



Behavioral Impact on Clinical Specialist Payment Method: A Systematic Review

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Abstract

Background: With growing healthcare (HC) expenditures and limited funding, policymakers need to find new ways to provide healthcare that is affordable and fair. There are many methods for paying specialists, and the three basic payment methods include fee-for-service (FFS), capitation, and salary. This review focuses on identifying published articles related to the different methods used for paying specialists for their service and further highlights their advantages and disadvantages.

Methods: The research was designed and carried out in line with the "Preferred Reporting Items for Systematic Reviews and Meta-Analysis" (PRISMA) checklist. Five databases were used in the literature search ie: Scopus, Web of Science, Ovid Medline, EBSCOhost, and PubMed in 2020. The search term used revolved around physician, payment method and specialist behavior.

Results: Databases were searched electronically using EndNote X9.2, wherein 588 related studies of literature were included. Meanwhile, it went down to 546 related studies after the title and abstract screening was conducted in order to eliminate duplicates. In total, 24 studies were then left to be reviewed in full text; finally, 12 studies were integrated into this analysis after a description of the entire text of the studies.

Conclusion: Payment methods can affect physician practice behaviors and the quality of healthcare. The combination of payment methods may, however, combine the benefits of simple payment methods. Where there is not adequate mixing of methods, bonus-for-performance programs may encourage the provision of targeted services. Thus, before a new medical policy is implemented, policymakers must define and empirically examine the positive and negative impacts.

Keywords: Payment methods; Specialists behavior; Fee-for-service; Salary; Capitation

Introduction

With growing healthcare (HC) expenditures and limited funding, policymakers need to find new ways to provide healthcare that is affordable and fair. However, the provision of appropriate healthcare is inherently complex. It depends on a

stochastic process to determine the risks of diseases and encourage beneficial behaviors of healthcare providers and patients. In a recent study that analyzed the healthcare system in 21 countries of the Organization for Economic Co-



operation and Development, policies aimed at patient behavior and physician payment methods contributed significantly to the quality of healthcare services (1). There are many methods for paying specialists, and the three basic payment methods include fee-for-service (FFS), capitation, and salary. Each method has been identified with its own strengths and weaknesses; therefore, a blended system has been implemented to integrate the strengths and overcome the limitations of these three basic payment methods. In addition, to enhance HC performance through payment mechanisms, many countries have adopted different types of pay-for-performance (P4P) schemes.

FFS system remunerates the specialist for each service delivered to patients. For a specific service, such as conducting a physical examination or any medical and surgical procedures, the specialist will receive a fixed fee. Thus, FFS generates payments depending on the amount of generated services. Specialist remuneration is often measured by the amount of healthcare services delivered from a number of healthcare services being offered. Since there is a need to provide healthcare services, it is in the interest of the doctor to focus on patient satisfaction and, thus, patient retention. Based on our findings, this system is widely used for paying specialists globally (2).

Meanwhile, a capitation has been identified as a form of healthcare payment system in which an insurer charges a fixed amount of fees per patient for a specified period (regardless of the number of patient visits). The payment rate is based on each patient's estimated predicted utilization of healthcare in the population, with higher utilization budgets allocated to groups with higher potential medical needs. Capitation is beneficial for the payer since, at the level of practice, providers often face financial risks (1). Meanwhile, a salary or time-based payment is defined as a regular wage per period. Hence, payment does not depend on the amount of healthcare services rendered or number of patients. This payment method creates a steady source of income for doctors and also provides the incentive to minimize the amount of care provided. Salary pay-

ment methods could control the healthcare costs by diminishing "supplier-induced demand" and encouraging enhanced treatment skills; it was also determined to lower the operating costs of the healthcare system (1).

To enhance the standard of healthcare services as well as the adequate provision of treatment, pay-for-performance (P4P) simultaneously remunerates and evaluates specialist performance based on individual clinical outcome at the patient population level and quality goal and standard. Meanwhile, the blended or mixed remuneration for specialists is a type of payment method that combines the benefits of each method while limiting the chance for negative behavioral rewards. This payment method has been identified to provide maximum advantages from the leading payment systems. For example, in Ningxia province, China, in 2010, capitation together with pay-for-performance in primary care payment intervention tends to reduce spending and enhance the quality of care (3). Higher work performance is also correlated towards the income of healthcare personnel (4).

Specialist payment method is a principal reward scheme that aims to encourage specialists in delivering outstanding care for patients (5). Payment methods are commonly believed to affect specialist behavior. Doctors are often compensated for delivering healthcare, which in turn fulfills the objectives of the healthcare system. Hence, we aimed to review specialist payment methods and determine how these would affect specialist behavior.

Methods

In 2020, the study was designed and carried out using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) checklist (6). This review focuses on identifying published articles related to the different methods used for paying specialists for their service and further highlights their advantages and disadvantages.

Search Strategy

A systematic and structured electronic search was conducted on five primary databases, including Scopus, Web of Science, Ovid Medline, EBSCOhost, and PubMed. The literature search was

conducted using specific keywords and identified Medical Subject Heading terms for PubMed. The keywords used to search the related articles are provided in Table 1.

Table 1: Search strategy and keywords

<i>Specialist</i>	<i>Payments</i>	<i>Methods</i>	<i>Outcome</i>
"Physicians"	"Payment System"	"Pay-for-Performance"	"Specialist Performance"
"Allergists"	"Payment method"	"Capitation"	"Specialist Satisfaction"
"Anesthesiologists"	"Remuneration"	"Fee-for-service"	"Specialist Behavior"
"Cardiologists"	"Wages"	"Blended remuneration"	"Specialist Motivation"
"Dermatologists"	"Wage"	"Salary"	"Specialist Attitude"
"Endocrinologists"	"Salaries"	"Budget"	"Specialist Acceptance"
"Gastroenterologists"	"Salary"		"Specialist Expectations"
"Geriatricians"	"Income"		"Specialist Incentives"
"Nephrologists"	"Pay Equity"		
"Neurologists"	"Equities, Pay"		
"Occupational Health Physicians"	"Equity, Pay"		
"Oncologists"	"Pay Equities"		
"Ophthalmologists"	"Charges"		
"Otolaryngologists"	"Fees"		
"Pathologists"	"Incentive"		
"Pediatricians"	"Reimbursement"		
"Neonatologists"			
"Physiatrists"			
"Physicians, Family Care"			
"Physicians, Primary Care"			
"Physicians, Women"			
"Rheumatologists"			
"Surgeons"			
"Neurosurgeons"			
"Orthopedic Surgeons"			
"Urologists"			

In total, from the five databases, 588 studies were identified to be potentially relevant citations for screening. The articles identified were inserted into the reference management software End-Note X9.2. Reference lists of included studies were then screened for related citations. The title and abstract of all articles were screened to eliminate any duplicates.

Inclusion and exclusion criteria

Subsequently, the titles of articles were screened based on the inclusion criteria. For this review, the inclusion criteria were as follows: 1) studies that were published within 10 years from 2010 to 2020, 2) full article journal, 3) studies that were published in English language, and 4) studies that include any type of specialist payment methods. Meanwhile, conference abstracts, notes, book studies, articles in a newspaper, and reports were therefore excluded. Besides, a title and abstract that discuss the payment methods in diverse

healthcare workforces, such as among nurses and medical assistance, were excluded. An abstract that did not discuss the impact of the specialist payment method was also excluded from our review.

Meanwhile, those abstracts that were deemed relevant were retrieved and screened again based on the criteria. Finally, the full-text articles were col-

lected and evaluated according to both inclusion and exclusion criteria. The full-text articles that contain irrelevant populations and impact and incompatible sources were excluded from determining eligibility. Further screening and evaluation of the full-text article were filtered and revealed 12 articles that meet the inclusion criteria (Fig. 1).

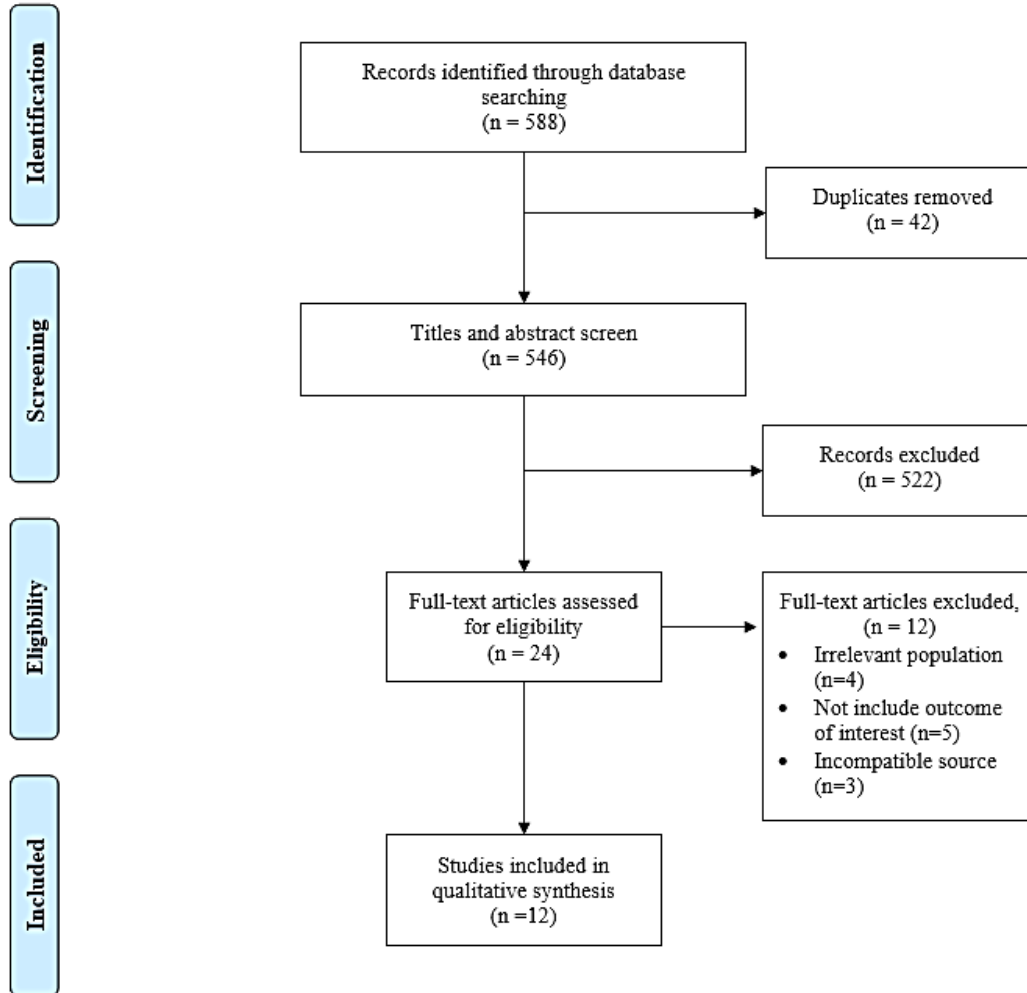


Fig. 1: Flowchart of the included eligible studies in the systematic review

Data extraction and synthesis

The second and third authors analyzed the data from all included articles. Common themes were identified and noted. A reviewer is the first author who cross-checks the findings. Any incongruities were addressed appropriately by the re-

viewer. The data and information collected included were as follows: 1) authors, 2) journal 3) year of publication 4) country 5) sample population and 6) key findings from the publication that was appropriate for inclusion in the final systematic review. Data were then extracted to a stand-

ard Microsoft Excel 2019 spreadsheet. A description of the information derived from the included studies was presented in Table 2. These findings were compared narratively; advantages and disadvantages of each specialist payment methods were discussed. The random effect model was used to reduce the probability of bias across the studies (6).

Results

Description of literature search

Databases were searched electronically using EndNote X9.2, wherein 588 related studies of literature were included. Meanwhile, it went down to 546 related studies after the title and abstract screening was conducted in order to eliminate duplicates. In total, 24 studies were then left to be reviewed in full text; finally, 12 studies were integrated into this analysis after a description of the entire text of the studies. The flow chart for selecting the studies is shown in Fig. 1.

Description of the included studies

The published articles were then categorized according to the type of payment method, and the findings were shown in Table 1. Three papers were listed as FFS; two were under capitation, four were P4P, one was a budget item, and three

were mixed remuneration. Taiwan, Iran, Germany, Canada, and the United States have been included in a study conducted on six countries worldwide, starting from 2010 to 2019.

In the United States, a study was conducted to analyze proof of demand from providers for carotid stenosis management (7). The word “provider-induced demand” (PID) applies to a physician who creates greater demand for services than the patient would expect. PID may also be specified if a physician provides additional services or if the patient may not need it; he or she may involve more elaborate treatment processes. Nguyen et al. have found both symptomatic and asymptomatic patients in this study who were treated in a Purchased Care (PC). Compared to direct care (DC) schemes, the system was considerably more likely to undergo procedural management for carotid stenosis (7). These results thus show the positive influence that the PC settings may have on clinicians in their treatment of carotid stenosis. These results reflect the positive effects of the device. Conversely, the establishment of DC can constitute under-treatment of carotid stenosis in which symptomatic patients cannot be consulted. This finding suggests that PID may be associated with clinician compensation structure in the PC setting.

Table 2: Characteristics and results of included studies on specialist payment methods

<i>Ref.</i>	<i>Journal and Year of Publication</i>	<i>Country</i>	<i>Payment Method</i>	<i>Study Population</i>	<i>Key Findings</i>
19.	American Medical Association Surgery 2017	United States	Fee-For-Service	Physicians	<ul style="list-style-type: none"> The procedural management of carotid stenosis was much more likely for people treated in a fee-for-service system than for people in the salary-based setting. These findings remained consistent for individuals with and without the symptomatic disease.
8.	American Medical Association 2019	Canada	Fee-for-service	Surgeons	<ul style="list-style-type: none"> Male surgeons have more excellent opportunities than female surgeons in a fee-for-service charge system to perform the most lucrative surgical procedure.
7.	CMAJ Open 2019	Canada	Fee-for-service	Physicians	<ul style="list-style-type: none"> Salary-based specialists were more likely to see patients with a clear indication for a specialist visit, while the fee-for-service specialists were more likely to see

10.	Iranian Red Crescent Medical Journal 2014	Iran	Capitation	Physician	<p>more stable patients.</p> <p>The beneficial improvements to the feature of the healthcare system are:</p> <ul style="list-style-type: none"> • Service delivery—increases physician accountability toward their patient treatment and health. • Institutional structure—leads to strengthen managerial skills among physicians such as collaboration, communication, and teamwork. • Financing —capitation payment system provides a steady monthly income irrespective of the number of patients treated; physician satisfaction improved. • People’s behaviors—capitation model improves the physician-patient relationship and improves patient trust in physician.
9.	Neurology Clinical Practice 2015	Canada	Capitation	Neurologist	<ul style="list-style-type: none"> • In 2010, consultation codes were no longer reimbursed. • In 2013, Medicare revised its reimbursement for nerve conduction codes. The Medicare combines the nerve conduction study in a group, and no more payment is given once the specific number of nerve conduction study reached to the maximum. • Medicaid pays less than Medicare. This discrepancy explains the tendency of some neurologists to decline consignment from patients with Medicaid except for emergencies.
11.	Healthcare Quality 2010	Hawaii	Pay-for-performance	Physician	<ul style="list-style-type: none"> • P4P program increase the quality of care and able to motivate physicians to increase their performance. <ul style="list-style-type: none"> • In the first or second year of assessment in the presence or absence of a P4P program, low-performing doctors tend to change significantly. • P4P seems to be successful in motivating physicians with poor performance to sustain their improvement. • The positive advantage of the P4P can only be reached by the third or fourth year of the P4P program. • Internists preferred the incremental adoption of P4P, while P4P leaders saw the urgent need for iterative change. • Specific steps to protect vulnerable populations have been proposed by both organizations, such as enhancing the validity of measurements, evaluating quality progress, and offering specific incentives to physicians of vulnerable populations. General internists felt a greater need to apply a highly prudent approach as opposed to P4P program leaders. Internists were even more concerned with strengthening the validity of P4P initiatives and had more specific ideas about how to do this.
12.	Quality Management In Health Care 2011	Unites States	Pay for performance	Stakeholder groups -P4P program leaders - General internists	

13.	International Journal for Quality in Health Care 2016	Taiwan	Pay-for-performance	Physician	<ul style="list-style-type: none"> Physicians may consider P4P designs to be better than the insurer's investment magnitude. The two most critical P4P principles are the provision of bonus reward form and the use of pay-for-performance plus pay for changes.
15.	Journal Of Health Economics 2013	German	Budget	Physicians	<ul style="list-style-type: none"> Germany adopted a single-pay limit (the "practice budget") in 1997. Each physician earned a maximum of points for each quarter through this reform. There has been a strong change on physician actions by implementing realistic budgets. Substantially changed intensive margin (number at least one visit) (tent to reduction of appointments).
16.	Journal Of Health Philosophy And Policy 2010	Canada	Mixed/blended remuneration	Stakeholders in the Canadian healthcare system	<ul style="list-style-type: none"> The main method of paying family physicians in Canada is via FFS (service fee), but the use of alternative methods for provider remuneration (APRM) is on the rise. the key reasons APRM is needed are to attract and retain primary care physicians to rural and distant regions of the world and the desire to improve coordination, care continuity, prevention, and health promotion. <ul style="list-style-type: none"> APRM has helped to attract higher levels of recruitment, and retention in rural and remote regions. Mixed payments enhance the delivery of preventive services and motivated greater teamwork, multidisciplinary care, as well as quality of care.
18.	Journal Of Health Economics 2011	Canada	Mixed/blended remuneration	Primary care physicians	<ul style="list-style-type: none"> Family Health Group (FHG) model consists of an improved FFS that includes rewards on payments such as long-term fees, chronic disease management benefits, and patient enrolment rewards. FHG doctors are growing services without modifying their service profiles substantially. FHG doctors offer more services, appointments, and treatment than equivalent FFS doctors. <ul style="list-style-type: none"> Despite significant increases in pay in the new payment models, doctors' productivity may improve. It illustrates how payment will affect the overall efficiency of physicians.
23.	Health Economics 2019	Canada	Mixed/blended remuneration	Family health physicians	<ul style="list-style-type: none"> FFS doctors are encouraged to provide extensive treatment and after-hour care and benefits within the FHG. Findings show that switching from FFS to FHG increases 3%, 15%, and 4% annually in comprehensive treatment, hours, and non-incentivized services. Mixed FFS doctors offer further services by working average extra days and even holiday and weekends

In Ontario, Canada, a study has been conducted to determine the gender disparity among surgeons based on differences in each hour of FFS service. Female surgeons conduct less lucrative procedures than male surgeons; therefore, less money per hour is earned. This could lead to the predominance of women in the secret curriculum, which indirectly and specifically discourages female trainees from joining specific disciplines (7).

Another study was conducted in Canada comparing two types of payment methods, that is, salary-based method and FFS method. Simultaneously, the study examined the relationship between the types of diabetes patients who received treatment compare to both payment methods. Salary-based physicians are more prone to receive diabetic patients who were more likely to have five or more comorbidities and critically ill with several complications. In contrast, FFS physicians prefer to treat healthier patients and with no comorbidities (8)

A study in Canada was conducted on capitation regarding payment trends affecting neurologists. The reduction of reimbursements received by a neurologist was attributed to changes made by Medicare, Medicaid, and third-party payers that aimed to achieve cost-effectiveness. It posed a negative impact to neurologists, whereby Medicare has eliminated reimbursement for consultation codes since 2010 and provided them with almost 90% of new outpatients' code. In 2013, the revised reimbursement on nerve conduction study created a negative impact on neurologists that performed nerve conduction procedure in significant volume. It occurs when the Medicare combines the nerve conduction study in a group and no more payment is given once a certain number of nerve conduction studies have reached the maximum. Besides, the reimbursement amount of insurance in Canada is paid by big companies such as Medicare and Medicaid. Medicaid pays less than Medicare. This discrepancy urges some neurologists to reject patients with Medicaid to avoid low payment except only in emergency cases (9).

Meanwhile, a qualitative research had conducted in Iran examining the capitation payments among urban physicians (10). By using risk-adjusted capitation as a primary healthcare framework, family doctors were able to implicitly establish high transparency for their patient treatments and health for the provision of services. The payment system was able to strengthen managerial skills among physicians such as collaboration, communication, and teamwork. Hence, physicians' satisfaction improved whenever they received a steady monthly income in the capitation system irrespective of the number of patients treated. Additionally, the capitation model has helped in improving physician-patient relationship and subsequently improve patient trust in physicians (10).

On the other hand, the P4P program was implemented in Hawaii among preferred provider organization by providing financial incentives once they fulfill the quality score. The quality score is calculated by measures such as mammography screening, cervical cancer screening, HbA1c testing, and varicella vaccine. The P4P physician has increased their quality score substantially in comparison to the non-P4P comparison community. For the low performer in the P4P category, the quality score has also improved significantly. The effect will, however, only be seen by the third or fourth year of the program (11).

A qualitative study was conducted in the United States in 2011 among P4P program leaders (this includes leader in insurance companies such as Medicare/Medicaid) and general internists (this includes a medical specialist in internal medicine). Both groups have different recommendations for the implementation of P4P in the United States. Perceptions of the internist seemed to be more focused on improving the validity measure of P4P and had a more detailed suggestion on how to accomplish the P4P. This group favored gradual P4P implementation. Despite enhancing validity measures, P4P leader tends to be more focused on the immediate need for P4P implementation with less intention toward validity measurement of P4P (12).

Another research examining P4P was reported by Chen et al. in Taiwan. The P4P has established

the physicians' preferences related to design incentives. An excellent P4P concept was more important than the insurer's investment. The two key P4P models include a bonus form of reward and pay-for-performance plus an enhancement pay. The reward is granted for excellence to motivate doctors in treating their patients (13). Furthermore, P4P is likely to lead to a small change in the delivery of services, including the use of control tests or procedures, but not in the use of health services or health outcome (14).

Meanwhile, the reimbursement in Germany has been based on the insurance status of the treated patient by the specialists according to two different FFS schemes. Public health insurance covers approximately 90% of the population (or SHI), and the remainder is private insurance (15). In 1993, the German government has adopted a fixed budget (15). The physician earns points according to the seriousness of the case for each treatment under this scheme. The monetary value is determined at the end of each quarter for every point by the value of the overall expenditure divided by all points generated by all physicians. To balance the costs of SHI systems, this fixed budget was implemented (15). However, this has been deemed insufficient; thus, this led Germany to implement a single-pay limit (the so-called practice budget) in 1997. Each doctor got a maximum number of points for each quarter of the reform.

As per Schmitz, who conducted a research examining the effect of this restructuring of the pay system, it was noted that the implementation of realistic budgets has a strong influence on medical behavior. The intensive margin (at least one visit) has changed dramatically. The number of publicly insured doctor visits has reportedly declined, while private insurance increased (15). This can be seen as evidence that doctors respond to the reform-induced motivation changes by adjusting the patient mix.

In Canada, the majority of the family doctor's specialists received a salary form of payment agreed annually with a fixed lump-sum payment (16). A salary is a favored approach because it increases the happiness of specialists with income

levels and income stability. It also reported the improved acceptance of high-risk FPS patients in Canada (16). Moreover, the recruitment and retention of FPS into rural and remote areas of the country have been introduced in all jurisdictions across Canada, and they further wish to improve coordination, quality of treatment, prevention, and health promotion (16). However, the government representative noted that payment forms are more expensive than the FFS and that the control system for this form of payments is not sufficient given the efficiency of specialists, the hours employed, and the amount of patients seen (16).

In Canada, alternative provider remuneration methods (APRM) have been on the rise since 2000 in addition to the salary system (17), with the largest recorded in Ontario and Quebec (16). The combination of capitation and FFS is an example of the blended process. This form of payment offers the same benefits as capitation but decreases aversion to risk. Another example is a mix of salaries and FFS that offer all benefits to the salary by adding an FFS component, which forces specialists to pass on their shadows so that their activities can be monitored. Furthermore, another mixed form of payment, the Family Health Group (FHG), was introduced in Ontario, Canada, in 2003. This model incorporates the FFS and bonus rewards, which aimed at improving patient access to healthcare and improving healthcare quality. The FHG model increases the efficiency of specialists substantially with respect to the FFS model (18). A specialist was pleased with the opportunity presented by the FHG model such as extended-hour premiums, benefits for treating chronic conditions, and patient enrolment incentives. The rewards provide the professional with excellent encouragement, which in turn improves their productivity. These results were supported by Some et al., the transition from FFS to FHG has resulted in an increase of 3%, 15%, and 4% annually in the provision of comprehensive care, after-hours, and non-incident services (19). The payment schemes of the FHG have been identified to improve the productivity of these professionals, who provide

more resources by working on holidays and weekends (19).

Discussion

Based on our findings, various characteristics of specialist behavior have been identified by using the different kinds of specialist payment methods. The behavior may be discussed in terms of positive or negative aspects based on the type of payment methods being practiced.

FFS demonstrates how the provider or the physician induced demand by providing new intervention in anticipating the worse outcome of the diseases. Despite showing the aggressiveness of the clinical intervention in carotid artery management, this kind of behavior allowed the specialists to gain extra remuneration, on top of their basic income. Hence, this will build satisfactory feelings among physicians (20). However, FFS payments in many countries have posed a problem because of unintended encouragement to oversupply more profitable services (21). Besides, when comparing sex disparities in the FFS payment method, women surgeons are left behind in terms of receiving their remuneration compared to men based on the type of surgical intervention they perform. Though this may vary due to women surgeon preferences, it somehow gives more opportunity to the male surgeons to take advantage in performing more lucrative surgical interventions. Thus, it makes them gain advantages in obtaining extra income (7).

Specialists with a salary type of payment method are more prone to receive additional burden in treating diabetes patients, whereby the referred patients to them are with poorly controlled diabetes and complicated cases. In contrast, the specialist that is practicing FFS tends to have ample time consulting their patient and feel less burden as they are treating non-complicated patients (8). Meanwhile, given the capital payment method is controlled by the insurance company, both countries, which are Canada and Iran, can demonstrate the different characteristics of specialist behavior. The revised reimbursement by the in-

surance company posed a negative impact on the neurologist's socio-economic status. Their reimbursement is being controlled and cut abruptly; hence, this will affect their skills and professional carrier in the future. In contrast, by adapting risk-adjusted capitation in Iran, physicians were able to develop strong personal skills, especially in terms of managerial and communication skills. Furthermore, doctors were extremely pleased as they earn permanent monthly income regardless of the number of patients seen. Furthermore, this enhances the specialist-patient relationship and thus improves patient trust toward the providers. The findings of four studies on P4P indicate that P4P has an excellent clinical performance in most diseases. However, the basic standard of medical treatment limits these approaches (22). A quality score calculated with indicators must be established, and the measurements for the validity of P4P should be improved (11, 12). The best way to implement the P4P is to adapt a functional design model to increase the incentive for health staff and to enhance the quality and amount of services (13). The incentive paid is aimed for excellence and improve effort of physicians in treating a patient.

In this review, the salary payment method is often related to high satisfaction among specialists because of income level and income stability (16). It also has a positive impact on the specialist behavior in terms of improving acceptance of high-risk patients and willingness to give services and stay in the remote areas in the country (16). Besides, the salary payment also reported improving coordination, quality of care, prevention, and promotion of health, thus raising the standard of care. This, however, contradicts in China that showed that salary payment is correlated with lower levels of treatment compared to FFS payment because salaried doctors do not increase their income but can reduce effort by seeing a minimum number of patients (23). Overall, the salary payment methods could increase productivity among specialists because if they are paid well, they will be satisfied with the income level and its stability. Therefore, they could focus on giving their best in services and collaborate with

other teams to provide appropriate care to the patients.

Despite the increased level of care and specialist satisfaction in salary payment methods, this review has revealed that the blended remuneration methods can provide maximum advantages from the leading payment systems. The ARPM, which has been introduced in Canada since 2000, offers all wage benefits and thus motivates the provision of a wide range of services (16). Additionally, another example of a blended method was noted in Ontario, Canada (FHG model), which was also found to significantly increase specialist efficiency relative to the FFS model (18, 19). The specialist was satisfied with the FHG model's benefits, such as extended-hour premiums, chronic disease management promotions, and patient registration benefits. Those benefits give strong professional encouragement, thereby increasing their productivity. The blended payment schemes can be implemented in public hospitals to increase doctors' overall incomes (5). Similar to another study, replacing access to additional FFS revenue with official bonus schemes leads to maintaining work effort concerning treatment for all patients (21). However, in terms of cost-effectiveness, blended type of payment methods shows only modest to no significant decrease in the growth of expenditure (24).

Conclusion

Payment methods can affect physician practice behaviors and the quality of healthcare. The combination of payment methods may, however, combine the benefits of simple payment methods. Where there is not adequate mixing of methods, bonus-for-performance programs may encourage the provision of targeted services. Thus, before a new medical policy is implemented, policymakers must define and empirically examine the positive and negative impacts.

Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Conflict of interest

The authors declare that there is no conflict of interest.

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