Abstract—The introduction of Seguro Popular de Salud (SPS) expanded the practice of contracting in the Mexican health system. Specifically, SPS established that formal relationships among institutional agencies should be mediated by written agreements and contracts. These contracts were supposed to ensure a technically sound interaction between financing and service provision agencies. This study aims to assess the degree to which the contracts adhere to five characteristics of cost-effective contracting proposed by Figueras et al. Information was extracted from a purposive sample of 30 institutional agreements and contracts formalizing the relationship among federal, state, and local public agencies and between public and private agencies. Contracts and management agreements were obtained from a series of SPS evaluations carried out between 2007 and 2012 (including some agreements signed in 2006); additional contracts signed after 2012 were obtained through an Internet search. Most of the five framework characteristics were identified in the sample of contracts, but certain elements such as pay-for-performance and the explicit definition of the volume of services to be provided were clearly deficient. This analysis found that over time SPS contracts have been modified to better establish inter-institutional relationships in compliance with guidelines regarding the allocation of funds and the purchasing of services, but they still need further improvements to accomplish their role of increasing efficiency in the flow of funds through the Mexican health system.

INTRODUCTION

In the 1990s, a number of health system reforms worldwide implemented changes that went beyond simply finding new ways of delivering services or managing resources. International proponents of reform and their national counterparts argued that, despite substantial public investment, monopolistic government providers had shown little capacity to improve outcomes or efficiency. Furthermore, government
providers demonstrated a low level of interest in satisfying users.\textsuperscript{1-3} Service provision remained primarily a bureaucratic process that sought to serve the needs of the institutions themselves rather than the intended beneficiaries.\textsuperscript{1} In Latin America, health reforms sought to improve performance by incorporating a new rationale in the design and operation of the health system based on the separation of financing and services provision and replacing historical budgeting by demand-side subsidies.

These changes were supported by a sociopolitical viewpoint that democratic progress should lead to the modernization of service provision by government as well as the protection of other individual and social rights. This perspective proposed that the state should look to private-sector experience in applying mechanisms for the production of goods and services in order to increase efficiency in resource utilization, improve service delivery, and raise user satisfaction.\textsuperscript{4}

Many Latin American health reforms attempted to implement market or quasi-market strategies to make more efficient use of scarce public resources.\textsuperscript{5} These new models aimed not only to improve efficiency but also to expand options for beneficiaries by offering a wider choice of health care services. Perhaps the Latin American model of reform that came closest to these principles was the Colombian health reform of 1993.\textsuperscript{6}

One key element of these reforms was contracting. Contracting experiences show common challenges in the management of contracts.\textsuperscript{7,9} A World Health Organization report suggested that in New Zealand, major challenges at the beginning of the contracting process “were around the lack of good information on costs, volumes and quality which made it difficult to compare providers’ performance and to negotiate contracts.”\textsuperscript{10,11} Siddiqi et al.,\textsuperscript{12} in their analysis of the contracting of private health services in ten Eastern Mediterranean countries, warned of the challenges of contracting due to the low availability of providers in rural areas, the dominance of vested interests gaining control over the contracting process, and poor monitoring and evaluation mechanisms. In England, Lethbridge\textsuperscript{13} pointed out that contracting out private services was highly dependent on managers’ skills and experience to achieve effective commissioning, regular reviews of contract specification, and monitoring. In analyzing the Australian situation, Young\textsuperscript{14} states that inadequate contract specifications led to contract termination, poor quality, and difficulties in contract management. In Latin America and the Caribbean, contracting was introduced in countries such as Colombia, Brazil, Argentina, Chile, and Costa Rica as a consequence of health reform processes.\textsuperscript{6,15-17} In the case of Costa Rica, Abramson\textsuperscript{18} found that contracts generally lacked defined features such as quantifiable results and relied on population coverage but not on quality indicators or efficient use of resources. Slack and Savedoff\textsuperscript{19} showed that by the early 2000s, contracts in several Latin American and Caribbean countries were in a process of adjusting contents and simplifying operational mechanisms. Their analysis was predominantly focused on the challenges to implementing effective payment mechanisms.

In this reformist scenario, Mexico has also experimented with health system innovations to increase efficiency and expand health services options, including introducing different types of contracting. Two decades passed between the start of the decentralization of public health services in 1983 and the implementation of Seguro Popular de Salud (SPS) in 2003, when the federal government sought to redefine its financial and administrative relationship with the states. The decentralization process encountered many difficulties, mainly due to the lack of both a financing component as well as the managerial capacity to generate public investment and thereby ensure achievement of goals.\textsuperscript{20}

SPS sought to remedy these problems, but the management component has not played out as originally planned.\textsuperscript{21} The linchpin uniting the processes of competition, efficient production, and user satisfaction was to be the separation of financing and purchasing, which would then lead to the creation of contracting arrangements between local financial entities and service providers. Despite this important role, the contracting of health service provision within the context of Mexico’s SPS has rarely been addressed in the literature to date. The contribution of this article is to assess the adherence of SPS contracts to the proposed standards of cost-effective contracting proposed by Figueras et al.\textsuperscript{22}

KEY SPS DESIGN ELEMENTS UNDERPINNING THE CONTRACTING PROCESS

SPS aimed to break with Mexico’s historical bureaucratic model of financial allocation and service provision by rolling out various managerial strategies, chiefly: (1) the implementation of a regulatory system that clearly defined stakeholders’ functions and interactions, (2) the creation of a fresh flow of financial resources according to allocation criteria based on demand, (3) the design of a cost-effective package of services, (4) the separation of health services financing and the purchasing of services into independent units, and (5) the creation of a contracting system to ensure the flow of funds across different health system levels in order to achieve...
broad SPS objectives. This article examines the last managerial strategy.

Specific elements are key to understanding the contracting process within SPS. First, the National Commission for the System of Social Protection in Health (CNPSS in Spanish) was created to play the role of general coordinator, primarily to collaborate with the states and achieve a transparent flow and efficient use of financial resources. CNPSS aggregates federal funds and establishes formal agreements with the states for their allocation by estimating a capitation per family based on the number of affiliated families by state. In 2009, a change in the regulatory framework modified the original criteria and established a system using individual capitation (rather than family).21

To make efficient use of the new financial resources, a package of interventions called the Universal Health Services Catalogue (CAUSES in Spanish) was designed. These interventions were selected based on an estimation of the most important health actions necessary to mitigate the highest number of potential health risks (i.e., demographic and epidemiological dynamics) at an affordable cost. CAUSES is the foundation of the definition of services to be provided and paid for between federal and state levels and contracts with public and private providers by the states’ Social Protection in Health Regimes (REPSS in Spanish).23 A key issue for contracting purposes is that SPS required that any (public or private) health care unit had to be accredited in order to provide CAUSES services to SPS beneficiaries.

CAUSES has been updated several times since 2003, leading to an increasing number of interventions, reaching 284 in 2012. Based on the most current scientific evidence, this increase reflects the leading causes of mortality and hospital demand in Mexico. The updated CAUSES covers “nearly 100% of health care demand” in primary care and 85% of inpatient and general surgical services.23,24

Importantly, the relationship between CNPSS and the REPSS, as originally established (Figure 1), has been modified over time. The original regulatory framework emphasized that the allocation of funds at the state level should be done through the REPSS, a unit specialized in the pooling of federal and state financial resources and responsible as well for the allocation of these resources and purchasing of health service provision in each state. The managerial agreement between CNPSS and REPSS initially included three annexes containing key technical specifications. Annex I established the list of interventions (CAUSES) and associated medicines. Annex II established the population’s affiliation and re-affiliation coverage goals, including an estimation of the beneficiary population by state. Annex III established the high-cost interventions related to the Fund for Protection against Catastrophic Expenses (FPGC in Spanish), and Annex IV, incorporated in 2007, set expenditure ceilings by line item. This final annex sought to contain expenditure patterns that CNPSS deemed inappropriate in order to maintain high cost-effective standards in the allocation of financial resources at the state level.

CONTRACTING: CONCEPTUALIZATION AND APPLICATION WITHIN THE SEGURO POPULAR DE SALUD ENVIRONMENT

There are different approaches to understand the role of contracting in the performance of health systems. Busse et al.25 suggested strategic purchasing as a mechanism to promote health system performance through the effective
allocation of financial resources to health service providers. Another reform mechanism, separating the pooling and allocation of funds from the provision of services, has been applied to attain efficiency as a key system objective. This separation of functions pursues the goal of creating competitive health markets or quasi-markets to increase efficiency in the use of financial resources and promote quality of care for system beneficiaries.26 Once financing and service delivery are separated, the purchasing of services through contracting is key to coordinated collaboration. To make health services contracting efficient, according to Figueras et al.,22 a number of aspects must be considered in contract design and implementation, including linking procurement to planning, basing contracts on available clinical and economic evidence, implementing contracts with clearly defined costs and volume of services produced, driving pay-for-performance, and defining quality standards (see Table 1). This model also considers a sixth component related to the development of competition, but we were unable to incorporate this component because our study did not include sufficient elements to judge whether the contracts encourage competition. This contracting framework is well suited to analyze the Mexican case because its structure is rooted in experiences of public health systems that contract both public and private services, as opposed to other frameworks focused solely on the contracting of private providers.27,28

The presence of the contracting features proposed by Figueras et al.22 is critical for appropriate implementation, especially considering the institutional context: these features are particularly relevant when contracting is done by public agencies or on behalf of the government. As Table 1 shows, these components explain how, in theory, contracting can create beneficial interactions between purchasers and providers while also providing certainty to other systemic elements such as planning, quality of care, and efficiency.29

For the first time since its founding in 1943, the Mexican Secretariat of Health can now buy services from other institutions, both public and private. This suggests that by establishing agreements between the federal level (CNPSS) and the state level (State Secretariats of Health, or SESAs in Spanish), as well as at the interstate level (SESA and REPSS) or between state and local levels (SESAs or REPSS and public or private providers), these entities are able to use contracting to improve their service provision capacity. In this study, we examine whether the features described above are contained in a sample of contracts and managerial agreements that establish the interaction between purchasers and providers of health services in SPS.

METHODS
This study analyzes a set of contracts and management agreements obtained from a series of SPS evaluations carried out between 2007 and 2012 (including some agreements signed in 2006). These data were complemented with evidence from post-2012 contracts gleaned from an Internet search.

We used a purposive sample of contracts, resulting in a total of 30 reviewed contracts and managerial agreements (Table 2) implemented at federal, state, and local levels between 2006 and 2014. Twelve of them were between federal and state institutions (CNPSS and State Secretariats of Health), eight were between state-level institutions (among the 32 REPSS and between REPSS and SESAs), and ten were between state and local agencies (REPSS/SESAs and public and private providers).

Importantly, all contracts and agreements between federal and state institutions are quite similar, and variations only appear between the initial versions and the more recent ones. The case is the same for all agreements between SESAs and REPSS. The arrangements with greater variation are those defining the contract or agreement between state and local agencies, due to the level of managerial autonomy of REPSS and the leeway decision makers have in interpreting contracting guidelines in each state.

In order to assess the level of compliance with each of the five characteristics described in the conceptual model by Figueras et al.,22 we defined specific indicators and evaluated the extent to which contracts achieved the objective. Table 1 shows three or more specific evaluation items for each of the five characteristics. In all cases, a positive score was earned when the item existed in the contract. There are three scoring levels, with the maximum being three pluses per item and the minimum one plus per item. Each specific item counts for one plus except in the case of “linking contracting with planning,” which has five items earning three pluses when three or more items appear in the contract, and “basing contracts on clinical and economic evidence,” which has only two specific items and so earns three pluses when both appear in the contract. When contracts include no items, they are scored NE (no evidence found).

In the first stage of analysis, each contract was assessed individually by each of the authors to determine the level of evidence. Next, the individual assessments were compared, and when any disagreement arose among authors regarding the level of evidence, the case was iteratively discussed until the group reached consensus. These discussions incorporated
| No. | Element | Description |
|-----|---------|-------------|
| 1   | Linking contracting with planning | Planning should take into account population dynamics, both demographic and epidemiological, as well as the resources available to meet the demand generated by these types of changes. The agreements should consider at least the types of services to contract; the types of providers to contract with; the payment mechanisms; and the time period (annually). |
| 2   | Basing contracts on available clinical and economic evidence | In the context of planning, contracting must be able to incorporate elements of the most recent sound scientific evidence on issues of clinical care for both traditional and emerging health problems. This range of evidence would include the following:  
- The development of clinical guidelines that take into account existing practices and potential change generated by demographic and epidemiological transitions and associated required resources.  
- The associated required resources to the interventions of the clinical guidelines.  
- A broad view of health improvement including prevention and treatment options. |
| 3   | Implement contracts with clearly defined costs and volume of services produced | Cost-and-volume contracts seem to have the most potential in signaling the appropriate incentives to providers. These contracts allow for purchasers to decide the following:  
- The volume of care required (in terms of Diagnosis Related Groups [DRGs], number of total or cases or bed days).  
- Define the product and determine cost-effective forms of intervention.  
- Measures of performance |
| 4   | Driving pay-for-performance | Pay-for-performance describes health care payment systems that offer financial rewards to providers who achieve, improve, or exceed their performance on specified quality and cost measures, as well as other benchmarks. Pay-for-performance models are based on a common set of design elements performance measurement and incentive design.  
Pay-for-performance has been an important innovation included in many recent health reforms. According to Alvarez,35 an optimum payment system should induce providers to deliver the highest quality care, should be able to meet the needs of patients, and should achieve a high level of technical efficiency. However, the lack of clear consensus on the best ways to carry out pay-for-performance strategies is largely due to organizational variations of particular types of health systems.  
- Design and payment of incentives  
- Other modalities of payment (budgets, capita, etc.) |
| 5   | Definition of quality of care standards | Promoting quality through contracting is a key goal, yet its achievement can be elusive. The quality promotion mechanisms can be specified before and/or after contracts are signed.  
- Before: Through requiring the contracted facility (or the facility receiving financing from the system) to be accredited or certified.  
- After:  
  - The establishment of evidence-based care standards  
  - Quality assurance mechanisms  
  - The definition of quality goals (process and outcome).  
Once quality guidelines are established in the contract, purchasers should closely monitor compliance with clearly defined quality standards. |

TABLE 1. Elements to Ensure the Cost-Effective Contracting (Figueras et al.’s 22 Framework). Source: Elaborated by authors with information from Figueras et al. 22
| Type of Managerial Agreement/Contract | Level         | Agent            | Number of Contracts/Agreements | Linking Contracting with Planning | Basing Contracts on Available Clinical and Economic Evidence | Implement Contracts with Clearly Defined Costs and Volume of Services Produced | Driving Pay-for-Performance | Definition of Quality of Care Standards |
|--------------------------------------|---------------|------------------|--------------------------------|----------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------|---------------------------------------------|
| Coordination agreement for the execution of the Social Protection System in Health between the federal level and each state | Federal–state | Public–public | 8                              | 2006/2011 2012/2014               | 2006/2011 2012/2014                                          | NE                                              | NE                                           | NE                                           | NE                                           | NE                                           | NE                                           |
| Coordination agreement between the federal level and the states for the strengthening of health services infrastructure | Federal–state | Public–public | 4                              | +++  +++  +++  +++  +++              | NE                                              | NE                                           | NE                                           | +                                           | ++                                           |
| Framework agreement for the provision of medical services and economic compensation between 32 states and the federal level | Federal–interstate | Public–public | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | +                                             |
| Managerial agreement for the provision of medical services between REPSS and state health services (SESA) | State–state | Public–public | 6                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | +                                             |
| Contract between REPSS and a private hospital | State–local | Public–private | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | ++                                           |
| Collaboration agreement between REPSS and decentralized public hospital | State–local | Public–public | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | +                                             |
| Managerial agreement between state health services and a decentralized public hospital | State–local | Public–public | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | +                                             |
| Coordination agreement between state health services and public hospital within the network | State–local | Public–public | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | +                                             |
| Contract between state health services and a private hospital | State–local | Public–private | 2                              | +++  +++  +++  +++  +++              | +                                               | +                                           | NE                                           | NE                                           | ++                                           |

*aScale: +++ = Level of evidence in contracts: high; ++ = level of evidence in contracts: medium; + = level of evidence in contracts: low; NE = no evidence in contracts.
Source: Elaborated by authors with agreements and contracts information.

**TABLE 2.** Evidence Level of Figueras et al.’s Framework in Managerial Agreements and Contracts Within Mexico’s **Seguro Popular de Salud**
information from other sources (academic papers, official reports, etc.) to ensure a robust basis of discussion.

Content analysis was then performed on the sample of contracts. In accordance with Hsieh and Shannon, qualitative content analysis is defined as “a method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns.” They propose three approaches to qualitative content analysis, based on the degree of involvement of inductive reasoning. We followed the second approach, in which coding is guided by theory or relevant research findings.

Thematic analysis focused on the identification of the following contracting features: linking contracting with planning; basing contracts on available clinical and economic evidence; implementing contracts with clearly defined costs and volume of services produced; driving pay-for-performance; and the definition of quality of care standards. Subsequently, we contrasted the contents of contracts for two different time periods (2006–2011 and 2012–2014) in order to identify changes or challenges in reaction to changes that were happening to the SPS’s legal framework, particularly those attributable to the revision of the SPS-related General Health Law and its Guidelines in 2009 and the change of the federal administration in 2012.

RESULTS
The results of the SPS analysis are presented according to the five contract features proposed by Figueras et al. We present how the feature appears in the contract, the main components of each feature, and the way they changed between the predefined periods—2006–2011 and 2012–2014—which for the purposes of simplicity are deemed the initial and late period, respectively.

Linking Contracting with Planning
We found evidence linking contracting to strategic planning in managerial agreements signed between the federal and states agencies (including federal–state and state–state), whereas the contracting between state and local agencies corresponds mainly to operational planning.

All managerial agreements between federal and state governments clearly and accurately established the foundations, commitments, and responsibilities of each party involved in operating SPS in each state. They contained clauses that specified beneficiary entrance to the system, the transfer and use of financial resources, payment procedures, models of care, types of services to be covered, collaboration and integration strategies with other institutions within the health care system, and the responsibility of the states to submit financial data on time. These contents were linked up with planning as far as they defined the accomplishment of health system objectives by establishing mechanisms to guarantee access of population (before SPS without social insurance) to health services, through the definition of what is supposed to be purchased (CAUSES) and for whom (SPS beneficiaries), as well as the setting of prices, conditions, and obligations of all involved parts. One of the main differences between the initial and the most recent agreements is the incorporation of Annex IV, where expenditure ceilings by line item were defined by CNSPSS.

The managerial agreements between two public agencies (REPSS and SESAs) define the objectives and purposes that were established to guarantee the provision of services listed in CAUSES. As mentioned above, CAUSES contains a list of interventions based on cost-effectiveness (the benefit package). Agreements mention the obligations of involved parties and the amounts, transfer mechanisms, and allocation of financial resources. Some of them incorporate follow-up and monitoring actions, as well as mechanisms to protect beneficiary rights, quality standards, and the valid period of premiums. More recent agreements have incorporated additional content such as penalization clauses and/or reasons for agreement termination.

Likewise, managerial agreements and contracts for the provision of health services established the relationship between public–public and public–private agencies. In all agreements and contracts, the obligations of each party are stipulated, as are the kind of services to be contracted (with CAUSES as reference) and the mechanisms to guarantee the population’s access to health services. One of the main differences between public–public and public–private contracts is that the latter specify the cost of the contract and/or the fees of each contracted service, the contract’s expiration date, and the payment mechanisms. More recently, there have been fewer differences between public–public agreements and public–private contracts because certain conditions (particularly sanctions such as the early termination of contract due to lack of accomplishment of any clause or when it is determined that resources were used for other purposes different from the ones defined in the contract) initially appearing only in the public–private contracts more recently have appeared in the public–public agreements.

Basing Contracts on Available Clinical and Economic Evidence
All managerial agreements and contracts at different levels (federal, state, and local) established the provision of
preventive services, outpatient consultations, surgeries, hospital care, and rehabilitation according to the CAUSES-defined interventions. The entire list of interventions normally appears in the contract annexes.

In agreements between the federal–state and federal–interstate agencies, each state is committed to ensuring the provision of services covered by CAUSES and the FPGC according to official guidelines and the regulatory framework. Managerial agreements clearly specified that the state could establish complementary services based on the specific needs of their populations, geographical access to communities, environmental and social conditions, as well as other aspects of the local health situation. All complementary services should be financed using a state’s own resources, different from those resources provided by the SPS as its original legal obligation.

Agreements and contracts between state agencies and local providers list the specific interventions to be provided, including obstetric services and newborn care, integral care for diabetic patients, and lab tests and imaging, among others. Those interventions not included in CAUSES were considered complementary.

Regarding economic evidence, our review showed that federal–state agreements point out that the amounts transferred to the states are estimated based on the number of SPS beneficiaries. Federal–interstate agreements established that payments directed to states that provide services to beneficiaries who are not officially enrolled as a resident of that state should be made according to the CAUSES price manual. The agreements and contracts at the state–local level varied greatly; some of them specified that REPSS would adjudicate to SESA the totality of resources received from the federal level and the state portion, whereas others opted for a monthly beneficiary per capita payment. Still others defined payments by intervention according to CAUSES prices.

Implement Contracts with Clearly Defined Costs and Volume of Services Produced

No evidence on the precise definition of the total volume of services to be contracted was identified in any of the reviewed contracts and agreements. All arrangements contained some definition of goods (e.g., medicines) or services to be contracted strictly related to those included in CAUSES and FPGC. In some, fees were specified but not the total amount of services to be provided.

Most managerial agreements between the REPSS and SESA defined the population that was served in the state according to the enrollment registry but did not establish parameters of population size or volume, total service production, or service production by type (promotion, prevention, treatment, rehabilitation, etc.) to be provided to that particular population.

Private contracts varied in the sense that they were designed to purchase specific services as opposed to a comprehensive service package. Nonetheless, they generally did not define the volume of services beforehand. Instead, the payer specified a fixed cost that could not be surpassed and that was supposed to be paid by the contractor once agreed services were provided and reported. We found no changes over time regarding this feature.

Driving Pay-for-Performance

Managerial agreements at the federal and state levels did not explicitly include pay-for-performance mechanisms in arrangements with health services providers. They instead defined the allocation of funds according to an established capitation per affiliated individual. These funds must be used to pay for the provision of services included in CAUSES. This mechanism also appeared in the agreements between REPSS and SESAs.

Differences were apparent in the different contracts signed between state SESAs and providers, though we found no evidence of pay-for-performance in any of them. In the contracting of private providers, payments were established per individual activity or group of activities or on a set budget, as opposed to the capitation system used in the federal–state agreements.

In managerial agreements with public providers, the payment method was simply the amount transferred per affiliated family/individual. Certain mandatory administrative expenses such as enrollment activities could be deducted from these amounts. Resource allocation fees in accordance with Annex IV of the agreements between the CNPSS and each state were also outlined, particularly the 20% for the provision of health prevention and promotion services. When it came to contracts with private providers, payment was generally fee for service by intervention according to the price defined in CAUSES. In the contracts reviewed, we did not identify any additional compensation mechanisms to encourage productivity or quality. In our sample of contracts, payment mechanisms remained largely unchanged over the period analyzed.

Definition of Quality of Care Standards

Initial period contracts did not incorporate specific features regarding quality of care standards; they simply assumed that once a unit was accredited, quality of care would be
provided. Later on, contracts started to incorporate more specific quality indicators. For example, recent services purchasing contracts (REPSS-SESA agreements and state–provider contracts) contain a set of articles that refer to current federal norms. These norms were specified for most clinical procedures in order to regulate their appropriate technical application according to available resources, including the type of personnel considered capable of providing a certain service. Furthermore, health services provision can be audited, particularly where public–private contracts are signed. Contracts outlined sanctions for providers (particularly private ones) not meeting the quality standards defined by federal health agencies, including the suspension of payments or even the suspension of the contract.

DISCUSSION

This study showed that contracts implemented by Mexico’s Seguro Popular de Salud in all of their modalities have improved over time by incorporating relevant information for the planning of services, using more refined clinical and economic data, and specifying costs of interventions and quality of care parameters. Furthermore, various features have become more specific over the first decade of SPS implementation. Thus, contract characteristics follow the proposals by Figueras et al.22 for cost-effective purchasing. However, two key elements were missing across all contracts: the definition of the volume of services to be produced and pay-for-performance components.

The lack of a definition of service volume represents an enormous deficiency considering that managerial agreements among public agencies establish the transfer of capitation payment that should be related to the production of a certain minimum of services provision. By failing to establish this criterion for service volume, providers can individually decide how much to produce. Of particular importance is the definition of a minimum volume of promotion and prevention services. In theory, pay-for-performance should generate incentives for providers in order to increase both efficiency and quality. Purchasers could even use this feature to encourage competition. However, pay-for-performance measurements were not included in the contracts we reviewed. Unfortunately, this content analysis of contracts did not allow us to explain this absence. The lack of pay-for-performance components in the contracts could have a negative effect on efficiency and quality goals.

It is important to note that improvements in the contents of contracts may not necessarily lead to cost-effective use of financial resources. For example, in the case of planning of services, even though the CNPSS carries out planning activities based on the evaluation of population health needs and conditions, this capacity is highly limited when we move down to the state level. To a large extent, the structure of contracts reflects the conditions and definitions in the national-level–state-level contracts rarely incorporate specific elements regarding the local context.31 These include age and sex structure of populations, social vulnerability, and the geographic distribution of health care units and price differences between the US border and other areas, among others.

This study assessed the contents of contracts and managerial agreements at different levels of Mexico’s government structure and signed by different institutional actors. Unlike the agreements between the federal government and the states, which tend to be fairly standard, managerial agreements at the state level vary considerably. Variations likely depend on the level of managerial autonomy of the REPSS and managers’ capacity to be innovative in expenditure allocation or the purchasing of services. In states where the REPSS are part of the SESA’s institutional structure, the latter will induce decisions biased to the purchasing of CAUSES interventions through the network of public units (rather than private units).

This analysis shows that contracts with private providers are used to purchase services, medicines, imaging, and laboratory tests. As the direct provision of services in most of the states is biased toward SESAs, the market space left for private providers largely consists of the provision of medicines and lab tests. The contents of contracts with private providers differ from public managerial agreements. They establish maximum fees according to CAUSES for specific interventions to be purchased as well as minimum quality standards that have become more sophisticated over time. Furthermore, public–private contracts since the early period contained sanctions for inadequate performance or for failing to meet provider responsibilities. In the last period (2012–2014), sanctions also appear in public–public agreements, showing how sanctions are considered to work as a regulatory element for the transparent management of financial resources and to strengthen the regulatory capacity of financial agents.

SPS is still far from being able to establish strategic purchasing of services as proposed by Busse et al.25 Although the elements to pursue this type of purchasing are present (cost of interventions, contracting structure, financial availability), the system has not yet been able to consolidate a balanced interaction among agents in which each constituting element could execute the corresponding actions according to established norms and thereby be included in the contracts. There is no competition between public and private agencies, because the public sector maintains an implicit monopoly of
service provision. Competition does exist, however, among private providers, especially in the market for medicines.

Challenges confronted by SPS regarding the misuse of financial resources have been documented elsewhere. Contracts could prevent or reduce the misuse of financial resources. All managerial agreements and contracts should contain specific clauses to guarantee accountability in the use of resources; for example, through a more specific set of indicators and penalties in case of deviation of funds and/or demonstrated corruption.

The above-mentioned limitations in contracting capacity in Mexico also have implications for the overall health system. The Mexican health system is highly segmented, with the two main segments being the social security institutions and the Secretariat of Health. This segmentation is highly inefficient for public investment. In recent years, national governments have encouraged a systemic integration through contracting and the development of inter-institutional agreements. This process has been problematic due to the lack of initial agreements on technical, financial, juridical, and political features, but its development remains of interest to the government. The results found in this study could advance the discussion around implementation modalities of expanded contracting as Mexico addresses the challenges of moving forward with health system integration.

The first decade of SPS implementation has witnessed a great number of adjustments to improve the role of contracts for the allocation of resources and purchasing of health services. Adjustments typically began by modifying laws and regulations that have an impact on the variety of system functions including contracting and its instruments. Despite the progress made in improving the contents of contracts, this analysis shows that certain key characteristics (service volume and pay-for-performance) are still missing from health system contracts and need to be addressed to ensure the efficient use of SPS financial resources.

The results and analysis in this article have some limitations. The main methodological limitation is the small number of contracts assessed. At the state level, the perception of the confidential nature of contracts information acts as a barrier to obtain them. They are typically unavailable on state secretariats of health websites. Therefore, state-level variations regarding contract contents may not be fully represented by this study. A conceptual limitation is that the study focuses on the contents of contracts but not on the consequences of these contents in the use of SPS resources. However, this decision was intentional. Despite the fact that it has been the main mechanism of formal institutional interaction since 2003, the analysis of contracting in Mexico is still in its early stages. Further research is needed to understand the rationale and practice of contracting in SPS and the consequences for key outcomes such as efficiency, access, and quality of care.

CONCLUSION

Contracting within the SPS represents a core interactive strategy for the health system. These contracts pursue different objectives depending on the level of government and the units involved. Contracts were evaluated according to the five-category modified framework of Figueras et al. Most categories were present in contracts, except for the volume of services and pay-for-performance mechanisms. The analysis shows that the structure of agreements and contracts has improved over time, creating new regulatory elements that help establish relationships between parts of the health system. Ultimately, contracts must not only strengthen their contents but also improve their use as part of the SPS managerial structure. In particular, evaluators must be able to monitor adequate implementation at different levels. Better implementation of contracts will in turn help the Mexican health system meet its objectives, especially for efficiency and quality improvement, which together represent the most important system challenges for the future.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

The authors report no conflict of interest.

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NOTES

[a] Defined as a set of decision-making criteria and the decisions taken and implemented to guide its activities toward a proposed objective.
Operational planning allows for the logical organization of activities and actions, defines the functions and responsibilities of involved parties, and projects the necessary level of resources for the accomplishment of objectives.

REFERENCES

[1] Han W. Health care system reforms in developing countries. J Public Health Res 2012; 1(3): 199-207.
[2] Mills A, Broomberg J. Experiences of contracting health services: an overview of the literature. Geneva: World Health Organization; 1998. HEFP Working Paper 01/98.
[3] Almeida C. Health systems reform and equity in Latin America and the Caribbean: lessons from the 1980s and 1990s. Cad Saude Publica 2002; 18: 905-925.
[4] Bloom G, Champion C, Lucas H, Peters D, Standing H. Making health markets work better for poor people: improving provider performance. Brighton, UK: Institute of Development Studies; 2008. IDS Technical Partner Paper 4–2008.
[5] Sojo A. Health benefits guarantees in Latin America: equity and quasi-market restructuring at the beginning of the millennium. Mexico DF: Economic Commission for Latin America and the Caribbean; 2006.
[6] Giedion U, Villar M. Colombia’s universal health insurance system. Health Aff 2009; 28: 853-863.
[7] Tangcharoensathien V, Limwattananon S, Patchararanom W, Thammatacharee J, Jongudomsuk P, Sirilak S. Achieving universal health coverage goals in Thailand: the vital role of strategic purchasing. Health Policy Plan 2015; 30: 1152-1161.
[8] Liu X, Hotchkiss D, Bose S. The effectiveness of contracting-out primary health care services in developing countries: a review of the evidence. Health Policy Plan 2008; 23: 1-13.
[9] Zaidi S, Iraz A, Rabbani F, Azam SI, Imran SN, Pradhan NA, Khan GN. Can contracted out health facilities improve access, equity, and quality of maternal and newborn health services? Evidence from Pakistan. Health Res Policy Syst 2015; 13 (Suppl 1): 54–55.
[10] World Health Organization. Contracting for health services. Lessons from New Zealand. Geneva: World Health Organization; 2004.
[11] Ashton T, Cumming J, McLean J. Contracting for health services in a public health system: the New Zealand experience. Health Policy 2004; 69: 21-31.
[12] Siddiqi S, Masud TI, Sabri B. Contracting but not without caution: experience with outsourcing of health services in countries of the eastern Mediterranean region. Bull World Health Organ 2006; 84: 867-875.
[13] Leithbridge J. Public enterprises in the healthcare sector—a case study of Queen Elizabeth Hospital, Greenwich. Journal of Economic Policy Reform 2014; 17: 224-235.
[14] Young S. Outsourcing in public health: a case study of contract failure and its aftermath. J Health Organ Manag 2008; 22; 446-464.
[15] Álvarez B, Pellisé L, Lobo F. Payment systems for health care providers in Latin America and OECD countries. Rev Panam Salud Publica 2000; 8(1–2): 55-70.

[16] Ireland M, Cavallini L, Girardi S, Araujo EC, Lindelow M. Expanding the primary health care workforce through contracting with nongovernmental entities: the cases of Bahia and Rio de Janeiro. Hum Resour Health 2016; 18(14): 1–12.
[17] Rodríguez-Herrera A, Bustelo C. La compra de servicios de salud en Costa Rica [Health services purchasing in Costa Rica]. Santiago de Chile, Chile: Comisión Económica para América Latina y el Caribe; 2008. CEPAL Serie de Financiamiento para el Desarrollo No. 201–2008.
[18] Abramson WB. Monitoring and evaluation of contracts for health service delivery in Costa Rica. Health Policy Plan 2001; 16: 404-411.
[19] Slack K, Savedoff W. Public purchaser–private provider contracting for health services. Examples from Latin America and the Caribbean. Washington, DC: Inter-American Development Bank; 2001.
[20] Gershberg AI. Decentralization and recentralization: lessons from the social sectors in Mexico and Nicaragua. Washington, DC: Inter-American Development Bank; 1998. BID Working Paper No. 379–1998.
[21] Lazonco-Ponce E, Gómez-Dantés H, Rojas R, Garrido-Latorre F. Sistema de protección social en salud. Evaluación externa 2012 [System of social protection in health. External evaluation. 2012]. Cuernavaca, Mexico: Instituto Nacional de Salud Pública; 2013.
[22] Figueras J, Robinson R, Jakubowsky E. Purchasing to improve health systems performance: drawing the lessons. In: Purchasing to improve health systems performance, Figueras J, Robinson R, Jakubowsky, eds. Maidenhead, UK: Open University Press; 2005; 44-80.
[23] González-Pier E, Gutiérrez-Delgado C, Stevens G, Barraza-Llorén S, Porras-Condey R, Carvalho N, Lonich K, Dias RH, Kulkarni S, Casey A, et al. Priority setting for health interventions in Mexico’s system of social protection in health. Salud Publica Mex 2007; 49(Suppl 1): S37-S52.
[24] Comisión Nacional de Protección Social en Salud. Libro blanco. Sistema de Protección Social en Salud. “Seguro Popular”. [White book. System of social protection in health. “Seguro Popular”]. México DF: Secretaría de Salud; 2012.
[25] Busse R, Figueras J, Robinson R, Jakubowsky E. Strategic purchasing to improve health system performance: key issues and international trends. Healthlhe Pap 2007; 8: 62-76.
[26] Londoño JL, Frenk J. Structured pluralism: towards an innovative model for health system reform in Latin America. Health Policy 1997; 41: 1-36.
[27] Liu X, Hotchkiss D, Bose S, Bitran R, Giedion U. Contracting for primary health services: evidence on its effects and a framework for evaluation. Bethesda, MD: Abt Associates; 2004. PHRPlus Publication 2004.
[28] Loevinsohn B, Harding A. Buying results? Contracting for health system performance: drawing the lessons. In: Purchasing to improve health systems performance, Figueras J, Robinson R, Jakubowsky, eds. Maidenhead, UK: Open University Press; 2005; 44-80.
[29] Robinson R, Jakubowsky E, Figueras J. Organization of purchasing in Europe. In: Purchasing to improve health systems performance, Figueras J, Robinson R, Jakubowsky E, eds. Maidenhead, UK: Open University Press; 2005; 11-43.
[30] Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res 2005; 15: 1277-1288.
[31] Stevens A, Colin-Jones D, Gabbay J. Quick and clean: authoritative health technology assessment for local health care contracting. Health Trends 1995; 27(2): 37-42.

[32] Nigenda G, Wirtz VJ, González-Robledo LM, Reich MR. Evaluating the implementation of Mexico’s health reform: the case of Seguro Popular. Health Systems & Reform 2015; 1: 217-228.

[33] Frenk J, González-Pier G, Gómez-Dantés O, Lezana MA, Knaul FM. Comprehensive reform to improve health system performance in Mexico. Lancet 2006; 368: 1524-1534.

[34] Bossert T, Blanchet N, Sheetz S, Pinto D, Cali J, Pérez-Cuevas R. Comparative review of health system integration in selected countries in Latin America. Washington, DC: Inter-American Development Bank; 2014. BID Technical Note No. IDB-TN-585-2014.

[35] Alvarez B, Pellisé L, Lobo F. Payment systems for health care providers in Latin America and OECD countries. Rev Panam Salud Publica 2000; 8(1–2): 55–70.

[36] Secretaría de Salud. Sistema de Protección Social en Salud. Elementos conceptuales, financieros y operativos [System of social protection in health. Conceptual, financial and operational elements]. 2a. Edición. Colección Biblioteca de la Salud. Payment systems for health care providers in Latin America and OECD countries. México DF: Fondo de Cultura Económica; 2006.