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# GUATEMALA HEALTH SYSTEM ASSESSMENT 2015 EXECUTIVE SUMMARY



August 2015

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## **The Health Finance and Governance Project**

USAID's Health Finance and Governance (HFG) project will help to improve health in developing countries by expanding people's access to health care. Led by Abt Associates, the project team will work with partner countries to increase their domestic resources for health, manage those precious resources more effectively, and make wise purchasing decisions. As a result, this five-year, \$209 million global project will increase the use of both primary and priority health services, including HIV/AIDS, tuberculosis, malaria, and reproductive health services. Designed to fundamentally strengthen health systems, HFG will support countries as they navigate the economic transitions needed to achieve universal health care.

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# EXECUTIVE SUMMARY

## Purpose of the Assessment

Guatemala's public health system benefits from a well-established regulatory framework, many years of institutional history, dedicated and experienced health sector workers, and an absence of dependence on external sources for financial support. Furthermore, the Peace Accords of 1996 established the basis for the future development of the system for the benefit all Guatemalans. Nevertheless, and in spite of its solid institutional legacy, during recent decades a number of problems have developed which have compromised the public health sector's effectiveness. The result is a system which is fragmented, inefficient and fails to provide an equal level of health services to all Guatemalans. The country's recent political instability has only brought these problems into sharper focus.

Strengthening Guatemala's health system requires a thorough understanding of the system's unique strengths and weaknesses. At the request of the USAID/Guatemala Mission, the Health Finance and Governance (HFG) project conducted a Health System Assessment (HSA) in Guatemala. The primary objective of the HSA was to map the health system's strengths and weaknesses and to prepare a set of written recommendations intended to guide health system strengthening efforts in the country.

## Methodology

Health systems experts from HFG and USAID/Washington conducted a rapid assessment of Guatemala's health system according to the building blocks of the World Health Organization (WHO) health systems framework: governance, health financing, service delivery, human resources for health (HRH), health information systems (HIS), and medical products and supply chain. An extensive review of the literature pertaining to each building block was conducted and a zero draft of the HSA was developed prior to the team's arrival in Guatemala in April 2015. This background information formed the basis for a series of questions that would guide the two-week in-country information-gathering exercise. During the visit, the HSA team interviewed a wide spectrum of key stakeholders across the public, nonprofit, and for-profit sectors and through municipal and facility site visits across the regions of Alta Verapaz, Chiquimula, and Quetzaltenango. After the trip, the HSA team prepared the full report with draft findings and recommendations for review and discussion by all team members at two team meetings.

## Country Overview

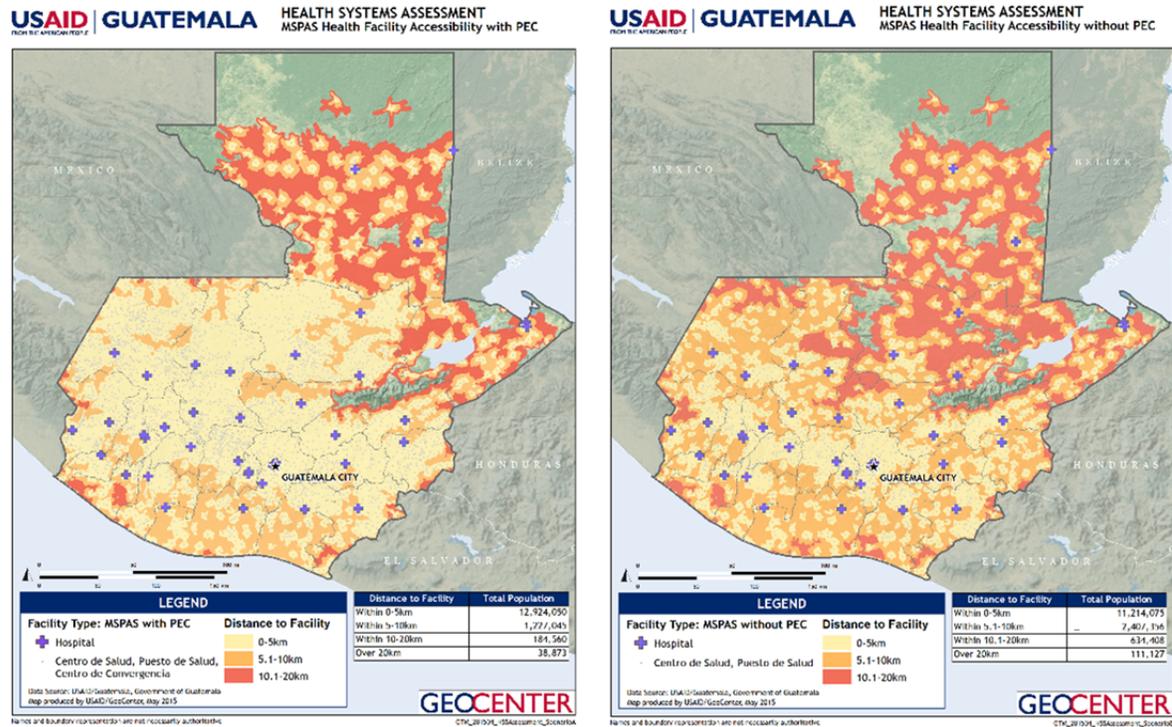
Guatemala ranks as the largest country and economy in Central America, with over 15 million inhabitants, more than half of whom live in poverty. Guatemala's population is roughly equally divided between urban and rural areas, yet large disparities in economic development, access to health services, and health outcome indicators persist, with rural areas faring much worse than their urban counterparts. The rural population is also predominantly made up of indigenous peoples from among Guatemala's many ethnic and linguistic groups. According to the OECD (2014), Guatemala's tax revenue of 12.3 percent of gross domestic product is one of the lowest in the region and limits the government's overall ability to provide publicly funded services. During and following the HSA team visit a number of high-profile scandals alleging corruption have shaken the government leading to several departures across the administration and a crisis of confidence among the general public.



Two central themes provide the context for the findings of this HSA and led the HSA team to prioritize its recommendations on the restoration of access to the most disadvantaged groups:

1. The long-term structural inequity in health care and outcomes
2. The public health sector's current heightened state of crisis related to the cancellation of the Extension of Coverage Program (*Programa de Extensión de Cobertura, PEC*)

**FIGURE 1. HEALTH FACILITY ACCESSIBILITY WITH AND WITHOUT PEC, 2015**



Source: USAID GeoCenter 2015

A consistent and well-documented finding across all the building blocks during the HSA was inequity in health outcomes, disease burden, service access, and health spending. The north and northwest regions of Guatemala continue to have the country's highest maternal mortality rates – over three times the rate of the metropolitan areas – as well as the highest incidence of stunting. With the exception of the northwest region, the regions with the highest levels of maternal mortality are also those receiving the lowest levels of total health spending per capita.

The stark contrast between urban and rural health worker densities (25.7 health workers per 10,000 population in urban areas compared to only 3.0 per 10,000 in rural areas), the dearth of clinicians fluent in indigenous languages, and the disparities in accessing skilled birth attendants (73 percent among ladinas but only 36 percent among indigenous women) all highlight the barriers to access among rural, indigenous populations in Guatemala.

The PEC was implemented by the Ministry of Health and Social Assistance (*Ministerio de Salud Pública y Asistencia Social*, MSPAS) following the 1996 Peace Accords in recognition of the urgent need to extend coverage of basic health services to the 46 percent of the country’s population – primarily indigenous communities – without access to health services. MSPAS entered into agreements with a variety of nongovernmental organizations (NGOs) to provide basic health services (primarily mother and child care and immunizations) to underserved communities. The program was rapidly expanded and by 1999 had extended basic health services to 3.5 million people, an estimated 76.8 percent of the previously unserved population at that time.

**TABLE I. REGIONAL AND ETHNIC INEQUALITIES IN MATERNAL MORTALITY**

Region	Maternal Mortality Ratio (deaths per 100,000 live births)
Northwest	202
Petén	150
North	119
National	113
Southwest	105
Central	104
Northeast	98
Southeast	86
Metropolitan	48
Indigenous women	159
Non-Indigenous women	70

Source: MSPAS, 2015. Situación de la mortalidad maternal: Informe de País 2013. Guatemala.

However, a growing dissatisfaction with what was perceived as a lower level of health services provided to indigenous communities under the PEC, together with accusations of inefficiency and a lack of transparency in the award of PEC contracts to NGOs, led to legislation passed in 2013 prohibiting the outsourcing of health care services to NGOs and to the cancellation of most of MSPAS’ contracts with NGOs in the fall of 2014. This cancellation resulted in the suspension of all public health care services provided through the PEC to the majority of Guatemala’s rural population. At the time of the cancellation, no plans were communicated on how these programs and services would be replaced.

At the time of the HSA, some measures had been taken to expand MSPAS level I health care (health posts) in areas previously covered by the PEC, under a recently proposed primary health care (PHC) strategy (*Estrategia de Fortalecimiento y Desarrollo Institucional del Primer Nivel de Atención*). While the broad components of the strategy were shared with the HSA team, the strategy continues to evolve. Given the available information about the strategy and its implementation, the HSA team is not in a position to evaluate the strategy or predict its impact. Instead, the Service Delivery chapter outlines some of the main elements that PHC systems should incorporate in order to ensure access to quality health services.

Although inequities, organizational inefficiencies, institutional fragmentation, and a generalized underfunding of Guatemala’s health sector have long existed, the abrupt cancellation of the PEC in 2014 served to focus public as well as international donor attention on the deficiencies of the country’s public health sector. These factors provide the context for the current health system assessment and frame the opportunities available to the government to rebuild the public’s trust in its role as the steward of the health system.

## Key Findings and Recommendations

The HSA team witnessed first-hand multiple manifestations of the current crisis plaguing Guatemala's public health care system. This HSA report makes numerous recommendations for both short-term and medium- or long-term improvements in each of the six building blocks, as reported in the corresponding chapters of the report. Below are several higher-level recommendations that cut across the six building blocks and look to improve health system performance as a whole. A summary of the findings for each building block follows the cross-cutting recommendations.

### **1. Guatemala should take immediate action to define and implement a PHC strategy that will meet the most basic needs of the entire population while moving toward universal health care**

MSPAS recently presented a full-service PHC strategy (*Estrategia de Fortalecimiento y Desarrollo Institucional del Primer Nivel de Atención*) although the details and, most importantly, the funding of the strategy raise questions regarding its short-term feasibility. Guatemala must further develop and implement a PHC strategy that will achieve both:

- The short-term objective of providing a minimum level of health care, including immunization, maternal and child health, and nutrition interventions to rural areas most directly impacted by the elimination of the PEC, and
- The longer-term objective of providing universal health care, including permanent access to quality health care facilities, attention to all stages of the life cycle, and integration with secondary and tertiary facilities, throughout the country.

Regardless of the methods of implementation for expanding coverage, whether through public provision or contracted private providers as was done in the past, the PHC strategy must guarantee financial risk protection. Trying to roll out the recently proposed strategy without the necessary funding increase will leave large segments of the population without publicly provided health care and expose both MSPAS and the Government to a continuation of the current lack of public trust.

### **2. A high-level, multi-sectoral health sector strategic planning process should be initiated to address systemic deficiencies**

Deep systemic deficiencies in the organization and management of the public health sector, health sector financing, the organization and focus of health service delivery, and the level of citizen participation and oversight in health services planning and delivery underlie most current problems. These issues must be addressed as components of an integrated national health care strategy in order to achieve a sustainable improvement in health care for all Guatemalans.

This HSA recommends that a health sector strategic planning process be initiated and led by the Office of the President, focused on addressing the inequities and inefficiencies described across all the building blocks. The process should involve all health- and finance-related ministries, the National Health Council (*Consejo Nacional de Salud, CNS*), congressional leadership, all major political parties, and significant and meaningful representation of community and municipal development councils, traditional community-based organizations, health advocacy organizations and networks, and other relevant civil society organizations (CSOs).

The health sector strategic plan should align with the PHC strategy discussed above, respond to Guatemala's epidemiological transition and the growing burden of noncommunicable disease, strive for complementarity in the delivery of health care by providers in the public, private, and non-profit sectors, and ensure that health financing resources are fully and effectively mobilized to meet the needs of the sector, as further described below.

### 3. Enact structural health finance reforms that enable both the short-term implementation of PHC strategy and the longer-term health sector strategic plan

Severe budgetary and funding gaps routinely reduce the effectiveness of annual planning processes and result in a constant state of crisis management at MSPAS. Compared to other Central American countries, Guatemala's health system is disproportionately financed by private health expenditures, especially out-of-pocket spending. Adjusted for purchasing power parity, the government of Guatemala devotes the least amount of resources per capita than any country in the region.

**TABLE 2. REGIONAL COMPARISON OF HEALTH FINANCING INDICATORS (REGIONAL RANKING IN PARENTHESIS)**

Country	THE as % of GDP	THE per capita at PPP	PvtHE as % of THE	OOPS % of THE	GGHE as % of THE	GGHE as % of GDP	GGHE as % of general government expenditure	GGHE per capita at PPP
Guatemala	6.4 (6)	467 (4)	62 (7)	52 (7)	38 (7)	2.4 (7)	17 (4)	176 (7)
Belize	5.4	458	38	26	62	3.4	12	286
Costa Rica	9.9	1,369	25	23	75	7.4	27	1,026
El Salvador	6.9	539	33	28	67	4.6	18	360
Honduras	8.7	400	51	45	49	4.3	12	197
Nicaragua	8.4	382	46	40	54	4.5	21	205
Panama	7.2	796	32	25	68	4.9	13	544

Note: THE=total health expenditure, PPP=purchasing power parity, PvtHE=private health expenditure, OOPS=out-of-pocket spending, GGHE=government of Guatemala health expenditure

Source: WHO 2015

A health financing strategy should be developed by MSPAS with the support and participation of the Ministry of Finance and the Congress, and directly linked to both the PHC strategy and the health sector strategic planning process recommended above. The financing strategy must identify clear policies for each of the health financing functions of resource mobilization, pooling of resources, and purchasing of services, with appropriate governance and regulation of the system.

The resource mobilization component of the health financing strategy should identify long-term financing streams to consistently and sustainably support the health system's priority objectives defined in the sector strategy. A resource mobilization strategy explores options to generate revenues, including implementing tax measures, pursuing external grants, and increasing technical efficiency (e.g., bulk purchasing to reduce unit cost of medical products) and allocative efficiency (e.g., reprioritization of resource allocation to more cost-effective interventions). The resource mobilization strategy should be supported by a comprehensive costing exercise that documents the unit costs to provide services across all health facilities and all levels of care. As part of this process, opportunities for resource mobilization at the municipal level should be explored, because this approach has the potential ensure that locally generated resources are applied to local health needs (rather than being sent to the central treasury for reallocation).

While shared financial responsibility for sustained health outcomes is important in all countries, it is an imperative for countries like Guatemala with growing gross national incomes because they have an opportunity to increase cross-subsidies (the rich and healthy subsidize the poor and ill). A formal analysis to expand risk pooling should be undertaken in order to shift from out-of-pocket spending toward pre-payment schemes. How Guatemala expands the risk pool should be aligned to the goals and priorities outlined in the K'atun Nuestra Guatemala 2032. While Guatemala's Institute for Social Security (*Instituto Guatemalteco de Seguridad Social*, IGSS) provides a measure of financial protection

for the 17 percent of Guatemalans employed in the formal sector, a significant portion of the remaining 83 percent of the population has minimal access to free MSPAS services or health insurance schemes. Exploring a mix of voluntary contributions and subsidies to expand social insurance coverage targeting the lowest income and informal employment sectors will broaden the government's social compact with the population most at risk for adverse health outcomes and health disparities. Lessons learned from neighboring countries in the region, such as Peru, can further inform the resource mobilization and health strategic planning process in Guatemala. Since implementing health sector reform in Peru, the country has reached 80 percent of its population with health services, putting the country well on the path toward achieving universal health coverage. This progress is significant for a country of 30 million people, characterized by diverse cultures and rugged geography, much like Guatemala. Peru's Comprehensive Health System (*Sistema Integral de Salud*) provides subsidized public insurance, giving priority to populations living in poverty and extreme poverty.

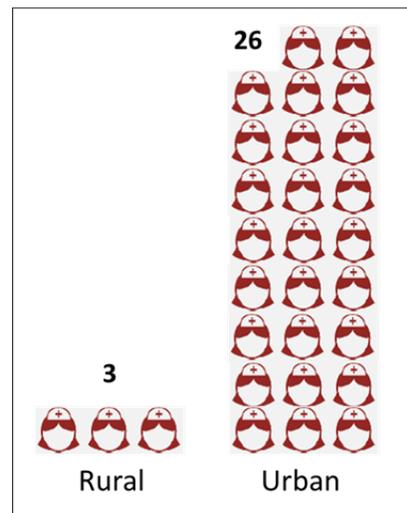
Currently the two major publicly funded health organizations, MSPAS and IGSS, are also service providers, directly employing health workers and operating facilities. This structure, common in the Latin America and Caribbean region, is characterized by the inefficiencies, inequities, and poor health outcomes already discussed. Guatemala should explore new models of purchasing health services, such as a model of a tax-financed purchaser that is separate from service provision.

**4. Ensure adequate deployment of health workers to underserved rural areas and improve performance management**

An overall shortage of health workers exists across the country, with significant impacts exacerbating access to health services in the rural areas. Deploying health workers to the areas where they are needed most should be a central element of the PHC strategy as well as the long-term strategic planning process. Reforming MSPAS compensation policies to establish incentives for health workers to relocate to rural areas is critical to improving access to skilled health professionals in rural areas. In addition, health worker training programs should recruit and support students who speak indigenous languages in order to improve the likelihood that graduated health workers return and serve their communities, and to develop a multi-lingual workforce that can more effectively communicate with the indigenous population. High dropout rates among health workers and nursing students in particular (69 percent) further hinder the development of Guatemala's workforce. Measures to support nursing students – financially and academically – should be taken to improve graduation rates.

The lack of a formal health worker career track and promotion-based merits further hampers efforts to effectively build and efficiently allocate the health workforce. The proposed Law on Health Administration Careers (*Ley de Carrera Administrativa-Sanitaria*) should be fast-tracked through the legislative process to create the basis for a professionally managed health workforce. Updates should prioritize PHC health workers and align with the PHC strategy. As this career track is

**FIGURE 2. HEALTH WORKER DENSITY IN URBAN AND RURAL AREAS, 2013**



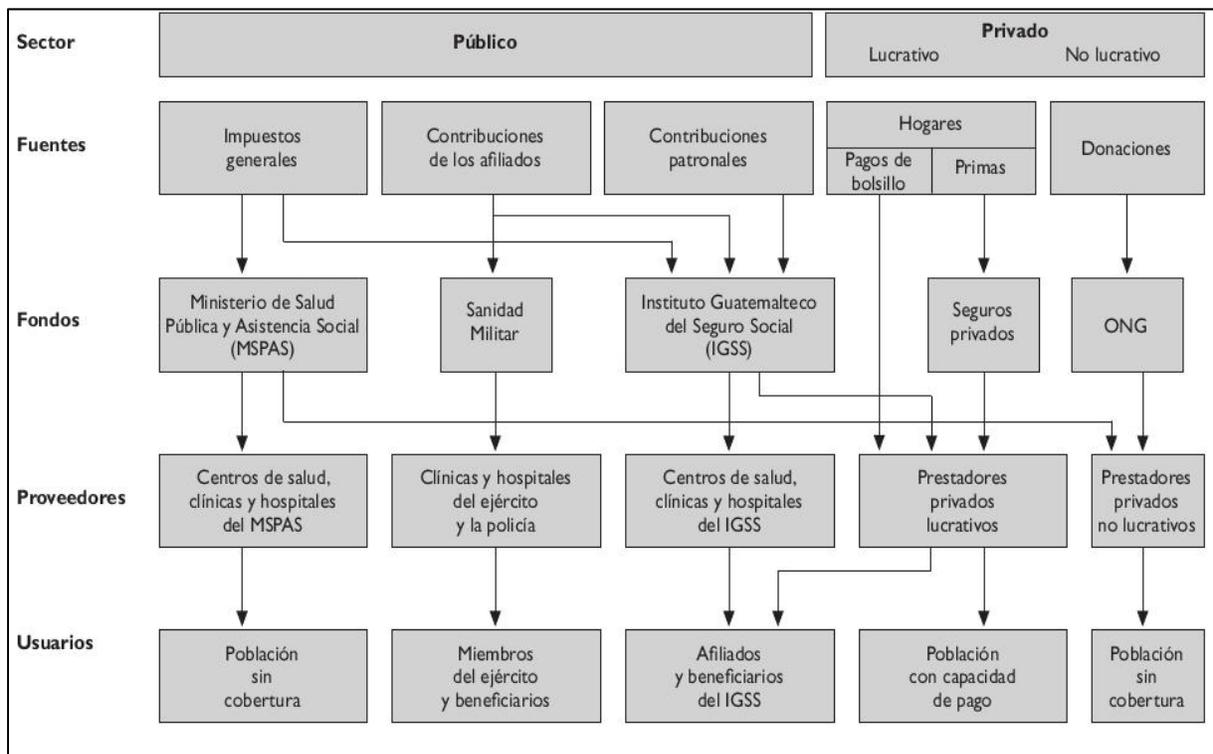
implemented, the human resources information system (iHRIS) should be fully implemented in order to facilitate tracking of health workers' educational status, work experience and skills, work location, and performance evaluations. These data elements will facilitate broader planning for allocation of health workers across the health system, which should prioritize placing workers in the regions of highest need (i.e., rural regions) and the creation of incentive programs to recruit and retain in underserved areas.

MSPAS should transition away from relying on contract workers in order to reduce staff turnover rates and enable a more stable workforce. In addition, MSPAS should pursue opportunities to improve the performance management mechanisms for both civil servants and temporary staff. As an interim step, MSPAS should implement longer-term, performance-based contracts for health workers with some (if not all) of the benefits afforded to permanent MSPAS employees.

**5. The CNS should be empowered to effectively coordinate the delivery of public health care services and avoid duplication of facilities, staff, and administrative procedures**

Although Guatemala's Health Code establishes that MSPAS shall “*formulate, organize, and direct the execution of policies, plans, programs and projects for the delivery of health services to the general population*” and that MSPAS is charged with stewardship or governance (*rectoría*) of the health sector, the institutional and budgetary autonomy of IGSS effectively isolates it from anything other than a voluntary coordination or sharing of resources with MSPAS. This is a significant lost opportunity for Guatemala to improve health system efficiency in areas where there is duplication of facilities and staff, and duplicate, parallel processes such as procurement of medical products. Also, as recommended above under health financing, there is an opportunity to improve equity if social insurance can be expanded beyond the current 17 percent of the population that benefits from 48 percent of all government health expenditures.

**FIGURE 3. GUATEMALA HEALTH SYSTEM**



Source: Becerril-Montekio 2011

In order to improve inter-institutional coordination, a presidential directive, modifications to the IGSS Organic Law of 1946, and/or modification of the executive agreement governing the CNS may be required to give CNS resolutions an obligatory character and to initiate a process to coordinate MSPAS, IGSS, and other public health system institutions, facilities, resources, and activities. Protocols for reimbursing MSPAS for services provided to IGSS beneficiaries, sharing facilities and resources, and avoiding an unnecessary duplication of facilities and services should be an immediate objective.

A longer-term objective should be to move toward full convergence, as envisioned in the IGSS Organic Law of 1946.

**6. NGOs, community development councils, and other CSOs should be strengthened to ensure transparency, accountability, and citizens' voice in health care planning and delivery**

The abrupt end of the PEC was partially due to lack of support from local groups who, according to interviewed stakeholders, were concerned about the entrenchment of a second-class health system providing only basic services for their communities. Many structures exist across the Guatemalan health system that provide the opportunity to increase integration of community-based organizations and health workers into accountable governance of the public health sector.

Institutional structures are in place that can be leveraged to incorporate public feedback and build public support for government health initiatives. Community Development Councils (*Consejos Comunitarios de Desarrollo*, COCODEs) should be promoted as the venues through which health facility performance is reviewed and MSPAS is held accountable for management efficiency, responsive allocation of resources (human as well as financial) and, ultimately, improved health outcomes.

MSPAS and the CNS should also encourage the increased participation of nongovernment and traditional community-based organizations and networks in the design and oversight of health care at the community level, and the international donor community should continue its support of these important elements of the Guatemalan health system. As noted in recommendation #1 above, there also should be significant and meaningful representation of community organizations in the health sector strategic planning process.

## Summary of findings by HSA building block

### I. Governance:

Universal health care for all Guatemalans, as required in the Constitution of 1985, continues to be a long-term goal of the public health sector. Public institutions, however, are underfinanced and currently unable to fulfill this goal with their current financial allocation. While the PEC was intended to reach unserved populations with a minimal level of basic coverage, its limitations and eventual cancellation served to highlight the magnitude of the unmet need. The new MSPAS strategy to expand PHC throughout areas previously covered by the PEC will require resources that are probably beyond its capacity given the recurring funding shortages of MSPAS's operations in the recent past.

Changes in most senior and middle management positions at MSPAS take place at the beginning of each four-year presidential administration, and frequently within the four-year period, with the appointment of a new Minister of Public Health, vice ministers, and most of their management teams. This high level of rotation in the ministry's senior management is frequently accompanied by a new set of institutional priorities and often a rejection of the priorities and implementation plans

of the previous management – especially when the changes accompany a change in the political party in power (which has been the case in all recent presidential elections). While many newly appointed members of the management team might have occupied other positions within MSPAS, others are appointed with little experience in or knowledge of public health. The effect of these changes in ministry management is that strategic priorities, such as the PHC strategy, are selected which cannot be implemented in the time remaining in an administration, or even in the entire four years of a presidential term. Successful implementation is precluded by the potentially different priorities of the new administration or ministry management team.

Traditional community-based organizations among indigenous peoples, as well as the various community-based organizations such as health committees, COCODEs, and networks of community health facilitators and traditional birth attendants, constitute important elements of the country's health system that have not thus far been successfully integrated into the national health system. While some degree of interaction between community-based organizations, community health workers, and the PEC system did characterize the PEC, its elimination without a clear strategy for its replacement has effectively cut the ties between community health systems and the MSPAS structure. The recently announced PHC strategy makes explicit reference to community organizations and health workers or facilitators, and intends to involve them in its community outreach and health prevention activities.

Numerous CSOs and federations play important roles in oversight and advocacy in Guatemala, especially with regard to maternal and child health and family planning. These CSOs have been instrumental in developing innovative approaches to health financing, as exemplified by the tax on alcoholic beverages. While the presence of the Urban and Rural Development Council System (*Sistema de Consejos de Desarrollo Urbano y Rural, SCDUR*) provides a government-sanctioned platform for civilian input into policymaking and oversight, NGOs, especially those that include local community-based affiliates, provide an important alternative vehicle, less susceptible to political influence, for PHC advocacy.

## 2. Health Finance

The assessment team identified three health financing issues requiring special attention: (1) improving financial management practices; (2) mobilizing resources to the health sector, and (3) planning and implementing a health financing reform to expand financial risk protection and reduce out-of-pocket spending. Implementation of these recommendations requires the creation of enabling conditions and defining specific roles of different stakeholders, consideration of funding options, and revisiting legal provisions.

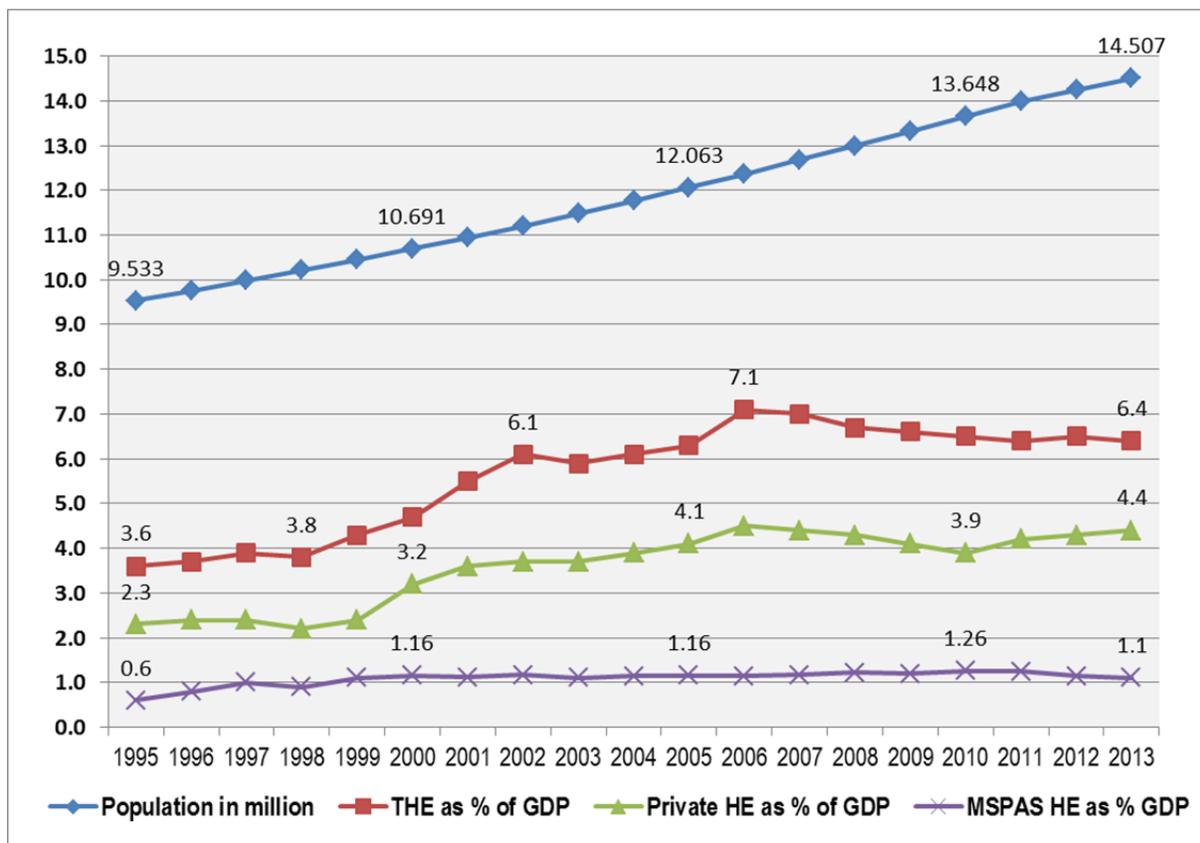
Several aspects of the health financial management system require immediate attention. The health financing system operates under weak standard procedures, lacks solid management and accounting mechanisms, and suffers from outdated budgetary and planning processes. Weak financial management leads to an environment of inefficiency, waste, and risk of fraud at all levels, compromising even more access to and quality of care. It is also a barrier to political support for increased public funding of health. The Ministry of Finance, legislature, and general public have legitimate concerns about the health sector's ability to account for how funds are spent.

Guatemala spends the least amount of government resources per capita on health (\$176 at PPP) than any country in the region (average of \$436 at PPP). The lack of sufficient funding of the public health sector was frequently cited by stakeholders interviewed for the assessment as a root cause for a number of the health sector's shortcomings:

- Lack of access to health services, especially in remote rural areas
- The demise of the PEC
- Limited levels of care at rural health posts and the lack of referral systems
- Frequent stockouts of medicines and other critical health care supplies

Spending in the overall health sector represented 6.3 percent of the country's GDP, which is average for the region. (Within Central America, total health care spending ranges from a low of 5.4 percent in Belize to a high of 9.9 percent in Costa Rica.) However, health spending is dominated by the private sector (4 percent of GDP), mostly (83 percent) household out-of-pocket spending. Public sector expenditures constitute the remaining 2.3 percent of GDP going to health: 1.1 percent of GDP was spent by IGSS, financed primarily by contributions from employers and employees, to cover an estimated 17 percent of the population. All other government agencies combined spent 1.2 percent of GDP: MSPAS expenditures were equal to 1.0 percent of GDP, to cover 83 percent of the population. These data clearly illustrate the grave inequity in health financing.

**FIGURE 4. PATTERNS OF HEALTH SPENDING AND POPULATION GROWTH**



Adapted from: MSPAS 2015c

While it is difficult to accurately estimate the level of funding that would be required to adequately provide health care to all those not currently covered by social security, key stakeholders interviewed indicated that approved budgets were generally 20 percent and 40 percent below the amounts requested – and that the cuts to their requested budgets resulted in lower supplies of medicines and other health materials required by rural health centers and posts. The budget for initial (2015) implementation of the new PHC strategy alone was estimated at 167 million quetzals. Given the budgetary shortfalls in recent years that have resulted in medicine and supplies stockouts, and an almost total absence of investment in health system infrastructure, it is fair to question if MSPAS will be able to fund the PHC strategy roll-out.

### 3. Service Delivery

The poor performance and fragmentation of service delivery networks are reflected in poor health outcomes. The maternal mortality ratio stands at 113 deaths per 100,000 live births, reflecting a lack of access to maternal health services; only half of Guatemalan women deliver in a health facility assisted by skilled personal. Guatemala will not reach the MDG target of reducing maternal mortality by three-fourths.

Major gaps in access to care between different segments of the population lead to inequalities in health outcomes. Those who are poor, indigenous, have less education, or live in rural areas typically suffer worse health outcomes. Thirty percent of indigenous women delivered in a health facility compared to 71 percent of their non-indigenous counterparts. As a result, the maternal mortality ratio is 163 deaths per 100,000 live births among indigenous women and 77 among their non-indigenous counterparts. The lack of effective referral systems limits the efficiency and effectiveness of the health system and presents a major barrier to effective maternal care in emergency situations. Efforts to improve intercultural services and engage traditional birth attendants to build effective referral systems are a top priority for improving maternal health outcomes among indigenous women.

Inequalities in access to education and information contribute to gaps in the utilization of family planning and preventive services. Among Guatemalan women ages 14-49 and in a union, 60 percent of women who have completed high school utilize modern methods of contraception, compared to 30 percent among those who did not complete primary school. Sixty-two percent of women have never undergone a Pap smear exam for cervical cancer screening, with 34 percent responding that they have no knowledge of the test. Poverty, indigenous ethnicity, and having little education were correlated with having no information of the Pap smear test. Adult men also exhibit low rates of utilization for a number of preventive screening tests including for hypertension, high cholesterol, and prostate cancer. Most men who receive treatment for these conditions do so in the private sector, which indicates a lack of access to these services in MSPAS facilities. Low levels of access to preventive services illustrate the need for service delivery networks to reorient their services toward health promotion and prevention. As described in the Overview chapter, the aging of the population is contributing to the rising burden of noncommunicable disease. It is imperative that the Guatemalan health system adapt to these challenges.

Finally, the closing of the PEC has exacerbated the situation and led to decreased geographic access to basic health services; replacing these services and strengthening PHC is a top priority. Moving forward, strategies to strengthen PHC should adopt a comprehensive approach that provides priority interventions such as immunization, nutrition, and family planning while also incorporating services for other stages of the life cycle, including treatment for common noncommunicable diseases among adults. Experiences from other countries in the region, including Brazil, Costa Rica, and Peru highlight the diverse approaches that countries can take to financing and organizing the provision of PHC services.



#### 4. Human Resources

Efforts to achieve universal health coverage and ensure access to PHC services will fall short unless adequate steps are taken to improve the management of the health workforce and increase the deployment of HRH to rural areas. As the WHO stated simply, there is “no health without a workforce.” The unequal distribution of HRH in urban and rural areas – there are 25.6 skilled workers per 10,000 population in urban areas and 3 per 10,000 in rural areas – contribute to inequalities in access to health services and in health outcomes. In addition to the lack of health workers in rural areas, language barriers between health workers and marginalized, indigenous communities present a major obstacle to the utilization of health services among those populations.

The proliferation of temporary contracting mechanisms by the public health sector has taken a heavy toll on the health system and its workers, particularly on MSPAS, where more than half of the workforce is hired via temporary mechanisms. Temporary contracts create unstable working conditions for health personnel and contribute to high rates of staff turnover. In addition, the uneven application of hiring norms and practices, together with reported influence of external actors such as unions and politicians in staffing decisions, contributes to perceptions of a lack of transparency and accountability in hiring, promotion, and compensation. Both temporary contracts and permanent civil service entail their own challenges to improving performance and accountability, and efforts to improve the accountability and performance should be taken for both. Guatemala needs an updated legal framework in order to professionalize the workforce and establish clear and transparent mechanisms for hiring, compensation-setting, and promotions.

Another major barrier to the establishment of performance evaluation systems, as well as to the general management and governance of HRH, is the lack of high-quality, comprehensive, up-to-date, and accessible information on HRH. Existing HRH information systems are highly fragmented, both within MSPAS and between MSPAS and other institutions.

Finally, training and education must be designed to prepare health workers to address the specific health needs of the Guatemalan population. There is currently an imbalanced provider mix between physicians and nurses; there are only 0.66 nurses per physician, whereas the WHO recommends 2.8 nurses per physician. High dropout rates among health workers and nurses in particular (69 percent) exacerbate the health worker shortage.

#### 5. Health Information Systems

The MSPAS Office of Health Management Information Systems (*Sistema de Información Gerencial de Salud*, SIGSA<sup>1</sup>) is responsible for integrating all databases needed to make informed decisions at each level of MSPAS. It is also the single entity responsible for managing, leading, guarding, and maintaining the information system platform of MSPAS, and for improving the current information systems or creating new subsystems. Despite the presence of SIGSA, the MSPAS HIS is plagued by fragmentation and the existence of 40 or more additional health information systems that are not yet integrated into the single SIGSA platform.

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<sup>1</sup> In this report, as in MSPAS, the acronym SIGSA is used to refer to both the Health Management Information System coordinating office as well as to the information management system itself.

Neither SIGSA nor other offices in MSPAS has strategically planned the integration of all the information systems needs within MSPAS considering the real use of the information and the burden that information system(s) put on local staff. Therefore, MSPAS's HIS tools have been developed and continue to be developed as a response to *ad hoc* decision-making requests from top officials and donors based on their dissatisfaction with existing information quality or accuracy for their particular needs.

Unfortunately, the current institutional structure of MSPAS does not provide the *de facto* authority or the resources to integrate all the information systems in MSPAS, which would enable it to be the leading organization for HIS as established by law.

In addition to the fragmentation of information systems within MSPAS, inter-institutional health data are either non-existent or published too late to be of use to health system administrators. Aggregated health data from IGSS and MSPAS have been published for 2007-2009 by the National Health Sector Statistics Coordination Office (OCSES) within the National Institute for Statistics (*Instituto Nacional de Estadística, INE*). At the time of the HSA visit, OCSES was working on the 2010-2012 report. HSA interviewees also noted that epidemiological information is only shared across private and public sector in cases of emergency.

MSPAS has made significant progress with the development and improvement of its HIS through the integration of many of the databases and information systems within MSPAS, and through the improvement in the quality of the data collected. Much, however, remains to be done to address the fragmentation and lack of strategic planning both within MSPAS and between MSPAS and other public and private health sector institutions in Guatemala.

## 6. Medical Products and Supply Chain

Effective management of medicines and medical products (MMP) is an important part of a high-quality health system. MMP management comprises the whole set of activities aimed at ensuring the timely availability and appropriate use of safe, effective, quality medicines and related products – vaccines, test kits, and related commodities and equipment – and services in any health care setting. MMP management activities include the selection, procurement, distribution, and use of products that flow through the supply system. The monetary value of MMP is generally substantial and the systems for managing these products often face political and managerial challenges.

Generally speaking, purchasers can achieve lower pricing and access to more established, often high-quality suppliers, when buying via pooled procurement mechanisms (framework contracts and bulk procurements that have not been exempted) because volume-buying extends purchasing power. However, Guatemala-specific challenges were identified by the HSA team:

- Framework contracts in Guatemala require the active collaboration of MSPAS, IGSS, and the Armed Forces health system (*Sanidad Militar*), all separate entities with uncoordinated procurement processes.
- The MSPAS procurement department (DAM) indicated during interviews that some items may actually be more expensive when purchased via a framework contract, because if the entities are not able to promptly pay suppliers, unit cost savings can be eaten up by late payment penalties. This issue was identified as a risk by multiple stakeholders interviewed.
- If the procurement process for setting up framework contracts is flawed (by poor advertising, improperly negotiated terms, corruption, etc.), essentially requiring administrative units to purchase from suboptimal suppliers, framework contracts would actually make the overall system worse.

Despite these challenges, the opportunity represented by buying more health commodities via bulk contracts is significant. In a parallel study of “Experiences and Opportunities for Joint Purchases in Guatemala” undertaken at the time of the HSA, a number of modifications to current purchasing procedures are recommended in order to significantly reduce the costs of medical supplies.

**FIGURE 5. FOTOGRAFÍA DE UN ALMACÉN DESABASTECIDO EN UN PUESTO DE SALUD**



Fuente: Equipo de HSA, Puesto de Salud

Since October 2014, health area and hospital stockout data have been electronically reported, aggregated, and shared with the public through SIGSA. SIGSA data are reported weekly and refreshed via a publicly accessible online dashboard. Making such data widely available is a positive step taken by MSPAS to ensure transparency and improve the availability of medicines and medical supplies. The HSA team was able to evaluate stockouts at the health area level and the hospital level for the seven-month period of October 1, 2014–April 30, 2015. Stockouts existed across almost all health areas and hospitals. The SIGSA data showed an average stockout rate of 12 percent for health areas over the period, while hospitals showed an average stockout rate of 19 percent. It should be noted, however, that health areas are an intermediate level of the supply chain (there are two additional levels below the health areas, specifically the health districts and health posts/centers), meaning that the stockout rate at the lower levels is likely much higher than the average at the health area level.

The 2014 medicines budgets for the administrative units provided to the HSA team by the MSPAS Finance Department showed significant variation between the budget assigned (*Presupuesto Asignado*) by the Strategic Planning Unit (UPE) and the actual amount received (*Presupuesto Devengado*) for each administrative unit. For hospitals, the actual was 14 percent lower than what was budgeted; for health areas, the actual was 34 percent below the budget; and for health programs, the actual was 42 percent below the budget. The HSA team was told by interviewees that actual shortfalls were even higher than this. In one case, according to interviews, the assigned medicines budget was estimated to be 40 percent of what was needed.





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