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# Improving Access to Health Care Services through the Expansion of Coverage Program (PEC): The Case of Guatemala

Christine Lao Pena



Human Development Network



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# **UNICO Studies Series 19**

## **Improving Access to Health Care Services through the Expansion of Coverage Program (PEC): The Case of Guatemala<sup>1</sup>**

Christine Lao Pena

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<sup>1</sup> Prepared by Christine Lao Peña with contributions from Gustavo Estrada and Carina Ramirez. This document has benefited from comments received from Jerry La Forgia, Marcelo Bortman, Joana Godinho, and Daniel Cotlear, as well as Chris Lovelace and the Indonesia and Nigeria UNICO case study teams, who provided inputs during the UNICO July 2012 Authors' Workshop.

## The World Bank's Universal Health Coverage Studies Series (UNICO)

All people aspire to receive quality, affordable health care. In recent years, this aspiration has spurred calls for universal health coverage (UHC) and has given birth to a global UHC movement. In 2005, this movement led the World Health Assembly to call on governments to “develop their health systems, so that all people have access to services and do not suffer financial hardship paying for them.” In December 2012, the movement prompted the United Nations General Assembly to call on governments to “urgently and significantly scale-up efforts to accelerate the transition towards universal access to affordable and quality healthcare services.” Today, some 30 middle-income countries are implementing programs that aim to advance the transition to UHC, and many other low- and middle-income countries are considering launching similar programs.

The World Bank supports the efforts of countries to share prosperity by transitioning toward UHC with the objectives of improving health outcomes, reducing the financial risks associated with ill health, and increasing equity. The Bank recognizes that there are many paths toward UHC and does not endorse a particular path or set of organizational or financial arrangements to reach it. Regardless of the path chosen, successful implementation requires that many instruments and institutions be in place. While different paths can be taken to expand coverage, all paths involve implementation challenges. With that in mind, the World Bank launched the Universal Health Coverage Studies Series (UNICO Study Series) to develop knowledge and operational tools designed to help countries tackle these implementation challenges in ways that are fiscally sustainable and that enhance equity and efficiency. The UNICO Studies Series consists of technical papers and country case studies that analyze different issues related to the challenges of UHC policy implementation.

The case studies in the series are based on the use of a standardized protocol to analyze the *nuts and bolts* of programs that have expanded coverage from the bottom up—programs that have started with the poor and vulnerable rather than those initiated in a trickle-down fashion. The protocol consists of nine modules with over 300 questions that are designed to elicit a detailed understanding of how countries are implementing five sets of policies to accomplish the following: (a) manage the benefits package, (b) manage processes to include the poor and vulnerable, (c) nudge efficiency reforms to the provision of care, (d) address new challenges in primary care, and (e) tweak financing mechanisms to align the incentives of different stakeholders in the health sector. To date, the *nuts and bolts* protocol has been used for two purposes: to create a database comparing programs implemented in different countries, and to produce case studies of programs in 24 developing countries and one high-income “comparator,” the state of Massachusetts in the United States. The protocol and case studies are being published as part of the UNICO Studies Series, and a comparative analysis will be available in 2013.

We trust that the protocol, case studies, and technical papers will provide UHC implementers with an expanded toolbox, make a contribution to discussions about UHC implementation, and that they will inform the UHC movement as it continues to expand worldwide.

Daniel Cotlear  
UNICO Studies Series Task Team Leader  
The World Bank  
Washington, DC

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## **Abbreviations**

AINM-C	Atención Integral a la Niñez y Mujer- Comunitaria
CAIMIs	Centers of Integrated Maternal and Child Care
DMH	Department of Military Health
ENCOVI/LSMS	Guatemala Living Standards Measurement Survey, Encuesta Nacional Sobre Condiciones de Vida
GDP	gross domestic product
IDB	Inter-American Development Bank
IGSS	Guatemalan Social Security Institute
LAC	Latin America and Caribbean
MOF	Ministry of Finance
MOH	Ministry of Public Health and Social Assistance
NGO	nongovernmental organization
NPH	National Police Hospital
PEC	Expansion of Coverage Program, Programa de Extensión de Cobertura
Q	quetzal
SIAS	Integrated Health Care System
SICOIN	Integrated Accounting System
SIGSA	Health Management Information System

## **Executive Summary**

Since the signing of the 1996 Peace Accords, Guatemala has made efforts to establish economic and political stability, and to improve its social indicators. The country's Constitution states that access to health care is a basic right of all Guatemalans. In practice, however, it has been challenging for the Government of Guatemala to guarantee this right using public facilities. As a result, it has been trying to improve access to health services using both Ministry of Public Health and Social Assistance (MOH) facilities and staff, and alternative health service providers, particularly nongovernmental organizations (NGOs).

In 1997, with support from the highest levels of government, the MOH established the Expansion of Coverage Program (Programa de Extensión de Cobertura, PEC). This decision was motivated by the need to rapidly demonstrate results to meet the health provision goals of the Peace Accords. Since there were already a number of NGOs providing services in the country, the Government of Guatemala decided to enter into formal agreements with them to provide a basic package of health and nutrition services, focusing mainly on young children and women in rural areas that do not have access to MOH services.

Since 1997, the PEC has expanded from three departments to 20 of the country's 22 departments, and to 206 of its 334 municipalities, increasing its coverage from 0.46 million in 1997 to 4.3 million people in 2012. The MOH estimates that currently the PEC serves the health and nutrition needs of 54 percent of the rural population in Guatemala.

Aside from increasing coverage of health and nutrition services to poor rural areas, the PEC has been credited with strengthening the primary health care system in various ways, including (a) the introduction of planning and monitoring tools; (b) improvements in administrative efficiency, particularly in the case of NGOs that were hired as service administrators of mobile health teams; and (c) the use of alternative personnel to address staffing constraints, that is, having auxiliary nurses instead of being dependent on doctors.

Despite its contributions, the PEC has remained highly dependent on each administration's priorities and the prevailing political economic context, particularly in terms of how contracting out services to nongovernment entities is viewed. While some administrations have seen the PEC as key to achieving universal access to basic health and nutrition services, other administrations have not considered it a priority. Aside from mainly positive results from a few evaluations undertaken by external partners, there is limited evidence on the results and impact of the PEC, due in part to the MOH's lack of sufficient resources and capacity to oversee, monitor, and evaluate the program. Nevertheless, it is clear that the PEC's impact has been constrained by chronic underfinancing due to variable political support and Guatemala's limited fiscal space. Significant and sustained health coverage expansion in terms of areas and population groups covered, and types of services offered, will require significantly more of the government's resources and commitment. Also, the development of a phased, costed strategy and action plan to improve access to and quality of health services would be essential.



## **1. Introduction**

### **Context**

Guatemala, a lower-middle-income country in Central America, had an estimated population of 15 million in 2012 and a gross national income per capita of US\$2,870 in 2011. Administratively, it is largely centralized, divided into 22 departments and 334 municipalities. It is a multiethnic, multilingual, and multicultural country, where indigenous peoples constitute approximately 41 percent of the total population. Since the signing of the 1996 Peace Accords, the country has made progress in establishing political and economic stability, with growth in real per capita gross domestic product (GDP) averaging about 1.2 percent. Its relative economic stability is mainly the result of prudent macroeconomic policies that have kept inflation and public debt manageable. However, poverty remains high; the 2008–09 economic crisis caused an increase in overall poverty from 51 percent in 2006 to 53.7 percent in 2011, although extreme poverty declined from 15.2 to 13.3 percent during the same period, partly due to the government's focus on protecting the most vulnerable through social programs (World Bank, 2012a).

Social indicators have improved, yet remain low compared to other middle-income countries. For instance, Guatemala's under-five mortality rate has declined from 78 per 1,000 live births in 1990 to 30 in 2011, and the country is on track to reach its Millennium Development Goal of reduction in the number of underweight children. However, its chronic malnutrition rate (49 percent) in 2008/09 was the highest in the Latin America and Caribbean (LAC) region and among the highest in the world—comparable to countries with significantly lower per capita incomes, such as Burundi and Ethiopia.

Although Guatemala's maternal mortality rate has declined over the years, at 120 deaths per 100,000 live births, it remains one of the highest in the LAC region, which averaged 81 per 100,000 live births in 2010. Inequalities in terms of outcomes and access to services persist. In particular, 59 percent of indigenous children are stunted compared to 31 percent of nonindigenous children. Indigenous women represent 73 percent of all maternal deaths in Guatemala, and they are twice as likely to deliver a baby without the assistance of a doctor as nonindigenous women. Almost 77 percent of urban women have assisted skilled deliveries compared to only 36.4 percent of rural women.<sup>2</sup> The majority of health professionals work in Guatemala City, and other areas, particularly rural ones, face significant health personnel shortages.

The Constitution states that access to health care is a basic right of Guatemalans. In practice, however, it has been challenging for the government to guarantee this right using public facilities. As a result, the government has been trying to improve access to health services using both MOH facilities and staff and alternative health service providers, particularly NGOs.

### **Study Objectives**

This case study reviews the experience implementing the Expansion of Coverage Program (Programa de Extensión de Cobertura, PEC) that was established by the Government of

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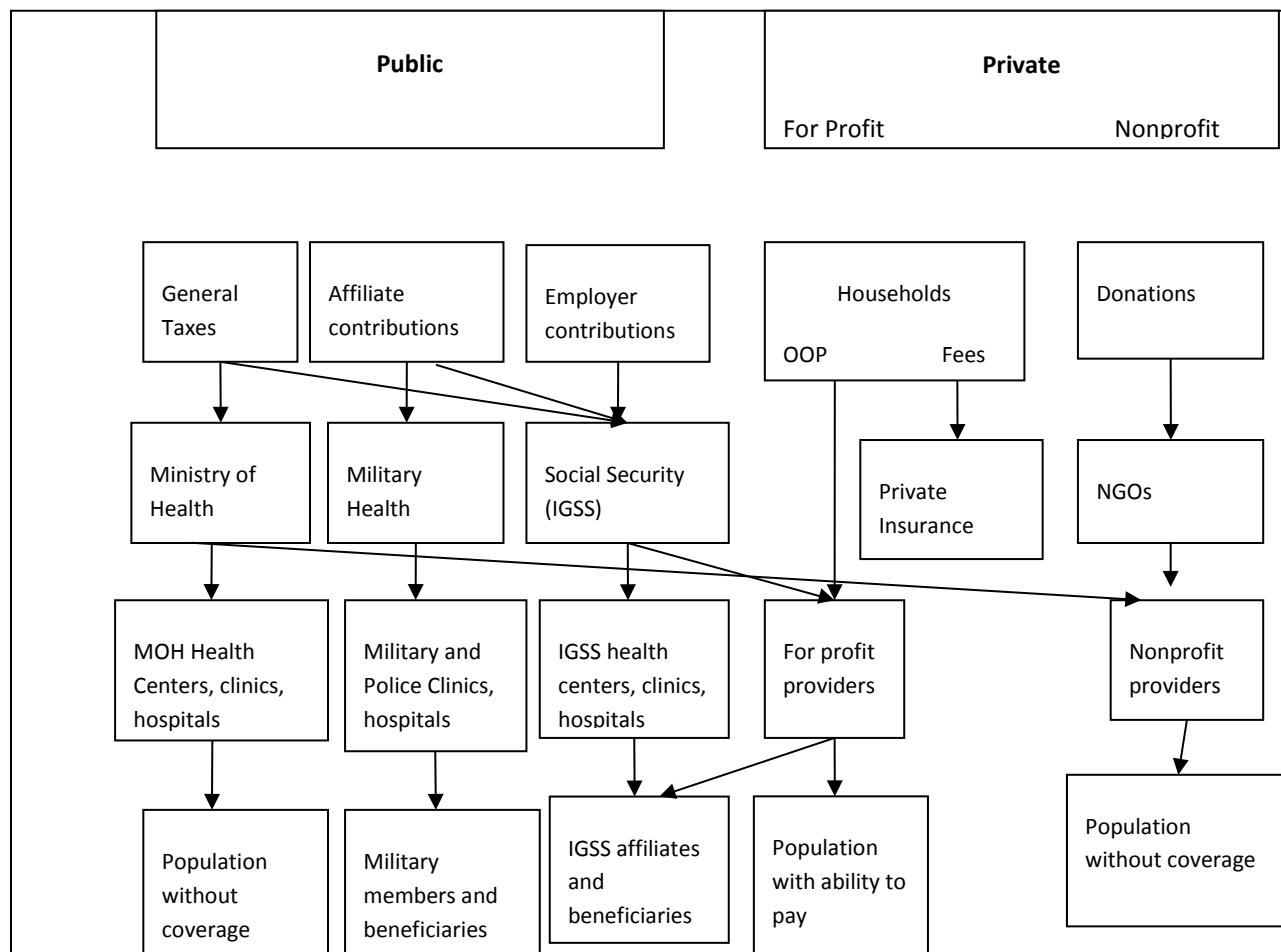
<sup>2</sup> ENSMI 2008–2009 cited in World Bank (2012b).

Guatemala in 1997 to improve coverage of health and nutrition services to poor, rural, and largely indigenous areas by contracting NGOs. It describes its origins; its package of services; contracting, financing, monitoring, and supervision mechanisms; and its contributions to improving access and strengthening primary health care services in Guatemala. It also discusses opportunities and challenges that need to be addressed to continue to improve health services coverage in the country.

## 2. Summary of General Health System Delivery and Financing

The Guatemalan health sector (figure 1) comprises both public and private providers, with the MOH covering an estimated 71 percent of the population and the Guatemalan Social Security Institute (IGSS) covering approximately 18 percent, namely 40 percent of the formally employed population and their families. While the majority of Guatemalans have some form of access to preventive and curative services, approximately 1 million individuals, most of whom live in rural indigenous areas, still have insufficient or no access to health services.

**Figure 1 The Guatemalan Health Sector: Institutional Setup and Funding Sources**



Source: Adapted from Becerril-Montekio and López-Dávila 2011.

Note: OOP = out-of-pocket.

The World Health Organization estimates that the 2010 public and private shares of total health expenditures are 36 percent and 64 percent, respectively—very similar to those reported by the last<sup>3</sup> National Health Accounts, undertaken in 2005 (MSPAS 2006). Access to private insurance remains very low in Guatemala, accounting for only 4.8 percent of total private health expenditures. Thus, while out-of-pocket expenses declined from 57 percent in 2005 to 54 percent in 2010, which resulted in Guatemala's share of out-of-pocket spending out of total private health spending being lower than the Central American average of 87 percent, it remains higher than the LAC regional average of 72 percent (table 1).

**Table 1 Guatemalan Health Expenditures by Financing Source (in %)  
relative to Central America and LAC, 2010**

Government Expenditure on Health as % of Total Health Expenditure	Private Expenditure on Health as % of Total Health Expenditure	Out-of-Pocket Payments as a % of Overall Health Expenditures	External Resources % of Total Health Expenditures	Prepaid Plans as % of Private Expenditure on Health,	Out-of- Pocket Spending on Health as % of Private Expenditure on Health
Costa Rica	68.1	31.9	28	0.6	7.7
El Salvador	61.7	38.3	34	1.9	11.4
Guatemala	35.8	64.2	54	1.7	4.8
Honduras	65.2	34.8	31	6.3	10.6
Nicaragua	53.3.	46.7	43	14.6	2.6
Panama	75.1	24.9	20	0.1	20.3
Average Central America	59.9	40.1	35	4.2	9.6
Average LAC	50	50	34	0.22	28.5
					72

Source: WHO 2012.

Health public expenditures in Guatemala amounted to 16 percent of total government expenditures in 2011. The 2008–2012 Health Strategy proposed a yearly increase of 0.5 percent of the health sector's budget share of GDP. While the increase from 2008 to 2009 was just 0.2 percent, the increase from 2009 to 2010 was 0.6 percent.<sup>4</sup> Despite this improvement, Guatemala's public spending on health as a share of GDP (2.6 percent) is still also among the lowest in the region, remaining below the LAC regional average of 4.0 percent. As shown in table 2, Guatemala's per capita total health expenditures in 2010 was US\$196, which is almost half the Central American average of US\$350 and less than a third of the LAC average of US\$672, while its per capita public expenditures on health in international dollars/purchasing power parity<sup>5</sup> terms (\$116) is the lowest in Central America and is approximately 26 percent of the LAC average (WHO 2012; World Bank 2011) (table 2).

<sup>3</sup> The MOH is in the process of preparing a follow-up National Health Accounts.

<sup>4</sup> World Bank Guatemala PER Draft (2011).

<sup>5</sup> International dollars, or purchasing power parity, refers to currencies adjusted across countries to make the value of purchased goods and services comparable.

**Table 2 Health Expenditures in Guatemala relative to Central America and LAC, 2010**

Total Public Health Expenditures as a Share of GDP (%)	Per Capita Total Health Expenditures in International \$	Per Capita Health Expenditures <sup>a</sup> in US\$	Per Capita Health Public Expenditures in International \$
Costa Rica	1,242	811	845
El Salvador	450	237	278
Guatemala	325	196	116
Honduras	263	137	171
Nicaragua	253	103	135
Panama	1,123	616	844
CA (ave.)	609	350	398
LAC (ave.)	855	672	434

Source: WHO 2012.

Note: a. Public health expenditure includes recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including grants and donations from international agencies and NGOs), and social (or compulsory) health insurance funds.

There is a general consensus that lack of sufficient funds is a major constraint to improving the coverage and quality of health care in Guatemala. Public health funds have been vulnerable to cuts, reassignments, and disbursement delays (MOH 2011). However, insufficient funding and delayed payments are issues that also affect other sectors in Guatemala because of the government's limited fiscal space, stemming from low public revenues. Guatemala's tax revenues are among the lowest in the LAC region,<sup>6</sup> and it does not have significant nontax revenue sources.

### **3. The PEC: Institutional Arrangements and its Interaction with the Rest of the Guatemalan Health System**

#### **Institutional Context**

In 1997, the MOH authorities decided to establish the PEC, with support from the highest levels of government. This decision was motivated by the need to rapidly demonstrate results to meet the target date (2000) and health provision goals of the Peace Accords. Since there were already a number of NGOs providing services in the country, the government decided to enter into formal agreements with them.

From 1997 to 2000, public spending on health increased, a new Health Code (Legislative Decree No. 90-97) was approved, and the government decided to quickly move from piloting the contracting of NGOs in three departments (Alta Verapaz, Chiquimula, and Escuintla) to a nationwide program. Since its inception, the PEC has expanded to 20 of the country's 22 departments and 206 of its 334 municipalities, increasing its coverage from 0.46 million in 1997 to 4.3 million people in 2012. As the following sections will show, however, while support for the PEC was substantial during its inception and peaked from 2005 to 2008, support tended to

<sup>6</sup> Guatemala's tax-to-GDP ratio of approximately 11 percent is below the Central American average of 13.3 percent and much lower than the Latin American average of 19.2 percent (World Bank 2012a).

fluctuate depending on the prevailing political and economic situation during a particular administration.

## **Objectives and Contractual and Work Arrangements**

The PEC aims to extend coverage of health and nutrition prevention and promotion services to poor, rural, and largely indigenous populations that do not have any access to MOH services. The program signs agreements with nonprofit NGOs to provide, through mobile teams, a basic package<sup>7</sup> of Health, Nutrition, and Population services to isolated rural communities.

When the PEC was initiated, two types of contracts were established for NGOs: (a) for service provision, and (b) for health services administration. NGOs under this second type of contractual arrangement were responsible for managing mobile teams linked with public health facilities. On average, this type of contracting accounted for 30 percent of total contractual arrangements of the PEC from 1996 to 2007. However, after 2010, no NGO has been contracted under the second type of contractual arrangement because of issues that will be discussed in section 8.

This study focuses mainly on the implementation of the first type of contractual arrangement—for service provision—because it accounts for the majority of PEC contracts and the second contractual arrangement has not taken place since 2011.

Under the PEC, provision of care is organized by jurisdictions that each covers approximately 10,000 people with an assigned per capita amount ranging from US\$6 to US\$9.<sup>8</sup> Each jurisdiction has a basic health team consisting of a doctor or nurse who works in coordination with a community facilitator who is responsible for organizing the work of the community volunteers and assisting the doctor or nurse during his or her monthly visits<sup>9</sup> to communities, and traditional birth attendants who receive small stipends for services rendered. In areas with high maternal mortality rates, the NGOs must also hire an auxiliary nurse qualified in maternal and neonatal services, while in areas with high malnutrition rates, they must hire health and nutrition educators. In the jurisdictions that also have the Community-based Integrated Care for Children and Women (AINM-C) program, communities select a mother counselor who is assigned to a group of 15 to 20 women of reproductive age to provide advice on proper feeding practices and health care behavior during monthly group meetings. Table 3 shows how the staffing of the basic health team evolved from 1998 to 2010. It reflects, for example, how the team's composition has been adjusted since 2005 to respond to the inclusion of the Integrated Management of Childhood Illnesses and AINM-C programs in the basic package of health services.

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<sup>7</sup> This package was inspired by the 1993 World Development Report “Investing in Health,” which promoted the delivery of a basic package of health services to the poorest and the inclusion of private providers to deliver these services to this population.

<sup>8</sup> Per capita amounts depended on whether the jurisdictions belonged to the priority municipalities, and the percentage of the target population with chronic malnutrition.

<sup>9</sup> Some communities have reported that some doctors and nurses visit communities more than once a month when contacted to respond to emergencies if they happen to be working in a nearby community (MOH-USAID-UNDP 2009).

**Table 3 Evolution of Staffing of the PEC's Basic Health Team, 1998–2010**

1998	2004	2005–07	2010
<b>NGO Personnel</b>			
Ambulatory doctor	Ambulatory doctor	Ambulatory doctor or professional nurse	Ambulatory doctor or professional nurse
Institutional facilitator	Institutional facilitator (auxiliary nurse or rural health technician)	Institutional facilitator	Institutional facilitator
<b>Community Personnel</b>			
Community facilitator	8 facilitators (1 per 1,200 inhabitants)	10–12 facilitators (1 per 1,000 inhabitants)	10–12 facilitators (1 per 1,000 inhabitants)
Health guardian	Health guardian	Health guardian	Health guardian
Traditional birth attendant	Traditional birth attendant	Traditional birth attendant	Traditional birth attendant
		Mother counselors	Mother counselors or mother monitors
		1 health and nutrition educator	3 health and nutrition educators
Community members			

Source: Castillo et al. 2012.

Each jurisdiction has a functioning Community Center that has a target population ranging from 500 to 2,000 people. The community facilitator works in this center for four hours daily, Monday through Friday, while the basic health team staffs it once every month, on average.

PEC services are classified as part of the primary level of care. The program refers more complex cases to secondary or tertiary level facilities, and these facilities may also refer cases to the PEC for follow-up.

### Accreditation Process for NGOs

Providers (NGOs) must be accredited by Health Area Offices and be ultimately approved by the program attached to the Integrated Health Care System (SIAS) at the central level. The accreditation process has two stages: preselection and sorting.<sup>10</sup> Table 4 lists the activities for each stage.

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<sup>10</sup> Avoiding clientelism in the selection of NGOs has been a concern of the program since its inception, and so far there is no evidence to confirm that it exists. During 2001–04, the PEC's provider selection manual was approved and then modified in 2005 to include preselection and selection steps.

**Table 4 Steps for Service Provider Accreditation**

<b>Preselection Stage</b>	<b>Selection Stage</b>
<ol style="list-style-type: none"> <li>1. National and local call for proposals/expression of interest</li> <li>2. Preparation of the timetable of the process and sent to the General Directorate (DG)-SIAS</li> <li>3. Delivery and receipt of forms</li> <li>4. Formation and training committee</li> <li>5. Notice of opening of envelopes</li> <li>6. Opening of bids and review of forms</li> <li>7. Preselection of bidders</li> <li>8. Notification of results to all bidders</li> <li>9. Feedback to shortlisted bidders</li> <li>10. Sending the file to the DG-SIAS</li> <li>11. Review and no objection from the process</li> <li>12. Delivery of records to shortlisted bidders valid for one calendar year and valid throughout the country</li> <li>13. Meeting delivery guidelines and Terms of Reference and Guide for Developing the Technical and Financial Proposals</li> <li>14. Establishment of a national database of shortlisted bidders.</li> </ol>	<ol style="list-style-type: none"> <li>1. Preparation of the timetable of the process and sent to DG-SIAS</li> <li>2. Invitation to all shortlisted bidders to submit technical and financial bids</li> <li>3. Formation and training of committee</li> <li>4. Envelope opening notification</li> <li>5. Opening of bids, qualification of technical bids, and award</li> <li>6. Review of the financial offer</li> <li>7. Notification of results to all bidders</li> <li>8. Sending the file to the DG-SIAS</li> <li>9. Feedback to bidders not selected</li> <li>10. Review and no objection from the process</li> <li>11. Notice of no objection to the bidder awarded</li> <li>12. Signing of Agreement and ministerial agreement.</li> </ol>

Source: MOH 2011.

MOH requirements for NGOs include having at least three years of operations, with at least one year's experience providing health services, a yearly average budget for the last three years of at least Q250,000 (approximately US\$32,051), and a demonstrated average budget execution rate for the last three years of 75 percent.

At present, all 68 NGOs that have contracts with the PEC are local. In previous years, the PEC had contracted a few international NGOs, but it has been reported that these NGOs found the overhead limit of 10 percent to be too low. Most NGOs that work with the PEC have more than one contract, providing services to more than one area or jurisdiction.

### **Management and Financing**

Within the MOH, at the central level, the PEC is coordinated by the Integrated Health Care System Directorate (SIAS), which is responsible for the management, operation, and evaluation of health services. The PEC director is appointed by the Minister of Health in consultation with the Director of SIAS.

At the local level, the Health Area Directorate monitors and supervises PEC providers based on 28 indicators that are evaluated on a quarterly basis. From a financial perspective, the providers are supervised by the MOH administrative and financial management office, the Government Accounting Office, and the Ministry of Public Finance.

Since almost all of the funds used to finance the PEC come from government revenues, and only a limited amount, averaging 15 percent, comes from external sources (Castillo et al. 2012), the PEC is highly dependent on the political administration in office and how it perceives the program to contribute to its overall health strategy.

The first phase of the program (1997–99) had strong government support because the PEC was considered essential to help the country achieve the Peace Accord targets, which contributed to its rapid expansion. From 2000 to 2004, the new administration did not consider the PEC a priority, and the program experienced budget cuts and managed to achieve only modest gains in coverage, eventually experiencing a decline in population covered in 2004. In 2005, the new government was very supportive of the PEC, and the program occupied a prominent position in the government’s health strategy to expand access to health and nutrition services to more Guatemalans.

As shown in table 5, more funds were allocated to the PEC from 2005 to 2007. These funds were used to strengthen its supervision. During this period, changes were also made in its basic package to add some services (the changes in the package are discussed in section 6 and are detailed in Annex 2) and/or increase its targets. From 2005 to 2007, the PEC’s coverage also significantly increased. However, the administration that assumed office in 2008 reduced the PEC’s budget. As shown in figure 2, from 2008 to 2011, the funds released to the program were much lower than budgeted and were also delayed, leading to a decrease in the number of contracts with NGOs, which did not significantly reduce coverage rates until 2011. However, there have been some claims or rumors that some NGOs may have cut back on the quantity and quality of services they provided.<sup>11</sup>

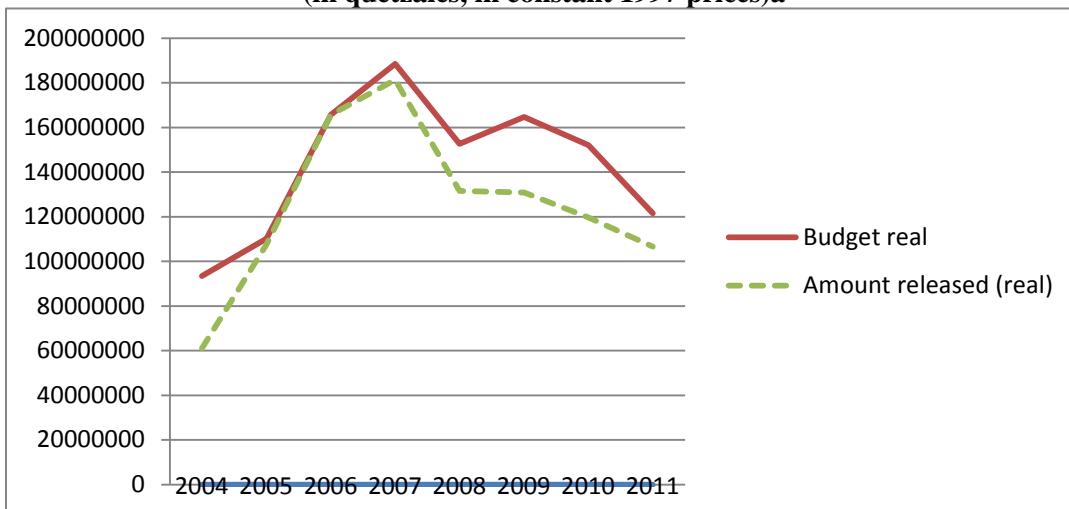
**Table 5 The PEC’s Annual Budget in Real Terms and Estimated Population Covered, 1997–2011**

Year	Budget (in quetzales, in constant 1997 prices)	Population Covered
1997	155,294,117.76	460,000
1998	69,032,258.06	2,200,000
1999	83,673,469.39	2,500,000
2000	97,115,384.62	2,900,000
2001	113,000,000	3,000,000
2002	116,981,132.1	3,200,000
2003	129,729,729.7	3,600,000
2004	93,389,830.51	3,200,000
2005	110,160,000	3,400,000
2006	165,725,190.8	3,800,000
2007	188,428,571.4	4,300,000
2008	152,614,379.1	4,500,000
2009	164,654,088.1	4,400,000
2010	152,095,808.4	4,400,000
2011	121,477,272.7	4,200,000

*Source:* Author’s calculations based on data from Castillo et al. 2012.

<sup>11</sup> The number of contracts signed with NGOs steadily increased from 1997 to 2008, peaked at 433 in 2008, and then declined each subsequent year to 382 in 2011. In 2012, while contracts signed with NGOs declined to 376, the population covered by the PEC increased to 4.3 million.

**Figure 1 PEC Budget and Actual Amounts Released: Trends from 2004 to 2011  
(in quetzales, in constant 1997 prices)a**



Source: MOH Report on the PEC: 1997-7-2011.

Note: a. Figure includes only 2004 to 2007 because amounts released were not available before 2004 and for 2012.

In 2011, NGOs met only about a third of their annual targets. Although the previous administration cited budget constraints, it reallocated some of the PEC's funds to institutionalize health services through MOH mobile teams in three areas (Guatemala Central, Guatemala Nor-Occidente, and Escuintla). While the previous administration recognized the PEC's contribution to helping poor rural households fulfill their health and nutrition co-responsibilities as part of the conditional cash transfers program<sup>12</sup> that the government introduced in 2008, it also wanted to move toward progressively institutionalizing the provision of health services through MOH facilities or, in the absence of fixed facilities, via MOH mobile teams, because the delivery of health services by NGOs was perceived as "unsustainable" and was supposed to be only a temporary service delivery mechanism.

However, the current administration, which assumed office in January 2012, considers the PEC to be an essential part of its overall strategy to reduce chronic malnutrition and child and maternal mortality. In October 2012, the MOH presented its strategy document (MOH 2012a) for strengthening the primary level of care, citing improving the PEC as an important mechanism for achieving the targets set in the Results-based Agreement between the MOH and the Ministry of Finance (MOF), and for meeting the main goals of the government's flagship initiative, called *Hambre Cero/Zero Hunger*, which seeks to improve nutrition and food security in rural areas. As a result, the MOH has increased the PEC's 2012 budget to Q223 million. Moreover, it is budgeting at least Q368 million for the PEC in 2013.

Two main factors account for this significant budget increase. First the MOH wants to expand the PEC's current package of services from those mainly oriented toward women and children to services that address the health needs of other segments of the population, taking into account the country's changing epidemiological profile such as the increasing prevalence of

<sup>12</sup> Formerly known as *Mi Familia Progresa*, or "My Family is Advancing," the conditional cash transfer program is now called *Bono Seguro* by the administration that assumed office in 2012.

noncommunicable diseases. Second, it aims to establish convergence centers that are well equipped and permanently staffed by an auxiliary nurse and four community facilitators to serve an average of 500 families or 2,000 people, which would be a departure from the current community centers that tend to be community common areas or reconfigured homes that are managed by a facilitator. Although the proposed amount for 2013 represents at least a 65 percent increase from the 2012 PEC budget, it is only a partial estimate.<sup>13</sup> More resources would be required to align the PEC with the current administration's vision of an improved and expanded program.

#### **4. Targeting, Identification, and Enrolment of Beneficiaries**

The PEC is designed to serve in poor, rural areas that do not have access to MOH services. In the past, there have been allegations that the selection of a few jurisdictions was done under pressure from officials who are owners of NGOs. However, no concrete evidence is available to support these claims.

Program enrolment is automatic based on area or jurisdiction identified in the PEC agreement. NGO providers do not have flexibility in deciding who to enroll, because the agreement states that they are responsible for addressing the health needs of the population of a particular jurisdiction.

Service providers receive an overhead of 10 percent<sup>14</sup> based on the signed agreement, and each NGO allocation is made based on a fixed stipend per capita for each jurisdiction that has approximately 9,000 to 11,000 inhabitants. To some extent, this may constitute a perverse incentive for the provider to provide care to a smaller number of beneficiaries and thus achieve a greater profit margin, that is, the NGO might minimize its costs by cutting back on its services. However, since NGOs must comply with targets for their contracts to be renewed, this situation is less likely to apply to the PEC, although it is also possible that NGOs overreport their achievements. Some people interviewed for this study mentioned that due to underfinancing (the capitation payments have only been increased twice since the PEC started) and delayed payments, some NGOs may have cut back on services provided. However, since no individual records of beneficiaries exist at the MOH central level,<sup>15</sup> it would be difficult to analyze and confirm whether there have been attempts to skim the beneficiaries for this study.

From 2005 to 2008, the MOH had external technical evaluations and social audits to provide independent verification of NGO reports. However, these have been discontinued due to lack of funds. Also, some people interviewed for this study mentioned that the audits were never institutionalized because they were not systematically shared or disseminated.

No formal evaluations of targeting have taken place, but the available ENCOVI/LSMS (Encuesta Nacional Sobre Condiciones de Vida or Guatemala Living Standards Measurement Survey) data illustrate the issue of inclusion rather than exclusion, because nonpoor individuals also use the

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<sup>13</sup> At present, the estimated costs represent operational costs such as additional staff, equipment, and medicines. The costs of constructing or remodeling facilities to become fully functioning convergence centers still need to be included in the overall budget for the PEC.

<sup>14</sup> NGO PEC administrators received 5 percent of overhead compared to 10 percent for NGO providers (MOH 2007).

<sup>15</sup> Individual beneficiary data exist, but they tend to remain with the NGOs contracted by the PEC.

PEC community centers. In particular, based on 2006 and 2011 ENCOVI/LSMS data, the number of extremely poor people who sought care that went to a community center/NGO-managed facility increased from 11 percent in 2006 to 27 percent in 2011, while nonpoor people who sought care in community centers increased from 2 percent in 2006 to 3 percent in 2011.

## **5. Management of Public Funds in the PEC**

NGO service providers or managers of extension of coverage sign agreements with the MOH and MOF, which represent the central government. Agreements to provide services are based on the Technical Proposal that each NGO submitted to a jurisdiction's District Health Administration. These agreements set a limit of 10 percent for administrative fees/overhead and include an agreed per capita payment of between US\$6 and US\$9. The population covered by each agreement is grouped into jurisdictions, each with approximately 10,000 people.

Under the PEC, there have been two types of payment modalities from the MOH to NGOs. From 1997 until 2007, payments were made through disbursements to NGOs using budget line 432 for service providers and budget line 435 for the service administrators. This payment modality changed as a result of a 2007 Ministerial Agreement that established the legal basis for the Health Area Offices to carry out the payments effective January 2008. As a result, agreement terms were changed including the amount and method of financing (available budget), and the rights and obligations of the NGO as service provider or administrator (for example, submission of physical and financial progress, refund of the remaining balances at the end of fiscal year, and executing advances and settling of contracts through the Integrated Accounting System, or SICOIN). The agreement is updated every year according to MOF regulations.

Disbursements are made quarterly according to performance measured by 28 indicators of service delivery (outputs). In reality, however, even when NGOs attained their objectives, payments were delayed, sometimes up to one year. These delays have forced NGOs to provide services using their own funds pending later disbursement or, in a few cases, to close.

## **6. Management of the PEC's Benefits Package**

The PEC's basic benefits package was initially defined by a team of international consultants together with a team of Guatemalans, mainly MOH technicians, based on cost-effectiveness and expert opinion on acceptability and relevance. Once the basic package was established, actions and activities to provide the package were identified in accordance with the format for the completion of the Annual Operating Plan for services. Budgets were then based on estimates of activities performed (for example, it is estimated that each child will have four periods of diarrhea per year, based on historical data) and their predefined costs.

While the package provided by the PEC continues to be oriented toward basic primary health care services and basic curative care for women and young children (box 1), there have been increases in the number of checkups and improvements in basic procedures covered after 2005. For example, as shown in detail in Annex 2, the number of prenatal check-ups covered increased from two to three, and postpartum care is provided by a nurse or doctor during the first 40 days after birth compared to previously being provided by a trained midwife. In addition, since 2006, complementary feeding of Vitacereal has been included in the PEC package of services for children between 6 months and 36 months of age, pregnant women, and lactating women.

There have been no formal attempts to estimate the cost of the basic package, and the per capita cost has been updated only twice since 1997.

Due to the design of the program, which is based on capitation payments of US\$6 to US\$9 to a service provider based on agreed services and target groups that prioritize young children and women of reproductive age, people avail of the services as needed—such as emergency care for burns or fractures and basic curative care for TB or malaria—as long as these are part of the PEC’s basic package. However, these services are provided by a doctor or nurse who visits communities once a month. As a result, this particular arrangement contains costs that could arise from providing regular care and addressing the other health needs of the population living in areas covered by the PEC.

#### **Box 1 Four Main Services Covered by the PEC’s Basic Health Package**

1. Integrated care for women, including care during pregnancy, birth, and postpartum; nutritional supplements; family planning; and cervical and breast cancer detection.
2. Infant and preschool care covering immunizations, control of common illnesses such as diarrhea and respiratory infections, nutritional deficiencies and growth monitoring for children less than two years of age.
3. Illnesses and emergency care, including cholera, malaria, dengue, TB, rabies, sexually transmitted diseases, and other diseases based on the local epidemiological profile; accidents such as fractures, burns, hemorrhages, and animal bites.
4. Environmental care covering vector control, promotion of proper waste disposal, water quality, and food and home hygiene.

## **7. The PEC’s Information Environment**

### **Monitoring and Supervision**

NGOs that are contracted by the PEC are required to provide the following reports: weekly reports on certain diseases, monthly reports on service provision, and quarterly reports on achievement of indicators and budget execution. The information is reviewed by a committee comprising the Area Director, the Municipal Management, and the Technical Unit of the MOH. These reports and assessments guide decisions on whether to continue or cancel contracts with providers.

The indicators used to monitor NGO performance relate to coverage rather than outcomes or impact. These 28 indicators are listed in table 5.

**Table 6 PEC Performance Indicators**

% of pregnant women with one prenatal control	% of one year olds vaccinated against measles
% of pregnant women that received prenatal control within 12 weeks of pregnancy	% of one year olds with at least 2 medical checkups
% of pregnant women with three prenatal controls	% of children 1 to 5 years old with at least one medical checkup
% of women that receive a postnatal control in the first 40 days after delivery	% of children under five with diarrhea that have received ORS
	% of children under 2 years that have received at least one weight control during the trimester
% of newborns that receive a postnatal control in the first 28 days after birth	% of children under 2 years with at least 2 continuous weight controls
% of women age 15 to 49 that have received micronutrients	% of children 2 to 3 years old with at least one weight control per trimester
% of women age 15 to 49 using family planning methods	% of children under 1 that have received vitamin A supplements after they reach 6 months of age
% of women age 15 to 49 in family planning that has been replenished during the last trimester	% of children 1 to 5 years old that have received a second dose of Vitamin A
% of women that have taken a sample of PAP/IVAA	% of children under 1 that have received iron sulfate for three months
% of women that have received the results of their PAP/IVAA	% of children 1 to 5 years old that have received iron sulfate for 3 months
% of women of fertile age that have received the 3rd doses of TT	
% of one year olds that have received the BCG vaccine	% of estimated people with respiratory symptoms who have at least a <i>baciloscopy/smear test</i>
% of one year olds vaccinated with OPV-3	% of persons with TB pulmonary BK positive who are in annual treatment
% of one year olds vaccinated with PENTA-3	% of coverage of canine vaccinations

Source: MOH PEC 2011.

Note: BCG = Bacillus Calmette–Guérin/TB vaccine. BK = Koch-Bacillus. IVAA = visual inspection with acetic acid . OPV-3 = third dose of oral polio vaccine. ORS = oral rehydration salt. PENTA-3 = third dose of the Pentavalent vaccine (a combination of five vaccines: diphtheria, tetanus, whooping cough, hepatitis B, and Haemophilus influenza type b (the bacteria that causes meningitis, pneumonia and otitis). TT = tetanus toxoid.

Although these indicators were decided at the start of the program, recently, other activities have been added to the PEC that would need to be monitored, such as implementation of the AINM-C strategy that includes monitoring of height for age, promotion of exclusive breastfeeding, care of newborn children, and risk monitoring for newborn children and pregnant women. There are also ongoing discussions within the MOH to include results indicators such as height for age for young children in the PEC.

Some MOH stakeholders have also suggested revising the indicators to decrease the number of indicators related to maternal and infant care and to include some indicators to monitor care

provided to respond to illnesses and accidents, and services to improve environmental care and management.

Prior to 2008, the Government of Guatemala established technical teams based in the regional offices of the MOH to audit the work of the NGOs on a regular basis. In addition, from 2006 to 2008, the MOH relied on social audits as community feedback mechanisms to providers regarding their services. Based on the social audit results, providers could receive an incentive payment at the end of the year. However, both the technical teams and social audits were eliminated in 2008 due to lack of funding. Some stakeholders also opined that the written results of the social audits were not shared with the operational/local administrative levels and, therefore, the practice was not really institutionalized (Castillo et al. 2012).

At present, two mechanisms of field supervision exist: (a) the Monitoring and Evaluation Supervision Unit within the SIAS schedules annual visits to the Municipal Health Districts, where they review the performance of NGOs; and (b) Municipal Health Districts schedule visits to NGOs, communities, and convergence centers. For the latter, they use an assessment tool. It is not clear, however, how often and how rigorously the Municipal Health Districts verify the NGO reports.<sup>16</sup> In addition, due to the limited budget available for monitoring and evaluation, it has also been observed by persons interviewed for this study that the MOH has not been able to systematically visit all the Municipal Health Districts to provide them with supportive supervision and to also verify the reports provided by NGOs.

The results of the evaluations and supervisory visits are attached to each provider's file and each provider is rated every three months. The assessments can lead to sanctions, continuation, or termination of the contract. For example, in 2006, seven NGO contracts were eliminated as a result of poor performance and 23 agreements were conditional on improvements. In 2007, five contracts were eliminated and 16 were made conditional based on agreed improvements.

## **Results of NGO Agreements**

It has been reported that NGOs routinely do not achieve several of their targets. In 2011, for example, 39 percent or 11 out of 28 indicator targets were met for the entire program (Castillo et al. 2012). Some of the reasons cited for not meeting the targets are the following: delayed payments by the Government of Guatemala to NGOs, with delays sometimes taking six to 12 months; targets are not coordinated with NGOs and are not adjusted to reflect each jurisdiction's context; inadequate provider capacity in some cases; and insufficient financing of the services because NGOs have also complained that the capitation amounts have rarely changed since the PEC's inception.<sup>17</sup>

## **Program Evaluations**

There is no baseline to compare new evidence, and officials interviewed so far have not mentioned plans to evaluate the impact of the PEC, although they think that it would be useful to do so. No studies and data were readily available to assess the impact of the PEC on improving the health and nutrition co-responsibilities for the conditional cash transfers program that was initiated in 2008, although the PEC has been generally acknowledged to have contributed toward

<sup>16</sup> Based on interviews for this study and World Bank (2010).

<sup>17</sup> Based on interviews for this study and World Bank (2010).

improving rural household access to basic health and nutrition services, especially for women and young children. To date, there have been no government evaluations of program impact, although there have been related studies undertaken by other agencies such as the World Bank (Danel and La Forgia 2005) and the Inter-American Development Bank (Cristia, Evans, and Kim 2011).

In particular, the results of a 2005 study (Danel and La Forgia 2005) based on household and provider surveys implemented by the World Bank in 2001 in Guatemala found that the coverage of health services for women and children in the catchment areas of contracted NGOs was similar to those found in the catchment areas of the traditional MOH model using fixed public health facilities. Given that the PEC works in rural areas that tend to have remote and quite dispersed populations, it has been shown to achieve coverage levels for health services for women and children similar to those of fixed facilities, which tend to work in more accessible areas. These surveys also found that users tended to report greater satisfaction with the NGO models (provider and administrator of health services). Survey results also showed that the NGOs, in general, are more productive<sup>18</sup> than the traditional providers but also more costly, partly because these NGOs have to reach remote areas, incurring higher operational costs.

In 2011, a study using secondary data based on the 2002 and 2006 ENCOVI/LSMS compared changes in some indicators in areas where the PEC operates. The results indicate a significant increase in vaccination and prenatal control coverage rates, and in the use of doctors and nurses (switching from midwives), although there has been little or no statistically significant effect on the provision and use of family planning (Cristia, Evans, and Kim 2011).

### **Availability of Information to the Public**

There are no systematic reports made available to the public, and the MOH website has limited information on the PEC, in general. However, under the Public Information Act, people have the right to request information regarding the PEC, especially with regard to budget and resource matters. The Ministry of Finance website has a section dedicated to transparency where the public can check information regarding NGOs. For example, information is available for 2009–2011 regarding PEC contracts, the names of contracted NGOs, and the amount of advances made and contracts closed or settled.

## **8. How the PEC has Addressed Supply Gaps and Strengthened PHC in Guatemala**

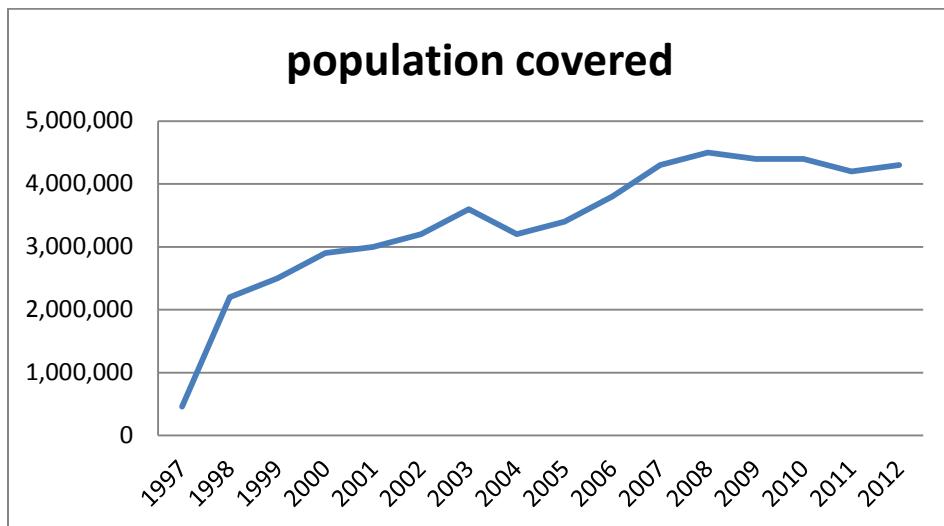
***Expanding Coverage of Health Services.*** Since it was established, the PEC has expanded its coverage, providing a basic package of health and nutrition services to more areas that otherwise would not have any access to MOH services. By expanding from three departments to 20 of the country's 22 departments, it has significantly increased its coverage from 0.46 million people in 1997 to 4.3 million in 2012, which is approximately a third of the Guatemalan population (figure 3). While it can be argued that the PEC's basic package of services is heavily focused on maternal and child health and nutrition services, and therefore, the actual population covered by the program is actually much lower per jurisdiction, it is difficult to estimate the program's effective coverage because it also provides emergency care services for all community members, and services oriented toward environmental management, such as proper waste disposal, which

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<sup>18</sup> Productivity is defined here as the average monthly provider volume of services per health worker providing care.

affects more than individuals. At present, the MOH estimates that the PEC serves the health and nutrition needs of 54 percent of the rural population in Guatemala (MOH 2012a).

**Figure 2 Estimated Population Covered by the PEC, 1997–2012**



Source: MOH PEC statistics 2011, 2012.

In addition to increasing coverage, the PEC has contributed to strengthening the primary health care system in Guatemala in the following ways.

**Introducing tools for planning and monitoring.** The PEC started using individual-level electronic medical records in 2005 to facilitate reporting and to track patients with scheduled services, such as children needing vaccinations and pregnant women needing prenatal checkups. This practice has been shared with public facilities in the first level of care as a possible model.

**Improving administrative efficiency.** Until 2007, several NGOs were contracted through the PEC to administer public health services in districts. Approximately 30 percent of total PEC contracts were of this type. Based on anecdotal evidence and observations shared during interviews for this study, the use of NGOs as administrators of health services reduced time spent on procurement and personnel contracting processes.<sup>19</sup>

**Promoting transparency and competition in the selection of service providers.** Although user choice in terms of health providers does not apply in the case of the PEC, because the areas selected are usually poor and rural—places where other providers including the MOH do not exist—the selection of NGOs has been transformed into a transparent process. The MOH has established a selection process that involves two steps: (a) licensing, in which an NGO applicant must present information on legal status, financial information, personnel, equipment, and so

<sup>19</sup> Since 2010, however, this type of contracting has no longer existed due to budget reductions; the preference of the previous government to have mobile teams managed by MOH staff; and because, while NGOs were supposed to be administrators of services and were held accountable for achieving goals with regard to the same 28 indicators that NGO services providers were responsible for, Health Area Departments had the decision-making power, which led to issues of accountability.

forth; and (b) review of technical bids whereby the MOH invites licensed NGOs to submit technical bids<sup>20</sup> through a Request for Proposals. A committee comprising central and regional MOH staff selects the NGO (La Forgia, Mintz, and Cerezo 2005).

**Using alternative personnel to address staffing constraints.** The shortage of doctors for mobile teams used in the PEC has led to the use and recruitment of ambulatory care/mobile nurses, which has resulted in a new field for nurses and which has encouraged schools to develop a new curriculum.

**Using incentives to promote accountability and improve performance.** NGOs are required to provide regular reports and are subject to review. While provider payments do not depend on performance, their contract renewal does. In addition, the health personnel contracted by NGOs are eligible to receive incentive payments that represent a small percentage of their total pay (for example, a maximum of US\$30 in the case of doctors) based on trimestral evaluations. In addition, from 2006 and 2008, providers could also receive an incentive based on the results of the social audits (World Bank 2010). These audits, however, were discontinued by the MOH mainly because of budget constraints. In addition, the value attached to incentives also diminishes as a result of the payment delays experienced by NGOs.

## 9. The Pending Agenda

**Enhancing overall institutional program support.** While the PEC has been institutionally integrated with the MOH and is included in its organizational chart and covered by the Ministry's budget, it remains vulnerable to sociopolitical factors and has received variable financial and political support since its inception. To date, it is opposed by some unions and certain politicians and government staff including some within the MOH who wish to use MOH facilities to deliver services via mobile teams to poor and rural areas. Some stakeholders believe that the PEC should be a temporary measure and that MOH facilities are the sustainable option. Nonetheless, the new administration that assumed office in 2012 is allocating significantly more funds to the PEC than the previous administration because it considers strengthening the PEC as an integral part of its strategy to universalize access to health services and to support the government in fulfilling its social and development goals in rural communities. In moving forward, aside from increasing the PEC's funding, the MOH would need to put in much more effort to enhance the overall acceptance of the program among its stakeholders at the central and local levels. In particular, some local administrators mentioned that insufficient consultations took place at the local level when the PEC was launched and was progressively expanded.

**Mobilizing significantly more resources.** Strengthening the PEC in order to align it with the MOH's integrated care strategy would require significantly more resources. At present, the MOH is proposing to expand the PEC's package of services to enable it to respond to the changing epidemiological profile in Guatemala and to address the health concerns of all members of a jurisdiction at all stages of the life cycle, instead of mainly focusing on women and children. It also plans to establish PEC convergence centers that are constructed, equipped, and staffed based on primary care level norms in place of existing community centers. While these proposed

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<sup>20</sup> The price or capitation payment is set by the MOH, so NGOs compete based on the technical merits of their proposal, aside from demonstrating that they meet the financial and institutional experience and capacity criteria.

changes represent an improvement in providing regular services to rural communities, it would be important for the MOH to estimate as soon as possible the cost of expanding the package of services and constructing or rehabilitating these centers, because its initial 2013 budget estimate, which includes only operating costs, already represents a 65 percent increase from the PEC's 2012 budget. Revised estimates would also need to include training costs to have the number of additional medical staff such as auxiliary nurses required for the expanded and strengthened version of the PEC because, at present, Guatemala faces a shortage of medical professionals.

Additional financial and logistical needs would also need to be addressed because the PEC operates in poor rural areas where there is no access to basic public health services, making it challenging for its providers to interact with other providers in the MOH network. Improving the way the PEC is integrated within the health system would also require an increase in the supply of secondary level facilities, particularly those that offer basic emergency obstetric care (World Bank 2010). This would require additional investments, which would also need to be estimated. The referral and counterreferral system would also need to be strengthened. With the support of external partners such as the World Bank and the IDB, the government is currently improving its referral and counterreferral system, particularly the link between primary and secondary level facilities, by also involving communities in referrals and by renovating, equipping, and staffing several existing secondary level health facilities so that they can handle basic emergency obstetric care. However, more work remains, and it would be essential for the MOH to have a costed implementation plan for progressively improving the health network of services in rural areas.

Population dispersion and the fact that a high proportion of the Guatemalan population is indigenous make effectively reaching more people more challenging. Aside from additional resources, expanding coverage would also entail developing and implementing an approach that takes into account the country's multicultural characteristics.

***Improving timeliness of resource flows.*** In addition to the need for resources, another issue that would need to be addressed is ensuring timely payments to providers. Delayed payments (delays of as much as six to 12 months have been reported) affect the timely delivery of health services. Although it is generally acknowledged that NGOs, on average, receive their payments later than government agencies, the issue of delayed payments is not unique to the health sector and would require the MOF to review and address its payment mechanisms and flow of funds.

Strengthening monitoring performance and validating financing agreements could be revised in consultation with providers and local health staff to ensure that targets are set based on the context in each jurisdiction. Also, while supervision visits to NGOs, convergence centers, and communities are supposed to be undertaken by Municipal Health Department staff, it is not clear whether this is being systematically done because of capacity and budget constraints. Allocating more funds to improve monitoring and supervision at both the central and local levels could minimize the risks of overreporting on the part of the NGOs. Funds could also be used to link the PEC information system and the Health Management Information System (SIGSA) to allow for integrated access to both systems. The MOH states that it will allocate more funds to improve monitoring and supervision of the PEC and primary care in general, in line with the results-based management agreement it signed with the MOF.

***Developing a costed, phased strategy to achieve universal coverage.*** In Guatemala, expanding access to achieve universal coverage remains a long-term objective, and a phased and costed strategy would be needed to progressively expand access and improve the quality of services. At present, while there are ongoing efforts to strengthen the PEC and the existing network of health services that would require significantly more resources, there are still approximately 1 million individuals, most of whom live in rural indigenous areas, that do not have any access to health services. In addition, although public services are supposed to be free of charge, patients need to purchase medicines and seek care in the private sector, because several public health facilities do not have the required inputs, resulting in high out-of-pocket costs.

Thus, the MOH's strategy to universalize access to services would need to include a critical path with phased actions and costs for covering persons without any access to health services, and to improve the quality of services (including availability of medicines, functional equipment, and staff) in existing public facilities to minimize the out-of-pocket expenses of individuals. This strategy could also include criteria (for example, institutional capacity such as availability of personnel in the target area) for expansion to determine which areas, for example, can be best served by the PEC and which ones can be best served by MOH providers and their mobile teams. This strategy could also benefit from (a) undertaking an impact evaluation of the PEC, or at least a process evaluation of the program, using lessons learned to improve services; (b) conducting a study to update per capita costs of delivering services to reflect their true costs and estimated target population; and (c) a comprehensive analysis of the costs of expanding the basic package of services and establishing and equipping convergence centers.

## **Annex 1 General Health Service Delivery and Supply-side Efforts**

### **Main Institutions**

There is a general consensus that the Guatemalan health system is fragmented and that the various public and private entities tend to operate in an uncoordinated manner (Flores 2008; ICEFI y UNICEF 2011; World Bank 2007). In 2011, the public sector operated 1,617 health facilities of which 1,492 were under the Ministry of Public Health and Social Assistance (MOH) and 125 were under the Guatemalan Social Security Institute (IGSS). The private sector has 6,963 health facilities, comprising 81 percent of the country's total health establishments (MOH 2012b).

**Public Sector.** The public sector includes the MOH, the IGSS, the Ministry of Defense through its Department of Military Health (DMH), and the Ministry of Governance, which manages the National Police Hospital (NPH).

The MOH covers approximately 71 percent of the population and the IGSS approximately 18 percent, namely 40 percent of the formally employed population and their families. The IGSS provides care resulting from accidents, maternity care for its affiliates and the wives of its affiliates, and pediatric care for its affiliates' children who are under age five. The DMH has a general hospital in Guatemala City, but it only provides services to the military, covering military personnel who are deployed throughout the country. The NPH covers only the police force located in the capital. The DMH, IGSS, and NPH all provide services that are mainly curative in nature.

The MOH provides three levels of care.

*The primary level* is supposed to be the first point of contact for users. It provides services using two modalities: (a) services provided through health posts staffed by a certified nurse who provides basic preventive and curative services and refers the more difficult cases to higher-level facilities. In 2011, there were 1,101 health posts in Guatemala; and (b) the Expansion of Coverage Program (PEC), which provides a package of basic services through a mobile team comprising a doctor or nurse, a community facilitator, and community health "guardians" or volunteers who visit communities on a monthly basis. The PEC's center of operations is generally a volunteer's house or a community center.

*The secondary level* comprises 346 facilities that include health centers, Centers of Permanent Care, Centers for Care of Ambulatory Patients, Centers of Integrated Maternal and Child Care (CAIMIs), and Maternity Clinics (Maternidades Cantonales), which are staffed by doctors and nurses. Depending on personnel availability, some of these facilities may also have psychologists, nutritionists, and laboratory personnel.

*Tertiary level care* is provided by 45 public hospitals of different types (district, regional, general, and specialized).

The IGSS has its own hospitals—a general one to address illnesses, accidents, and maternity, gynecological, psychiatric, and rehabilitation needs; and two polyclinics and a specialized polyclinic in the metropolitan area. It also operates three specialized consultation facilities for

geriatric attention for its retired affiliates. In addition to providing services through its own facilities, IGSS also purchases specialized services, particularly for ophthalmology, oncology, cardiology, nephrology, and ENT (ear, nose, and throat). It also purchases services for hemodialysis, radiotherapy, and diagnostic imaging.

**Private Sector.** The private sector includes (a) for-profit providers comprising private clinics and private hospitals, pharmacies, diagnostic centers, and nonformal providers who provide curative services within the framework of Mayan medicine; and (b) nonprofit providers composed of NGOs such as foundations, civil society organizations, and faith-based organizations.

### **Summary of Guatemala's Public Health, Primary Care, and Key Supply-side Efforts**

In the mid-1990s, after emerging from three decades of civil war, Guatemala was among the countries with the worst health and nutrition indicators in Latin America. As a result of the government's efforts to increase access to health and nutrition services, child mortality rates steadily declined from 60 per 1,000 live births in 1995 to 30 per 1,000 live births in 2011. During the same period, maternal mortality rates also decreased from 160 per 100,000 live births to 120 per 100,000 live births in 2005, yet remained unchanged in 2011. Despite improvements, Guatemala's child mortality and maternal mortality rates remain higher than the LAC average of 19 per 1,000 live births and 86 per 100,000 live births, respectively.

Guatemala is on track to reach its Millennium Development Goal regarding reduction in the number of underweight children. However, while the country reduced its stunting rate by 12 percentage points from 1995 to 2008/09, it remains the highest in the LAC region and among the worst in the world (ENSMI 2008–09; World Bank 2011). In 2011, immunization rates for measles and DPT (diphtheria, pertussis, tetanus) (93 percent and 94 percent, respectively) for Guatemalan children 12 to 23 months of age were comparable to and even slightly higher than the regional average of 93 percent. Moreover, 93 percent of Guatemalan women had access to prenatal care compared to 96 percent of women in the LAC region. However, only approximately 51 percent of Guatemalan women (76.6 percent of urban women and only 36.4 percent of rural women) had institutional births with skilled staff compared to the LAC average of 90 percent.

While progress has been made, major supply-side challenges remain in the health sector in Guatemala. In particular, the government has tried to address supply gaps in basic health care in poor and remote areas through the PEC. Since its establishment, the PEC's coverage has increased from 0.47 million in 1997 to 4.3 million in 2012 in poor and rural areas that do not have an MOH facility.<sup>21</sup> However, there are still areas that have no access to either MOH or PEC services, and they cannot yet be reached largely due to the government's fiscal constraints.

In 2005, the MOH sought to enhance the PEC's effectiveness by strengthening basic nutrition and family health services through the *Atención Integral a la Niñez y Mujer- Comunitaria* (AINM-C) strategy. AINM-C is a community-based nutrition program focused on preventing malnutrition during the critical period from pregnancy through age 2 through counseling on caring and feeding practices and a system of referral and counterreferral for severe cases of growth faltering. In 2010, with the support of the World Bank, AINM-C reached more than

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<sup>21</sup> MOH PEC statistics 2011.

1,750,000 people in 3,200 communities with micronutrient supplementation, growth monitoring and promotion, and nutrition counseling (on feeding practices, hygiene, and treatment of illness) for mothers (World Bank 2012b). However, significant expansion is needed to reach all the vulnerable mothers and children in Guatemala.

The MOH has increased the share of primary health care expenditures to 39 percent of total public health spending in 2010; its share has improved but is still lower than the Health Strategy target since the Peace Accords of 50 percent (MOH 2011), and the child and maternal health budget has the highest share among public health programs. However, its budget is still insufficient to cover its target population. To date, approximately 1,000,000 people or an estimated 7 percent of the population are reported to have limited or no access to health services.

As part of its efforts to reduce maternal mortality, the MOH is implementing an investment program to improve access to emergency obstetric care through the construction of Centers of Integrated Maternal and Child Care (CAIMIs)<sup>22</sup> with funds from the government, the World Bank, and the IDB. It is also promoting institutional delivery through training and certifying midwives and improving their ability to identify high-risk pregnancies in a timely manner so they can refer and accompany pregnant women to health facilities. However, this still has to be undertaken in a systematic and formal manner.

Lack of qualified personnel continues to be a major bottleneck especially in rural areas. Eighty percent of doctors work in only three departments (Guatemala, Quetzaltengango, and Sacatepequez), the remaining 20 percent are distributed in the other 19 departments. In Guatemala City, where most doctors prefer to work, there are 22 doctors per 10,000 people compared to only 0.98 per 10,000 people in Quiche, a department whose population is predominantly rural and indigenous.<sup>23</sup>

To address the lack of medical staff in rural areas, the government requires medical and nursing assistant students to perform community service. For example, medical students from the Universities of San Carlos and Rafael Landivar are required to spend six months in a rural health post as a prerequisite to graduation, and other schools of medicine (Francisco Marroquin University, Mariano Galvez University, and the Meso-American University) have other modalities for community work. In addition, dental, nutrition, pharmacy, chemistry, biology, and social work students at the University of San Carlos practice under supervision for six months in a community. As for nursing assistants, the Mosaico model, which is a variation of the PEC, provides care on a permanent basis through a nursing assistant who is trained to work in both communities and hospitals.

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<sup>22</sup> A CAIMI is a health facility located in a municipality with high mother and child health risks. It provides general medical services and basic pediatric and gynecological care and anesthesiology and is supposed to cover more than 40,000 people. It serves as a referral center for other services of the first and second levels of care. It should have from 20 to 30 beds for maternal and child inpatient care, an emergency room, a delivery room, and an operating room for emergency obstetric care. It also has a maternity house or community facility for the temporary accommodation of pregnant women just before they give birth until they are transferred to the appropriate birthing facility.

<sup>23</sup> World Health Organization and Pan-American Health Organization Conferencia Sanitaria Panamericana, 59.a Sesión del Comité Regional, 2007.

Treatment protocols or standards of care are widely disseminated to health facilities and health personnel, but their use is usually not monitored. The MOH's Supervision, Monitoring, and Evaluation Unit has a limited budget and a small staff. This unit also tends to focus on the monitoring of departmental hospitals.

The MOH has two health information systems: the Health Management Information System (SIGSA), which is its principal information system, and the PEC information system. SIGSA does not include individual records, and information on communicable diseases are not as frequently collected as maternal and child health information. The PEC information system has individual-level data for its jurisdictions.<sup>24</sup> However, since it is not well linked with SIGSA, most of its information tends to remain with the NGO that provides services.

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<sup>24</sup> The system used by the PEC (CENSUS-NET) identifies every resident in a community. It allows individual data to be recorded for consolidation by function and geographic location. Through this system, one can know where children are through the community lists. In addition, the system can be used to determine the number of places covered by which types of services by using geographic information, because each place has a code assigned by the National Statistics Institute.

## Annex 2 Changes in the PEC's Package of Services (Pre-2004 and Post-2005)

Package of Health Services	Pre-2004	Post-2005
<b>Prevention</b>		
<b>Care for Women</b>		
Prenatal care	2 annual check-ups by doctor or nurse.  There is no medical record.	3 annual check-ups by doctor or nurse.  Electronic medical form introduced.
Dosage tetanus toxide	2 doses Tetanus Toxoid vaccine.	3 doses Tetanus and Diphteria Vaccine.
Micronutrient supplementation	1 iron tablet daily for 6 months.  1 tablet of folic acid during pregnancy.	2 iron tablets during pregnancy.  1 tablet of folic acid during pregnancy.
Clean and safe births care	Care provided through the trained traditional birth attendants for women who have not been evaluated by a doctor and who do not present any risks or complications. Referral of women who present risks or complications.	Through the trained traditional birth attendants for women who have not been evaluated by a doctor and who do not present any risks or complications. Referral of women who present risks or complications.  Emergency plans were introduced to address the issue of referral at family and community levels including introduction of emergency kit in the community: use of oxytocin, adrenalin, and magnesium sulfate.
Postpartum care	Care provided by midwife on request.  1 iron tablet every 3 months after delivery and 1 tablet of folic acid after delivery.	Care provided by doctor or nurse during the first 40 days after delivery.  Micronutrient supplementation: 2 iron tablets per week during 6 months after delivery and 1 folic acid tablet during 6 months after delivery.  Promotion of birth spacing.
Family Planning	Emphasis on natural methods.	Introduction of injectables, oral medicines, and condoms.
Detection of cervical cancer and cancer of the breast	Pap test provided on demand.	PAP test annually. Positive cases are referred to hospitals or the Cancer Institute (INCAN) for treatment.
<b>Care for Children</b>		
Immunizations	Immunizations based on age: BCG (TB vaccine), antipolio, DPT, measles to children less than 2 years old and boosters for children under 5 years old.	2 check-ups by doctor or nurse for children under 1 year old.  1 checkup for children 1 to 5 years old.
Micronutrient Supplementation	Iron and folic acid for children under 2 years	Integrated care in health and nutrition for children under 5 years old

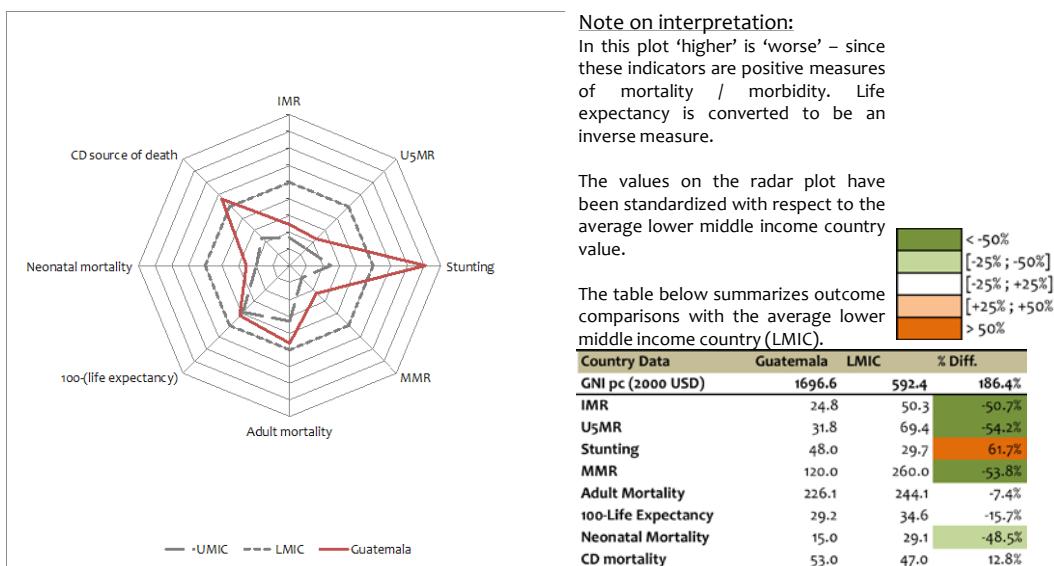
<b>Package of Health Services</b>	<b>Pre-2004</b>	<b>Post-2005</b>
Growth Promotion of children under 2 years old	<p>old and vitamin A for children under 5 years old.</p> <p>Growth promotion done by facilitator with the assistance of health volunteers; activity is focused on measurement of weight, but there is no team in every convergence center.</p>	<p>(general evaluation, psychomotor evaluation).</p> <p>BCG (TB vaccine), OPV (oral polio vaccine), DPT, tetanus, hepatitis B, Haemophilus influenza, measles, mumps, chicken pox vaccines for children under 2 years old and booster shots/dosage for children under 5 years old.</p> <p>Iron and folic acid for children 2 to 5 years of age.</p> <p>Health and nutrition counseling based on AINM-C.</p>
<b><i>Care for Illness and Emergencies</i></b>		
Animal Control	Vaccination of dogs and cats.	Vaccination of dogs and cats.
TB control	Problem in timely diagnosis of BK (Koch Bacillus) asymptomatic respiratory cases.	Follow-up of people with TB. Treatment assigned by health center. Counseling.
STI and HIV control	Counseling and reference.	Counseling and reference.
Control of diseases transmittable by vectors		Actions to eliminate breeding areas of dengue and malaria with community participation.
<b><i>Environmental Care</i></b>		
Monitoring water quality; promotion of waste disposal; improving housing conditions and food hygiene	Counseling to families by facilitator and health volunteer.	<p>Counseling of families by community facilitator and health volunteer regarding household sanitary conditions.</p> <p>Update on census of household conditions (water, waste disposal, garbage disposal, and census on dogs).</p>
<b><i>AINM-C Strategy</i></b>		
Training of volunteers (mother counselors)		On themes of maternal and infant health and nutrition (breastfeeding, complementary feeding, feeding of family, basic health of child and women, and hygienic practices in the household).
Monthly promotion of growth (children and mothers) and	Weight measured by institutional facilitator without counting on convergence center.	Weight measured for children and women and check-up of increase in weight by community volunteers and community facilitator supervised by the Educator of health and nutrition.

<b>Package of Health Services</b>	<b>Pre-2004</b>	<b>Post-2005</b>
individual counseling		Counseling of mothers about care of children, promotion of breastfeeding, and complementary feeding after 6 months, household hygiene, and use of water. Cooking demonstrations, The Educator also provides micronutrient supplements.
Home visits	Only for high-risk patients.	To strengthen counseling, promote growth, verify feeding practices, detect illnesses of children, and refer them to health services if needed. For rehabilitation and prevention, home visits are undertaken to follow up on sick children or those who are not growing adequately, and of pregnant women who are not gaining weight adequately.
<b>Curative Care</b>		
<b><i>Integrated Care for Women</i></b>		
Care for female illnesses	Care on demand.	Care for emergencies and prevalent illnesses in women.
<b><i>Integrated Care for Children</i></b>		
Control of acute respiratory infections, diarrhea, and cholera	Care on demand.	Implementation of integrated management of childhood illnesses (including identification of risk signs, case management of respiratory problems, diarrhea, fever, immunizations, growth monitoring, emergency plan for families and communities, reference and response).
Control of childhood illnesses	Care on demand.	
<b><i>Care On-demand for Illness or Emergencies</i></b>		
Care on-demand for emergencies and for vector-transmitted illnesses	Care for emergencies and prevalent illnesses (diarrhea, respiratory infections, dengue, malaria, and injuries and first-degree burns) for all age groups.	Care for emergencies and prevalent illnesses (diarrhea, respiratory infections, dengue, malaria, and injuries and first-degree burns).

*Note:* BCG = Bacillus Calmette–Guérin/TB vaccine, BK = Koch-Bacillus. IVAA = visual inspection with acetic acid. OPV-3 = third dose of oral polio vaccine. ORS = oral rehydration salt. PENTA-3 = third dose of the Pentavalent vaccine, which is a combination of 5 vaccines: diphtheria, tetanus, whooping cough, hepatitis B, and Haemophilus influenza type b (the bacteria that causes meningitis, pneumonia, and otitis). TT = tetanus toxoid.

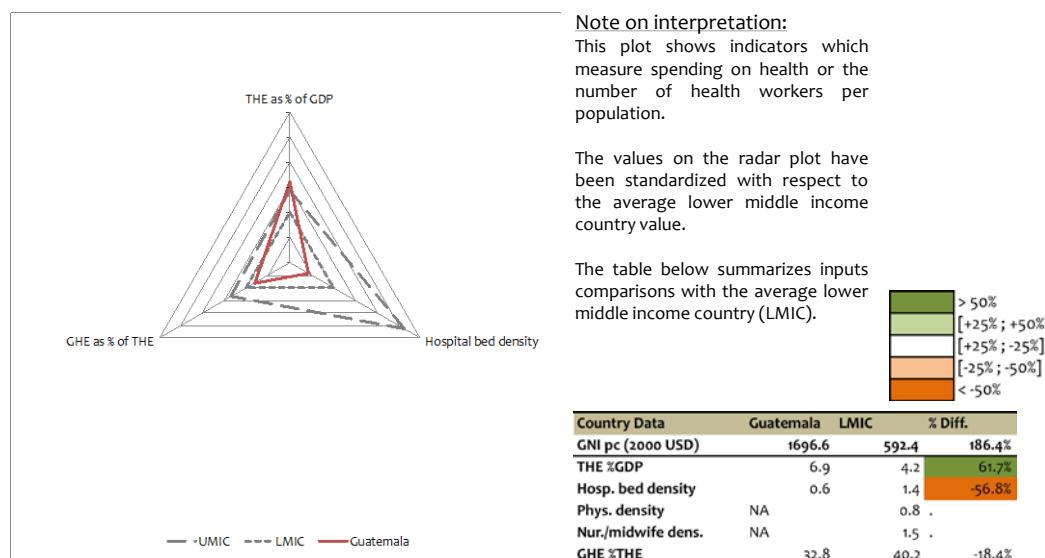
### Annex 3 Spider Web

## I. Outcomes comparisons: Guatemala and Lower Middle Income Countries



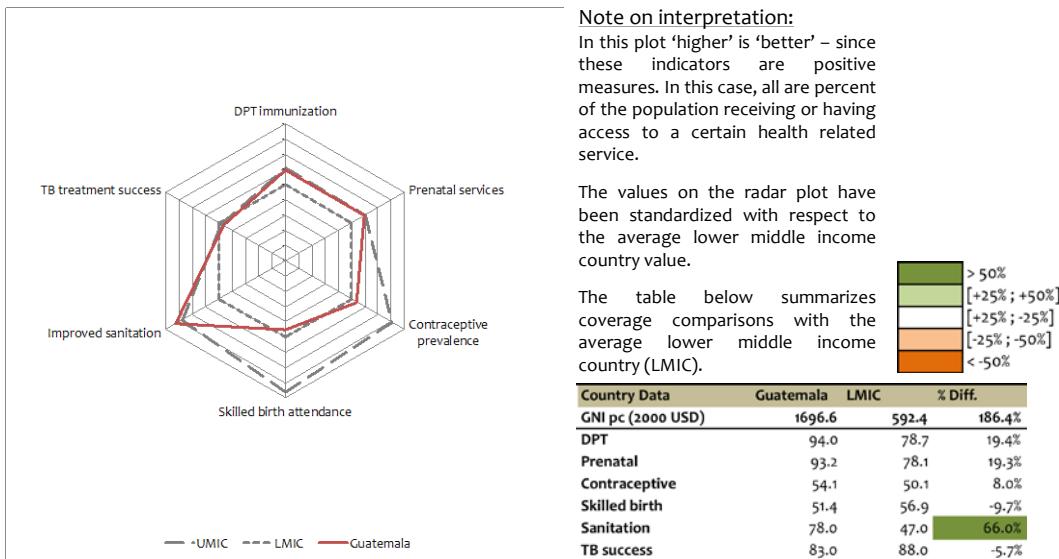
IMR: Infant mortality rate (2010). U5MR: Under-5 mortality rate (2010). Stunting: prevalence of low height-for-age among children under 5 (2010). MMR: Maternal mortality rate (2010) per 100 000 live births. Adult mortality: Adult mortality rate per 1000 male adults (2010). [100-(life expectancy)]. Life expectancy at birth (2010) subtracted from maximum of 100. Neonatal mortality: Neonatal mortality per 1000 living births. CD as cause of death: Communicable diseases as cause of death (% total). All data from World Bank's World Development Indicators. Income averages for stunting calculated by Bank staff and are unweighted.

## II. Inputs comparisons Guatemala and Lower Middle Income Countries



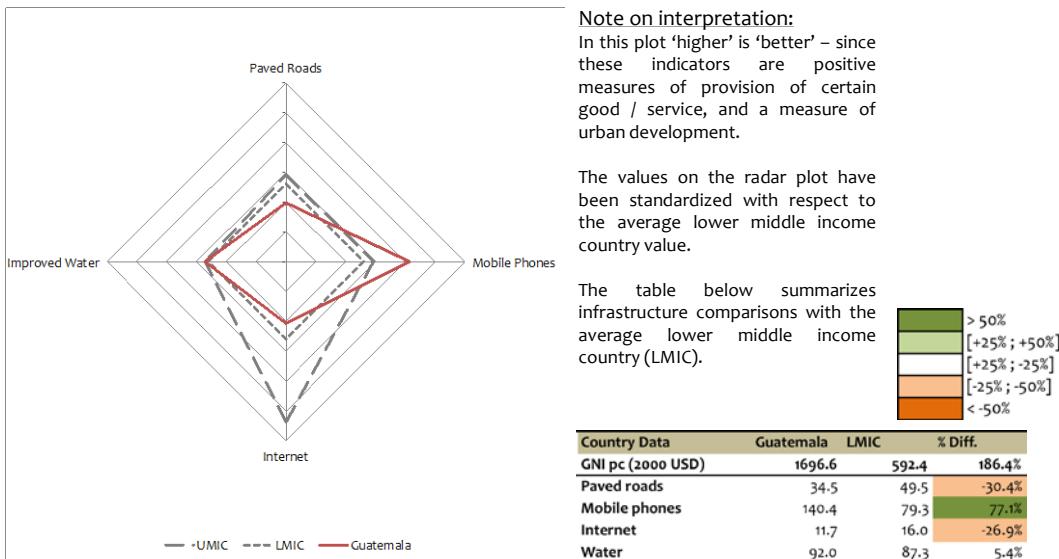
THE as % of GDP: Health expenditure, total (% of GDP) (2010). Hospital bed density: Hospital beds per 1,000 people (latest available year). Physician density: Physicians per 1,000 people (latest available year). Nurse/midwife density: Nurses and midwives per 1,000 people (latest available year). GHE as % of THE/10: Public health expenditure (% of total expenditure on health) (2010). All data from World Bank's World Development Indicators.

### III. Coverage comparisons Guatemala and Lower Middle Income Countries



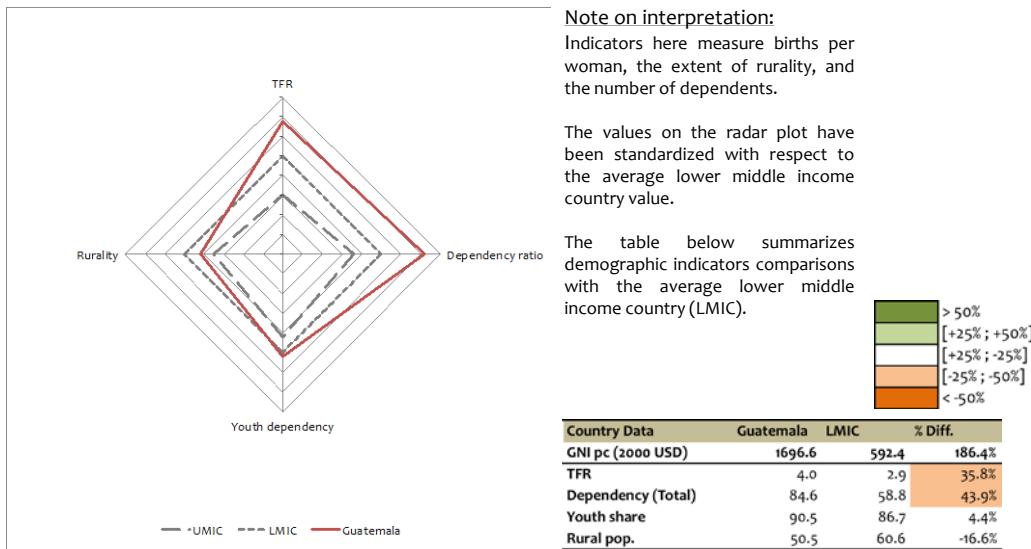
DPT immunization: % of children aged 12-23 months with DPT immunization (2010). Prenatal services: % of pregnant women receiving prenatal care (latest available year). Contraceptive prevalence: % of women ages 15-49 using contraception (latest available year). Skilled birth attendance: % of all births attended by skilled health staff (latest available year). Improved sanitation: % of population with access to improved sanitation facilities (2010). TB treatment success: Tuberculosis treatment success rate (% of registered cases). All data from World Bank's World Development Indicators.

### IV. Infrastructure comparisons Guatemala and Lower Middle Income Countries



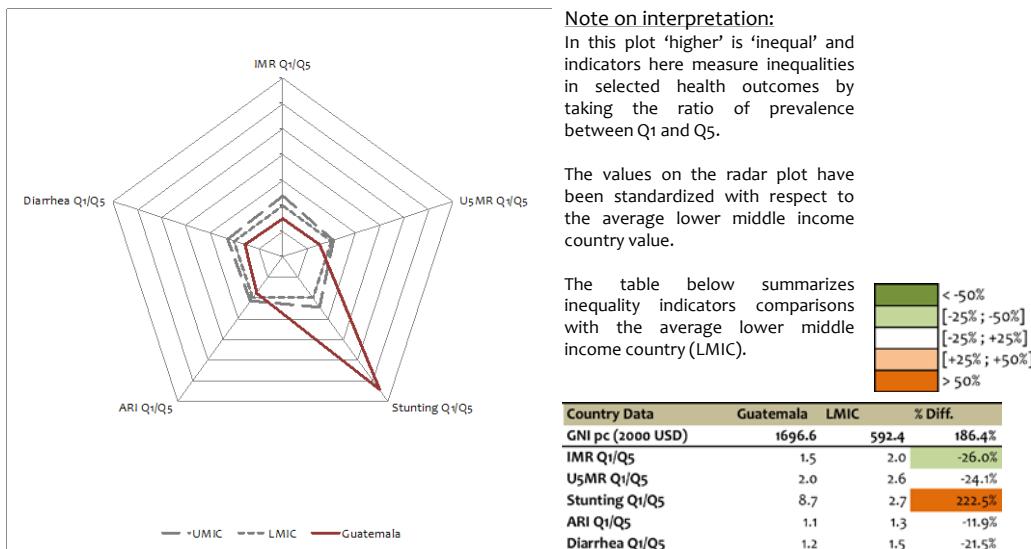
Paved roads: % of total roads paved (most recent). Internet users: users per 100 people (2010, with some estimates from prior years). Mobile phone users: mobile cellular subscriptions per 100 people (2010). Access to improved water: % of population with access to improved water source (2010). All data from World Bank's World Development Indicators.

## V. Demography comparisons Guatemala and Lower Middle Income Countries



TFR: total fertility rate (births per woman), 2009. Dependency ratio: % of working-age population (2010) aged less than 15 or more than 64. Youth dependency: % of working-age population (2010) aged less than 15. Rurality: % of total population in rural areas (2010). All data from World Bank's World Development Indicators.

## VI. Inequality comparisons Guatemala and Lower Middle Income Countries



All indicators measure the ratio of prevalence between the poorest (in Q1, the first wealth distribution quintile) and the richest (in Q5, the fifth wealth distribution quintile). The data (latest data available) are taken from HNPstats (<http://data.worldbank.org/data-catalog/HNPquintile>).

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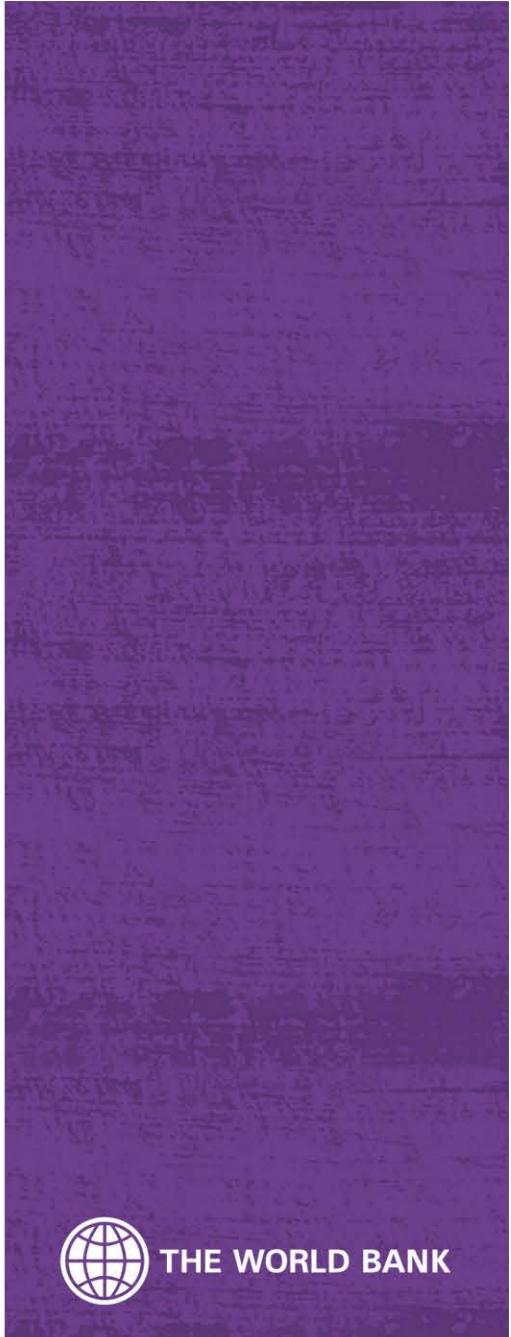
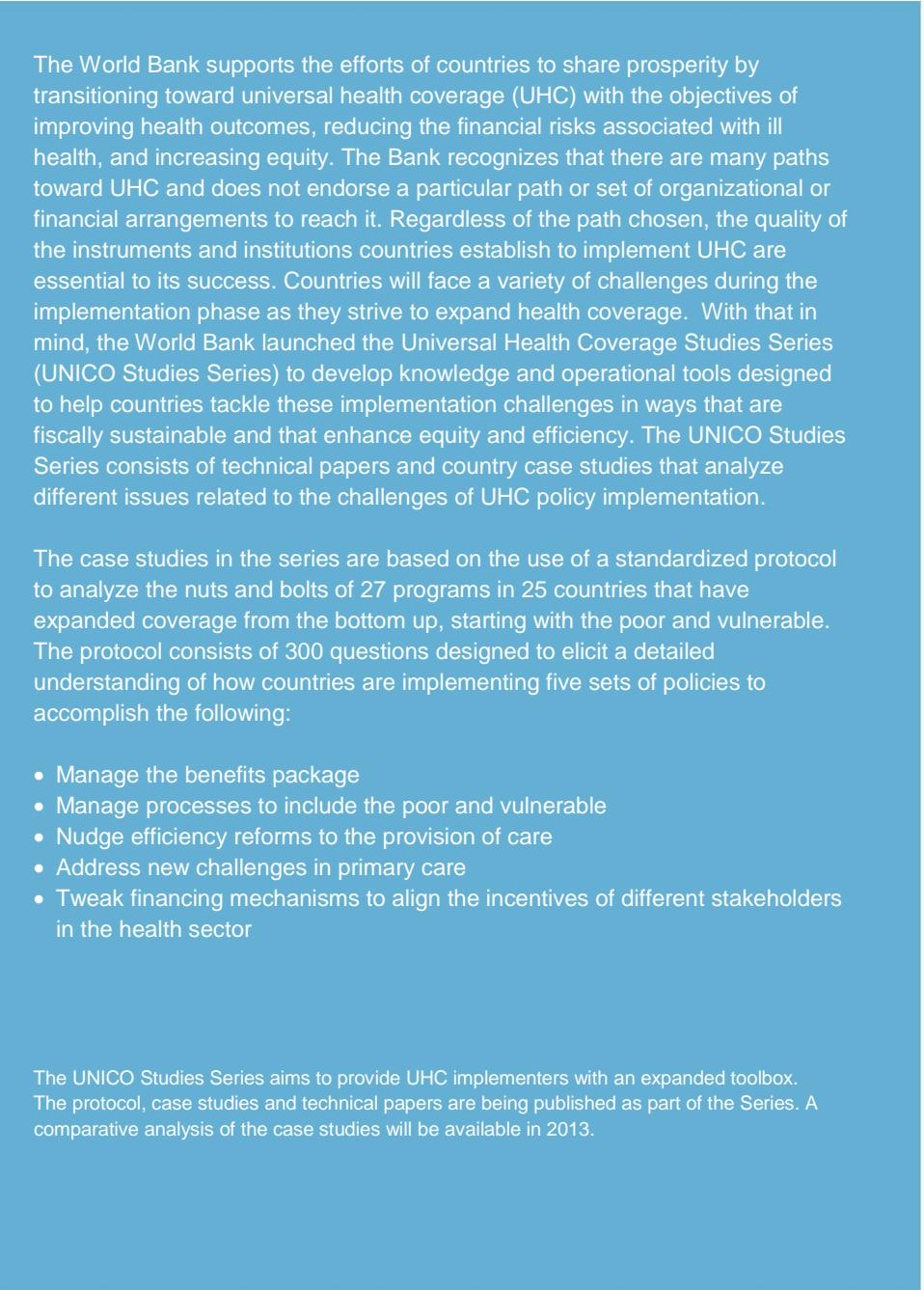




The World Bank supports the efforts of countries to share prosperity by transitioning toward universal health coverage (UHC) with the objectives of improving health outcomes, reducing the financial risks associated with ill health, and increasing equity. The Bank recognizes that there are many paths toward UHC and does not endorse a particular path or set of organizational or financial arrangements to reach it. Regardless of the path chosen, the quality of the instruments and institutions countries establish to implement UHC are essential to its success. Countries will face a variety of challenges during the implementation phase as they strive to expand health coverage. With that in mind, the World Bank launched the Universal Health Coverage Studies Series (UNICO Studies Series) to develop knowledge and operational tools designed to help countries tackle these implementation challenges in ways that are fiscally sustainable and that enhance equity and efficiency. The UNICO Studies Series consists of technical papers and country case studies that analyze different issues related to the challenges of UHC policy implementation.

The case studies in the series are based on the use of a standardized protocol to analyze the nuts and bolts of 27 programs in 25 countries that have expanded coverage from the bottom up, starting with the poor and vulnerable. The protocol consists of 300 questions designed to elicit a detailed understanding of how countries are implementing five sets of policies to accomplish the following:

- Manage the benefits package
- Manage processes to include the poor and vulnerable
- Nudge efficiency reforms to the provision of care
- Address new challenges in primary care
- Tweak financing mechanisms to align the incentives of different stakeholders in the health sector



The UNICO Studies Series aims to provide UHC implementers with an expanded toolbox. The protocol, case studies and technical papers are being published as part of the Series. A comparative analysis of the case studies will be available in 2013.



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