

4. Medical Benefits

Medical expenditure of the National Health Insurance (NHI) scheme is based on service volume. In addition, there is a gradual process to set the case-payments and global budget payment systems into action. The global budget payment system was implemented in stages in July 1998, starting with dental clinics followed by Chinese medical outpatient services and western medical clinics. The global budget payment system for hospitals was started in 2002. Expenditure by case-payment that allocated more RVU for higher medical resource consumption was implemented in July 2004 and is currently applicable to 54 items. Furthermore, in order to enhance quality of care, a project aimed at improving the system of medical benefit for diseases began in 2001 with the expectation of developing expenditure methods which would ensure quality of medical services in a cost efficient manner. At the present, 5 items are covered, including breast cancer, diabetes, asthma, hypertension and perinatal projects.

According to the “Regulations Governing Examination of Medical Care Services for National Health Insurance Medical Care Institutions”, applications, complete with relevant documents, for cases serviced by a medical services institution under the NHI in the current month should be submitted in paper or electronic format by the 20th of the following month. Applications in electronic format may be divided in two stages, one from the 1st to the 15th of the month and the other from the 16th to the month end, and submit the relevant documents (summary reports) by the 5th and the 20th of the following month. For filing of inpatient cases, if the insured has not checked out of the hospital at the end of the current month, the expenses should be filed altogether after the insured has checked out. For chronically hospitalized patients, filing may be done every two months. Monthly filing is also allowed if deemed necessary.

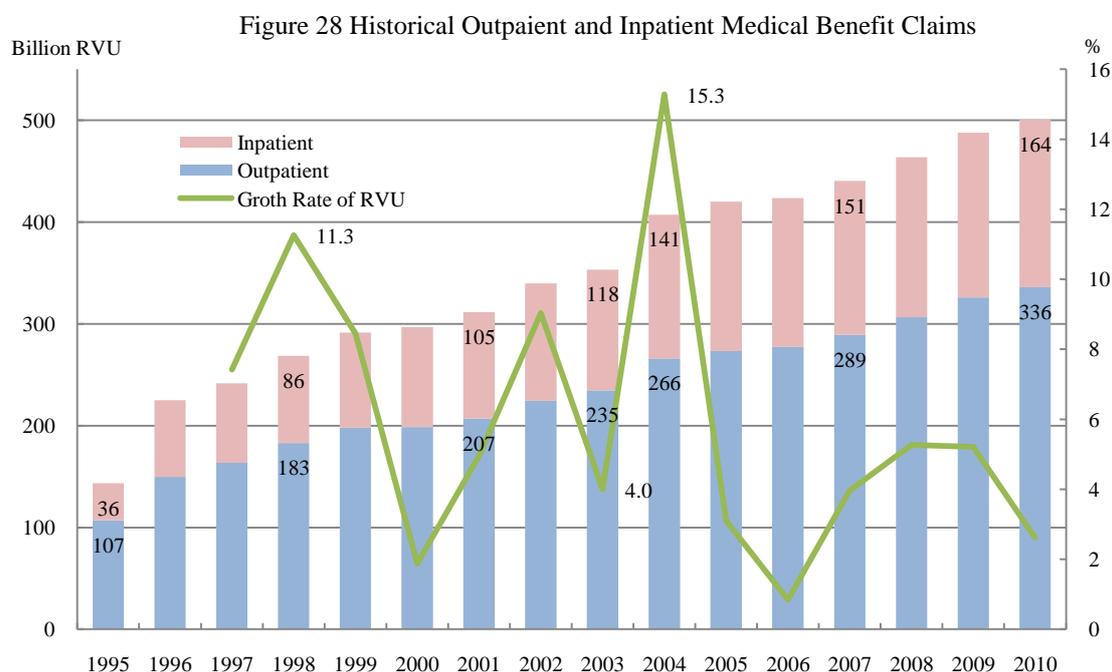
Medical service institutions under the NHI should finish filing within the specified period, leaving no incomplete applications or errors. The insurer should process the provisional payments within the time limit since receiving the documents and should deliver the reviewed results within 60 days. If the results cannot be delivered in time, a provisional payment of the full amount should be made. Any disagreement against the review results of the medical services raised by the medical services 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. For the sectors operating under the global budget payment system, if a medical services institution under the NHI disagrees with the disputed results and is qualified for a second review, it may apply for a one-time second review within 15 days of receiving the disputed results. The insurer should deliver the reviewed results within 45 days of accepting the application for a second review.

(1) Medical Benefit Claims

i. Growth in medical benefit claims (RVU) has slowed down in recent years.

The total medical benefit claims in 2010 amounted to 500.4 billion RVU, including 336 billion RVU (67.1%) for outpatient services and 164.4 billion RVU (32.9%) for inpatient services. Compared with figures from 2009, the total claims have increased by 2.6%; outpatient services have increased by 3.1% and inpatient services have increased by 1.7%.

When the NHI system was formally launched in March of 1995, medical benefits were paid on the basis of service volume. There was a higher growth rate in benefit payments during the preliminary stage. The insurer has since adopted various cost-saving measures to reduce the growth rate of costs. Following the implementation of the global budget payment system in July, 2002, the growth rate of medical benefit claims was 9.0% for the year. In 2003, the rate further dropped to 4% due to the shrinkage in both inpatient and outpatient services caused by the SARS outbreak. A higher increase rate was seen in 2004, because of the relatively low base period costs.

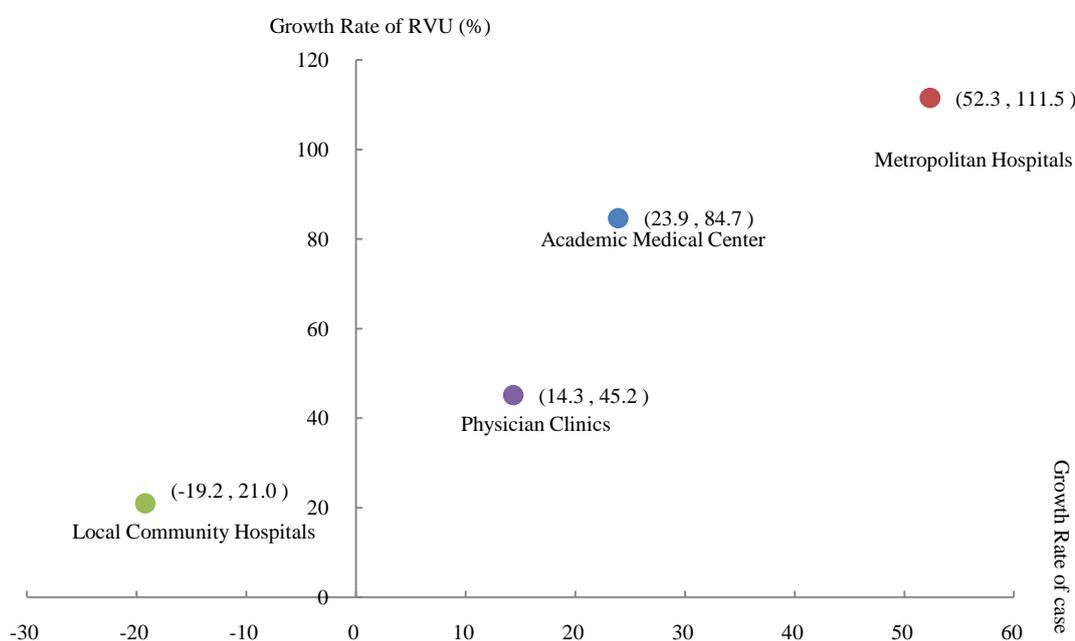


ii. Compared with 2000, metropolitan hospitals had the highest growth rate in both the number of cases and RVU claimed.

The total number of outpatient service cases claimed in 2010 was 360 million, an increase of 14.5% from 2000. The highest increase was seen in metropolitan hospitals,

which was 52.3%. The total number of RVU claimed was 336 billion, marking an increase of 69.1% from 2000. Similarly, the highest increase rate was seen in metropolitan hospitals, which was 111.5%. During the same period, negative growth was seen in local community hospitals, both in terms of the number of medical care institutions and volume of cases reported. The number of RVU claimed, however, increased by 21%.

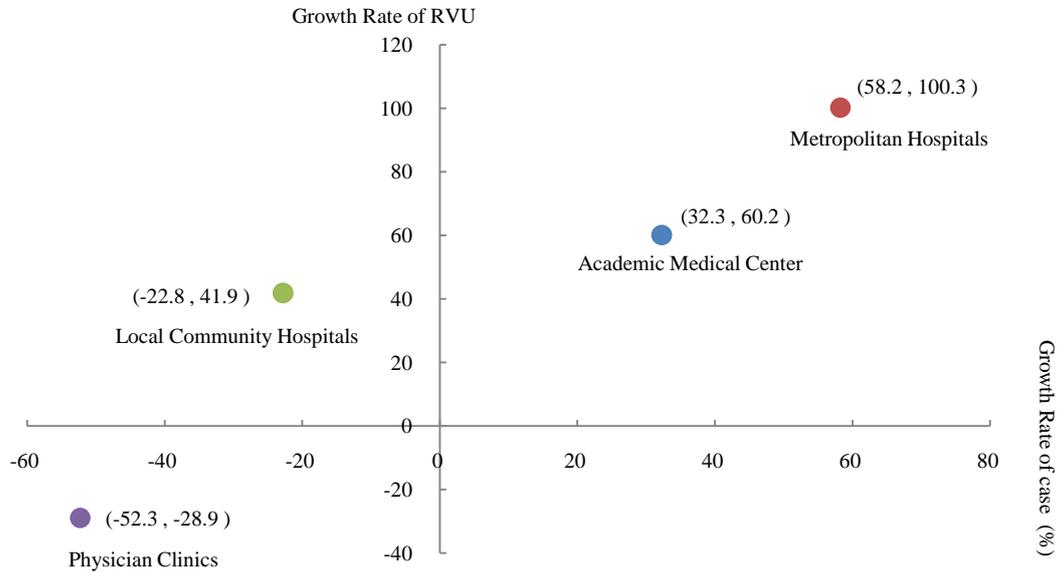
Figure 29 Outpatient Medical Benefit Claims By Contracted Category -- 2010 vs. 2000



iii. Compared with 2000, there was negative growth in inpatient services claimed by Physician Clinics, both in terms of the number of cases and volume of RVU.

A total of 3.2 million of inpatient service cases were filed in 2010, an increase of 19.2% from 2000. The highest increase was seen in metropolitan hospitals, which was 58.2%. The total number of RVU claimed was 164.4 billion, marking an increase of 67.5% from 2000. Similarly, the highest increase rate was seen in metropolitan hospitals, which was 100.3%. During the same period, negative growth in inpatient claims was seen in physician clinics, both in terms of the number of cases and volume of RVU claimed. There was also negative growth of 22.8% in the number of cases claimed by the Local community hospitals. The volume of RVU claimed, however, increased by 41.9%.

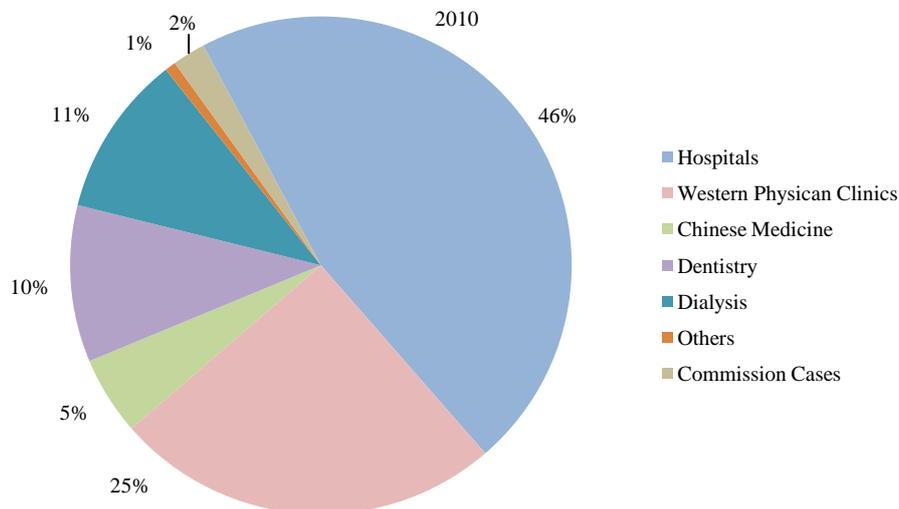
Figure 30 Inpatient Medical Benefit Claims By Contracted Category -- 2010 vs. 2000



iv. Claims (RVU) for outpatient dialysis accounted for 11% of the total RVU claimed.

In 2010, the total medical benefit claims for outpatient services amounted to 336 billion RVU. Broken down on the basis of the global budget payment system, medical benefit claims are as follows: hospitals 155.9 billion RVU (46%), western physician clinics 84 billion RVU (25%), Chinese medicine 17.1 billion RVU (5%), dentistry 34.2 billion RVU (10%), outpatient dialysis 35.3 billion RVU (11%), other budgeted items 2.4 billion RVU (1%), and commission cases 7.1 billion RVU (2%).

Figure 31 Outpatient Medical Benefit Claims -- by Global Budget Payment System

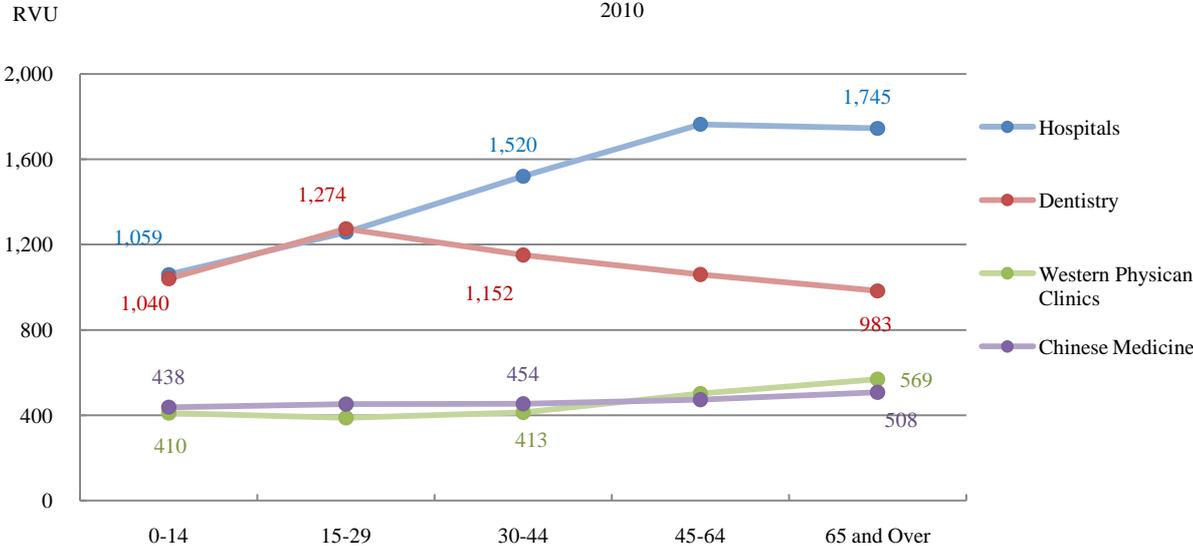


v. In terms of the average medical benefit claims (RVU) per outpatient case, the category of western medicine hospitals had the highest total (1,621 RVU).

According to an analysis by category of the global budget payment system, the expenses claimed per outpatient case in 2010, in descending order, are as follows: 1,621 RVU for western medicine hospitals, 1,116 RVU for dentistry, 464 RVU for Chinese medicine, and 460 RVU for western physician clinics.

In the two categories of western medicine hospitals and Chinese medicine, the average number of RVU claimed per outpatient case increased by age group. The 15-29 year old age group of in the physician clinics was the group with the lowest claims (388 RVU). The older the age group, the higher the expense. For dentistry, on the other hand, the highest claims (1,274 RVU) were the 15-29 year old age group. The older the age group, the lower the claim.

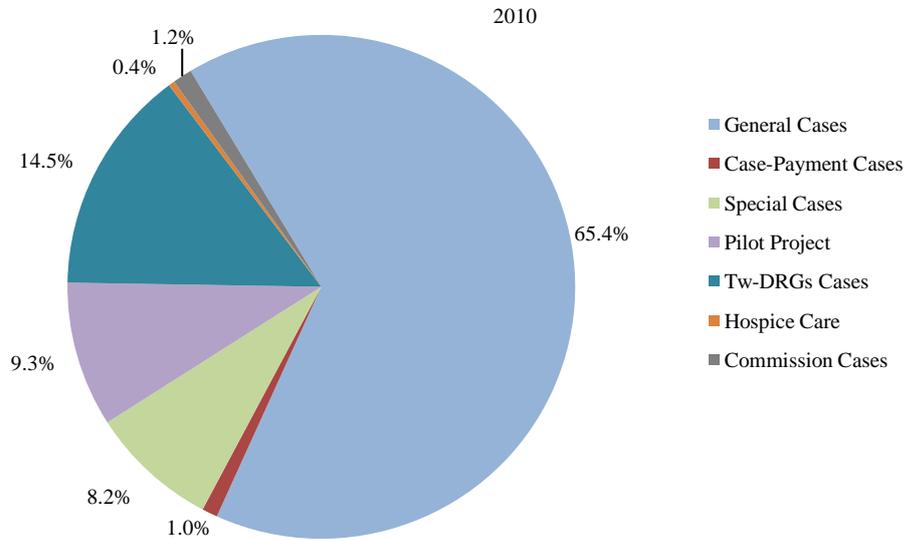
Figure 32 Outpatient Average Medical Benefit Claims Per Case by Global Budget Payment System 2010



vi. Claims for regular inpatient cases accounted for 65.4% of the total claims.

In 2010, claims for inpatient services totaled 164.4 billion RVU, including 107.5 billion RVU for regular cases (65.4%), 1.6 billion RVU (1.0%) for case-payments, 13.5 billion RVU (8.2%) for special cases, 15.3 billion RVU (9.3%)for pilot projects, 23.8 billion (14.5%) RVU for Tw-DRGs cases, 0.6 billion RVU (0.4%) for hospice care and 2 billion RVU (1.2%) for commission cases.

Figure 33 Inpatient Medical Benefit Claims by Type of Case

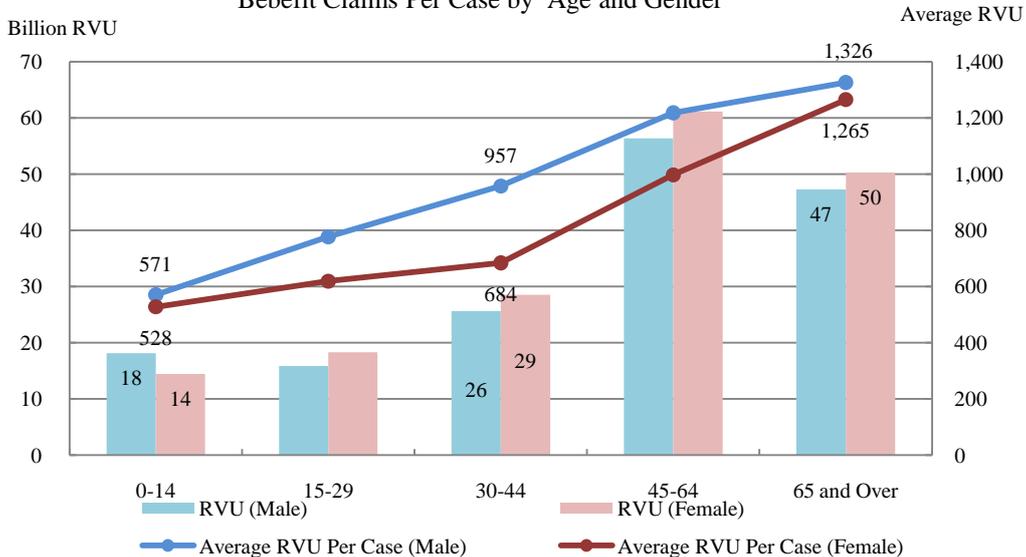


vii. The 45-64 year old age group had the highest outpatient claims, amounting to 117.5 billion RVU or 35.0%.

In 2010, outpatient medical benefit claims totaled 336 billion RVU. Broken down by age-group, claims for the 0-14 year old group were 32.6 billion RVU (9.7%), 34.2 billion RVU for the 15-29 year old group (10.2%); 54.2 billion RVU for the 30-44 year old group (16.1%), 117.5 billion RVU for the 45-64 year old group (35.0%) and 97.6 billion RVU for the 65 year old and above group (29.0%).

The average medical benefit claims per outpatient case increased with age. Within each age group, the males had higher average RVU per case.

Figure 34 Outpatient Medical Benefit Claims and Average Medical Benefit Claims Per Case by Age and Gender

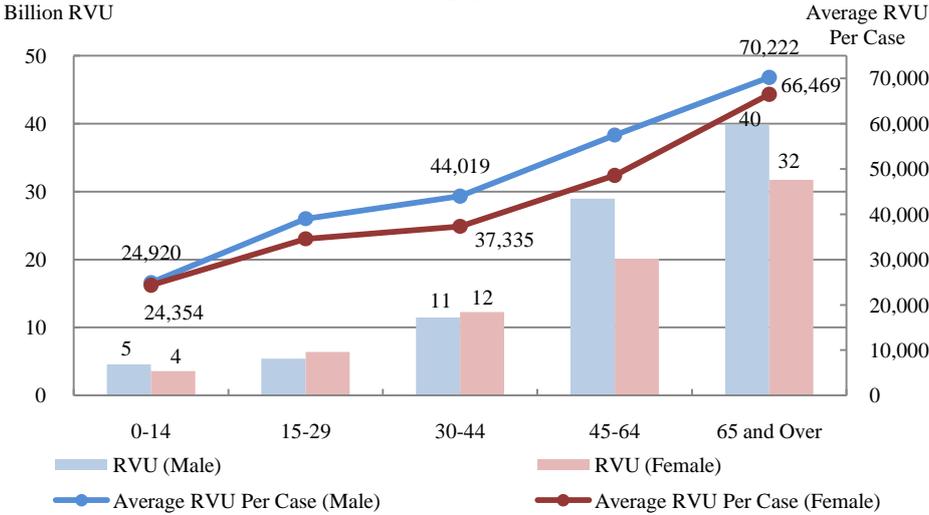


viii The 65 year old and above age group had the highest inpatient claims, amounting to 71.6 billion RVU or 43.5%.

In 2010, total inpatient medical benefit claims amounted to 164.4 billion RVU. Broken down by age-group, the claims from the 0-14 age group were 8.1 billion RVU(5.0%), 11.8 billion RVU for the 15-29 year old group (7.2%); 23.8 billion RVU for the 30-44 year old group (14.5%), 49.1 billion RVU for the 45-64 year old group (29.9%) and 71.6 billion RVU for the 65 year old and above group (43.5%).

The average medical benefit claim per inpatient case increased with age. Males had higher average RVU per case than females, regardless of the age group.

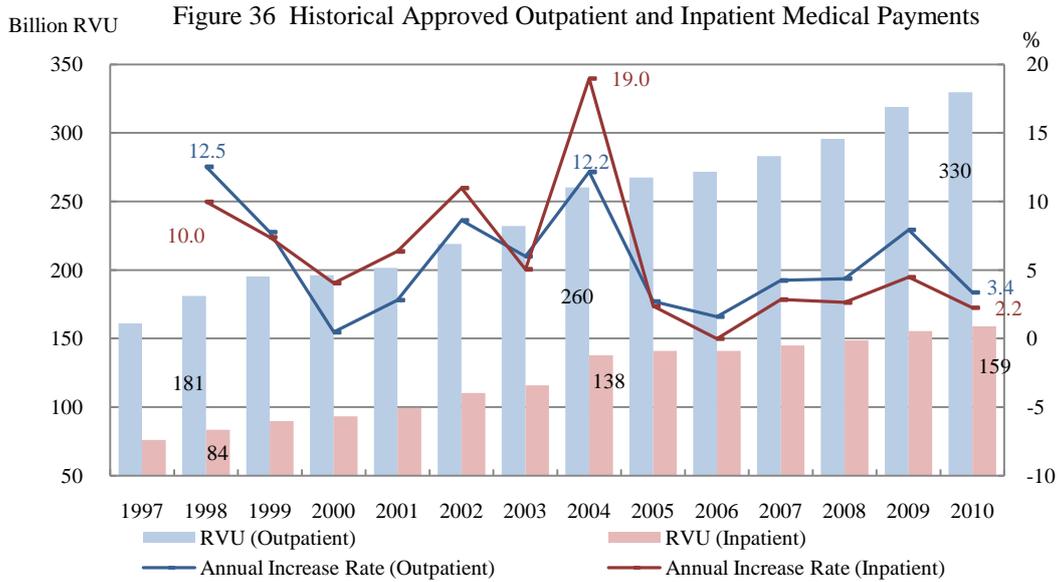
Figure 35 Inpatient Medical Benefit Claims and Average Medical Benefit Claims Per Case by Age and Gender 2010



(2) Approved Medical Benefit Claims

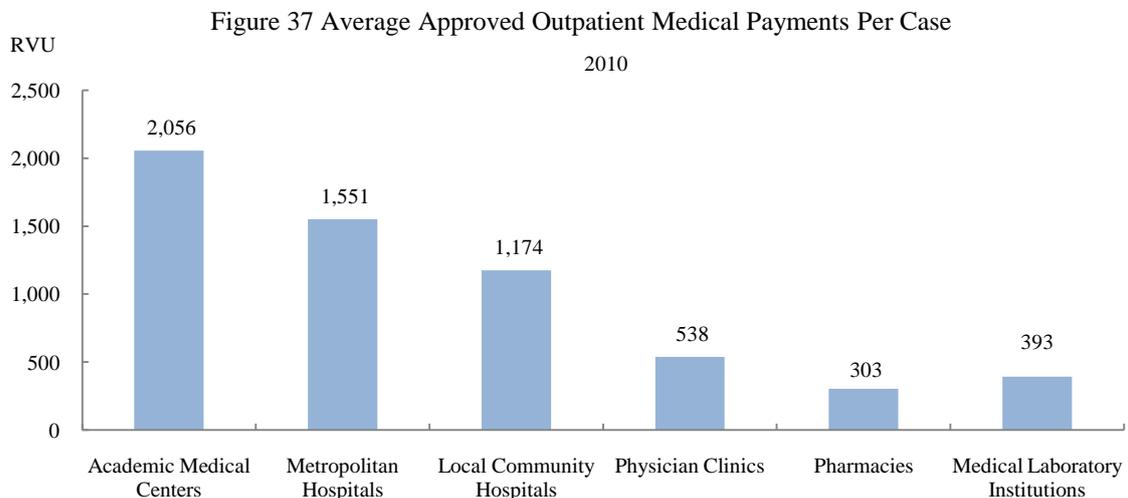
i. Compared with the previous year, the approved medical benefit claims for outpatient services increased by 3.4%; claims increased by 2.2% for inpatient services.

The approved medical benefit claims in 2010 amounted to 488.7 billion RVU, of which outpatient services accounted for 329.8 billion RVU or 67.5% and inpatient services accounted for 159 billion RVU or 32.5%. Compared with the previous year, the total approved medical benefit claims increased by 3.0%, and outpatient services increased by 3.4% and inpatient services increased by 2.2%.



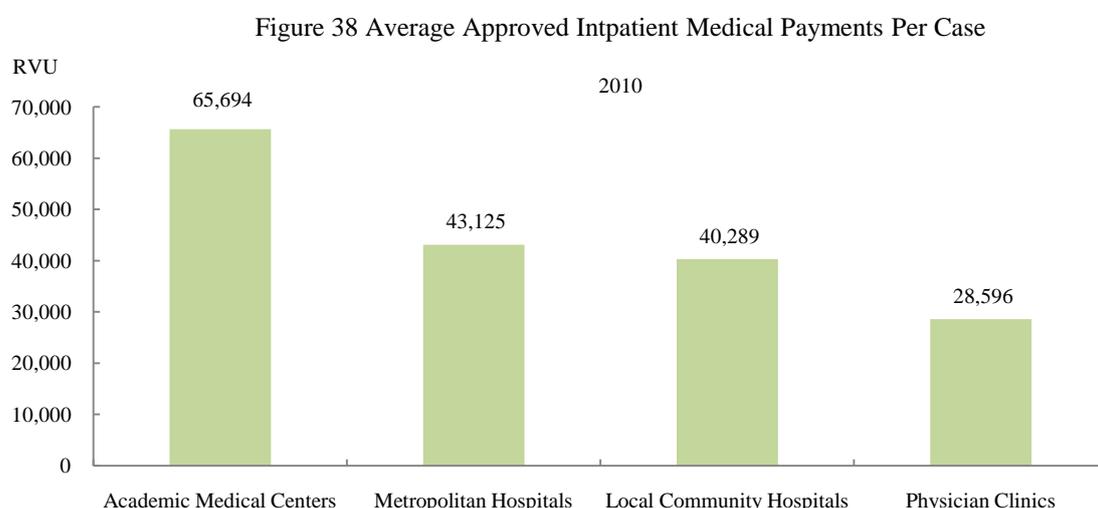
ii. In terms of the average expenses per outpatient case, academic medical centers showed the highest average expense at 2,056 RVU.

In 2010, approved medical benefit claims for outpatient services totaled 329.8 billion RVU, of which academic medical centers accounted for 67.9 billion RVU (20.6%), metropolitan hospitals for 67.3 billion RVU (20.4%), local community hospitals for 36.7 billion RVU (11.1%), physician clinics for 136.2 billion RVU (41.3%), pharmacies for 20.8 billion RVU (6.3%) and medical laboratory institutions for 900 million RVU (0.3%). In terms of the average medical benefit claim per approved case, the expense claimed by academic medical centers was 2,056 RVU, which was the highest, followed by metropolitan hospitals (1,551 RVU) and local community hospitals (1,174 RVU).



iii. Academic medical centers had the highest average claim amount (65,694 RVU) for each approved inpatient case.

In 2010, the total approved medical benefit payment for inpatient services amounted to 159 billion RVU, of which academic medical centers accounted for 68 billion RVU (42.8%), metropolitan hospitals for 61.5 billion RVU (38.7%), local community hospitals for 28.0 billion RVU (17.6%), and physician clinics for 1.5 billion RVU (0.9%). The average medical benefit payment per approved case claimed by academic medical centers was 65,694 RVU, which was the highest, followed by metropolitan hospitals (43,125 RVU) and local community hospitals (40,289 RVU).



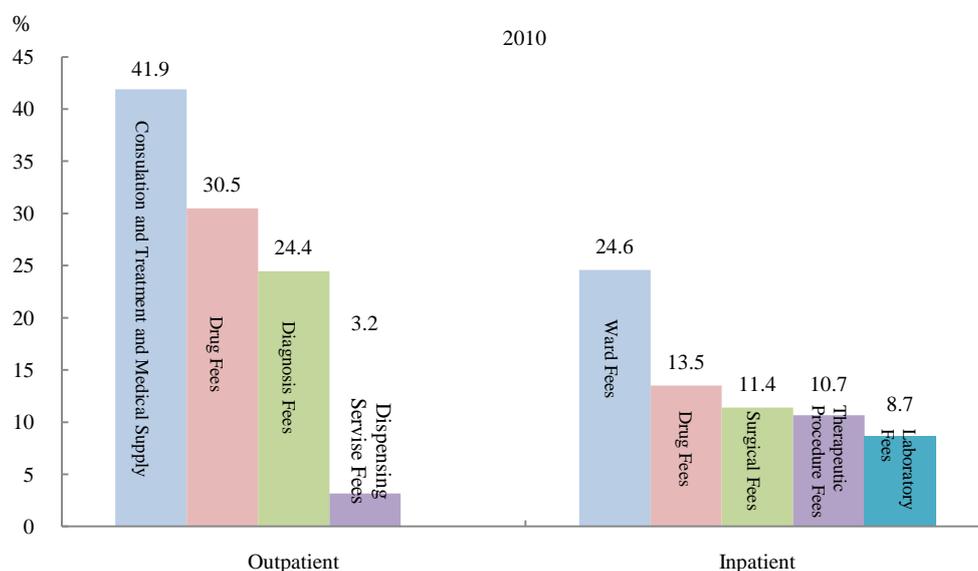
(3) Medical Expenses (Including Copayments)

i. For outpatient services, consultation, treatment and medical supplies accounted for 41.9% of the total costs and was the highest contributor. For inpatient services, ward fees accounted for 24.6% of total costs and was the highest contributor.

Outpatient medical expenses for 2010 totaled 363.7 billion RVU, of which consultation, treatment and medical supplies accounted for 152.4 billion RVU (41.9%), followed by drug expenses at 110.9 billion RVU (30.5%), diagnosis fees 88.9 at billion RVU (24.4%), and dispensing service fees at 11.5 billion RVU (3.2%).

Inpatient medical expenses for 2010 totaled 168.0 billion RVU, of which ward fees accounted for 41.3 billion RVU (24.6%) making it the highest overall contributor. It was followed by drug expenses at 22.7 billion RVU (13.5%), and surgery fees at 19.2 billion RVU (11.4%).

Figure 39 Outpatient and Inpatient Medical Expenses

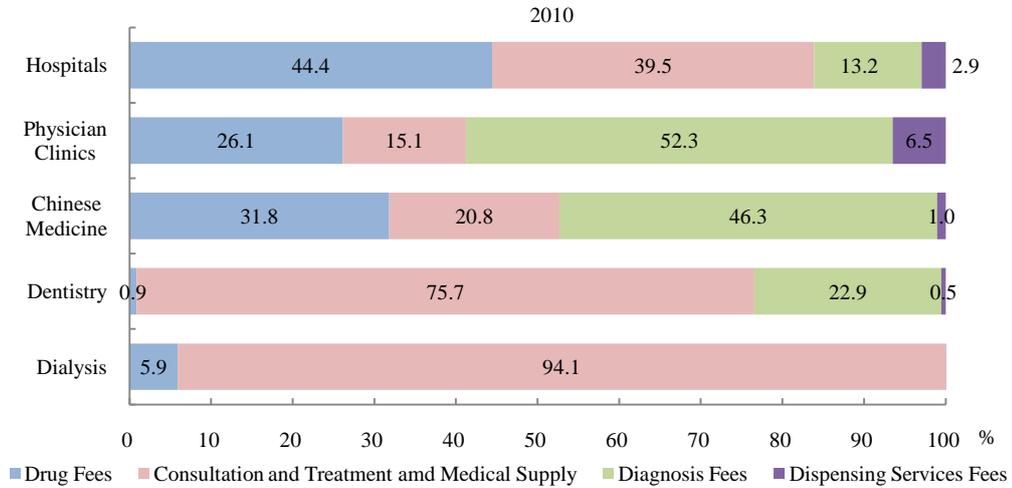


The Outpatient Medical Expense were 363.7 Billion RVU;The Inpatient Medical Expense were 168 Billion RVU.

ii. In terms of drug expenses for outpatient services, claims from western medicine hospitals accounted for 45% of all expenses. Claims from western physician clinics and Chinese medicine accounted for 20% to 30% of expenses.

Outpatient medical expenses for 2010 totaled 363.7 billion RVU. Based on the global budget system, they were broken down into: western medicine hospitals at 170.1 billion RVU, of which drug fees accounted for the highest expenses at 75.6 billion RVU (44.4%), followed by consultation, treatment and medical supplies expenses, which were 67.1 billion RVU (39.5%). Western physician clinics - 93.2 billion RVU, of which diagnosis fees accounted for the highest expenses at 48.7 billion RVU (52.3%), followed by drug expenses, which were 24.4 billion RVU (26.1%). Chinese medicine - 19.9 billion RVU, of which the diagnosis fees accounted for the highest expenses at 9.2 billion RVU (46.3%), followed by drug expenses, which were 6.3 billion RVU (31.8%). Dentistry - 35.6 billion RVU, of which consultation, treatment and medical supplies accounted for the highest expenses at 27 billion RVU (75.7%), followed by diagnosis fees, which were 8.2 billion RVU (22.9%). Outpatient dialysis - 35.3 billion RVU, of which consultation, treatment and medical supplies accounted for the highest expenses at 33.2 billion RVU (94.1%).

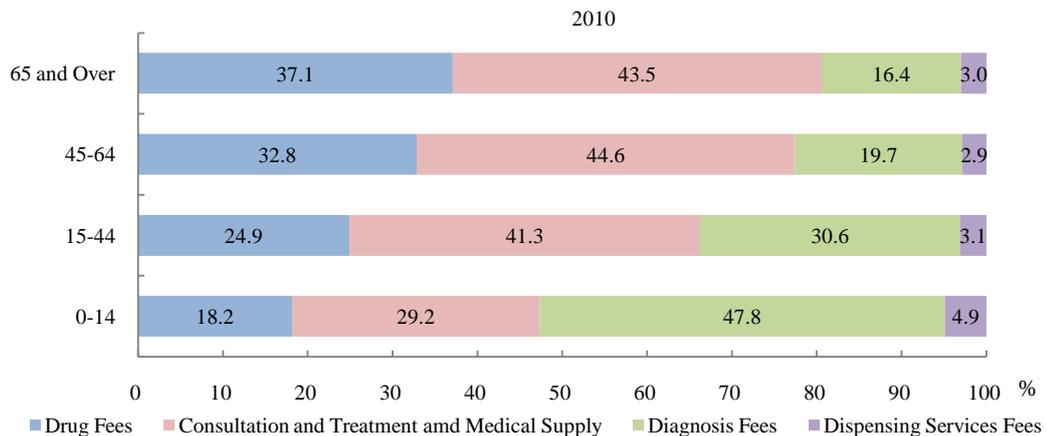
Figure 40 Outpatient Medical Expense by Global Budget Payment System



iii. For the 0-14 year old age group, the diagnosis fees accounted for the largest proportion at 47.8%. For the 65 year old and above age group, the highest expenses were from consultation, treatment and medical supplies (43.5%).

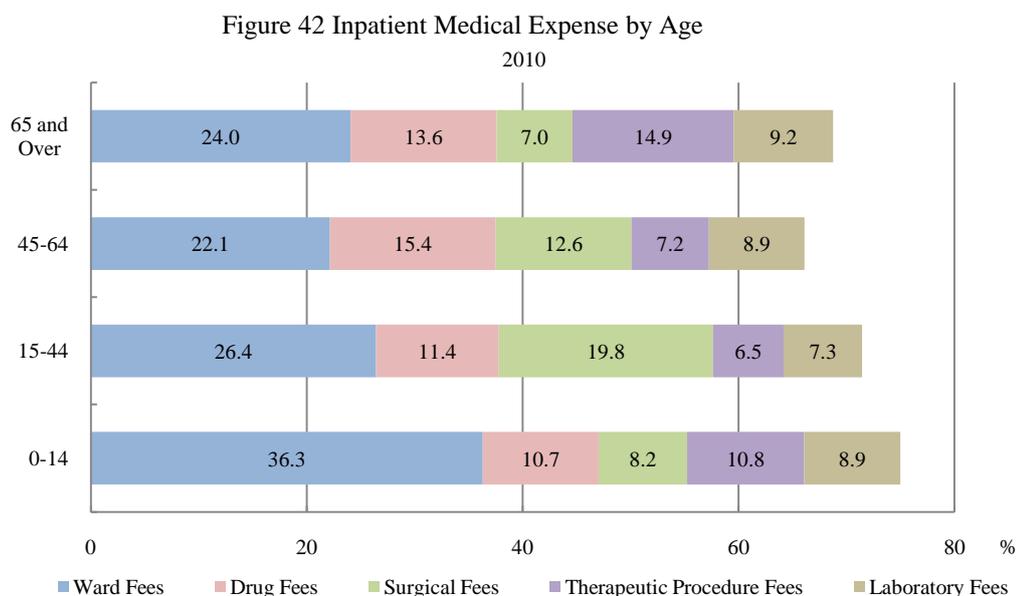
In 2010, total outpatient medical expenses amounted to 363.7 billion RVU. Broken down by age group, the 0-14 year old age group accounted for 35.6 billion RVU, of which diagnosis fees (47.8%) accounted for the largest portion. This was followed by consultation, treatment and medical supplies (29.2%). The total expenses for the 15-44 year old age group was 97.6 billion RVU, of which consultation, treatment and medical supplies accounted for the largest portion (41.3%), followed by diagnosis fees (30.6%). With regard to the age groups of 45-64 year olds and 65 year olds & above, the total expense were 126.7 billion and 103.8 billion RVU, respectively. For both age groups consultation, treatment and medical supplies were the most significant expenses, followed by drug fees.

Figure 41 Outpatient Medical Expense by Gender and Age



iv. Ward fees accounted for the largest portion of inpatient expenses, regardless of age.

In 2010, the total inpatient expenses amounted to 168 billion RVU. The 0-14 year old age group accounted for 8.3 billion RVU, of which ward fees accounted for the largest portion (36.3%), followed by therapeutic procedure fees (10.8%). Inpatient expenses for the 15-44 year of age group totaled 34.8 billion RVU, of which the largest portions were, ward fees (26.4%) and surgery fees (19.8%). With regard to the 45-64 group, inpatient expenses totaled 50.3 billion RVU, of which ward fees (22.1%) were the largest portion, followed by drug fees (15.4%). The inpatient expenses for the 65 year old and above age group totaled 74.6 billion RVU. Ward fees accounted for the largest portion of this group (24.0%), followed by therapeutic procedure fees (14.9%).

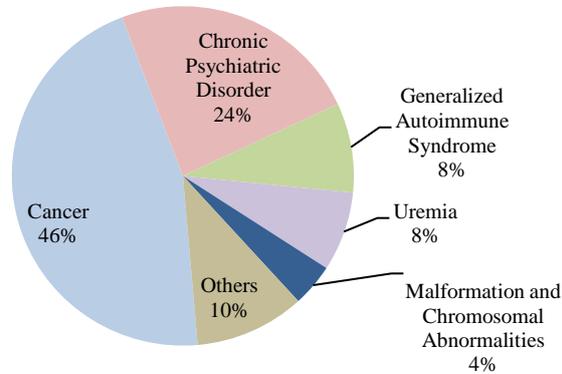


(4) Medical Utilization for Major Illness/Injuries

i. The number of Major Illness/Injury Certificates issued in 2010 was almost twice the number issued in 2000.

At the end of 2010, there were 30 major illness/injury categories. The number of valid Major Illness/ Injury Certificates issued was 871,457, showing an increase of 40,424 from the end of the previous year, or an increase of 4.9%. Cancer patients held the highest number at 397,403 (45.6%), followed by chronic psychotic disorder patients at 207,667 (23.8%) and patients with generalized autoimmune syndrome requiring lifelong treatments at 74,344 (8.5%). Compared to the data at the end of 2000, the number of valid Major Illness/ Injury Certificates issued has almost doubled.

Figure 43 Number of Valid Major Illness/Injury Certificates Issued
2010

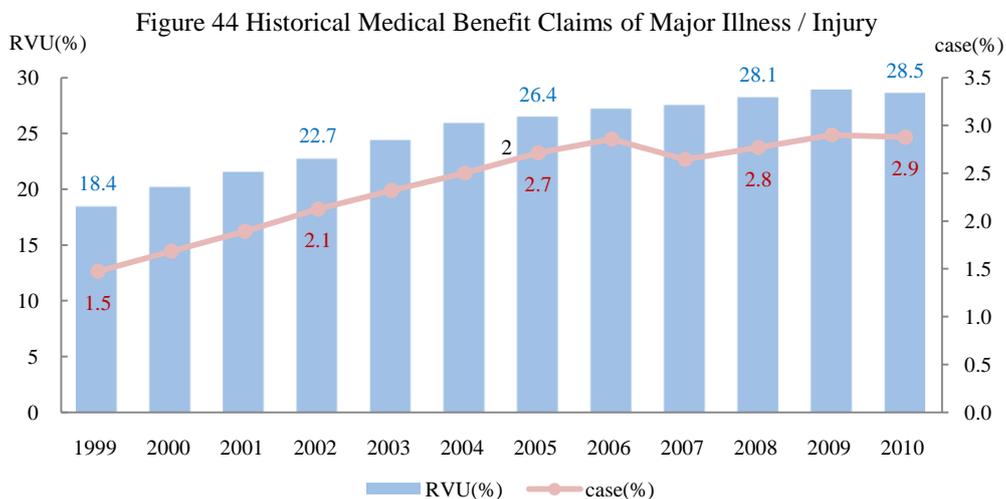


At the end of 2010, the number of valid Major Illness/Injury Certificates Issued was 871,457.

ii. In the past three years, the medical benefit claims from major illnesses/injuries have contributed to almost 30% of the total medical benefit claims.

The total number of medical benefit claims against major illnesses/injuries in 2010 was 10.471 million cases, which was 2.9% of the total claims. There were 9.615 million outpatient cases and 855 thousand inpatient cases. The total medical benefit claims of major illnesses/injuries amounted to 142.7 billion RVU in 2010, or 28.5% of the medical benefit claims. The claims for outpatient services were 74.5 billion RVU, and claims were 68.2 billion RVU for inpatient services.

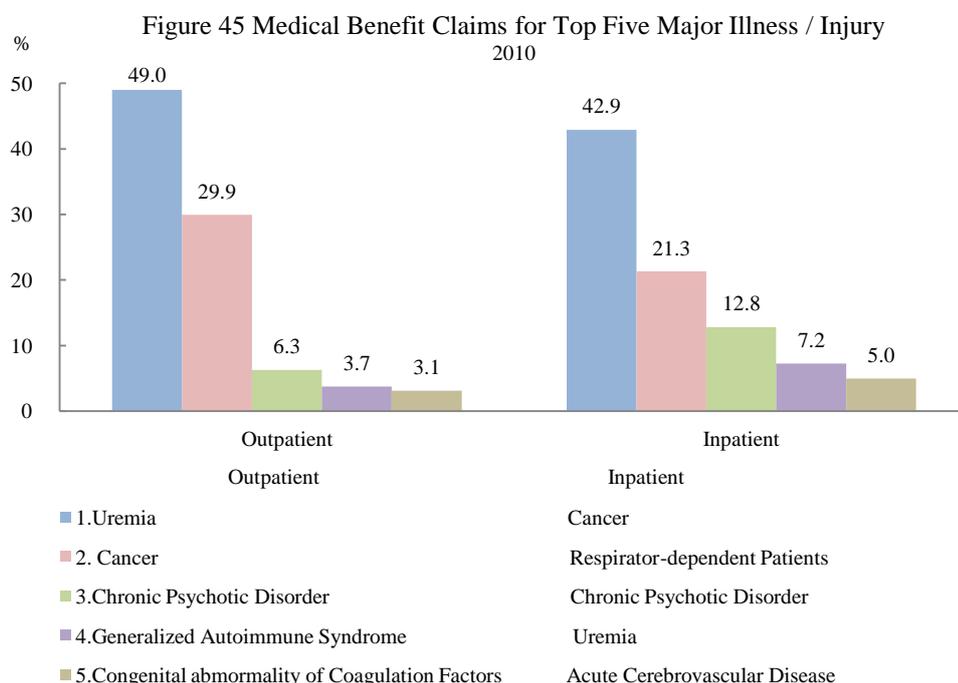
Compared with the end of 2000, the total cases of major illnesses/injuries claimed has increased 1.2 percentage points, and the total number of RVU has increased 8.4 percentage points. In the past 3 years, the medical benefit claims caused by major illnesses/injuries have contributed to almost 30% of the total points claimed.



iii. For major illnesses/injuries, the highest outpatient benefit claims came from Uremia, which accounted for 50% of total claims. Of the inpatient medical benefit claims, the highest amount came from cancer patients, which also accounted for 50% of total claims.

The total outpatient medical benefit claims for major illnesses/injuries in 2010 amounted to 74.5 billion RVU, an increase of 4.9 billion RVU, or 7.1%, from the previous year. Similar to 2009, the top three diseases were uremia at 36.5 billion RVU (49.0%), cancers at 22.3 billion RVU (29.9%) and chronic psychotic disorders at 4.7 billion RVU (6.3%).

Total inpatient medical benefit claims for major illnesses/injuries in 2010 amounted to 68.2 billion RVU, which was similar to the previous year. The top three major diseases were also the same as in 2009. They included cancer at 29.3 billion RVU (42.9%), Respirator-dependent Patients at 14.5 billion RVU (21.3%), and chronic psychotic disorders at 8.7 billion RVU (12.8%).

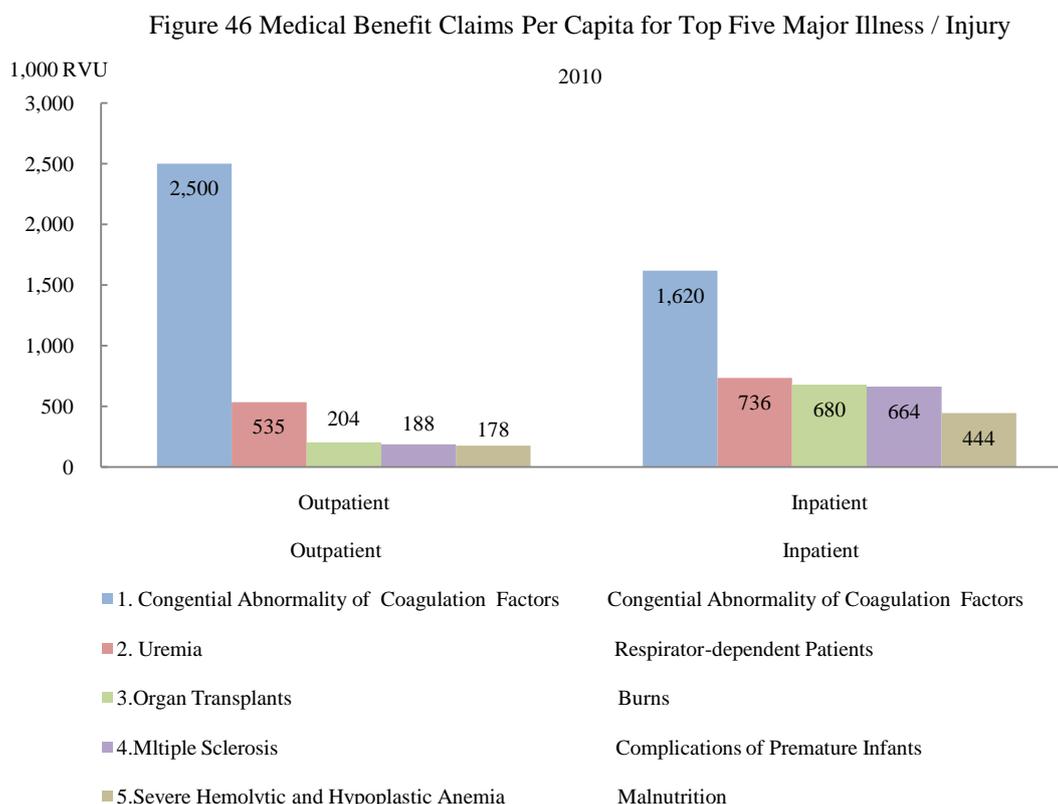


iv. In terms of average outpatient medical expense per capita, Congenital Coagulation Disorders (Hemophilia) ranked first for both outpatient and inpatient services.

With regard to the average outpatient medical expense per capita for major illnesses/injuries in 2010, the top five major diseases remained the same as the previous

year. They were, Congenital Coagulation Disorders (Hemophilia) 2.5 million RVU, Uremia 535 thousand RVU, organ transplants 204 thousand RVU, Multiple Sclerosis 188 thousand RVU, and Severe Hemolytic and Hypoplastic Anemia 178 thousand RVU. Compared with the average outpatient medical expenses per capita for major illnesses/injuries (99,563 RVU), the medical expenses for these top five diseases were 25.1, 5.4, 2.0, 1.9 and 1.8 times greater than the average expenses, respectively.

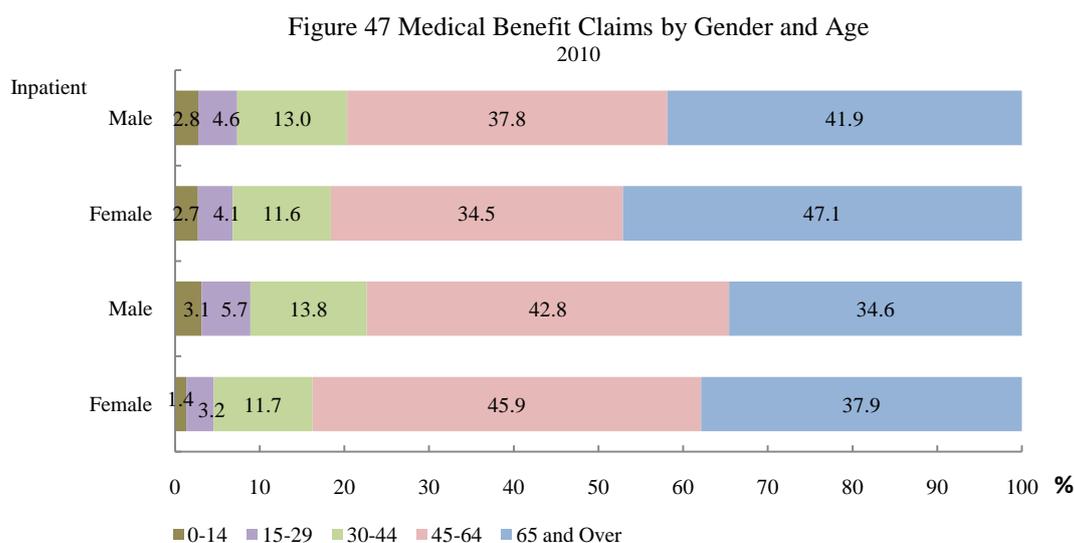
With respect to average inpatient medical expenses per capita for major illnesses/injuries in 2010, the top five diseases remained the same as in 2009. There was however some difference in the ranking orders. Congenital Coagulation Disorders (Hemophilia) ranked first with a total of 1.62 million RVU, followed by Respirator-dependent Patients at 736 thousand RVU, burns at 680 thousand RVU, complications in premature infants at 664 thousand RVU, and malnutrition at 444 thousand RVU. Compared with the average inpatient medical expense per capita for major illnesses/injuries (239 thousand RVU), the medical expenses for these diseases were, 6.8, 3.1, 2.8, 2.8 and 1.9 times greater than average expenses, respectively. The top five diseases for 2009 were: Congenital Coagulation Disorders, Respirator-dependent Patients, complications in premature infants, burns and malnutrition.



v. In terms of the claims (RVU) against major illnesses/injuries, the 45-64 year old age group had the highest total for outpatient services and the 65 year old and above group had the highest total for inpatient services.

Outpatient medical benefit claims for major illnesses/injuries in 2010 totaled 74.5 billion RVU, of which males accounted for 37.4 billion RVU (50.1%) and females accounted for 37.1 billion RVU (49.9%). Broken down by age group, the highest percentage was from the 45-64 year old age group, followed by the 65 year old and above group, regardless of gender. For males, the percentage for the age groups above 45 was 77.4%; it was 83.8% for females of the same age groups.

Inpatient medical benefit claims for major illnesses/injuries in 2010 totaled 68.2 billion RVU, of which males accounted for 39 billion RVU (57.2%) and females accounted for 29.2 billion RVU (42.8%). The share of expenses increased with age, regardless of gender. For males, the percentage for the age groups above 45 was 79.7%, and it was 81.6% for females of the same age groups.

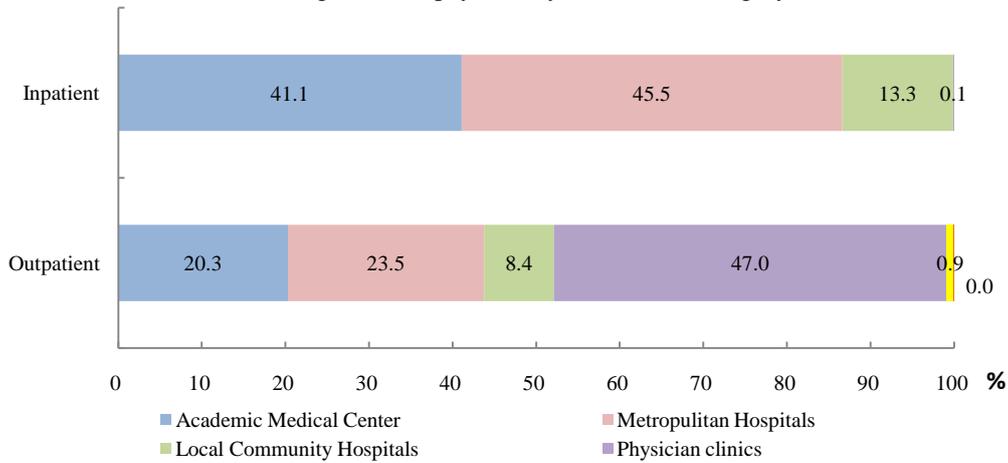


(5) Medical Expense Copayments

i. Medical expense copayments increased by 1.0% from the previous year.

Medical expense copayments totaled NT\$34.8 billion in 2010, an increase of 1.0% from the previous year. Outpatient copayments totaled NT\$27.7 billion, of which physician clinics had the highest share (47.0%), followed by metropolitan hospitals (23.5%), and academic medical centers (20.3%) Inpatient copayment totaled NT\$7.1 billion, an increase of 1.6% from the previous year. Copayments from metropolitan hospitals accounted for 45.5% of all; academic medical centers 41.1% and local community hospitals 13.3%.

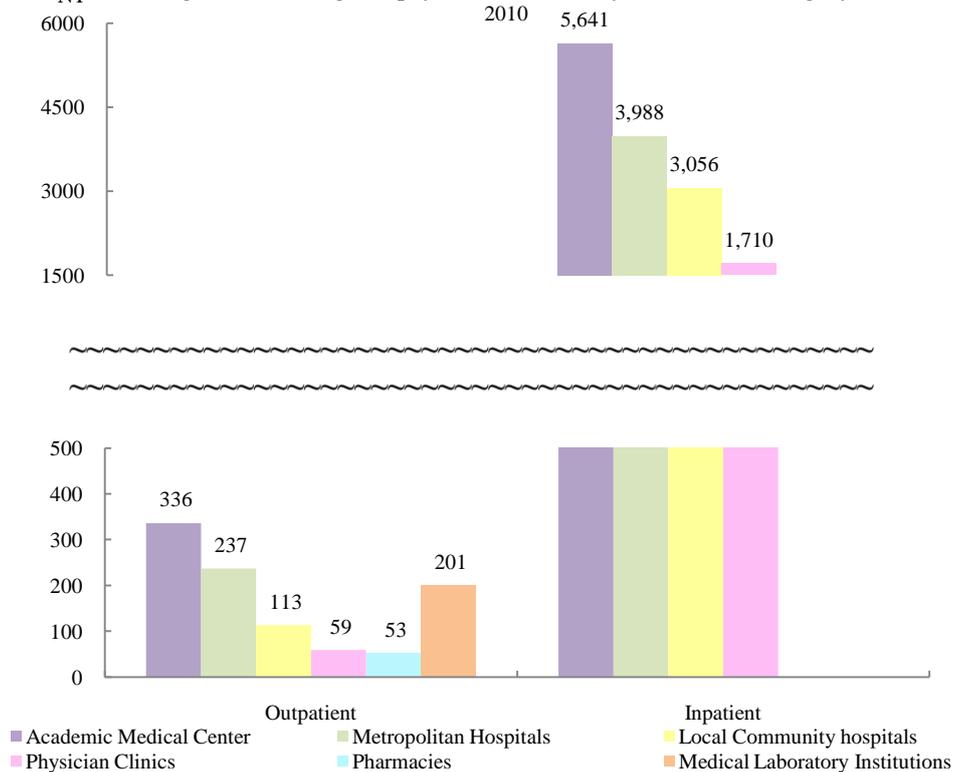
Figure 48 Copayment by Contracted Category



ii. Academic medical centers had the highest average copayment per case.

In 2010, the highest average copayment per outpatient case was from academic medical centers (NT\$336), followed by metropolitan hospitals at NT\$237 and medical laboratory institutions at NT\$201. In terms of average copayments per inpatient case, academic medical centers also ranked the highest at NT\$5,641 per case, followed by metropolitan hospitals at NT\$3,988 and local community hospitals at NT\$3,056.

Figure 49 Average Copayment Per Case by Contracted Category



iii. Outpatient copayments increased by 0.8% from the previous year Inpatient copayments increased by 1.6% from the previous year.

Compared with the previous year, outpatient copayments increased 0.8% in 2010. Medical laboratory institutions had the highest growth rate of 8.3%, followed by metropolitan hospitals (2.8%) and academic medical centers (1.4%). Local community hospitals, however, showed a decrease of 5.1%. Inpatient copayments increased by 1.6% in 2010. Metropolitan hospitals showed the highest increase of 5.6% while local community hospitals had the most significant decrease of 5.3%.

Figure 50 Outpatient Copayment by Contracted Category

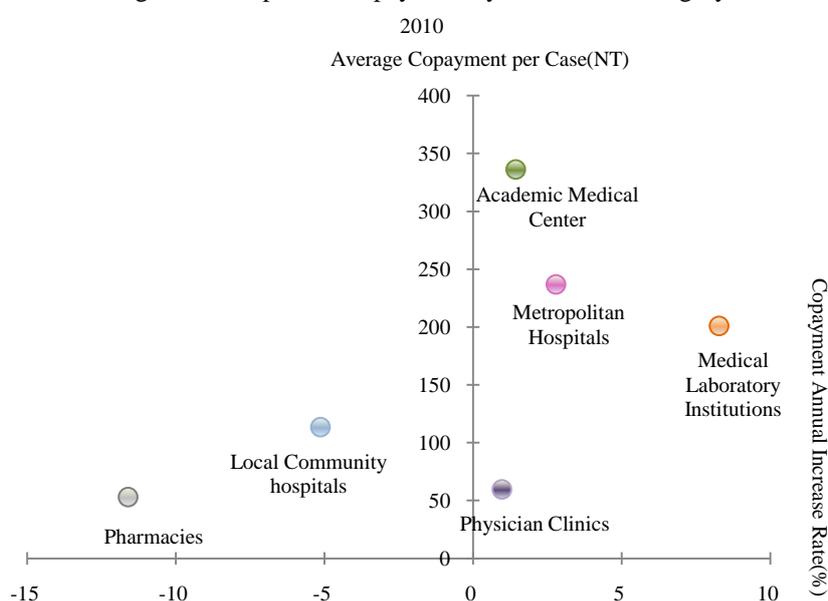
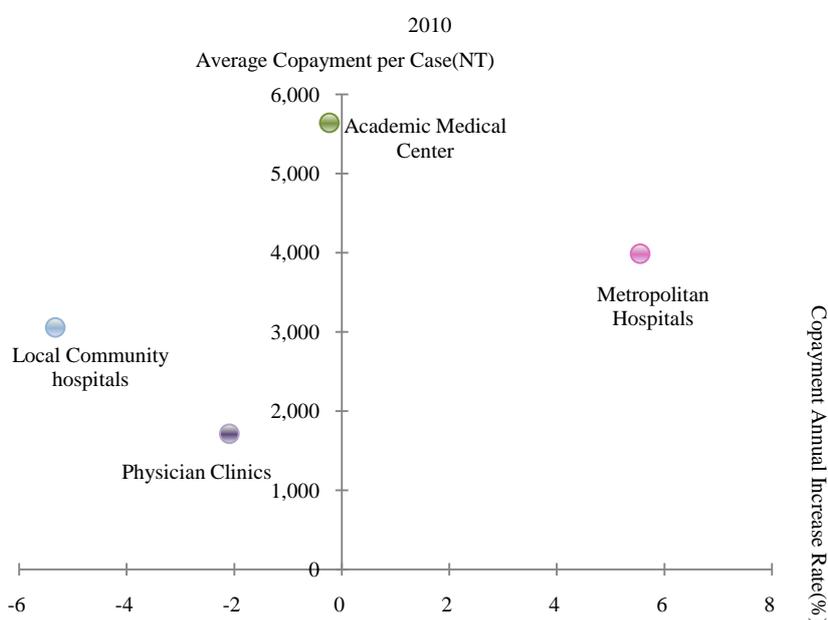


Figure 51 Inpatient Copayment by Contracted Category



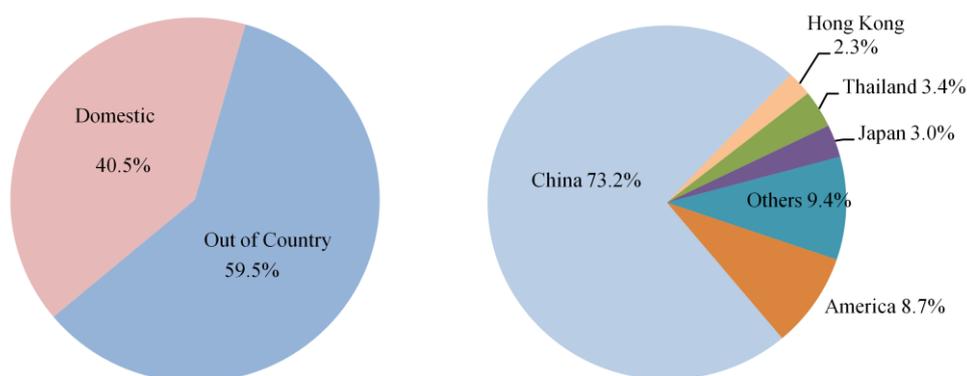
(6) Reimbursement of Advanced Medical Expenses for Out-of-Plan Services

- i. Compared with 2009, applications for reimbursement of advanced medical expenses increased by 13.9%. However, the approved amount has decreased by 0.6%.**

A total of NT\$1.55 billion of reimbursements for out-of-plan services were filed in 2010, an increase of 13.9% from the previous year. NT\$500 million was approved, a decrease of 0.6% from the previous year. NT\$270 million was filed for outpatient services, a 6.8% decrease. 58.3% of the applications were approved. NT\$1.28 billion was filed for inpatient services, a 19.6% increase. 26.5% of the applications were approved.

Broken down by area, domestic claims accounted for NT\$760 million, showing an increase of 45.5% from the previous year. 26.6% of the applications were approved. Overseas claims amounted to NT\$790 million, a decrease of 5.7% from the previous year. The approval ratio was 37.3%. Advanced medical expenses from China accounted for the highest percentage of reimbursements for out-of-country claims, accounting for 73% of such claims.

Figure 52 Reimbursement of Advance Medical Expenses for Out-of -Plan Services



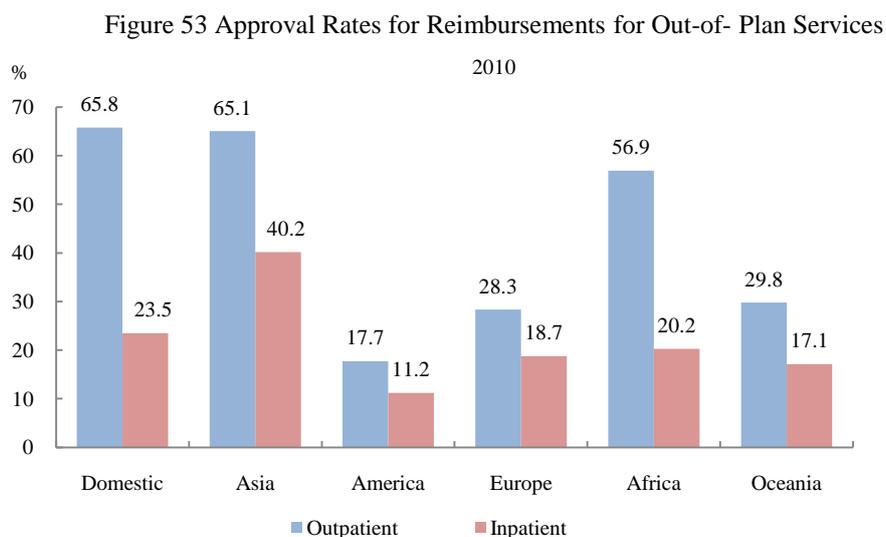
A total of NT\$ 0.5 billion was approved for reimbursement of advance medical expense for out-of -plan services.

- ii. For outpatient services, domestic applications had a higher approval rate than overseas claims. On the other hand, inpatient services had a higher approval rate for overseas applications.**

The approval rate for medical expense reimbursements for out-of-plan services was 32.1% in 2010; 58.3% for outpatient services and 26.5% for inpatient services.

Broken down by areas, the outpatient approval rate was 65.8% for domestic areas and 56.4% for out-of-country claims (Asia 65.1%, Africa 56.9%, Oceania 29.8%, Europe 28.3%, and North America 17.7%).

For inpatient services, the approval rate was 23.5% for domestic areas and 30.1% for out-of-country areas (Asia 40.2%, Africa 20.2%, Europe 18.7%, Oceania 17.1%, and North America 11.2%).



Notes:

1. Data in this chapter was last updated on June 30, 2011.
2. The medical benefit claims in this chapter do not include copayment
3. The detailed medical expenses in this chapter include the medical benefit claims and copayment.
4. Patients' copayment does not include registration fees.
5. Prior to the implementation of the global budget payment system, 1 RVU was equal to NT\$ 1. After the global budget payment system was implemented, 1 RVU for any item under general services should be calculated according to the Point Value of Global Budget Payment System in this chapter. For other items, 1 RVU was equal to NT\$ 1 in principle.
6. For reimbursement of advance medical expenses for out-of-plan services, only cases whose amount approved were larger than zero were accumulated for the figures of approved cases.