

## **Access and Cost: What the U.S. Health Care System Can Learn from other Countries**

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### **Universal coverage**

Taiwan established universal national health insurance in 1995, bringing nearly 40 percent (about 9 million) uninsured under the umbrella of national health insurance (NHI). Before that, there were 12 different social health insurance and health service programs covering a population of 12 million. Currently, 99.6% of the population, about 23 million people, is enrolled in the NHI program. Taiwan is the only country in the last 30 years to reach universal coverage and a single payer system at the same time. Nineteen years of experience with national health insurance have produced important results that other countries might find of interest.

### **Equity**

Taiwan has been one of the most egalitarian health systems in the industrialized world. Access to health care is an inalienable right in our constitution. Residents living in remote mountainous areas and offshore islands, and the poor, the disabled, the aged get pretty much the same access and health care as anyone else. A single-payer system has a single risk pool, since everyone is mandated to enroll. This enables cross-subsidization among diverse groups with not only different socioeconomic status but also different health status.

Studies show that the premium contribution compared to the health resources utilized are favorable to the low and middle-low income classes. Of course, this is the nature of a social health insurance program. Also, health care costs are much lower compared to most OECD [Organization for Economic Cooperation and Development] countries. National health spending grew from the pre-NHI three-year average of 4.87 percent of gross domestic product (GDP) to only 6.62 percent in 2012.

### **Transition period**

By the end of 1995, 10 months after NHI launched, only 92.3% of our population enrolled in the new program, and increased to 96.0% in 1996. In 2002, it finally reached 98%, the target we set in the planning stage. And now, 99.6% of our citizens covered by the NHI.

For the first 2 years, the percentage of health expenditure to GDP increased rapidly from 4.87% to 5.36%, then stabilized and gradually increased from 5.36% in 1996 to 6.62% in 2012.

The general public has been very satisfied with the NHI—although in the first half year of inception, satisfaction rates were as low as 25–40%, but by the end of the first year they rose to 60%, and after the end of the second year, they have always been between 70 and 80 percent up to the present.

### **Single-payer system**

Having a single-payer system is the main reason for our efficient services and also the low prices for health care we can achieve. Private delivery and highly competitive providers enable us to have efficient health services. The NHI Administration's contract with all of the hospitals and most of the private practitioners enable the insured to have an easy and equal access to health services. In addition, the single payer wields monopsonistic power in procuring services and products—hence low prices for health care.

A single insurance administration also has the benefit of a very low administrative cost, which was only 1.15 percent of total NHI spending in 2012. Although there is no choice of insurers, people enjoy complete free choice of providers. The latter compels the providers to be competitive and efficient. Doctors and hospitals must achieve very high productivity to survive. Providers in Taiwan must be mindful of patients' demands to stay competitive, and they do compete for patients. The NHI Administration set a uniform national fee schedule for all the providers. Price competition is limited to those services not covered by the NHI program. It is quality competition in nature, not price competition; but it certainly is competition.

Furthermore, the administration of the single-payer system is simple, as there is only one set of rules for everyone, whether it is regarding claim forms, clinical protocols, quality indicators, fee schedule, etc. The administration costs of hospitals and other providers are also much lower than those of a multi-insurer system.

### **NHI benefits**

NHI benefits are comprehensive: inpatient and outpatient care, drugs, dental care, traditional Chinese medicine, kidney dialysis, organ transplantation etc. Dental prosthesis, dentures, cranes, wheelchairs, eyeglasses, cosmetic surgery, special nurses, long-term care, nursing home etc. are not in the benefits list. Patients have to pay minimum co-payments either in hospitalization or outpatient services. The

co-payment rates range from 5–20% for different services, and the average actual co-payment rate is 8% of the health costs because of the waiver scheme for serious illness, such as cancer, major operations, rare diseases etc.

Patients stay in a single room and room with two beds must pay an extra room charge. About 60–75% of hospital beds are 3 and more beds in one room that are free of any room charge.

On average, hospitals received 80–85% of their revenues from the NHI Administration. The other 15–20% is from co-payments and other non-benefits health services.

### **Public satisfaction**

The NHI is the most successful public policy in Taiwan. The general public has been very satisfied with the NHI. One reason for the high satisfaction is that premium and co-payment rates are low. The premium rate is 4.91% of the payroll income, and total national health spending is only 6.62 percent of GDP, of which the NHI itself is 4 percent of GDP.

Easy accessibility is another reason. NHI Administration contracts with 100% of hospitals and 93.5% of private practitioners in Taiwan (most of the non-contract practitioners are dentists, doctors of Chinese medicine and aged doctors). Free choice of providers is the key to the easy and equal access of health care.

Patients can carry the equivalent of cash as represented by their insurance cards to any provider of care, not just to a smaller network of providers, as under the U.S. private insurance system. Basically, there are no waiting list at all except for a few well-known medical centers and well-known doctors.

### **Health performance and service quality**

Some critics say at such low fees we must beget problems with our service quality. However, our life expectancy is comparable to that of the developed world. In 2012, it was 79.4 years old; for males 76.1, and for females 83.0. Taiwan's infant mortality rate is as low as 3.7 per thousand, maternal mortality was between 5.0 to 8.5 per 100,000 in the years from 2005 to 2012. Both of these rates are comparable to the developed world.

Before NHI, life expectancy increased 1.8 years from 1986 to 1996, and after NHI, it improved 2.9 years from 1996 to 2006. Studies show that life expectancy improved more for low-ranked health classes.

As for the clinical service performance, cervical cancer mortality drop 60% since NHI was launched. Stage-specific cancer survival rates are similar to developed countries, but this is not true with regard to the overall 5 years' survival for colon, breast, lung and oral cancer. That is due to the lack of preventive services and screening, not to the fact that our treatment is inferior. Fortunately, since 2009, the Ministry of Health has designated a special sum from the tobacco health tax revenue solely for screening of three major cancers in Taiwan: colon, oral, and breast. Of course, another part of the budget is designated for an antismoking campaign.

As for the survival after organ transplantation, we sometimes do better than the U.S. For example, because we do more liver transplantation in Taiwan, we have much better outcomes than does the U.S. Heart and kidney transplantation results are also comparable to the U.S. But since we rarely do lung or heart-lung transplants, our outcomes are much worse. Survival of the end stage renal failure is also comparable to OECD countries.

### **Premium increase**

In its nineteen-year history, the NHI Administration only raised the premium rate two times: from 4.25 percent (of the payroll) to 4.55 percent in 2002, and to 4.91 percent in 2012. The Ministry of Health started a tobacco health tax in 2000 that gives NHI an additional 2 percent of the total NHI revenue. In the year 2006 and 2009, the Ministry of Health raised the tobacco health tax again to yield more extra revenue (about 6 % of total revenue now) for the NHI.

Before 2012, the premium collection was based on payroll income alone. In the year 2013, NHI Administration added another 2% of the non-payroll income to the premium base for the NHI as an additional source of funding. That is another 6% of the total revenue of NHI.

### **Collection of Premiums**

The NHI's total premium revenue comes from three sources: government (36 percent), which will not default on premiums; employers (26 percent); and the public (38 percent). The NHI Administration is good at collecting premiums from the public. When people don't pay premiums on time, they send notices to them immediately. Our citizens are quite law-abiding, so the compliance rate is very high. The "bad debt rate" is just around 0.9 percent in 2011.

The government pays 100 percent of the premiums for low-income households—currently 1 percent of the population—and extends interest-free loans

to the near-poor—2 percent of the population. Since 2009, the Ministry of Health has raised the tobacco tax from the NT\$10 per pack to NT\$20 per pack and has used part of the cigarette health tax revenue as a subsidy for the near-poor.

### **Sectorial global budgets**

Taiwan has used sectorial global budgets to control health spending successfully. Health policy experts generally believe that such an approach can be useful in the short run, to break an upward trend in health spending. But with more than 15 years of practice, Taiwan has confirmed that the global budget approach is not as bad as people imagine. We have five sectorial global budgets under one big overall global budget for the whole system: hospital, primary care, dental, traditional Chinese medicine, and kidney dialysis. Our hospital global budget includes hospital outpatient ambulatory care, and that part is almost 50 percent of the total cost of any hospital. So far this system has worked, even if not perfectly. Shifting patients from inpatient to outpatient care is effortless because both are under the same hospital global budget.

### **New drug adoption**

Taiwan spends roughly 25 percent of the NHI budget on drugs. However, multinational pharmaceutical companies often allege that prices paid by the NHI are too low. However, the NHI introduces forty to fifty new drugs every year. So spending for new drugs per total NHI expenditure continues to rise. About one percentage of the 3–5 percent annual growth in spending of the NHI is for new drugs. Indeed, there are some delays in coverage for new drugs and new technologies. Adoption of new technology, including drugs, is often delayed by two to five years after adoption by U.S.

### **Pay for performance**

We have five Pay for Performance (P4P) programs using the disease management approach—diabetes, breast cancer, asthma, tuberculosis, and hypertension; other programs are based on fee-for-service or case payment. Diabetes management and tuberculosis control are relatively successful because there are good indicators to measure outcomes. For example, there is HbA1c for diabetes. Breast cancer P4P is considered so-so up to this point. There is no evidence as yet that P4P for asthma has made a big impact. Overall, however, the budget impact of these initiatives is still small. We need to take a much more aggressive approach to disease management. For that we need to overhaul our payment system, which is still largely based on fee-for-service payment to providers.

## **Health IT**

The NHI Administration issues every insured a credit card-size IC card for accessing health care. As all providers in Taiwan submit claims electronically based on the patient records they keep, we can do very detailed profiling of both patients and providers. All the data in our health IT system can be linked, so that we can analyze any data we choose to know about patients, their utilization, providers, and so on. We have complete profiles on utilization by patients' income level, geographic location, number of visits, number of hospitalizations, etc. Thus, we are able to monitor our health system almost in real time.

At present, most hospitals have electronic medical records (EMRs) within their facilities. We are on the way to develop cross-system EMRs, and expect to accomplish this in the next few years. As there is a single insurer, one single standard has already been set up. We can go to a complete life-time e-record system within a few years.

An imaging switching center using a Picture Archiving and Communication System [PACS] already functioned for years. All imaging done by the providers is electronically transferable within the entire Taiwan health system. Telemedicine for mountainous aboriginal communities and off-shore islands is a routine practice now.

Our policy decisions usually are based on quantitative evidence generated by our IT system. Taiwan invested heavily up front on health IT, and we have reaped the benefits of our powerful IT system ever since. The savings our IT system has generated have paid for the setup cost of that system many times over.

### **Key to the successful implementation**

First, we have a team of competent technocrats and dedicated leaders who can devise sound policy and then implement it. Second, in the initial stage, we had a reasonably stable political system. Third, we have a physical infrastructure capable of delivering on health policy. Fourth, we set up a good health IT system at the very beginning, to have the data capacity as a basis for policy making.

In addition, our country established NHI during a good economic period. It should be noted that there are associated cost increases in the initial few years in establishment of national health insurance. Fortunately, Taiwan had good economic growth for many years prior to and after the NHI was launched; so we were able to absorb the cost increases associated with its establishment.