The United States
Global Health Initiative

Guatemala Strategy

Revision: December 11, 2010

The USG Guatemala GHI Team

In Partnership with the Government of Guatemala
<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>AINM-C</td>
<td>Maternal and Child Health Care at the Community Level (Spanish acronym)</td>
</tr>
<tr>
<td>AIEPI</td>
<td>Integrated Management of Childhood Illnesses (Spanish acronym)</td>
</tr>
<tr>
<td>CAIMI</td>
<td>Integrated maternal and infant health center (Spanish acronym)</td>
</tr>
<tr>
<td>CARSI</td>
<td>Central American Regional Security Initiative</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CCTP</td>
<td>Conditional Cash Transfer Program</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic Health Survey</td>
</tr>
<tr>
<td>DOD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DPT3</td>
<td>Diphtheria, Pertussis, Tetanus</td>
</tr>
<tr>
<td>ENSMI</td>
<td>Demographic Health Survey (Spanish acronym)</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FETP</td>
<td>Field Epidemiology Training Program</td>
</tr>
<tr>
<td>FP/RH</td>
<td>Family planning/Reproductive health</td>
</tr>
<tr>
<td>FfF</td>
<td>Feed the Future</td>
</tr>
<tr>
<td>GFATM</td>
<td>Global Fund to Fight AIDS, Tuberculosis, and Malaria</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GHI</td>
<td>Global Health Initiative</td>
</tr>
<tr>
<td>GOG</td>
<td>Government of Guatemala</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HRH</td>
<td>Health resources for health</td>
</tr>
<tr>
<td>IDB</td>
<td>Inter-American Development Bank</td>
</tr>
<tr>
<td>IGSS</td>
<td>Guatemalan Social Security Institute (Spanish acronym)</td>
</tr>
<tr>
<td>LAC</td>
<td>Latin America and the Caribbean</td>
</tr>
<tr>
<td>MARP</td>
<td>Most at risk population</td>
</tr>
<tr>
<td>MCH</td>
<td>Maternal and child health</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MSP</td>
<td>Mission Strategic Plan</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>NHP</td>
<td>National Health Plan</td>
</tr>
<tr>
<td>NTD</td>
<td>Neglected tropical disease</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>PAHO</td>
<td>Pan American Health Organization</td>
</tr>
<tr>
<td>PEPFAR</td>
<td>President’s Emergency Plan for AIDS Relief</td>
</tr>
<tr>
<td>PROCONe</td>
<td>Collaborative Maternal and Neonatal Health Care Approach</td>
</tr>
<tr>
<td>SBCC</td>
<td>Social Behavior Change Communication</td>
</tr>
<tr>
<td>SIGSA</td>
<td>Health general information system (Spanish acronym)</td>
</tr>
<tr>
<td>SWAp</td>
<td>Sector Wide Approach</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
</tr>
<tr>
<td>USG</td>
<td>United States Government</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
</tbody>
</table>
Guatemala Global Health Initiative Strategy

As home to five Presidential initiatives, Guatemala presents a unique opportunity for interagency cooperation and integration. The Global Health Initiative (GHI) offers a promising future of increased collaboration and implementation of evidenced-based interventions designed to assist the most vulnerable populations in Guatemala.

The Government of Guatemala (GOG) has made important commitments to health and social investment which include guaranteeing the availability of free services for all, reducing maternal and infant mortality, reducing chronic malnutrition and improving access to family planning information, counseling and services. However the public discourse has been weighed down by a continuing financial crisis, competing priorities for scarce resources, natural disasters, and some ineffective government policies. In the past two years, the Ministry of Health (MOH) budget has sunk to 1% of the Guatemalan gross domestic product, affecting most those programs that serve the most vulnerable populations: the extension of coverage program, vaccine and contraceptive procurement, human resource development and others.

As the major health donor in Guatemala, the United States Government (USG) continues to concentrate efforts in supporting the GOG, aligning the NGOs and engaging the private sector in reducing maternal and infant mortality, reducing the pervasive levels of chronic malnutrition that affect 50% of all Guatemalan children, increasing access to voluntary family planning services, prevention of HIV and other communicable diseases and improving health systems and health services. At the current level of funding for health, USG programs do not support public sector service delivery and commodity procurement but rather are focused on strengthening GOG capacity to assume its responsibilities and achieve its goals of improving the health status of the most vulnerable populations in Guatemala – women, newborns and children under five.

USG programs in Guatemala already embrace key GHI principles including a women and child centered approach, health systems strengthening, government ownership, monitoring and evaluation, donor coordination and partnerships with civil society and private sector organizations. Strengthened GHI principles for the USG will be building upon the whole-of-government mandate with joint planning and implementation of USG-supported programs; improving coordination and collaborations with other bilateral and multilateral partners; increasing implementation of “wrap-around” opportunities, especially Feed the Future (FtF), education and interaction with local governments; and strengthening Monitoring and Evaluation (M&E) with a focus on the GHI learning agenda.

The USG has been active in health efforts in Guatemala for over forty years, but this is a particularly opportune moment to tackle the ambitious goals of the GHI. Not only is there alignment between the GHI and the MOH’s priorities, there is also considerable donor interest in GHI-related areas and significant additional financing through several complementary initiatives (Feed the Future, the Gates/Slim Meso-America Initiative

---

1 Feed the Future (FtF), President’s Emergency Plan for AIDS Relief (PEPFAR), Global Health Initiative (GHI), Global Climate Change Initiative, Central American Regional Security Initiative (CARSI)
managed by the IDB, etc.). At the same time, civil society and the private sector are showing greater interest in health issues, providing the opportunity for a more holistic approach to preventive and health care services. Finally, there is political interest and pressure by the National Congress, which is actively monitoring executive branch compliance with health commitments.

Health in Guatemala

Guatemala is Central America’s most populous country, with 14.3 million people, of which about 40% are of indigenous descent. Although Guatemala is a lower middle-income country with an average per capita income of $2,700, this figure masks extreme inequalities that reflect the exclusion and disparity that affect indigenous and rural populations. For example, the average time in school among indigenous people is only 3.8 years while it is 6.5 years among the non-indigenous. Almost 75% of indigenous people live in poverty compared with only 36% of the non-indigenous. These large inequalities are also present between rural and urban residents. Guatemala has a national poverty rate exceeding 50% and a rate of extreme poverty of 15%. While 46% of the total population live in rural areas, 72% of the extremely poor live in rural areas.

Despite its middle income status, Guatemala’s health outcomes compare unfavorably with those of other much poorer countries. The child mortality rate at 42 per 1,000 live births is the highest in Central America and the third highest in the region after Haiti and Bolivia. The maternal mortality ratio of 136 per 100,000 live births is also one of the highest in the region, and the contraceptive prevalence at 54% one of the lowest. The health situation in Guatemala is essentially a tale of two countries. Paralleling the income and education disparities, large differences in health outcomes exist between urban, non-indigenous populations and rural, indigenous groups. (See Table 1, Annex 1). Child mortality and malnutrition are 50% higher among rural and indigenous children. Maternal mortality is up to five times higher in some rural areas compared with Guatemala City. Skilled birth attendance among rural and indigenous women is less than half of that for urban and non-indigenous women. Guatemala will continue to have comparatively poor health outcomes as long as these disparities exist. Primarily the result of the multifaceted interaction of historical, political and socio-economic factors, these differences demand careful attention and culturally appropriate programming. The Guatemala GHI strategy reflects the Mission Strategic Plan (MSP) in recognizing the necessity to reduce these disparities in health outcomes.

Chronic malnutrition is a public health problem of particular concern in Guatemala. The overall rate for children less than 5 is 50%, higher than any other country in the Americas and higher than many African countries. The rate is 59% for rural children and 66% for indigenous children. These high malnutrition rates have long term health, education and economic consequences for those who suffer from it. Unfortunately, there has been very little progress in reducing chronic malnutrition. The rate was 55% in 1995 and 54% in 2002. Recently, the government implemented conditional cash transfer and food distribution programs that are aimed at improving this intractable problem. A major challenge is that these programs, while increasing access to foodstuffs, are not accompanied by systematic communication and behavior change interventions.
While most health outcomes remain worse than in other countries in the region, over the last decade Guatemala has made significant progress in narrowing these gaps and improving health disparities. The child mortality rate, currently at 42 per 100 live births, is on track to achieve the Millennium Development Goal (MDG) target of 37. Total fertility fell from 5.0 in 1999 to 3.6 in 2009 with a comparatively greater decrease for indigenous women from 6.2 in 1999 to 4.5 in 2009, contraceptive prevalence increased to 54%; and skilled birth attendance increased to 51%. Prenatal care coverage rates are the same among urban, non-indigenous and rural, indigenous women, and immunization rates are the same for these groups of children. An important contributor to these improvements is the MOH’s extension of coverage program instituted in 1998 which contracts NGOs to provide itinerant health services to communities that otherwise would not have adequate access to health services. In addition, the MOH, with loans from the World Bank and IDB, is rapidly expanding provision of emergency obstetric care in rural areas with 140 additional health centers providing basic EOC in 2010 and 12 additional centers providing comprehensive EOC (C-sections) by 2011.

Annex 1 provides more information about the health sector in Guatemala, with a special emphasis on the complex nature of the health status of rural and indigenous people.

Country Leadership - National Health Plan Priorities and Challenges

GHI has dual objectives of achieving significant health improvements while creating an effective, efficient and country-led platform for the sustainable delivery of essential health care and public health programs. These objectives are consistent with current Ministry of Health (MOH) plans and priorities.

The MOH prepared a National Health Plan (NHP) shortly after the current administration took office in January 2008. There is considerable overlap between GHI objectives and those of Guatemala’s NHP and priorities. The NHP supports health-related components of the 1996 Peace Accords and the achievement of the MDGs. It emphasizes the MOH’s stewardship role, the development of human resources, the decentralization of services and calls for an increase in financing for health. Among the challenges identified is the reduction of inequities – particularly urban/rural and indigenous/non-indigenous. Other challenges noted by the NHP are the need to orient integrated health services more towards prevention and to improve access, timeliness and quality of services; inter-institutional coordination to improve effectiveness; and improvements in infrastructure and financing.

The NHP defines immediate priorities as the development of information systems and health intelligence; the extension of the health service network particularly in the 125 poorest municipalities; the achievement of a reduction in maternal and neonatal mortality and chronic malnutrition; and an increase in health financing. NHP medium and long-term priorities related to the GHI include the development of research capacity and technology, and the provision of safe drinking water. In addition, other specific MOH priorities are HIV-AIDS; dengue, malaria and tuberculosis (TB); quality information for decision-making; and integrated child health services.
In summary, the NHP is strategically aligned with GHI. Five of the priorities identified in the NHP are GHI target areas, and a sixth is highly related (water and sanitation related to child mortality and NTDs). The NHP also emphasizes several of the GHI principles including integration and gender equality which links to a woman centered approach.

The implementation of the NHP and GHI faces significant challenges. Inadequate health financing has been an ongoing problem and continues to threaten the ability of the public health section to function. Donor funding for health is limited and the Government of Guatemala provides over 90% of the public health budget. Due to the current financial crisis, the government has not been able to meet its own goals with respect to health financing. The financial crisis affects primarily the rural, indigenous population, especially women and children. Many rural indigenous communities have limited or no access to public health services even with the extension of coverage program.

A major assumption, not explicit in the NHP, is continuity and strengthening of the extension of coverage program to reach rural, isolated communities. This program is the only existing GOG vehicle to serve 4.6 million Guatemalans. It combines institutional, health center-based services directly administered by the MOH with itinerant health teams contracted out to approximately 88 NGOs. The NGOs are paid an average of $8 per capita per year and are responsible for providing 32 health services in over 400 communities in the most isolated areas of Guatemala. Routinely, payment to the NGOs is in arrears, questioned or suspended. Periodically, the MOH announces plans to replace the NGOs with MOH service delivery models that have yet to be identified and that will require funding levels that do not exist. The USG and other donors have taken a strong stance to highlight the fact that most essential maternal and child and nutrition programs depend on the extension of coverage program and reiterate the need to maintain this option while other more efficient models are put in place.

Another considerable challenge is the shortage of qualified staff that can be placed in rural locations, especially obstetric nurses and midwives. In addition, at the higher levels, a challenge is the high turnover in human resources particularly after elections when MOH leadership changes. In Guatemala, for the last 20 years no political party has stayed in power for more than one term contributing to major staff fluctuations. This problem is compounded by the fact that, as is true in many other Latin American countries, there is no civil service career ladder. Many MOH staff is on short-term contracts with low salaries leading to high rotation and instability of the MOH workforce.

**Partners for Health in Guatemala**

In the health sector, the GOG and other bilateral and multilateral donors including the Pan American Health Organization (PAHO), the United Nations Children’s Fund (UNICEF), the United Nations Population Fund (UNFPA), the World Food Programme (WFP), Sweden and others are working together toward a sector-wide approach. The USG is a part of this effort and participates in health donor coordinating mechanisms including a Health Donor Group, the Inter-Agency Health Network, the Inter-institutional Food Security Information Group and the National Commission on HIV/AIDS.
Through a World Bank (WB) loan, the GOG is expanding in 22 municipalities the Health Care for Children and Women in the Community, preventive health and nutrition component of the Extension of Coverage project that began in 2003. A new WB loan is in the approval process to further expand the program to another 48 municipalities. In addition, the Meso-America Initiative (managed by the Inter American Development Bank (IDB), will focus on four technical areas in Guatemala: nutrition; maternal, neonatal and reproductive health; immunization; and malaria and dengue. The initiative, that receives funding from the Gates Foundation, the Carso Foundation, and the Spanish International Cooperation Agency for Development, will focus on five Altiplano departments that are also a priority for USAID: San Marcos, Huehuetenango, Quiche, Alta Verapaz and Solola. Other United Nations (UN) agencies, bilateral and multilateral organizations, private foundations and NGOs support family planning, HIV/AIDS, and reproductive health programs.

Despite the engagement of various bilateral and multi-lateral agencies, overall donor funding to the health sector is relatively limited. The health-financing crisis represents the number one priority for all donors and together with the Health Donor Group, the USG continues to work with partners to engage the GOG at the highest levels in finding solutions to increase health care financing.

**USG Health Activities in Guatemala**

The United States Agency for International Development (USAID), the Centers for Disease Control and Prevention (CDC), the Department of Defense (DOD), the United States Department of Agriculture (USDA), and Peace Corps comprise the USG team that works with a host of other stakeholders to strengthen Guatemalan health policies and programs in support of achievement of the Millennium Development Goals (MDGs). USG programs support public, private and civil society activities at the municipal, departmental and national levels. A robust alliance program with the private sector supports health and education service delivery through the NGO sector. The types of activities currently receiving USG support include: health systems and services strengthening; HIV/AIDS; maternal-child health and nutrition; family planning; and disease detection, prevention and control. HIV/AIDS activities are coordinated through the Central America Regional Partnership Framework and are focused on Most at Risk Populations (MARPs) which are driving Guatemala’s concentrated HIV/AIDS epidemic. However MARPs are not the target populations for primary health care interventions and thus offer limited opportunity for synergy and integration. On the other hand, PEPFAR health system strengthening and strategic information activities will be leveraged within GHI. The total USG health budget is around $45 million including $22 million Title II food distribution funding.

GHI principles will further promote USG inter-agency collaboration that is well underway in the health sector in Guatemala. The USG team discussions have identified synergies that were not apparent in the past such as opportunities for other agencies to work with the Peace Corps on school and community health issues, including behavior change, and greater collaboration between USAID and CDC on health systems strengthening particularly in the area of surveillance and information systems.
GHI Guatemala Priorities

Together with the MOH, the USG identified three key priorities for GHI in Guatemala:

1. Improve access to and quality of MCH/FP/RH services in Guatemala with an emphasis on rural and indigenous populations to reduce inequitable health outcomes.
2. Prevent chronic malnutrition for children under two years of age with a focus on rural and indigenous populations.
3. Strengthen the use of information for action at all levels of the health system (from the community to the central level).

The GHI team will use evidence-based interventions and coordinated stakeholder involvement to target its efforts in a sub-national approach designed to reach some of the most vulnerable populations in Guatemala. Annexes 3 and 4 provide additional information with an overall matrix for the GHI targets and a results framework for the priorities outlined below.

Priority 1 – Improve access to and quality of MCH/FP/RH services in Guatemala with an emphasis on rural and indigenous populations to reduce inequitable health outcomes.

Guatemala’s overall maternal and child health outcomes and family planning coverage are among the worst in the region and include significant gaps that persist between indigenous and non-indigenous and between rural and urban populations. USG programs will continue to target indigenous and rural women and children under five, the most vulnerable and most affected by inequity, exclusion and cultural barriers. GHI in Guatemala will structure MCH/FP/RH services together because of the synergies resulting from an integrated approach to health. The USG will use its significant MCH/FP/RH experience to build on existing activities, will add two new key interventions and will renew efforts to identify and address barriers to accessing quality health services at national and community levels. Policy dialogue will focus on increased and more equitable social investment, a strengthened enabling environment, improved efficiency and systems, and increased quality and cultural appropriateness of services.

Working Differently with GHI

The majority of indigenous peoples in Guatemala are of Mayan descent with the largest concentrations in rural departments north and west of Guatemala City, most notably Quiché, Alta Verapaz, Sololá, Totonicapán, Quetzaltenango, San Marcos and Huehuetenango. GHI will continue to focus USG health programs in these areas, known as the Western Highlands, scaling up two proven interventions in as many municipalities as funding levels permit: the Collaborative Maternal/Neonatal Approach (PROCONE in Spanish) to reduce maternal and neonatal mortality and the integrated management of childhood illnesses (AIEPI in Spanish) and maternal and child health care at the community level (AINM-C in Spanish) to provide primary health care to mothers and children. These are proven models that the USG needs to roll out and strengthen to accelerate improved health outcomes. The USG envisions the need to move key implementation partners to the Western Highlands to ensure USG resources have the greatest possible impact among the population with the greatest health need and that programs are closely monitored for results.
USG will undertake two new programs under the GHI initiative that have recognized impact on improving MCH outcomes: training of obstetric nurses and nurse assistants to staff community health centers, and implementation of a strong social behavior change (SBCC) program that will contribute theory-based behavior interventions to promote demand for MCH /FP/RH services. GHI will work to increase satisfaction with maternal health care services by improving quality and culturally appropriate care. This effort will complement the expansion of EOC services financed by a World Bank loan and help ensure that indigenous women are utilizing the newly established EOC facilities.

In reproductive health and family planning, the USG has already graduated support for procurement of contraceptives and other commodities that are now the responsibility of the government and private sector partners. Under GHI the USG will support MOH and NGO efforts to reach rural and indigenous women and will work at the national level to strengthen supply chain systems, monitor contraceptive security, and the continuation and implementation of favorable policies to ensure access to appropriate services at the community level. A major policy intervention to increase access to FP/RH will be to support the Ministry of Education to include age-appropriate FP/RH information and education in the school curricula.

As part of the learning agenda that is further described under Priority 3, GHI activities in year 1 will start with an inventory and assessment of the services that are provided by the MOH SIAS (facility based services), the NGO extension of coverage program or other NGO and private providers. The assessment will measure up the health service delivery package available to priority populations against state-of-the-art standards in order to identify gaps and needs. In year 1, also, USG resources will be directed to establish a baseline in order to track and measure health outcomes on a regular basis.

Proposed Key Interventions/Illustrative Examples

Access

- Identify and address structural issues and combat exclusion. Although use of public and private health services has increased in recent years, most births in rural areas still occur at home, and prenatal care and delivery assistance are typically provided by traditional birth attendants with little or no formal training. GHI will scale up a series of interventions to improve maternal health care, including: a) strengthening government efforts in training and deployment of indigenous obstetric nurses and skilled birth attendants at the community level; b) community-managed loan and transportation systems for women with obstetric emergencies; c) establishment of individual, household and community life-saving plans to ensure that women and children with danger signs (complications) are immediately referred to equipped facilities; d) scaling the active management of the third stage of labor; and e) testing new approaches such the use of non-pneumatic anti-shock garments as a first-aid to stop obstetric hemorrhage.

- The greatest gaps in rural/urban and indigenous/non-indigenous child mortality occur in the post-neonatal period. GHI activities will start with an analysis of the causes and develop appropriate prevention interventions. Child health will be
improved by monitoring water and indoor air quality, promoting use of ORS and expanding the recently implemented rotavirus vaccine. Introduction of new vaccines will also be promoted.

- Increase access to voluntary, quality family planning counseling and to a wide contraceptive method mix, especially for rural women. GHI will involve public and private providers in efforts to reach rural, indigenous populations with accessible, affordable quality family planning services, with special emphasis on integrated MCH/FP/RH services within the MOH Extension of Coverage program. A voucher system to allow women to access FP/RH services will be tested through APROFAM, a long term USG partner in the NGO sector.

- GHI will further analyze and create awareness of gender constraints at individual, family, community and service levels. USG resources will focus on provider training on gender and cultural issues and will empower women and communities to demand access to quality health care.

Quality

- Roll out the PROCONE quality assurance model successfully tested in the Western Highlands. The GHI will focus on a) technical assistance to improve the political, legal and institutional framework for quality assurance; b) training and support to national and local quality councils; c) training, supervision, and information conducive to compliance with national/international standards and d) providing support for certification of services. GHI will also provide technical support to the MOH in developing a comprehensive set of quality indicators based on a score of process, input and outcome variables that allow policy makers to compare quality across time, space and types of care providers.

- Apply theory-based SBCC principles to strengthen community ownership, participation and responsibility for health rights (right to demand services and responsibility to use services).

- Strengthen supply chain and logistics systems to ensure MCH/FP/RH related commodity availability at all levels from site level inventory management to national quantification and distribution.

Policy

- USG will support the MOH in the implementation of a maternal mortality surveillance system and the implementation of maternal mortality review committees. The recently enacted healthy motherhood law provides ample opportunities to strengthen community awareness and GOG capacity to provide timely, effective and sustained services.

- Influence policy dialogue for improved and sustained GOG commitment to MCH/FP/RH. GHI will support civil society and congressional efforts to monitor
compliance of the executive branch with those commitments and will involve municipal and local government in MCH/FP/RH planning and implementation.

• Support high level government dialogue to increase the allocation of funds to the MOH and improve the quality of public investments. A priority will be securing sufficient funding for the MOH Extension of Coverage program, especially for the itinerant health care delivery provided by NGOs or alternative mechanisms currently being considered by the MOH.

GHI Targets: [Available baseline data is presented in Annexes 1 and 3]
- Achieve maternal and child MDGs: MMR of 50/100,000; CMR of 37/1000;
- Achieve CMR for rural and indigenous children of 37 and MMR for rural and indigenous women of 100;
- Increase skilled birth attendance by 2.5% per year to 61% in 2014 (including an increase to 50% among indigenous and rural women);
- Increase the percentage of rural and indigenous women receiving iron during prenatal care to 75%;
- Increase contraceptive prevalence to 64% overall and to 55% among rural and indigenous women;
- Increase MMR immunization rates to 95% for children 12-23 months of age.

Priority 2 – Prevent chronic malnutrition for children under two years of age with a focus on rural and indigenous populations.
As one of Guatemala’s most pressing health challenges, the USG and the MOH feel it is essential to focus on the issue of chronic malnutrition. This priority area also presents opportunities to leverage activities of the FtF Presidential initiative proposed for Guatemala. FtF in Guatemala proposes to integrate a geographic focus on the Western Highlands, a technical focus on value chains and horticulture, an emphasis on local governance, and implementation of evidenced-based nutrition and health interventions. GHI will focus on strengthening availability of health services, promoting nutritional and hygiene practices, monitoring weight gain and promoting growth in children under two years of age, in as many FtF municipalities as possible. As soon as the FtF municipalities have been identified, USG resources will be directed to collecting data, identifying gaps and inventorying health service providers that can be aligned to support programs that help reduce chronic malnutrition.

Currently, the USG is in the process of developing a nutritional surveillance system that will collect, analyze, and provide data for decision-making and allow an ongoing monitoring system to measure trends in light of defined goals. In addition, the USG is working to support micronutrient supplementation by the MOH for women and children using the extension of coverage platform and an Institutional Network of Services in five priority areas of the country.

The basic nutrition package to be delivered consists of seven proven interventions widely known as “Essential Nutrition Actions.” With a focus on community-based growth promotion, the program will target pregnant and lactating women and children less than two years of age. This period is referred to as minus 9 to 24 months or the 1,000 day
window of opportunity. Conception through two years of age is the period of most rapid physical growth and cognitive development. Sub-optimal feeding practices and high risk of illness and infection make these young children more vulnerable to growth faltering than at any other time in the life cycle.

Working Differently with GHI
In coordination with the geographic focus of FtF the USG team will work to concentrate USG resources in the Western Highland areas where higher malnutrition and stunting are more prevalent. The FtF initiative will focus efforts in the Departments of Totonicapan, Quiche, Huehuetenango, Quetzaltenango and San Marcos which, together with Alta Verapaz and Sololá, are also where GHI resources for MCH/FP/RH will be directed. Addressing chronic malnutrition in as many municipalities as funding permits will rely on the extension of coverage program and lessons learned from selected NGOs working in this area. An important intervention under GHI will be the retraining of MOH and extension of coverage staff in technical nutrition updates and a new and increased focus on theory-based SBCC practices. Another important intervention under consideration is providing PEC NGOs with “plus up” funds to strengthen nutrition education and SBCC intervention. This model, pioneered with a World Bank Loan, is showing promising results in selected areas of Guatemala. USAID and UNICEF are discussing the possibility of joining efforts to implement this program.

While the USG does not have resources to support large scale potable water projects, the team will work to support the MOH in enforcing existing laws that require that local government provide potable water to their populations. Partnerships with the private sector will be explored to address this important need. The USG will explore building on the models used for civil society engagement in other health areas to build capacity on the part of community groups to hold local government accountable for water treatment.

Proposed Illustrative Examples

- Strengthen existing integrated health/nutrition models. GHI will implement a health/nutrition strategy including two complementary and interrelated components: 1) integrated case management of childhood illnesses and maternal care, and 2) weight monitoring and growth promotion, including illness prevention at home and in the community.

Behavior Change

- Optimal maternal nutrition during pregnancy and lactation iron deficiency is the most common micronutrient problem in women and children. MOH norms for distribution of iron/folic acid supplements remain largely ignored. GHI efforts will support a major overhaul of the MOH procurement and logistics systems to assure that these supplements are systematically available.

- Optimal breastfeeding during the first six months of life. Although exclusive breastfeeding in the first six months of life is one of the most cost effective interventions for reducing diarrhea and infant deaths, only 50% of mothers practice exclusive breastfeeding. GHI activities will revitalize and promote exclusive breastfeeding working with women, communities and providers.
• Optimal complementary feeding for children 6 to 23 months old. A high prevalence of stunting is due to lack of adequate complementary feeding practices with continued breastfeeding until two years of age, and lack of proper hygiene practices. According to the 2008-09 ENSMI, 47% of children 12-17 months are bottle-fed. Under GHI, efforts will increase to educate and change behavior among mothers about healthy practices for child feeding.

• Healthy pregnancy intervals. In Guatemala, over 50% of births occur less than 36 months apart, a practice that has a high correlation with child morbidity and under-nutrition. GHI will support integrated MCH/FP/nutrition programs that include quality counseling on healthy timing and spacing.

• Improved hygiene habits especially around food preparation. GHI health interventions will include several cost-effective interventions with high potential to resolve long-lasting determinants of chronic malnutrition, such as improving hygiene practices including hand-washing, food preparation, proper disposal of human waste; and use of more hygienic water receptacles.

• Implement culturally appropriate communication strategies regarding nutrition. Guatemalan mothers are willing to try new ways of preparing complementary foods for their infants but they are less able to incorporate them into their regular diet. A highly nutritious food (called Vitacereal) that should be consumed as porridge is routinely diluted into a hot beverage (atol) that is familiar to the Guatemalan diet but is too watery to provide required nutrients to a child. The USG will deploy innovative communication strategies to ensure that mothers receive culturally adapted messages and adopt healthy habits to appropriately feed their children ages 6-24 months.

Policy Enforcement

• Support the MOH in efforts to improve availability of potable water in rural communities. Most of the rural communities currently have access to piped-water, but in the majority of cases the water is contaminated with E. coli and with several other bacteria, viruses and parasites.

• Assure funding and provision of micronutrients, iron and folic acid as part of the MOH primary health care package for vulnerable populations.

• Engage private sector and civil society participation around nutrition, especially around food fortification efforts.

• Ensure the content of adequate levels of vitamin A, iron, and folic acid in foods consumed by women and children (postnatal vitamin A supplementation for women and semi-annual vitamin A supplementation for children from 6 to 59 months of age and sugar fortification)

GHI Targets: [Available baseline data is presented in Annexes 1 and 3]
- Achieve chronic malnutrition MDG of 29% among children 3-59 months;
- Reduce chronic malnutrition in rural and indigenous children under 2 years to 35%;
- Increase the percentage of children with monthly growth monitoring checks to 37% in 2011 and (TBD) in 2014 (monthly growth monitoring checks are mandated under the conditional cash transfer program);
- 100% of potable water sources have residual chlorine detected.

Priority 3 - Strengthen the use of information for action at all levels of the health system (from the community to the central level)

Information is a central component of health systems that is vital to improving health outcomes in Guatemala. It is required for effective decision-making and to assure the most efficient use of limited resources. The USG will work to ensure that, within existing resources, decision makers and stakeholders have access to information on demographics, epidemiology, health programs and services, commodities and finances. USG resources will also support capacity building in the use of information for planning, monitoring and evaluation, and responding to public health emergencies and crises.

The MOH is in the process of modernizing and expanding its electronic information systems, and consolidating its integrated web-based information platform (SIGSA, Spanish acronym). It has identified the lack of adequate information as an important gap to addressing the country’s health priorities. Health authorities note that information is not available and not being used for planning and significant gaps exist in program monitoring and evaluation systems.

The GHI strategy for Guatemala seeks to improve the quality of information, particularly for information related to the GHI targets: MCH, FP, chronic malnutrition, HIV, TB and neglected tropical diseases (NTDs), and ensure that the information is received, analyzed, disseminated and utilized in a timely manner. This strategy will foster the efforts of the MOH to implement evidence-based interventions by strengthening program evaluations (output and outcome). The USG will work with the GOG to support the technological infrastructure of this integrated platform. It will also support utilization of the information by health professionals from the central to the community level with a focus on the sub-national level in the seven Departments highlighted under MCH/RH/FP. Finally, the USG will support the use of information by the general public for advocacy, social auditing, accountability and monitoring purposes.

Working Differently with GHI

The USG will work to harmonize and coordinate information systems between USG agencies and partners. For example, the USG will support the government in building on supply chain management information systems initially established for the family planning commodities to be expanded across to antiretroviral drugs, micronutrients and other essential commodities. The Integrated Information Platform originally developed for the education sector and adopted by the Ministry of Health will be used to develop general epidemiologic data, disease surveillance to guide outbreak response and establish nutrition situational rooms and to provide civil society access to information for advocacy and monitoring safe motherhood interventions, etc.
Proposed Key Interventions/Illustrative Examples

- Strengthen surveillance systems with a focus on GHI targets. This will include the development of continuous surveillance systems for maternal mortality and chronic malnutrition. Emphasis will be on utilization of the information to improve health outcomes at the Department level particularly in the Western Highlands. Maternal mortality review committees will be supported at the Departments and hospitals. Surveillance for HIV, TB, NTDs and communicable diseases that cause infant and child morbidity and mortality will be strengthened by building on current Global Disease Detection activities.

- Improve vital registration for infant and child mortality and provide health areas and municipalities with up-to-date mortality. While the periodic health surveys are important for validating country information they do not provide data necessary for decision-making: there is no information for the municipal level nor is there information about the causes or place of death. This will be a challenge because of the need to address problems with RENAP, a quasi-statal organization created in 2008 to produce identity documents and charged with vital registration. Establishment of demographic and health sentinel surveillance sites will be considered.

- Link public health surveillance and laboratory information. In order to develop better interventions for diarrheal and respiratory diseases more needs to be understood about their exact causes as prevention approaches may differ. GHI will improve the public health laboratory network and better link surveillance and laboratory data.

- Strengthen the integrated, web-based information platform, SIGSA, particularly the quality and timeliness of data at the sub-national level as well as incorporation of or linkages with vertical program information systems.

Monitoring and Evaluation

- Implement monitoring systems for key programs that include results and lead to better planning and implementation. GHI will work with GOG MCH/RH/FP and nutrition programs to develop monitoring including annual output and outcome indicators that can be measured permitting program monitoring and effective planning. Where possible automated analysis tools will be developed that use data from the MOH information system (SIGSA). The quality of SIGSA information related to MCH/RH/FP will be improved.

- Design and carry out periodic program evaluations. GHI will support capacity building within the MOH to improve the use of information for program evaluations. The use of the “evaluation platform approach” will be piloted in one or two Departments.

- Support the MOH efforts to implement the ISO 9001:2008 international standards of quality certification for greater transparency.
Strengthen Capacity to Utilize Information

- Assure adequately trained staff to carry out health situation analysis at national and sub-national levels and in larger municipalities leading to annual reports.
- Train staff at all levels of the health system in the utilization of information including for planning, M&E and to respond to emergencies. The Field Epidemiology Training Program (FETP) includes basic, intermediate and advanced training and will play an important role in strengthening these capacities. FETP graduates will be used to increase data collection in rural areas and improve its quality.
- Enhance access to information by civil society and disseminate culturally appropriate information to the community.

**GHI Targets:** Seven Departments will have implemented: i) surveillance for maternal mortality, child mortality, and TB; ii) fully developed SIGSA sub-system integrated with the national level; iii) M&E for maternal health, child health, family planning, nutrition and TB; iv) produce an annual health situation analysis report and use information for planning; and v) have an advanced FETP trained epidemiologist in each Department and an intermediate level FETP in each micro-region.

**Improving Effectiveness and Efficiency through GHI Principles**

Country ownership is essential to the success of GHI in Guatemala. The GOG finances over 90% of the public health sector budget. GHI activities will primarily support government programs and priorities and depend on the continuation of the MOH’s integral involvement in the development and implementation of the strategy. MOH authorities have expressed a strong interest in working with the USG on GHI matters and have identified a high-level health team that has actively engaged in GHI discussions and the development of this strategy. GHI will focus on key investments in MCH, nutrition and information systems that will be sustained by the GOG. Given that health financing is one of the major GOG limitations to sustainability, USG will continue its ongoing efforts to increase the amount of health financing as well as improve the effective and efficient use of any available financing.

The women and girl-centered approach is an important focus of the MOH’s maternal and child health, reproductive health and chronic malnutrition efforts. The government’s Conditional Cash Transfers Program recognizes the importance of women to the health of families and payments are made to the adult female in the household. The MOH has also prioritized issues related to gender-based violence. The GHI will strengthen and expand this approach and aim to assure that issues related to indigenous women and girls are appropriately addressed.

The USG in Guatemala does not support “platforms” separate from the GOG and therefore integration is not an issue at that level. However, strategic coordination among USG agencies is already underway with examples such as the PEPFAR Central America Partnership Framework for HIV-AIDS and the Feed the Future initiative. For the GHI, there are several areas, such as health systems strengthening, where multiple USG agencies play a role and contribute complementary areas of expertise to the
development and implementation of GHI strategies. The MOH has expressed its interest in improving its own strategic coordination with other sectors of the government, particularly education, water and environment. The NHP notes the importance of integrating primary health care services and GHI supports these efforts.

**Strengthening partner engagement** will be key to the success of GHI in Guatemala, as leveraging the USG’s relatively small budget will be needed to raise the resources needed for GHI success. Continued coordination with the bilateral donors, multilaterals (PAHO, WB, and the IDB), and private organizations (Gates and Carso Foundations), therefore, will be an important element of the GHI approach. The WB, IDB and Swedish government (largest bilateral donor after USAID) are all supporting efforts to achieve the health related MDGs and the UNDP, WFP, and UNICEF are particularly focused on MDG 1 (hunger and malnutrition). There is a donor round table that meets periodically with the MOH to discuss activities and coordinate efforts in support of the NHP.

As described in the NHP, **health system strengthening** is a priority for the MOH, particularly in the areas of improving stewardship, information systems and the availability of medications. The NHP emphasizes the importance of building capacity related to the eleven public health functions (monitoring and evaluation (M&E); surveillance; health promotion; community participation; planning and management; regulation; human resource development; assure quality of population-based and individual health services; research; and emergency response).

**Monitoring and evaluation** (M&E) is an important component of information for action, and is a priority for the GHI strategy in Guatemala. M&E of public programs is weak in Guatemala and strengthening these processes should lead to more efficient and effective use of resources, and contribute to improvements in health. The MOH has expressed particular interest in improving its M&E capabilities. The USG is considering whether to adapt the “evaluation platform design” to the Guatemalan context.

**Research** will be required to help answer the many questions about the most effective way to address health problems that stubbornly resist more rapid improvement. The health authorities are interested in developing health research capacity in Guatemala and have made this a medium to long-term priority in the NHP.

**GHI Measurement & Evaluation**

Baseline information for most of the Guatemala GHI targets, including for rural and indigenous populations, will become available through the publication of the results of the 2008-9 National Maternal and Infant Health Survey (ENSMI) and the 2007 Maternal Mortality Survey. Baseline data for each of the seven individual Health Departments in the Western Highlands where GHI will focus will be calculated in 2011 as will aggregate data for the seven Departments as a whole. USG and MOH will work to assure that reliable information is available in 2014-15 at the end of the GHI initiative. The GHI targets are congruent with the GOG’s MDG targets and the indicators developed by the MOH (see Annexes 3 and 6). ENSMI will provide information for the Departmental level. Information necessary for continuous program monitoring and evaluation, including at the municipal level, will be improved as part of Priority # 3. The focus will
be on GHI related programs. While key targets have been defined, further development of indicators will be dependent on discussions with the MOH and the development of a more specific implementation plan.

**GHI Implementation**

Over the next three months, the USG and MOH will develop a realistic implementation plan that will define exactly what activities and interventions will be supported by GHI in Guatemala, as well as a timeline for the expected outputs and outcomes. A detailed budget will also be prepared.

**Government Ownership**

The Minister of Health has already designated a GHI Steering Committee, led by the Vice Minister and consisting of key high level technical leaders in the MOH. It is envisioned that the USG will work closely and meet regularly with this group as we move forward with GHI.

**Management & Communication Strategy**

This requirement will be addressed in collaboration with the GHI team at large and in coordination with the Ministry of Health. The USG working group comprised of the major agencies in Guatemala is already formed and meets regularly to work on the strategy and the development of the GHI components.

**Learning Agenda**

The Learning Agenda for Guatemala is still in the early stages of development. The ideas presented below are potential areas of inquiry to be discussed with the MOH and other partners. One of the USG objectives is to strengthen MOH capacity to identify research priorities, develop a research agenda and steward the research process (not necessarily carry it out). This is particularly important given the continuing high-level investigation into the highly unethical 1946-48 STD inoculation study that recently came to light. The proposed high-level research / learning agenda will primarily support GHI priorities 1 and 2 above, and will focus on capacity building within the GOG.

**Improve MCH/FP/RH services and reduce inequitable health outcomes**

- Pilot and study effectiveness, and then scale-up with operations research, evidence based interventions to reduce maternal mortality associated with home deliveries in indigenous and rural communities where most maternal deaths occur. This could include studies of: i) anti-shock garments to reduce post-partum hemorrhage; ii) identification of obstructed labor with timely referral to EOC; and iii) training of obstetric nurse midwives.
- Assess the expansion of community-based services to decrease health disparities.
- Evaluate effectiveness of the MOH’s current “extension of coverage” strategy which contracts NGOs to provide a basic health package in rural communities; compare alternative strategies currently under consideration by the MOH.
• Assess impact of conditional cash transfers on birth rates and other health related outcomes.
• Study impact of various evidence-based interventions to improve the quality of water consumed in the community (special receptacles, added chlorine etc).

**Prevent chronic malnutrition with a focus on rural and indigenous children under two**

• Qualitative and ethnographic research to understand the major issues underlying the fact that chronic malnutrition rates remain so high (50% nationally) despite decades of effort to reduce it.
• Health communication research to improve nutrition related behaviors such as exclusive breast-feeding for six months and appropriate complementary feeding.
• Evaluate effectiveness of current nutrition program including VitaCereal, “Chispitas” and cultural use/acceptance of “Atol.”

**Strengthen the use of information for action at all levels of the health system**

• Pilot an evaluation platform approach in one or two health areas/departments that will implement surveillance for maternal mortality, child mortality, and TB and develop a SIGSA sub-system integrated at the national level.
• Operations research related to expansion and sustainability of prospective maternal mortality surveillance and chronic malnutrition surveillance.
• Develop and test interventions to improve use of surveillance and other information for planning.

**Next Steps**

The components of this strategy have been developed by the USG interagency team and the Government of Guatemala (the team). Once approved, the team will jointly develop an overall implementation plan that will turn the strategy into an operational document. The team will develop guiding principles on how the agencies will share design and planning responsibilities in their respective leadership areas, and will ensure that an inclusive process is followed to plan and implement priorities. The team together will be responsible for collecting and reporting on all results GHI results.
ANNEX LIST

Annex 1 Background on the Health Situation in Guatemala
Annex 2 GHI Guatemala Results Matrix
Annex 3 Guatemala Proposed GHI Results Framework
Annex 4 MOH Iniciativa de Salud Mundial: Five Priorities
Annex 5 MOH Indicators Table
ANNEX 1- Background on the Health Situation in Guatemala

Annex 1-Background on the Health Situation in Guatemala
Table 1-Inequities in Health Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Total Fertility Rate</th>
<th>Contraceptive Prevalence (%)</th>
<th>Adolescent Fertility Rate</th>
<th>Infant Mortality Rate</th>
<th>Under 5 Child Mortality Rate</th>
<th>Skilled birth attendance (%)</th>
<th>Chronic Malnutrition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>4.2</td>
<td>46</td>
<td>78</td>
<td>33</td>
<td>48</td>
<td>36</td>
<td>59</td>
</tr>
<tr>
<td>Urban</td>
<td>2.9</td>
<td>66</td>
<td>114</td>
<td>25</td>
<td>31</td>
<td>77</td>
<td>34</td>
</tr>
<tr>
<td>Indigenous</td>
<td>4.5</td>
<td>40</td>
<td>NA</td>
<td>34</td>
<td>51</td>
<td>29</td>
<td>66</td>
</tr>
<tr>
<td>Non-indigenous</td>
<td>3.1</td>
<td>63</td>
<td>NA</td>
<td>27</td>
<td>33</td>
<td>70</td>
<td>36</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3.6</td>
<td>54.1</td>
<td>98</td>
<td>30</td>
<td>42</td>
<td>51</td>
<td>50</td>
</tr>
</tbody>
</table>

1. 5th National Maternal and Infant Health Survey 2008-2009
2. births per 1000 women 15-19 years old
3. per 1000 live births
4. children 3-59 months old; new WHO criteria

*Baseline data for each of the seven individual Health Departments in the Western Highlands will be available in 2011 as will aggregate data for the seven departments as a whole.

As the above table illustrates, Guatemala is essentially a tale of two countries. Stark differences exist between the urban, non-indigenous populations and the rural, indigenous groups. Largely the result of the multifaceted interaction of political, historical, and socio-economic factors, these differences demand careful attention and culturally-appropriate programming. The following offers a brief overview of the health sector in Guatemala, with a special emphasis on the complex nature of the health status of the rural and indigenous poor.

Description of Health Sector in Guatemala by Issue Area

Maternal/Child Health (MCH). According to the 2008-2009 Demographic and Health Survey (ENSMI-Spanish acronym), Guatemala’s infant mortality rate at 30 per 1,000 live births is the highest in Central America and the third highest in the region after Haiti and Bolivia. Although MCH has improved steadily, there is still much to be done, especially at the community level. Guatemala’s maternal mortality ratio of 134 per 100,000 live births is one of the highest in the region. This is related to the fact that the percentage of births attended by a physician or nurse is only 51.3% -- one of the lowest in Latin American and the Caribbean (LAC). While nationally skilled birth attendance has improved considerably from 27 to 51 % in the last 20 years, only 29 % of indigenous women receive this service. Antenatal care (at least one antenatal visit) for indigenous women rose from 16 to 93 % and is now equal to that of non-indigenous women. Nationally, infant mortality has decreased from 73 in 1987 to 30 deaths per 1,000 live births in 2009, but indigenous infant mortality remains higher at 34 per 1,000 live births. Completed vaccination of indigenous children has risen from 18 to 72 % and is now slightly higher than among non-indigenous children (70 %).

Nutrition. With 43.4% of children under-five years of age suffering from chronic malnutrition, Guatemala has the highest rate of stunting in LAC and the fourth highest in the world. This problem is especially severe in rural areas, where 51.8% of the
population 3-59 months old is stunted, and among indigenous populations, in which 58.6% of the 3-59 months old age range suffer from chronic malnutrition. In Guatemala stunting begins early in life, as around 12% of newborns are of low birth weight. Stunting in infants 3-5 months of age is 24% and this more than doubles to 52% in children 12-23 months of age.

Reproductive Health. The total fertility rate is 3.6 children per woman and the contraceptive prevalence rate of 54.1% among women in union, ages 15-49, is the second lowest in the region after Haiti. Total fertility for indigenous women has declined from 6.8 children to 4.5, with a very large drop in the last eight years. Total fertility among non-indigenous women is much lower, at 3.1. In the last twenty years, contraceptive prevalence (all methods) has increased from 5.5 to 40.7% among indigenous women. For comparison, the current contraceptive prevalence for non-indigenous women is 63.3%.

Health Systems. Since 1996, the Ministry of Health (MOH) implemented major health reforms, including the “Extension of Coverage” program. This program employs local non-governmental organizations (NGOs) to provide basic health care services and reaches 4.6 million people in the most isolated areas of the country where permanent health centers do not exist. Government of Guatemala (GOG) financing for health is one of the lowest in the region, with the MOH budget representing only about 1.0% of Gross Domestic Product (GDP). Although the MOH concentrates on strengthening essential public health functions (e.g. stewardship, civil service reform, human resources for health (HRH)), severe budget constraints have resulted in a large unmet need for many MOH services. The GOG’s budget crisis has been more severe in 2010, given the global economic crisis and unforeseen expenditures on relief and reconstruction after recent natural disasters. The shortfall is especially grave in health: the MOH’s budget for 2011 is currently projected to be $425 million instead of a requested $687.5 million.

HIV/AIDS. The HIV/AIDS epidemic is concentrated in most at risk populations which include men who have sex with men (MSM), sex workers and their clients, prisoners, and mobile populations. While overall HIV prevalence is 0.8%, this figure masks the concentrated epidemic among sex workers (prevalence of 2.3%) and MSM (9%). The number of HIV positive individuals is the second highest in Central America after Honduras. While anti-retroviral treatment coverage continues to increase and is currently almost 70% of those eligible, prevention efforts only reach a fraction of the total.

Description of the Health Sector in Guatemala

Guatemala’s Constitution guarantees access to free health services for the entire population. The MOH is constitutionally responsible for the health care of Guatemalans. Health care in the public sub-sector is comprised of a network of MOH health services, the Guatemalan Social Security Institute (IGSS), health services of the Ministries of Defense and Government, and San Carlos University. The MOH has a total of 1,300 health facilities and IGSS has 139 facilities. The for-profit private sub-sector is made up of private hospitals, nursing homes, clinics, pharmacies, and laboratories authorized by the MOH. The nonprofit private sub-sector consists of more than 1,000 NGOs and traditional medicine practitioners.
Financial reform in health has allowed for the decentralization of health care services. However, in 2009, the budget for the health sector (including the MOH and all public entities) was 1.45% of the GDP, down from 1.69% in 2008, with the MOH receiving approximately 73% of the sector’s budget. In spite of inadequate financing for health, the use of health services has increased greatly with a 17.8% rise in 2008. This increase is likely due to the Conditional Cash Transfers Program (CCTP) that requires maternal/child health visits from the beneficiaries, as well as the gratuity of health care services as mandated by the Colom Government.
## ANNEX 2 – GHI Guatemala Results Matrix

<table>
<thead>
<tr>
<th>Area</th>
<th>BASELINE INFO</th>
<th>STRATEGY</th>
<th>Key GHI Principles*</th>
<th>Key partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIV/AIDS:</strong> Prevent more than 12 million new infections, provision of care to more than 12 million people, and treatment for more than 4 million</td>
<td>Current Estimates: HIV positive: 0.8% No. in treatment: 9,694 HIV positive in need of treatment: 23%; approx 7300</td>
<td>Condom provision, promotion and use for CSW, MSM VCT for MARPS Supply chain management PMTCT financed by other agencies – USG to strengthen information Family planning for CSW</td>
<td>1. HIV is an MOH Priority; National HIV Plan in place 2. Women / girl-centered approach 3. Strategic coordination/integration 4. Strengthen/leverage partner engagement 5. Health systems strengthening 6. Metrics / monitoring / evaluation 7. Research / innovation</td>
<td>GFATM provides treatment UNAIDS</td>
</tr>
<tr>
<td><strong>TB:</strong> Save 1.3 million lives by reducing TB prevalence by 50%</td>
<td>Current Estimates: Incidence: 23/100,000; Prevalence: 87/100,000 (113,000 cases) % treated with DOTS: 78% Rx success rate: 84% (2007) % of sputum+ cases: 66% (2007) Proposed GHI Targets: Prevalence of 43/100,000; Increase DOTS treatment to 90% Increase success rate to 90% % of sputum+ cases: 90%</td>
<td>Case holding Assess private sector involvement [MOH-PAHO-CDC mission in October to assess TB program and make recommendations]</td>
<td>1. National TB Program involved in upcoming multi-agency assessment 2. USG HIV-TB activities coordinated under HIV Partnership Framework 3. GF provides financing for TB program; PAHO part of multi-agency assessment 4. HSS elements to be determined after multi-agency assessment 5. M&amp;E strengthening is part of HIV-TB activities; will be a focus of USG GHI efforts 6. R&amp;I – TBD after multi-agency assessment</td>
<td>GFATM funds part of program. PAHO</td>
</tr>
<tr>
<td><strong>Malaria:</strong> Reduce burden of malaria by 50 percent for 450 million people</td>
<td>No USG malaria activities. Not a priority for country in GHI activities at this time.</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maternal Health:</strong> Save approximately 360,000 women’s lives by reducing maternal mortality by 30%</td>
<td>Current Estimate: MMR: 134/100,000 lb C-section rate: 16.2% (10.8% in rural areas) ANC coverage (at least one visit): 93% % skilled birth attendance: 51% overall and 30% among indigenous</td>
<td>1. Maternal mortality is an MOH priority; National plan in place; new plan to implement prospective maternal mortality surveillance 2. Women-centered approach is supported by MOH (eg CCT) and will be a focus of GHI (culturally appropriate services / satisfaction with care) 3. USG agencies will coordinate approaches; No overlapping programs at this time 4. Multilateral (WB, IDB) projects focus on MCH including EOC, community access, CCT; work with PAHO on guidelines and surveillance 5. HHRR (CHW and SBA) will be a focus of GHI; policies / norms / quality of care; supply chains 6. Information for action / M&amp;E will be a focus of GHI including surveillance, vital registration, program M&amp;E 7. Maternal health related R&amp;I will be part of learning agenda particularly related to indigenous issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family planning (including analysis by area) Quality of care/EOC including in hospital; Community birthing centers/EOC Obstetric nurse training TBA training Misoprostol Maternal mortality surveillance and review committees Microanalysis of cesarean rates Training providers in culturally appropriate methods Vital registration Indigenous focus – cultural and geographic</td>
<td>World Bank including CCT programs Spanish government Swedish government IADB PAHO UNFPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDG Target: MMR: 55/100,000 live births Additional GHI Targets: MMR of 100/100,000 among rural and indigenous women; Skilled birth attendance: 60% overall and 50% among rural and indigenous women; 75% of rural and indigenous women are receiving iron during antenatal period.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Child Health: Reduce under five mortality rates by 35% | Current Estimates: | Water and sanitation | 1. Integrated child health care is an MOH NHP priority  
2. Women-centered approach is supported by MOH (eg CCT); GHI will support improved cultural access / satisfaction with care  
3. USG agencies will coordinate approaches; no overlapping programs at this time  
4. Multilaterals (WB, IDB) MCH projects will be leveraged to implement evidence-based interventions / improve primary care / improve quality of Extention of Coverage Program which provides primary care to rural communities; work with PAHO on norms  
5. HHRR (CHW, nurses) will be a focus of GHI; policies (eg vaccines) / norms / quality of care; supply chains  
6. Information for action / M&E will be a focus of GHI including vital registration, program M&E, diarrheal and respiratory disease surveillance/lab  
7. Child health, particularly cultural access and issues, will be part of learning agenda | | World Bank  
IADB  
Swedish government  
PAHO  
UNICEF |
| Current Estimates: <5 MR = 42/1000 lb  
(indigenous <5 MR = 51/1000 lb)  
IMR = 30/1000 lb  
NMR = 17/1000 lb  
% children 12-23 mos with measles vaccine: 77.4% | MDG Targets: U5MR of 37/1000 lb; IMR of 24/1000 lb; % children 12-23 mos with measles vaccine: 95%. | ORS  
IMCI  
Indoor smoke / stoves  
Neonatal including home visits  
Pneumococcal vaccination?  
Task shifting  
Rotavirus introduced – expand coverage  
Epi to better understand causes  
Maternal educational with a focus on indigenous women  
Nutrition (See below) | | |
| Additional GHI Targets: U5MR of 37/1000 for rural and indigenous children | Additional GHI Targets: Chronic malnutrition among rural and indigenous children <2 of 35%; Increase growth monitoring to 37% in 2011 and TBD in 2014; 100% of potable water sources have | | |
| Nutrition: Reduce child undernutrition by 30% | Current Estimate: Chronic malnutrition [ht for age] Children 3-59 mos: 43.4% Indigenous children: 58.6% | NTDs (see below)  
Breastfeeding  
Micronutrients (possibly additional fortification)  
Growth monitoring / surveillance  
WASH  
Indigenous focus – cultural and geographic  
Linking to Feed the Future (food production / access / utilization / | 1. Chronic malnutrition is an MOH NHP priority; malnutrition is a principle focus of GOG social programs  
2. Women-centered approach is supported by GOG (eg CCT, social services); GHI will support women-centered, culturally appropriate communication on nutrition  
3. USG agencies will coordinate approaches; no overlapping programs at this time  
4. Multilaterals (WB, IDB) nutrition project will be leveraged to implement evidence-based interventions / improve primary care (growth monitoring) | INCAP  
World Bank  
UNDP  
UNICEF  
World Food Program |
<p>| Current Estimate: Chronic malnutrition [ht for age] Children 3-59 mos: 43.4% Indigenous children: 58.6% | MDG Target: Chronic malnutrition in children 3-59 mos: 29% | | |</p>
<table>
<thead>
<tr>
<th><strong>Family Planning and Reproductive Health:</strong> Prevent 54 million unintended pregnancies</th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Estimate:</strong></td>
<td><strong>Supply chain (particularly procurement)</strong></td>
</tr>
<tr>
<td>CP: 54%</td>
<td>1. Reproductive health is an MOH priority included in the NHP</td>
</tr>
<tr>
<td>Indigenous CP: 40%</td>
<td>2. Women-centered approach is supported by MOH (e.g., CCT) and will be a focus of GHI (culturally appropriate services / satisfaction with care)</td>
</tr>
<tr>
<td>Adolescent pregnancy: 98/1000</td>
<td>3. USG agencies will coordinate approaches; No overlapping programs at this time</td>
</tr>
<tr>
<td><strong>Proposed GHI Target:</strong></td>
<td>4. Multilateral (WB, IDB) projects focus on MCH including particularly Extension of Coverage Program which includes FP</td>
</tr>
<tr>
<td>CP = 64%;</td>
<td>5. HSS will be a focus of GHI; policies / norms / quality of care; supply chains</td>
</tr>
<tr>
<td>CP among rural and indigenous women = 55%;</td>
<td>6. Information for action / M&amp;E will be a focus of GHI</td>
</tr>
<tr>
<td>Adolescent pregnancy = 88/1000</td>
<td><strong>Swedish government</strong></td>
</tr>
<tr>
<td><strong>Family Planning and Reproductive Health:</strong> Prevent 54 million unintended pregnancies</td>
<td><strong>UNFPA</strong></td>
</tr>
<tr>
<td><strong>Family Planning and Reproductive Health:</strong> Prevent 54 million unintended pregnancies</td>
<td><strong>Spanish government</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>NTDs:</strong> Reduce the prevalence of 7 NTDs by 50 percent among 70 percent of the affected population</th>
<th><strong>Remarks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Estimates:</strong></td>
<td><strong>School-based deworming</strong></td>
</tr>
<tr>
<td>Oncho: 4 foci; transmission stopped in 3; likely in 4th (TBC in Nov); on target for elimination before FY16; Chagas: 2500 new infections/yr; 2.4% blood donor prevalence; Soil helminths: Prevalence unknown 3.7 million children at risk</td>
<td>1. WASH is an MOH priority; MOH is committed to oncho elimination by 2016</td>
</tr>
<tr>
<td><strong>Proposed GHI Targets:</strong></td>
<td>2. Women-centered approach is supported by MOH (e.g., CCT) and will be a focus of GHI (culturally appropriate services / satisfaction with care)</td>
</tr>
<tr>
<td>Oncho: eliminate in all 4 foci</td>
<td>3. USG agencies will coordinate approaches; No overlapping programs at this time</td>
</tr>
<tr>
<td>Chagas: major JICA initiative in CA – GHI will not address</td>
<td>4. IDB project that includes financing for WASH will be leveraged;</td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td><strong>Water – Spanish government</strong></td>
</tr>
<tr>
<td><strong>Baseline data for each of the seven individual Health Departments in the Western Highlands will be available in 2011 as will aggregate data for the seven departments as a whole.</strong></td>
<td><strong>Soil helminths: TBD</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Health system strengthening</strong></td>
<td><strong>Financing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Disparity reduction</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Increased number of trained and appropriately deployed health workers</strong></td>
</tr>
<tr>
<td></td>
<td><strong>HMIS and pharmaceutical management</strong></td>
</tr>
</tbody>
</table>
### ASSISTANCE OBJECTIVE:

**Health and nutrition status of Guatemalan rural & indigenous populations improved**

**Performance Indicators:**
- Indicator 1: % < 2 stunting, disaggregated by quintile, indigenous, rural
- Indicator 2: Rural and indigenous modern method contraceptive prevalence rate
- Indicator 3: Maternal mortality ratio
- Indicator 4: U5MR disaggregated by quintile, indigenous, rural
- Indicator 5: Government share (%) of total health expenditure

### Critical Assumptions:
- MOH demonstrates commitment to make changes
- MOH financing is available for increasing & improving coverage
- Major catastrophes could affect programs
- Security situation in rural areas remains stable, enabling services to reach more people
- GOG & USG Administrations maintain similar priorities for health and GHI
- MOH continues Extension of Coverage program or equivalent

---

### Socio-economic Development Context:
- 14.3 million population: 51% live in poverty, 15% extremely poor
- 72% of the poor live in rural areas
- 40% of population Indigenous
- Under five mortality rate: 42 per 1,000 live births
- 50% of children under 5 chronically malnourished; indigenous children 66%
- Maternal Mortality estimated at 136 per 100,000 live births
- 62% of rural births less than 3 years apart
- FP unmet need 21%

### Strategic Mechanisms/Foundational Inputs

- USG cross-sectoral coordination leveraging partnerships (other donors, private sector, etc)
- Support public, private & CBOs to manage & deliver continuum of health services
- Greater country ownership: Vice-MOH leads GHI steering committee with improved stakeholder engagement

### Illustrative Indicators:

**Priority Area 1**

**Outcomes**
- Improved access to and quality of MCH/FP/RH services with an emphasis on rural and indigenous populations to reduce inequitable health outcomes

**Policy**
- Functioning community oversight of health programs in priority areas
- Improved complementary feeding practices for children > 6 months
- Chlorinated piped water available > 8 hours/day

**Outputs**
- Expanded access to culturally appropriate MCH/FP/RH services
- Improved quality in culturally appropriate MCH/FP/RH services
- Better targeting of financing & policy for MCH/FP/RH service delivery

**Inputs**
- Expansion of quality of care model
- Training of MOH and NGO service providers in full package of FP/RH/MCH/Nut best practices and evidence based clinical guidelines
- Social BCC interventions to increase demand for quality services

**Priority Area 2**

**Outcomes**
- Prevent chronic malnutrition for children under two years of age with a focus on rural and indigenous populations

**Policy**
- Functioning community prevention, early detection & treatment of all forms of malnutrition
- Improved monitoring and evaluation systems

**Outputs**
- Community level personnel trained in AINM-C
- Support to communities to hold municipalities accountable for potable water system maintenance
- Nutrition/young child feeding BCC campaign and policy advocacy
- Community hygiene promotion

**Inputs**
- Field Epidemiology training content expanded and tracking GHI
- TA to GOG for use of information in planning and policy development
- ISO-type certifications done by MOH
- Mapping to determine prevalence of select NTDs

**Priority Area 3**

**Outcomes**
- Strengthening the use of information for action at all levels (community↔central level)

**Policy**
- Chlorinated piped water available > 8 hours/day
- MOH planning process and budget based on health information
- Functioning maternal mortality and chronic malnutrition surveillance systems

**Outputs**
- Increased capacity to use data at all levels (including civil society)
- Social BCC interventions to increase potable water system maintenance

**Inputs**
- Chlorinated piped water system maintenance
- Nutrition/young child feeding BCC campaign and policy advocacy
- Community hygiene promotion
Annex 5 - MOH Iniciativa de Salud Mundial: Five Priorities

The following annex contains a presentation by a high-level MOH planning team led by Vice-Minister Rosales. The team has played an integral liaison and planning role in the GHI Guatemala discussions. The presentation discusses the consistent alignment of MOH priorities with those of the GHI Guatemala team.
Global Health Initiative

Ministry of Public Health and Social Assistance
Guatemala, Central America, September 2010
Health Policies

1. Strengthening the **governing role** of the Ministry of Public Health and Social Assistance, in order to strengthen the Guatemalan State.

2. Improving and expanding coverage of **integral and integrated** health care and service provision.

3. Promoting and strengthening actions that guarantee **access to medicines**. Acknowledging alternative- and traditional-medicine uses and practices.

4. Promoting **health technological research and development**.

5. Strengthening **health-personnel research, development, and management**.

6. Developing **primary care environment**, by means of regulating, overseeing, and controlling enforcement of current norms relating to drinking water, sanitation, and hygiene, in order to improve the population’s quality of life.
Health Policies

7. Responding to the demand for health services generated by solidarity and social-equity programs.

8. Improving funding for health and the quality of health expenditures.

9. Harmonizing and aligning international cooperation with national interests and sectoral priorities.
GHI Guiding Principles

1. Focusing on women, girls and gender equity

2. Increasing impact by means of strategic coordination and integration

3. Strengthening key multilateral organizations, global health alliances, and private-sector participation

4. Encouraging countries’ participation and investment in programs managed by them

5. Consolidating sustainability by strengthening health systems

6. Improving measurement, observation, and evaluation methods

7. Promoting research and innovations
Priorities

1. **Food and Nutrition Security.** Integral approach and MOH’s active participation.

2. **Women’s integral health, focusing on their rights.** Reducing Mother-Child deaths, emphasizing newborns.

3. **Integral approach to water and sanitation.**

4. **Re-focusing approach toward the HIV/AIDS epidemic in Guatemala.**

5. **Integral interventions in dengue fever, malaria, and tuberculosis.**

6. **Child integral health.** Promoting GHI preventive health actions.

1. **HIV/AIDS:** (PEPFAR) To support prevention of new HIV cases; provide direct support to individuals who receive treatment, and provide care to vulnerable individuals, orphans and children.

2. **Malaria:** (PMI) To reduce malaria effects by half.

3. **Tuberculosis:** To save lives by treating TB and MDR TB cases, which will contribute to reducing 50 percent of tuberculosis deaths and load.

4. **Maternal Health:** To reduce maternal deaths by 30 percent in every country receiving assistance.

5. **Children’s Health:** To reduce deaths in children under five by 35 percent in every country receiving assistance.

6. **Nutrition:** Reducing child nutrition by 30 percent in every country receiving assistance.

7. **Family Planning and Reproductive Health:** To prevent unplanned pregnancies. To achieve 35% of contraceptive use and to reduce the percentage of mothers who have their first child before they are 18, from 24% to 20%.

8. **Unattended Tropical Diseases:** To reduce the prevalence of seven unattended tropical diseases by 50 percent.
We need: Qualified **Human Resources** (who know and apply norms, protocols and portfolios), and who are motivated and sufficient.

**Supply** that is over 90% (efficient purchasing system and an operational logistics system).

**Coordination and alliances** in the territory.

**Social participation.** Introducing a risk-management culture.

1. How we are organized (**People, infrastructure network, and portfolio**).
2. How we provide services (**Promotion, prevention, cure, and rehabilitation**).
3. How we **oversee health** based on the territory.
4. How we **analyze and make decisions**.
5. Who does it, how they do it, and when they do it (**Territorial management model:** Our plans originate in the territory)
6. How we establish territorial control. (**M&E**)

---

**Care Model**

1. Food and Nutrition Security. Integral approach and MOH’s active participation.
2. Integral Women’s Health, focusing on their rights. Reducing Mother-Child deaths, emphasizing newborns.
3. Integral Approach to Water and Sanitation.
4. Re-focusing approach to the HIV epidemic in Guatemala.
5. Integral interventions in dengue fever, malaria and tuberculosis.

---

**Funding for health**

To guarantee the right to health with a budget that allows providing care to individuals and engaging in institutional development (3.5%).

---

**Reclaiming governing role**

In the territory (municipality, department and nation), to participate in multisectoral efforts and to position health. To use rights approach.
Are We Fulfilling Essential Public Health Functions?

1. Monitoring, evaluating, and analyzing the health situation
2. Engaging in public-health vigilance and research, and in risk and damage control
3. Undertaking health promotion
4. Promoting citizen participation in health issues
5. Developing institutional planning and management policies and capabilities
6. Strengthening institutional regulatory and oversight capabilities
7. Evaluating and promoting equitable access to health services
8. Developing human resources and public-health training
9. Ensuring and improving the quality of individual and collective health services
10. Undertaking public-health research
11. Reducing the impact of health emergencies and disasters
We Aim Our Work at

1. We focus our (integral and integrated –but differentiated) actions at girls, boys, youth, women, men, and senior citizens.
2. Mayans, garífunas, xincas or mestizos
3. Who have ideology stances, religious beliefs, economic conditions and culture
4. We respect their sexual preferences, tendencies, and behaviors
5. And their gender
6. Their collective imaginaries and the ways in which they organize and participate in the framework of a democracy-building Nation
7. We recognize that there are development gaps, inequities, stigma, discrimination, patriarchal dominance, and machismo, and that these conditions determine social dynamics and participation.
8. We are establishing the basis for democracy, peace, liberty, and thus, happiness.
<table>
<thead>
<tr>
<th>Millenium Development Goals</th>
<th>Output Indicators</th>
<th>Results indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target 1: To eradicate extreme poverty and hunger</strong></td>
<td>1. Percentage of children &lt;5 years who initiated growth monitoring</td>
<td>1. Incidence of acute malnutrition in children &lt;5 years old</td>
</tr>
<tr>
<td></td>
<td>2. Percentage of children from 6 to 36 months old who receive Vitacereal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Monthly growth monitoring in children &lt; 2 años.</td>
<td>2. Chronic malnutrition prevalence in children &lt; 5 years old</td>
</tr>
<tr>
<td></td>
<td>4. Growth monitoring performed in children from 2 to &lt; 3 years.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Monthly growth monitoring in children from 3 to &lt; 5 years.</td>
<td></td>
</tr>
<tr>
<td><strong>Target 4: To reduce infant mortality</strong></td>
<td>6. Percentage of children with first dose of MMR vaccine</td>
<td>3. Infant mortality rate</td>
</tr>
<tr>
<td></td>
<td>7. Proportion of population with access to medicines.</td>
<td></td>
</tr>
<tr>
<td><strong>Target 5: To Improve maternal health</strong></td>
<td>8. Number of diagnostic tests for early detection of Cervical Cancer</td>
<td>4. Maternal mortality ratio</td>
</tr>
<tr>
<td></td>
<td>9. Number of women who receive postpartum care</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. New users who use birth control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Deliveries attended at institutional facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. Adolescent birth rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Prenatal care coverage (first visit)</td>
<td></td>
</tr>
<tr>
<td><strong>Target 6: To Fight against HIV/AIDS, malaria and other diseases</strong></td>
<td>14. Number of patients receiving antiretroviral treatment</td>
<td>5. HIV incidence</td>
</tr>
<tr>
<td></td>
<td>15. Malaria positivity rate</td>
<td>6. Malaria Incidence</td>
</tr>
<tr>
<td></td>
<td>16. Positivity rate of AEDES AEGYPTI larval breeding grounds</td>
<td>7. Classic dengue incidence</td>
</tr>
<tr>
<td></td>
<td>17. Tuberculosis cases cured</td>
<td>8. Tuberculosis incidence</td>
</tr>
<tr>
<td><strong>Target 7: To Ensure environmental sustainability</strong></td>
<td>18. Number of water systems and wells monitored</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19. Number of water system and wells with adequate level of residual chlorine</td>
<td></td>
</tr>
<tr>
<td><strong>Other institutional output objectives</strong></td>
<td>20. Percentage of graduated technical personnel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>21. Percentage of graduate specialized personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Number of out-patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Number of emergency patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Number of patients discharged from health services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Production of National Health Laboratories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Percentage of canine vaccination</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>