



Using a population-based database to explore the inter-specialty differences in physician practice incomes in Taiwan

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Abstract

Gaining an understanding of the distribution of physician incomes between different medical specialties could assist policymakers to predict the future medical manpower supply. The purpose of this study is to examine the differences in medical specialty-specific gross practice incomes between office-based physicians in Taiwan. The primary data source for the study, which includes 7444 office-based physicians, was provided by the Taiwan Department of Health, with the dependent variable of interest to this study being the annual gross income of physician practices, whilst the independent variable is physician specialty. The study controlled for physicians' age, gender, specialty-board status, type of practice, location of clinic and urbanization level of the community in which the practice was located. Multivariate regression analyses were carried out to explore the relationship between physician specialty and gross practice income.

This study finds a significant relationship between the annual gross income of physician practices and the physician's medical specialty ($P < 0.001$). Of all physicians, those specializing in rehabilitation and orthopedics had the highest gross practice incomes; conversely, obstetricians and gynecologists had the lowest gross practice incomes. The regression analyses demonstrated that after adjusting for socio-demographic and professional characteristics, gross practice incomes of physicians were significantly related to their medical specialty.

This study concludes that differences in the gross practice incomes of physicians were significantly related to medical specialties. Those physicians specializing in procedure-based specialties, such as rehabilitation and orthopedics, had higher practice incomes than their counterparts in other more diagnosis-oriented specialties such as family practice and pediatrics.

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1. Introduction

The relationship between physician incomes and the distribution of medical specialties continues to be an issue of national interest. Inter-specialty differences in income may not only influence medical specialty ca-

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reer choices [1–3], but may also drive some physicians from their current practices to other, more lucrative, medical specialties [4]. Furthermore, inter-specialty differences in the income of physicians may have far-reaching implications for components of healthcare spending. Gaining an understanding of the distribution of physician income between medical specialties could therefore, assist policymakers with their physician manpower predictions, reformation of payment methods and the overall reallocation of healthcare resources.

However, despite considerable research having been undertaken into this particular area under the managed care system (which is only one component of a pluralistic health care system and is responsible for less than half of all health care in the United States), the income differences between medical specialties under the National Health Insurance (NHI) system in Taiwan remain unclear [5–8]. In addition, most of the previous studies relating to the income of physicians, which have been heavily reliant upon survey research [9–11], may not accurately reflect the income of physicians because of unreliable responses or potential recall (selection) bias.

Taiwan's NHI program, which was initiated in March 1995 as a means of financing healthcare for all of its citizens, has a unique combination of characteristics including universal coverage, a single-payer payment system with the government as the sole insurer, comprehensive benefits and access to any medical institution of the patient's choice.

Under the NHI system, the majority of physicians, particularly office-based physicians, are paid on the basis of the services they provide, as opposed to traditional out-of-pocket payments from patients. Consequently, in addition to the registration fees paid by consumers, the total amount of reimbursements claimed and received from the Bureau of the NHI (BNHI) represents the major income source for office-based physician practices in Taiwan. Physician practice incomes have, however, now been influenced by the BNHI's payment policy, which now controls the amount and rate of remuneration for physicians, as well as the allocation of medical resources.

Under the Taiwan NHI, all office-based physicians, regardless of their medical specialties, are reimbursed at the same rate for all diagnostic services provided to patients. However, concerns have been raised as to whether this payment system, as initially designed, can distribute office-based physician practice incomes

between different specialties on an equitable basis. The purpose of this study is therefore to examine the differences between office-based physicians' practice incomes under the NHI, based upon their medical specialties.

The study uses the population database obtained from the Department of Health in Taiwan, which contains details of all of the medical claims submitted to the BNHI by all physician practices. In addition, since the data is based upon a single-payer system, this affords us with a unique opportunity to correlate physician specialties with their practice incomes. In addition to its contribution to the literature on this topic and its contribution to cross-country comparisons, this study provides important policy guidance for Taiwan, as well as for other countries which either have, or are contemplating the design and introduction of a similar healthcare system or reimbursement mechanism.

2. Methods

Our study began by obtaining 2002 data on all of the 9323 office-based physicians in Taiwan, which comprised of physician's socio-demographic information, practice setting and structure, as well as the monthly BNHI claim summaries for patient fees. We chose only office-based physicians as study subjects because, unlike hospital-based physicians who are paid by various methods adapted by individual hospitals, almost all of Taiwan's office-based physicians are self-employed, completely independent of hospitals and paid on a BNHI 'fee-for-service' basis. All physicians who had worked for less than 12 months in the study year ($n = 1203$) or were aged over 70 years ($n = 676$), were also excluded from the study, which left us with a total of 7444 physicians who fulfilled our study criteria.

The dependent variable of interest to this study was the annual gross income of physician practices, which was defined as the monetary amount of total annual medical benefits claimed, along with the clinic registration fees paid directly by patients. Since primary care clinics have been subject to the enforcement of the NHI global budget since 2001, the monetary amount of total medical benefits claimed by office-based physicians has been adjusted in this study by a monthly discount value according to the relative value of the dollars claimed. The majority of office-based physi-

cians charged their patients clinic registration fees of between NT\$ 50.00 and NT\$ 150.00. We have selected the mean value, NT\$ 100, as the standard basis for each patient in order to calculate the total clinic registration fees charged by each office-based physician.

The key independent variable of interest to this study is the medical specialty of each physician. Although many physicians have more than one specialty certificate, they were categorized on the basis of the self-designated medical specialty which they had reported to the Department of Health (DOH). Specialties were divided into twelve categories in this study: general practice, family practice, internal medicine, surgery, pediatrics, ob/gyn, orthopedics, ENT, ophthalmology, dermatology, rehabilitation and 'others'.

Based upon previous studies on physician income, the control variables were the physician's age (as an indicator for practical experience), gender (sex), specialty-board status (certification), type of practice, number of physicians in a clinic, location of clinic, urbanization level of the city/county in which the clinic was located and the percentage of the population of the city/county over the age of 65 or under the age of 5 years [12–14].

We classified the age of physicians into five groups: ≤ 35 , 36–45, 46–55, 56–65 and ≥ 66 years, and classified their type of practices as solo practice, single medical specialty group or multi-specialty group. The location of the clinic was divided into Taipei, Kaohsiung, and Northern, Central, Southern and Eastern Taiwan, based upon the location of the BNHI branch where clinics claimed their medical benefits. The degree of urbanization of the cities/counties was classified into eight stratifications according to the standards published by the Institute of Occupational Safety and Health in Taiwan (1 = most urbanized, 8 = least urbanized) [15]. These standards include population density, age structure, immigration rate, economic activities, average family income, educational level and health-care facilities.

The percentage of the population over the age of 65 or under the age of 5 years of the city/county in which clinics were located was also included in the study. The rationale for including this variable was that, as compared to other age groups, the demand for medical services between the old and the young may be higher. We used the data on 'Population Registrations in the Taiwan Area in 2002', released annually by the Pop-

ulation Affairs Administration at the Ministry of the Interior in Taiwan, to calculate the percentage of the population over the age of 65 years or under the age of 5 years in each of the cities/counties.

Statistical analysis was carried out with the Statistical Package for the Social Sciences (SPSS 10.0 for Windows, 1997, SPSS, Chicago, IL). Descriptive statistical analyses including frequency, percentage, mean and standard deviation were performed on all of the identified variables. One-way ANOVA and *t*-test were also carried out in order to examine the various relationships between physician gross practice incomes and physician medical specialty, gender, age, certificate, type of practice, practice location, number of physicians in a clinic and urbanization level of the community in which the clinic was located. In addition, multiple regression analyses were undertaken to model the natural logarithm of annual physician gross practice incomes as a linear function of a set of independent variables. The differences were considered significant if a two-sided *P*-value was less than or equal to 0.05.

3. Results

Table 1 provides a summary of the number of office-based physicians by their medical specialty, location of clinic, the number of physicians in their clinics and the urbanization level of their practice cities/counties. The ages of the sample of 7444 office-based physicians ranged from 29 to 70 years, with a mean age of 47.8 and a standard deviation of 8.4 years. The distribution of medical specialties suggested that the majority of office-based physicians were specializing in general practice. The 'others' category included plastic surgery, neurosurgery, psychiatry, radiology, pathology and nuclear medicine.

The bivariate statistics of physicians' mean annual gross practice income are also illustrated in Table 1, by physician age, gender and professional characteristics. The mean annual gross practice income was NT\$ 8,793,056 with a standard deviation of NT\$ 6,671,411 (the average exchange rate in 2002 was US\$ 1 = NT\$ 33.5). Physicians specializing in rehabilitation and orthopedics were the highest paid in 2002, whilst ob/gyn physicians had the lowest gross practice income of any specialty.

Table 1
Description of physician characteristics, mean annual practice incomes, and results of one-way ANOVA and *t*-test ($n = 7444$)

Variable	<i>n</i> (%)	Mean annual income (NT\$)	<i>F</i> (<i>t</i>)-value
Specialty			45.07***
General practice	1959 (26.3)	7929878	
Family practice	828 (11.1)	7933506	
Internal medicine	940 (12.6)	10520252	
Surgery	281 (3.8)	6711549	
Pediatrics	794 (10.7)	8449100	
Ob/gyn	638 (8.6)	5873426	
Orthopedics	91 (1.2)	12319852	
ENT	821 (11.0)	10310293	
Ophthalmology	542 (7.3)	10886840	
Dermatology	250 (3.4)	10499923	
Rehabilitation	73 (1.0)	15181717	
Others	227 (3)	8423756	
Gender			-3.54***
Male	6917 (92.9)	8965411	
Female	527 (7.1)	7843386	
Age (year)			214.64***
≤35	282 (3.8)	9565496	
36–45	3052 (41.0)	10911199	
46–55	2735 (36.7)	8193148	
56–65	1132 (15.2)	5510633	
≥66	243 (3.3)	3336483	
Certificate			-1.38
Yes	7297 (98.0)	8808343	
No	147 (2.0)	8034233	
Practice type			103.02***
Solo practice	5034 (67.6)	8056421	
Single-specialty group	1645 (22.1)	10638560	
Multi-specialty group	765 (10.3)	9671972	
Clinic location			10.36***
Taipei	2285 (30.7)	8308836	
Northern	866 (11.6)	8695429	
Central	1667 (22.4)	8438174	
Southern	1166 (15.7)	9865784	
Kaoushung	1282 (17.2)	9166668	
Eastern	178 (2.4)	9089725	
Number of physicians			53.12***
1	5034 (67.6)	8056421	
2	1736 (23.3)	10014947	
3	439 (5.9)	10832685	
4	130 (1.7)	11955449	
≥5	105 (1.4)	1164616	
Urbanization level			9.40***
1 (highest)	970 (13.0)	7588656	
2	2426 (32.6)	8471728	
3	1520 (20.4)	9124885	
4	670 (9.0)	9368105	
5	1024 (13.8)	9670583	
6	447 (6.0)	8845878	
7	292 (3.9)	9013685	
8 (lowest)	95 (1.3)	9545961	

In 2002, the average exchange rate was US\$ 1 = NT\$ 33.5.

*** $P < 0.001$.

Table 2
Mean annual gross practice incomes of sampled physician according to physician specialty ($n = 7444$)

Variable	Specialty										
	General (NT\$)	Family (NT\$)	Internal (NT\$)	Surgery (NT\$)	Pediatrics (NT\$)	Ob/Gyn (NT\$)	Ortho (NT\$)	ENT (NT\$)	Ophthalm (NT\$)	Derma (NT\$)	Rehab (NT\$)
Gender											
Male	7998937	7960746	10429722	6711549	8710021	5835083	12429213	10390464	11306080	10965427	15783319
Female	6170756	7410628	12729670	N/A	6908536	6200192	7453274	7099426	8402813	8489344	12646393
Age (year)											
< 35	7202629	8646280	13546789	N/A	8703962	7805810	10540972	11960071	9694945	11046868	17875187
36–45	9714990	9191501	19069198	9647503	9439523	7948524	13169533	11424281	11684377	11138990	15404115
46–55	7426731	8288601	9259074	8014460	7635769	5694178	11552366	9174219	10430,240	10093451	14625867
56–65	5332900	5492701	5887389	5742292	5106390	3217646	10592372	6403190	7039,627	6505513	4071492
> 65	3391664	3399758	3106342	3654823	3161982	2667767	N/A	4159686	3846,517	3674764	N/A
Practice type											
Solo	7605979	7805795	6601354	6388796	8311955	5168254	13198823	10218467	10561519	10196609	15648650
Single-specialty	8986594	7681866	20897998	7967139	9231062	7153000	12308634	10415483	11263765	11228389	N/A
Multi-specialty	8318253	8689147	13837010	7697602	7482013	7552423	9645325	10523201	11724473	9250408	13518270
Clinic location											
Taipei branch	7582386	7394993	10570800	6146842	8112616	5280766	11103311	9650397	9278577	9500489	11712309
Northern branch	7586837	7512563	9563858	5421514	9260078	5845838	13587092	11348544	11637346	11412412	15897155
Central branch	7688603	7951470	8932297	7070983	8339259	5825076	10692986	10264441	10880395	9013686	13474680
Southern branch	8262107	8205239	14254225	6864692	8645407	6871511	14078633	10786478	13197750	14615159	23105068
Kaoushung	8670930	8457826	9359553	6958880	8419772	6236348	12598463	10697298	11222195	11379367	18195920
Eastern branch	7604469	9631715	11581565	7948178	8598322	6435222	12309270	12028147	12048649	11705617	10975569

NA: not available; Ob/Gyn: Obstetrics and Gynecology; Ortho: Orthopedics; Ophthalm: Ophthalmology; Derma: Dermatology; Rehab: Rehabilitation.

Table 3
Multiple regression analysis for the relationships between adjusted mean annual gross practice income and other factors

Variable	Log (mean annual practice income)		
	B	S.E.	t-Test
Specialty			
General practice			
Family practice (no = 0)	0.018	0.012	1.528
Internal medicine (no = 0)	0.074	0.013	5.599***
Pediatrics (no = 0)	0.040	0.012	3.152**
Surgery (no = 0)	0.031	0.026	1.552
Ob/Gyn (no = 0)	-0.129	0.013	-9.923***
Orthopedics (no = 0)	0.178	0.032	5.603***
ENT (no = 0)	0.112	0.013	8.910***
Ophthalmology (no = 0)	0.111	0.014	8.076***
Dermatology (no = 0)	0.124	0.019	6.498***
Rehab (no = 0)	0.296	0.034	8.680***
Others (no = 0)	0.032	0.020	1.607
Gender			
Male (no = 0)	0.126	0.013	9.566***
Female			
Age (year)			
<35 (no = 0)	-0.053	0.018	-3.027**
36–45			
46–55 (no = 0)	-0.124	0.008	-16.381***
56–65 (no = 0)	-0.325	0.010	-31.387***
>65 (no = 0)	-0.598	0.019	-31.780***
Practice type			
Solo practice			
Single-specialty group (no = 0)	0.075	0.008	9.117***
Multi-specialty group (no = 0)	0.073	0.011	6.563***
Clinic location			
Taipei branch			
Northern branch (no = 0)	-0.022	0.014	-1.537
Central branch (no = 0)	-0.046	0.012	-3.926***
Southern branch (no = 0)	0.027	0.013	2.175*
Kaoushung branch (no = 0)	0.041	0.012	3.338***
Eastern branch (no = 0)	0.071	0.025	3.012**
Urbanization level			
1 (no = 0)	-0.049	0.016	-3.144**
2			
3 (no = 0)	0.052	0.010	5.355***
4 (no = 0)	0.067	0.013	5.177***
5 (no = 0)	0.076	0.011	6.756***
6 (no = 0)	0.071	0.015	4.781***
7 (no = 0)	0.060	0.018	5.293***
8 (no = 0)	0.095	0.030	4.288***
Percentage of residents over 65 or under 5 years old	0.871	0.278	3.123**
Constant	6.733	0.026	260.570***
<i>n</i>		7444	
Adjusted <i>R</i> ²		0.298	
<i>F</i>		101.60***	

* $P < 0.05$.** $P < 0.01$.*** $P < 0.001$.

One-way ANOVA and *t*-test showed that there were significant relationships between mean annual gross practice income and physician specialty ($P < 0.001$), gender ($P < 0.001$), age ($P < 0.001$), type of practice ($P < 0.001$), location of clinic ($P < 0.001$), the number of physicians in a clinic ($P < 0.001$) and the urbanization level of the cities/counties in which the clinics were located ($P < 0.001$). For the regression analyses, the variable of the number of physicians in clinics was excluded so as to circumvent collinearity, since, as their name suggests, all solo-practice clinics have only one physician, while group practices do not.

Table 2 describes the gross practice incomes of physicians in different medical specialties by their gender, age, type of practice and location of clinic, showing that male physicians consistently had higher annual gross practice incomes across specialties, with the exceptions of internal medicine and ob/gyn. As expected, those physicians aged over 65 years had significantly lower practice incomes than those aged 65 years or below in the specialties of general practice, family practice, internal medicine, surgery, pediatrics, ob/gyn, orthopedics, ENT, ophthalmology and dermatology (all $P < 0.001$). Moreover, in most specialties, solo practice physicians had lower gross practice incomes than their counterparts in group practices.

Table 3 displays the adjusted relationships, using multiple regression analysis, between the annual gross practice incomes of physicians and their socio-demographic and professional characteristics. Within this analysis, 29.8% of the observed variation in physician gross practice incomes was explained by the selected independent variables. The regression analysis shows that physician annual gross practice incomes were significantly related to physician specialty after adjusting for physician gender, age, type of practice, location of clinic, urbanization level, and percentage of residents in the city/county over 65 or under 5 years of age. Relative to general practice, physicians specializing in internal medicine ($P < 0.001$), pediatrics ($P < 0.01$), orthopedics ($P < 0.001$), ENT ($P < 0.001$), ophthalmology ($P < 0.001$), dermatology ($P < 0.001$) and rehabilitation ($P < 0.001$) had significantly higher annual gross practice incomes, whilst physicians specializing in ob/gyn ($P < 0.001$) had significantly lower annual gross practice incomes.

Physicians aged between 36 and 45 years had the highest annual gross practice incomes when compared

to their counterparts in other age groups, whilst the results also demonstrated that male physicians earned more than their female counterparts ($P < 0.001$). In addition, it is worth noting that when taking into consideration the cities/counties in which the clinics were located, with a reduction in the degree of urbanization, there was a significant increase in the annual gross practice incomes of physicians.

4. Discussion

This study has used a population-based database to explore inter-specialty differences in the gross practice incomes of office-based physician under a BNHI single-payer system. Although physician incomes have seldom been the direct focus of policymakers, many healthcare policies have been influenced by patterns of physician income [16]. However, most of the previous studies relating to physician income have tended to rely upon survey research as opposed to administrative data analysis, with the result that recall errors amongst respondents have the potential of adding bias to the findings.

As the results in Table 3 show, despite attempts by the BNHI to equalize practice incomes between specialties, by setting the same rates of diagnostic remuneration across the board, this study finds that physician specialty was the most important contributory factor for the wide variations in the gross practice incomes of physicians. This finding is consistent with previous studies conducted in other countries [2,9,17] which concluded that there was a significant association between physician incomes and their area of specialty.

However, the findings of this study, which took place in Taiwan, stand in stark contrast to the findings within the US [5], where it was found that primary care, including general practice, family practice, pediatrics and internal medicine, were the areas of medical specialty which provided physicians with the lowest incomes. Comparing with primary care physicians, ob/gyn specialty in Taiwan provided the lowest annual gross practice incomes.

The differences between the levels of demand for various medical services and the physician payment systems of the US and Taiwan provide some explanation for this; however, another possible reason for this

contradiction may well be the intense competition between hospital outpatient departments in Taiwan within this specialty. It seems that the majority of patients in Taiwan believe that a hospital's superior institutional infrastructure, in terms of advanced medical equipment and the round-the-clock availability of physicians, enables them to better handle the uncertainties associated with healthcare delivery [18].

The widespread establishment of hospitals, brought about by the implementation of the NHI, has ensured that the availability and accessibility to hospital outpatient departments is no longer a problem. Patients are therefore more likely to choose hospital outpatient departments to receive medical treatment for certain medical conditions that were previously considered to present a higher risk to their lives. Nevertheless, given their convenience and short waiting times, office-based clinics remain the place of choice for patients wishing to receive treatment for mild ailments, such as upper respiratory infections [19]. This was a factor revealed by a study on pediatric patients by Liu and Wu, which found that children who were more than mildly ill were more likely to be taken straight to a hospital outpatients department rather than an office-based clinic [20].

A further potential contributory factor to low gross practice incomes in ob/gyn specialty is the decreasing birth rate in Taiwan. Since the majority of expectant mothers have usually taken their delivery decision already, with regard to their preferred healthcare provider, they will invariably be visiting the same providers for pre- and post-natal care. Over the past three decades, however, the crude birth rate in Taiwan has dropped considerably, from 24.15 per 1000 in 1972, to 11.02 per 1000 in 2002, largely as a result of late and second marriages, women's career commitments and increasing financial concerns creating disincentives for raising children [21–24]. This decline in the birth rate has resulted in reduced income from both deliveries and pre- and post-natal care, which have traditionally been a major source of income for ob/gyn physicians.

After adjusting for physician's socio-demographic and professional characteristics, the findings of this study also reveal that physicians specializing in rehabilitation had the highest annual gross practice incomes (Table 3). The main reason for such high incomes in this particular medical specialty is the high reimburse-

ment for treatment fees. All medical claims by office-based physicians can be divided into three major parts: treatment, diagnosis and drug fees. The treatment fees claimed by rehabilitation physicians, at a mean annual amount of NT\$ 11,989,248, were almost eight times as high as those claimed by other physicians, at a mean annual amount of NT\$ 1,538,100. There were, however, fewer patient visits to rehabilitation clinics, with an annual mean of 12,168 visits, as compared to those of other specialty clinics, with an annual mean of 18,864 visits.

Physicians in other specialties generally undertake only evaluation and diagnosis; in addition, unlike healthcare delivery systems in some countries, which use 'gatekeepers' to control medical utilization levels by limiting patient referrals to specialty physicians, consumers in Taiwan can go directly to rehabilitation clinics to receive treatment under the NHI. Furthermore, rehabilitation physicians invariably use many different treatment procedures on patients during each visit, such as infrared, hot/cold packs, paraffin baths, ultrasound, ultraviolet and shortwave or microwave diathermy, whilst most of the patients visiting rehabilitation clinics also need frequent or long-term treatment. All of these factors lead to the performance of a greater volume of treatment procedures resulting in dramatic rises in the annual practice incomes of rehabilitation physicians and other procedure-oriented medical specialties.

We should, at this stage, point out three limitations of this study. First of all, although the 1-year cross-sectional data does provide a good picture of the relationship between medical specialties and physician practice incomes, our study does not precisely determine the causal relationships, nor do we address the process by which physicians choose, or are chosen, for their medical specialties. It may well be that different physicians make a conscious choice to enter different areas of medical specialty, with each specialty having different characteristics of attraction, such as income, and other non-pecuniary factors, such as workload, security, leisure and independence, and that the compensatory differentials created by these characteristics may thereby, affect the basic income-leisure trade-off.

We contend that the differences which we found in physician practice incomes could actually be a function of self-selection by physicians into the various areas of

medical specialty, rather than a function of the different medical specialties themselves. However, such a causal relationship can only be definitively determined with an appropriate model design which uses longitudinal data.

Secondly, the previous studies in this area have insisted that the variations in physician income are due to the number of weeks worked per year, or the number of hours worked per week [8,24]; however, the dataset used in this study does not provide information on the number of days or weeks worked by physicians within a year. Thus, further research will be necessary in order to clarify the relationship between the income levels of physicians and the total amount of time worked in any given year.

Thirdly, since the data on costs for each clinic is unavailable, this study reports significant differences only in the gross incomes of physician practices, as opposed to the net income of their practices. It is clear, however, that practice costs could vary significantly between specialties and between practices.

Despite these limitations, our findings do have implications for office-based physicians and healthcare policymakers alike. First of all, the findings of our study have demonstrated that, even after adjusting for the socio-demographic and professional characteristics of physicians, there are significant relationships between the differentials in physician income and the various medical specialties, which indicates that despite the efforts of the NHI to equalize physician practice incomes by setting the same diagnostic remuneration rates for all office-based physicians, differences in gross practice incomes between specialties are still evident. The difference in the mean gross practice incomes between specialties (ob/gyn versus rehabilitation) was even 106 per cent higher than the annual mean of all physician practice incomes. We suggest that the diagnostic remuneration rates for office-based physicians should take into account the medical specialty of each physician in order to fairly compensate for all services provided by physicians in Taiwan.

Secondly, the results of our study have demonstrated that physicians in procedure-based specialties, such as rehabilitation and orthopedics, had higher gross practice incomes than those in the more diagnosis-oriented specialties, such as general practice, family practice and internal medicine. We recommend that within certain specialties, the current 'fee-for-service' payment

system should be replaced by the introduction of a re-defined fee schedule, based upon episodes of care. This change would help to redistribute payments from treatment procedures to evaluation services.

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