I. Abstract 2016

1. Enrollment and Underwriting

(1) The average annual increase of beneficiaries was 0.6% over the past ten years.

At the end of 2016, there were 23,815 thousand beneficiaries, an increase of 77 thousand, or 0.3% from the previous year. There has been an average annual increase of 0.6% since 2006.

(2) The percentage of female beneficiaries was 50.5%, higher than the 49.5% for male beneficiaries.

At the end of 2016, 11,800 thousand (49.5%) beneficiaries were male and 12,015 thousand (50.5%) beneficiaries were female. In terms of age group, there were more male beneficiaries than females in the under 30 age groups, whereas females outnumbered males in the 30 and over age groups.

(3) The number of beneficiaries in the 65 and over age group increased by 159 thousand from the previous year.

There were 3,081 thousand (12.9%) beneficiaries in the under 15 age group at the end of 2016, 17,674 thousand (74.2%) in the 15-64 age group, and 3,059 thousand (12.8%) in the 65 and over age group. Compared with the previous year, beneficiaries in the 65 and over age group increased by 159 thousand.

(4) The average insured payroll-related amount for Categories 1 to 3 totaled to NT$36,380.

At the end of 2016, the average insured payroll-related amount totaled to NT$36,380, an increase of 1.3% from the previous year. The average annual increase was 1.9% over the past ten years. The average insured payroll-related amounts for Categories 1 to 3 were NT$41,406, NT$27,173 and NT$22,800, respectively.

(5) The average insured payroll-related amount for males was NT$39,701, which was higher than the NT$33,031 for females.

At the end of 2016, the average insured payroll-related amount for males was NT$39,701, which was higher than the average amount of NT$33,031 for females. Males showed higher average insured payroll-related amounts than females across all age groups, of which, there were significant differences occurring in the 40-44 and 60-64 age groups, with the differences in amount surpassing NT$10,000.

2. Financial Status

(1) General premiums receivable were NT$470 billion, with a collection rate of 98.1%.

General premiums receivable totaled NT$470 billion in 2016, while general premiums collected totaled NT$461 billion. The total collection rate was 98.1%.

(2) Supplementary premiums totaled NT$44 billion.

Supplementary premiums totaled NT$44 billion in 2016. NT$23 billion came from group insurance applicants and NT$22 billion from the beneficiaries.

(3) Delinquency charges receivable totaled NT$197 million, with a collection rate of 72.1%.

Delinquency charges receivable totaled NT$197 million in 2016, NT$142 million was collected, for a collection rate of 72.1%.

(4) In accrual basis, the surplus was NT$19 billion.

In terms of accrual basis, insurance revenues totaled NT$591 billion in 2016, a decrease of 8.4% from the previous year. Insurance costs were NT$572 billion, an increase of 5.6% from the previous year. Surplus was NT$19 billion and all deposited into the reserve fund pursuant to law. Therefore the reserve fund accumulated balance in 2016 was NT$247 billion.

3. Contracting and Management of Medical Care Institutions

(1) The average annual increase of contracted medical care institutions was 1.9% over the past ten years.

At the end of 2016, the total number of contracted medical care institutions was 27,995, an increase of 267 (1.0%) from the previous year. The average annual increase was 1.9% over the past ten years.

(2) New Taipei City had the largest number of contracted medical care institutions at 4,371, while Lienchiang County had the fewest at 8.

At the end of 2016, New Taipei City had the largest number of contracted medical care institutions at 4,371, followed by Taichung City at 4,055, Taipei City at 3,673, and Kaohsiung City at 3,547, which all exceeded 3,500; Lienchiang County had the fewest number at 8, followed by Kinmen County at 65.

(3) The percentage of hospitals and clinics contracted was 92.8%; the lowest was for Taipei City, at 80.6%.

At the end of 2016, 92.8% of hospitals and clinics had entered into contracts with the NHIA. In terms of locale, Taipei City had the lowest percentage of hospitals and clinics contracted at 80.6%, while Lienchiang County had the highest percentage at 100.0%.

(4) The total number of beds in contracted medical care institutions increased by 0.5% on average per year over the past ten years.

At the end of 2016, the total number of beds in contracted medical care institutions was 146,125, an increase of 73 from the previous year. The average annual increase was 0.5% over the past ten years. There were 120,727 insured beds and 25,398 partially insured beds.

(5) The percentage of insured beds in contracted medical care institutions was 82.6%.

At the end of 2016, the percentage of insured beds in contracted medical care institutions was 82.6%. In terms of contracted category, the percentage of insured beds in academic medical centers was 74.3%, 78.1% for metropolitan hospitals, 88.5% for local community hospitals and 100.0% for physician clinics.

(6) Taipei City had the most beds in contracted medical care institutions at 20,603, while Lienchiang County had the fewest beds at 52.

At the end of 2016, Taipei City had the most beds in contracted medical care institutions at 20,603, followed by Taichung City at 19,751, and Kaohsiung City at 19,477. New Taipei City, Taoyuan City and Tainan City all had over 10,000 beds. Lienchiang County had the fewest beds at 52, followed by Kinmen County at 367, and Penghu County at 491; all of them had fewer than 500 beds.

(7) 330 cases were found to have committed violations in contracted medical care institutions; the most (155 cases) were penalized with penalties.

In 2016, 330 cases were found to have committed violations in contracted medical care institutions, of which, the largest group of violators consisted of medical care institutions that were penalized with penalties (155 cases), 84 were penalized with suspension of contract, 73 were penalized with corrections, and 18 were penalized with termination of contract, which accounted for the smallest group of violators.

4. Medical Benefits

(1) Physician clinics had the most medical points for outpatient services, while academic medical centers had the most medical points for inpatient services.

The total medical points in 2016 amounted to 662 billion points, an increase of 5.0% from the previous year. Of which, the total requested points amounted to 623 billion and copayment points amounted to 39 billion. The total outpatient medical points amounted to 458 billion, and physician clinics had the largest proportion of medical points at 41.7%; the total inpatient medical points amounted to 204 billion, and academic medical centers had the largest proportion of medical points at 42.8%.

(2) In terms of average medical points per case, males had a higher amount than females in all age groups for both outpatient and inpatient services.

In 2016, the average medical points per outpatient case were 1,382 for males,

surpassing that of females, who had 1,174 points; the average medical points per inpatient case were 66,347 for males, surpassing that of females, who had 56,653 points. Based on age group, males had a higher amount than females in all age groups for both outpatient and inpatient services.

(3) Physician clinics accounted for the largest proportion of approved medical benefits for outpatient services, while academic medical centers accounted for the largest proportion for inpatient services.

In 2016, the total approved medical benefits amounted to 616 billion points (NT$569 billion), 424 billion points (NT$395 billion) for outpatient services and 192 billion points (NT$174 billion) for inpatient services. Physician clinics had the highest amount of approved outpatient benefits at 159 billion points (NT$150 billion), as for the average benefits per approved case, academic medical centers had the highest amount of 2,802 points (NT$2,595); academic medical centers had the highest amount of approved inpatient benefits at 83 billion points (NT$75 billion), as for the average benefits per approved case, academic medical centers had the highest amount of 74,566 points (NT$67,771).

(4) Cancer accounted for the largest proportion of medical points for major illnesses/injuries. In terms of average medical points per capita, hereditary coagulation factor deficiency ranked the highest.

At the end of 2016, the number of valid major illnesses/injuries certificates issued was 955 thousand. Total medical points of major illnesses/injuries in 2016 amounted to 181 billion points. The top three conditions were, respectively, cancer, uremia, and dependence on respirator. In terms of average medical points per capita for major illnesses/injuries, hereditary coagulation factor deficiency ranked the highest for both outpatient and inpatient services.

(5) Uremia accounted for the largest proportion of medical points for major illnesses/injuries for outpatient services, while cancer ranked the highest for inpatient services.

In 2016, uremia accounted for the largest proportion of outpatient medical points for major illnesses/injuries, followed by cancer; cancer accounted for the largest proportion of inpatient medical points for major illnesses/injuries, followed by dependence on respirator.

(6) In terms of average medical points per capita for major illnesses/injuries, hereditary coagulation factor deficiency ranked the highest for males both in outpatient and inpatient services, while uremia ranked the highest in outpatient services for females, and dependence on respirator ranked the highest for inpatient services.

In terms of average medical points per capita for major illnesses/injuries in 2016, hereditary coagulation factor deficiency ranked the highest for males both in outpatient and inpatient services, followed by complications of premature infants for outpatient services and dependence on respirator for inpatient services. For females, uremia ranked the highest for outpatient services, followed by rare disease; dependence on respirator ranked the highest for inpatient services, followed by severe malnutrition.

(7) In terms of average copayments per case, academic medical centers had the highest amount both in outpatient and inpatient services.

The average copayments per case were NT$100 for outpatient services and NT$4,993 for inpatient services in 2016. Academic medical centers had the highest amount both in outpatient and inpatient services (NT$326 for outpatient and NT$6,247 for inpatient).

(8) Males had higher average copayments per case than females for all age groups.

In 2016, the average copayments per outpatient case were NT$102 for males and NT$99 for females; the average copayments per inpatient case were NT$5,141 for males and NT$4,833 for females. Males showed higher amounts than females in all age groups. The most significant difference was seen in the 45-64 age group, at NT$723 per inpatient case.

(9) The approval rate for out-of-plan services was 30.6%.

In terms of reimbursement of advanced medical expenses for out-of-plan services, the total requested amount was NT$1,729 million in 2016, an increase of 9.3% from the previous year. The total approved amount was NT$529 million, an increase of 7.0% from the previous year. The approval rate was 30.6%. Of which, NT$350 million was requested for outpatient services, with an approval rate of 52.2%, NT$84 million for emergency services, with an approval rate of 31.2%, and NT$1,296 million for inpatient services, with an approval rate of 24.7%.

II. Main Indicators 2016

	Unit	2016	Annual Growth Rate (%)
Enrollment and Underwriting			
Group Insurance Applicants	No.	**854,639**	**3.2**
Beneficiaries	1,000 Persons	**23,815**	**0.3**
Category 1		13,603	1.5
Category 2		3,722	-1.0
Category 3		2,367	-3.0
Category 4		165	-9.4
Category 5		323	-3.3
Category 6		3,634	0.4
Male		11,800	0.2
Female		12,015	0.4
Under 15		3,081	-1.4
age 15-64		17,674	-0.2
65 and over		3,059	5.5
Average Insured Payroll-Related Amount for Categories 1 to 3	NT$	**36,380**	**1.3**
Financial Status			
Insurance Revenues（Accrual Basis）	100 Million NT$	**5,908**	**-8.4**
Insurance Costs（Accrual Basis）	100 Million NT$	**5,723**	**5.6**
Contracting and Management of Medical Care Institutions			
Contracted Medical Care Institutions	No.	**27,995**	**1.0**
Western Medicine		10,736	0.1
Chinese Medicine		3,526	1.7
Dentistry		6,595	0.5
Pharmacies		6,107	2.6
Beds in Contracted Medical Care Institutions	Beds	**146,125**	**0.0**
Acute Beds		129,008	0.2
Chronic Beds		17,117	-0.9

	Unit	2016	Annual Growth Rate (%)
Insured Beds in Contracted Medical Care Institutions	Beds	**120,727**	**-0.1**
Acute Beds		104,221	0.1
Chronic Beds		16,506	-0.9
Medical Benefits			
Medical Points	100 Million Points	**6,619**	**5.0**
Outpatient Services		4,581	4.9
Requested Points		4,277	5.1
Copayment		304	2.3
Inpatient Services		2,038	5.3
Requested Points		1,950	5.2
Copayment		88	7.4
Medical Service Cases	1,000 Cases		
Outpatient Services		361,558	1.7
Inpatient Services		3,316	1.1
Average Medical Points per Case	Points		
Outpatient Services		1,267	3.1
Inpatient Services		61,458	4.2
Approved Medical Benefit Payments	100 Million Points	**6,160**	**6.0**
Outpatient Services		4,238	5.8
Inpatient Services		1,923	6.4
Approved Medical Payments	100 Million NT$	**5,688**	**6.2**
Outpatient Services		3,951	6.7
Inpatient Services		1,737	5.1
Number of Valid Major Illnesses/Injuries Certificates	Pieces	**954,681**	**-1.3**
Medical Benefit Claims of Major Illnesses/Injuries	100 Million Points	**1,815**	**5.5**

III. Statistical Analysis

1. Enrollment and Underwriting

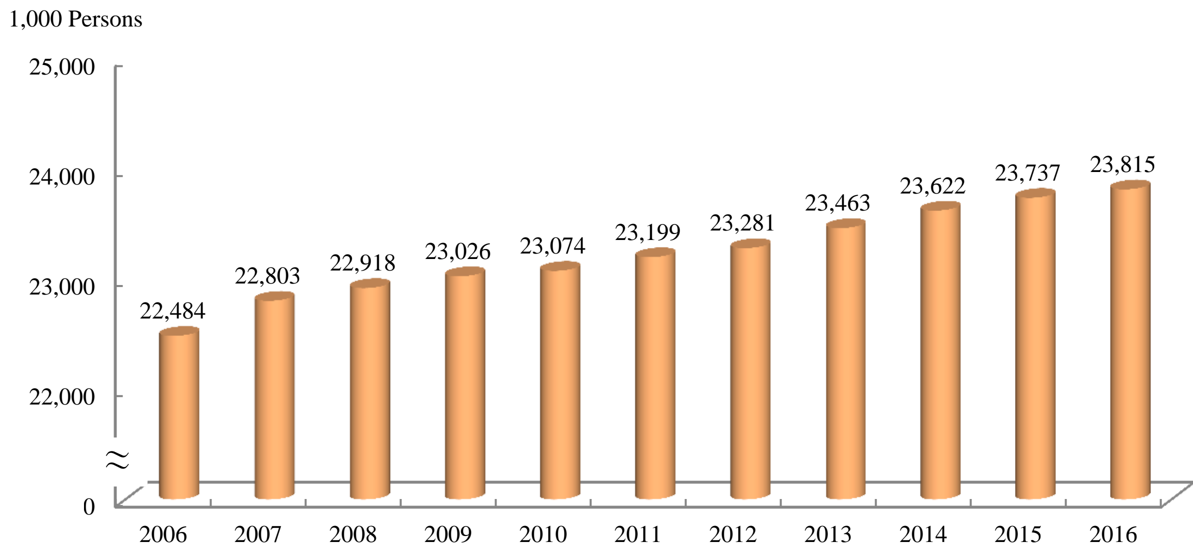
The National Health Insurance (NHI) program is a mandatory, single-payer social health insurance system, founded on the principle that all people should have equal access to health care services. Under the NHI scheme, beneficiaries are divided into six categories and each category differs in its insured payroll-related amount, premium contribution rate, and premium calculation method. Applications are to be made at the agency, school, enterprise, institution, employer, group, or designated departments to which the insured belongs.

(1) Beneficiaries

i. The average annual increase of beneficiaries was 0.6% over the past ten years.

At the end of 2016, there were 23,815 thousand beneficiaries, an increase of 77 thousand, or 0.3% from the previous year. There has been an average annual increase of 0.6% since 2006.

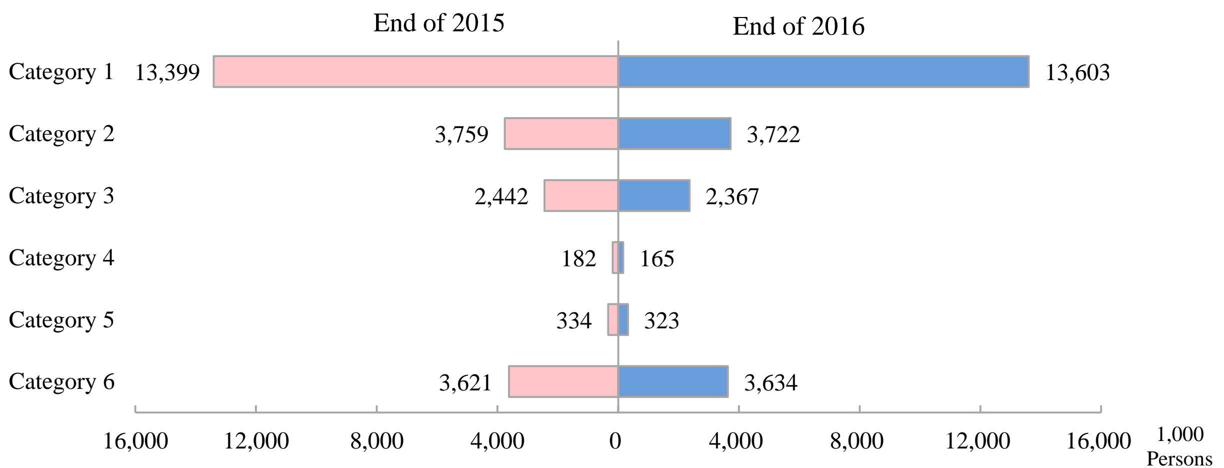
Figure 1 Numbers of Beneficiaries



When broken down by beneficiary category, Category 1 had the highest number of beneficiaries at 13,603 thousand, followed by Category 2 at 3,722 thousand, Category 6 at 3,634 thousand, Category 3 at 2,367 thousand, Category 5 at 323 thousand and Category 4 at 165 thousand.

In terms of change from the previous year, Category 1 experienced the largest increase at 204 thousand people, followed by Category 6 with 13 thousand people, while other categories showed a decreasing trend. Category 3 fell by 74 thousand people, followed by Category 2 with a decrease of 37 thousand people, Category 4 with 17 thousand people, and Category 5 with 11 thousand people.

Figure 2　Numbers of Beneficiaries by Beneficiary Category

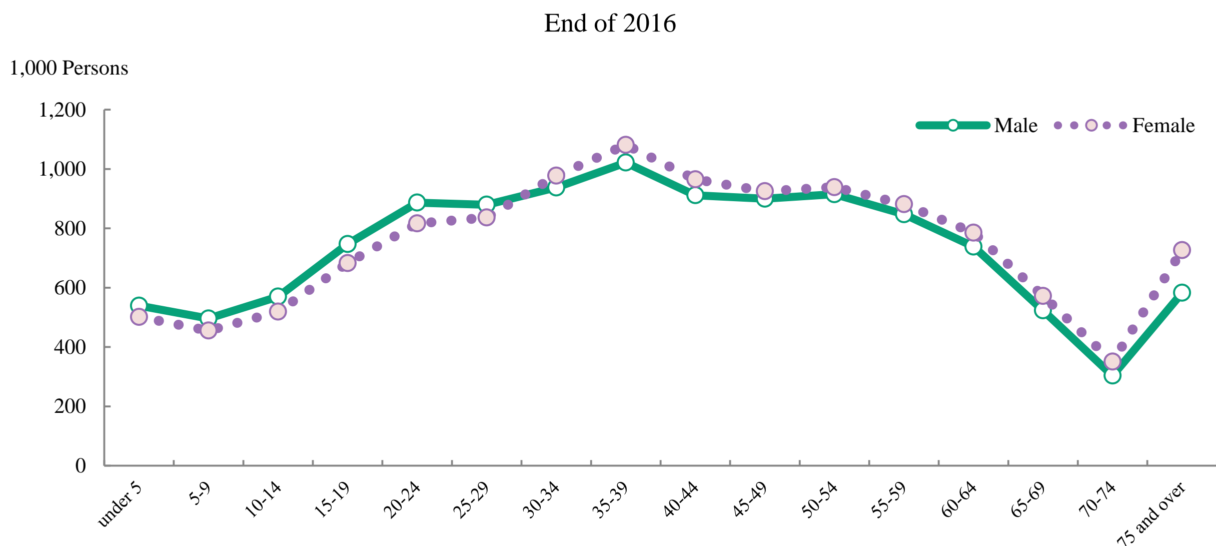


ii. The percentage of female beneficiaries was 50.5%, higher than the 49.5% for male beneficiaries.

At the end of 2016, 11,800 thousand (49.5%) beneficiaries were male and 12,015 thousand (50.5%) beneficiaries were female. In terms of age group, there were more male beneficiaries than females in the under 30 age groups, whereas females outnumbered males in the 30 and over age groups.

Figure 3　Beneficiaries by Gender and Age

End of 2016

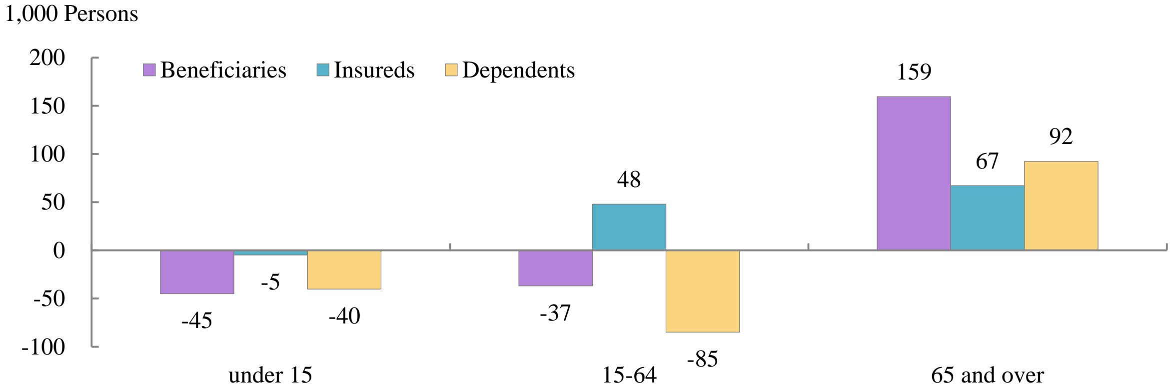


iii. The number of beneficiaries in the 65 and over age group increased by 159 thousand from the previous year.

There were 3,081 thousand (12.9%) beneficiaries in the under 15 age group at the end of 2016, 17,674 thousand (74.2%) in the 15-64 age group, and 3,059 thousand (12.8%) in the 65 and over age group. The number of beneficiaries in the 65 and over age group increased by 159 thousand from the previous year. However, beneficiaries in the under 15 age group decreased by 45 thousand. Beneficiaries in the 15-64 age group also decreased by 37 thousand, of which dependents decreased by 85 thousand.

Figure 4 Changes in Beneficiaries by Age

End of 2016 vs. End of 2015



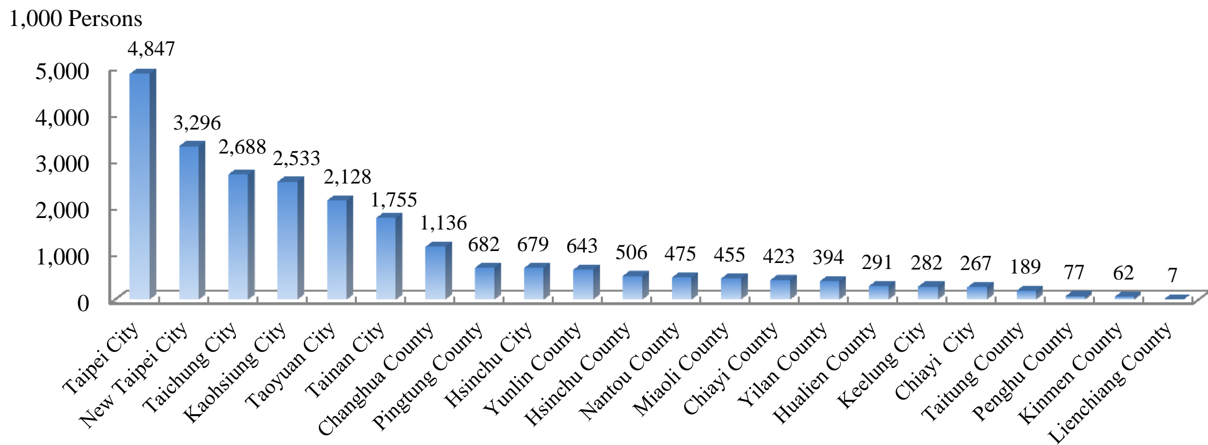
iv. Taipei City had the highest increase of beneficiaries at 51 thousand and Kinmen County showed the largest rate of increase at 1.6%.

When broken down by city/county using the mailing addresses of the group insurance applicants to which the beneficiaries belong, Taipei City had the highest number of beneficiaries at 4,847 thousand, followed by New Taipei City, Taichung City and Kaohsiung City, all with over 2.5 million, while Lienchiang County had the smallest amount at 7 thousand.

If compared with the previous year, Taipei City showed the largest increase with 51 thousand beneficiaries, followed by Taichung City with 23 thousand and Taoyuan City with 17 thousand. Miaoli County had the largest decrease with 11 thousand. Among all locales, Kinmen County had the largest rate of increase, at 1.6%, while Miaoli County had the largest rate of decrease, at 2.3%.

Figure 5 Beneficiaries by Locale

End of 2016



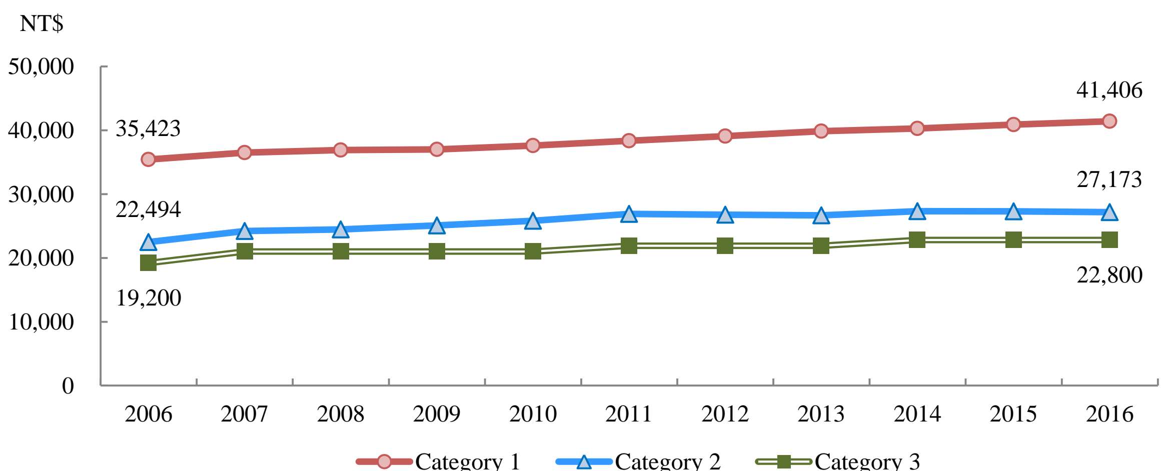
Note: The locales were determined by the mailing addresses of the group insurance applicants to which the beneficiaries belong.

(2) The Insured Payroll-Related Amount

i. The average insured payroll-related amount for Categories 1 to 3 totaled to NT$36,380; the average annual increase of the insured payroll-related amount was 1.9% over the past ten years.

At the end of 2016, the average insured payroll-related amount totaled to NT$36,380, an increase of 1.3% from the previous year. The average annual increase was 1.9% over the past ten years. The average insured payroll-related amounts for Categories 1 to 3 were NT$41,406, NT$27,173 and NT$22,800, respectively. The insured payroll-related amount does not apply to the insured in Categories 4, 5 and 6. The average premium was NT$1,759 for Categories 4 and 5, and was NT$1,249 for Category 6.

Figure 6 The Average Insured Payroll-Related Amount for Categories 1 to 3

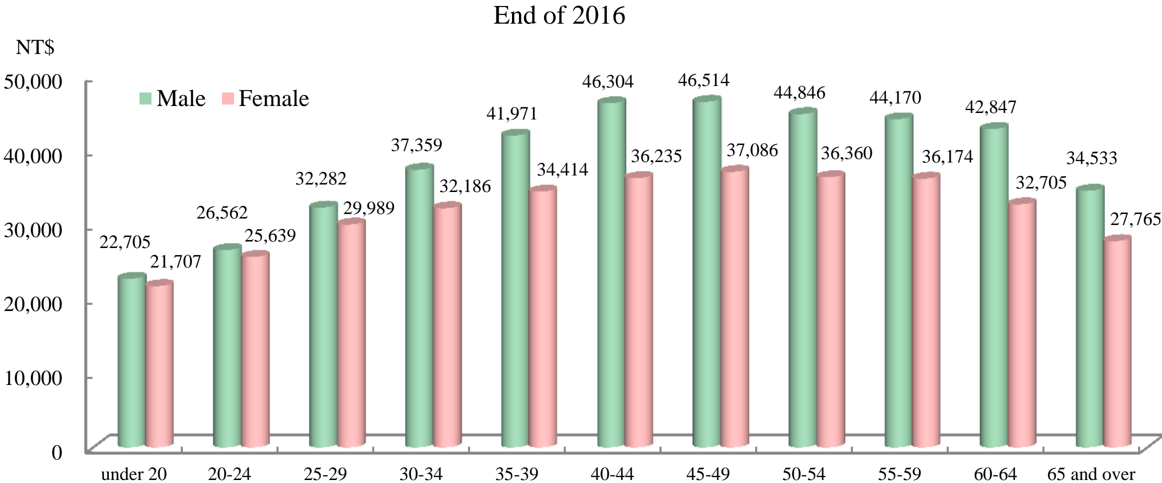


ii. The average insured payroll-related amount for males was NT$39,701, which was higher than the NT$33,031 for females.

At the end of 2016, the average insured payroll-related amount for males was NT$39,701, which was higher than the average amount of NT$33,031 for females. For both genders, the 45-49 age group had the highest average insured payroll-related amount and the under 20 age group had the lowest amount. Males showed higher average insured payroll-related amounts than females across all age groups, of which, there were significant differences occurring in the 40-44 and 60-64 age groups, with the differences in amount surpassing NT$10,000.

Figure 7 The Average Insured Payroll-Related Amount for Categories 1 to 3 by Gender and Age

End of 2016



2. Financial Status

The main source of revenue for the National Health Insurance scheme is garnered from premium revenue, which is made collectively by the insured, the group insurance applicants, and the government. Since the previous system collected premiums solely on the basis of regular wages, the growth in premium revenue was inhibited. In addition, factors such as the aging of the overall population, introduction of new medical technologies, and increased care for major disease patients have led to substantial increases in medical expenditures. Premium revenue has long been inadequate to meet medical expenditures, and the NHIA is facing a serious financial pressure. To ease the financial deficit, the NHIA plans to tap new resources and cut expenses to prevent the deficits gap from widening. In order to solidify the NHI revenue base and promote a more equitable distribution of the program's financial burden, the second-generation NHI system was adopted in January 1, 2013. The new system adds to the existing base by collecting other forms of income, such as large bonuses, wages from part-time jobs, ad hoc professional fees, interest, dividend and rental income. Premiums are also collected on the difference between the total salaries the group insurance applicants (employers) actually pay their employees in a month and the total insured payroll-related amounts for the employees. Both are made to ensure the program's long-term sustainability.

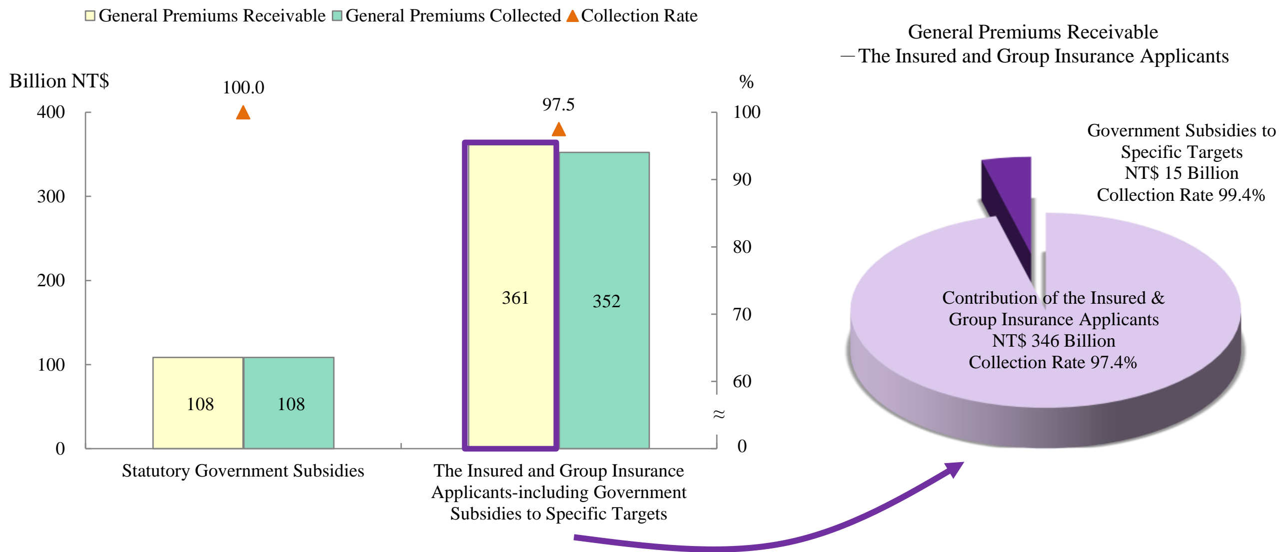
(1) Premium Collection

i. General premiums receivable were NT$470 billion, with a collection rate of 98.1%.

General premiums receivable totaled NT$470 billion in 2016, while general premiums collected totaled NT$461 billion. The total collection rate was 98.1%.General premiums receivable from the insured and group insurance applicants totaled NT$361 billion (NT$15 billion was from government subsidies to specific targets), NT$352 billion was collected (NT$15 billion was from government subsidies to specific targets), for a collection rate of 97.5%. General premiums receivable from the government (statutory government subsidies) totaled NT$108 billion, and NT$108 billion was collected, for a collection rate 100.0%.

Figure 8　General Premiums

2016

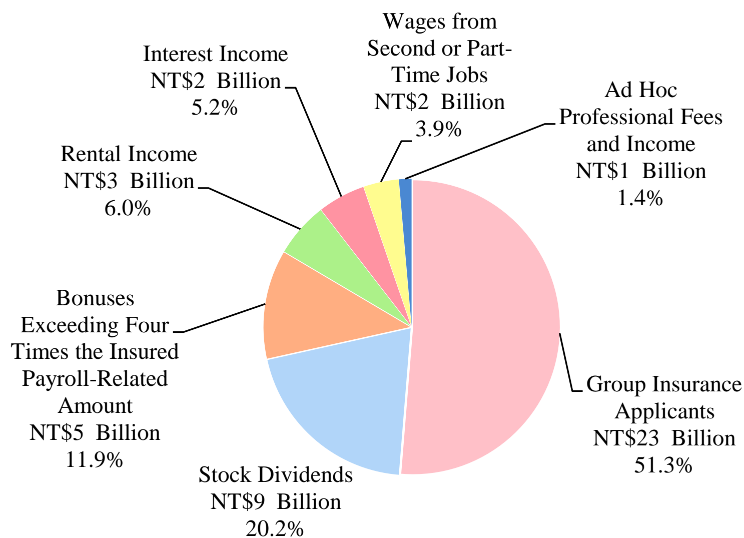


ii. Supplementary premiums totaled NT$44 billion.

Supplementary premiums totaled NT$44 billion in 2016. NT$23 billion came from group insurance applicants and NT$22 billion from the beneficiaries. The latter included NT$9 billion for stock dividends, NT$5 billion for bonuses exceeding four times the insured payroll-related amount, NT$3 billion for rental income, NT$2 billion for interest income, NT$2 billion for wages from second or part-time jobs and NT$1 billion for ad hoc professional fees and income.

Figure 9　Supplementary Premiums

2016

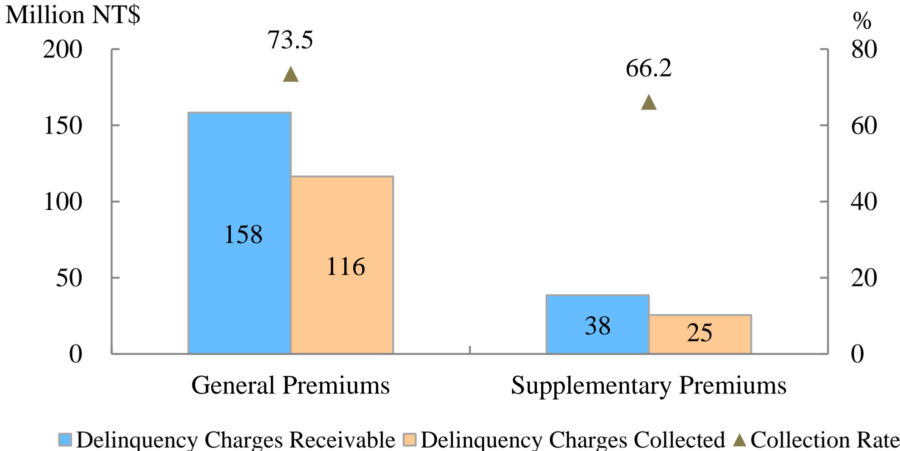


iii. Delinquency charges receivable totaled NT$197 million, with a collection rate of 72.1%.

Group insurance applicants, beneficiaries and premium withholder should pay delinquency charges in the case where they pay late premiums. Delinquency charges receivable totaled NT$197 million in 2016, NT$142 million was collected, for a collection rate of 72.1%. Of which, the delinquency charges receivable of general premiums totaled NT$158 million, NT$116 million was collected, for a collection rate of 73.5%. The delinquency charges receivable of supplementary premiums totaled NT$38 million, NT$25 million was collected, for a collection rate of 66.2%.

Figure 10 Delinquency Charges

2016

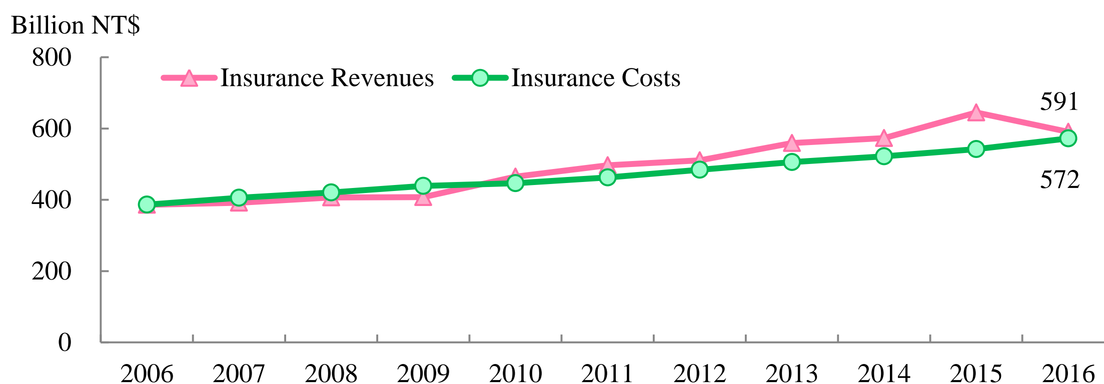


(2) Financial Revenue and Expenditure

i. In accrual basis, the surplus was NT$19 billion.

In terms of accrual basis, insurance revenues totaled NT$591 billion in 2016, a decrease of 8.4% from the previous year. The average annual increase in the most recent decade was 4.3%. Of which premium revenues were NT$557 billion or 94.2%, being the largest proportion of insurance revenues. Insurance costs were NT$572 billion, an increase of 5.6% from the previous year. The average annual increase in the most recent decade was 4.0%. Of which medical benefits were NT$568 billion or 99.3%, being the largest proportion of insurance costs. Surplus was NT$19 billion and all deposited into the reserve fund pursuant to law. Therefore the reserve fund accumulated balance in 2016 was NT$247 billion.

Figure 11 Financial Status — Accrual Basis



Notes:

1. Data updated on May 5, 2017.
2. The “general premiums receivable” in this chapter refers to the premium amount corrected based on the queries/requests by the insured or the group insurance applicants. It does not include supplementary premiums, the shortage of the 36 percent of the annual health insurance budget, the lowest amount which should be burdened by the government according to law, and delinquency charges receivable.
3. The “general premiums collected” in this chapter does not include supplementary premiums, the shortage of the 36 percent of the annual health insurance budget, the lowest amount which should be burdened by the government according to law, and delinquency charges collected.
4. The “government subsidies to specific targets” in this chapter refers to the separately-budgeted government subsidies for premium payments, which were originally payable by the insured or the group insurance applicants pursuant to the NHI Act.
5. The “statutory government subsidies” in this chapter refers to the subsidy amount payable by the government pursuant to Article 27 of the NHI Act.

3. Contracting and Management of Medical Care Institutions

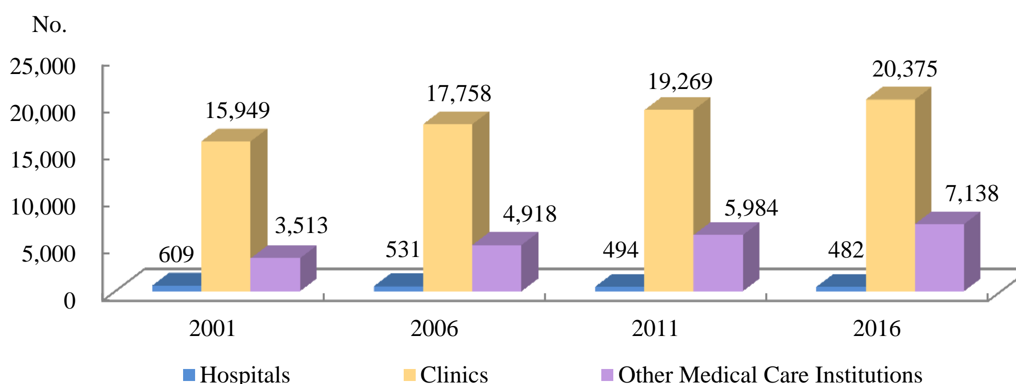
Contracted medical care institutions are categorized as contracted hospitals, clinics, pharmacies and other medical care institutions appointed by the competent authorities. These medical care institutions include medical laboratories, home nursing cares, midwifery institutions, psychiatric rehabilitation institutions, physical therapy clinics, occupational therapy clinics, medical radiology centers and respiratory care agencies.

(1) Contracted Medical Care Institutions

i. The average annual increase of contracted medical care institutions was 1.9% over the past ten years.

At the end of 2016, the total number of contracted medical care institutions was 27,995, an increase of 267 (1.0%) from the previous year. The average annual increase was 1.9% over the past ten years. There were 482 hospitals, 20,375 clinics, and 7,138 other medical care institutions.

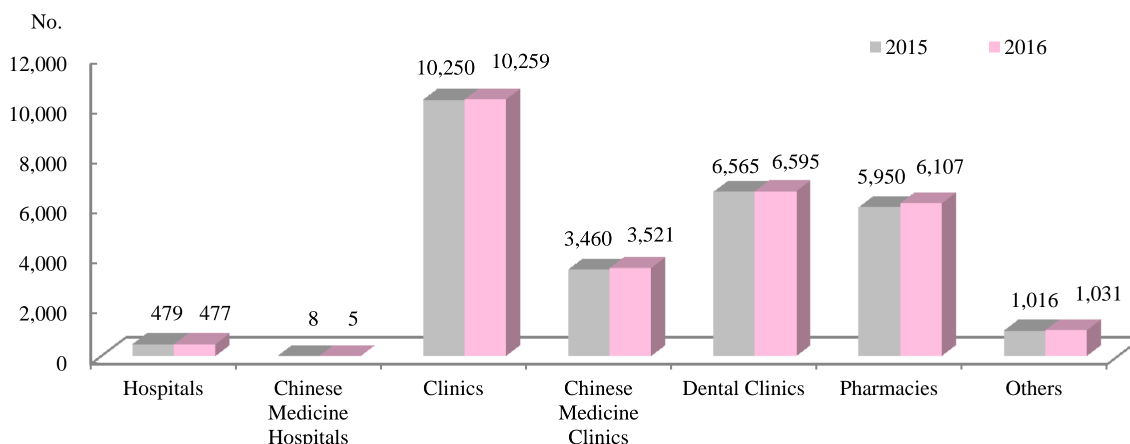
Figure 12 Number of Contracted Medical Care Institutions



ii. The number of pharmacies and Chinese medicine clinics increased by 157 and 61, respectively.

Among contracted hospitals at the end of 2016, there were 477 hospitals and 5 Chinese medicine hospitals (a respective decrease of 2 and 3 from the previous year). Among contracted clinics, clinics had the largest number at 10,259, followed by dental clinics at 6,595, and then Chinese medicine clinics at 3,521. Compared with the previous year, Chinese medicine clinics had the largest increase at 61, followed by dental clinics at 30, and clinics at 9. Among other medical care institutions, pharmacies were the most numerous at 6,107 and experienced the largest increase, increasing by 157 from the previous year. There were a total of 1,031 other medical care institutions, including medical laboratories, home nursing cares, midwifery institutions, psychiatric rehabilitation institutions, physical therapy clinics, occupational therapy clinics, medical radiology centers and respiratory care agencies. This total increased by 15 compared to the previous year.

Figure 13 Number of Contracted Medical Care Institutions 2016 vs. 2015



Note: "Others" include medical laboratories, home nursing cares, midwifery institutions, psychiatric rehabilitation institutions, physical therapy clinics, occupational therapy clinics, medical radiology centers and respiratory care agencies.

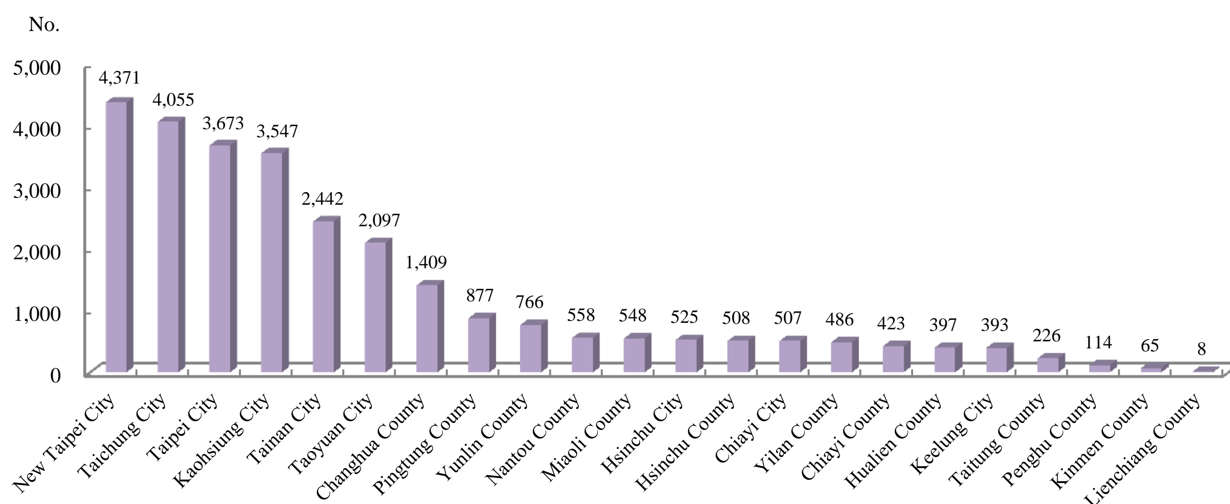
iii. New Taipei City had the largest number of contracted medical care institutions at 4,371, while Lienchiang County had the fewest at 8.

In terms of locale, New Taipei City had the largest number of contracted medical care institutions at 4,371 at the end of 2016, followed by Taichung City at 4,055, Taipei City at 3,673, and Kaohsiung City at 3,547, which all exceeded 3,500; Lienchiang County had the fewest number at 8, followed by Kinmen County at 65.

Compared with the previous year, institutions in Lienchiang County remained the same, while institutions in Taipei City, Miaoli County and Chiayi City decreased by 7, 2 and 1, respectively. Institutions in other locales increased, and Taichung City experienced the highest increase at 67, followed by New Taipei City at 35, and Taoyuan City at 34.

Figure 14 Number of Contracted Medical Care Institutions by Locale

End of 2016

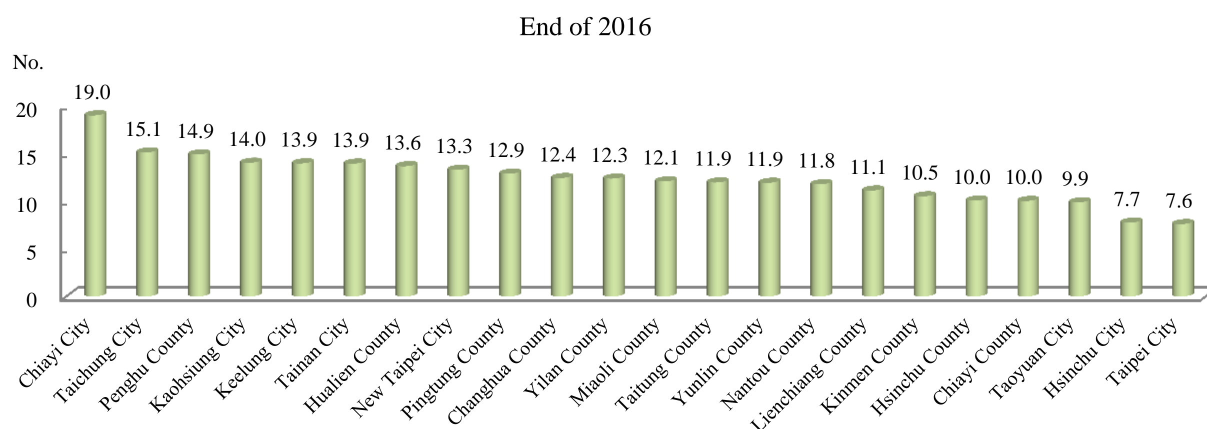


iv. Chiayi City had the largest number of contracted medical care institutions per 10,000 beneficiaries at 19.0, while Taipei City had the smallest at 7.6.

At the end of 2016, the number of contracted medical care institutions per 10,000 beneficiaries (contracted medical care institutions / beneficiaries × 10,000) was 11.8. In terms of locale, Chiayi City had the largest number at 19.0, followed by Taichung City at 15.1, and Penghu County at 14.9. Taipei City had the smallest number at 7.6, followed by Hsinchu City at 7.7, and Taoyuan City at 9.9.

Figure 15 Number of Contracted Medical Care Institutions per 10,000 Beneficiaries by Locale

End of 2016



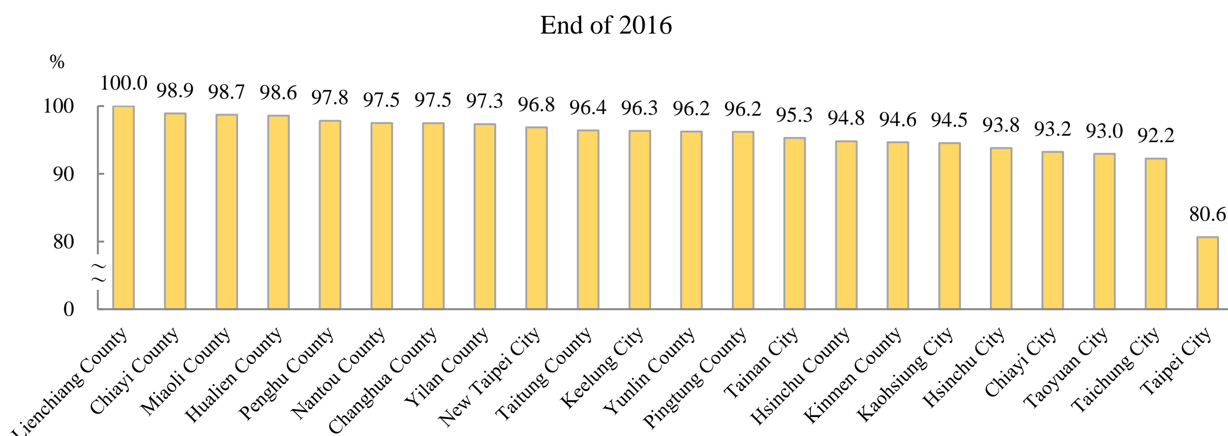
Note: The locales of beneficiaries were determined by the mailing addresses of the group insurance applicants to which the beneficiaries belong.

v. The percentage of hospitals and clinics contracted was 92.8%; the lowest was for Taipei City, at 80.6%.

At the end of 2016, 92.8% of hospitals and clinics had entered into contracts with the NHIA. In terms of locale, Taipei City had the lowest percentage of hospitals and clinics contracted at 80.6%, followed by Taichung City at 92.2%; the percentage for other locales was over 92.8%, the highest of which was Lienchiang County at 100.0%.

Figure 16 Percentage of Hospitals and Clinics Contracted by Locale

End of 2016

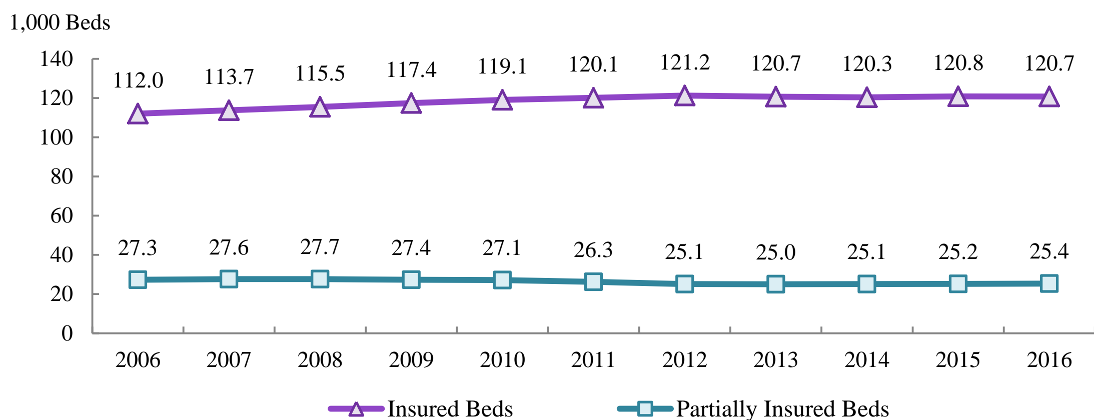


(2) Insured Beds

i. The total number of beds in contracted medical care institutions increased by 0.5% on average per year over the past ten years.

At the end of 2016, the total number of beds in contracted medical care institutions was 146,125, an increase of 73 from the previous year. The average annual increase was 0.5% over the past ten years. There were 120,727 insured beds and 25,398 partially insured beds. Compared with the previous year, the number of insured beds decreased by 88, while the number of partially insured beds increased by 161.

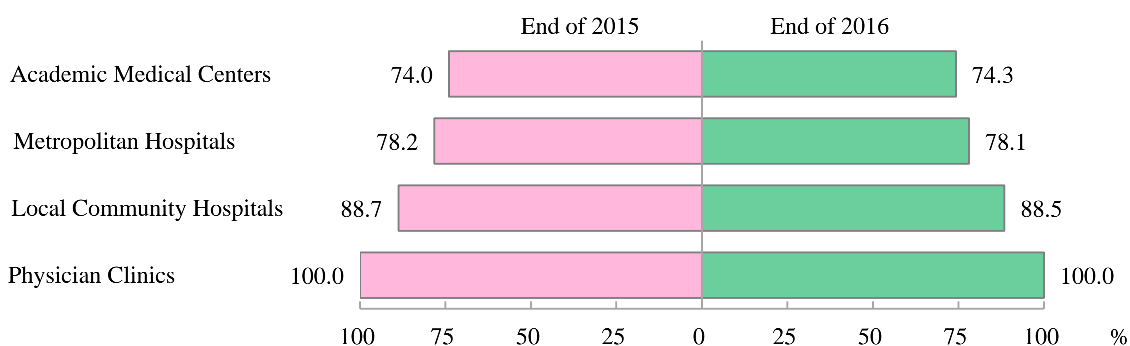
Figure 17 Number of Beds in Contracted Medical Care Institutions



ii. The percentage of insured beds in contracted medical care institutions was 82.6%.

At the end of 2016, the percentage of insured beds in contracted medical care institutions was 82.6%. In terms of contracted category, the percentage of insured beds in academic medical centers was 74.3%, 78.1% for metropolitan hospitals, 88.5% for local community hospitals and 100.0% for physician clinics. Compared with the previous year, academic medical centers experienced an increase of 0.3 percentage points, while metropolitan hospitals and local community hospitals experienced a respective decrease of 0.1 and 0.2 percentage points.

Figure 18 Percentage of Insured Beds in Contracted Medical Care Institutions by Contracted Category



iii. The number of acute beds in contracted medical care institutions increased by 230 from the previous year, while the number of chronic beds decreased by 157.

Based on type of bed, there were 129,008 acute beds at the end of 2016. Of which, 104,221 were insured beds and 24,787 were partially insured beds. Chronic beds numbered 17,117, of which 16,506 were insured beds and 611 were partially insured beds.

Compared with the previous year, the number of acute beds increased by 230, of which the number of insured and partially insured beds increased by 59 and 171, respectively. The number of chronic beds decreased by 157, of which the number of insured and partially insured beds decreased by 147 and 10, respectively.

At the end of 2016, the proportion of insured acute beds was 74.6%; the proportion of insured chronic beds was 96.4%. Compared with the previous year, both remained the same.

Figure 19 Number of Beds in Contracted Medical Care Institutions by Type of Bed

End of 2016

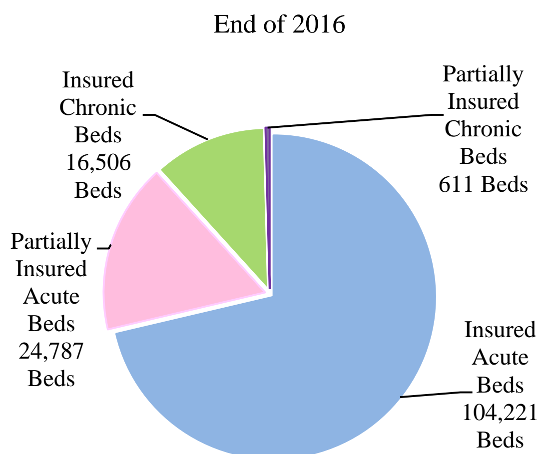
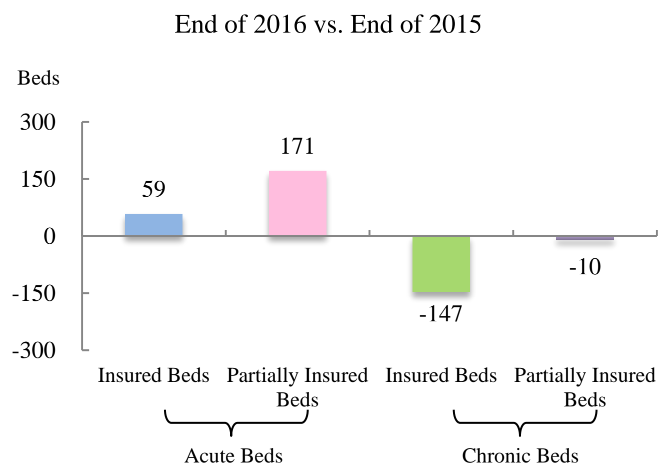


Figure 20 Changes in Number of Beds in Contracted Medical Care Institutions by Type of Bed

End of 2016 vs. End of 2015



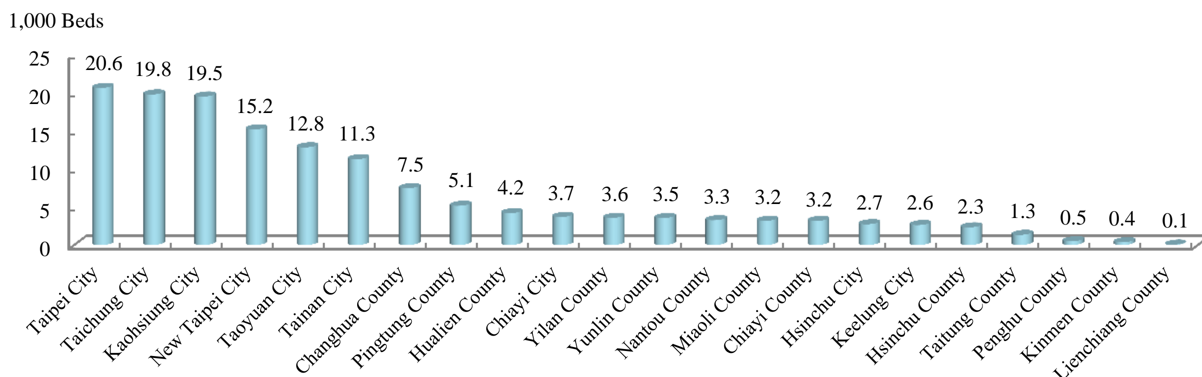
iv. Taipei City had the most beds in contracted medical care institutions at 20,603, while Lienchiang County had the fewest beds at 52.

In terms of locale, Taipei City had the most beds in contracted medical care institutions at 20,603, followed by Taichung City at 19,751, and Kaohsiung City at 19,477. New Taipei City, Taoyuan City and Tainan City all had over 10,000 beds. Lienchiang County had the fewest beds at 52, followed by Kinmen County at 367, and Penghu County at 491; all of them had fewer than 500 beds.

Compared with the previous year, the number of beds in Penghu County remained the same, while other locales experienced fluctuations: Taichung City had the largest increase at 271, followed by Kaohsiung City at 196, and New Taipei City at 155. Taoyuan City experienced the largest decrease at 275, followed by Pingtung County at 111, and Yunlin County at 99.

Figure 21 Number of Beds in Contracted Medical Care Institutions by Locale

End of 2016



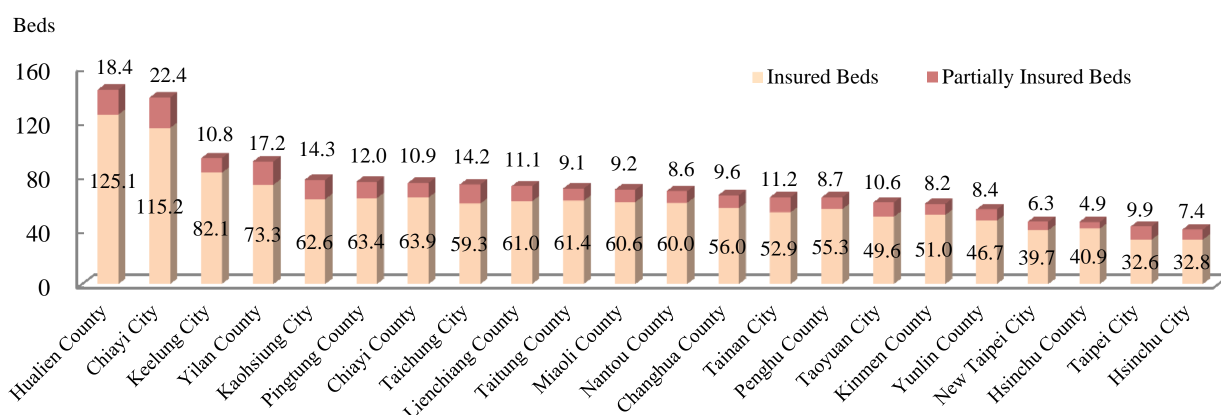
v. Hualien County had the largest number of beds in contracted medical care institutions per 10,000 beneficiaries at 143.5, while Hsinchu City had the smallest at 40.2.

At the end of 2016, the beds of contracted medical care institutions per 10,000 beneficiaries (beds in contracted medical care institutions / beneficiaries × 10,000) was 61.4, of which insured beds accounted for 50.7, and partially insured beds accounted for 10.7.

In terms of locale, Hualien County had the largest number of beds per 10,000 beneficiaries at 143.5, followed by Chiayi City at 137.6. Hsinchu City had the smallest at 40.2, followed by Taipei City at 42.5. Hualien County had the largest number of insured beds in contracted medical care institutions per 10,000 beneficiaries at 125.1, followed by Chiayi City at 115.2. Taipei City had the smallest at 32.6, followed by Hsinchu City at 32.8.

Figure 22 Beds of Contracted Medical Care Institutions per 10,000 Beneficiaries by Locale

End of 2016



Note: The locales of beneficiaries were determined by the mailing addresses of the group insurance applicants to which the beneficiaries belong.

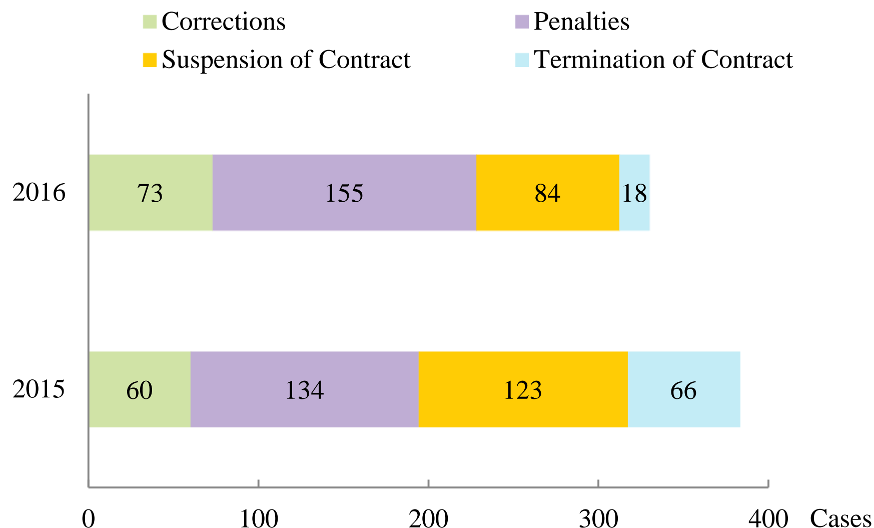
(3) Management of Contracted Medical Care Institutions

Since its establishment, the NHIA has been supervising contracted medical care institutions to maintain the quality of the medical service for beneficiaries. In addition, the NHIA also strengthens violation reviews and manages abnormal activities according to the "Regulations Governing Contracting and Management of National Health Insurance Medical Care Institutions". The reviews focus on severe violations such as fraud that falsely claims insurance benefits. When appropriate, the NHIA assists related judicial authorities in the investigation of serious offenses committed by contracted medical care institutions.

i. 330 cases were found to have committed violations in contracted medical care institutions; the most (155 cases) were penalized with penalties.

In 2016, 330 cases were found to have committed violations in contracted medical care institutions, a decrease of 53 cases (13.8%) from the previous year. Of which, the largest group of violators consisted of medical care institutions that were penalized with penalties (155 cases), 84 were penalized with suspension of contract, 73 were penalized with corrections, and 18 were penalized with termination of contract, which accounted for the smallest group of violators.

Figure 23 Penalties against Contracted Medical Care Institutions



4. Medical Benefits

The National Health Insurance System has comprehensively implemented a global budget payment system on medical expenses since July 2002. The medical benefits under the global budget payment system are paid primarily on the basis of service volume. To elevate the quality of healthcare services and promote better health, the NHIA gradually additionally introduced the “Case Payment” and “Pay for Performance” systems. Furthermore, to improve the effectiveness of healthcare services and provide complete holistic care, the NHIA implemented the Tw-DRGs (Taiwan Diagnosis Related Groups) payment system in January 2010.

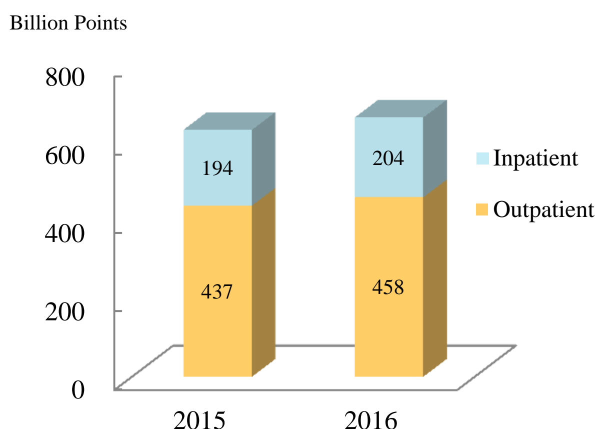
According to the “Regulations Governing Declaration and Payment of Medical Expenses and Examination of Medical Care Services for National Health Insurance”, monthly medical expense applications of cases serviced by a medical care institution under the NHI, should be submitted by the 20th of the month following the service. Electronic applications are divided in two periods: from the 1st to the 15th of the month and from the 16th to the end of the month. Relevant documents (summary reports) should be submitted by the 5th and the 20th of the following month when applying online or via electronic media. For the filing of inpatient cases, if the beneficiary has not checked out of the hospital at the end of the month, the expenses should be filed altogether after the beneficiary has checked out. For chronically hospitalized patients, filing may be done every two months. Monthly filing is also allowed if deemed necessary.

Medical care institutions under the NHI should complete filing within the specified period, leaving no incomplete applications or errors therein. The insurer should process the provisional payments within the specified time limit after having received the documents and should deliver the reviewed results within 60 days. If the results cannot be delivered on time, a provisional payment of the full amount should be made. Any disagreement with the review results of the medical services raised by the medical care institutions under the NHI may be disputed within 60 days from the arrival of the notice from the insurer. The insurer should review the disputed cases within 60 days of receiving such complaints. If a medical care institution disagrees with the disputed results, it may apply to the National Health Insurance Dispute Mediation Committee for a second review pursuant to the “National Health Insurance Dispute Mediation Regulations”.

(1) Medical Benefit Claims

The total medical points in 2016 amounted to 662 billion points, an increase of 5.0% from the previous year. Of which, the total requested points amounted to 623 billion and copayment points amounted to 39 billion. The total outpatient medical points amounted to 458 billion, an increase of 4.9% from the previous year. Of which, requested points amounted to 428 billion, and copayment points amounted to 30 billion. The total inpatient medical points amounted to 204 billion, an increase of 5.3% from the previous year. Of which, the requested points amounted to 195 billion and copayment points amounted to 9 billion.

Figure 24 Medical Points



A total of 362 million outpatient cases were filed in 2016, an increase of 1.7% from the previous year. A total of 3 million inpatient cases were filed, an increase of 1.1% from the previous year.

The average medical points per case amounted to 1,267 for outpatient services and 61,458 for inpatient services. The average length of stay was 9.7 days.

i. Physician clinics had the most medical points for outpatient services, while academic medical centers had the most medical points for inpatient services.

In terms of contracted category, physician clinics had the most medical points for outpatient services in 2016 at 191 billion points (41.7%), followed by metropolitan hospitals at 109 billion, academic medical centers at 108 billion and local community hospitals at 50 billion (together accounting for 58.3%). Academic medical centers had the most medical points for inpatient services at 87 billion points (42.8%), followed by metropolitan hospitals at 83 billion (40.7%), local community hospitals at 32 billion (15.6%) and physician clinics at 2 billion (0.9%).

The average medical points per outpatient case were, in descending order, 3,261 for academic medical centers, 2,445 for metropolitan hospitals, 1,770 for local community hospitals, and 748 for physician clinics. The average medical points per inpatient case were, in descending order, 78,450 for academic medical centers, 54,731 for metropolitan hospitals, 50,711 for local community hospitals, and 30,062 for physician clinics.

Figure 25　Outpatient Medical Points by Contracted Category

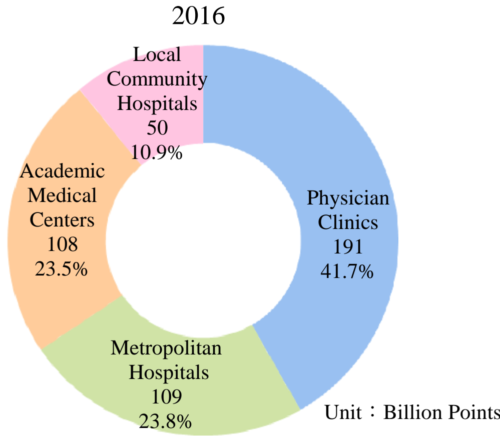
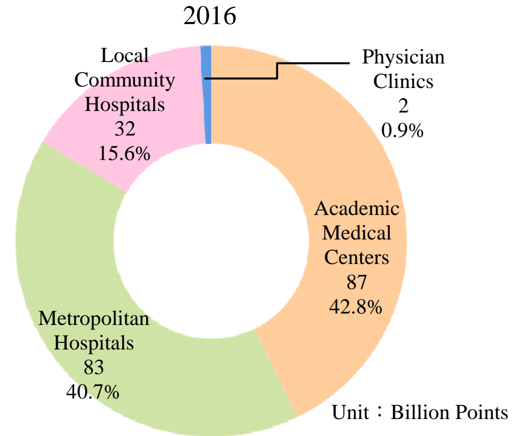


Figure 26　Inpatient Medical Points by Contracted Category

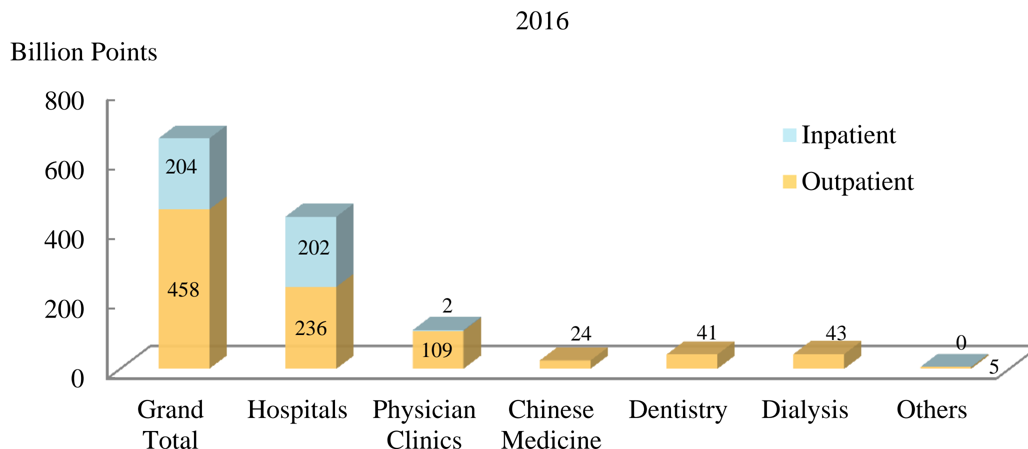


ii. In terms of global budget payment system, hospitals represented the largest proportion of all at 66.1%.

In terms of global budget payment system, hospitals had the most medical points in 2016 at 437 billion (236 billion for outpatient services and 202 billion for inpatient services) or 66.1%, followed by physician clinics at 111 billion (109 billion for outpatient services and 2 billion for inpatient services) or 16.8%, Chinese medicine at 24 billion, dentistry at 41 billion, and dialysis at 43 billion.

The average medical points per case were 2,387 for outpatient services and 62,083 for inpatient services at hospitals, 585 for outpatient services and 30,067 for inpatient services at physician clinics, 596 for Chinese medicine, 1,267 for dentistry, and 46,429 for dialysis.

Figure 27　Medical Points by Global Budget Payment System



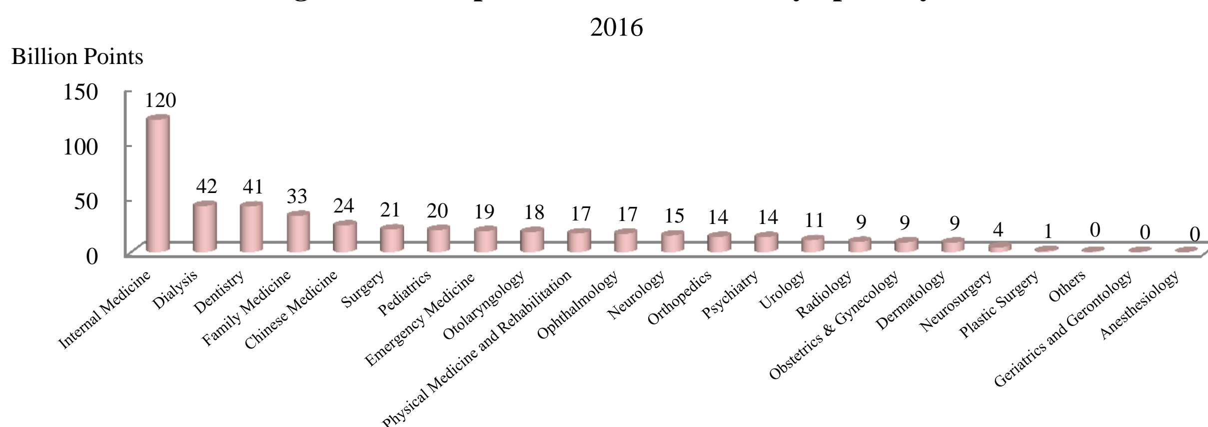
iii. Internal medicine had the most medical points for both outpatient and inpatient services.

In terms of specialty, internal medicine had the most medical points for outpatient services in 2016 at 120 billion points (26.3%), followed by dialysis at 42 billion, dentistry at 41 billion, family medicine at 33 billion, and Chinese medicine at 24 billion.

As for the average medical points per outpatient case, dialysis ranked the highest at 45,816 points, followed by radiology at 12,393, and emergency medicine at 3,185.

Figure 28 Outpatient Medical Points by Specialty

2016



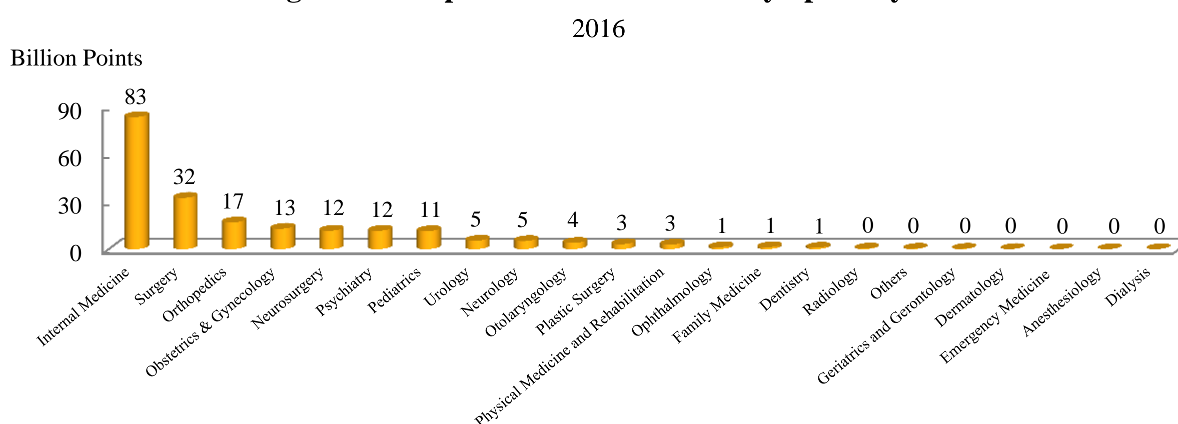
Note: "Others" include occupational medicine, tuberculosis, pathology, nuclear medicine, and cases for which specialty may be left unspecified.

Internal medicine had the most medical points for inpatient services in 2016 at 83 billion points (40.7%), followed by surgery at 32 billion. Orthopedics, obstetrics & gynecology, neurosurgery, psychiatry and pediatrics all had over 10 billion points.

As for the average medical points per inpatient case, neurosurgery ranked the highest at 105,110 points, followed by physical medicine and rehabilitation at 94,488, and radiology at 93,473.

Figure 29 Inpatient Medical Points by Specialty

2016



Note: "Others" include occupational medicine, tuberculosis, pathology, nuclear medicine, and cases for which specialty may be left unspecified.

iv. Females had higher outpatient medical points than males, while males had higher inpatient medical points than females.

In terms of gender, outpatient medical points amounted to 224 billion (48.9%) for males and 234 billion (51.1%) for females in 2016. When analyzed by age group, the 45-64 age group had the most points for both males and females, and the 15-29 and under 15 age groups had the fewest for males and females, respectively. Inpatient medical points amounted to 109 billion (53.5%) for males and 95 billion (46.5%) for females. The 65 and over age group had the most points for both males and females, and the under 15 age group had the fewest.

Figure 30 Outpatient Medical Points by Gender and Age

2016

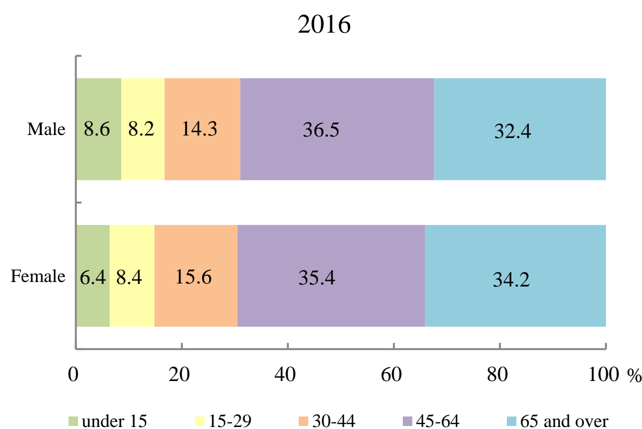
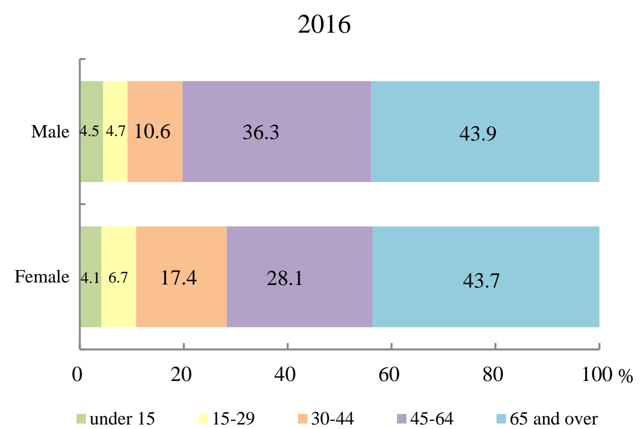


Figure 31 Inpatient Medical Points by Gender and Age

2016



v. In terms of average medical points per case, males had a higher amount than females in all age groups for both outpatient and inpatient services.

In 2016, the average medical points per outpatient case were 1,382 for males, surpassing that of females, who had 1,174 points. The average medical points per inpatient case were 66,347 for males, surpassing that of females, who had 56,653 points. Based on age group, males had a higher amount than females in all age groups for both outpatient and inpatient services.

Figure 32 Average Medical Points per Outpatient Case by Gender and Age

2016

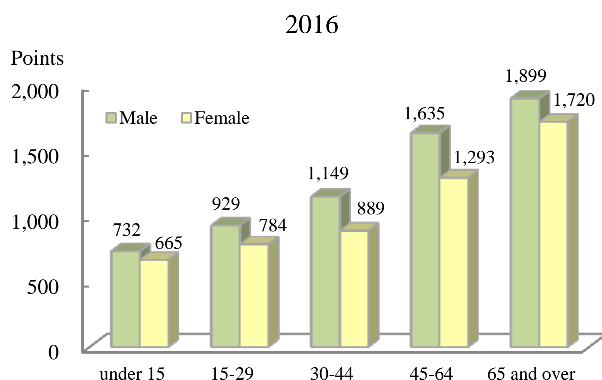
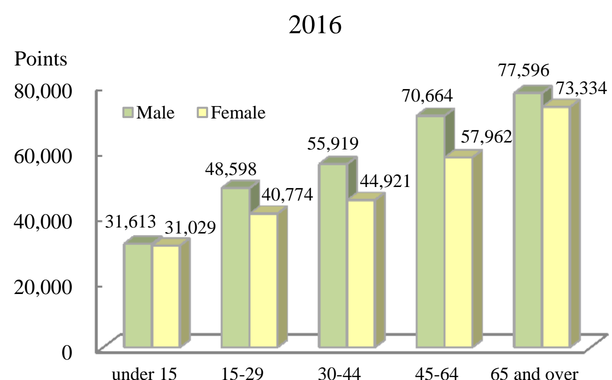


Figure 33 Average Medical Points per Inpatient Case by Gender and Age

2016

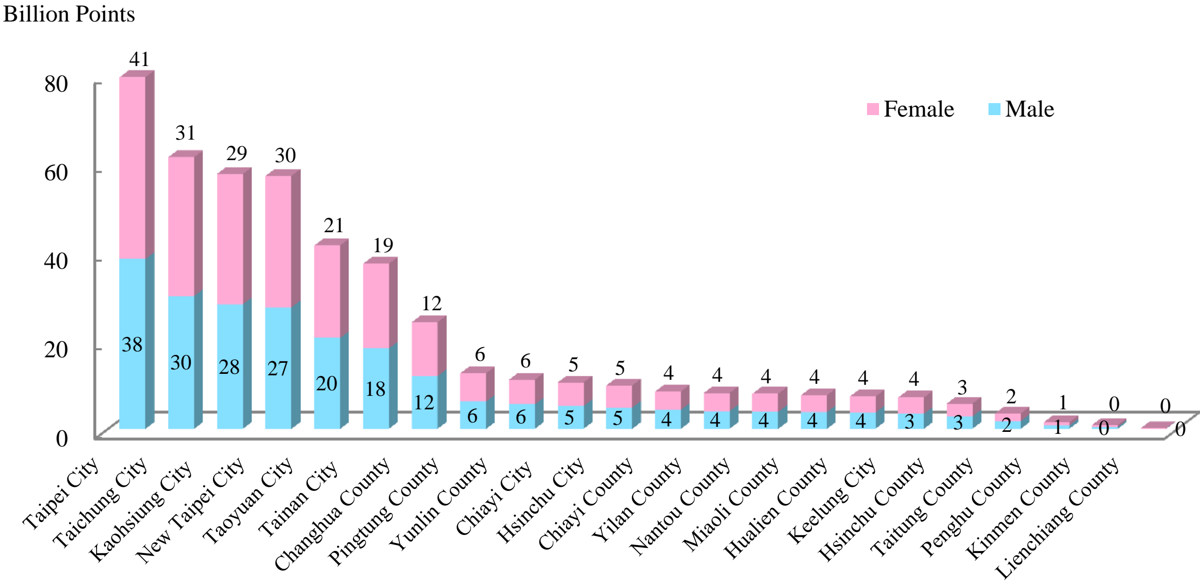


vi. The total medical points claimed by the six municipalities accounted for more than 70%.

In terms of locale, the seat of the contracted medical care institutions, the outpatient medical points for Taipei City amounted to 79 billion in 2016, the most of any locale, followed by Taichung City at 61 billion, Kaohsiung City at 57 billion, New Taipei City at 57 billion, Taoyuan City at 41 billion, and Tainan City at 37 billion. The total medical points claimed by the six municipalities accounted for 72.6% of all the medical points claimed. Analyzed by gender, Chiayi, Hualien, Taitung, Penghu, Kinmen and Lienchiang counties were the only six locales where males had higher medical points than females. Females had a higher amount of outpatient medical points than males in other locales. In terms of average medical points per outpatient case, males had a higher amount than females in all locales.

Figure 34 Outpatient Medical Points by Gender and Locale

2016

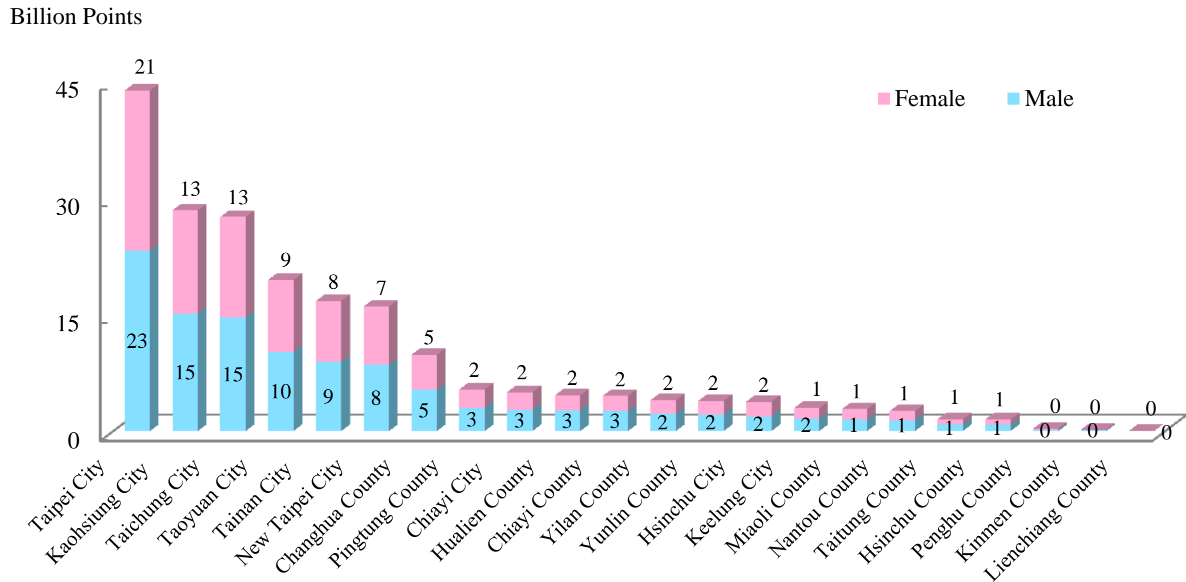


Note: Locale means the seat of the contracted medical care institutions.

The inpatient medical points for Taipei City amounted to 44 billion in 2016, the most of any locale, followed by Kaohsiung City at 28 billion, Taichung City at 27 billion, Taoyuan City at 19 billion, Tainan City at 17 billion, and New Taipei city at 16 billion. The total medical points claimed by the six municipalities accounted for 74.3% of all the medical points claimed. Analyzed by gender, Hsinchu City and Kinmen County were the locales where females had higher medical points than males. Males had a higher amount of inpatient medical points than females in other locales. In terms of average medical points per inpatient case, Kinmen and Lienchiang counties were the locales where females had a higher amount than males. Males had a higher amount than females in other locales.

Figure 35　Inpatient Medical Points by Gender and Locale

2016



Note: Locale means the seat of the contracted medical care institutions.

vii. Consultation, treatment and medical supply accounted for the largest proportion of expenses in outpatient services, while ward fees accounted for the largest proportion for inpatient services.

In terms of actual detailed expenses, the total outpatient expenses in 2016 amounted to 458 billion points, 224 billion points for males and 234 billion points for females. Consultation, treatment and medical supply accounted for the largest proportion of expenses for both genders, with drug fees second largest.

Based on age group, diagnosis fees accounted for the largest proportion of the expenses in the under 15 age group. Consultation, treatment and medical supply accounted for the largest proportion of expenses for all age groups except the under 15 age group. Of which, diagnosis fees accounted for the second largest in age groups 15-44, and drug fees accounted for the second largest in age groups 45 and over.

Figure 36　Detailed Outpatient Medical Expenses by Gender

2016

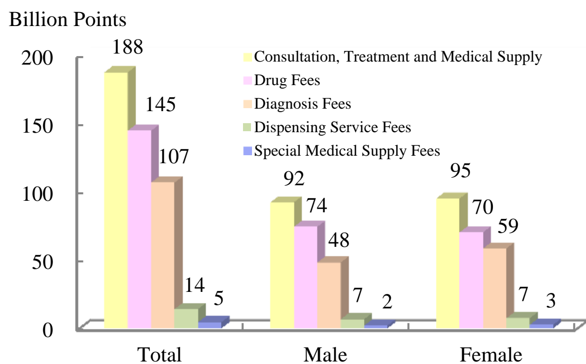
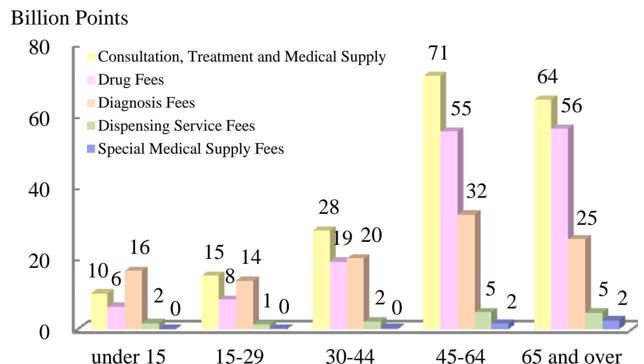


Figure 37　Detailed Outpatient Medical Expenses by Age

2016



The total inpatient expenses in 2016 amounted to 196 billion points. Ward fees accounted for the largest proportion of expenses, while drug fees were second largest, and surgical fees were third. Inpatient expenses totaled 106 billion points for males. Ward fees accounted for the largest proportion of expenses, followed by drug fees and then surgical fees. Inpatient expenses totaled 90 billion points for females. Ward fees accounted for the largest proportion of expenses, followed by surgical fees and then drug fees.

Based on age group, surgical fees accounted for the largest proportion of expenses in the 15-29 age group, while ward fees accounted for the largest in all other age groups.

Figure 38 Top 5 Detailed Inpatient Medical Expenses by Gender

2016

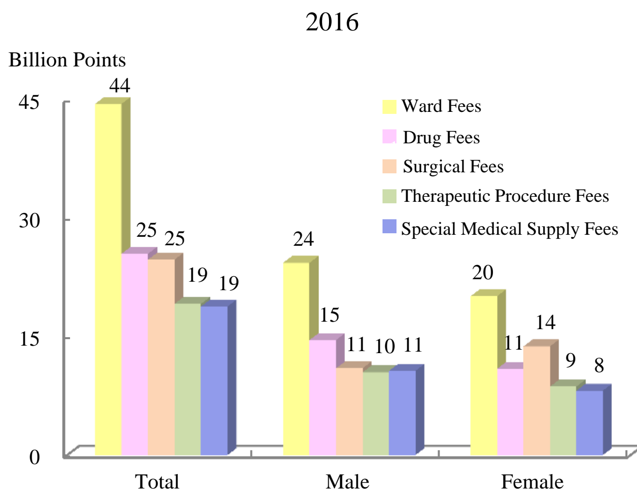
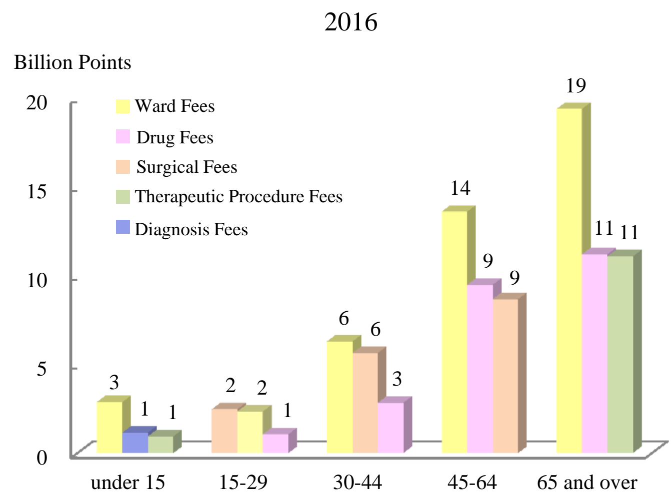


Figure 39 Top 3 Detailed Inpatient Medical Expenses by Age

2016



(2) Approved Medical Benefits

i. Physician clinics accounted for the largest proportion of approved medical benefits for outpatient services, while academic medical centers accounted for the largest proportion for inpatient services.

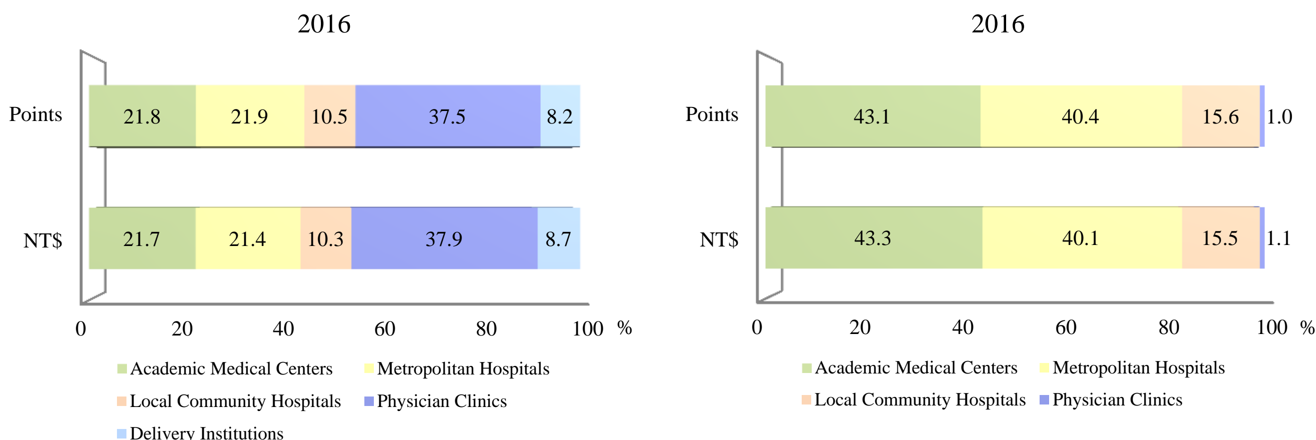
In 2016, the total approved medical benefits amounted to 616 billion points (NT$569 billion), 424 billion points (NT$395 billion) for outpatient services and 192 billion points (NT$174 billion) for inpatient services.

Based on contracted category, physician clinics had the highest amount of approved outpatient benefits in 2016 at 159 billion points (NT$150 billion), followed by metropolitan hospitals at 93 billion points (NT$84 billion) and academic medical centers at 93 billion points (NT$86 billion). As for the average benefits per approved case, academic medical centers had the highest amount of 2,802 points (NT$2,595), followed by metropolitan hospitals at 2,081 points (NT$1,891) and local community hospitals at 1,581 points (NT$1,447).

Academic medical centers had the highest amount of approved inpatient benefits in 2016 at 83 billion points (NT$75 billion), followed by metropolitan hospitals at 78 billion points (NT$70 billion) and local community hospitals at 30 billion points (NT$27 billion). As for the average benefits per approved case, academic medical centers had the highest amount of 74,566 points (NT$67,771), followed by metropolitan hospitals at 51,200 points (NT$45,940) and local community hospitals at 47,785 points (NT$42,891).

Figure 40 Approved Outpatient Medical Benefits by Contracted Category

Figure 41 Approved Inpatient Medical Benefits by Contracted Category

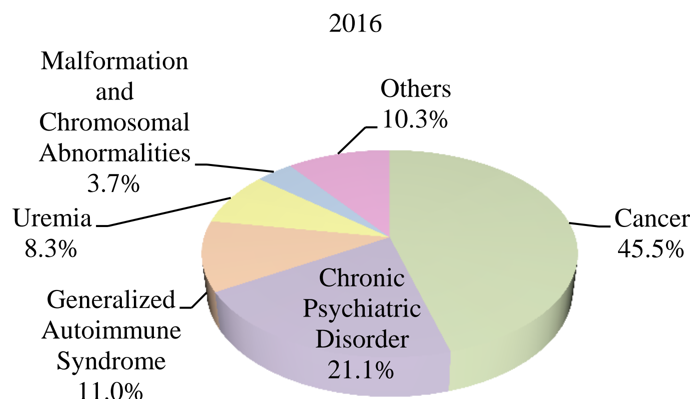


(3) Medical Utilization for Major Illnesses/Injuries

i. The number of valid major illnesses/injuries certificates issued was 955 thousand, of which cancer accounted for the largest proportion.

At the end of 2016, the number of valid major illnesses/injuries certificates issued was 955 thousand, a decrease of 13 thousand (1.3%) from the previous year. The highest of all certificates issued was cancer certificates at 434 thousand (45.5%), followed by chronic psychiatric disorder at 202 thousand (21.1%), generalized autoimmune syndrome at 105 thousand (11.0%) and uremia at 80 thousand (8.3%).

Figure 42 Number of Valid Major Illnesses/Injuries Certificates Issued



ii. Cancer accounted for the largest proportion of medical points for major illnesses/injuries. In terms of average medical points per capita, hereditary coagulation factor deficiency ranked the highest.

Total medical points of major illnesses/injuries in 2016 amounted to 181 billion points. The top three conditions were, respectively, cancer, uremia, and dependence on respirator. Outpatient services amounted to 102 billion points; the top three conditions were uremia, cancer, and chronic psychiatric disorder. Inpatient services amounted to 80 billion points; cancer, dependence on respirator, and chronic psychiatric disorder ranked top three in conditions.

Table 1 Top 10 Major Illnesses/Injuries in 2016

	Outpatient			Inpatient		
Rank	Category of Major Illnesses/Injuries	Medical Points (in millions)	%	Category of Major Illnesses/Injuries	Medical Points (in millions)	%
-	Total	101,736	100.0	Total	79,718	100.0
1	Uremia	44,586	43.8	Cancer	36,418	45.7
2	Cancer	34,177	33.6	Dependence on respirator	12,940	16.2
3	Chronic psychiatric disorder	4,883	4.8	Chronic psychiatric disorder	8,740	11.0
4	Generalized autoimmune syndrome	4,593	4.5	Uremia	7,128	8.9
5	Rare disease	3,683	3.6	Acute cerebrovascular disease	6,136	7.7
6	Hereditary coagulation factor deficiency	3,198	3.1	Major trauma	1,841	2.3
7	Organ transplants	2,358	2.3	Generalized autoimmune syndrome	1,219	1.5
8	Dependence on respirator	1,030	1.0	Cirrhosis of liver	1,104	1.4
9	Malformation and chromosomal abnormalities	528	0.5	Malformation and chromosomal abnormalities	1,005	1.3
10	Congenital metabolic disease	499	0.5	Organ transplants	942	1.2

In terms of average medical points per capita for major illnesses/injuries in 2016, hereditary coagulation factor deficiency ranked the highest at 2,892 thousand points for outpatient services, followed by rare disease at 553 thousand points, uremia at 524 thousand points, complications of premature infants at 513 thousand points, and hemolytic disease at 245 thousand points; hereditary coagulation factor deficiency ranked the highest at 1,946 thousand points for inpatient services, followed by dependence on respirator at 764 thousand points, burns at 609 thousand points, severe malnutrition at 555 thousand points, and motor neurone disease at 528 thousand points.

Table 2 Top 10 Average Medical Points per Capita on Major Illnesses/Injuries in 2016

	Outpatient			Inpatient		
Rank	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples
-	Average	117,439	1.0	Average	242,718	1.0
1	Hereditary coagulation factor deficiency	2,891,621	24.6	Hereditary coagulation factor deficiency	1,946,217	8.0
2	Rare disease	552,600	4.7	Dependence on respirator	764,245	3.1
3	Uremia	523,579	4.5	Burns	609,464	2.5
4	Complications of premature infants	513,183	4.4	Severe malnutrition	555,381	2.3
5	Hemolytic disease	244,645	2.1	Motor neurone disease	527,682	2.2
6	Multiple sclerosis	225,953	1.9	Rare disease	498,220	2.1
7	Organ transplants	208,087	1.8	Hemolytic disease	432,833	1.8
8	Severe malnutrition	196,931	1.7	Congenital immunodeficiency	377,200	1.6
9	Dependence on respirator	186,599	1.6	Creutzfeldt Jakob disease	312,352	1.3
10	Congenital immunodeficiency	145,016	1.2	Organ transplants	290,692	1.2

iii. Uremia accounted for the largest proportion of medical points for major illnesses/injuries for both genders for outpatient services. In terms of average medical points per capita, hereditary coagulation factor deficiency ranked the highest for males and uremia ranked the highest for females.

In 2016, the total outpatient medical points for major illnesses/injuries filed by males amounted to 53 billion points (51.8%), and those filed by females amounted to 49 billion points (48.2%). Uremia accounted for the largest proportion of all for both genders and was followed by cancer. For males, hereditary coagulation factor deficiency ranked the third largest, followed by chronic psychiatric disorder and then rare disease. For females, generalized autoimmune syndrome ranked the third largest, followed by chronic psychiatric disorder and then rare disease.

Table 3 Top 10 Outpatient Major Illnesses/Injuries in 2016 by Gender

	Male			Female		
Rank	Category of Major Illnesses/Injuries	Medical Points (in millions)	%	Category of Major Illnesses/Injuries	Medical Points (in millions)	%
-	Total	52,731	100.0	Total	49,005	100.0
1	Uremia	22,692	43.0	Uremia	21,894	44.7
2	Cancer	17,509	33.2	Cancer	16,668	34.0
3	Hereditary coagulation factor deficiency	3,164	6.0	Generalized autoimmune syndrome	3,690	7.5
4	Chronic psychiatric disorder	2,463	4.7	Chronic psychiatric disorder	2,420	4.9
5	Rare disease	2,156	4.1	Rare disease	1,526	3.1
6	Organ transplants	1,564	3.0	Organ transplants	794	1.6
7	Generalized autoimmune syndrome	903	1.7	Dependence on respirator	511	1.0
8	Dependence on respirator	519	1.0	Malformation and chromosomal abnormalities	299	0.6
9	Acute cerebrovascular disease	256	0.5	Congenital metabolic disease	267	0.5
10	Congenital metabolic disease	232	0.4	Multiple sclerosis	188	0.4

In terms of outpatient average medical points per capita for major illnesses/injuries in 2016, hereditary coagulation factor deficiency ranked the highest for males, followed by complications of premature infants and rare disease; uremia ranked the highest for females, followed by rare disease and hereditary coagulation factor deficiency.

Table 4 Top 10 Outpatient Average Medical Points per Capita on Major Illnesses/Injuries in 2016 by Gender

	Male			Female		
Rank	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples
-	Average	131,704	1.0	Average	105,181	1.0
1	Hereditary coagulation factor deficiency	3,265,083	24.8	Uremia	527,407	5.0
2	Complications of premature infants	1,067,746	8.1	Rare disease	476,381	4.5
3	Rare disease	623,179	4.7	Hereditary coagulation factor deficiency	250,123	2.4
4	Uremia	519,939	3.9	Multiple sclerosis	210,319	2.0
5	Hemolytic disease	317,662	2.4	Dependence on respirator	201,753	1.9
6	Multiple sclerosis	283,887	2.2	Hemolytic disease	191,112	1.8
7	Organ transplants	223,746	1.7	Organ transplants	182,881	1.7
8	Severe malnutrition	212,798	1.6	Severe malnutrition	174,893	1.7
9	Dependence on respirator	173,752	1.3	Congenital immunodeficiency	137,829	1.3
10	Congenital immunodeficiency	148,471	1.1	Congenital vesicular epidermolysis	136,794	1.3

iv. Cancer accounted for the largest proportion of medical points for major illnesses/injuries for both genders for inpatient services. In terms of average medical points per capita, hereditary coagulation factor deficiency ranked the highest for males and dependence on respirator ranked the highest for females.

In 2016, the total inpatient medical points on major illnesses/injuries filed by males amounted to 46 billion points (57.3%), and those filed by females amounted to 34 billion points (42.7%). For both genders, cancer accounted for the largest proportion of medical points, followed by dependence on respirator, chronic psychiatric disorder, uremia and acute cerebrovascular disease respectively.

Table 5 Top 10 Inpatient Major Illnesses/Injuries in 2016 by Gender

	Male			Female		
Rank	Category of Major Illnesses/Injuries	Medical Points (in millions)	%	Category of Major Illnesses/Injuries	Medical Points (in millions)	%
-	Total	45,695	100.0	Total	34,023	100.0
1	Cancer	21,143	46.3	Cancer	15,275	44.9
2	Dependence on respirator	7,433	16.3	Dependence on respirator	5,507	16.2
3	Chronic psychiatric disorder	4,783	10.5	Chronic psychiatric disorder	3,957	11.6
4	Uremia	3,665	8.0	Uremia	3,463	10.2
5	Acute cerebrovascular disease	3,592	7.9	Acute cerebrovascular disease	2,544	7.5
6	Major trauma	1,318	2.9	Generalized autoimmune syndrome	936	2.7
7	Cirrhosis of liver	821	1.8	Major trauma	523	1.5
8	Organ transplants	657	1.4	Malformation and chromosomal abnormalities	478	1.4
9	Malformation and chromosomal abnormalities	528	1.2	Organ transplants	286	0.8
10	Rare disease	357	0.8	Cirrhosis of liver	283	0.8

In terms of inpatient average medical points per capita for major illnesses/injuries in 2016, hereditary coagulation factor deficiency ranked the highest for males, followed by dependence on respirator and burns. Dependence on respirator ranked the highest for females, followed by severe malnutrition and burns.

Table 6 Top 10 Inpatient Average Medical Points per Capita on Major Illnesses/Injuries in 2016 by Gender

	Male			Female		
Rank	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples	Category of Major Illnesses/Injuries	Average Medical Points per Capita (total points)	Multiples
-	Average	256,831	1.0	Average	226,037	1.0
1	Hereditary coagulation factor deficiency	2,159,986	8.4	Dependence on respirator	773,202	3.4
2	Dependence on respirator	757,743	3.0	Severe malnutrition	591,246	2.6
3	Burns	655,109	2.6	Burns	550,673	2.4
4	Rare disease	572,486	2.2	Motor neurone disease	499,905	2.2
5	Motor neurone disease	545,539	2.1	Rare disease	417,345	1.8
6	Severe malnutrition	527,735	2.1	Hemolytic disease	384,120	1.7
7	Hemolytic disease	488,311	1.9	Congenital immunodeficiency	383,751	1.7
8	Congenital immunodeficiency	372,654	1.5	Major trauma	264,678	1.2
9	Creutzfeldt Jakob disease	362,318	1.4	Creutzfeldt Jakob disease	257,390	1.1
10	Organ transplants	332,439	1.3	Hereditary coagulation factor deficiency	247,940	1.1

v. Uremia accounted for the largest proportion of outpatient claims for major illnesses/ injuries for the 30 and over age groups.

The outpatient claims of major illnesses/injuries in 2016 were, respectively, 2 billion points (2.0%) for the under 15 age group, 4 billion points (3.9%) for the 15-29 age group, 11 billion points (11.2%) for the 30-44 age group, 44 billion points (43.0%) for the 45-64 age group and 41 billion points (39.9%) for the 65 and over age group.

In terms of disease, rare disease accounted for the largest proportion of outpatient claims of major illnesses/injuries and hereditary coagulation factor deficiency ranked second for the under 15 age group. Hereditary coagulation factor deficiency ranked first and rare disease ranked second for the 15-29 age group. For the 30 and over age groups, uremia ranked first and cancer ranked second.

Table 7 Top 5 Outpatient Major Illnesses/Injuries in 2016 by Age Group

	under 15	15-29	30-44	45-64	65 and over
Medical Points	2 Billion Points	4 Billion Points	11 Billion Points	44 Billion Points	41 Billion Points
Rank					
1	Rare disease 35.6%	Hereditary coagulation factor deficiency 25.2%	Uremia 28.1%	Uremia 42.8%	Uremia 54.8%
2	Hereditary coagulation factor deficiency 24.4%	Rare disease 20.9%	Cancer 26.9%	Cancer 37.5%	Cancer 34.9%
3	Malformation and chromosomal abnormalities 12.2%	Cancer 11.1%	Chronic psychiatric disorder 13.3%	Chronic psychiatric disorder 5.2%	Generalized autoimmune syndrome 3.5%
4	Poliomyelitis 6.2%	Uremia 9.6%	Hereditary coagulation factor deficiency 9.2%	Generalized autoimmune syndrome 5.0%	Chronic psychiatric disorder 1.6%
5	Dependence on respirator 4.6%	Chronic psychiatric disorder 8.8%	Rare disease 6.6%	Organ transplants 3.3%	Dependence on respirator 1.3%

vi. Cancer accounted for the largest proportion of inpatient claims for major illnesses/injuries for the 15 and over age groups.

The inpatient claims of major illnesses/injuries in 2016 were, respectively, 2 billion points (2.2%) for the under 15 age group, 3 billion points (3.6%) for the 15-29 age group, 8 billion points (10.6%) for the 30-44 age group, 32 billion points (39.9%) for the 45-64 age group and 35 billion points (43.6%) for the 65 and over age group.

In terms of disease, malformation and chromosomal abnormalities accounted for the largest proportion of inpatient claims of major illnesses/injuries and cancer ranked second for the under 15 age group. Cancer ranked first for the 15 and over age groups, while chronic psychiatric disorder ranked second for the 15-64 age groups and dependence on respirator ranked second for the 65 and over age group.

Table 8　Top 5 Inpatient Major Illnesses/Injuries in 2016 by Age Group

	under 15	15-29	30-44	45-64	65 and over
Medical Points	2 Billion Points	3 Billion Points	8 Billion Points	32 Billion Points	35 Billion Points
Rank					
1	Malformation and chromosomal abnormalities 29.2%	Cancer 28.4%	Cancer 38.5%	Cancer 54.6%	Cancer 41.7%
2	Cancer 25.9%	Chronic psychiatric disorder 19.5%	Chronic psychiatric disorder 30.5%	Chronic psychiatric disorder 13.9%	Dependence on respirator 26.6%
3	Rare disease 14.5%	Major trauma 12.0%	Dependence on respirator 7.0%	Dependence on respirator 8.3%	Uremia 12.6%
4	Dependence on respirator 10.2%	Dependence on respirator 9.6%	Acute cerebrovascular disease 5.2%	Uremia 7.4%	Acute cerebrovascular disease 10.1%
5	Hereditary coagulation factor deficiency 6.1%	Malformation and chromosomal abnormalities 5.9%	Uremia 4.0%	Acute cerebrovascular disease 6.5%	Chronic psychiatric disorder 3.3%

(4) Copayments for Medical Expenses

Copayments for medical expenses totaled NT$39 billion in 2016, an increase of 3.3% from the previous year. Of which, outpatient copayments amounted to NT$30 billion and inpatient copayments amounted to NT$9 billion.

i. In terms of average copayments per case, academic medical centers had the highest amount both in outpatient and inpatient services.

The average copayments per case were NT$100 for outpatient services and NT$4,993 for inpatient services in 2016. Analyzed by contracted category, academic medical centers had the highest amount both in outpatient and inpatient services (NT$326 for outpatient and NT$6,247 for inpatient). Metropolitan hospitals ranked second (NT$230 for outpatient and NT$4,645 for inpatient).

Figure 43　Average Copayments per Outpatient Case by Contracted Category

2016

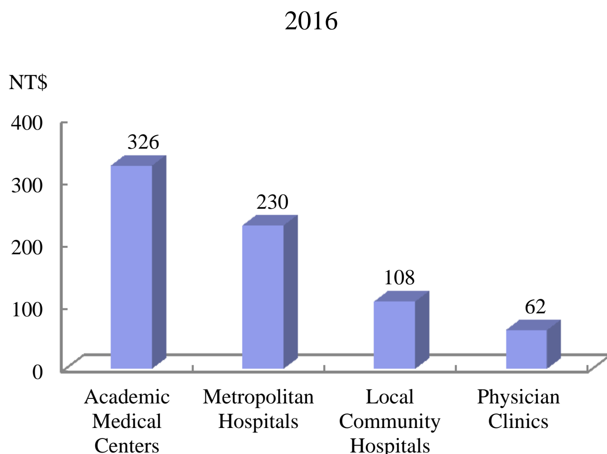
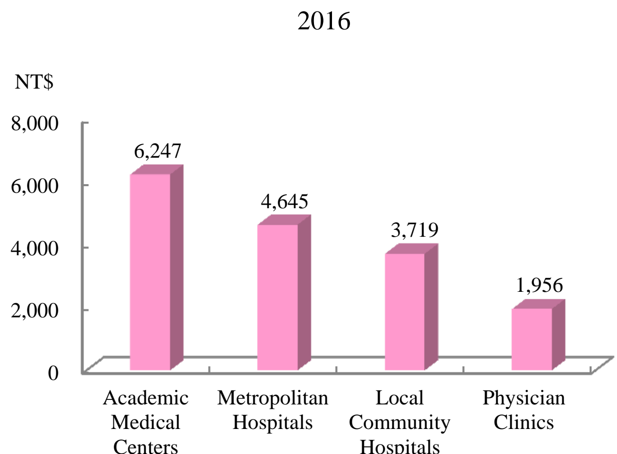


Figure 44　Average Copayments per Inpatient Case by Contracted Category

2016



ii. Males had higher average copayments per case than females for all age groups.

In terms of gender, the average copayments per outpatient case were NT$102 for males and NT$99 for females in 2016; the average copayments per inpatient case were NT$5,141 for males and NT$4,833 for females. Based on age group, the average copayments per case increased with age. The average copayments per case for the 65 and over age group represented 1.6 times that of the under 15 age group for outpatient services, and 3.6 times that of the under 15 age group for inpatient services. Males showed higher amounts than females in all age groups. The most significant difference was seen in the 45-64 age group, at NT$723 per inpatient case.

Figure 45 Average Copayments per Outpatient Case by Gender and Age

2016

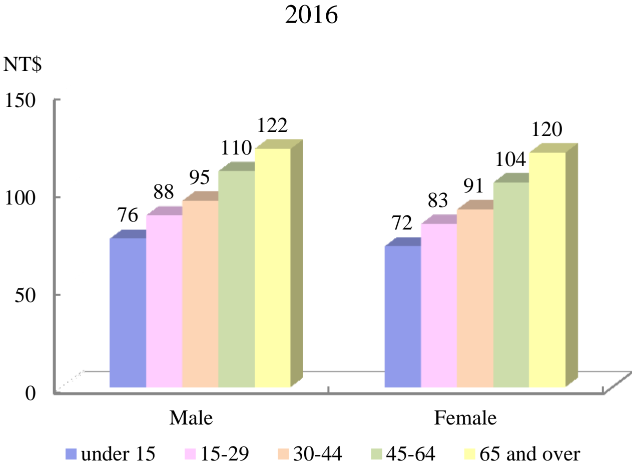
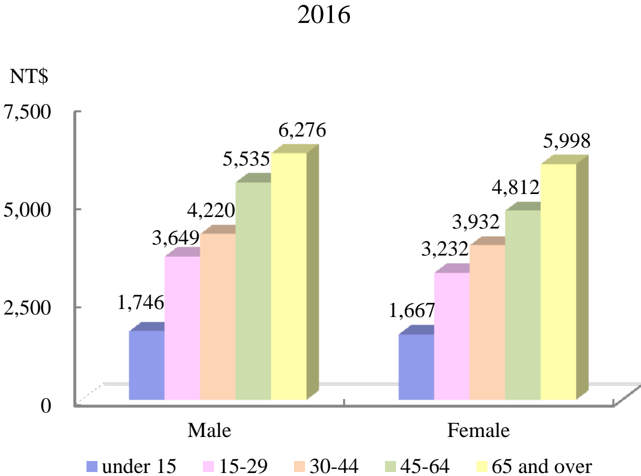


Figure 46 Average Copayments per Inpatient Case by Gender and Age

2016



(5) Reimbursement of Advanced Medical Expenses for Out-of-Plan Services

i. The total approved amount for out-of-plan services was NT$529 million, with an approval rate of 30.6%.

In terms of reimbursement of advanced medical expenses for out-of-plan services, the total requested amount was NT$1,729 million in 2016, an increase of 9.3% from the previous year. The total approved amount was NT$529 million, an increase of 7.0% from the previous year. The approval rate was 30.6%. Of which, NT$350 million was requested for outpatient services, with an approval rate of 52.2%, NT$84 million for emergency services, with an approval rate of 31.2%, and NT$1,296 million for inpatient services, with an approval rate of 24.7%.

Figure 47 Requested Amount for Out-of-Plan Services

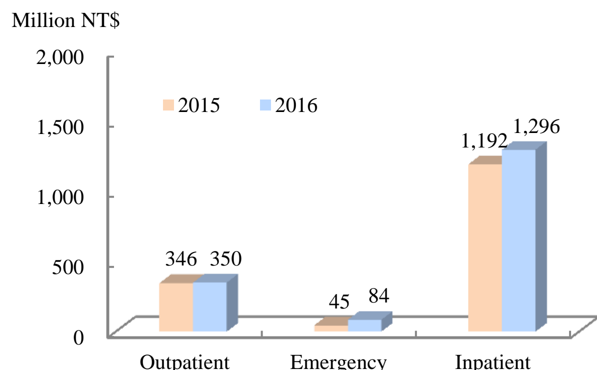
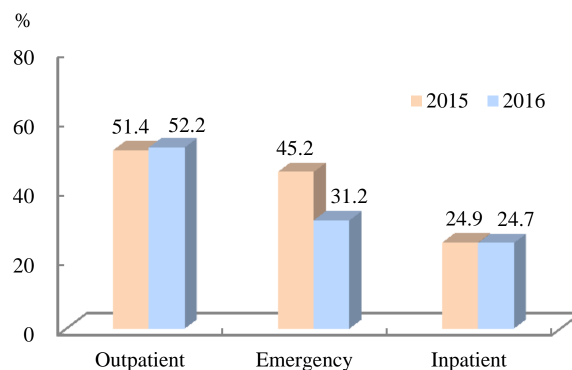


Figure 48 Approval Rate for Out-of-Plan Services

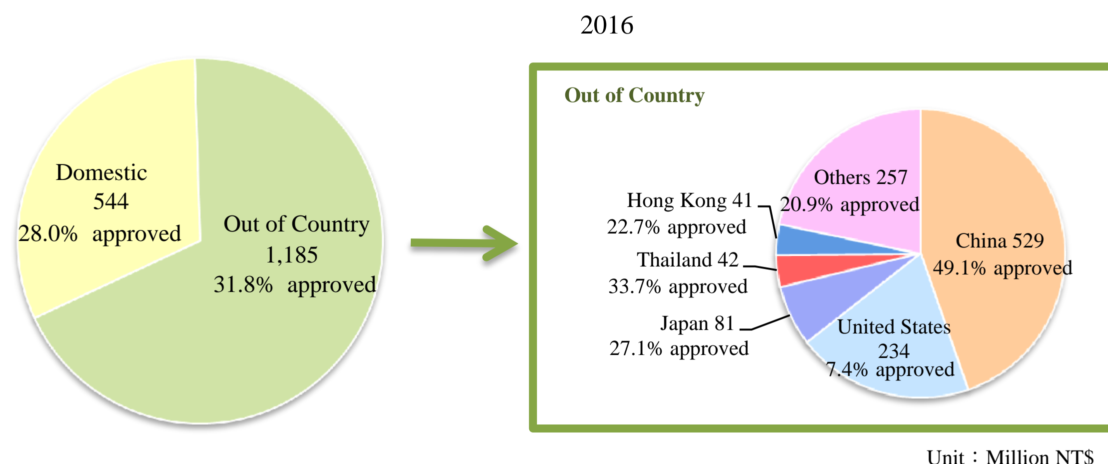


ii. China accounted for the largest proportion of out of country requested amount and had the highest approval rate.

Based on area, domestic requested amount accounted for NT$544 million and had an approval rate of 28.0%. Out of country requested amount accounted for NT$1,185 million and had an approval rate of 31.8%. China accounted for the largest proportion of out of country requested amount at NT$529 million (44.7%); the approval rate was 49.1%. The United States ranked second at NT$234 million (19.8%); the approval rate was 7.4%.

Figure 49 Requested Amount and Approval Rate for Out-of-Plan Services

2016



Unit：Million NT$

Notes:

1. Data updated on August 7, 2017.
2. Medical benefit claims exclude commission cases.
3. Medical points imply both requested points and copayments.
4. The detailed medical expenses indicate actual medical expenses incurred for each item, including copayments.
5. Patients' copayment does not include registration fees.
6. Prior to the implementation of the global budget payment system, 1 point was equal to NT$1. After the global budget payment system was implemented, 1 point for any item under general services was calculated according to the "Point Values of Global Budget Payment System" in this chapter. For other items, 1 point was equal to NT$1 in principle.