households should be adjusted according to the growth rate of the consumer price index every four years, in order to protect vulnerable people's rights and interests.

The current subsidies provided by various local governments for low-income households include family life assistance, school life assistance, and

children's life assistance. 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 2017 are shown in Table 10-2.

Besides making cash payments, various local governments should provide additional benefits,

**Table 10-2 Key Living Support Measures Provided to Low-Income Households, 2017**

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	1,055,006	5,877,183,620
Student Living Support	577,471	3,524,905,082
Workfare Programs	29,253	497,591,271
Holiday Bonus	709,854	559,799,500

including nutritional supplements to pregnant women (including nutrition subsidies for single mothers and newborns), birth allowance, subsidy for social housing and 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 households and low.

### Section 3 Medical Subsidies

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

1. Premium subsidies: The subsidies for health insurance premiums in 2017 were over NT\$6,471,390,000.
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 "the out-of-pocket fee of low-income households for their medical care shall be paid by the central authority in charge of social welfare." The subsidies for some medical fees (including outpatient service and hospitalization fees) received by low-income households in 2017 was over NT\$1,415,050,000.
3. Subsidies for medical fees not covered by national health insurance: In order to meet the medical needs of low-income households and low and middle-income households, various local governments have also established relevant laws to stipulate the allowance standard of medical fees. The assistance covered 5,250 people, and the total amount of the subsidies was NT\$135,650,000 in 2017.

### Section 4 Workfare and Poverty Reduction

In order to assist low-income households and low and middle-income households in standing on their own, Article 15 of the Public Assistance Act stipulates that "Competent authorities of

municipalities and counties (cities) shall provide or recommend employment services and vocational training to low-income households and low and middle-income households having working competence, or relieve people in disaster areas by giving them employment instead of outright grants." 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, people can also receive subsistence allowance for vocational training in the period of participating in vocational training, so as to make a living and remove worries.

With respect to helping the poor break away from poverty, the Ministry of Health and Welfare issued Implementing Measures on Helping the Poor Break away from Poverty on June 6, 2016. In 2017, the local government and non-government social welfare groups implemented 46 schemes to promote employment and the overcoming of poverty, and the amount of the subsidies was NT\$29,056,500.

### Section 5 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.

**Table 10-3 Emergency Relief in 2017**

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

Type		Beneficiaries (People)	Relief Payment Amount (NTD)
Emergency Relief from Municipal and County (City) Authorities		34,188	217,925,030
from MOHW	Emergency Relief	1,011	13,960,000
	"Immediate Care" Emergency Relief	11,813	243,948,925

## Section 6 Future Education and Development Account for children and adolescents

In order to take care of poor and vulnerable families, a social investment-oriented strategy involving poverty alleviation through self-reliance has been adopted. Furthermore, the Scheme of Promoting Future Education and Development Account for Children and Adolescents was prepared, and issued on November 22, 2016. This scheme is implemented under cooperation between the government and poor families, and qualified parents need to deposit a fund not exceeding NT\$15,000 for their children every year. Then the government will allocate funds of an equal amount, so as to encourage poor families to choose long-term (18 years) savings. In addition, supportive measures like financial education and family service are taken. As for children without reliable support and poor families who are unable to save money, the government will work with NGOs to provide assistance. While these families are in the process of saving money, social workers will accompany and coach them, so as to reduce the risks that might be encountered by children and families. Such accounts were first set up on June 1, 2017, and 2,654 families had established an account by the end of 2017.

## Chapter 2 Assistance for the Homeless

Sheltering and training for vagrants mean to provide 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.

### Section 1 Analysis of the Homeless Issue

According to the records of various counties and cities, 2,585 vagrants were registered for assistance by the end of 2017, and more than 70% of them were in Taipei City, New Taipei City, Taoyuan City, Taichung City, Tainan City and Kaohsiung City. Six counties and cities had less than 50 vagrants; Kinmen County, Lianjiang County and Penghu County had no vagrant. Hence, there is a great difference between various places in the number of vagrants.

### Section 2 Assistance Measures for Homeless Persons

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

1. Shelters for Homeless People: At present, the governments of most municipalities and counties (cities) have arranged specially-assigned persons to provide sheltering and training services for vagrants. Besides helping to find their relatives and friends, 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 2017, 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 non-governmental 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: We have coordinated 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, we have cultivated vagrants' working habit by giving them employment instead of 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 Project Plan on Strengthening the Care for Vulnerable People in Cold Weather and Spring Festival Holidays on 10 Nov. 2014. When the central meteorological 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 food, winter clothes and temporary hospices to vagrants.
- In 2017, we provide training services for 395,094 vagrants, including giving caring service to 359,910 vagrants, helping 278 vagrants return home, serving 10,773 vagrants in the Spring Festival holidays, recommending benefits to 8,674 vagrants, recommending employment opportunities to 3,287 vagrants, helping 262 vagrants lease a house, settling down 3,478 vagrants, and providing other services for 8,289 vagrants.

## Chapter 3 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.

### Section 1 Sheltering and Supply Preparations for Disaster

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 2017, various counties and cities prepared 5,932 shelters for victims, which could accept 2,221,424 people.
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.
3. On August 4, 2016, modifications were made to the Management Principles on Strengthening Disaster Relief, Stipulations on Relief Material Regulation, Matters for Attention when Governments at Various Levels and Non-governmental Organizations Participate in Social Disaster Prevention and Relief, and Examples of Key Sites to Store Urgent Relief Materials for Natural Disasters in Hazardous Areas (Villages and Tribes) of Municipalities and Counties (Cities), so as to effectively improve the efficiency of practical operation.
4. In order to support the modification of disaster prevention and relief laws, the government issued Operating Methods in Start-up Loan Interest Subsidy for Low-income Households in Disaster Areas on October 13, 2016, and it should be implemented back on August 6, 2015, so as to help the disaster-stricken low-income households.

### Section 2 Post-Disaster Condolence Payments

1. When severe natural disasters happen, and the Executive Bureau gives instructions or the central disaster response center is established, we should refer to the relevant reports and contact the local government to confirm deaths, missing individuals or serious injuries caused by such disasters. The items should be reported to the governor, in order to pay consolation money.
2. The governments of municipalities and counties (cities) shall examine relevant supporting documents. For those meeting the requirements of receiving salvage money, the governments of municipalities and counties (cities) shall issue NT\$200,000 to dead or missing persons, and NT\$100,000 to those suffering from serious injury. In addition, the Ministry of Health and Welfare and the Disaster Relief Fund shall provide more consolation money via private donations, and the standards are as follows:
  - (1) Consolation money for death: NT\$600,000 (the Ministry of Health and Welfare NT\$200,000; the Disaster Relief Fund NT\$400,000).
  - (2) Consolation money for missing: NT\$600,000 (the Ministry of Health and Welfare NT\$200,000; the Disaster Relief Fund NT\$400,000).
  - (3) Consolation money for serious injury: NT\$150,000 (the Ministry of Health and Welfare NT\$50,000; the Disaster Relief Fund NT\$100,000).
3. The situations of consolation money payment in 2017 are as follows: On June 1, 5 persons were dead, 2 were missing and 1 suffered from serious injury owing to the heavy rain; NT\$1.45 million was paid. One person was dead and 2 suffered from serious injury owing to the Typhoon Nisha and Haitang; NT\$300,000 was paid. On October 11, 1 person was dead owing to the heavy rain; NT\$200,000 was paid.



## Chapter 4 Social Work

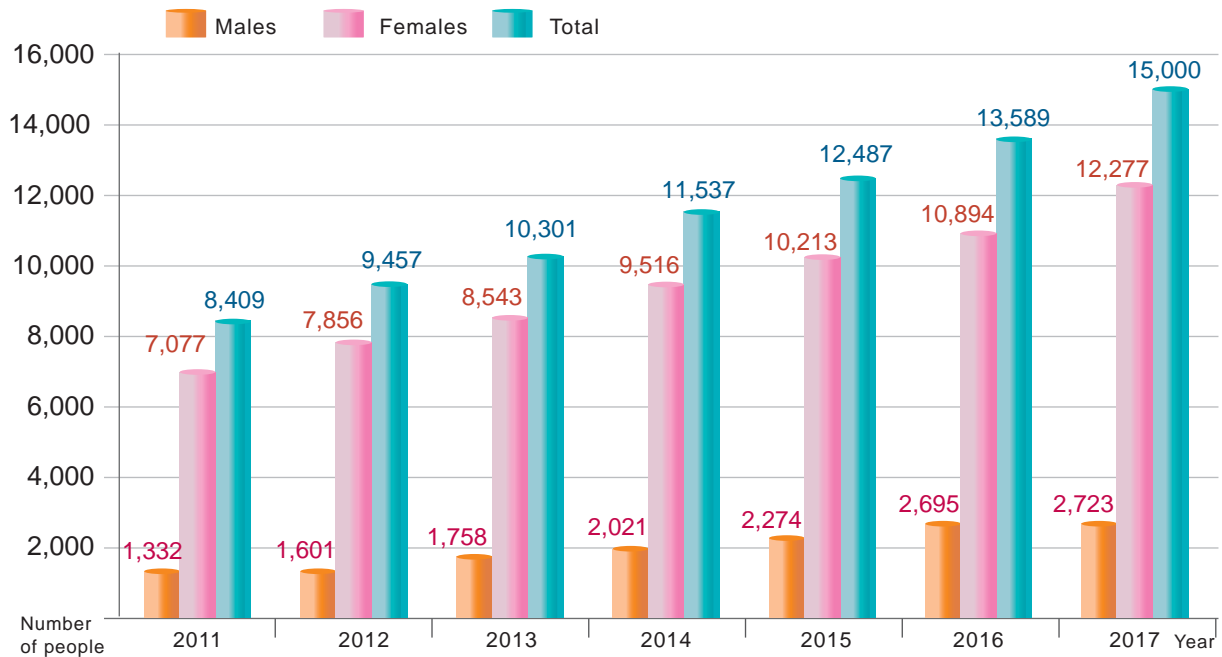
### Section 1 Social Work System

The professional system of social work has already become a fashionable trend in the world. By the end

of 2017, 10,661 people had passed the social worker examination, there had been 6,234 licensed social workers, and 15,000 full-time social workers (12,277 female (81.85%) and 2,723 male (18.15%) workers) had engaged in the social work field in both the public and private sectors, as shown in Figure 10-2.

**Figure 10-2 Social Workers Assigned to Social Welfare Tasks in Public and Private Agencies, 2011-2017**

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



#### 1.Examination

- (1) The Ministry of Health and Welfare cooperated with the Ministry of Examination to advance the national examination function analysis work in 2013, and they completed function analysis for public social worker and social work examinations. In addition, 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 2017, 71 committee meetings were held, and 11,068 application cases for social worker were reexamined.
- (3) According to Article 7 of Methods on Branch Accreditation and Continuing Education for Social Workers of Junior College, accreditation for social workers of junior college shall be conducted at least once every five years

after the method is implemented. Beginning in the sixth year after the implementation, accreditation shall be conducted at least once every two years, and the central governing authority shall regulate the number of times according to the supply and demand situations about social workers of junior college. By the end of 2017, 418 social workers of junior college had been employed, including 141 medical workers, 116 mental health workers, 106 workers for children, juveniles, women and families, 29 workers for the aged, and 26 workers for mental and physical disturbance.

#### 2.Professional Training

- (1) In order to meet the needs of practical workers and relieve their burden of repeated training, the requirements for comprehensive basic training and advanced training of various fields was planned, and the Professional Training Plan for Social Workers was formulated.
- (2) The social workers' professional knowledge and skill are improved according to the Methods on Continuing Education and Professional License

Updating for Social Workers and the Methods on Branch Accreditation and Continuing Education for Social Workers of Junior College. In 2017, the continuing education credits of 2,737 social works were reviewed.

### 3. 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. We have improved labor conditions and rights & interests of unauthorized personnel (appointed employment) of public sectors and social workers of private sectors, ensured the working safety of social workers in various fields, and intensified prevention, inspecting mechanism and employee assistance. In order to continuously study and develop the professional system of social workers, we have introduced the policy communication platform of "plan to intensify social safety net," so as to advance relevant policies via cross-department coordination meetings.
- (2) In terms of labor conditions for social workers of private sectors, the Ministry of Health and Welfare decided key operating points of social welfare subsidy in 2016, added more licenses for social workers of junior college, and invited the local government to supervise whether employers provide rights and interests of labor for non-governmental social workers according to Labor Standards Law. The "Forum about Social Workers' Labor Conditions" was held on April 25, 2017, to gain opinions from various circles and maintain social workers' rights and interests.

### Section 2 Augmenting the Social Work Workforce

By aiming at the deficiency of social workers provided by the local government, the Executive Bureau issued Plan to Enhance the Manpower Allocation and Employment of Social Workers of Local Government in 2010. According to this plan, 1,462 social workers will be added from 2011 to 2016, and 394 authorized social workers will be recruited to make up the vacancy of contract staff from 2017 to 2025. By 2025, the number of social workers of public sectors will increase to 3,052 from 1,590 in 2010. Besides, social workers engaging in direct services and front-line protection can deal with fewer cases, and investigation and education of children protection, family violence, sexual abuse and vulnerable family can also be

enhanced. In addition, more than 60% of social workers will be authorized, and we can guarantee staffing, promotion and reasonable salary of social workers. Hence, they will act as full-time workers for a long time, and social workers' professional service energy can be accumulated.

In 2011, 366 contact workers were added, and 40% of the expenditure was subsidized by the central government. They mainly handle direct service businesses including child protection, family violence, and sexual abuse prevention and cure; physical and mental disability; and social assistance for the aged and women.

By the end of December 2017, 1,132 authorized social workers were added, occupying 76.5%. The number of social workers of the local government reached 3,303, increasing by 1,713 persons when compared with the previous number of workers (1,590). The total population served by every social worker of the local government decreased from 14,549 to 6,903. Therefore, social workers' burden has been relieved effectively, and their service quality improved.

In order to perfect social worker management, the manpower database of social workers was established in 2014, the "online examination function for continuing education of social workers" was initiated in June 2015, and the "online examination function for continuing education of social workers of junior college" was added in July 2016.

### 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, and established three objectives including "secure employment," "secure service" and "secure 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 2017, the total number of beneficiaries of subsidy for risky operation was 3,645, 4,153 and 4,243. By the end of 2017, the total amount of subsidies was NT\$69,505,128.
2. In 2017, NT\$3.81 million of subsidy for public welfare lottery was used to implement the "plan for social workers' personal safety and professional improvement." By the end of Dec. 2017, subsidy had been provided for 60 cases, and the total amount was NT\$3,525,000.

## Chapter 5 Welfare Resources Network

### Section 1 Community Development

Our community development follows the pattern of mass organization according to Outline on Community Development. Construction is conducted among communities, including communal facilities, production welfare and spiritual ethic, and social welfare enters the communities. In this way, the well-being of people living in communities is enhanced.

As for community development, the folk force is utilized to advance various welfare serves. We try to integrate community residents' consciousness, promote harmony and good-neighborliness, and increase living quality by issuing community periodicals and holding activities. The effects of 2017 are as follows:

1. Activity centers were established: 3,845 centers.
2. Welfare communities were built: Flagship plan of welfare communities, human resource training, disaster prevention and preparedness advocacy, and proposal empowerment were conducted, and subsidies were provided for 154 cases; the total amount was NT\$18,739,000.
3. Folk-custom, sports and music parties and welfare community observation activities were organized, and 3,000 and 1,483 people participated respectively.
4. Community development review was conducted for 9 counties in the south. The governments of Tainan City, Kaohsiung City, Changhua County, Pingtung County and Penghu County gained the Excellence Award; the governments of Yunlin County, Chiayi County, Taitung County and Chiayi City obtained Grade A. In addition, 32 community development associations including Jinhua Community of Tainan City won the awards.

### Section 2 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 Regulations on Solicitation of Contribution for Public Benefit 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. By the end of 2017, 386 organizations had submitted applications, and

448 organizations had been approved. The actual amount collected was NT\$4,548,172,240.

In order to improve fiscal accountability and operational effectiveness of fundraising groups, our department will entrust accounting firms to check the amount, use and flow of properties collected every year. According to the records of 2017 and 2016 made in 2018, 15 and 68 contribution solicitation activities were held respectively; 24 contribution solicitation activities were held from 2013 to 2015; there were 7 unsettled cases of major disasters at home and abroad and 26 special cases approved by relevant units. In total, 140 cases were checked.

In order to improve the professional knowledge and skill of personnel in fundraising groups, two seminars were organized in 2017, and 240 people attended.

### Section 3 Promoting Volunteerism

In order to effectively unite the folk force and encourage the members of the public to help one another, the Voluntary Service Law was established in 2001. To promote the development of volunteer service, we have established the "information integration system for national volunteer service" covering basic data of volunteers, and "management system of materials and volunteers for major disasters," which can assist the work of disaster relief. Volunteer service review, investigation, educational training, and awarding were carried out. In 2017, the Ministry of Health and Welfare commended 9,175 volunteers.

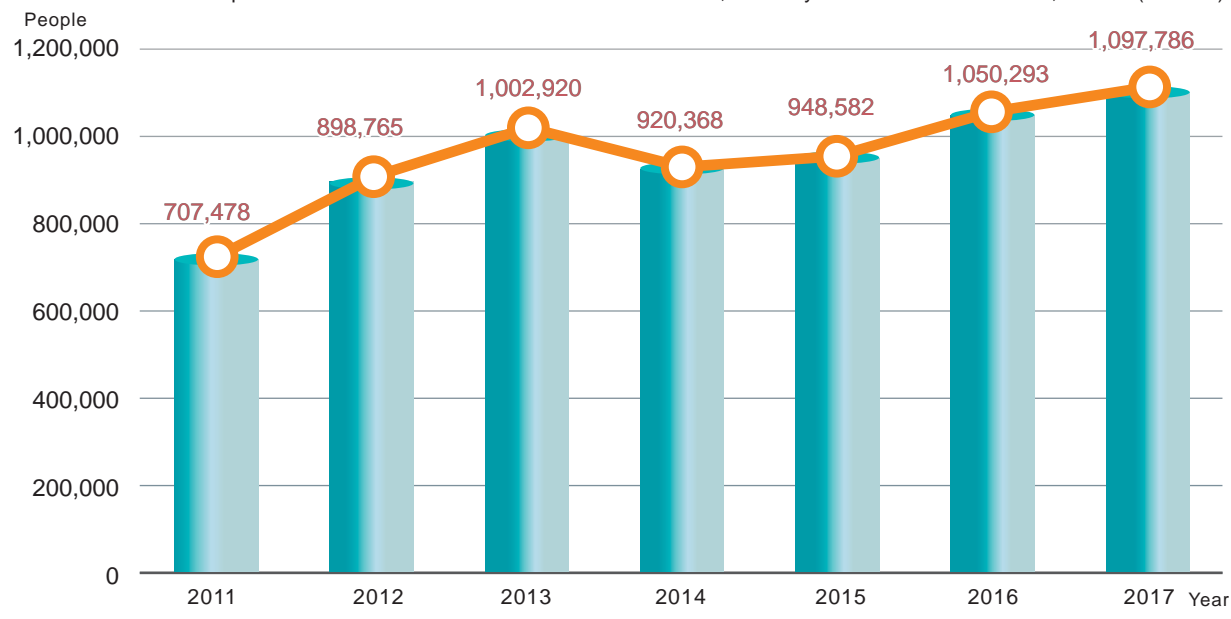
In 2011, there were 707,478 volunteers throughout the country, and the population of volunteers reached 1,097,786 in 2017, as shown in Figure 10-3. Among them, there were 340,853 male volunteers (31%) and 756,933 female volunteers (69%), presenting a sex ratio of 3:7. In the respect of service scope, the education type had the highest population (450,702), followed by the health welfare type (360,255) and environmental protection type (169,820).

As for the age of volunteers, 242,626 people were at 18-29 years old (22%); 223,845 volunteers were above 65 years old (20%), as shown in Figure 10-4. In 2017, they served 643,311,040 people, and the duration of service was 95,144,133 hours, equivalent to 45,742 full-time workers.



**Figure 10-3 Number of Volunteers, 2011-2017**

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



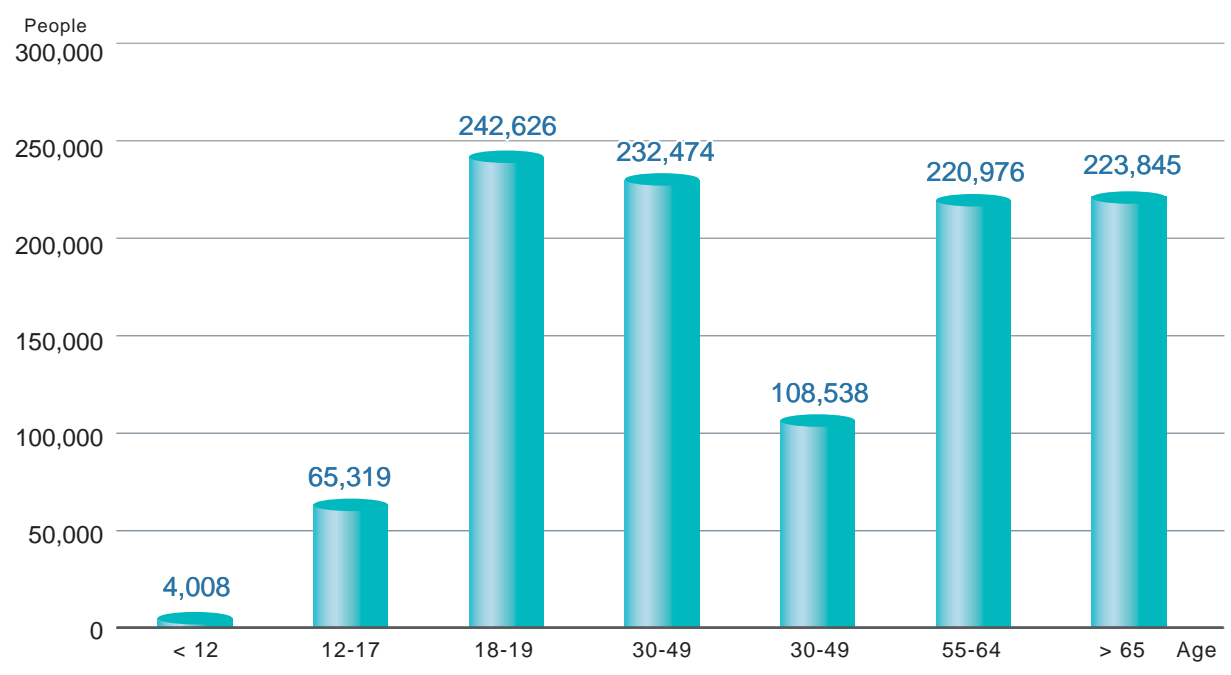
**Section 4 1957 Welfare Consulting Hotline**

In order to help families or individuals encountering difficulties in life, the Ministry of Health and Welfare has set up a special line for welfare consultation (1957), which will provide the public with consultation and referral services for free 24 hours all year round. In 2017, the Taiwan Fund for Children and Families was commissioned to recruit 35 professional social workers to provide services

from 8:00 to 22:00. If social workers of the special line discover any referral cases to be reported, they will report these cases to the Social Affairs Bureau (Department) of the relevant municipality or county (city), which will then arrange for personnel to visit or provide relevant services for the cases. In 2017, social workers received 72,685 calls, and reported 276 cases to the government of various municipalities and counties (cities).

**Figure 10-4 Age Groups of Volunteers, 2011-2017**

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



# 11



## Sexual Violence Prevention and Protective Services

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Gender-based violence generally refers to violent behaviors caused by “gender inequality.” Common forms include intimate violence, sexual assault, sexual harassment, and the abuse of children, the elderly, and people with physical and mental disabilities, which all are serious violations of life and health. It requires the establishment of laws by the state, the establishment of cross-unit cooperation mechanisms, the development of victim protection measures and counseling programs for victims, and preventive education to comprehensively eliminate gender-based violence and keep people from living in fear.

## Chapter 1 Prevention of Gender-Based Violence

### Section 1 Inter-departmental Network Integration Mechanism

1. Established an inter-departmental communication platform: In 2017, four 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. Built the “Gender Violence Prevention and Protection Service Consensus Camp”: In April 2017, the representatives of the public and private sectors who engage in the prevention of domestic violence, sexual assault, and sexual harassment; the protection of the elderly and the physically and mentally handicapped; and child protection and child sexual exploitation prevention and related services were invited to jointly discuss the

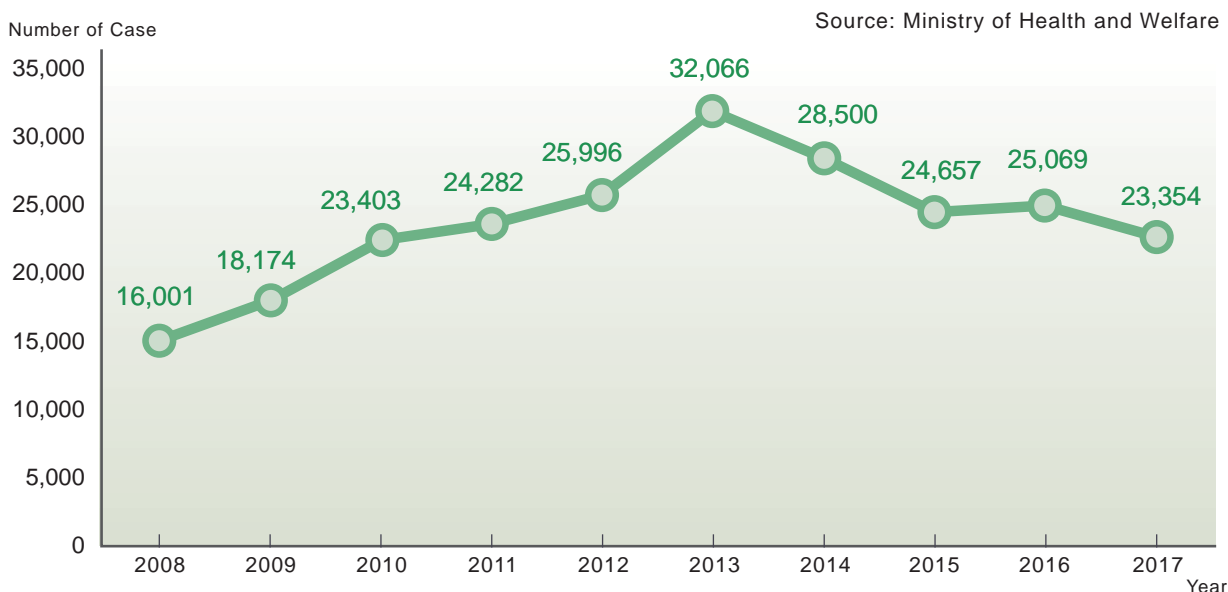
important issues and directions of the protection service, with a total of 215 people participating.

3. The 4th Purple Ribbon Awards ceremony was held: The “4th Purple Ribbon Award” ceremony was held in November 2017 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 16 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.
2. Set up 113 Protection Hotline: According to the statistics, the number of reports received in 2017 was 23,354, with the largest number of cases involving child protection (8,864), followed by intimate violence (8,849) of marriage/divorce/cohabitation relationships. In order, the rest of the cases involved violence among family members (3,973), protection of the elderly (899 cases), cases of sexual assault (625 cases), cases of protection of the physically and mentally handicapped (118 cases), and cases of sexual exploitation (26 cases), as shown in Figure 11.

**Figure 11-1 Case Number of the 113 Protection Hotline, 2008-2017**



3. Developed multiple report channels: in 2017, 167,514 cases involving domestic violence, sexual assault, child protection, physical and mental disabilities protection, elderly protection, and sexual exploitation were reported, including 143,019 Care E cases, 23,354 cases involving the 113 protection line, 989 cases involving online consultation, and 152 cases involving the short message service of the 113 Protection Hotline.

### **Section 3 Promoting Prevention of Gender-Based Violence**

1. Taiwan Against Gender-Based Violence (TAGV) Website and TAGV Newsletter: In 2017, the website had 19,640 data items, and achieved over 2.41 million hits. A total of 21 TAGV Newsletters were published, and the TAGV video and audio zone, digital learning platform, and interactive learning zone resources were integrated to complete the establishment of the “Gender-Based Violence Prevention Digital Learning Integration Platform,” which allows for the direct uploading of digital learning hours to the public service portal and Social Workers Resource Management System of the MOHW.

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 zero-tolerance in communities. 22 counties and cities and 52 plans were subsidized in 2017, with 324 communities participating.

3. Anti-gender violence video tour discussion plan: Popular commercial films were used to promote awareness of gender equality and gender violence prevention under the leadership of experts and scholars. In 2017, 203 films were played, and about 20,000 people participated.

### **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 2017, the plan subsidized 508 social workers who engaged in child protection and domestic violence and sexual assault prevention, with subsidies amounting to more than NT\$146 million.

2. Protective social workers check plan: The governments of municipalities and counties (cities) completed checks of protective social

workers in 2017, and the results of the checks were reported to the MOHW. In addition, the “Protective Social Worker Qualification Requirements and Job Scope Certification Standards” were amended, and the local governments were required by the MOHW to train protective social workers, handle relevant education, and post lists of participants on the “Social Workers Resource Management System.”

3. Protective social worker training plan: In order to clarify the professional responsibilities of protective work and enhance the consistency of professional training standards for various types of protective social workers, the MOHW in 2017 integrated the “Training Scheme for Domestic Violence Prevention Social Workers,” the “Divisional Grading Training Course for Sexual Infringement Prevention Social Workers,” the “Qualification and Training Scheme for Child and Juvenile Protection Social Workers,” and the “Elderly Protection Professional Training Scheme” into a protective social worker training plan which standardized the number of hours and courses through which protective social workers, incumbents, and supervisors should be trained. The central government should assign the new personnel and supervisors, while the local governments should handle the training of incumbents. 11 education and training activities for protective social workers and supervisors were held in 2017.



## Chapter 2 Prevention of Domestic Violence

### 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 2017, most of the reported cases involved intimate violence, with women being the majority of victims (83.1%). Meanwhile, cases of “violence by other family members”

also mostly involved female victims (55.1%). The majority of victims in “child protection cases,” on the other hand, were male (54.1%), while the majority of victims in “abuse of the elderly” cases were female (60.5%) (see Figure 11-2).

In 2017, the municipal and county (city) governments provided more than 1.31 million assistance for the protection of victims of domestic violence, and the total amount of assistance provided was NT\$743,360,000. The main subsidies were subsidies for shelter, emergency support, psychological rehabilitation, medical costs, lawyers, and litigation costs (see Table 11-1).

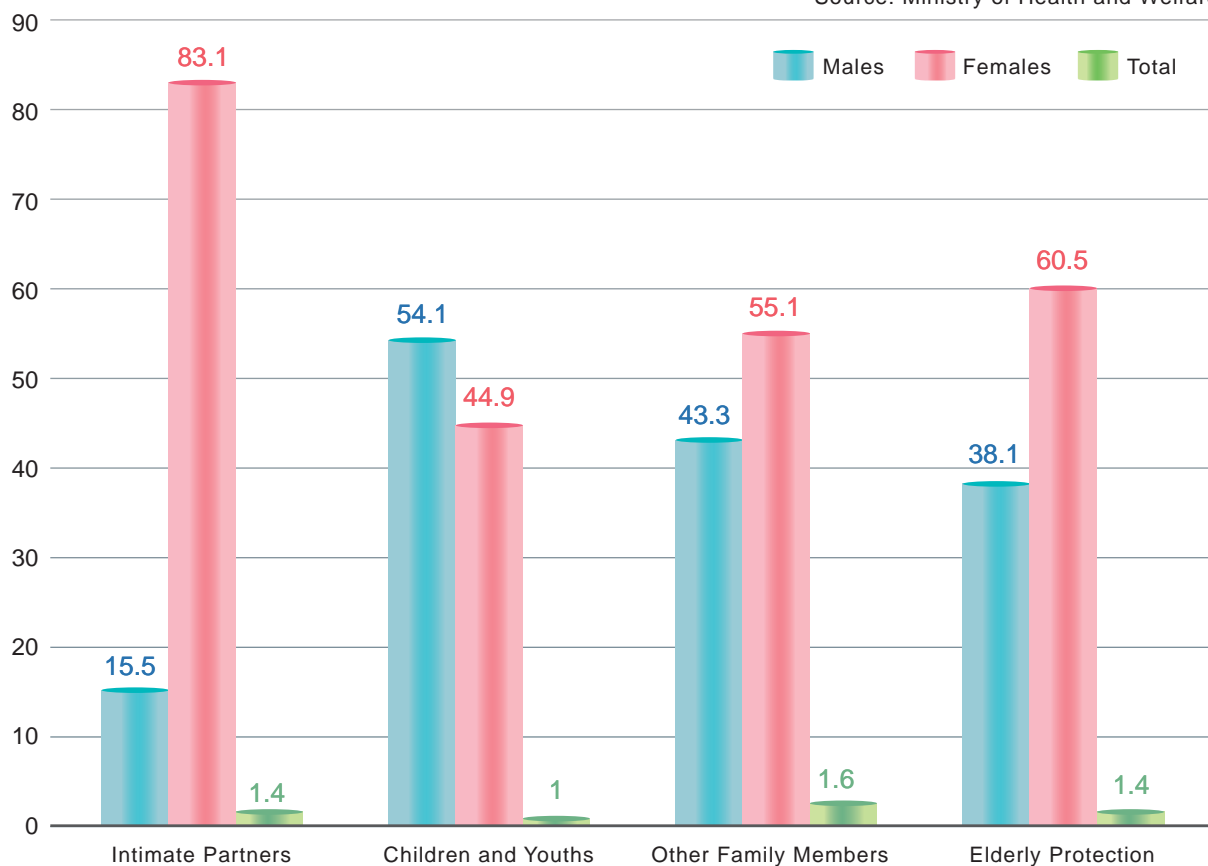
**Table 11-1 Domestic Violence Protective Assistance Incidents and Monetary Amounts, by Year**

Source: Ministry of Health and Welfare

Item/Year	2013	2014	2015	2016	2017
Protective Assistance Incidents	988,586	1,127,784	1,196,998	1,295,786	1,312,095
Protective Assistance Monetary Amounts (NT\$)	468,542,425	533,561,364	576,498,676	577,721,960	743,362,409

**Figure 11-2 Reported Victims of Domestic Violence by Gender, 2017**

Source: Ministry of Health and Welfare



## Section 2 Diverse Intervention for Victims of Domestic Violence

1. Continue to assist local governments in promoting programs: use social welfare subsidies and public welfare lottery rewards to assist local governments and civil groups in promoting violence prevention and control. The relevant programs are as follows:

- (1) Shelter program for victims of domestic violence: short-, medium- and long-term shelter services have 363 beds in the country, including publicly-funded publicly-operated (1), publicly-funded privately-operated (9), commissioned (15), and case-trusted (1) and special hotel; In addition to the funds provided by local government, the MOHW also offers subsidies for civil society to handle the shelter service. In 2017, 10 cases were subsidized, amounting to NT\$7.12 million, and shelter services were provided to more than 20,000 person-times.
- (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\$4,430,561 in 2017, serving 116,295 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 2017, the program subsidized 15 cases, totaling NT\$11.91 million and serving 18,665 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 2017, 5 cases were subsidized, totaling NT\$3.39 million and serving over 80,000 people. In 2017, the subsidy for victims of new residents was NT\$1,269,000. The new resident's personal safety protection plan gave a total of NT\$6.1 million subsidies, serving nearly 60,000 people.
- (5) One-stop domestic violence treatment service plan: assist local governments to

focus on the needs of victims in conjunction with civil society (provide at least three services, such as tracking counseling services, witnessing services, victim employment services, self-reliant services, etc.) In 2017, the plan subsidized 11 counties and cities, 15 projects, and the amount reached NT\$35,946,000. 5,710 new cases were recorded, 64,741 persons were given help, 853 services were given to children who witnessed family violence (15,144 people) and 188 employment services served 4,468 persons.

2. Continue to promote the "Domestic Violence Safety Protection Network Plan"

- (1) Regular review meetings are held to review the implementation of the Domestic Violence Safety Network plan by the municipalities and counties (cities), and to discuss the common or institutional issues faced by the central ministries in promoting the plan.
- (2) The Instructions of Taiwan Intimate Partner Violence Danger Assessment (TIPVDA) was used. The risk assessment rate of intimate violence has reached 97.1% as the end of 2017.
- (3) "High Risk Assessment and Control Dissolving Assessment for Domestic Violence Plan." Three activities of high-risk assessment of domestic violence and the training of control dissolving assessment were held in the North, Central and South parts. 9 counties including Keelung City, Taoyuan City, Hsinchu City, Miaoli County, Changhua County, Pingtung County, Yilan County, Hualien County, Taitung County, etc. conducted the plan for 8 months, with 72 field supervisions, assisting members of prevention and control networks to make appropriate use of such assessment.

### Section 3 Intervention for Domestic Violence Offenders

1. Advocating Civil Protection Orders in Offender Intervention Plans and supervised local governments in implementing the plan. In 2017, intervention was provided to 4,722 people, 1,526 of whom already completed the program. The number of people dead or entering the prison or protection order revoked not included, the implementation rate was 100%.
2. 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 2017, the hotline received 18,506 calls and serving 17,122 people (including 7,932 in-depth services and 9,175 general consultation 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 direct guidance for offenders, case management, follow-up, and professional training. In 2017, there were 30 plans subsidized, with total subsidized of NTD26.4 million and services provided 39,918 times.

### Section 4 Quality of Domestic Violence Prevention and Education

1. Strengthened the network cooperation mechanism for domestic violence prevention and control: In 2017, a seminar on major domestic violence incidents was held to discuss serious injuries and deaths caused by domestic violence, and to examine the operation of the current domestic violence prevention and control network, so as to propose recommendations for the improvement of inter-professional network coordination and intervention strategy.
2. Guidelines for R&D services: In 2017, the “Guidelines for Shelter Service for Victims of Domestic Violence and Their Children” were completed to strengthen the professional services of social workers and staff in shelter premises.
3. Enhanced the professional development of domestic violence prevention and control: In 2017, Taiwan University was entrusted to handle the “Preliminary Study Plan on the Medical Use of Intimate Violence Victims and the Estimation of Medical Costs.” It is expected to understand the medical use of victims of intimate violence

and the medical expenses required by estimating the medical cost of intimate violence and understand the service needs of the victims; Mingchuan University was entrusted to handle the “Preliminary Study Plan on the New Resident Victims' Domestic Violence Service Model” to understand the particularity of the new residents' domestic violence problem and analyze the needs and dilemmas of the victims.

4. Handled the “R&D of Investigation Tools for the Elderly Victims of Violence”: In 2017, Taipei Nursing and Health University was commissioned to analyze the prevalence of violence against the elderly, the perception and attribution of the elderly suffering violence, the help-seeking behavior of victims and the reception of services, so as to collect the epidemiological data on the problem of violence against the elderly in our country and propose prevention and control policies based on the problem.
5. Strengthened the professional knowledge of domestic violence prevention and control personnel: In 2017, administrative training for social workers on domestic violence prevention was conducted, and 411 personnel from the public and private departments received the training.
6. Enhanced the professional knowledge regarding elderly protection: Worked with professional groups to handle the training of practical skills in meeting with relatives (family members) of the elderly and the training of elderly care providers and responsible informants. In 2017, 1,017 people participated in the training.
7. Provided professional training for treatment personnel: In 2017, the Bali Health Center of the MOHW was entrusted to provide the “Education Training for Domestic Violence and Sexual Assault Treatment Personnel.” 15 compulsory courses and 9 elective courses were provided, with a total of 1,420 participants.

## Chapter 3 Prevention of Sexual Assault and Sexual Harassment

### Section 1 Status of Sexual Assault Services

1. Since the publication of the Law on the Prevention and Control of Sexual Offences on January 22, 86, about 13,000 suspected cases were reported each year, and more than 8,000 people were victimized in 2017. The briefings are as follows:

- (1) 83% of the victims were women, of which 53% were between 12 and 18 years old; 81% of the suspects were male, of which 34% were between 12 and 24 years old; 13% were suspected or identified as physically and mentally handicapped.
- (2) The sexual abuse by acquaintances accounted for 73%, 5% sexual abuses by strangers, and the rest were committed by unknown or others; the major relationship between the two parties was (former) spouse, fiancé/wife, (former) boy/girlfriend, etc. (24%), followed by "unknown or other" (22%), then the "friendship" (family friends, ordinary friends, Internet friends, neighbors) (21%).
- (3) The municipal and county (city) violence and sexual assault prevention and control centers provide protection and shelter accompanying investigations, financial assistance, medical examination and treatment assistance, legal assistance and other protection measures for victims of sexual assault. In 2017, 274,529 persons were served, and the amount of assistance was more than NT\$176,150,000.

2. The Law on the Prevention and Control of Sexual Harassment was promulgated on February 5, 95. All relevant organs (units) accepted 662 cases of sexual harassment complaints in 2017. The cases are as follows:

- (1) 500 cases were established, 129 were not established, and 33 were withdrawn, 2.64% lower than 680 cases (519 established, 125 not established, 36 withdrawn) in 2016. The police authorities accepted the most cases (accounting for 76.73%), followed by the companies of the injurers (21.29%).
- (2) 95.6% of the victims were women, and 85.71% of the perpetrators were men.
- (3) "Stranger" relationships between the two parties accounted for 70.4%, followed by "friends" accounting for 6%.

(4) 47.84% place of occurrence was "public place," followed by 19.45% "virtual environment - technology equipment (such as the Internet)."

(5) The behavioral was mainly "kiss, hug or touch the chest, hip or other privacy parts," accounting for 54.7%, followed by "use swearing, derogatory, hostile or harassing words or attitudes," accounting for 14.3%, and "display or circulate erotic images (files)," accounting for 14.1%.

### 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 270,000 people were served, and the amount of support was more than NT\$170 million in 2017.

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 2,500 people were served in 2017.

3. Improvement of the inspection and identification of sexual assault: 3,254 victims were provided with injury certificates in 2017, of which 1,713 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. 1,593 cases in 2017 entered this service

5. "Competitive Plan for Constructing Sexual Harassment Prevention and Control Service System": In 2017, 13 counties and municipalities were subsidized for 85 professional trainings, 614 victims were given legal counseling and psychological counseling services, and more than 570,000 people were benefited. 2,925 sexual harassment prevention measures were subject to on-site inspection.



### Section 3 Intervention for Sexual Assault Offenders

1. The MOHW oversaw compulsory therapy for sexual assault offenders who had completed criminal prison sentences. At the end of December 2017, there were six medical institutions designated to handle compulsory therapy (Tsaotun Psychiatric Center [MOHW], Tsaotun's Dadu Villa [MOHW], Jianan Psychiatric Center [MOHW], Kai-Syuan Psychiatric Hospital, Taipei Veterans General Hospital Yuli Branch, and Taichung Prison's Pei Teh Hospital).
2. Community intervention provided for sexual assault offenders. In 2017, a total of 7,408 offenders underwent therapy and counseling, including 1,788 offenders who completed the intervention and 4,494 who were still undergoing intervention. There were 10 offenders referred for compulsory therapy, 744 who did not complete therapy due to explained excuses, and 372 punished for failure to show.

### Section 4 Quality of Prevention and Education on Sexual Assault and Sexual Harassment

1. "Severe Sexual Assault Case Review Meeting": Two meetings were held in 2017 to review 10 cases and one proposal, including the request on the Social and Family Department for follow-up supervision and management, and inviting relevant ministries to re-exam the judicial rulings of individual case, continuously studying how the current services give support to perpetrators of sexual assault, improving the classification of injurers and gradually strengthening the logo of pedophilia. The county and city governments were asked to conduct network meetings to facilitate the circulation of important information under its jurisdiction.
2. Professional training on prevention of sexual assault and sexual harassment: In 2017, 2 sessions of "Basic Training Courses for Sexual Assault Prevention and Control Personnel" were conducted. The content of the course included cognitive sexual assault, cognitive victimization, human development issues, judicial protection measures to victims, medical protection measures for victims of sexual assault, children with disabilities, physical and mental disorders and sexual assaults within the institution, sexual assault trauma and recovery process, with 107 people participating in. In order to enhance the professional knowledge of the workers and investigators of sexual harassment cases, in

2017, 8 professional trainings for investigators in sexual harassment cases were handled, and 403 people were trained.

3. Time management and control of child sexual assault: set up a timed reminder function in the "Domestic Violence, Sexual Assault and Child Protection Information System." The information system will remind the social workers of time limit.
4. Community and school preventive education advocacy: Social welfare subsidies and public welfare lottery rewards were used to subsidize local government and civil society to handle sexual harassment prevention education programs. In 2017, the program subsidized 13 county (city) governments and 7 civil organizations. More than 660,000 people were benefited.
5. Production of digital course materials to enhance professional work knowledge: In 2017, the digital learning materials of "Cognitive Trauma" and "Site Owners' Responsibility for Sexual Harassment Prevention" were completed to assist the staff to understand the connotation of victims' trauma rehabilitation.
6. Professional training for personnel handling treatment: In 2017, the Bali Care Center was entrusted to handle the "Training for personnel handling domestic violence and sexual assault treatment." 6 core courses and 4 elective courses were given, with a total of 552 participants.

## Chapter 4 Children and Youth Protection

### Section 1 Protection of Children and Youth

1. Optimized the quality of responsibility notification: In 2017, 59,912 child and juvenile protection cases (hereinafter referred to as child protection) were reported. The responsible informants reported a total of 51,090 (85%) cases, and the general public reported a total of 8,820 (15%) cases. The cases were classified into 21,141 (35%) domestic cases, 13,078 (22%) non-domestic cases, and 2,5,693 (43%) other cases. 4,135 children, 2,012 (49%) male and 2,123 (51%) female in the cases were given follow-up services. In 2017, the assistance for the responsible informants was implemented, allowing the informants to accurately determine whether to report and the type of report based on the circumstances of the case, and improve the quality of the report.
2. Promoted child protection and family education services: In 2017, local governments provided family education services to 10,560 persons, and provided family support and welfare services to 51,464 persons.
3. Supervised municipal and county (city) governments to implement child protection: Guided local governments to continuously strengthen cooperation with health care, justice, policing, and education agencies, and improve the professional sensitivity of social workers and the child safety assessment. In 2017, three major child abuse prevention and treatment group meetings were held, and a total of 34 cases were reviewed.
4. Strengthened the training for child protection: In 2017, 1 (3 days) family function assessment and family treatment lecturer training were given, 35 people participating; 3 (5 days) child protection structure risk assessment experiment and safety assessment practice seminar were held, involving 98 experts, scholars, social workers, supervisors and senior social workers; 1 (2 days) "Cross-domain cooperation seminar on children and juvenile protection service" was held, with 165 personnel in the fields of social affairs, education, health care, justice, and other child protection network participating.
5. Professional development and research of child protection: In 2017, research projects on the experimental results of the decision-making model for the risk assessment of child protection

was held, and the risk assessment tool for child protection was completed preliminarily. Based on the practical experience of the front-line social workers, the Child Protection Family Function Assessment Form and the Family Treatment Plan Workbook were revised.

### Section 2 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.
2. Victim protection assistance: 1,184 cases were reported. 748 cases were received by police (63.18%), followed by 214 cases (18.07%) by education staff and 151 (12.75%) by social workers. The number of victims was 783. The local social and political organs sent staff to participate in the investigation, serving 533 people, and resettled 158 people. According to the ruling of the court, 153 people were resettled in the short-term, 92 people were resettled in the medium and long term, and 833 people were given follow-up counseling services, including home visits, counseling, school counseling, financial assistance, family treatment, employment and medical resources.
3. The "Child and Juvenile Sexual Exploitation Prevention Consultation Meeting" was held: The 1st meeting was held on July 31, 2017, on which the relevant ministries reported and discussed the work after the implementation of the new law.
4. Tour supervision on diversified treatment: In 2017, the MOHW entrusted the "Work Plan for Diversified Treatment of Child Victims of Sexual Exploitation," a total of 22 tour supervisions held which provided information on communication services and sexual exploitation prevention resources.

### Section 3 Internet Security Mechanism for Children and Youths

1. The municipal and county (city) governments were required to implement the handling of Institute of Watch Internet Network (iWIN). The relevant conference was held in 2017. The resolutions are as follows:

- (1) Add new appeal methods such as system website and screenshot of the case, and strengthen the protection of individual funds. The iWIN network content protection agency (sponsored by the Taipei Computer Association since 2017) handles the information system update and construction.
- (2) To shorten the time of handling cases, it is recommended that iWIN cases be classified and processed. Emergency cases must be removed and transferred to relevant units for investigation within one day.

(3) The main function of iWIN is to accept people's report. About 40 large-scale platform operators were interviewed every year. In the future, it will strengthen the function of active visits and urge the operators to keep self-discipline.

2. The number of iWIN2017 service cases in 2017: 9,865. "Sexual obscenity" accounted for 93.79%, 554 cases were sent to related units, and 3,057 were added to blacklist.
3. "Description of the Web Contents Harmful to Children's Physical and Mental Health and the Effective Measures Development Plan": Initially establish an annotated list of online content that is harmful to children's physical and mental health, which can provide local government's reference basis of punishment and the benchmark of the industry.



# 12



## Research and development and international cooperation

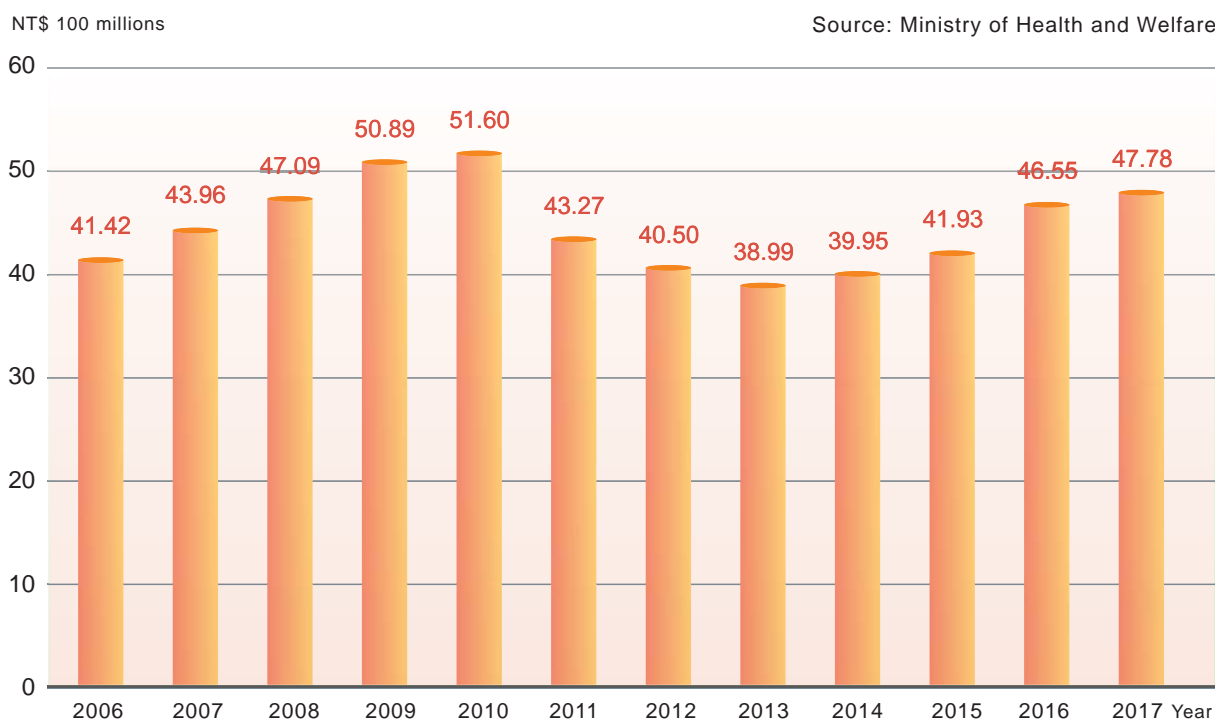
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## Chapter 1 Technological studies on health and welfare

The budget for technological development in 2017 was NT\$ 4.77 billion, as shown in Figure 12-1, accounting for 2.28% 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 entrusted or subsidized 859 research projects, and the actual application rate for technological achievements was 73.7%.

**Figure 12-1 Annual R&D Budget Trends**



### Section 1 Task-oriented empirical policy studies

#### 1. Preparation for epidemic prevention

- (1) We have developed and improved inspection techniques. These innovations include a polymerase chain reaction detection technology platform and fast isothermal nucleic acid amplification method of arbovirus, a pneumonia pathogen detection suite, a rapid diagnostic system for infectious rickettsia, a molecular diagnosis method for Babesia. We also improved the sample preparation with special filter for electron microscope, a diagnosis of viral infection on the starting plasma of snake antivenom, and *N. naja atra* venom low dosage immunization method, etc. These innovations can be applied with rapid diagnoses to assist epidemic prevention efforts.
- (2) We have studied the prevalence of latent tuberculosis infection (LTBI) among residents and health care workers in long-term care facilities and built a TB control model of active

TB case finding and LTBI screening/treatment. In addition, we established an active drug-safety monitoring and management system for drug-resistant TB patients who used second-line drugs.

- (3) We have established a genetic fingerprint database for foodborne pathogens to share genotypic information among institutions and built an early-warning system to early detect the occurrence of disease clusters. Based on research results, "listeriosis" has been included in the fourth class of notifiable disease since 2018, in order to strengthen disease surveillance and prevention.

#### 2. Public health promotion

- (1) We completed the National Health Interview Survey (NHIS), Nutrition and Health Survey in Taiwan (NAHSIT), and Children and Adolescent cohort studies; conducted studies on nutritional statuses and relevant geriatric syndromes of the aged; developed nutritional risk screening tools; finalized the Taiwan Geographic Information System

for Obesogenic Environment Surveillance and trend analysis; established a prediction model of obesity rates for the counties and cities in Taiwan; continuously developed strategies for cancer early screening and quality improvement of cancer diagnosis and treatment.

- (2) We have accomplished analysis of the current status of active aging, researches on development of healthcare and utilization among the middle-aged and elderly people, as well as a research on age-friendly environments assessment. Besides, we have also enhanced dialogues between industry, government and academia for translation of researches into policy and practice.

### 3. Food and drug management

#### (1) Food inspection technology development

- A. We have added food inspection items such as pesticides, veterinary drugs, heavy metals and additives, with the coverage rate of regulations reaching 97%, 80%, 100% and 97% respectively. Hence, most inspection needs are covered.
- B. We have established analysis methods for Sudan dyes in poultry products that can supplement and support the food safety management policy. These methods have been successfully applied to food safety news events.
- C. We have established 103 visual panels in 27 categories via information communication technology to improve source management and edge tools for inspection.

#### (2) Research and Development of Pharmaceutical technology

- A. We studied high-order, high-value drug clinical tests and checked and registered 922 technical data items. We also formulated 16 guide drafts regarding medication review management principles and criteria, and established 15 pharmaceutical cosmetic test methods and evaluation studies to improve clinical testing technology.
- B. We developed two emerging analysis methods for drugs in urine, synthesized 13 standard abused drug substances, and established high-effect analysis methods to increase the effectiveness of tests and prevent drug abuse.

### 4. Research, development and promotion of traditional Chinese medicine

- (1) We have integrated the query systems of Western medicine and combined use of

Chinese and Western medicine; establishing the Drug Information Database containing the Drug Herb Interaction Database. We also compiled 3,085 research items about the combined use of Chinese and Western medicine, and 556 cases that involved use of Chinese and Western medicine and 475 cases about herb-herb incompatibility in Chinese medical classics, and provided these data for clinical professionals.

- (2) We have established a quality analysis database for traditional Chinese medicine (qaTCM). By the end of 2017, we had collected 90 TCM items regarding the description and microscopic identification, TLC identification, marker component analysis and quantitative data that will help in realizing industry-government-academic-research cooperation and answering public queries.

- (3) We have proved that the change of specific constitutions in traditional Chinese medicine is closely related to sub-health and the state of lung diseases and cancers with modern clinical and basic medical data, which can provide references for clinical application.

- (4) We have developed new drugs for metabolic diseases. The first of these is a compound with GLP-1 receptor regulation activity and uses thereof, and the second applies *Helminthostachys zeylanica*, ugonins and flavonoids. These new strategies to prevent or treat metabolic diseases have gained national patents for related inventions.

- (5) We have determined the respective interactions of the extracts of commercially available remedies of 4 Chinese herbal formulas including Xin-Yi-San, Wu-Yaw-Shen-Chi-San, Zhibai Dihuang Wan and Shenmai-Yin with the anti-hypertensive agent nifedipine.

### 5. Improved clinical care systems

- (1) Digital IC Technology: at the end of 2017, 65 health centers and 171 health rooms in aboriginal villages and on outlying islands had broadband speeds of at least 12M.

- (2) We have discussed relationships between the disability evaluation results and the ICD-10-CM, and completed the functional distributions of 100 common ICD disease groups. We also established a prediction model by combining general characteristics. The accuracy rates of some models have reached 70%.

- (3) We have achieved the innovation of international home care agencies. We conducted sampling inspections regarding

the needs of 119 home care agencies by analyzing the cases of Denmark, the United States and the Netherlands. We also drafted suggestions and planning strategies for three development aspects and six application aspects of domestic home care agencies.

- (4) We have established a hospital care service data and management platform to improve application effects.

#### 6. Omnidirectional reinforcement of National Health Insurance system

- (1) Reasonable allocation of health care resources: established assessment methods and improvement strategies regarding improper use of health care resources. We also conducted assessments and established medical quality information disclosure indexes, collected dispute cases about medical services and special management and analyzed these.
- (2) Strengthening services with technology: assessed the effect of NHI MediCloud System, uploaded medical information to the cloud, helped primary hospitals consult and share such information, and implemented hierarchical treatment. Other projects included development of the intelligent E-call communication network and building a customer satisfaction monitoring system.

#### 7. Mental and Oral Health Monitoring Improvement

A Taiwan nationwide Elderly Positive Mental Health Survey was completed. 2,256 cases data and baseline information were collected through interview between 2016 and 2017. By analyzing these data, the situation of elderly mental health and the factors of elderly well-being in Taiwan are clarified.

#### 8. Developments of Positive Social Assistance

In 2017, we invited the National Taiwan University to implement the research project of the Anti-poverty Measures Effectiveness Assessment who has proposed the four recommendations concerning the anti-poverty indexes include: (1) index of social assistance performance; (2) index of anti-poverty scheme via asset accumulation; (3) index of anti-poverty scheme via employment and (4) common index of anti-poverty scheme, including continuity of anti-poverty scheme as well as the proportion of anti-poverty schemes and numbers of participants by locations.

#### 9. Improving welfare service system

To develop a policy pattern suitable for our country and to adapt to changing conditions, we initiated four research projects in 2017:

- (1) Welfare Service Delivery Mode of Social Housing: The design concepts and service patterns of various types were discussed, and different generations' needs were analyzed. According to this study, social housing can serve diverse vulnerable groups with different needs. Diverse development and special design should support service patterns to meet resident needs. The government should emphasize innovation, social equality and justice, as well as encourage diverse housing and make the welfare service pattern compatible with the life cycle.
  - (2) Development of the Social Welfare Charity Trusts System: Suggestions are proposed for such aspects as reflection on the purpose of system creation, the challenges of institutional operation, design and analysis of institutional structure, and strategies for system innovation.
  - (3) Study on Core Value and Indicators of Social Welfare Evaluation System: Feasible operating strategies are proposed through performance evaluation by the central government of the local government's appraisal modes, index establishment and ethical norms.
  - (4) Disability and Gender Analysis of Disability Welfare Services: A Pilot Study: Researchers noted that data associating disability were lacking so this is being remedied in newer data collection. Therefore, we should make an analysis on the genders of people with disabilities so as to present the differences between people with and without disabilities. Besides, laws can be issued to modify the impact assessment about how great policies influence human rights and to bring disability into the human rights. Indicators the item asking about having disability card or not has to be included in the national surveys so as to enhance the image of disability and gender of our country.
10. Reinforcing the national welfare information integration platform for persons with disabilities:
- Integrating three systems, including assessment of disabilities and need evaluation management system, welfare service management system for persons with disabilities, and case transitional service data management system for persons with disabilities; establishing a new subsystem of case management for persons with disabilities in order to improve the efficiency of public services.

## Section 2 Developing innovative and translational research

### 1. Technology transfer and patent licensing

We achieved four research and development results in 2017, and the total income from research and development results was NT\$ 6,760,878, as shown in Figure 12-2.

### 2. Biomedical technology research and development

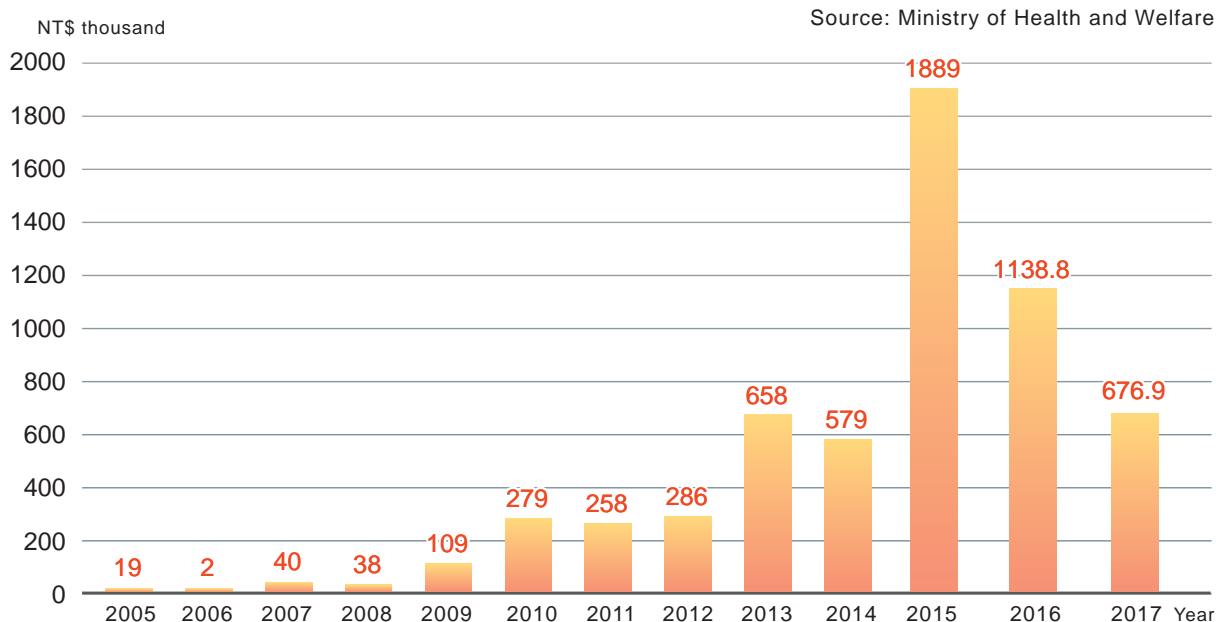
(1) We established the Value-Added Medchem Innovation Center (VMIC) to enable local pharmaceutical and biotech companies to engage in innovative drug discovery and to upgrade the entirety of the biotechnology and pharmaceutical industry in Taiwan.

(2) We identified DBPR112, a novel EGFR tyrosine kinase inhibitor as a therapeutic candidate for lung adenocarcinoma. This drug candidate has entered phase I clinical trial in 2017, and received patents from Taiwan, US, China and Korea.

(3) We established the Asia-Pacific Network for Enterovirus Surveillance (APNES) through collaborations between academic institutes and hospitals in Vietnam, Malaysia and Cambodia to promote enterovirus surveillance and vaccine development cooperation to improve efficiency in enterovirus prevention.

3. Initiated Phase II of the Cancer Research Program (2014 – 2017)

**Figure 12-2 Annual R&D Revenue Trends**



Establishment of the Asia-Pacific Network for Enterovirus Surveillance (APNES) with Southeast Asian Epidemic Prevention Research Institutes



- (1) We have completed the standard operation procedures of the gastric cancer screening service including case collection, referral and diagnosis. It proved that screening and subsequently treatment of *Helicobacter pylori* (*H. pylori*) infection was a cost-benefit strategy for gastric cancer prevention. The incremental cost-effectiveness ratio (ICERS) was - 1237.14 dollars/life year saved (LYS). Both literature review and meta-analysis have demonstrated that treatment of *H. pylori* infection had a long-term effect on stomach cancer prevention by decreasing 47% of its risk.
  - (2) In cancer therapy, we provided a variety of therapy suggestions such as hepatic cancer and hepatitis therapies, leukemia therapies, molecular diagnosis guided breast cancer therapies, and oral cancer endoscopic surgeries with the help of surgical robot. In the aspect of cancer risk factors, studies showed that environmental hormone exposure was positive correlated with the risk of breast cancer occurrence within young population, and chronic inflammation caused by abnormal fat metabolism might relate to occurrence of breast cancer. Alcohol consumption had a significant correlation with the occurrence of head and neck cancers, with the highest correlation with hypopharyngeal cancer. Abnormal carbohydrate metabolism was significantly correlated with the progression of upper urinary tract cancer.
4. Advancement of execution capability and international competitiveness of clinical trial
- (1) C-IRB review mechanism for multinational and multicenter clinical trials of drugs was completed 168 cases with an average review period of 9.4 working days. The Center for Drug Evaluation (CDE) established the clinical trial information platform of Taiwan to promote the international visibility of Taiwan's clinical trial with the concept of one stop shop.
  - (2) The achievements of clinical trials include the publication of new standards for blood pressure control, decreasing the population of patients with cardiovascular diseases and kidney diseases, and reducing the death rate of elderly patients above 75 years old by 30%. The indication for regorafenib has been approved by US FDA as a second line treatment for advanced liver cancer. Osimertinib, a new drug for the treatment of metastatic epidermal growth factor receptor T790M mutation-positive non-small cell lung cancer has been approved by the US FDA.

### Section 3 Statistical applications of Health and welfare data

#### 1. Management of statistical applications platform

The Health and Welfare Data Science Center (HWDC) opened in 2011 to improve the quality of public decision-making and expand academic research. Besides strengthening data security management and promoting review mechanisms for big data application management, HWDC also established remote virtual desktop systems for each individual research sub-center.

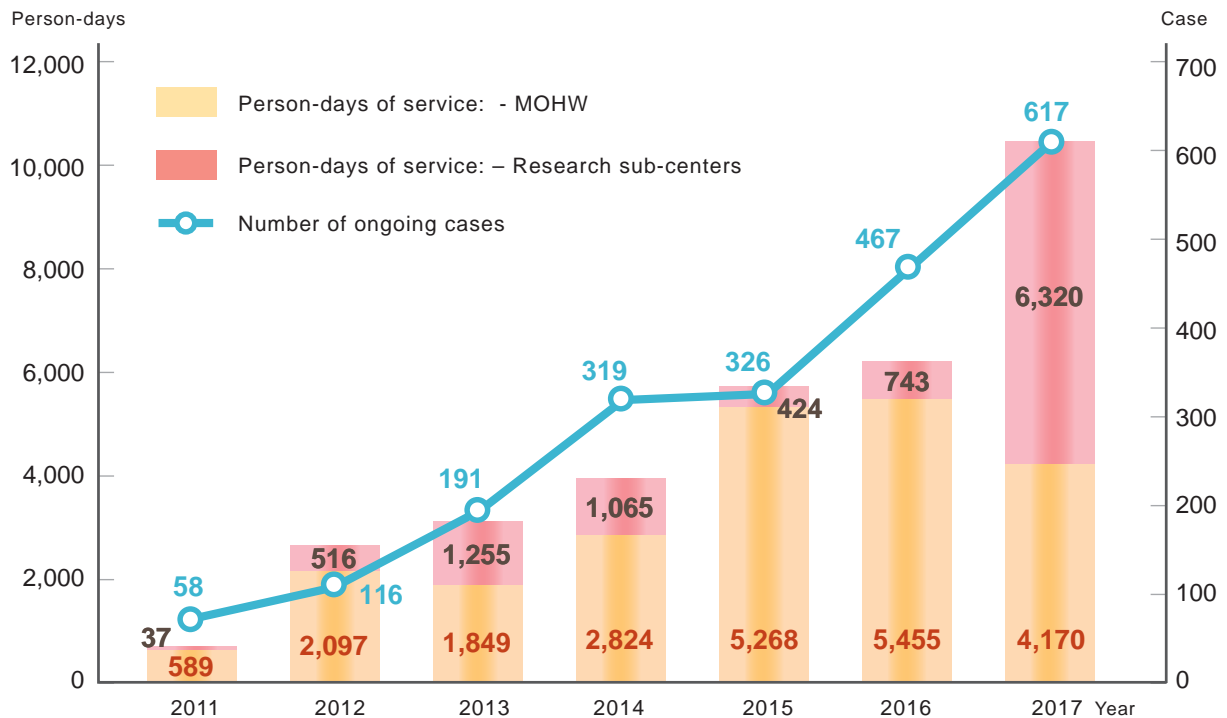
#### 2. Service content and quantity

- (1) By the end of 2017, 84 databases were opened for public use.
- (2) Nine research sub-centers can connect to our department's system for data statistical applications through the remote virtual desktop system, and the average rate of equipment utilization increased from 3% in 2015 to 42% in 2017.
- (3) The number of ongoing cases increased from 58 in 2011 to 617 in 2017, as shown in Figure 12-3, presenting an average annual growth rate of 48%. During the same period, the person-days of service also increased from 626 in 2011 to 10,490 in 2017, presenting an average annual growth rate of 60%.



**Figure 12-3 HWDC Annual Service Quantity**

Source: Ministry of Health and Welfare



## 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

Participating in various mechanisms, activities and meetings of the World Health Organization (WHO) promotes the interests and the right to health of all people. Taiwan plays an indispensable role in the world health and epidemic prevention system. The 70th World Health Assembly (WHA) was held in Geneva, Switzerland from 22 to 31 May 2017. Though not invited to the meeting as an observer, Minister of Health and Welfare Shih-Chung Chen led an action team to Geneva, and held 59 bilateral

meetings with countries including the US and important international organizations. These meetings promoted exchanges about important health issues and sought directions for future cooperation. Taiwan also hosted professional forums on health insurance and epidemic prevention, communicated with international experts, and showed the international community our 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)

Deputy Minister of Health and Welfare Chi-Kung Ho led a delegation to the 7th APEC High-Level Meeting on Health and the Economy in Ho Chi Minh City, Vietnam from 21 to 25 August 2017 and gave a speech, Towards a Sustainable Health System, leaving a deep impression on APEC members and getting strong responses from participants.

## Section 2 International exchange and assistance

### 1. International cooperation and exchange

(1) We attended 93 international conferences or seminars, organized 40 international conferences in Taiwan, and invited 978 foreign visitors from 67 countries in 2017.

#### A. Attending international conferences

(a) We attended the ICN Quadrennial Congress in Barcelona, Spain in May 2017. The topic, Nurses at the Forefront Transforming Care, focused on nurses' contributions to sustainable development goals, health workforces and universal

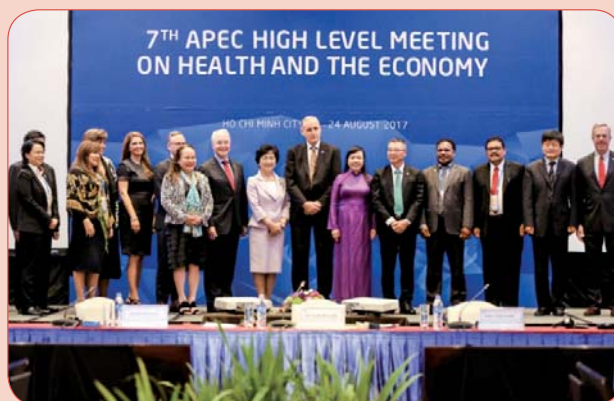
health coverage.

(b) We attended the Social Enterprise World Forum in New Zealand in September 2017, effectively connecting our talents in the field of social enterprises to the world.

(c) We sent personnel to attend the 22nd Taiwan, Japan and South Korea Trilateral Meeting organized by Japan National Council of Social Welfare and Osaka Prefecture Council of Social Welfare in December 2017. Experts and government representatives from the participating countries gathered all together to discuss solutions for various social problems.



President Tsai met World Health Assembly action team in May 2017



7th APEC High-Level Meeting on Health and the Economy in August 2017



ICN 26th Quadrennial Congress in May 2017



Social Enterprise World Forum in September 2017

B. Holding international conferences

(a) From 25 to 28 April 2017, the MOHW, the Ministry of Foreign Affairs and the American Institute in Taiwan jointly held the International Training Workshop on Laboratory Diagnosis for Dengue/Zika/Chikungunya in Taiwan. Participants from 18 countries joined the event to work toward reducing the threat of communicable diseases.

(b) A Taiwan-US Health and Welfare Policy symposium was held from 9 to 10 May 2017 with the topic "Closing the Gap: from Policies to Actions." About 250 people attended the symposium. We invited 7 American health and welfare officers and experts to share their practical experiences concerning important health and welfare issues, future challenges and policy results.



International Training Workshop on Laboratory Diagnosis for Dengue/Zika/Chikungunya in April 2017



Taiwan-US Health and Welfare Policy Symposium in May 2017

- (c) On 26 July 2017, Taiwan and South Korea health authorities discussed issues about mental health law and involuntary psychiatric hospitalization and shared experience in development and implementation of the mental health policy.
- (d) We held a Capacity Building Forum for Asia-Pacific Health Promotion on 8 September 2017, and invited 9 scholars and 5 government officials from Japan, Singapore and Malaysia to exchange views with 160 Taiwan officials and scholars. This time,

we cooperated with the Asia-Pacific Academic Consortium for Public Health to establish the Collaborating Centres for Health Promotion and jointly made the “Declaration of Taipei” with representatives from six countries.

- (e) From 11 to 15 September 2017, we held the PIC/S Committee Meeting and Annual Seminar. A total of 170 official inspectors, 60 regulatory authorities and international organizations from 50 countries attended the meeting. The results were highly appraised by PIC/S and participants, effectively increasing our status in PIC/S.



Asia Pacific Health Promotion Capacity Building Forum in September 2017

- (f) We held the International Forum of Exchange and Cooperation in Traditional Medicine from 6 to 7 September and on 2 October 2017. About 280 people attended these meetings, and 3 officials and experts from Singapore and Malaysia were invited to visit Taiwan. They helped Taiwan businesses in planning how to implement the New Southbound Policy expanding Southeast Asian ties.
- (g) We held the Global Health Forum in Taiwan from 22 to 23 October 2017. Attendees included 9 Health Ministers/ Vice Ministers, 76 senior health officials

and experts from 35 countries, totaling 1,010 people which was the highest number of participants since its initiation in 2005. After many years of existence, the forum has developed as a powerful professional platform to discuss the world health issues in Taiwan.



Global Health Forum in Taiwan in October 2017

- (h) We held the Review Meeting of the ROC's Initial Report under the Convention on the Rights of Persons with Disabilities (CRPD) from 30 October to 3 November 2017. Vice President Chen invited 5 global disability rights specialists from countries, such as the UK and Sweden, to serve on International Review Committee to examine our initial national report and issued 85 concluding observations. Attendees included 307 representatives from the Legislative Yuan, the Judicial Yuan, the Control Yuan and the Executive Yuan, 286 NGOs representatives and individuals, totaling 593 people.
- (i) We held the Review Meeting of the ROC's Initial Report under the Convention on

the Rights of the Child (CRC) from 20 to 24 November 2017. Vice President Chen invited 5 experts on rights of the child from countries, such as Netherlands and Israel, to serve on International Review Committee to examine our initial national report. The international committee conducted deep and constructive dialogue with government, non-governmental organizations and children's representatives, and issued 98 concluding observations. Attendees included 390 representatives from five Yuans, such as Executive Yuan, and various government departments, 240 NGOs representatives, children's representatives and individuals, totaling 630 people.



Review Meeting of the ROC's Initial Report under the Convention on the Rights of Persons with Disabilities in October 2017



Review Meeting of the ROC's Initial Report under the Convention on the Rights of the Child in November 2017

C. Foreign Visitors: 978 foreign guests from 67 countries visited in 2017. We shared information on health and welfare policy, medicine, food, health insurance, technology and bilateral cooperation, as shown in Figure 12-4.

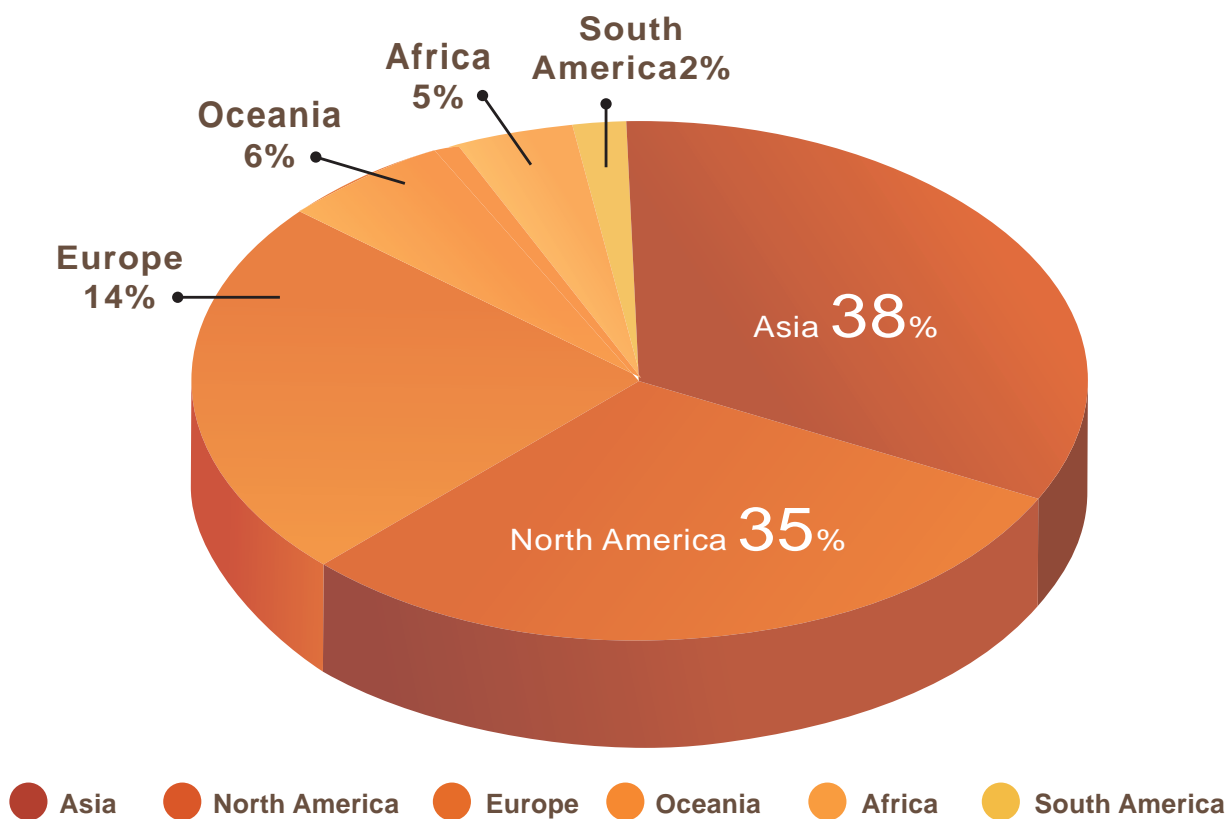
B. The MOHW, the National Eye Bank of Taiwan and the SightLife signed the Memorandum of Understanding on 7 November 2016 to start the close cooperation for five years. In 2017, we completed document review/revision and English translation for the National Eye Bank of Taiwan. Besides, the technicians and the quality director of the eye bank also attended the international eye bank management training and the DSAEK training at the headquarters of SightLife in Seattle, US. SightLife will continue to help the National Eye Bank of Taiwan pass international certification and become the Asian Center of Excellence (COE) for Eye Banking.

(2) International cooperation

A. Cooperation with Médecins Sans Frontières (MSF): The Ministry of the Health and Welfare sent surgeons to participate in surgical training held by MSF from 27 August to 2 September 2017. Trainings included infectious disease control, surgical care and hospital emergency preparedness improved our surgeons' skills and expanded our international humanitarian assistance networks.

**Figure 12-4 Foreign Visitors by Region of Origin, 2017**

Source: Ministry of Health and Welfare





National Eye Bank of Taiwan and SightLife signing ceremony in 2016

## 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.

(1) Taiwan helped Haiti with post-earthquake reconstruction planning. The Ministry of Foreign Affairs planned and the MOHW executed 3 sub-plans for public health care that established a Taiwan Health Promotion Center, enabled medical equipment donations and established an epidemic prevention strategy.

(2) Taiwan International Health Action (TaiwanIHA) was funded in 2006 by the Ministry of Foreign Affairs and MOHW, and it has since executed 28 medical missions.

A. TaiwanIHA cooperated with Noordhoff Craniofacial Foundation, Chang Gung Memorial Hospital, Chen-Yung Foundation, Ho Chi Minh City Sponsoring Association for Poor Patients and German Cleft Children's Aid Society. The international mission team treated 35 patients in Ho Chi Minh City Odonto Maxillo Facial Hospital from 22 to 25 March 2017. Besides providing medical services, the team also conducted academic exchanges, improved medical quality at the host hospital and benefited local cleft patients.

B TaiwanIHA cooperated with the Association of Medical Doctors of Asia (AMDA), the Noordhoff

Craniofacial Foundation and the Chang Gung Memorial Hospital to form the cleft mission team and performed 25 craniofacial reconstruction operations in Bantaeng Hospital of South Sulawesi in Indonesia from 7 to 11 May 2017. The team also visited the Hasanuddin University Hospital and gave lectures of wound care after cleft operations, contributing to further medical exchanges between Indonesia and Taiwan.

(3) Global Medical Instruments Support & Service Program (GMISS) collects usable and essential medical equipment from hospitals in Taiwan and donates to the needed countries. In 2017, 517 medical devices were donated to Haiti, Kiribati, Burkina Faso, Honduras and Mongolia in 6 shipments.

(4) The Taiwan International Healthcare Training Center (TIHTC) Center promotes diplomatic relations by training healthcare professionals in regions short of medical resources, serving 108 foreign healthcare professionals from 15 countries in 2017.

(5) We continued cooperating with the Ministry of Foreign Affairs in 2017, and commissioned with 8 domestic hospitals to implement the Medical Cooperation Program in the Pacific Allies and Friendly Countries, including the Taiwan Health Center Project in Marshall Islands and Solomon Islands, the Taiwan Medical Program in Palau, Kiribati, Nauru



and Tuvalu, and the Mobile Medical Mission in Fiji and Papua New Guinea. All programs were fully funded by the MOFA.

### Section 3 Internationalization of medical service

#### 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,

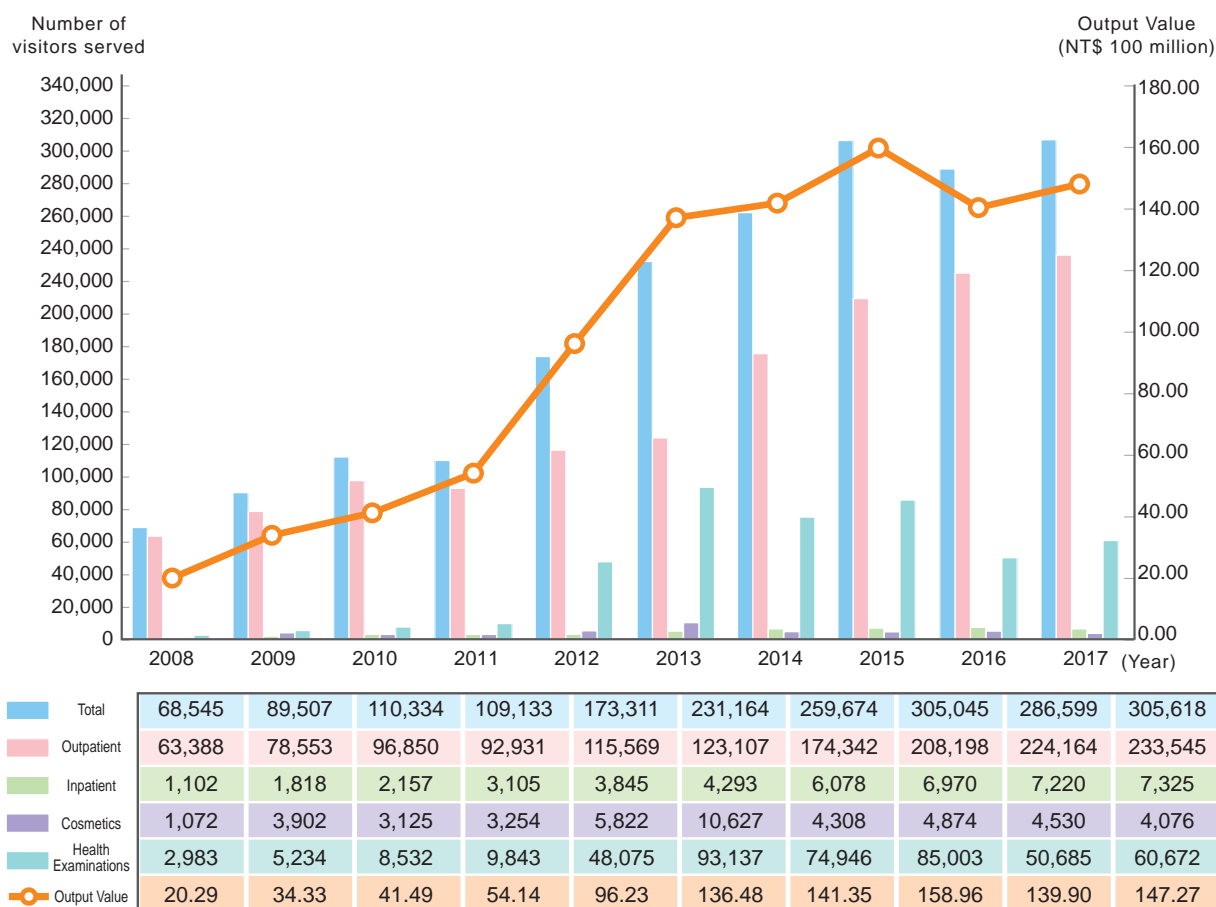
and to lead the development of industries covering biotech, pharmacy, medical appliances, information and health care.

#### 3. Achievements:

- (1) The “Taiwan Task Force for Medical Travel” has been founded as the platform for information exchange and experience sharing. 77 hospitals have been coached to establish a foreigner-friendly environment.
- (2) The regulations were relaxed and streamline of legislation was released. 65 hospitals are allowed to invite people from the Mainland to participate in health examination and aesthetic medicine in Taiwan according to Regulations Governing the Approval of Entry of People of the Mainland Area into Taiwan Area wh so a convenient way of visiting Taiwan is provided.
- (3) Figure 12-5 shows the number of people receiving international medical services and the output value from 2008 to 2017.

**Figure 12-5 International Health Care Promotion Results**

Source: Ministry of Health and Welfare





# Appendices

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## Appendix 1 Health and Welfare Indicators

**Table 1 Population Indicators**

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	‰	person/Km <sup>2</sup>
2007	22,958	17.6	72.2	10.2	8.9	6.2	2.8	1.1	6	634
2008	23,037	17.0	72.6	10.4	8.6	6.3	2.4	1.1	5	637
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

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

**Table 2 Life Expectancy and Mortality Rate**

Year	Life expectancy at birth			Under-five mortality rate	Adult mortality rate (Aged 15-60 years)
	Both sexes	Male	Female		
	Years	Years	Years	Per 1,000 live births	Per 1,000 persons
2007	78.4	75.5	81.7	6.4	105.6
2008	78.6	75.6	81.9	6.3	103.3
2009	79.0	76.0	82.3	5.6	101.0
2010	79.2	76.1	82.5	5.5	99.2
2011	79.1	76.0	82.6	5.7	99.0
2012	79.5	76.4	82.8	5.1	96.3
2013	80.0	76.9	83.4	4.7	93.6
2014	79.8	76.7	83.2	4.6	94.5
2015	80.2	77.0	83.6	5.0	92.0
2016	80.0	76.8	83.4	4.8	94.1
2017	80.4	77.3	83.7	4.6	90.0

Data source: Ministry of the Interior and Ministry of Health and Welfare, R.O.C (Taiwan)

**Table 3 National Health Expenditure**

Year	GDP per Capita		National Health Expenditure (NHE)		Public sector ratio	NHE as percentage of GDP	NHE per Capita	
	NTD	USD	NTD millions	USD millions	%	%	NTD	USD
2006	553,851	17,026	782,443	24,053	56.7	6.2	34,282	1,054
2007	585,016	17,814	814,591	24,805	57.2	6.1	35,545	1,082
2008	571,838	18,131	834,681	26,464	56.9	6.4	36,294	1,151
2009	561,636	16,988	873,219	26,413	57.4	6.7	37,837	1,144
2010	610,140	19,278	889,345	28,099	57.8	6.3	38,432	1,214
2011	617,078	20,939	917,040	31,118	57.4	6.4	39,539	1,342
2012	631,142	21,308	927,956	31,329	59.1	6.3	39,877	1,346
2013	652,429	21,916	967,872	32,512	59.1	6.4	41,460	1,393
2014	688,434	22,668	1,007,923	33,188	59.3	6.3	43,067	1,418
2015	714,774	22,400	1,038,486	32,544	59.8	6.2	44,261	1,387
2016	729,381	22,561	1,086,886	33,618	59.5	6.3	46,219	1,430

Data source: Directorate-General of Budget, Accounting and Statistics, Ministry of Health and Welfare, R.O.C (Taiwan)

**Table 4-1 Medical facilities – number of medical institutions**

Year	Number of medical institutions											
	Hospital								Clinic			
	Western medicine				Chinese medicine				Western medicine	Chinese medicine	Dentistry	
	Public		Non-public		Public		Non-public					
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
2007	19,900	530	507	79	428	23	1	22	19,370	10,197	3,069	6,104
2008	20,174	515	493	79	414	22	1	21	19,659	10,326	3,160	6,173
2009	20,306	514	496	79	417	18	1	17	19,792	10,361	3,217	6,214
2010	20,691	508	492	81	411	16	1	15	20,183	10,599	3,289	6,295
2011	21,135	507	491	81	410	16	1	15	20,628	10,815	3,411	6,402
2012	21,437	502	488	81	407	14	1	13	20,935	10,997	3,462	6,476
2013	21,713	495	482	80	402	13	1	12	21,218	11,105	3,548	6,565
2014	22,041	497	486	80	406	11	1	10	21,544	11,277	3,637	6,630
2015	22,177	494	486	80	406	8	1	7	21,683	11,313	3,705	6,665
2016	22,384	490	485	80	405	5	1	4	21,894	11,395	3,772	6,727
2017	22,612	483	478	79	399	5	1	4	22,129	11,499	3,839	6,791

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

**Table 4-2 Medical facilities – number of beds**

Year	Number of beds							Number of beds per 10,000 population				
	Hospital						Clinic	Hospital				Clinic
	Public	Non-public	Acute beds			Acute general beds		Acute general beds	Acute general beds	Acute general beds		
			Beds	Beds	Beds							
Beds	Beds	Beds	Beds	Beds	Beds	Beds	Beds	Beds	Beds	Beds		
2007	150,628	131,776	44,873	86,903	79,695	73,337	18,852	65.6	57.4	34.7	31.9	8.2
2008	152,901	133,020	45,450	87,570	80,021	73,426	19,881	66.4	57.7	34.7	31.9	8.6
2009	156,740	134,716	45,913	88,803	80,884	74,132	22,024	67.8	58.3	35.0	32.1	9.5
2010	158,922	135,401	45,981	89,420	81,072	74,140	23,521	68.6	58.5	35.0	32.0	10.2
2011	160,472	135,431	45,603	89,828	81,173	74,082	25,041	69.1	58.3	35.0	31.9	10.8
2012	160,900	135,002	45,549	89,453	81,064	73,876	25,898	69.0	57.9	34.8	31.7	11.1
2013	159,422	134,197	45,134	89,063	80,096	72,692	25,225	68.2	57.4	34.3	31.1	10.8
2014	161,491	133,518	44,524	88,994	79,745	72,303	27,973	68.9	57.0	34.0	30.9	11.9
2015	162,163	133,335	43,881	89,454	79,663	72,255	28,828	69.0	56.8	33.9	30.8	12.3
2016	163,148	133,499	43,827	89,672	79,931	72,635	29,649	69.3	56.7	34.0	30.9	12.6
2017	164,590	134,134	43,187	90,947	80,590	73,191	30,456	69.8	56.9	34.2	31.1	12.9

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

**Table 4-3 Medical force – number of Registered Health Workforce**

Year	Number of Registered Health Workforce										
	Western medicine physicians	Doctors of Chinese medicine	Dentists	Pharmacists (assistants)	Medical technologists (technicians)	Medical radiologic technologists (technicians)	Registered professional nurses	Registered professional midwives (midwives)	Dietitians	Others	
	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	
2007	214,748	35,849	4,862	10,740	28,040	7,642	4,211	113,832	347	1,239	7,986
2008	223,623	37,142	5,112	11,093	28,741	7,896	4,443	118,785	308	1,379	8,724
2009	233,553	37,880	5,290	11,351	29,587	8,203	4,651	125,081	258	1,563	9,689
2010	241,156	38,887	5,354	11,656	30,001	8,377	4,913	128,955	208	1,687	11,118
2011	250,258	40,002	5,570	11,992	31,300	8,579	5,133	133,336	134	1,824	12,388
2012	258,283	40,938	5,740	12,391	32,015	8,751	5,341	137,641	120	2,050	13,296
2013	265,759	41,965	5,977	12,794	32,668	9,006	5,507	140,915	132	2,234	14,561
2014	271,555	42,961	6,156	13,178	33,162	9,132	5,774	142,708	149	2,304	16,031
2015	280,508	44,006	6,298	13,502	33,516	9,261	5,952	148,223	150	2,392	17,208
2016	289,174	44,849	6,441	13,912	33,908	9,400	6,164	153,509	154	2,525	18,312
2017	299,782	46,356	6,692	14,380	34,526	9,561	6,416	159,621	164	2,631	19,435

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

Remark: Others include dental assistants, physical therapists (technicians), occupational therapists (technicians), clinical psychologists, counseling psychologists, respiratory therapists, speech therapists, audiologists, dental technologists (technicians), and optician (optic technician).

**Table 4-4 Medical force – number of registered health workforce per 10,000 population**

Year	Number of Registered Health Workforce										
		Western medicine physicians	Doctors of Chinese medicine	Dentists	Pharmacists (assistants)	Medical technologists (technicians)	Medical radiologic technologists (technicians)	Registered professional nurses	Registered professional midwives (midwives)	Dietitians	Others
	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person
2007	93.5	15.6	2.1	4.7	12.2	3.3	1.8	49.6	0.2	0.5	3.5
2008	97.1	16.1	2.2	4.8	12.5	3.4	1.9	51.6	0.1	0.6	3.8
2009	101.0	16.4	2.3	4.9	12.8	3.5	2.0	54.1	0.1	0.7	4.2
2010	104.1	16.8	2.3	5.0	13.0	3.6	2.1	55.7	0.1	0.7	4.8
2011	107.8	17.2	2.4	5.2	13.5	3.7	2.2	57.4	0.1	0.8	5.3
2012	110.8	17.6	2.5	5.3	13.7	3.8	2.3	59.0	0.1	0.9	5.7
2013	113.7	18.0	2.6	5.5	14.0	3.9	2.4	60.3	0.1	1.0	6.2
2014	115.9	18.3	2.6	5.6	14.2	3.9	2.5	60.9	0.1	1.0	6.8
2015	119.4	18.7	2.7	5.7	14.3	3.9	2.5	63.1	0.1	1.0	7.3
2016	122.8	19.1	2.7	5.9	14.4	4.0	2.6	65.2	0.1	1.1	7.8
2017	127.2	19.7	2.8	6.1	14.6	4.1	2.7	67.7	0.1	1.1	8.2

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

Remark: Others include dental assistants, physical therapists (technicians), occupational therapists (technicians), clinical psychologists, counseling psychologists, respiratory therapists, speech therapists, audiologists, dental technologists (technicians), and optician (optic technician).

**Table 4-5 Facilities of nursing institutions – number of institutions**

Year	Nursing institutions			
	General nursing homes	Psychiatric nursing homes	Home care	Postpartum nursing care
	No.	No.	No.	No.
2007	324	17	503	60
2008	347	19	487	74
2009	367	25	495	94
2010	390	28	516	103
2011	423	30	498	117
2012	447	29	498	148
2013	472	32	507	171
2014	487	35	507	187
2015	500	37	513	201
2016	511	41	547	219
2017	532	42	567	243

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

Table 4-6 Facilities of nursing institutions – number of beds

Year	Nursing institutions		
	General nursing homes	Psychiatric nursing homes	Postpartum nursing care
	Beds	Beds	Beds
2007	19,551	1,303	2,026
2008	21,461	1,539	2,924
2009	23,077	2,089	3,568
2010	25,849	2,252	3,809
2011	28,476	2,235	4,379
2012	30,447	2,512	5,618
2013	33,101	2,757	6,582
2014	35,202	3,246	7,477
2015	37,263	3,494	8,558
2016	39,132	3,742	9,786
2017	41,548	3,805	11,546

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

Table 5 Notifiable diseases

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
	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person	Person
2007	0	0	37	12	13	10	20	1,208	41	0	1	54	0	10	14,480	0
2008	1	0	17	8	18	16	19	1,145	41	0	1	33	0	18	14,265	0
2009	3	0	18	7	11	48	2	1,068	90	0	0	23	0	12	13,336	0
2010	5	0	33	5	21	12	7	1,125	61	0	0	21	0	12	13,237	0
2011	3	0	22	5	17	33	5	1,171	77	0	0	60	0	10	12,634	0
2012	5	0	32	13	12	9	6	1,061	54	0	0	12	0	17	12,338	0
2013	7	0	16	7	13	8	6	1,170	51	0	0	7	0	24	11,528	0
2014	4	0	18	9	19	26	3	880	78	0	0	7	0	9	11,326	0
2015	10	0	30	16	8	29	3	773	70	0	0	7	0	12	10,711	0
2016	9	0	23	10	13	14	8	616	17	0	0	4	0	14	10,208	0
2017	2	0	25	10	7	6	12	636	34	0	1	3	0	11	9,759	0

Data source: Taiwan Centers for Disease Control

Remark:

1. Data downloaded on: 1 May 2018.
2. Mumps and tetanus are cases reported.
3. Malaria has no local cases.
4. "Leprosy" was changed into "Hansen's disease" in 2018.

**Table 6 Food and drug administration**

Year	Food poisoning cases			Number of pharmaceutical companies			
	Cases	Number of patients	Deaths	Pharmacies	Medicine and medical device sales industry	Medicine and medical device manufacturing industry	
		Person	Person				No.
2007	248	3,231	-	59,061	7,381	50,633	1,047
2008	272	2,924	-	58,834	7,215	50,514	1,105
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

Data source: Taiwan Food and Drug Administration

**Table 7-1 Major causes of death**

Year	Infant mortality rate	All causes of death		Major causes of death									
	Per 1,000 live births	Deaths	Standardized mortality rate per 100,000 population	Malignant neoplasms		Heart disease		Cerebrovascular disease		Pneumonia		Diabetes mellitus	
				Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population
2007	4.7	139,376	491.6	40,306	142.6	13,003	44.4	12,875	43.8	5,895	19.6	10,231	35.5
2008	4.6	142,283	484.3	38,913	133.7	15,726	51.7	10,663	35.0	8,661	27.5	8,036	26.9
2009	4.0	142,240	466.7	39,918	132.5	15,094	47.7	10,383	32.8	8,358	25.3	8,230	26.6
2010	4.2	144,709	455.6	41,046	131.6	15,675	47.4	10,134	30.6	8,909	25.6	8,211	25.3
2011	4.2	152,030	462.4	42,559	132.2	16,513	47.9	10,823	31.3	9,047	24.8	9,081	26.9
2012	3.7	153,823	450.6	43,665	131.3	17,121	47.9	11,061	30.8	9,314	24.4	9,281	26.5
2013	3.9	154,374	435.3	44,791	130.4	17,694	47.7	11,313	30.3	9,042	22.5	9,438	25.8
2014	3.6	162,886	443.5	46,093	130.2	19,399	50.2	11,733	30.4	10,353	24.7	9,846	26.0
2015	4.1	163,574	431.5	46,829	128.0	19,202	48.1	11,169	27.9	10,761	24.6	9,530	24.3
2016	3.9	172,418	439.4	47,760	126.8	20,812	50.3	11,846	28.6	12,212	26.9	9,960	24.5
2017	4.0	171,857	424.3	48,037	123.4	20,644	48.5	12,480	26.5	11,755	27.5	9,845	23.5

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

Remark:

1. The standardized mortality rate is worked out according to the world's standard population age structure of 2000 gained by WHO.
2. ICD-10 has been adopted for statistical classification since 2008.



**Table 7-1 Major causes of death (continued)**

Year	Major causes of death											
	Accident injury		Chronic lower respiratory disease		Chronic liver disease and cirrhosis		Hypertensive disease		Nephritis, nephrotic syndrome and nephrosis		Intentional self-harm (suicide)	
	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population
2007	7,130	27.9	4,914	16.2	5,160	18.4	1,977	6.6	5,099	17.3	3,933	14.7
2008	7,077	27.0	5,374	16.9	4,917	17.1	3,507	11.2	4,012	13.2	4,128	15.2
2009	7,358	27.7	4,955	14.9	4,918	16.6	3,721	11.5	3,999	12.5	4,063	14.7
2010	6,669	24.4	5,197	14.8	4,912	16.1	4,174	12.2	4,105	12.4	3,889	13.8
2011	6,726	24.1	5,984	16.2	5,153	16.5	4,631	12.9	4,368	12.6	3,507	12.3
2012	6,873	23.8	6,326	16.4	4,975	15.6	4,986	13.3	4,327	12.1	3,766	13.1
2013	6,619	22.4	5,959	14.9	4,843	14.8	5,033	12.9	4,489	11.9	3,565	12.0
2014	7,118	23.7	6,428	15.3	4,962	14.8	5,459	13.5	4,868	12.5	3,542	11.8
2015	7,033	22.8	6,383	14.6	4,688	13.6	5,536	13.2	4,762	11.8	3,675	12.1
2016	7,206	23.1	6,787	15.1	4,738	13.4	5,881	13.5	5,226	12.4	3,765	12.3
2017	6,965	21.9	6,260	13.3	4,554	12.6	6,072	13.3	5,381	12.4	3,871	12.5

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

Remark:

1. The standardized mortality rate is worked out according to the world's standard population age structure of 2000 gained by WHO.
2. ICD-10 has been adopted for statistical classification since 2008.

**Table 7-2 Major causes of cancer death**

Year	Major causes of cancer death									
	Liver and intrahepatic bile ducts cancer		Trachea cancer, bronchus and lung cancer		Colon, rectum and anus cancer		Female breast cancer		Prostate cancer	
	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population	Deaths	Standardized mortality rate per 100,000 population
2007	7,809	28.1	7,993	27.9	4,470	15.6	1,552	11.1	1,003	6.7
2008	7,651	26.8	7,777	26.3	4,266	14.4	1,541	10.7	892	5.7
2009	7,759	26.2	7,951	25.9	4,531	14.8	1,589	10.6	936	5.9
2010	7,744	25.2	8,194	25.8	4,676	14.6	1,706	11.0	1,021	6.1
2011	8,022	25.3	8,541	26.0	4,921	15.0	1,852	11.6	1,096	6.4
2012	8,116	24.7	8,587	25.4	5,131	14.9	1,912	11.6	1,187	6.7
2013	8,217	24.2	8,854	25.3	5,265	14.9	1,962	11.6	1,207	6.6
2014	8,178	23.3	9,167	25.3	5,603	15.3	2,071	11.9	1,218	6.5
2015	8,258	22.8	9,232	24.7	5,687	14.9	2,141	12.0	1,231	6.4
2016	8,353	22.2	9,372	24.4	5,772	14.6	2,176	11.8	1,347	6.8
2017	9,235	23.1	8,402	21.6	5,812	14.4	2,377	12.6	1,392	6.9

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

Remark:

1. The standardized mortality rate is worked out according to the world's standard population age structure of 2000 gained by WHO.
2. ICD-10 has been adopted for statistical classification since 2008.

**Table 8 Social insurance**

Year	National health insurance						
	Beneficiaries	Coverage	Index of health care utilization				
			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
2007	22,803	...	14.0	13.1	985	53,027	10.0
2008	22,918	...	14.0	13.1	1,032	54,534	10.0
2009	23,026	99.3	14.4	13.4	1,052	54,775	9.9
2010	23,074	99.4	14.6	13.5	1,067	54,794	9.9
2011	23,199	99.5	15.1	13.8	1,086	55,346	9.9
2012	23,281	99.5	15.1	13.8	1,113	55,661	9.8
2013	23,463	99.6	15.1	13.5	1,168	57,259	9.9
2014	23,622	99.6	14.9	13.7	1,223	58,662	9.7
2015	23,737	99.7	14.7	13.9	1,257	59,076	9.5
2016	23,815	99.7	14.9	14.1	1,297	61,458	9.7
2017	23,880	99.8	14.8	14.2	1,386	63,245	9.4

Data source: National Health Insurance Administration, Ministry of Health and Welfare, R.O.C (Taiwan)

Remark:

1. Data source for index of health care utilization: Detail files in the NHIA three-generation storage system about object summary, outpatient service, delivery authorities and inpatient service (updates on 6 Aug. 2016)
2. The statistical range of this table does not include commission cases.
3. The denominator of visits per beneficiary/100 beneficiaries equal to the average value of number of NHI beneficiaries in February, May, August and November.
4. Outpatient visits exclude cases to home nursing care and community. Psychiatric rehabilitation, medical examination referrals commissioned by medical institutions, refillable prescriptions for patients with chronic illnesses, pathology centers, delivery institutions and supplementary claims. Other cases seeking medical attention in which the case report was split in accordance with the regulations are also excluded.
5. Not Included in Outpatient Numbers (Listed as Zero): Residential care and community mental rehabilitation, referrals commissioned by other hospitals, repeat prescriptions for chronic disease patients, pathology centers, delivery institutions, medical order fee supplementary reports, etc.
6. Inpatient cases exclude cases to supplementary claims. Other cases seeking medical attention in which the case report was split in accordance with regulations are also excluded.
7. The length of hospitalized stay is equivalent to the sum of acute and chronic bed days.

Table 8 Social insurance (continued)

Year	National annuity								
	Number of insured objects	Percentage in people at 25-64 years of age	General identity	Low-income household	People whose income is below a certain standard		People with disabilities		
					The first item	The second item	Above severe	Moderate	Mild
	1,000 persons	%	1,000 persons	1,000 persons	1,000 persons	1,000 persons	1,000 persons	1,000 persons	1,000 persons
2007	-	-	-	-	-	-	-	-	-
2008	4,221	31.3	3,931	39	6	3	88	81	72
2009	4,015	29.4	3,563	50	100	51	95	84	72
2010	3,872	27.9	3,390	51	120	62	96	83	70
2011	3,784	27.1	3,296	62	120	55	98	83	70
2012	3,726	26.5	3,221	73	127	57	99	81	69
2013	3,678	25.9	3,180	76	123	52	100	79	67
2014	3,584	25.2	3,086	77	126	52	98	78	66
2015	3,510	24.6	3,025	76	122	48	97	77	66
2016	3,425	24.0	2,943	74	125	49	95	76	64
2017	3,349	23.5	2,883	71	118	46	94	75	62

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

Remark: Item 1 refers to Article 12 of the National Pension Act, for when the amount of total family income divided by the number of insured family members fails to reach 1.5 times of the lowest living expense of that specific year and does not exceed 1 time of the average monthly consumption per person in the Taiwan area; item 2 is for when the amount of total family income divided by the number of insured family members does not reach 2 times of the lowest living expense of that specific year and does not exceed 1.5 times of the average monthly consumption per person in the Taiwan area.

**Table 9 Social assistance**

Year	Low-income households				Low and middle-income household			
	Number of households	Proportion in total number of households	Populatio	Proportion in total population	Number of households	Proportion in total number of households	Populatio	Proportion in total population
	Households	%	Person	%	Households	%	Person	%
2007	90,682	1.2	220,990	1.0	-	-	-	-
2008	93,032	1.2	223,697	1.0	-	-	-	-
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

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

Remark: The new social assistance law has been implemented since 1 Jul. 2011; the identification standard becomes loose, and low and middle-income households are included.

**Table 9 Social assistance (continued)**

Year	Medical subsidy		Inpatient subsidy for low and middle-income households		Amount of salvage money for disasters	Emergency relief	
	Person-time	NTD10,000s	Person-time	NTD10,000s	NTD10,000s	Person-time	NTD10,000s
2007	5,734	6,154	5,854	10,965	13,255	46,666	26,845
2008	5,295	5,627	6,501	11,411	18,870	48,074	27,366
2009	5,486	6,639	7,033	12,167	82,180	44,129	24,576
2010	5,773	6,403	8,066	12,871	79,226	47,863	28,373
2011	5,383	7,092	9,761	16,269	4,672	45,418	27,423
2012	5,013	7,176	9,667	16,283	17,363	46,978	26,910
2013	4,322	8,041	10,258	16,936	8,853	40,961	24,669
2014	4,260	8,987	10,767	18,050	4,816	42,232	25,349
2015	4,499	10,256	10,923	17,837	7,337	37,897	23,261
2016	4,779	12,261	11,345	20,235	14,370	35,900	22,319
2017	5,250	13,566	12,156	20,185	6,170	34,177	21,748

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

**Table 10 Social welfare**

Year	Child and youth welfare (below 18 years of age)					
	Population	Proportion in total population	Family foster		Life assistance for vulnerable children and youths	
			Population	Amount	Person-time	Amount
	Person	%	Person	NTD10,000s	Person-time	NTD10,000s
2007	5,002,123	21.8	1,941	44,529	820,487	126,308
2008	4,868,304	21.1	1,849	48,253	1,039,134	158,318
2009	4,745,159	20.5	1,761	48,160	1,222,200	195,916
2010	4,595,767	19.8	1,905	43,785	1,355,253	205,352
2011	4,469,350	19.2	1,802	43,366	1,348,606	199,776
2012	4,380,203	18.8	1,835	46,625	1,466,688	288,034
2013	4,258,385	18.2	1,804	45,030	1,406,040	278,058
2014	4,149,792	17.7	1,743	43,185	1,406,033	281,434
2015	4,043,357	17.2	1,662	42,342	1,390,203	278,290
2016	3,987,202	16.9	1,622	42,533	1,387,016	287,423
2017	3,900,662	16.5	1,621	39,999	1,339,627	270,791

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

**Table 10 Social welfare (continued 1)**

Year	Elderly welfare (above 65 years of age)					
	Population	Proportion in total population	Subsistence allowance for low and middle-income old people		Special care allowance for low and middle-income old people	
			Verified population in the end of the year	Amount	Person-time	Amount
	Person	%	Person	NTD10,000s	Person-time	NTD10,000s
2007	2,343,092	10.2	134,644	846,696	6,429	3,032
2008	2,402,220	10.4	125,951	785,875	6,519	3,177
2009	2,457,648	10.6	122,523	768,898	7,263	3,535
2010	2,487,893	10.7	119,861	760,908	7,862	3,814
2011	2,528,249	10.9	120,266	761,814	8,116	4,062
2012	2,600,152	11.2	120,968	923,968	9,042	4,529
2013	2,694,406	11.5	120,869	924,823	9,152	4,587
2014	2,808,690	12.0	122,423	938,459	9,077	4,555
2015	2,938,579	12.5	124,490	963,091	9,470	4,753
2016	3,106,105	13.2	128,108	1,020,710	9,448	4,746
2017	3,268,013	13.9	134,365	1,062,674	9,360	4,694

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

**Table 10 Social welfare (continued 2)**

Year	Family support					Female welfare			
	Number of cases accepted by the single parent halfway house	Babysitting center (below 3 years of age)		Family support service for special circumstances		Female welfare service center	Women's halfway house and asylum center		
		Number of infants accepted	Nursery staff and care ratio				Number of institutions	Number of persons accepted	Number of cases accepted
	Person-time	Person	%	Person-time	NTD10,000s	No.	No.	Person	Person-time
2007	1,444	...	...	103,612	28,547	75	37	330	1,902
2008	2,661	...	...	107,149	30,625	58	37	331	2,987
2009	2,150	...	...	153,175	40,913	61	38	345	3,340
2010	2,055	...	...	188,433	47,861	63	41	412	3,292
2011	539	...	...	188,987	48,159	52	37	460	2,917
2012	548	...	...	156,784	44,840	51	40	449	2,927
2013	581	...	...	137,464	40,303	56	41	440	2,982
2014	678	14,845	4.0	139,513	42,978	72	58	464	3,178
2015	662	17,246	4.0	133,370	42,012	74	60	496	3,206
2016	542	19,750	4.0	127,966	43,075	82	64	486	3,076
2017	581	23,066	4.1	127,947	43,987	73	51	582	3,154

Data source: Social and Family Affairs Administration, Ministry of Health and Welfare, R.O.C (Taiwan)

**Table 10 Social welfare (continued)**

Year	People with disabilities										
	Population	Proportion in population of physical disorder			Proportion in total population	Subsistence allowance		Subsidy for day care and residential care		Subsidy for life assistance device	
		Below 18 years of age	18-64 years of age	Above 65 years of age		Person-time	NTD10,000s	Population in the end of the year	NTD10,000s	Person-time	NTD10,000s
	Person	%	%	%	%	Person-time	NTD10,000s	Population in the end of the year	NTD10,000s	Person-time	NTD10,000s
2007	1,020,760	6.2	57.4	36.4	4.4	3,635,680	1,472,416	25,529	396,277	53,243	53,931
2008	1,040,585	6.1	57.4	36.5	4.5	3,712,397	1,498,714	26,823	431,025	55,425	53,900
2009	1,071,073	5.9	57.1	37.0	4.6	3,862,823	1,565,270	29,860	475,602	64,138	60,975
2010	1,076,293	5.8	57.6	36.6	4.6	3,998,947	1,621,943	30,449	517,837	70,873	66,296
2011	1,100,436	5.6	57.4	37.0	4.7	4,132,534	1,680,850	32,592	565,535	76,289	72,187
2012	1,117,518	5.6	57.6	36.8	4.8	4,176,404	2,016,490	33,779	613,446	77,422	72,882
2013	1,125,113	5.3	57.2	37.5	4.8	4,179,798	2,042,815	37,298	648,569	70,564	67,823
2014	1,141,677	5.1	56.7	38.2	4.9	4,206,306	2,052,774	39,199	706,541	75,057	72,924
2015	1,155,650	4.9	56.1	39.0	4.9	4,209,760	2,056,215	41,225	764,264	80,148	76,617
2016	1,170,199	4.8	55.2	40.1	5.0	4,214,338	2,130,780	43,300	802,516	86,369	78,220
2017	1,167,450	4.6	54.6	40.8	5.0	4,207,046	2,128,290	45,930	850,433	92,887	83,153

Data source: Social and Family Affairs Administration, Ministry of Health and Welfare, R.O.C (Taiwan)

**Table 11 Protective services**

Year	Family violence events			Sexual assault events			Child and youth protection
	Number of victims declared	Protection and assistance for victims		Number of victims declared	Protection and assistance for victims		Number of battered children and youths
	Person	Person-time	NTD10,000s	Person	Person-time	NTD10,000s	Person
2007	68,421	330,606	19,886	6,530	72,090	5,319	13,566
2008	75,438	416,844	25,456	7,285	95,247	5,878	13,703
2009	83,728	478,769	32,684	8,008	101,482	6,491	13,400
2010	98,720	601,567	34,427	9,320	100,942	6,027	18,331
2011	94,150	871,146	40,561	11,121	140,326	7,360	17,667
2012	98,399	915,859	39,116	12,066	158,258	7,077	19,174
2013	110,103	988,586	46,854	10,901	177,258	7,753	16,322
2014	95,663	1,127,819	53,360	11,096	199,846	10,947	11,589
2015	95,818	1,191,465	57,650	10,454	221,587	11,354	9,604
2016	95,175	1,297,726	61,223	8,141	218,852	12,421	9,461
2017	95,402	1,312,095	74,336	8,214	229,525	17,274	4,135

Data source: Ministry of Health and Welfare, R.O.C (Taiwan), Municipal, County (City) Governments  
 Note: Only family cases are calculated for child and youth protection since 2017.

**Table 12 International comparisons**

Country	Population				
	Crude birth rate	Crude death rate	Natural increase rate	Total fertility rate	Dependency ratio
	2017	2017	2017	2017	2017
	‰	‰	‰	Per woman	%
R.O.C.(Taiwan)	8	7	1	1.1	37
Japan	8	10	-2	1.5	67
Republic of Korea	8	6	2	1.2	37
United States	12	8	4	1.8	52
Canada	11	8	3	1.6	49
United Kingdom	12	9	3	1.8	56
Germany	9	11	-2	1.5	52
France	12	9	3	1.9	59
Australia	13	7	6	1.8	52
New Zealand	13	7	6	1.9	54

Data source: Ministry of the Interior and 2017 World Population Data Sheet, Population Reference Bureau

**Table 12 International comparisons (continued 1)**

Country	Life expectancy and mortality rate			
	Life expectancy at birth			Neonatal mortality rate
	Both genders	Male	Female	
	2016	2016	2016	2016
	Years	Years	Years	Per 1,000 live births
R.O.C.(Taiwan)	80.0	76.8	83.4	2.4
Japan	84.2	81.1	87.1	0.9
Republic of Korea	82.7	79.5	85.6	1.5
United States	78.5	76.0	81.0	3.7
Canada	82.8	80.9	84.7	3.2
United Kingdom	81.4	79.7	83.2	2.6
Germany	81.0	78.7	83.3	2.3
France	82.9	80.1	85.7	2.4
Australia	82.9	81.0	84.8	2.2
New Zealand	82.2	80.5	84.0	3.0

Data source: Ministry of the Interior, Ministry of Health and Welfare, R.O.C (Taiwan); 2018 World Health Statistics

**Table 12 International comparisons (continued)**

Country	Health expenditure			
	Health expenditure ratios		Health expenditure per capita	
	Current health expenditure as a share of GDP	Public current health expenditure as a share of current health expenditure	Current health expenditure per capita	Public current health expenditure per capita
	2016	2016	2016	2016
	%	%	USD PPPs	USD PPPs
R.O.C.(Taiwan)	6.0	62.9	2,897	1,823
Japan	10.9	84.1	4,519	3,801
Republic of Korea	7.7	56.4	2,729	1,538
United States	17.2	49.1	9,892	4,860
Canada	10.6	70.3	4,753	3,341
United Kingdom	9.7	79.2	4,192	3,320
Germany	11.3	84.6	5,551	4,695
France	11.0	78.8	4,600	3,626
Australia	9.6	67.8	4,708	3,190
New Zealand	9.2	80.2	3,590	2,879

Data source: Ministry of Health and Welfare, R.O.C (Taiwan); 2017 OECD Health Data

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, 2017

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	16	3	13
	Dengue Fever	343	10	333
	Meningococcal Meningitis	12	12	0
	Paratyphoid Fever	4	1	3
	Poliomyelitis	0	0	0
	Acute Flaccid Paralysis (Note 3)	61	61	0
	Shigellosis	162	104	58
	Amoebiasis	378	187	191
	Malaria	7	0	7
	Measles	6	1	5
	Acute Hepatitis A	369	319	50
	Enterohaemorrhagic Escherichia coli Infection	0	0	0
	Hantavirus Hemorrhagic Fever with Renal Syndrome	0	0	0
	Hantavirus Pulmonary Syndrome (HPS)	0	0	0
	Cholera	2	1	1
	Rubella	3	1	2
	Chikungunya Fever	11	0	11
	West Nile Fever	0	0	0
	Epidemic Typhus Fever	0	0	0
Anthrax	0	0	0	

**Table 1 Number of Confirmed Cases of Acute Notifiable Disease, 2017 (continued 1)**

Category	Disease	Total	Indigenous Case	Imported Case
III	Pertussis	34	34	0
	Tetanus(Note 4)	11	-	-
	Japanese Encephalitis	25	25	0
	Congenital Rubella Syndrome	1	0	1
	Acute Hepatitis B	151	143	8
	Acute Hepatitis C	325	322	3
	Acute Hepatitis D	0	0	0
	Acute Hepatitis E	13	11	2
	Acute Hepatitis, Unspecified	0	0	0
	Mumps (Note 4)	636	-	-
	Legionnaires' Disease	188	174	14
	Invasive Haemophilus Influenzae Type b (Hib) Infection	6	6	0
	Neonatal Tetanus	0	0	0
	Enteroviruses Infection with Severe Complications	24	24	0
IV	Herpesvirus B Infection	0	0	0
	Leptospirosis	101	100	1
	Melioidosis	26	25	1
	Botulism	0	0	0
	Invasive Pneumococcal Disease	454	451	3
	Q Fever	18	18	0
	Endemic Typhus Fever	38	37	1
	Lyme Disease	1	0	1
	Tularemia	0	0	0
	Scrub Typhus	422	422	0
	Complicated Varicella	32	31	1
	Toxoplasmosis	21	21	0
	Severe Complicated Influenza	1,359	1,352	7
	Brucellosis	0	0	0

**Table 1 Number of Confirmed Cases of Acute Notifiable Disease, 2017 (continued)**

Category	Disease	Total	Indigenous Case	Imported Case
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	1	0	1
	Zika Virus Infection	4	0	4

Source: Centers for Disease Control, Ministry of Health and Welfare, R.O.C.(Taiwan)

Notes:

1. Date of Download: Data were downloaded on May 1, 2017.
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 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.

**Table 2 Number of Confirmed Cases of Chronic Notifiable Disease, 2017**

Category	Diseases	Number of Confirmed Notifiable
II	Multidrug-Resistant Tuberculosis (MDR-TB)	110
III	Tuberculosis	9,759
	Syphilis	9,835
	Congenital syphilis	0
	Gonorrhea	4,601
	Human Immunodeficiency Virus Infection	2,514
	Acquired Immunodeficiency Syndrome (AIDS)	1,390
	Hansen's Disease	10
IV	Creutzfeldt-Jakob Disease	0

Source: Centers for Disease Control, Ministry of Health and Welfare, R.O.C.(Taiwan)

Notes:

1. Date of Download: Data were downloaded on May 1, 2017.
2. Caseloads of MDR-TB were calculated based on the registration date by the Taiwan CDC. Tuberculosis caseloads were based on the notification date. Other chronic notifiable diseases were analyzed based on the diagnosis date.





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