

Contracting private sector providers for public sector health services in Jalisco,
Mexico: perspectives of system actors

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Abstract

It is possible to identify in developing countries new ways to establish labor relationships between health workers and institutions. Nonetheless, these experiences in general express a phenomenon of flexibilization of working relationships which does not necessarily promote a better performance of workers. In Mexico these experiences are becoming common and among them the case of the Ministry of Health of the State of Jalisco (SSJ) is one of the pioneers. This experience has been in operation for more than 10 years. With the use of public state resources, SSJ started the contracting of a group of workers aiming at providing health care in remote areas where no public infrastructure was available. Health workers are organized in “basic teams” constituted by a physician, a nurse and a social worker responsible for the care of families in a pre-defined geographical area. Their performance is closely supervised by SSJ. Workers are paid a basic salary which is increased by an extra allowance estimated according to productivity. Currently the contracted workers are negotiating with SSJ better working conditions including health insurance and paid vacations. The paper revises the reasons that took SSJ authorities to develop such a model and the perception that decision-makers have regarding its achievements and shortcomings. Furthermore, an analysis of the perception of health workers is presented regarding the type of contract, the problems that they face to provide care to users, their satisfaction with the model and the expectations they have about their labor future.

Key words: Contracting, private sector providers, public health care

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Background

This article presents results gathered from a research project that analyzes the performance of a model for contracting private providers with public finances, implemented by the Ministry of Health of the State of Jalisco, Mexico. This model is a strategy employed by the State to extend coverage its populations without access to formal health services. Using the information gathered through a study that carried out an integral analysis of the model, this document presents the perspectives of the service providers and the decision makers regarding the model's capacity to meet objectives, their particular participation in the model and about the future economic and operative viability of the model.

The article is organized as follows: the model's characteristics, organization and performance are described to provide the context for providers' participation. This is followed by the description of the study's methodology, the results, discussion and conclusions resulting from the analysis of the incorporation of health personnel in the model of services provision developed by the Ministry of Health of Jalisco.

There are an increasing number of studies in the health literature that document health services contracting by governmental authorities (Molina G, y Rodriguez C. 2007; CEPAL 2006; Nigenda G, Gonzalez-Robledo L, Ruiz JA. 2006; Kadař A, Sall F, Andriantsara G & Perrot J 2006; Danel I y La Forgia G. 2005; Cercone J, Briceño R, y Gauri V. 2005; Lewis M. 2005; Loevinsohn B. y Harding A. 2005; Dal Poz, 2002). Diverse strategies to link the public model and the private actors are reported, as well as the varying consequences (positive and negative) in terms of efficiency, equity and quality of care. These models have been favored particularly by developing countries and some have been evaluated. (Siddiqi S, Masud T, & Sabri B 2006; Loevinsohn B. and Harding A. 2005; Danel I and La Forgia G. 2005; Cercone J, Briceño R, and Gauri V. 2005; Taylor, R. 2003). An important number of these models have been promoted, and indeed financed, by international development agencies. Yet few have mobilized national or local fiscal resources for implementation; one notable case is Costa Rica (Cercone J, Briceño R, and Gauri V. 2005; Herrero F and Durán F. 2001).

a) Development of the Mexican Health Care system.

The Mexican health system was created in 1943 with significant intervention by federal authorities. This intervention resulted in a structured system that segmented population groups according to their participation in the formal or informal work force. The population groups and corresponding attending institution were based on the following criteria: a) formal sector workers were affiliated with a social security institution; b) the unemployed or informal sector workers were covered by public assistance institutions (primarily the Secretary of Health); and c) a segment of the population used private health care institutions. This structure permitted the social security to cover 45% of the country's population, public institutions the other 45% and the remaining 10% sought their health care from private institutions or did not access any health services. This model has exhibited a number of serious structural and functional limitations since the early 1980s.

The Mexican health system has since then entered into an important reform stage. Various authors agree that the decentralization of health services in the early 1980s resulted in a chain of dynamic changes that are still felt today. These changes sought to address the needs of the population group uncovered by social security services. (Soberón G, 2001). Decentralization was an important and strategic phase to redistribute the financial responsibility for health care between the states and the federal level. The process was initiated in states with greater local, financial, human and material resources. This process encountered difficulties, and was interrupted from 1988 to 1994. In 1995, the decentralization process was reinitiated in a second stage and was declared completed in 1999.

Although decentralization itself did not resolve the financial and equity problems of the health system (Moreno J 2001), over time some states have taken advantage of the process to increase their decision-making capacity regarding the resource allocation, thus reducing the role of the federal government in this sphere. Furthermore, this increase in autonomy promoted innovation, which was primarily financed with state funds. State health bureaucrats, or technocrats, began to play a roll in the conceptualization of the local system (Burki S, Perry G, Dillinger W, 1999). These technocracies have been structured around state governments and it is not possible to distinguish which political party most supports them (Ai Camp, 2005). In the case of

Jalisco state, located in western Mexico, this group of health technocrats was comprised of individuals with solid academic training at Mexican and international institutions, and with significant experience in the political sphere. Jalisco state was decentralized during the second period; however from 1983 to 1995, prior to its decentralization, different projects were put forth. In many cases these projects (e.g. the Mental Health Model) became points of reference for other states.

Table 1. Around here

Early on, Jalisco started to analyze the option of incorporating private sector participation in the public health system. The state is characterized by a high level of industrial development, influenced by free market thinking in the economic and political spheres. In this context the idea of total state dominion over public policy is less acceptable than in other states (Nigenda G, González-Robledo LM, Ruiz JA, 2006). As such, the possibility of private participation in the public health sector did not meet with resistance by the stakeholders, as in other states. Currently this strategy has been incorporated in different state Secretary of Health programs.

b) History and general characteristics of the model

In the mid-1990s, the Jalisco state Secretary of Health technocrats had identified that, despite efforts to extend health care coverage, there were still population groups particularly in rural and peri-urban areas that did not have continuous access to primary and secondary level health care. Two options to extend coverage existed: a) construct new units in the public health network, or b) contract private providers. The latter was favored after costing exercises showed that building additional infrastructure was financially unviable. To carry out the decentralization process in Jalisco, the state and federal authorities agreed to create an institution called the Decentralized Public Agency (OPD) which could carry out functions that the Secretary of Health was forbidden by law to carry out, such as the contracting of private sector services and providers. In practice the OPD and the Jalisco state Secretary of Health coordinated in order to carry out the duties of the health sector and generally the same person headed both organizations.

In 1997, the state government earmarked budgetary funds which would finance and permit the operation of the new program to contract health teams and hospitals to provide services to the population uncovered by a social security institution. As a requisite for contracting, two types of services were selected: one called a basic health unit which consisted of a physician, nurse and health technician who worked as a team to provide health services in rural areas. General hospitals that offered basic specialties (surgery, pediatrics, gynecology/obstetrics and internal medicine)³ comprised the second provider type.

The basic health unit contracted personnel for a defined period of time (usually three months) with renewable contracts. Payment varies by job category. For example, physicians receive a fixed salary equivalent to 50% of permanent Secretary of Health physician's salary. The remainder is variable, calculated based on monthly productivity (measured primarily as the number of consultations). The other categories of health personnel also receive a fixed salary complemented by productivity payments, based on indicators related to their activities (e.g. number of home visits, immunizations administered).

Table 2 details the financial resources dedicated to the purchase of services, disaggregated by type of service. The budget increased by nearly 100% between 2002 and 2004; the majority of the additional investment went to expanding the number of basic health units. All financial resources for this program come from state funds.

Table 2. Around here.

The mechanism to regulate the contractual system is complex and one of its objectives is to calculate the precise amount of the additional productivity-based payment made to health personnel. Each month the basic health unit personnel report their productivity to the health jurisdiction, which then forwards the reports to the central coordinating offices in Guadalajara. Based on the productivity, the coordination estimates the additional payment. Statistical records are maintained at the central level to monitor performance over time. When a provider surpasses the monthly average, a technical

³ This contracting mechanism is detailed in another document: Nigenda G, González-Robledo LM y Ruiz JA. 2006.

audit of the basic health unit or hospital is generated. This audit is carried out with the aim of understanding the change in performance and it is based on a review of patient charts, which the health personnel must keep up to date. A systematic monthly audit is also carried out in randomly selected units in order to review productivity and medical charts.

The basic health units are distributed throughout Jalisco state, primarily in those localities that lack a public health center. The specific criteria is that these units be located in localities with a population less than 2,500 inhabitants, without local public health services and that the nearest public health clinic be more than 1 hour away via public transportation.

Without a doubt, the topic of private sector incorporation in the development and implementation of public health policy has been widely debated and its consequences have not always been positive. The data presented in this article focus on the perspectives of the primary care provider and other key actors involved in the model, covering the model's advantages and disadvantages with regards to professional practice as well as the functioning of the state health system.

Methods

In 2004, the Mexican Health Foundation, initiated a study of the diverse models of public-private interaction in Mexico's health sector. The case of Jalisco proves interesting because there are currently few models of public-private interaction for primary care service provision in the country. A case study was carried out with the aim of describing the model's legal framework, financial mechanisms, linking of private health care providers in the public network and participation by the health personnel.

To develop the case study, a set of qualitative, quantitative and documental techniques were applied with the aim of gathering data to describe the model's origin, legal framework, financial mechanisms and the contracting of private health providers. The participation and perspectives of health personnel involved in the provision of services were also documented, along with the use of contracts as regulatory mechanisms, the supervision and control systems, the user satisfaction with health care and the general

model outcomes. Through a descriptive analysis and triangulation of the information obtained from different sources, researchers were able gain in-depth knowledge about the model's operation as well as the perspectives of the actors involved.

Fieldwork was carried out between 2004 and 2005. The population under study consisted of various model participants, among them: decision makers (at the Ministry of Health of Jalisco), private providers (doctors, nurses, health promoters as well as MOH hospital managers) and users of traditional health care units and of health care units staffed by contracted personnel.

To document the perspectives of private providers a questionnaire was applied to a self-selected sample of three categories of providers. The questionnaire included the following topics: a) socio-demographic profile, b) motivations to accept the contract, c) working conditions, d) opinion about supervision and indicators used, and e) opinion of user satisfaction at the health unit where they work. This question also gathered data on contract workers' future expectations about their labor condition and opinions about the strengths and weaknesses of the contracting model.

The sample was selected in three steps. First the population universe was defined as the 180 contracted workers in all three categories, based on Jalisco's MOH records. Second, the questionnaire was mailed to all contracted health professionals (using their work address). Third, the completed questionnaires were returned within one week to the payment office of the corresponding health jurisdiction. Questionnaires were then delivered to the model's managers in Guadalajara and finally to the researchers. From the total of 180 questionnaires, only 87 were complete and used for analysis. This self-selected sample does not allow researchers to make any kind of inferential analysis.

Although the way the sample was constructed is a major limitation for the interpretation of the results, the sample showed homogeneous characteristics that responded to the criteria previously established by researchers, namely: 1) all personnel were included in the list of contracted personnel provided by the SSJ, 2) all of them had the same contractual and payment conditions, 3) were supervised under the same scheme and 4) were located in rural and semi-urban areas that did not have a public health unit.

For the qualitative component, a total of 29 interviews were carried out, comprised as follows: 7 interviews with top managers at the Jalisco MOH; 4 with owners/managers of the hospitals under contract; and 18 with users of health services units staffed by contracted private providers. Interviews were semi-structured. They lasted 60 minutes on average and were conducted and audio-recorded by a team of three field researchers. Informed consent for all informants was obtained prior to beginning the interview. Information about users was gathered through 4 focus groups of six participants each (2 focus groups for users of traditional health centers and 2 for contracting health centers). The selection of informants in the qualitative component was purposeful and intentional, aiming to obtain the most relevant information possible for the objectives of the research project. Participants were selected according to the degree in which they met the criteria originally defined by the project. A common criterion for inclusion for all informants was that they should possess knowledge of and have direct participation in the model. Data was processed using Atlas ti software.

The information obtained from the different methodologies was contrasted and triangulated, to confirm the results and the analysis of the case study.

Results

Results presented in the following section come from a mix of primary and secondary sources of information. All tables and figures were produced using information collected by the survey of practitioners and completed with information obtained from Ministry of Health records.

a) Health Personnel Profile

The numbers of basic health units and contracted personnel have increased in recent years. In 2003, 40 physicians were contracted to work in the basic health units. By 2004 this number had increased to 180 persons, including physicians, nurses and health promoters. This group is organized into 52 basic health units working in 12 health jurisdictions. Contracted physicians are generally young residents, completing the

required year of social service⁴, recent graduates or doctors that work as substitutes, filling in for those on maternity leave, vacation or other leave. The nursing and health promoter staff usually live in the communities that they serve, are known by the community and in some cases, have previously worked for the state Health Secretariat in a related area.

In reviewing the profile of the 84 contractees who completed the survey, two points stand out: the majority of contracted personnel are female (80%) and the distribution of completed surveys among categories of health personnel are relatively homogenous (physicians 35%, nurses 32% and health promoters 32%). As detailed in Table 3, compared to the overall number of contracted personnel, self-selection was consistent between occupational groups, but not by sex. However, the differences by sex in completion of the survey are observed exclusively in the health promoter category. These differences also show an aspect of the model that appeals to health personnel. While for the physicians, there is a significant interest among women in participating in the model, for the health promoters there is a wide variety of technicians and professionals, in particular dentists and psychologists, who are primarily male. Given this, more than half of all personnel in all the categories (55%) have earned a university degree. The contracted staff ages range from 21 and 50, with an average age of 30.

Table 3. Around here.

It is important to note that 82% of the sample indicated work experience prior to joining the basic health units. Of this group, 54% had worked in the public sector and the other half in the private sector. Likewise, 45% of those who had work experience averaged between one and two years in their previous job.

b) Personnel opinion about the advantages and disadvantages of participating in the model.

The basic health units required physical work spaces for service provision, equipped with the adequate instruments and supplies. The Secretary of Health negotiated with the municipal authorities, reaching an agreement whereby the municipalities would supply

⁴ By law passed in 1938 in Mexico, medical students in their final year or training must work from between 6 to 12 months in a rural health clinic before receiving their degree.

the physical workspace and the Secretary will supply the equipment and medications through the public health supply system.

Figure 1. Around here.

The result is that working conditions that are not always adequate, thereby reducing the capacity of the basic health units to provide care in a minimal setting. According to Figure 1, supply of medications in the biggest problem encountered by health personnel, highlighted by 80% of the personnel. Lack of equipment and inadequate physical space in terms of size, design, ventilation, illumination were also important problems. Excess demand was not mentioned as a major problem given the fact that more demand generates greater income based on productivity.

Regarding the contractual agreements between the institutions and private providers, two important aspects stand out: the extent to which the personnel considered advantageous (or disadvantageous) the contracting mechanism and on the other hand, the way in which salaries are calculated. 61.3% of the health workers consider that the contracting process is somewhat advantageous, 29% disadvantageous or very disadvantageous and only 7.6% consider the mechanism advantageous or very advantageous. This distribution suggests that the contracting process is ambiguously viewed; both the positive (flexibility in time) and negative (income level) are perceived by the health workers.

It should be mentioned that the sample includes diverse occupational categories, an average age of 30 years, and a majority with prior work experience. Although most were drawn to rural areas based under contracting conditions, relocation is always difficult, especially for the physicians. The advantageous or disadvantageous rating is determined by these differences. Table 4 shows the reasons the personnel qualified the contract mechanism as advantageous or disadvantageous. The questionnaires provided the opportunity for respondents to spontaneously mention the reason underlying the qualification. The majority of the reasons for a negative opinion of the contracting process are related to personnel issues such as salary, lack of benefits, the duration of the contract and the impossibility of obtaining a long-term position. None of the reasons given for a disadvantageous ranking mentioned the inability to provide quality care,

geographic proximity to the population receiving care or the supervision that they receive. The ranking of, “somewhat advantageous” also centers on personnel reasons, but includes other reasons, such as combining this job with other activities or simply having the opportunity to work. The “advantageous” category is the only one which considers geographic proximity to the target population.

Table 4. Around here.

An underlying theme among the range of the opinions is that those who accept contracts by the Secretary of Health do so with the short- or medium-term goal of obtaining a permanent position with the accompanying benefits and prerogatives that these unionized workers enjoy. One non-explicit factor related to aiming for a permanent position—in addition to those points already mentioned in Table 4—is the resistance to having payments and incentives based on productivity and quality standards. In Table 5 the preference of contracted personnel for a permanent position is clear, a finding that is valid across the three health personnel categories. However, an important group of contractees prefers to maintain their current status for an indefinite period. The percentages of the groups expressing other preferences are marginal. Besides, it is worth highlighting that among physicians, the possibility of working independently in a private doctor’s office is mentioned only by a small proportion of cases. It seems that independent medical practice, for decades the prototype of medical practice in Mexico, is no longer a primary option in Jalisco.

Table 5. Around here

Salary preferences reflect in part the previous tendency. The majority of the personnel would prefer a salary that is constructed differently. As mentioned, personnel payments are comprised of a base salary (50% of total possible earnings), to which productivity payments are added. This model allows managers to promote productivity and efficiency. Among permanent workers, productivity is measured, but it is not used for sanctions, in the case of low productivity, or bonus payments for high productivity cases. Incentives are paid to salaried workers based on punctuality, which is not a factor of efficiency. 65% of the contracted personnel suggest that they should earn the same salary as permanent workers, excluding productivity as a factor for calculating income.

Another important group (18%) prefers the same salary as permanent workers, without taking into account benefits. The remainder is divided among groups of small percentages; however there is a small group which considers their income level to be fair.

Figure 2. Around here.

c) Other actors' perspectives

The opinions of the health care providers—physicians, nurses and promoters—are fundamental to understand the achievements and difficulties related to the operation of the model. However, their vision centers on the advantages and problems related to their participation and underestimates the implications for other actors. The fieldwork carried out for this study also gathered information from other actors. The findings are presented in this section with the aim of offering a comprehensive vision of all actors who participate in the model's operation.

As stated earlier, the two most important objectives of this model are to widen coverage to underserved areas lacking public health infrastructure and to employ resources using strict efficiency criteria. In order to meet the first objective, the specific areas for deployment of basic health units must be defined, which to date has been largely achieved. It is the state Health Secretary, and not contracted personnel that defines the locations for the teams. The second objective could be accomplished through insuring a competitive salary, similar to unionized workers, initially without considering other benefits such as social security, pensions, etc. Simultaneously, this payment would be linked to some productivity measure such as consultations or other services with the aim of ensuring the highest outcome possible for the investment.

According to state Secretary of Health authorities, meeting the model's objectives is more important than the way it functions. They consider contracting of health personnel as fundamental and instrumental to meeting objectives. State as well as jurisdictional authorities consider that basic health unit productivity can be 100% greater than that of the public health network. They cite, for example, that the average number of

consultations per day in a basic health unit is between 20 and 30, and that in a traditional public health center it ranges from 10 to 14.

Other aspects highlighted by these informants are related to a strong commitment of contracted personnel to their job, combining a sense of responsibility and respect for supervisors, meeting immunization goals (a productivity measure), growing service demand, greater prenatal care coverage, resulting in a decreased risk of maternal mortality, and increased efficiency in resource allocation. Informants also mentioned the high level of satisfaction among the health unit's target population one of the collateral model's achievements. Indeed the services provided by these units constitutes for many sites the first time that formal health care services are offered in a continuous manner in their locality.

State authorities appreciate that they have a high level of control over the health unit performance through use of indicators regarding personnel activities. An important issue of the contracting model is that the union, a powerful actor in the negotiation of labor conditions for workers, has been limited to recommending personnel to be contracted. The final decision on the modality of contracting rests on the state health authorities.

Discussion

The document describes the perception of managers and providers that participate in the operation of the model that contracts private providers using public funds in the State of Jalisco, Mexico. This contractual model is unique in Mexico, yet it has been inspired on similar initiatives in other developed and developing countries (Briton P, Quintana F, y Novice M, 1995). During the 10 years of its existence, the model has advanced in various aspects. It has mobilized significant public resources from state-level treasury, permitting a greater number of basic health unit personnel to be contracted. As a consequence, coverage for population living in rural areas has increased.

As shown in other studies (Gomm, Hammersley and Foster, 2000) the perception of any given phenomenon varies according to the position that each actor has within the institution. The results presented above confirm the variation in the perception of actors.

The model's managers focus on the achievement of the model's objectives highlighting the results in the increased coverage of populations that, prior to the model's implementation, had no access to formal health services, as well the efficient use of resources based on the differences in the productivity/investment ratio between the contracted and public units.. Labor conditions of contracted personnel and the effect of these conditions in their productivity and quality of care are not relevant issues in their discourse.

Unlike managers, contracted personnel focus on the conditions upon which workers are contracted. Even though contracted personnel do not outright reject or critique the model, the goal of obtaining better working conditions and job security is clear. Workers clearly seek a permanent staff position in the Ministry of Health. The increase in coverage and the efficient use of resources does not represent a great achievement of the model from their perspective.

This gap in actors' perspectives has important medium and long-term implications for the model. Extending coverage is an unquestionable achievement but the achievement of efficiency less so. The positive relation obtained between the investment and productivity diminishes the possibility of increasing the investment to improve workers' labor conditions. Increasing economic incentives, medical care, bonus payments and even ensuring continuity and stability in the contracted position require greater financial investment. Given the nature of work it is important to provide a dignified job offer and package. In this sense, contracting models should consider provision of these benefits as a productive investment.

However, managers should maintain the prerogative to monitor and supervise the performance of contracted workers in order to ensure that high quality of care over time.

According to Dal Poz, by the year 2000 in Brazil there were different modalities of contracting health workers, all with advantages and disadvantages for managers and workers. Most of these contracts provide flexible working conditions for employees, yet normally do not meet the country's labor legal requirements. This trend demonstrates the advancement of structural reforms and the impact they are having in the labor

conditions of health workers (Dal Poz, 2002). Preserving adequate labor conditions is fundamental when contracting of health workers is undertaken. The results presented and discussed in the paper are relevant for the future of the Mexican health care system. By 2007 in Mexico, using Popular Health Insurance funds, a program started in 2002 aimed at providing care to all Mexicans not affiliated with a social security institution, more than 30,000 workers has been incorporated under a similar contracting scheme (National Institute of Public Health, 2008).

Conclusions

As these results are generated from an exploratory study, the findings are not conclusive. However, it is likely that the model has had an effect on productivity, quality of care and efficiency in the provision of services. The performance of the state Secretary of Health has been important both from the technical and political perspectives. Technically, there are three key aspects in the model's operation. First is the contracting mechanism which allows the state Secretary of Health to determine the geographic location of the basic health units and to ensure their permanency, traditionally the Achilles' heel of the country's primary health care system. Health personnel are usually reluctant to relocate to far-removed communities and be subjected to productivity measures. The second key aspect of the model's success is the ability to link productivity to salary payments, thereby increasing the number of services offered and optimizing resources. The third element, and perhaps the most important of the model design, is the implementation of a strict regulatory and oversight system, which punctually and systematically reports personnel productivity, permitting negotiation and discussion of those instances where productivity falls outside of the norm.

Politically, the health authorities have been able to implement a model for almost ten years with the support of the state treasury authorities, and have benefited from a budgetary increase in recent years. They have also established an agreement with the health workers' union, obtaining the union's tolerance of the model.

This article has detailed the opinions of contracted personnel and other participants in the model. Divergent opinions reflect quite different perspectives of the same model. While the contracted personnel are clearly orientated toward meeting labor obligations

and expectations, state and jurisdictional level decision makers identify the benefits and the problems with the model in terms of achieving its ultimate goals. Contractees are preoccupied with using the contracting mechanism as a step to obtaining a permanent salaried position, with all its technical and political prerogatives.

Labor rights for contracted workers and the model's rationale for widening health care coverage, and increasing quality and efficiency of resource allocation are not irreconcilable. In fact the model has shown flexibility through introducing modifications that allow workers to increase their benefits. Recently the state Secretary of Health and the contracted workers negotiated benefits such as the provision of a major medical health insurance plan and the possibility of making payments into a personal retirement fund. Doubtless, these improvements in working conditions could produce a positive impact in fundamental aspects such as the long-term sustainability of the model, political support of workers for the model, the development of a quality of care culture where worker satisfaction plays an important role and the possibility of replicating the model in other regions in Mexico in a consistent and viable manner to extend health services to the poor.

Competing interests

"The author(s) declare that they have no competing interests'.

Author's contributions

Gustavo Nigenda designed the study in general, designed instruments of data collection, analyzed information and participated in the drafting of the document.

Luz María González participated in the design of instruments, collected information on the field, systematized information and participated in the analysis and drafting of the document.

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Figure legends

Figure 1: Main service delivery problems faced by basic health unit personnel

Figure 2: Basic health unit personnel payment preferences

Tables and captions

Table 1. Characteristics of Jalisco State (circa 2005)

	Mexico	Jalisco
GNP per capita (US dollars)	8,010 (2006)*	5,515* (2004)
% population covered by social security	49,523,389 (45.6 % of Mexican population (2006)**	3,464,189 (50.6% of Jalisco population) (2006)****
Physicians per 1,000 inhabitants	1.3 (2004)	1.3 (2004)
Health expenditure as % of GNP	2.9 (2006)***	3.1 (2006)***
Population	104,859,992 (2006)*	6,843,503 (2006)****

* Source: Elaborated by E'dycsa with INEGI data. National Accounts System of Mexico. 2006 and Bank of Mexico. <http://www.mexicoenestadisticas.com.mx/oportec/Pib2.xls>

* Source: <http://www.seijal.gob.mx/difusion/seijal.pdf>. Jalisco State Information System, based on data taken from INEGI.

** Source: <http://sinais.salud.gob.mx/poblacion/2008>

*** Source: Salud México 2001-2005. Statistical Annex 1.12 (p. 182)

**** Source: National Population Council, August 2006. Historic series based on demographic estimates of the XII General Population and Housing Census 2000 and the II Population and Housing Count 2005. <http://www.mexicoenestadisticas.com.mx/oportec/pob2.xls>

Table 2. Budget and expenditures for the purchase of health services, 2002 and 2004 (in US Dollars)

Year	2002	2004
Total budget	\$ 650,000	\$ 1'200,000
Total expenditure, by year	\$ 673,790	\$ 1'359,130
1. Basic Health Units	\$ 590,618	\$ 1'233,900
2. Hospitals	\$ 83,171	\$ 82,000

Source: Authors, using data provided by Jalisco Health Services.

Table 3. Differences between total personal contracted in basic health units and the self-selected sample

Occupational category	Total	%	M	F	Sample	%	M	F
Physicians	73	39	32%	68%	30	35	30%	70%
Nurses	50	27	1%	99%	27	32	4%	96%
Promoters	61	33	55%	45%	27	32	17%	83%
Total	184	100			84	100		

Source: Authors using data from the health services providers' questionnaire. Research project on public private interactions in the Mexican health sector.

Table 4. Basic health unit personnel reasons for qualifying as advantageous or disadvantageous the contracting mechanism.

Category	Reasons
Somewhat advantageous	<ul style="list-style-type: none"> a. Salary and benefits drawbacks b. Can not accumulate seniority c. Renewing contracts is dependent on productivity d. Untimely salary payments e. Short contract period (three months) f. Job insecurity g. Few benefits h. No medical insurance i. No update or continuing education courses j. Greater workload that those with permanent position k. Can combine this job with other activities l. Opportunity for employment
Disadvantageous or very disadvantageous	<ul style="list-style-type: none"> a. Fewer rights than permanent personnel b. Can not accumulate seniority c. Short contract period d. Salary and benefits drawback e. Greater workload than those with permanent position f. Job insecurity g. Undefined job activities h. No social security benefits i. Untimely salary payments
Advantageous or very advantageous	<ul style="list-style-type: none"> a. Productivity payments b. Recent provision of health insurance c. Ability to work in their community d. Opportunity for employment

Source: Authors, using data from the health services providers' questionnaire. Research project on public private interactions in the Mexican health sector.

Table 5. Basic health unit personnel preferences regarding contracts

Preference of health unit personnel regarding contracts	% Basic health unit personnel			
	Total	Physicians	Nurses	Others
Maintain indefinitely	17	21	22	13
Maintain until find other job	1		4	
Obtain a permanent position with the state Health Secretary	67	70	55	77
Obtain a permanent position in another public institution	2		4	3
Work independently, in profession	1	3		
Other	2	3	4	
Don't know; no response	10	3	11	7
Total	100	100	100	100

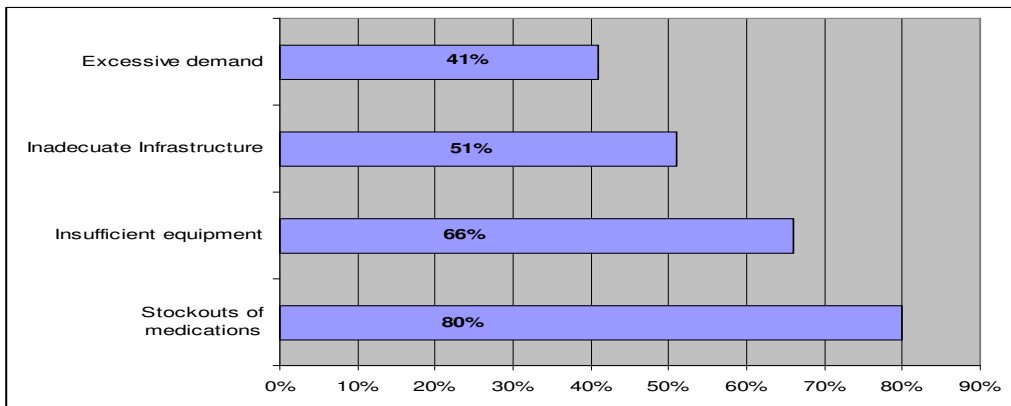
Source: Authors, using data from the health services providers' questionnaire. Research project on public private interactions in the Mexican health sector.

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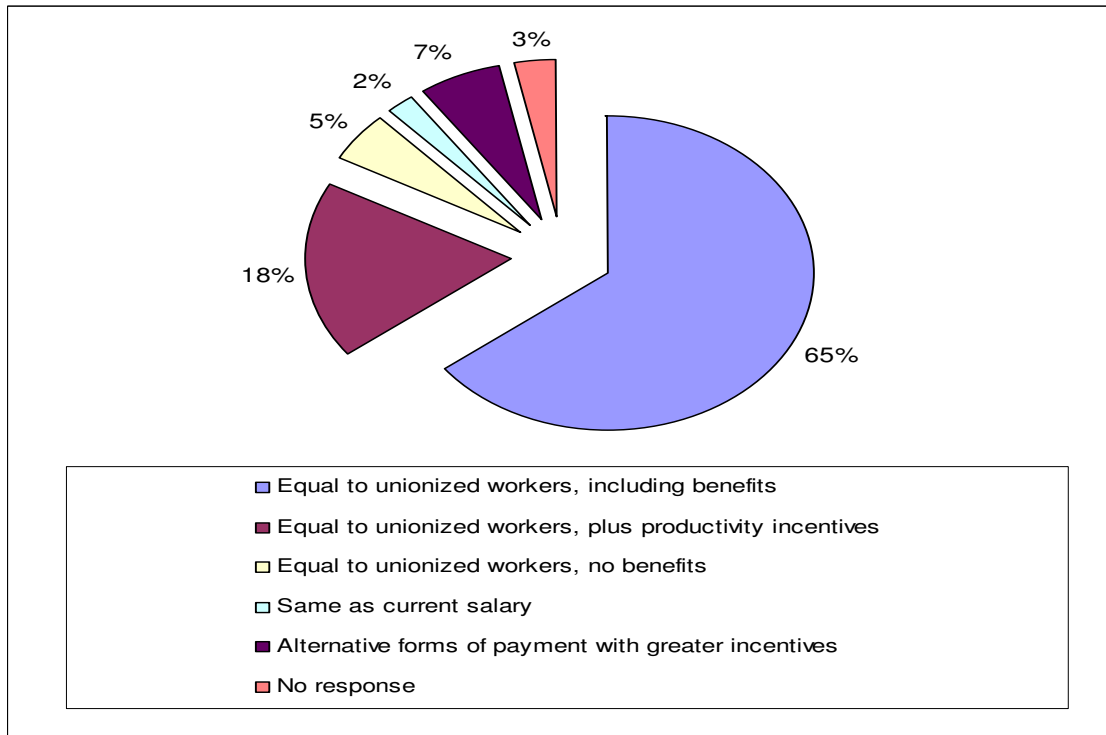
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Figure 1: Main service delivery problems faced by basic health unit personnel



Source: Authors, using data from the health services providers' questionnaire. Research project on public-private interactions in the Mexican health sector.

Figure 2: Basic health unit personnel payment preferences



Source: Author, using data from the health services providers' questionnaire. Research project on public private interactions in the Mexican health sector.

Additional files provided with this submission:

Additional file 1: cover letter rrhh final.doc, 44K

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