

2009



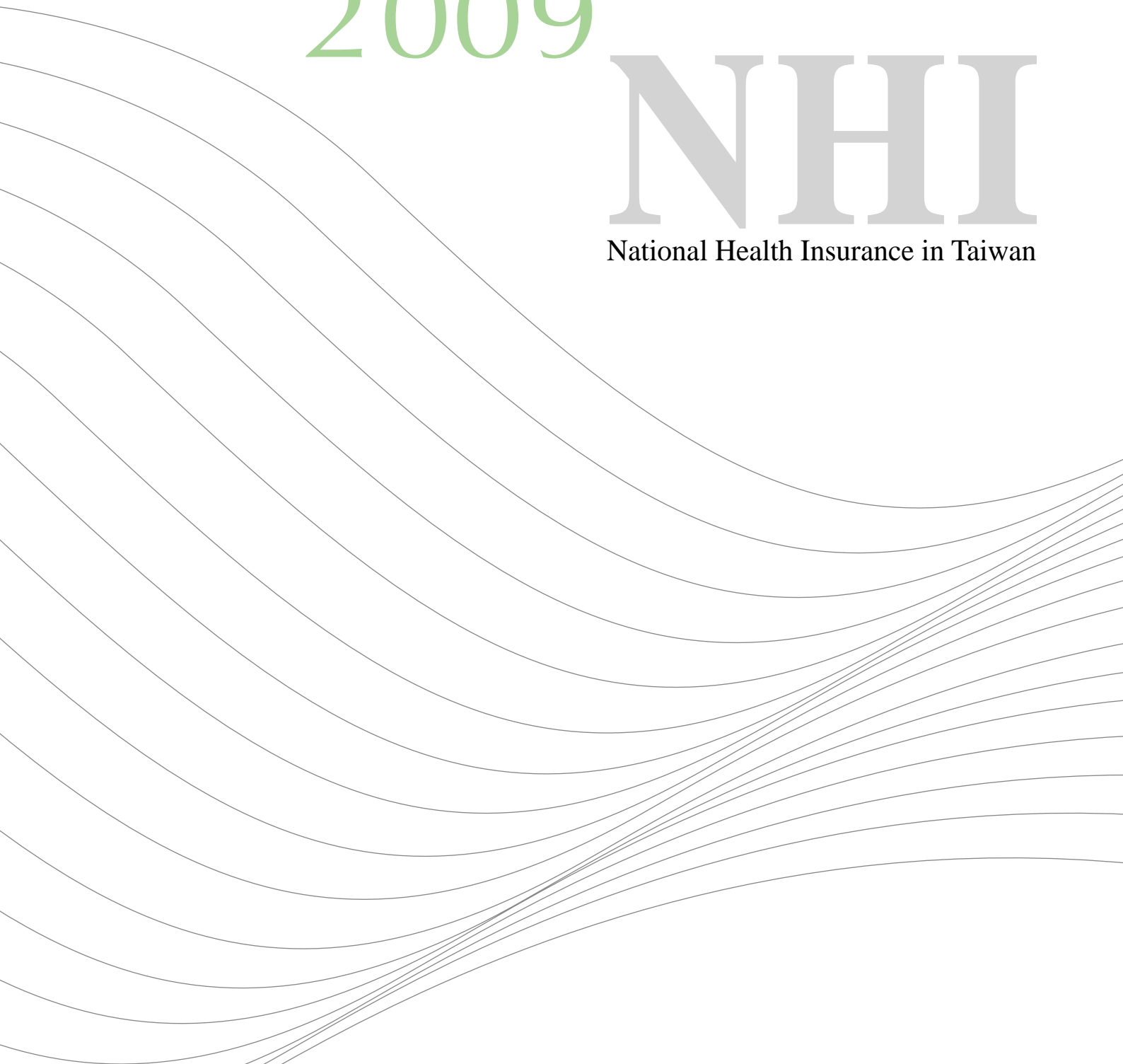
# HEALTH

National Health Insurance  
in Taiwan

2009

**NHI**

National Health Insurance in Taiwan



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2009

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Preface

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1

# Health Insurance for All People

The Bureau of National Health Insurance has faced many major challenges in its 14 years of existence, but through the combined efforts of the Bureau, the health care community, local industry and Taiwan's people, we have successfully expanded the country's health care services network, improved the quality of care, and made health insurance information more accessible. Consequently, we have been able to increase care for socially and economically disadvantaged people and to steadily improve our administrative efficiency and service quality. Today, Taiwan's National Health Insurance system has become a model that other countries seek to emulate and has received widespread praise in the international media.

## Providing Care for the Socially and Economically Disadvantaged

The Bureau of National Health Insurance was founded on the idea of marshaling the resources of the majority to resolve the difficulties certain people have in paying for health care. Regardless of one's social or economic status, ethnicity, or place of residence, every individual is afforded equal access to medical treatment. Those who cannot afford their premiums are eligible for assistance from the Bureau. To assist those people in overcoming financial hardship and safeguard their access to care, we offer a variety of programs, including premium subsidies, relief fund loans, sponsorship referrals, and installment plans.

We have also promoted an integrated delivery system (IDS) to improve service in remote mountainous areas or outlying islands. The program brings socially disadvantaged residents in those areas under the National Health Insurance umbrella and provides them with convenient services.



## Commitment to Upgrading Health Care Quality

With the introduction of a global budgeting system, which sets annual medical expense spending caps on broad health care sectors, the Bureau of National Health Insurance has to make sure that health care quality in Taiwan will not be sacrificed due to resource constraints. We have consistently worked together with medical institutions to provide quality care that goes beyond the call of duty to better satisfy the needs of the insured.

This commitment goes in tandem with the Bureau's evolution. When the system was launched in 1995, our main goals were to improve patients' access to health care by easing their financial burdens and to make sure that no one would be forced into bankruptcy by a serious illness. With time, we gradually adjusted our focus to emphasize the quality of health care, as defined by three new objectives. The first is to expand patients' knowledge by making information on health care quality and services accessible and transparent. The second is to pay greater attention to the quality of medical services delivered to disadvantaged groups in remote areas and provide equitable and appropriate care. The third is to put greater emphasis on patient safety and making health care more patient-oriented.

These three goals have led to the adoption of several measures to upgrade quality and efficiency that have improved the health of Taiwan's people, as seen through a variety of indicators. The number of patients going through holistic treatment for chronic ailments such as asthma and diabetes has risen, as has the overall level of satisfaction with the health care system. Emergency care visits and readmission rates have gradually fallen and the rate of growth of the incidence of major diseases has slowed.

## Capturing International Attention

The National Health Insurance system's success in providing universal coverage and convenient access to care at low premiums while containing the growth of medical expenditures has been praised and studied by many countries.

In June 2008, Vice President Michael S. Chen presented a paper to the U.S. Congress called "National Health Insurance in Taiwan: Its Implications for U.S. Reform." The paper, which explored why Washington's previous attempts at health care reform failed while Taiwan's implementation of a National Health Insurance system proved successful, sparked considerable interest in the Taiwan model. Taiwan's system has also been the focus of wide coverage in the U.S. media.

In addition, many countries, including South Korea, the Philippines, Indonesia, Malaysia, Vietnam, Palau, Thailand and Saudi Arabia, have also sent health care specialists to Taiwan to learn more about our program. This widespread interest from the international community reflects the growing prominence of Taiwan's health insurance system as a health care model for countries around the globe.



## Commitment to Improvement

Though we take pride in our many achievements, we recognize that Taiwan's National Health Insurance system can be further improved, based on such fundamental principles as promoting social equity, raising efficiency, elevating the quality of care and forging a national consensus. We have drafted strategic goals and concrete measures that will enhance health care functions at every level of the system and strengthen community care. A key element of these initiatives will be to place greater emphasis on the overall well-being and equal rights of patients and provide them with more equitable access to higher quality health care, which will bring us closer to our goal of universal coverage and health insurance sustainability.

The National Health Insurance system benefits all of the country's people and is truly an accomplishment in which all of Taiwan's people can take pride.





# Current System 2

## Current System

# Current System



# Organizational Structure

## Organizational Team

Taiwan's National Health Insurance system is a social insurance program organized by the government and operated by the Bureau of National Health Insurance. The Department of Health has jurisdiction over the Bureau and has established four committees — the NHI Supervisory Committee, the NHI Dispute Mediation Committee, the NHI Medical Expenditure Negotiation Committee and the NHI Task Force (Chart 1)— to help plan and monitor tasks performed related to the NHI.

The Bureau of National Health Insurance is responsible for the system's planning, promotion, execution, supervision, research and development, training, information management and auditing. Its operations are funded out of the central government budget.



The Bureau of National Health Insurance is composed of six branches (Chart 2) that directly handle insurance applications, premium collection, claim auditing and reimbursement, and management of the contracted medical institutions. Twenty-one liaison offices have been set up around the country to serve the public. As of the end of June 2008, the Bureau had 2,559 permanent employees (staffing its headquarters, branch offices, and outpatient centers) and 510 temporary employees, all dedicated to providing the highest level of health care to Taiwan's people.

**Chart 1 National Health Insurance Organizational Chart**

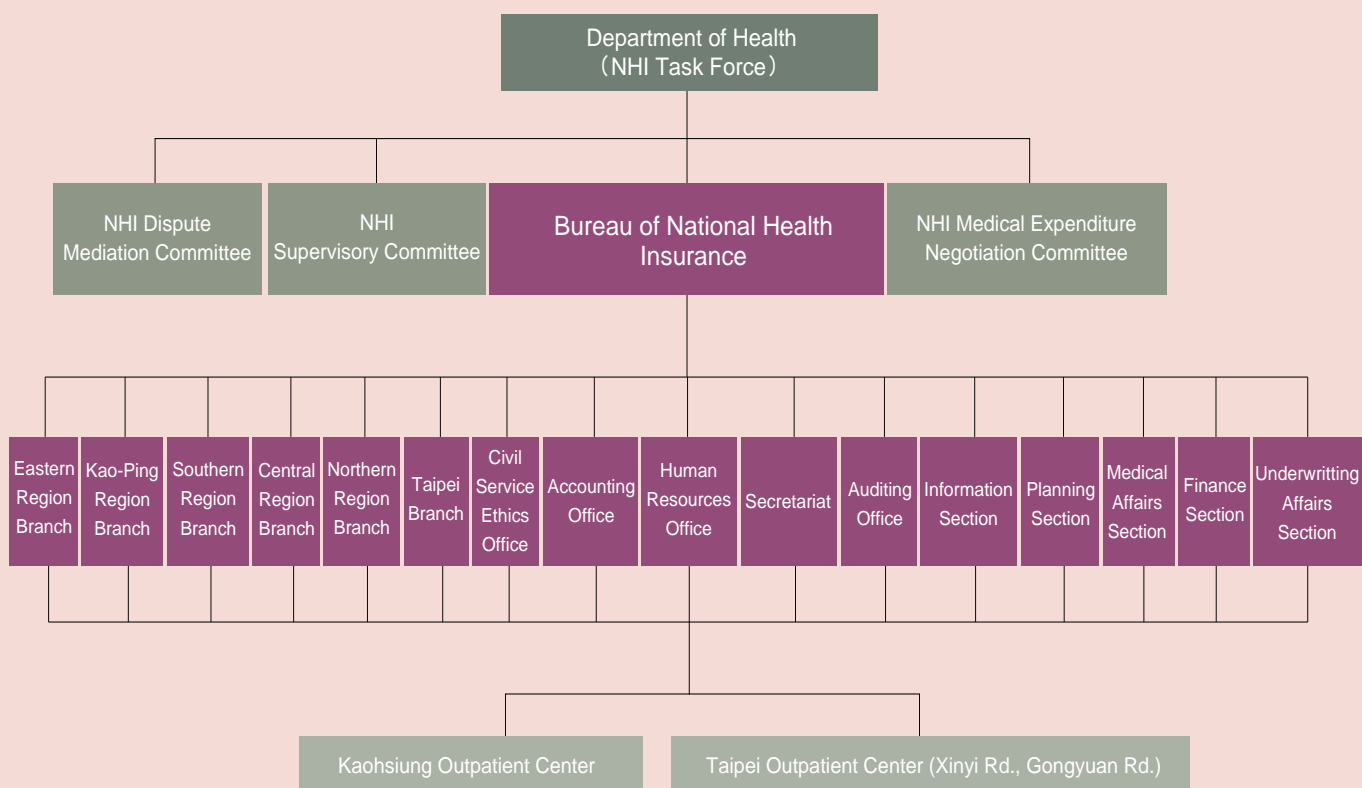
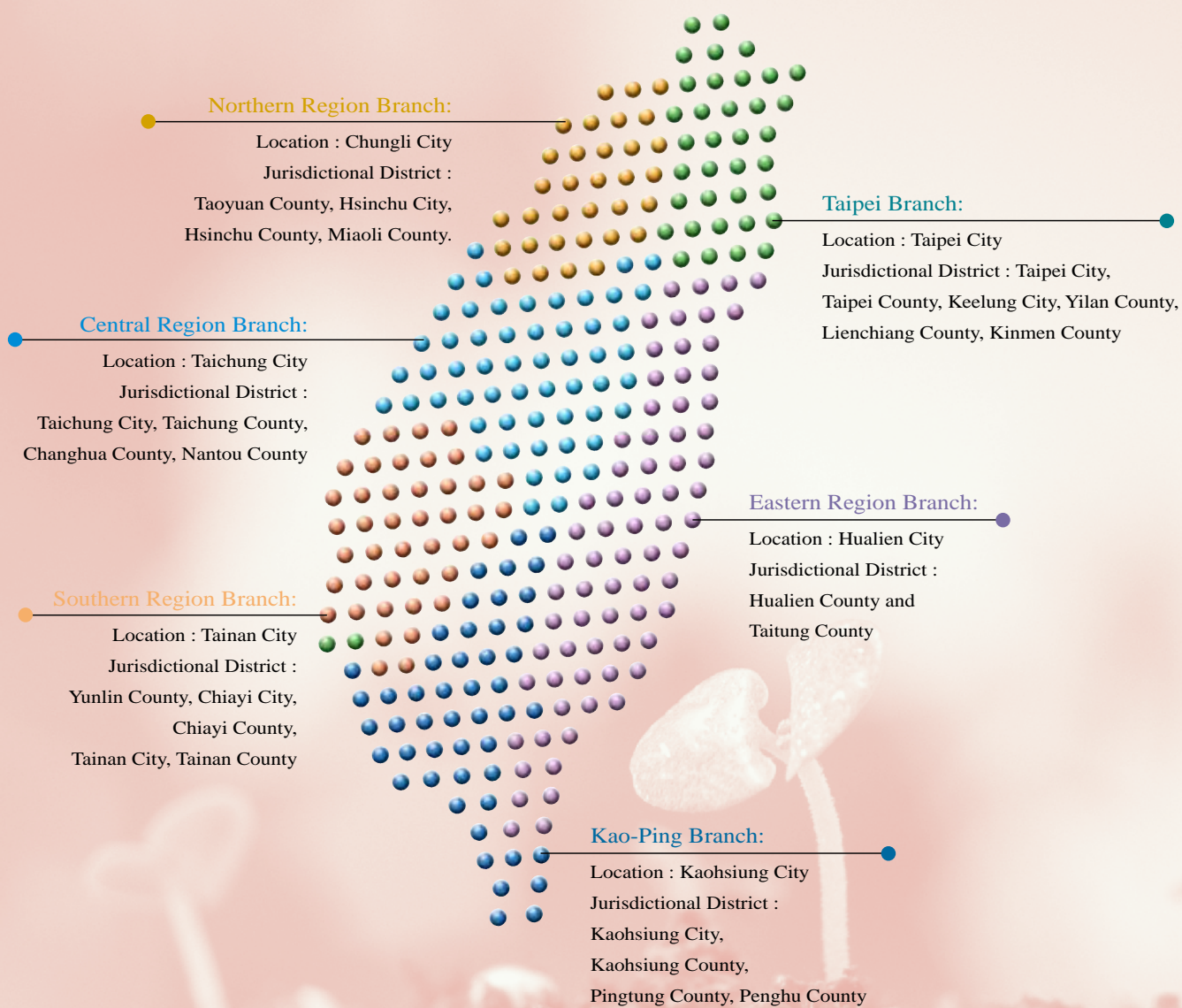


Chart 2 Service Areas of NHI



# The National Health Insurance Program

## The Origin of the Program

Before the Bureau of National Health Insurance was founded in 1995 after nearly a decade of planning, Taiwan's public medical insurance network was a mosaic of 13 independent systems featuring distinct premiums and benefits that catered to different segments of society. These disparate providers covered only 60 percent of the population, while the remaining 40 percent, mostly senior citizens, children and unemployed workers, went uninsured. To provide health care to all citizens, the government launched the National Health Insurance program on March 1, 1995.



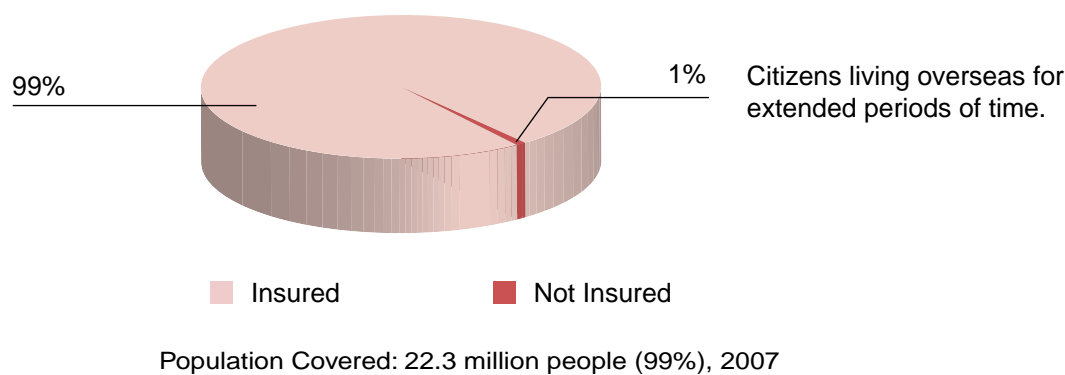
The National Health Insurance program that emerged is a mandatory, single-payer social health insurance system, founded on the principle that everybody should have equal access to health care services. Incorporated into the country's free market system, it enables consumers to freely choose health care providers and medical institutions as they see fit within the system's constraints.

The National Health Insurance program has successfully provided universal coverage, health care of acceptable quality, comprehensive

benefits, and convenient access to treatment, while keeping premiums low and health care expenditures under control. Copayments for physician visits are required but remain low.

Socially and economically disadvantaged households have equal access to the system through the many subsidies provided by the Bureau, and average households are protected from the fear of losing their health insurance or going bankrupt over medical bills.

These many advantages have made it one of Taiwan's most successful public programs, with satisfaction ratings consistently above 70 percent.



**Figure 1 Universal Enrollment**

### Universal Coverage

More than 99 percent of citizens are enrolled in the program. Only those living abroad for a long time are not obligated to participate in the compulsory program (Figure 1). Infants are covered under the program as soon as their births are registered at a local household registration office.

Foreign nationals who meet the National Health Insurance regulations and residency requirements must also be insured under the system. Those hired by local employers are covered from the day their employment contract takes effect, while others must enroll in the system after meeting the four-month residency requirement.

The insured are divided into six population subgroups (based on occupation or other special status) that determine how their premiums will be calculated and paid (Table 1).

**Table 1** Classification of the Insured and Insurance Registration Organizations

Category	National Health Insurance System Participants		Insurance Registration Organizations
	The Insured	Dependents	
1	Civil servants, volunteer servicement, public office holders	1. Spouse 2. Lineal blood relatives 3. Lineal blood relatives within second degree of relationship who are over 20 but incapable of making a living, including these who are in school. * The above must be unemployed.	Organizations, schools, companies, or groups at which individuals are employed or the individuals themselves.
	Private school teachers		
	employees of publicly or privately owned enterprises or institutions		
	Employers Self-employed Independent professionals and technical specialists		
2	Occupational union members, foreign crew members	Same as above	The union that the individuals belong to; the Master Mariners Association; the National Chinese Seamen's Union
3	Members of Farmers', fishermen's, and irrigation associations	Same as above	Farmers' associations; fishermen's associations; or irrigation associations
4	Conscripted servicemen, students in military schools, dependents of military service members on pensions	None	Agency designated by Ministry of National Defense
	Males of draft age performing alternative military service	None	Agency designated by Ministry of the Interior
5	Members of low-income households as defined by Public Assistance Act	None	Administrative office of village, township, city or area where household is registered.
6	Unemployed veterans or dependents of deceased veterans	Same as for Category 1	Administrative office of village, township, city or area where household is registered.
	Unemployed heads of households or household representatives		

**NOTE:** For people to qualify as dependents or as members of Category 6, they must not be employed.

## Eligibility for Citizens Living Abroad

Taiwanese citizens who plan to live abroad for more than six months can either maintain their health insurance or have their coverage suspended.

1. Those interested in maintaining their coverage while abroad must submit an application. As long as they continue paying their premiums during the time they are out of the country, they will be covered for emergency procedures or child delivery and must apply for reimbursement within six months of receiving care.
2. Those who decide to suspend their insurance coverage must also apply to do so before going abroad. While they are outside the country, they do not have to pay premiums but will also not be covered for medical care.

Individuals who reside abroad for more than two years automatically have their household registrations terminated and therefore can no longer participate in the national health insurance system. They can rejoin the system if they re-establish residency in Taiwan at a later date.

## Sources of Financing

Designed to be financially self-sufficient and responsible for its deficits, the National Health Insurance system primarily relies on “pay-as-you-go” financing to balance its accounts in the short-term. By law, the Bureau of National Health Insurance cannot be for-profit and is required to maintain a reserve fund equaling one month of medical expenditures at least.

The system is primarily funded by the premiums paid collectively by the insured, employers, and central and local governments. Other revenues come from outside sources, such as fines on overdue premiums, public welfare lottery contributions, and the health surcharge on cigarettes, all of which supplement the system's income after meeting the mandated reserve fund's basic funding needs.

The National Health Insurance Act, the legal foundation of the health insurance system passed in 1994, stipulates that premium rates must be reviewed and re-calculated every two years to ensure the system's financial sustainability. During these periodic reviews, the Bureau estimates revenues and expenditures 25 years into the future and then calculates the premium rate that will balance the two. The results are given to policy planners as a reference for future adjustments in premiums and long-term health policy. It must be noted, however, that in the system's 14 years of existence, premiums have only been adjusted once in 2002.



## Calculating Premiums

Premiums are set based on each person's ability to pay and the pooling of resources to help support those lacking the financial means to participate in the insurance program. Premiums are calculated as a percentage of an individual's income, capped at NT\$131,700 per month, and shared by the individual, the individual's employer or other insurance registration organizations, and the government. Those classified in categories 1, 2, and 3 listed above pay premiums based on their income, while the premiums for those classified in categories 4, 5 and 6 are based on the average premium paid by all individuals participating in the system. (For a detailed explanation, please see Table 2.)

The National Health Insurance premium rate was 4.25 percent from the time the system was launched until September 2002, when it was adjusted to 4.55 percent. The average number of dependents per insured, a number set by the Bureau, has been steadily declining, going from 1.36 dependents in December 1995, to 1.1 in January 1996, 0.95 in October 1996, and 0.88 in March 1998. It has further declined this decade, from 0.78 in January 2001 to 0.7 on January 1, 2007. When the new system came into effect in 1995, the Bureau feared that employers

**Table 2** NHI Premium Formulas

Insured Category	Contributor	Formula
Income Earners	The Insured	Income Basis x Premium Rate x Contribution Ratio x (1 + Number of Dependents)
	Insurance Registration Organization or Government	Income Basis x Premium Rate x Contribution Ratio x (1 + Average Number of Dependents)
Non-income Earning Individuals	The Insured	Average Premium x Contribution Ratio x (1 + Average Number of Dependents)
	Government	Average Premium x Contribution Ratio x Actual Number of People Insured

**NOTES:**

- 1. Income Basis:** Amount of income on which premiums are levied based on a payroll bracket table (Table 4)
- 2. Insurance Premium Rate:** 4.55% since September 2002
- 3. Contribution Ratio:** Based on ratios set by the Bureau of National Health Insurance (Table 3)
- 4. Number of Dependents:** Maximum of three even if the actual number of dependents is higher
- 5. Average Number of Dependents:** Set by the Bureau of National Health Insurance at 0.7 as of Jan. 1, 2007
- 6. Since August 2007,** the average monthly premium for individuals in categories 4 and 5 has been NT\$1,317, which is entirely subsidized by the government. For individuals in category 6, the average premium has been NT\$1,099, with 60% paid for by the individual (NT\$659) and 40% by the government.

**Table 3** NHI Premium Contribution Ratios

Classification of the Insured			Contribution Ratio(%)		
			Insured	Registration Organization	Government
Category 1	Civil servants, volunteer servicemen, public office holders	Insured and dependents	30	70	0
	Private school teachers	Insured and dependents	30	35	35
	Employees of publicly or privately owned enterprises or institutions	Insured and dependents	30	60	10
	Employers Self-employed Independent professionals and technical specialists	Insured and dependents	100	0	0
Category 2	Occupation union members Foreign crew members	Insured and dependents	60	0	40
Category 3	Members of farmers', fishermen's and irrigation associations	Insured and dependents	30	0	70
Category 4	Military conscripts, alternative servicemen, military school students on scholarships, widows of deceased military personnel on pensions	Insured	0	0	100
Category 5	Low-income household	Household members	0	0	100
Category 6	Veterans and their dependents	Insured	0	0	100
		Dependents	30	0	70
	Other individuals	Insured and dependents	60	0	40

might discriminate against individuals with a high number of dependents to avoid paying premiums on their behalf. So it established a system where employers' contributions would be assessed based on an average number of dependents per employee that is promulgated by the Bureau and is generally lower than the actual average.

The relative contributions to premiums by the insured, their employers or insurance registration organizations and the government vary by category. For those employed in the private sector, the employee pays 30 percent of the premium, the employer 60 percent and the government 10 percent. The government foots the bill for individuals grouped in categories 4 and 5 (Table 3).

**Table 4 Income Brackets on which Health Insurance Premiums Are Based**

Bracket Income Differential	Income Tier	Income on which Premiums Based (NT\$)	Actual Monthly Income (NT\$)	Bracket Income Differential	Income Tier	Income on which Premiums Based (NT\$)	Actual Monthly Income (NT\$)
Bracket 1 NT\$600	1	17,280	Under 17, 280	Bracket 6 NT\$2,400	24	48,200	45,801-48,200
					25	50,600	48,201-50,600
					26	53,000	50,601-53,000
					27	55,400	53,001-55,400
Bracket 2 NT\$900	2	17,400	17,281-17,400	Bracket 7 NT\$3,000	28	57,800	55,401-57,800
					29	60,800	57,801-60,800
					30	63,800	60,801-63,800
					31	66,800	63,801-66,800
					32	69,800	66,801-69,800
					33	72,800	69,801-72,800
Bracket 3 NT\$1200	3	18,300	17,401-18,300	Bracket 8 NT\$3,700	34	76,500	72,801-76,500
					35	80,200	76,501-80,200
					36	83,900	80,201-83,900
					37	87,600	83,901-87,600
Bracket 4 NT\$1500	4	19,200	18,301-19,200	Bracket 9 NT\$4,500	38	92,100	87,601-92,100
					39	96,600	92,101-96,600
					40	101,100	96,601-101,100
					41	105,600	101,101-105,600
Bracket 5 NT\$1900	5	20,100	19,201-20,100	Bracket 10 NT\$5,400	42	110,100	105,601-110,100
					43	115,500	110,101-115,500
					44	120,900	115,501-120,900
					45	126,300	120,901-126,300
Bracket 6 NT\$2,400	6	21,000	20,101-21,000	Bracket 11 NT\$6,300	46	131,700	Over 126,301
					11	26,400	25,201-26,400
					12	27,600	26,401-27,600
					13	28,800	27,601-28,800
Bracket 7 NT\$3,000	7	21,900	21,001-21,900	Bracket 12 NT\$7,200	14	30,300	28,801-30,300
					15	31,800	30,301-31,800
					16	33,300	31,801-33,300
					17	34,800	33,301-34,800
Bracket 8 NT\$3,700	8	22,800	21,901-22,800	Bracket 13 NT\$8,100	18	36,300	34,801-36,300
					19	38,200	36,301-38,200
					20	40,100	38,201-40,100
					21	42,000	40,101-42,000
Bracket 9 NT\$4,500	9	24,000	22,801-24,000	Bracket 14 NT\$9,000	22	43,900	42,001-43,900
					23	45,800	43,901-45,800

Notes: 1. Table based on Labor Pension Plan monthly wage contribution classifications  
2. Table took effect August 1, 2007

### Establishing Payroll Brackets on which Premiums Are Based

To determine the income level on which premiums for individuals classified in categories 1, 2 and 3 above are based, the Department of Health establishes a periodically updated payroll bracket table that is then approved by the Cabinet. The most recent table, which took effect on August 1, 2007, consists of 46 tiers (Table 4). The income levels of individuals in category 1 on which premiums are levied are based on where their actual incomes fit on the table. Union members in category 2 must report income of at least NT\$21,000 per month. The insured in category 3 pay premiums based on the pre-set monthly income level of NT\$21,000.

## Scope of Coverage

The National Health Insurance system offers a comprehensive and uniform benefits package to all those covered by the program, including foreigners. With a valid health insurance IC card, the insured have access to more than 18,000 contracted health care facilities around the country offering inpatient and ambulatory care, dental services, traditional Chinese medicine therapies, child delivery services, physical rehabilitation, home nursing care, and chronic mental illness care, among others.

The system covers most forms of treatment, including surgeries, and related expenses such as examinations, laboratory tests, prescription medications, supplies, nursing care, hospital rooms, and certain OTC drugs. It also pays for certain preventive services, such as pediatric and adult health exams, prenatal checkups, pap smears, and preventive dental health checks.

## Copayments as User Fees

The copayments for outpatient and emergency care were adjusted several times during the system's first 10 years. But in July 2005, the Bureau of National Health Insurance inaugurated a new copayment fee schedule and referral system to encourage patients to seek treatment for minor ailments at local clinics while leaving regional hospitals free to focus on secondary care and medical centers free to focus on tertiary care.

Under the new copayment schedule shown in Table 5, the copayment fee for a visit to a Western medicine facility is based on whether a patient was referred to the hospital or not.

**Table 5 Basic Outpatient Care Copayments (NT\$)**

Institution Class	Basic Copayments				
	Western Medicine Outpatient Care		Emergency Care	Dental Care	Traditional Chinese Medicine
	With Referral	Without Referral			
Medical Centers	210	360	450	50	50
Regional Hospitals	140	240	300	50	50
District Hospitals	50	80	150	50	50
Clinics	50	50	150	50	50

**Notes:**

1. Individuals classified as disabled pay copayments of NT\$50 for any medical care, regardless of the type of medical institutions they visit.
2. Patients who return for their first checkup after an outpatient procedure, or within 30 days after being discharged from the hospital, or within 42 days after giving birth, pay the same copayment as if they were given a referral as long as they have a hospital certificate confirming the need for a follow-up visit.
3. This copayment schedule took effect on July 15, 2005.

**Table 6 Copayment Rates for Inpatient Care**

Ward	Copayment Rates			
	5%	10%	20%	30%
Acute	-	30 days or less	31-60 days	61 days or more
Chronic	30 days or less	31-90 days	91-180 days	181 days or more

Patients that go directly to medical centers and regional and district hospitals without a referral from a clinic or hospital will pay a higher copayment than if they have a referral. The copayment for visits to dentists or traditional Chinese medicine clinics is uniformly NT\$50.

If medication prescribed to a patient exceeds a certain cost, a copayment for the drugs is also charged. Follow-up rehabilitation or traditional Chinese medicine treatments for the same course of therapy also carry copayments of NT\$50.

### Caps on Copayments for Inpatient Care

The copayments for hospitalized patients can range from 5 percent to 30 percent of their bills, depending on length of stay and type of ailment (Table 6). To minimize inpatients' financial burden, copayments on acute ward stays of fewer than 30 days and chronic ward stays of fewer than 180 days are capped by the Department of Health, with the ceilings adjusted annually. For 2009, caps on hospital stay copayments were set at NT\$30,000 for a single hospital stay for a particular condition and at a cumulative NT\$50,000 for the entire calendar year.

### Copayment Exemptions

The National Health Insurance system exempts specific groups from copayments to ensure that the payments do not discourage patients from seeking regular medical attention. Based on Article 36 of the National Health Insurance Act, copayments are not required for those suffering from catastrophic illnesses or living in remote mountain areas or island regions, or women giving birth. Others exempt from copayments include veterans and their dependents, low-income households, children under the age of three, and registered tuberculosis patients who receive treatment at specified contracted hospitals.

Patients being treated for occupational ailments who are covered by labor insurance or those suffering from PCB (polychlorinated biphenyl) poisoning are also not subject to copayments.

The outpatient copayment for disabled persons is fixed at NT\$50, while outpatient drug copayments are waived for special cases, holders of refillable prescriptions, or those receiving dental care.

The Bureau of National Health Insurance has also designed a system for the convenience of patients with chronic illnesses that makes it easier for them to refill prescriptions. When doctors certify that a patient has a chronic but stable illness, as recognized by the Department of Health, they may write a prescription covering three months of medication that can be filled once a month. Those with proof that they will be traveling abroad or deep-sea fishermen who will be out of the country for extended periods of time can collect up to two months of medication at once. The program enables patients to refill their prescriptions without additional visits to their doctor or drug fee copayments, saving both time and money.

## Payment System

### The Global Budgeting Mechanism

During the National Health Insurance system's early years, Taiwan's health care providers were paid based on a "fee-for-service" basis, which gave an incentive to hospitals to increase the "volume" of care at the expense of quality and cost control. A global budgeting system was phased in between 1998 and 2002, capping overall expenditures in four medical sectors — dental (implemented in July 1998), traditional Chinese medicine (July 2000), Western medicine clinics (July 2001) and hospitals (July 2002). Another sector, ESRD (end-stage renal disease), has since also come under a global budget.

The system is designed to keep spiraling health care costs under control without a decline in quality of care. The Bureau and health care groups jointly take measures to safeguard medical quality by supervising hospitals and clinics that are subject to the global budgeting system.

The fee-for-service mechanism, which covers more than 4,200 medical service items, 6,400 medical devices and materials, and 16,000 drugs, remains the main system used by the Bureau to reimburse providers under the global budgeting scheme. But other payment methods have been introduced, such as per case payment and performance-based payment systems, to prevent supplier-induced demand and rein in waste.

These reform measures have been steadily promoted to upgrade the quality of Taiwan's medical services and elevate the health level of the country's people. The “pay-for-performance” system, for instance, tries to go beyond simply purchasing medical treatment on behalf of the insured and instead stresses the concept of buying “health.” The pay-for-performance system, first introduced in 2001, is currently being used for breast cancer therapy, diabetes, asthma and hypertension treatment.

The per case payment method, which now covers 54 categories of service, is based on a similar logic. Health care providers must demonstrate that their patients with chronic conditions have remained in good health based on certain pre-determined criteria to claim reimbursement.

Under the global budgeting and fee-for-service system detailed above, some providers complained that certain procedures were reimbursed at below cost. An RBRVS (resource-based relative value scale) system was adopted in 2004 to address the problem. Under the RBRVS system, relative values are assigned to medical services, with the value of a specific service being assessed based on the medical resources used to provide it. Relative values are also adjusted periodically through consultations with experts from different circles.

## Claims Review System

In accordance with the Regulations Governing the Review of the Medical Services, the Bureau of National Health Insurance is required to review reimbursement claims filed by contracted health care organizations and to screen the type, volume, quality and appropriateness of medical services provided under the insurance program. The sheer volume of claims (in 2007 there were 340 million claims for outpatient care, or an average of 930,000 per day) and the medical specialization needed to review them pose considerable challenges to the reviewing process. To cope with the high volume, claim reviews are generally computerized, with some claims randomly selected to undergo peer review. Since the global budget payment scheme was adopted, peer reviews of medical services have been contracted to medical associations.

Both procedural and specialized reviews of claims filed by health care providers are conducted. The procedural checks focus on the following issues:



1. The eligibility of those treated
2. The scope of reimbursements
3. Whether the fee schedules and drug price standards used were correct
4. Whether the submitted forms were properly and fully filled out
5. The completeness of appended documents
6. A preliminary check of the basic treatment services covered by the per case payment system
7. Pre-authorization review of special surgeries or treatments.
8. Other procedural items

If any of the health care providers submit medical service claims that are found to have violated insurance regulations, they will not be reimbursed, with the reason noted on the file.

Specialized medical reviews of selected claims are conducted by a panel of related medical experts. The Bureau of National Health Insurance trains and orients panel members on the workings of the insurance system and applicable standards and tries to develop a consensus on review standards among the specialists from different fields on the panel.

According to the National Health Insurance Act, if a health care provider disagrees with the result of an audit, it can appeal the decision. The Bureau then commissions another peer review to evaluate the case a second time. If the medical institution is still dissatisfied with the result after the second hearing of its case, it can appeal to the Department of Health's Dispute Mediation Committee, composed of medical experts selected by the Department, which will serve as the final arbiter in the case.



# Coverage and Access

## Universal Coverage

The mission of Taiwan's compulsory national health insurance system is to provide universal coverage and guarantee equal access to health care services. As of December 2008, 22,918,144 people were enrolled in the program, under 676,280 insurance registration organizations and individuals (Table 7).

**Table 7** Number of People Enrolled in Health Insurance System by Category

	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6	Total
People	11,929,887	3,875,407	2,993,633	161,766	225,609	3,731,842	22,918,144
% of Total Number Enrolled	52.05%	16.91%	13.06%	0.71%	0.98%	16.28%	100.00%

Figures as of Dec. 2008

## Access to Health Care

The Bureau of National Health Insurance has worked hard to achieve the goal of freedom of choice for patients. As of December 2008, 18,829 hospitals and health care providers, or 91.87 percent of all health care facilities in the country, were contracted by the National Health Insurance system. Another 4,180 pharmacies, 472 home nursing care institutions, 148 psychiatric community rehabilitation centers, 17 midwife clinics, 200 medical laboratories, 19 physical therapy clinics, eight medical radiology institutions, and one occupational therapy clinic were also contracted by the Bureau.

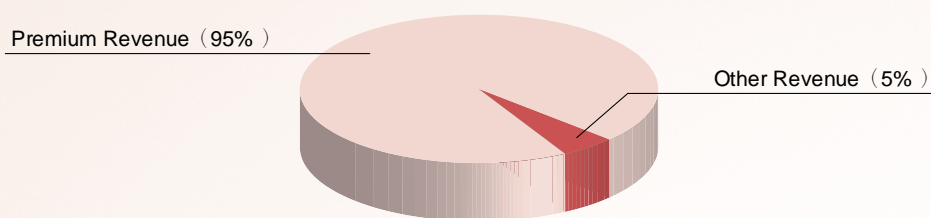
Any individual who enrolls in the National Health Insurance plan and pays the required premiums receives an IC card, which gives the bearer the freedom to choose any one of these contracted facilities and institutions for treatment. These extensive resources also result in the absence of long waiting times to visit a doctor or undergo surgical procedures or sophisticated tests.

Any individual enrolled in the National Health Insurance program can also claim reimbursement for emergency procedures done overseas. Claims must be made within six months of the day when the procedures occurred and must include the original copy of the receipt, a detailed list of expenses, a certificate of diagnosis, and proof of entering and exiting the country. The individual should submit the application to a local Bureau of National Health Insurance office to have the expenses reimbursed.

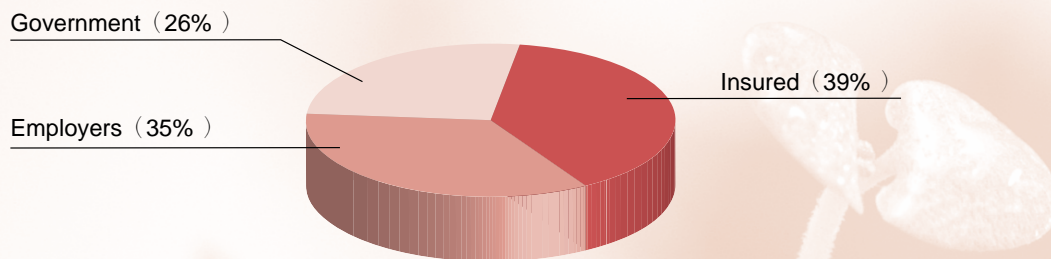
# Financial Status

## Premium Revenues and Expenditures

In 2007, the National Health Insurance system totaled revenues of NT\$387.5 billion, with 95 percent, or NT\$366.7 billion, coming from premiums. The remaining 5 percent came from the health surcharge on cigarettes, contributions from public welfare lotteries, and investment income (Figure 2). Of the premiums, 39 percent were paid by the insured, 35 percent by insurance registration organizations (employers), and 26 percent by government agencies (Figure 3).



**Figure 2** Ratio of Premium Revenue Relative to Total Revenue

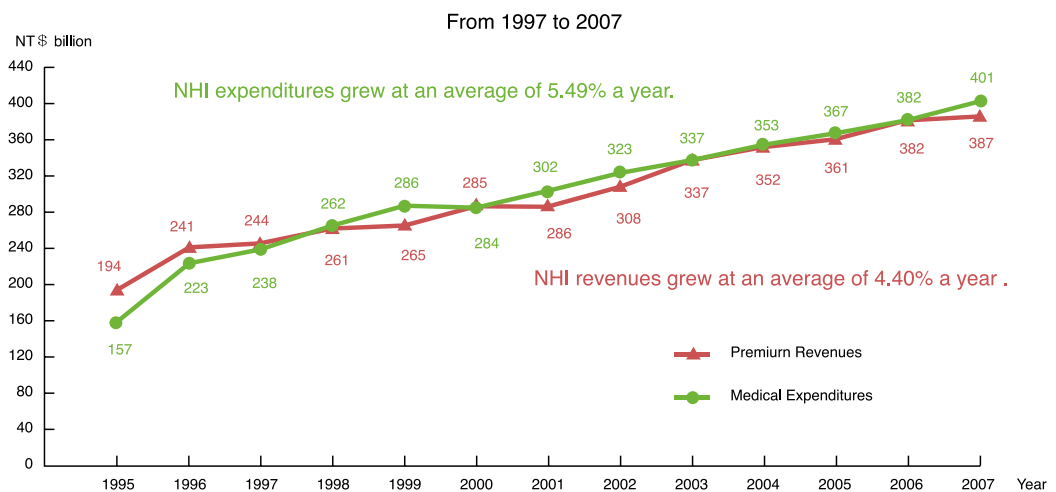


**Figure 3** Distribution of Premium Revenues

On the expenditure side, reimbursement claims for medical services in 2007 totaled NT\$401 billion. Two-thirds (66.75 percent) of the total submitted was for ambulatory services while the balance was for inpatient care. Medical centers were responsible for just over two-fifths of all outpatient (41.85 percent) and inpatient (43.08 percent) claims, followed by regional hospitals (36.92 percent of outpatient claims and 37.70 percent of inpatient claims) and district hospitals (21.24 percent and 19.22 percent)

A number of factors have propelled the rapid growth of medical expenditures in recent years. These factors include the aging of Taiwan's society, the inclusion of new drugs and new technologies among items covered under the system, the strengthening of catastrophic illness care and the general push for improved health care quality. In contrast, revenue growth has remained relatively flat. Premiums have not kept pace with growth in real income, and the average number of dependents on which premiums are based has declined.

As a result of these diverging trends, expenditures have begun outstripping revenues as they did in the early part of the decade (Figure 4).



**Figure 4** NHI Revenues and Expenditures Since 1995

Based on the present level of services provided under the National Health Insurance system and the existing premium rate of 4.55 percent, revenues are no longer sufficient to offset costs. The imbalance in the system's finances will likely lead to continued deficits and make it difficult to maintain the one-month reserve requirement.

When the system faced a similar predicament earlier in the decade, the premium rate was adjusted higher for the first time in the National Health Insurance program's history, from 4.25 percent to 4.55 percent. The increase, which took place in September 2002, was deliberately modest to avoid putting too much of a burden on the insured and in recognition of the weak economy at the time. Today, the major challenge is to find a balance between the premiums paid by Taiwan's people and the insurance system's expenditures to stave off a financial crisis and guarantee the program's sustainability.



## Making Paying Premiums More Convenient

### Diversified Payment Options

Health insurance premiums have traditionally been paid through automatic deductions from bank accounts or at post offices, banks and Bureau of National Health Insurance branches. But on April 20, 2007, the Bureau made it even easier for the insured to pay their premiums by allowing payments to be made at convenience stores, through ATMs or via the Internet.



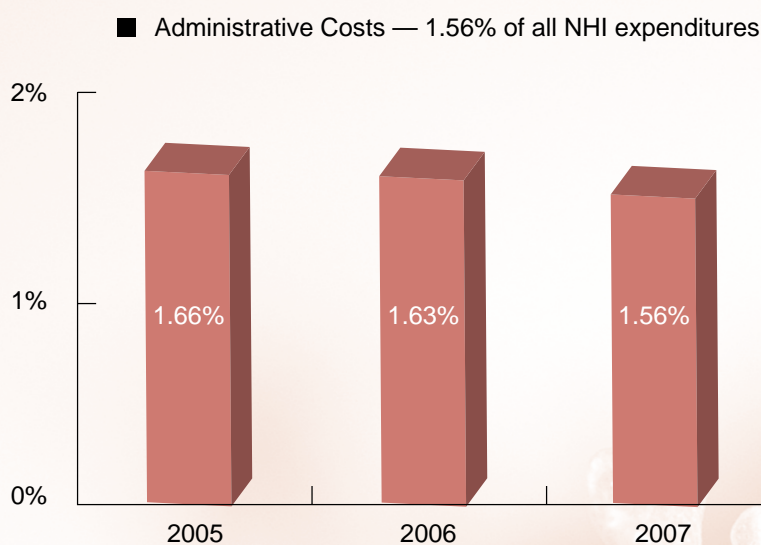
## **Health Insurance Premiums as Deductibles of Income Tax**

A revision to the tax code that took effect in June 2006 allowed health insurance premiums to be listed as an itemized deduction on individual income tax. Thus, when taxpayers filed their tax returns in 2007, they were able to deduct the full amount of their premiums from their taxable income. Previously, any premiums paid could only be deducted as part of an overall NT\$24,000 insurance deduction that also included premiums for life insurance and other insurance policies. The change marked the first time in the previous 20 years that the scope of itemized deductions had expanded, and it helped more than a million households get a tax break.

## Establishing a Financial Monitoring System

The Bureau keeps the public up-to-date on its financial situation with periodic progress reports on its website (<http://www.nhi.gov.tw>) and also through financial projections that forecast future trends. The Bureau produces statements with key indicators of the National Health Insurance program's finances and assigns different colored "lights" to these indicators as a simple measure of performance. A financial report is also submitted to the NHI Supervisory Committee on a quarterly basis.

The system has successfully lowered transaction and administrative costs to among the lowest levels in the world (Figure 5) while balancing its accounts.



**Figure 5** Administrative Costs

Outcome and Achievements

Outcome and Achievements

Outcome & Achievements



# Helping the Disadvantaged

## Subsidy Programs for the Poor

In a mandatory health insurance program, there will inevitably be an economically marginalized segment of the population that will not be able to afford insurance premiums. To ensure that all of Taiwan's citizens have access to care, a social safety net encompassing subsidies and other measures has been created that only reinforces the system's spirit of mutual assistance.

A number of preferential aid programs have been created to help patients with serious ailments, such as cancer, renal failure requiring dialysis, hemophilia or mental health problems, or to help the economically disadvantaged retain their right to health care. These programs are also designed to help prevent individuals or households from suffering severe financial blows because of a medical condition.

In addition, the National Health Insurance system also provides medical and financial assistance to those living in remote areas or those suffering intense financial pressure as they cope with a rare disease.

The assistance programs available for the poor or seriously ill include premium subsidies, relief loans and installment payment plans (Table 8).

**Table 8** Outcome of Premium Subsidy Programs in 2007

Item	Assisted Groups	No. of People Affected	Amount
Premium Subsidies	1. Seniors older than 70 and children under 3 from the near-poor households; unemployed workers; unemployed indigenous people older than 55 and younger than 20; and disabled persons.	1.39 million people	NT\$6.64 billion
	2. Low-income households and unemployed veterans (Categories above are subsidized at different rates, ranging from 25-100%)	600,000 people	NT\$8.29 billion
Relief Loans	Those qualified as economically disadvantaged under Department of Health criteria	2,438 cases	NT\$160 million
Installment Plans	Those unable to pay overdue premiums in one lump sum	259,000 cases approved	NT\$7.08 billion

Data for period from July 1, 2007 to June 30, 2008



## **Premium Subsidies**

All levels of government routinely subsidize premiums for impoverished and socially disadvantaged groups. A total of NT\$6.64 billion in subsidies were disbursed to 1.39 million people between July 1, 2007 and June 30, 2008, helping unemployed laborers, handicapped persons, seniors over 70 or children under three years of age from the near-poor households, and jobless indigenous people under 20 or over 55 pay their premiums. Another NT\$8.29 billion in subsidies was allocated to help cover the premiums of 600,000 low-income households and unemployed veterans.

## **Relief Loans and Installment Plans**

At the beginning of 2008, the Cabinet initiated a plan to help economically disadvantaged groups that could not meet their premium payments. The government provided NT\$450 million in subsidies and another NT\$340 million in loans to assist impoverished households with their overdue premium payments, helping a total of 33,000 people. From July 1, 2007 to June 30, 2008, 2,438 applications for NT\$160 million in aid were approved by the Department of Health.

Another 259,000 individuals who did not qualify for relief loans and could not clear their overdue premiums in one lump sum payment were granted permission to repay NT\$7.08 billion in overdue premiums in 12 to 48 installments. The Bureau of National Health Insurance remains committed to continuing such assistance programs in the future.

## **Guaranteeing Care for Economically Vulnerable**

Economically vulnerable individuals with overdue premiums can still receive medical care. If a hospital physician determines that a patient needs to be hospitalized or given emergency treatment or critical care, the patient only needs to provide a certificate of low-income status from the hospital or borough chief to receive care.

## **Sponsorship Referrals**

For those unable to pay their premiums, the Bureau may also refer them to charitable organizations or philanthropic corporations or individuals for assistance. Some 3,532 people were successfully referred to charitable groups, which covered NT\$15.95 million in premiums.



## Easing the Financial Burden of Those with Catastrophic Illnesses

The Department of Health redefined what constitutes a “catastrophic illness” in December 2005, expanding the scope of its definition to 30 diseases or ailments. The illnesses, from cancer and chronic mental illness to chronic renal failure requiring kidney dialysis and congenital conditions, all cost a lot to treat. Any insured individuals with a certificate proving they have a catastrophic illness are exempt from copayments for treatment of the disease.

As of the end of June 2008, more than 770,000 people, or about 3.3 percent of all those insured under the National Health Insurance program, had valid catastrophic illness certificates. The treatment they received in 2007 cost NT\$120.8 billion, or 25.5 percent, of all National Health Insurance expenditures, an indication of the commitment the system has made to helping those with major ailments.

Individuals with rare diseases, classified as catastrophic illnesses in August 2002, are also exempt from making copayments to safeguard their right to health care. Any drugs listed by the Department of Health as necessary medication for a specific rare disease will also be covered by the National Health Insurance system. Patients can even apply on a case-by-case basis to have some drugs not on the National Health Insurance program's reimbursement list paid for by system.



## IDS Brings Care to Remote Areas

Taiwan has a number of sparsely populated mountainous areas and islands that are unable to attract health care workers and therefore suffer from a lack of uninterrupted health care services. To close this gap in care, the Bureau of National Health Insurance initiated an Integrated Delivery System (IDS) in November 1999 that now covers all 48 mountainous and island districts in the country and benefits over 400,000 people.

Under the program, more than 20 NHI-contracted hospitals rotate medical personnel in and out of the areas to provide medical support services that include outpatient care, 24-hour emergency services, evening and overnight (from 9 p.m. to 8 a.m.) outpatient care, specialty services such as eye, dental and gynecological care, and mobile health care. Patients can also get referrals to larger hospitals for follow-up care, notably home care, preventive care, disease screening, case management and health education, and remote diagnoses can be made by network hospitals.

In 2007, the IDS program offered an average of 1,746 specialty outpatient sessions per month at a cost of NT\$491 million for the year. The additional outpatient services, along with those regularly provided by local hospitals and clinics, drew 4.59 million patient visits at a total cost of NT\$3.434 billion.

The IDS program had a 91 percent satisfaction rating as of June 2008, with 100 percent satisfaction in the mountainous Wulai District of Taipei County, and 99 percent satisfaction in Nantou County's Renai Township and in Pingtung County's Majia and Sandimen townships.

# Diversified Payment Schemes

## National Health Insurance's Total Care Package

The National Health Insurance system provides a full range of care, from ambulatory and inpatient care to traditional Chinese medicine, dental services, child delivery, rehabilitation, home nursing care and chronic psychiatric rehabilitation.

As of the end of 2008, 4,323 services, 7,328 special materials and 16,511 drugs were covered under the program. Of the drugs, 15,273 were prescription drugs, 1,169 were over-the-counter drugs and 69 were orphan drugs.

## Controlling Health Care Costs: the Global Budget Payment System

When the National Health Insurance system was being designed, the global budget payment system was the centerpiece of a plan to contain rapid growth in costs under the fee-for-service model and establish a system of financial accountability. It was also legally mandated in the National Health Insurance Act.

Under the global budget payment system, prior to the beginning of a fiscal year, medical sectors and the National Health Insurance system negotiate overall caps on total medical payments based on a fixed volume and range of medical services.

Medical providers claim their medical services in points. And the Bureau converts the points into real dollars every quarter. If the total amount claimed for reimbursement by a sector exceeds the pre-set ceiling, its point value may be reduced. If, on the other hand, a particular sector reduces supply-induced demand, strengthens preventive care measures, or eliminates improper claims, its point value may be increased.

The success of the global budget payment system in containing the annual growth in the health insurance system's expenditures can be seen in Figure 6, with spending growth leveling out at below 5 percent a year once global budgeting was fully imposed in July 2002.

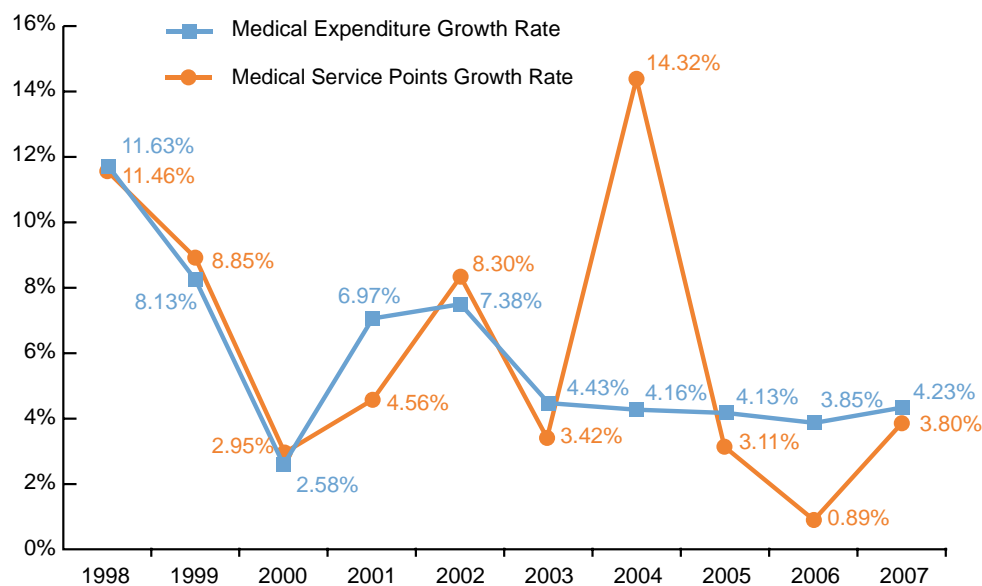
A complex negotiating process is held every year to set the annual budget, as described in Figure 7. The negotiated growth rates for each medical sector's total expenditures between 2003 and 2008 are seen in Table 9.

**Table 9 Annual Growth Rates of Global Budgets by Sector**

Sector	2003	2004	2005	2006	2007	2008
Total	3.90%	3.81%	3.61%	4.54%	4.50%	4.47%
Dental	2.48%	2.64%	2.90%	2.93%	2.61%	2.65%
Chinese Medicine	2.07%	2.41%	2.51%	2.78%	2.48%	2.51%
Clinics	2.90%	2.70%	3.23%	4.68%	4.18%	4.13%
Hospitals	4.01%	4.10%	3.53%	4.90%	4.91%	4.90%

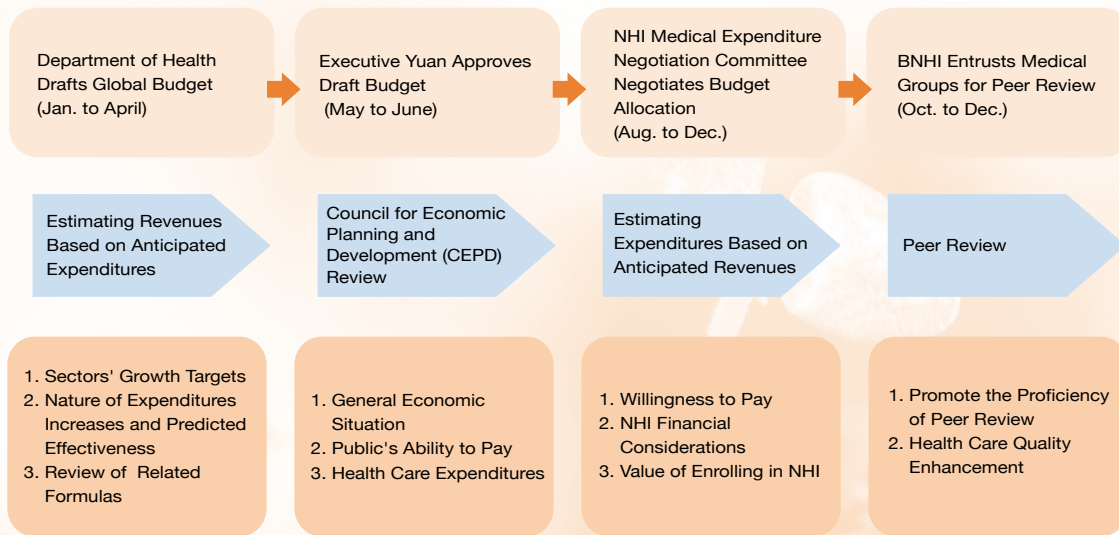
**Notes:**

1. Figures cover 2003 to 2008.
2. Figures for 2003-2005 are per capita growth rates in medical expenditures; beginning in 2006, figures are growth rates in overall medical spending.



- Notes:**
1. Medical services points = Claimed points + copayments; figures represent pre-audited points
  2. Medical expenditures = Claimed expenses + copayments; figures represent post-audited amounts

**Figure 6 Annual Growth Rate of NHI Medical Expenditures**



**Figure 7** Annual Global Budget Determination Process

## Ensuring Quality of Health Care under Global Budget System

At the same time that global budgets are being negotiated and approved, other measures are taken to ensure that the global budget payment system will prevent medical sectors or institutions from cutting back the quality or scope of care because of their limited budgets.

The quality assurance programs agreed to with Taiwan's medical sectors contain the following provisions:

1. The insured's rights to health care are guaranteed through satisfaction surveys on health care quality, mechanisms to handle appeals and complaints, and the monitoring of the accessibility of health care.
2. The quality of specialized health care services are ensured, as the Bureau requires hospitals and clinics to:
  - A. Establish clinical practice guidelines or pathways and peer reviews, while improving the maintenance of medical records.

- B. Develop ongoing programs to improve health care quality by:
- I . Monitoring outpatient environment and service quality
  - II. Establishing guidance system for medical institutions
  - III. Establishing health care quality indicators and posting quality information on the Bureau of National Health Insurance website (<http://www.nhi.gov.tw>) as a reference for medical institutions to help them continue improving the quality of their care.

## Pay-for-Performance Plans

The Bureau of National Health Insurance has developed a series of plans that are structured to improve the quality of care while keeping costs under control. The plans offer health care providers incentives to care for patients' overall well-being and be paid based on clinical outcomes. The Bureau phased in this pay-for-performance system beginning in October 2001 to cover payment for the treatment of cervical cancer, breast cancer, tuberculosis, diabetes and asthma based on clear clinical criteria. The management of the cervical cancer program was handed over to the Bureau of Health Promotion at the start of 2006. That same year hypertension treated at Western medicine clinics was added to the ailments included under this pay-for-performance structure. In 2007, hospitals became eligible to treat hypertension under the plan, and in 2008, the pay-for-performance tuberculosis plan became the standard for treatment of the disease.

The percentage of patients with the above diseases being treated under clinical outcome-based plans over the past three years is seen in Table 10.

**Table 10** Percentage of Patients Treated Under pay-for-performance Plan

Disease	2005	2006	2007
Asthma	32.50%	34.78%	35.17%
Diabetes	23.52%	23.16%	24.67%
Tuberculosis	68.78%	78.99%	91.81%
Breast Cancer	12.09%	12.98%	13.60%
Hypertension	N/A	9.31%	6.54%

**Notes:**

Hypertension was added to the pay-for-performance plan in 2006 on a trial basis at clinics. The figure shown for 2006 reflects the percentage of those treated at clinics for hypertension under the new model. In 2007, the plan was extended to hospitals, so the figure for 2007 includes the percentage of patients in the plan at both clinics and hospitals.

The initial results of these plans have been positive. The one-year survival rate of breast cancer patients has improved and the overall satisfaction rate with the program has surpassed 90 percent. The number of tuberculosis patients completing their courses of treatment has risen considerably, while diabetes patients in the program have seen noticeable improvement in key indicators, such as HbA1C and GLU-AC (fasting blood glucose).

Asthma patients participating in the plan have experienced a gradual decline in their emergency room visits and frequency of hospitalization, and their overall satisfaction level with the care they are receiving has soared. Finally, hypertension patients have seen clear improvement in their blood pressure levels.

## Family Doctors and Community Pharmacies

The Bureau of National Health Insurance launched a family doctor plan in March 2003 as part of its effort to promote integrates primary care continuity with referrals for more specialized treatment when needed. The program enabled families to obtain primary care through local clinics or neighborhood doctors who are networked with contracted hospitals. These general practitioners serve as preventive medicine consultants who develop complete medical records for every member of the family and provide information on demand. If an ailment requires further tests, surgery or hospitalization, they can arrange for a referral to a larger hospital, saving patients from wasting time and money searching for specialized clinics.

As of June 2008, there were 297 community health care groups in existence, with 1,828 clinics, or 19.53 percent of the country's total, and 2,114 doctors, or 16.68 percent of the total, participating in the program.

In addition, around 4,000 contracted community pharmacies around the country can fill prescriptions patients have paid for at hospitals or clinics. If patients have questions about the drugs prescribed, they can ask community pharmacists for more information on how they are to be taken and potential side effects. Community pharmacies not only serve as a safety barrier, they can also offer residents in their neighborhoods accurate information on the medications patients have been prescribed.





## Disclosure of Medical Information

The Bureau of National Health Insurance is committed to making health-related information more open and transparent to improve service efficiency and empower the public to monitor the country's medical system. To fulfill that commitment, the Bureau created a “Virtual Private Network” (VPN), which links it to hospitals and clinics, and other Internet-based tools that provide other health-related information to the public.

## Online Quality Indicators under Global Budget

Incorporating the global budget payment system process as part of the Bureau's efforts to make health-related information more open and transparent is an important element in elevating the quality of Taiwan's health care system. Health care quality indicators under global budgeting are determined in collaboration with each sector's global budget payment committee, and two to three quality indicators are chosen jointly with the committee to be disclosed publicly online through the Bureau of National Health Insurance website as benchmarks for medical institutions and the public.

Further discussions will be held with these committees in the future to negotiate an increase in the number of indicators that can be made public and to study the effectiveness and feasibility of other information outlets to ensure that people have access to this information. From 2005-2008, 63 quality indicators were posted on the Internet and had received 19,444,603 hits as of the end of December 2008.

# Improving Delivery Side Efficiency

## Developing a Rational Payment System

### Newly Covered Items and Fee Schedules Adjustment

Since the inception of Taiwan's National Health Insurance system, the medical community has regularly complained that predetermined reimbursement fees are too low for a number of medical services and procedures. To prevent such perceptions from distorting the development of the medical system and deterring the participation of medical trainees in fields such as emergency and inpatient care, critical care/intensive care, gynecology, pediatrics surgery and general surgery, the Bureau announced 31 adjustments to fee schedules between 2004 and 2007. The biggest overhauls of the fee schedule, made on June 14, 2004 and in December 2005, involved adjusting the relative point values of 1,382 items and services.

Another round of changes was announced in December 2006 to reflect technological developments and clinical needs. Some 33 procedures and devices, including laparoscopies and thoracoscopies and incubators for newborn infants, were added to the list of items covered under the program.

Beginning January 1, 2008, relative point values for kidney, heart, lung and liver transplants were increased substantially. The standard fee for kidney transplants was set at three times its previous level, while the standard point value for heart, lung and liver transplants was increased to twice the existing level. Fees for outpatient care for children under two years of age were increased 20 percent.

### New Items Partially Covered

The National Health Insurance system also covers a number of newly developed technologically advanced materials that provide clear health benefits, even if they are many times as expensive as the devices they have been designed to replace. To ease the financial burden of patients who stand to benefit from such advanced materials, the Bureau phased in partial coverage of drug-eluting stents, artificial ceramic hip joints, artificial intraocular lenses, and metal-on-metal artificial hip joints beginning on December 1, 2006 (Table 11). For patients who choose these and other more expensive devices and materials, the National Health Insurance system covers the standard fee it would pay for similar more conventional devices, while patients cover the additional cost.

**Table 11** Special Devices Newly Covered by Health Insurance System

Item	Date Coverage Began
Drug-eluting Stents	Dec. 1, 2006
Artificial Ceramic Hip Joints	Jan. 1, 2007
Artificial Intraocular Lenses	Oct. 1, 2007
Metal-on-metal Artificial Hip Joints	May 1, 2008

To safeguard the rights of the insured, the Bureau requires that physicians clearly inform patients or their families why a more advanced device is needed and the additional amount they will be asked to pay prior to the procedure and then have them fill out the required authorization agreement.

Health care institutions are also required to provide information on all devices or materials that are fully or partially covered under the insurance system and their specific characteristics (including potential side effects, contraindications, and other issues to be aware of ). They will also be asked to post on their Web sites, on easily spotted hospital bulletin boards, or outside outpatient clinics descriptions of items and the items suppliers that have been used recently and the price charged as a reference for patients.

## Drug Prices Adjustment

The Bureau of National Health Insurance has followed legally mandated drug price adjustment guidelines to pay reasonable prices for medications and narrow the gap between market and NHI drug prices. It has gradually closed the price gap on drugs with similar compositions, dosages of active ingredients, specifications, and forms that do not involve intellectual property rights or quality disputes, while also adjusting the prices paid for drugs to bring them closer to actual market prices.

The effort to rationalize drug expenditures began in 1996, when the Bureau launched a review of drug pricing and measures to adjust drug prices, and it has adopted a number of successful measures over the years that have helped it pay more reasonable prices for the medications it buys, as follows:

1. The prices of 1,343 drugs that were too high under the old public and labor insurance plans were reduced in line with international drug prices, saving NT\$1.25 billion a year.
2. Drug price adjustments were made based on the Department of Health's "Standards for NHI's Drug Prices" and "NHI Drug Price Adjustment Operations" :
  - A. Adjustments made according to those directives have saved NT\$13.23 billion in drug costs per year.

B. In 2006, the Bureau conducted the fifth round of drug price reviews and adjustments in its history, cutting prices by around NT\$9 billion. Another round of cuts on 5,700 medications took effect on September 1, 2007, saving an additional NT\$6 billion in drug expenditures. The two drug price adjustment initiatives saved the BNHI a total of NT\$15 billion.

## Highly Efficient Automated Claims Review System

The Bureau of National Health Insurance has developed an automated claims review system with its own internal logic that can review payment claims submitted by medical institutions and weed out those that do not conform to established payment standards, drug price standards, and drug payment rules among others. The computerized system can also detect claims violating regulations that do not allow payment based, for instance, on patients' age or gender indication, limits to claim frequency, or the improper combining of reported services.

The automated auditing process has reduced the number of improper claims filed by health care institutions and gradually coaxed them into more accurate reporting of their expenses, improving auditing efficiency and reducing medical waste.

## Counseling Effective in Reducing Excessive Visits

The Bureau of National Health Insurance has its electronic medical record system trace and counsel individuals who make an excessive number of outpatient visits. The program prevents medical waste by guiding these heavy users of the health care system on how to properly seek treatment.

### Program Targets

1. Those having sought outpatient care 150 or more times in the previous year.
2. Those having sought outpatient care 50 or more times in the previous quarter.
3. People whose IC cards indicate an average of 20 or more outpatient visits per month.

### Counseling Methods

1. Understand in person or by phone the reasons why the patient frequently seeks treatment and explain National Health Insurance regulations to them as needed. Also, at the appropriate time, teach them proper health care concepts.
2. Send a letter expressing the Bureau's sympathies to show concern for the patient, and notify the individual how to contact a counselor (determined jointly with the health care institution's superintendent).

3. Provide guidance to the patient through outside resources, including local governments' public health system and patient support groups.
4. Review the individual's treatment situation: Examine on a special case basis the rationality of the patient's frequent visits and the appropriateness of the course of treatment and offer advice before submitting the result of the review to the health care institution involved. The process helps reduce physician visits and improve the health care quality of the implicated medical institution.
5. If counseling does not improve the situation and a review of the case indicates the need for the patient to be treated at a specific health care facility, the patient is sent to that facility contingent on the individual's medical condition and willingness.

## **Counseling Success**

The guidance program has successfully reduced the excessive outpatient visits of thousands of patients. By the end of December 2007, the average number of doctor visits for the 5,074 patients under counseling who sought treatment 150 times or more in 2006 fell by 20 percent. The 5,182 patients who sought outpatient care more than 50 times per quarter from the fourth quarter of 2006 to the third quarter of 2007 made on average 20 percent to 40 percent fewer doctor visits after receiving counseling.

Finally, the 12,716 patients whose IC card records showed they were making more than 20 outpatient visits a month from January to June 2007 made 40 percent to 60 percent fewer visits after receiving counseling.

## **Managing Irregularities in Hospital Services**

The Bureau of National Health Insurance has monitored and guided contracted health care institutions since 2003 based on file analysis and evidence-based medicine. The initiative has compelled health care providers to learn and improve together, elevating the overall quality of health care.

## **Profile Analysis**

An analysis is done on resource usage (such as usage rates of CT scans and MRIs), patient visit situation (such as repeat treatment rates), drug use status (such as use of antibiotics and injections, or number of items per prescription) and treatment status (such as incompleteness rate of endodontic treatment) based on the health care institution, the medical specialty and type of disease. The results of the analysis are given to hospitals and clinics to guide them and help them improve.



## Successfully Controlling Repeat CT and MRI Usage

Bureau of National Health Insurance statistics show that an estimated NT\$7 billion was spent per year on PET, MRI, CT-scans and other tests from 2004 to 2006. The Bureau adopted stricter monitoring measures during those years that lowered the rate of repeat usage of MRI tests and CT-scans (Table 12).

**Table 12** CT-scan, MRT Repeat Usage Rate

Description	2004	2005	2006	Improvement from 2004 to 2006
% of patients getting second CT-scan within 90 days	12.80%	11.84%	10.96%	1.84 percentage points lower
% of patients getting second MRI within 90 days	5.80%	4.79%	4.73%	1.07 percentage points lower

## Auditing Health Care Institutions

To cut medical waste and deter medical institutions from improperly claiming expenses, the Bureau of National Health Insurance rigorously checks for violations of payment claims guidelines. When computerized checks turn up irregularities in expense claims or a specific type of major violation, the Bureau screens its database for similar abnormal claims and sets up on-site investigations as needed to improve the quality and efficiency of the process.

If the review process discovers that a violation is severe or systematic, the Bureau automatically sets up a special auditing task force to investigate. Whatever flaws are uncovered are reported to related agencies for their reference to help build a superior medical operating environment.

Health care institutions found to have violated existing regulations can be assessed demerits, have reimbursed expenses reduced, have their contracts with the Bureau suspended for one to three months, or have their contracts terminated, depending on the severity of the offense. If there is substantive evidence that they violated the law, their cases will be forwarded to judicial authorities for prosecution.

# IC Card and Online Services

## The National Health Insurance IC Card

Officially launched in January 2004, the National Health Insurance IC card has improved record keeping, lowered administrative costs, and brought greater convenience to patients. With the IC card, the Bureau of National Health Insurance no longer has to renew the old paper health ID cards after every six doctor visits or distribute new cards on a yearly basis, and patients have a portable medical profile.



## Security Features

The IC Card issued to those covered under the National Health Insurance plan not only ensures privacy, but also reflects the improved flow of information through Taiwan's medical online information platform. The card's many security features that protect confidential information and prevent it from being counterfeited have received international recognition.

They include a guilloche design, rainbow printing, micro-text printing, optical variable ink, and UV printing. The background of the cardholder's picture possesses anti-forgery characteristics, while the embedded microchip employs a number of verification mechanisms to protect the information it contains.

The Bureau's online system consists of its own closed network, the Virtual Private Network, which is reinforced by a two-tiered firewall. The records of the insured are given numerical and/or alphabetic codes. The system prevents hackers from breaking into the system or stealing information.

In August 2003, the Bureau of National Health Insurance created an “information security task force” to strengthen the IC card's security management framework. The task force was made responsible for managing security-related tasks and obtaining independent certifications of the system. Within a year of the panel's creation, the IC Card's Gold key management system (KMS) and its IC Card Data Center (IDC) were found compliant with internationally recognized information security and recognition standards. The KMS received BS7799 certification in June 2004 and the IDC received CNS17800 certification in August 2004.

The Bureau of National Health Insurance was the first government agency in Taiwan to obtain CNS17800 certification, which was issued by the Taiwan Accreditation Foundation with the authorization of the British Standards Institution.

The Bureau has also worked hard at installing an “information security management system” (ISMS). The information divisions of its headquarters and six branch offices received certification based on the ISMS standard ISO27001 in April 2006 and April 2008, respectively, from both the Taiwan Accreditation Foundation and the United Kingdom Accreditation Service.

## **IC Card Content**

The IC card combines the medical records and certifications contained in four separate cards —the paper health insurance card, the child health care handbook, the maternity health care handbook and the catastrophic illness certification card— issued prior to the IC card's introduction.

It contains basic personal information, records of recent doctor visits, preventive medical test results, and personal characteristics such as drugs to which an individual is allergic.

The IC card also contains a catastrophic illness code if the card holder is suffering from a severe condition and the start and expiration dates of the patient's catastrophic illness certificate. Because the Bureau directly enters each catastrophic illness file into its database, individuals can learn more about their conditions by reading information stored on their IC cards through any of the card readers set up at Bureau of National Health Insurance locations.

The Bureau has also begun entering drug prescriptions and important medical tests on the cards as a reference for physicians treating the cardholder. Access to this information prevents the waste of medical resources, such as repetitive prescriptions or tests, and reduces examination risks and wait times for patients.



At the same time, with the IC card, a record of every patient visit is transmitted to the Bureau of National Health Insurance, enabling the Bureau to calculate outpatient and inpatient visits on a daily basis and help it spot and pursue irregularities as they happen.

Another special function of the IC card is that it can store Department of Health files indicating the willingness of the bearer to donate organs or receive hospice care, provided that the bearer has applied for hospice care or previously volunteered to donate organs. Cardholders must have the information downloaded into their cards wherever a card reading machine is installed. With this information, family members and physicians can have a clear understanding of how cardholders who have lost consciousness feel about end-of-life issues.

## A Powerful Online Claim System

Since the inception of the National Health Insurance system, the Bureau has encouraged contracted health care institutions to file their expense reimbursement claims electronically (via the Internet, electronic media or the Virtual Private Network), enhancing reporting efficiency and lowering the administrative costs of processes that were once handled manually. The system also shortens the time it takes to approve or deny expense claims. Nearly all contracted health care institutions now file their claims electronically.

The Virtual Private Network in particular was set up to provide a two-way communication channel with health care institutions, which now use it to verify and update IC cards during patient visits, file their expense claims and report clinical trial plans. As of the end of December 2008, 99.9 percent of all contracted health care institutions had entered the VPN systems to verify IC cards. Approximately 1.11 million IC cards are successfully verified on average per day on the VPN, and health care institutions use it to access 2.85 million pieces of information per day.

The Bureau of National Health Insurance has set up other online systems to accommodate the increasing efforts of medical institutions to digitalize their operations and strengthen the overall e-government environment. In September 2006, a public-access computer system (PACS) to audit expense claims (including written information and images) was launched to help medical institutions electronically report their expenses. At the same time, the system was linked to the Bureau of National Health Insurance's internal payment systems, automating the



auditing system even further. Ultimately, the increased reliance on electronic systems has improved efficiency, cut administrative costs and elevated the quality of medical services.

It is hoped that in the future, software will be available that allows all contracted health care institutions to report their expense claims electronically through one window, the IC Card Data Center (IDC), to streamline the process even further. Health care institutions will also be encouraged to capitalize on the online systems to share image and document files of patients among themselves and prevent repeat tests and checkups, which will help reduce the health insurance system's expenditures and encourage the digitalization of the medical sector and the standardization of medical imaging.

## Multifaceted Online Platform for Employers

In January 2006, the Bureau of National Health Insurance updated its general services operating system and created a “multiple authentication Internet platform,” offering diversified online services that are periodically updated and expanded. As of the end of June 2008, more than 60,000 insurance registration organizations (namely employers) had used the system, with an average of 550,000 changes in information, or more than 60 percent of all changes filed, being reported through the online system per month.

This operating platform can also be accessed by other associations authenticated by the government (such as commercial federations, government agencies, medical groups, organizations and associations, and registered individuals) and is equipped with the following functions:

1. Insurance registration organizations can report newly enrolled or withdrawn insureds and adjustments to their reported salaries.



2. Insurance registration organizations can download statements detailing how their bills were calculated and check previous statements.
3. Registered individuals can check if they have overdue payments and apply for a copy of the original bill; they can also see if their IC card is still valid or check on progress in getting a new card.
4. Insurance registration organizations that represent professional groups, such as labor federations and farmers' and fishermen's associations, can report collective data on overdue premium payments.
5. Registered individuals can apply to have IC cards (without photos) made and issued for newborn infants.
6. The system can be used to print bills and payment receipts and pay premiums online.
7. Insurance registration organizations can change their basic information (such as their name, address and telephone number) online.



International Recognition

4

International Recognition

International Recognition

# Taiwan's Health Care System in Comparative Perspective

Taiwan's National Health Insurance system has earned high praise from around the world for its many achievements, including its universality, ability to care for socially and economically disadvantaged groups, wide range of coverage and consistent level of quality. Below is a series of charts that provide a comparison of Taiwan's health care indicators with those from other countries around the world.

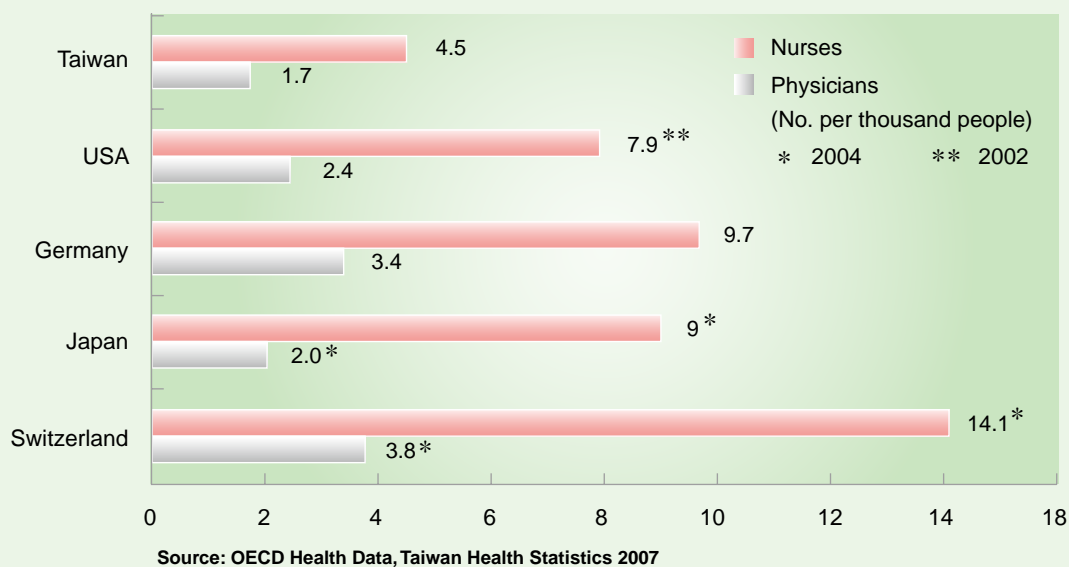


Figure 8 Health Manpower, 2005

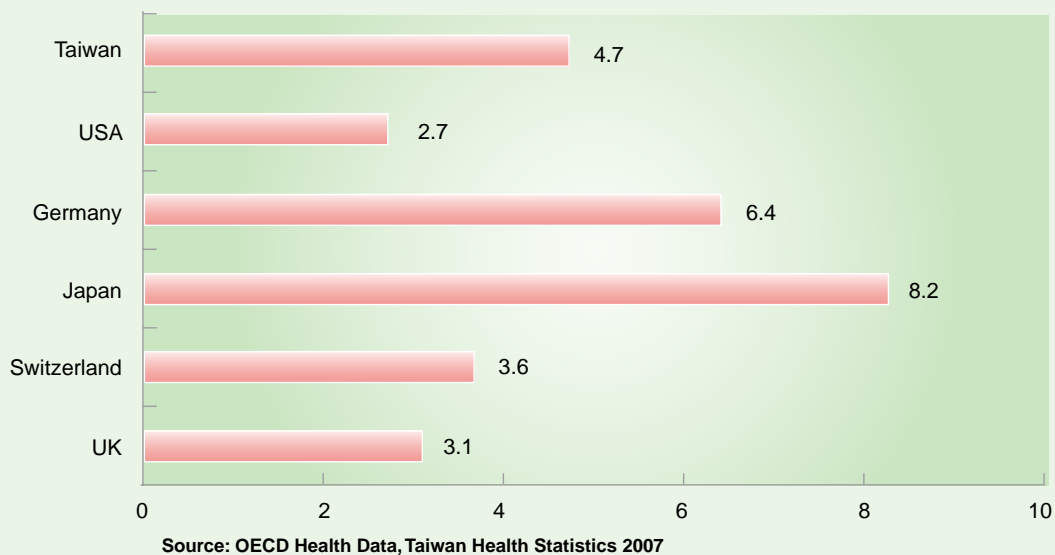


Figure 9 Acute Care Hospital Beds per 1000, 2005

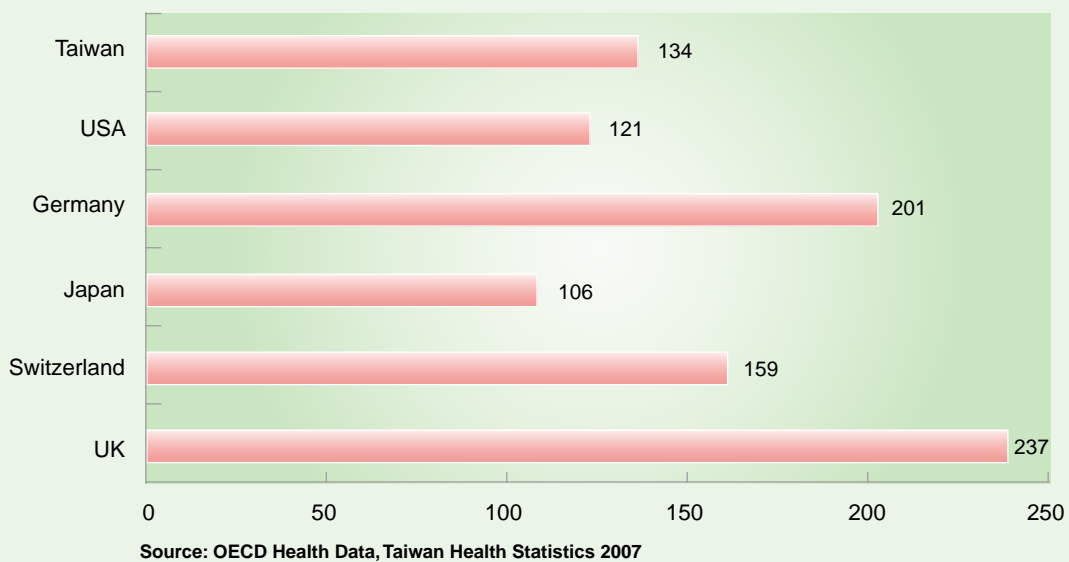


Figure 10 Hospital Discharge per 1000 Population, 2005

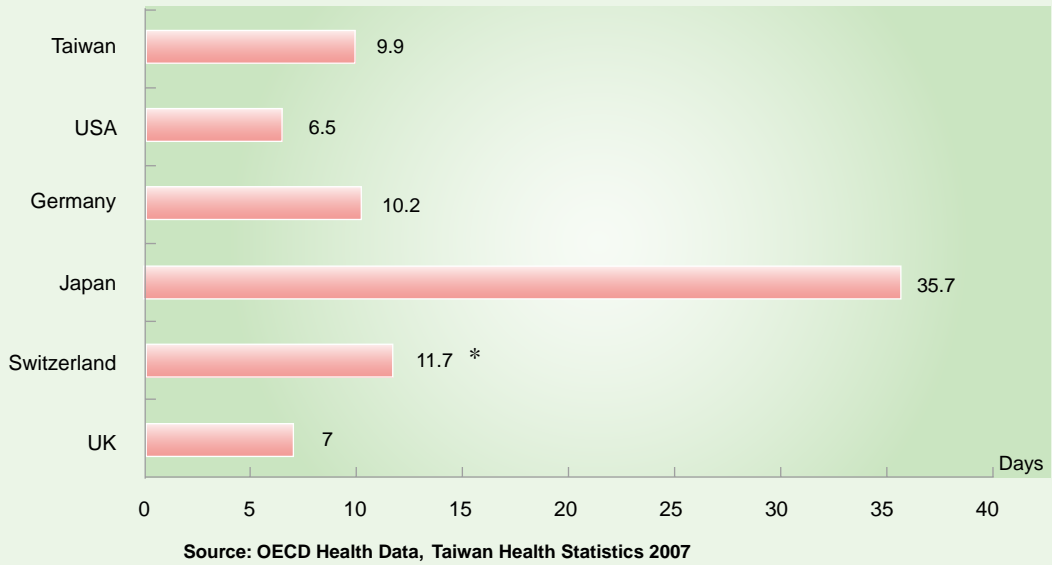


Figure 11 Average Length of Stay – Inpatient Days

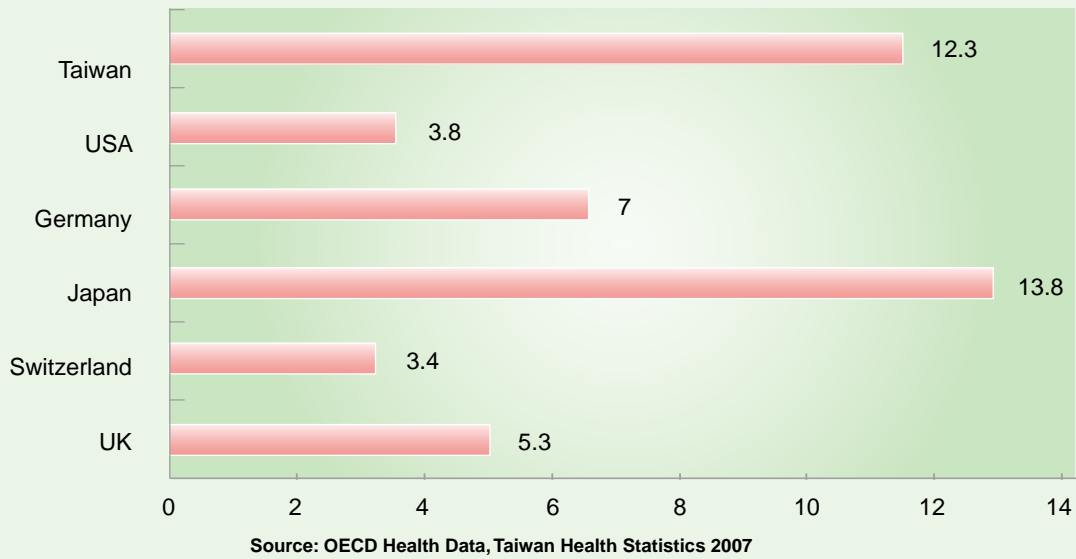


Figure 12 Outpatient Visits, 2004

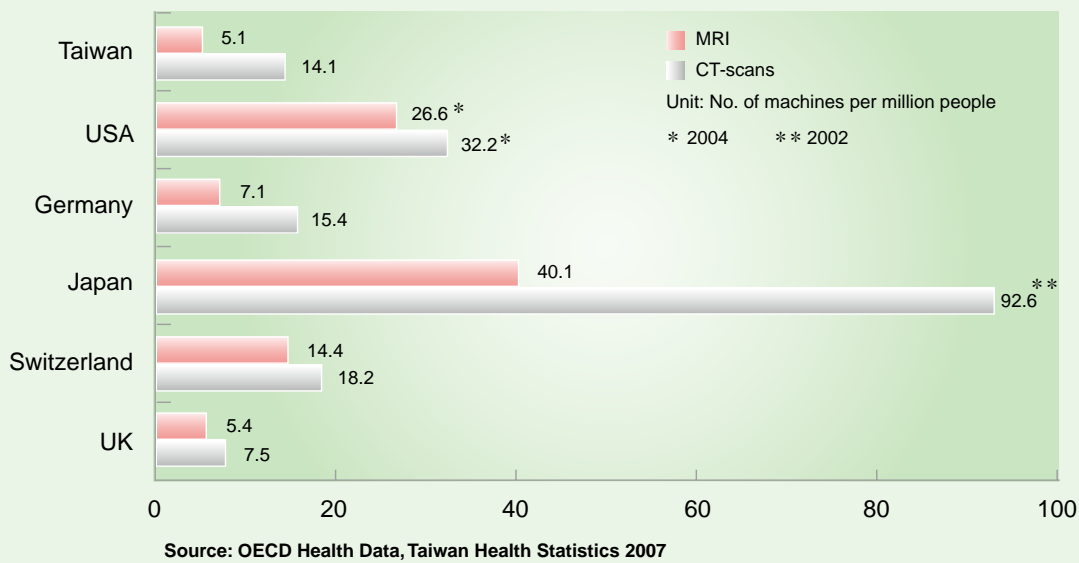


Figure 13 Medical Technology, 2005

Table 13 Average Life Expectancy and Infant Mortality Rate

	Life Expectancy		Infant Mortality Rate (Per 1,000 Live Births) 2005
	Female	Male	
Taiwan	80.8	74.5	5.0
USA	80.4	75.2	6.8
Germany	81.8	76.2	3.9
Japan	85.5	78.5	2.8
Switzerland	83.9	78.7	4.2
UK	81.1	76.9	5.1

Source: OECD Health Data, Taiwan Health Statistics 2007



**Table 14** Organ Transplantation Survival Rate

	No. of Cases	3-Month Survival Rate			1 Year Survival Rate			3-Year Survival Rate		
		Taiwan	US		Taiwan	US		Taiwan	US	
			Dead	Living		Dead	Living		Dead	Living
Kidney	686	98%	97%	99%	96%	95%	98%	92%	88%	94%
Liver	402	91%	92%	93%	88%	87%	87%	84%	79%	78%
Heart	212	87%	91%		79%	86%		66%	79%	
Lung	45	58%	90%		40%	80%		19%	62%	
Kidney and Heart	7	71%	98%		71%	92%		71%	78%	

Source: OECD Health Data, Taiwan Health Statistics 2007

**Table 15** WHO Fairness of Financial Contribution Index

Rank	Country	Index
1	Colombia	0.992
*	Taiwan	0.992(1994:0.881)
2	Luxembourg	0.981
6-7	Germany	0.978
8-11	Japan	0.977
8-11	United Kingdom	0.977
12-15	Sweden	0.976
17-19	Canada	0.974
20-22	Netherlands	0.973
38-40	Switzerland	0.964
53	South Korea	0.955
54-55	US	0.954

\* Source for Taiwan: Health Affairs 2003

# Praise from all Quarters of the Globe

## NHI Team Recognized for Achievements

Any health insurance system spans a number of disciplines—from medicine and insurance to finance, social welfare services and technology—and therefore requires a multitasking team working cohesively to achieve its mission.

In 14 years, the Bureau of National Health Insurance has successfully raised the quality of health care, promoted greater information transparency, expanded the range and convenience of care, and enhanced service quality. The success of the Bureau's branches in upgrading quality and delivering excellent results has earned the recognition of society as a whole.

## High Satisfaction Rating

The National Health Insurance system faced considerable challenges and resistance when it was first put in place, and public satisfaction with the program at its inception stood at under 40 percent. Today, nearly 80 percent of local residents are satisfied with the system, a reflection of the public's recognition of the Bureau's efforts over the past 13 years. Although the system's satisfaction rating plummeted in 2002 when premiums and copayments were raised, it quickly recovered to 77 percent a year later and has remained near 80 percent the past two years (Figure 14).

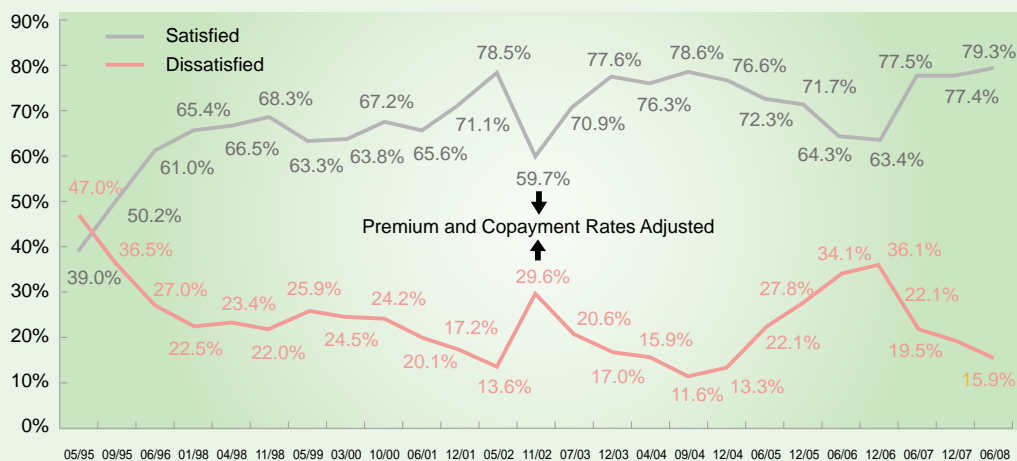
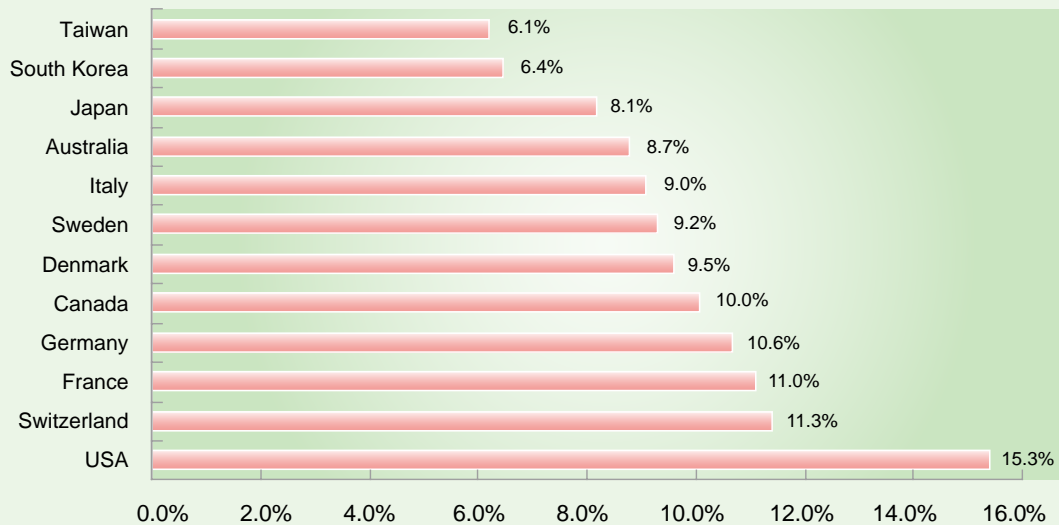


Figure 14 NHI Public Satisfaction Ratings

## International Recognition

Our National Health Insurance system's successful experience has won global attention, with many countries interested in emulating aspects of Taiwan's program. Every year, hundreds of experts and scholars or government representatives from abroad visit Taiwan to gain a better understanding of the system. Through these mutual exchanges, the Bureau has also obtained a wealth of information on the health care systems of other countries, which has provided a reference for local reform initiatives.

At 6.1 percent, Taiwan's health care spending as a percent of GDP is lower than that of most OECD countries (see Figure 15).



Source: OECD Health Data, Taiwan Health Statistics 2007

Figure 15 Selected Countries' Health Care Expenditures as % of GDP, 2006

## International Media Reports

- A number of international media have taken close-up looks at Taiwan's experience in recent years, reporting the country's health care achievements and touting it as a model other countries can learn from.
- An editorial in the U.S.-based *Annals of International Medicine* in early 2008, titled “Learning from Taiwan: Experience with Universal Health Insurance,” summarized a paper by Wen Chi-pang, an investigator with the National Health Research Institutes Center for Health Policy Research and Development, and others who evaluated the National Health Insurance program's first 10 years. The paper concluded that Taiwan's health care policies had helped improve the life expectancies of socially disadvantaged groups and narrowed the disparity in care between the wealthy and the poor.
- In a column in the *British Medical Journal (BMJ)* in January 2008, noted health care economist Uwe Reinhardt stressed the high administrative efficiency of Taiwan's health insurance system. He suggested that the United States should be inspired by Taiwan's experience.
- An article in the winter 2008 edition of U.S. political magazine “Dissent” called “Health Care in Taiwan: Why Can't the United States Learn Some Lessons?” introduced Taiwan's health care system and stressed that the single-payer, government-administered system that Americans so fear has not led to abuses in Taiwan.
- In 2008, Taiwan was also featured in one of the U.S. Public Broadcasting Service's (PBS) *Frontline* series called “Sick around the World,” which focused on the health insurance systems of Taiwan, Britain, Germany Switzerland and Japan. The report on Taiwan's health care system explored and praised the range of Western medicine, dental, traditional Chinese medicine and mental illness services offered, as well as the adoption of the IC card, the payment of fees directly to health care institutions and a cost of care less than half that in the United States. The series compared Taiwan to other advanced countries and brought considerable attention to the country's health insurance system.



- Nobel Laureate and New York Times columnist Paul Krugman praised Taiwan's health care system in a November 7, 2005 column called “Pride, Prejudice, Insurance,” writing that Taiwan had expanded coverage without a major increase in health expenditures.
- The May 2003 edition of Health Affairs featured two studies on Taiwan's health insurance program and its impact on keeping health care costs under control. Both papers highly praised the achievements of Taiwan's health care system, especially its universal coverage, wide range of coverage, high level of access, short waiting times and low administrative costs. They also highlighted the system's low premiums, the high level of care and the public's consistently high level of satisfaction with the program, all attributes, the studies said, worthy of emulation by other countries.
- In 2003, ABC News broadcast a report on Taiwan's universal health care system, stressing how the program offers care to all of Taiwan's people, after years in which 40 percent of the population was left uninsured.
- In 2000, the Economist rated Taiwan's health care system as the second best in the world among developed and newly industrialized countries, a significant milestone for the country and its people.
- In a piece called “A New Zealander's View of Taiwan's National Health Insurance,” journalist Mike Crean writes that New Zealanders admire Taiwan's health care scheme and achievements such as its commitment to delivering quality care to all its citizens, and envy its population and tax base, which make the system possible.



The global media's attention and praise of the National Health Insurance system's considerable achievements has made it a model for the U.S. in building a more inclusive health insurance system and brought Taiwan a high level of prestige. Described by the global media as a “A Role model for Health Insurance” and a “Health Utopia,” the National Health Insurance system is not only a source of public pride and honor, it also proves that this social safety net is one of the country's most precious assets.



## Building a Healthy Nation

With the constant development of new technologies and the aging of Taiwan's society, the public's health care needs are growing increasingly demanding, and the National Health Insurance system continues to face new problems and challenges. To confront these issues, the Bureau of National Health Insurance is committed to studying innovative ways to reform its payment system and balance its finances while developing a system that meets the people's health care needs. As for those countries that are interested in studying the Taiwan experience, the Bureau of National Health Insurance can provide technical assistance and advice while maintaining frequent exchanges to disseminate Taiwan's experience abroad.



5  
Eye on the Future  
Eye on the Future

# Eye on the Future



# Eye on the Future

The Bureau of National Health Insurance's efforts for more than a decade have clearly rewritten Taiwan's health care history, but as demands on the system continue to grow, the Bureau must strengthen the efficiency of its services and tighten up its operations if it is to sustain Taiwan's health care quality and safeguard the rights of citizens to health care.

The Bureau will remain dedicated to reducing the financial burden of health care, caring for people's health and promoting social equality as it initiates reforms to better satisfy every patient's needs and provide superior medical services. Future policy objectives and strategies are described below.

## Realizing Social Justice

### Prioritizing Acute and Critical Care for the Disadvantaged

Ensuring that patients with catastrophic illnesses get the care they are entitled to is one of the Bureau of National Health Insurance's top priorities. To help those who might otherwise be unable to afford the extensive or sophisticated care patients with serious conditions require, the system covers them if they hold a certificate of low-income status obtained from their borough office or health care institution. The system provides them with relief loans and installment plans to ease their financial burden.





## **Improving Access to Quality Care in Remote Regions**

The Integrated Delivery Service (IDS) program will continue to provide on-site outpatient and emergency care and transfer services in remote areas as it institutionalizes integrated regional medical care. Improvements are still being made to the system, such as strengthening emergency medical services systems in remote areas, fortifying basic medical infrastructure and health care personnel work forces, and upgrading professional ability and skills. Efforts are also underway to promote health consciousness, nutritious eating and preventive medicine for indigenous peoples, improve the functioning of the referral system, build a common health care information system for all remote areas, and elevate the overall care of Taiwan's indigenous peoples.

## **Expanding Resources to Care for Disadvantaged**

The Bureau of National Health Insurance will strengthen measures to assist those who are unable to pay their premiums. Among them: providing interest-free loans to cover premiums or medical expenses; helping those in need get financial assistance from charitable groups or private sponsors; offering installment payment plans; and raising funds from new sources. These initiatives will help ensure that financial obstacles will not limit impoverished households' access to health care.

## **Enhancing Electronic Services**

### **IC Card Replacement Project**

While the IC card will remain the main form of identification for those enrolled in the National Health Insurance system, plans are in the pipeline to expand its functions and help the insured more easily appreciate the constraints of the system's resources. The Bureau believes that by issuing this new version of cards, health care quality will improve and resources will be used more efficiently.

## Improved Payment Efficiency

### Global Payment System in Tune with Health Care System Development

At present, payments to health care providers are made on a fee-for-service basis within a global budget assigned to specific medical sectors, but a “pay-for-performance” system has been introduced gradually to improve health care quality. To preserve the effectiveness of the global budget payment program, the Bureau of National Health Insurance and health care providers have initiated a quality assurance program to monitor medical institutions that use global budgeting and to provide health care services at a higher quality level. The goal is to ensure that people's health care needs are met under the global budget payment scheme by improving care while keeping cost growth under control.

### Tightening the Auditing Process

By tightening the auditing of medical institutions and cracking down on improper claims, the Bureau will safeguard the quality of health care services. Those found violating regulations will be disciplined or punished based on the severity of the offense. They may be assessed penalty points or have reimbursed expenses reduced for less egregious violations. If the offense is more serious they may also have their contracts with the Bureau suspended or terminated.

## Flexible Financial Management

### Making both Ends Meet

One of the Bureau of National Health Insurance's stipulated roles is to periodically review the optimal level for the system's premium rate and submit a report on the findings. The report takes into account several factors influencing insurance revenues and medical expenditures, such as the rate of wage growth, the number of insured, the premium collection rate, the average number of dependents, changes in the age and gender structure in Taiwan's population, the intensity of medical services, and the medical price index.

The Bureau also carefully considers a number of possible measures it could make to its range of coverage and sources of revenue in its effort to balance its finances. The options being studied include expanding the premium base, increasing sources of supplementary revenue, increasing premiums, reducing the number of items covered, lowering the growth of global budget allotments, and increasing copayments.



The Bureau of National Health Insurance has also informed Taiwan's Directorate General of Budget, Accounting and Statistics of the amounts county and city governments owe in unpaid insurance premiums to serve as a reference during assessments of local government budgets and their execution of the previous year's budget. The goal is to pressure local governments to pay off what they owe, and, in some cases, installment plans have been worked out with local governments to repay the balances.

The Bureau also intends to increase checks on reported incomes used to calculate premiums and may increase premium revenues by comparing reported incomes to actual incomes, labor insurance insurable incomes, and incomes reported for the national labor pension program.

## Improving Quality of Care

### A Sustainable System Based on Quality, Equity and Efficiency

The Bureau of National Insurance is committed to preserving its system of partial coverage of medical expenses, providing patients with more treatment options and encouraging health care providers to make information on their services more transparent. The Bureau has developed an online services platform that compiles available treatment quality information and provides the public with clinical care guidelines, while also adding a consulting service function allowing individuals to search for their own information to better understand their insurance and treatment status. This electronic system has empowered individuals to manage their own health and elevate the overall quality of outpatient visits.

### Achieving a National Consensus

Taiwan may be facing many challenges in the near future, but the Bureau of National Health Insurance will remain devoted to improving the quality of medical care in the country, rationalizing and stabilizing the health insurance system's structural and financial pillars and advancing social justice. The Bureau will work even harder in the future to further encourage social equity, improve service efficiency and forge a social consensus on the health care system so that the quality of care improves for all Taiwanese citizens and the insurance program can be sustained into the future.

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