

Comprehensive costing and financial flows analysis of the national immunization program in Honduras, 2011

Technical Report Deliverable

Hondruas EPIc Team: Cara Bess Janusz, Ida Molina Berenice, Carlos Castañeda, Lourdes Mendoza, Iris Yolanda Díaz, Werner Valdez, Barbara Jauregui, Gabriela Felix and Stephen Resch

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LIST OF ACRONYMS

AMC	Advanced Market Commitment
BMGF	Bill and Melinda Gates Foundation
CA	Common approach for the costing and financing of routine immunization and new vaccines
CCIS	Interagency Committee on Health
CCNI	National Immunization Technical Advisory Committee
CESAMO	Urban health facility
CESAR	Rural health facility
CGD	Center for Global Development
cMYP	Comprehensive Multi-Year Plans
COSTVAC	ProVac's Program Costing Tool and Methodology
DPT3	Third dose of the Diphtheria-Pertussis-Tetanus Vaccine
EPI	Expanded Programme on Immunization
EPIc	Multi-Country Comprehensive Costing and Financing Analysis of Immunization
FA	Financing Agent
FP	Health Care Provision
FS	Financing Source
GAVI	Gavi
GBD	Global Burden of Disease
GNI	Gross National Income
HC	Health Care Functions
HP	Health Care Providers
IHSS	Instituto Hondureño de Seguridad Social
IPV	Inactivated Polio Vaccine
JNV	National Vaccination Days (in Spanish: Jornada Nacional de Vacunación)
LAC	Latin America and the Caribbean
MMR	Mumps-Measles-Rubella Vaccine
OPV	Oral Polio Vaccine
PAHO	Pan American Health Organization
PCV13	Thirteen-valent Pneumococcal Conjugate Vaccine
PIRI	Periods of Intensification of Routine Immunization
PoA	(annual) Plans of Action
PSU	Primary Sampling Unit
Rota	Rotavirus Vaccine
SHA	System of Health Accounts
SNA	System of National Accounts
SOS	Sustained Doses (in Spanish: dosis sostenidas)
UNICEF	United Nation Children's Fund
UYL	Useful Years of Life

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Executive Summary

BACKGROUND

Honduras has a leading immunization program, both within the region and globally. From 2009 to 2011, the national immunization program adopted two new vaccines to protect children against rotaviral diarrhea and pneumococcal disease, two important child killers. These vaccines are far more expensive than other traditional childhood vaccines that the government has financed and provided to the population at no cost for nearly 40 years. Additionally, the program has expanded its reach by covering new risk groups, potentiating a transition towards rebranding the program as an intervention to provide protection against vaccine-preventable diseases to the entire family.

In the context of concerns about long-term financial sustainability associated with the adoption of new, more expensive vaccines and expanding targets for immunization programs, the Bill and Melinda Gates Foundation (BMGF) supported a multi-country study on the cost and financing of delivering routine immunization services in developing countries (EPIc). With the Foundation's financial support and technical assistance from the Pan American Health Organization (PAHO) ProVac Initiative, the Honduran Expanded Programme on Immunization (EPI) implemented a two-pronged study to assess the economic costs of routine immunization service delivery and the financial flows associated with financing the program for the year 2011. The study design followed a country-specific adaption of the EPIc Common Approach, which was developed to harmonize methods for costing and financing analyses under the umbrella of the BMGF financed multi-country studies. Along with the findings from the other five country studies in Africa and Europe

selected for EPIc, the results described in this report aim to contribute to the global evidence base on immunization costs and improve planning and budgeting processes at the local level and more broadly.

METHODS

In Honduras, more than 1500 health clinics across 20 health regions provide vaccinations to the population, with a special focus on the 177, 733 children under the age of one in the country. In order to assess the costs and financial flows of the immunization program, a mixed approach study design was developed, including document review and interviews at the administrative levels and the administration of a facility-based survey to a probabilistically significant sample of 71 health facilities.. Additional documents were retrieved from the non-sampled regions for the financial flows analysis.

Data collection took place between December 2011 and March 2012. Surveys collected data on resource use, economic costs and financing source regarding salaried and volunteer labor, vaccines and supplies, cold chain equipment, vehicles, infrastructure, and other recurrent costs. Document review, primarily for the financial flows analysis, involved a comprehensive effort to gather financial records to capture all financing transferred in 2011 to support the national immunization program. Data was entered in EpiInfo 7 digital questionnaires and the ProVac COSTVAC tool, an Excel-based tool currently under development to assess the financial and economic costs of the routine immunization program. Statistical analysis was performed in STATA12. For the financial flows analysis, all data was analyzed in Excel 2010.

KEY FINDINGS FROM COST ANALYSIS

The total economic cost to deliver the routine immunization program in Honduras for 2011 was US\$ 32.5 million. Vaccines and other supplies represented a large share of the costs, amounting to 25%. Labor, cold chain and vehicles represented 54%, 4% and 1%, respectively. Total costs account for the administrative and service delivery levels of the program, including the central, regional, municipal program offices and the vaccination delivery sites at health facilities. Delivery costs, which include all costs except the vaccine and administration supplies, represent 75% of the total economic costs of the immunization program in Honduras. Adjusting for vaccine wastage and accounting for both vaccine, administration supply and delivery costs, the total cost per fully immunized child aged one in Honduras amounts to \$ 132.24.

New vaccine introduction costs to support the launch of vaccination against pneumococcal disease in April 2011 were also surveyed. Besides the cost of procuring the vaccine and needed supplies (~US\$ 4.8 Million assuming GAVI prices of US\$7 per PCV dose and US\$2.50 per rotavirus dose), nationwide trainings and revision of vaccination manuals represented the only other incremental costs identified for the study period. These costs totaled US\$ 142,300. The survey of costs at the facility level did not reveal any incremental costs solely related to incorporating the new vaccine. Leading up to the introduction of rotavirus vaccine in 2009 and in anticipation of future PCV13 introduction, Honduras invested substantially in the cold chain infrastructure to ensure adequate capacity for both Rotavirus and PCV13. However, our study did not gather data on the cost of these investments that occurred prior to the 2011 study period.

Facility level delivery costs varied substantially. After accounting for sample design, the total delivery (non-vaccine) cost per health facility ranged from US\$ 7,825 in

the CESAR (rural) facilities to US\$26,118 in the LEAD (urban) facilities. CESAMO (urban), non-municipal lead facilities delivery costs amounted to nearly the same total delivery costs as the LEAD (urban) facilities that serve as the municipal head for the Honduran Health Secretary. In assessing the unit costs (i.e. total cost per dose unit delivered), the facilities delivering the fewest number of doses (<500 doses, n=4) have the highest weighted average cost per dose, reaching over US\$ 25 per dose, whereas the facilities producing the greatest number of doses applied (>10,000 doses, n=16) have the lowest cost per dose at US\$2.84 (95CI: US\$2.03-3.66).

However, assessment of the cost drivers with OLS regressions indicated that when controlling for number of doses delivered, CESAR (the smaller rural facilities) actually have lower costs. This is probably in part due to lower average wages for immunization program labor in CESARs. But when facilities are very low volume (which only occurs in rural CESARs) the costs are much higher. Indeed, the crude average service delivery cost per dose in facilities with very low volume was over \$25. This should not necessarily be interpreted as inefficiency. For one thing, it is possible that in these facilities it requires more labor to reach the population which is sparse and distributed widely across a large catchment area.

KEY FINDINGS FROM FINANCIAL FLOWS ANALYSIS

In 2011, an estimated US\$ 49.1 million in financing was identified for immunization services in Honduras. This amount equals 3.3% of total national health expenditures and 0.29% of the GDP. An estimated 64% of total financing for immunization services originates from national revenue schemes, principally generated from taxes and royalties on public and private companies and/or households. External financing for

immunization amounts to 34%, which represents primarily financing schemes based on donations (21%) and loans (7%). Gavi financial transfers account for approximately 18% of all donations.

The central government primarily finances wages and other employee benefits, including per diems and travel allowances. In contrast, the regional government finances all vaccines (childhood + other risk groups) as well as the majority of the cold chain equipment acquired for 2011. This finding is of interest because procurement for vaccines and supplies is centralized but the available financing is located at decentralized accounts. The third largest source of financing is from the Gavi, which exclusively finances childhood new vaccines (PCV13 and rotavirus), injection supplies and a small amount of per diem and travel allowances as well as printing. Loans from international organizations, mostly originating from agreements related to the country's status as a Heavily Indebted Poor Country (HIPC), finance wages for health workers at the regional level and facility level, as well as security boxes and some cold chain equipment.

SUMMARY CONCLUSIONS

This study shows that even with the addition of new, more expensive vaccines to the routine schedule, system costs account for the majority of the resources used in the delivery of Honduras' national immunization program. Additionally, the financial flows mapping demonstrates that the government currently finances the majority of the program needs. Still, there are important operational activities that may face financing gaps with the impending graduation from Gavi vaccine subsidies and health systems grants. In the near and long term, the government's primary strategy to ensure sustainability and to maintain

the great progress the program has made in reducing vaccine-preventable diseases is tied to securing 100% of immunization financing from domestic sources. The study contributes key information to enable better mobilization and management of resources for immunization. Integrating the type of costing and financing data collected in this study with other program performance measures will enable more accurate resource planning and identification of opportunities to improve efficiency.

I. Purpose and scope of study

Established in 1974 during the 27th World Health Assembly, the Expanded Programme on Immunization (EPI) has accelerated reductions in childhood mortality and generated substantial health gains globally. In some parts of the world, for example Latin America and the Caribbean (LAC), infectious disease no longer is the primary contributor to the regional burden of disease profile (Andrus et al. 1994). This achievement is due, in large part, to national immunization programs.

The value of these programs has been self-evident where vaccines provide primary protection against several deadly diseases at a cost that has historically been low compared to other interventions (World Bank 1993). In the early 1990s, the cost per child fully immunized against traditional vaccines such as tuberculosis, diphtheria, pertussis, tetanus, polio and measles was reported at US\$ 20 on average (Brenzel and Claquin 1994). But budget concerns have come to the fore as countries have adopted new, more expensive vaccines and expanded their immunization programs to cover more populations.

Political commitment is strong for national immunization programs in Latin America and the Caribbean but sustainability risks are increasingly apparent and there is a need to have more precise information on the resource needs to sustain the gains of these programs. In recent years, some information on the cost of new vaccine introduction and costs associated with different delivery strategies has become available (Walker et al. 2004; Griffiths et al. 2009; Levin et al. 2013). Still, this information is limited to four countries (Griffiths et al, 2009; Levin et al, 2013) and the cost of delivering routine immunization

services in the context of expanding programs, as is the case in Latin America and the Caribbean (LAC), is largely unknown.

Securing government financing for immunization services in LAC has been the main strategy to ensure programmatic sustainability. While all LAC countries have increased their contributions to immunization, the available domestic resources for immunization have not filled all financing gaps, particularly in the context of new vaccine introduction (Trumbo et al 2013). Since the early 2000s, the Gavi has provided subsidy support to eligible low-income countries to help fill these financing gaps for new vaccine introduction. Honduras was one of the first countries in the world to introduce the 13-valent pneumococcal conjugate vaccine with such support, leveraging the Advanced Market Commitment (AMC) prices (WHO 2011). However, GAVI co-financing is time limited and Honduras, among other countries in the Region, is currently preparing to assume the full AMC price (USD 3.50) beginning in 2016. Resource mobilization and strategic plans are underway to support this transition and a more precise understanding of the resource needs to sustain and continue to strengthen the existing program is needed (Honduras Secretary of Health, EPI Plan of Action 2011).

As part of a multi-country study funded by the Bill and Melinda Gates Foundation (BMGF), the Pan American Health Organization (PAHO) ProVac Initiative designed and implemented a survey-based costing analysis of the national immunization program in Honduras. Additionally, a comprehensive analysis of financial flows of the program was undertaken. This exercise provides detailed estimates of recurrent and capital program costs and financing for routine immunization in the Honduran public health sector. Finally, analyses to identify the determinants of routine immunization costs and to assess productivity at the service delivery level were performed. Together, findings will contribute

to the global evidence base on immunization costs and will help improve planning and budgeting processes in Honduras, and more broadly.

The research questions for this study include:

1. What is the total cost of the routine immunization program at the central and regional levels as well as the vaccination clinics?
2. What is the cost structure (cost by line item or by EPI planning component) of total facility costs?
3. What are the delivery costs associated with the routine immunization program (delivery costs per dose, per child fully immunized) at each program level?
4. At the facility level, how does productivity (doses/FTE or other measure) of the routine program vary, and what is the relationship between costs and levels of output?
5. What are the facility total and unit costs, and what are factors that drive this variation?
6. How do the costs of vaccine introduction compare with budgets for introduction?
7. What are the main sources of financing of the routine immunization program and for new vaccine introduction, and what are the sources of financing of vaccines as compared to operating costs and capital investments?

II. Background

The ProVac Initiative, created in 2004 by PAHO with support from the BMGF and other partners, strengthens national capacity for evidence-informed decision making around immunization policy (Andrus et al. 2007). Initially motivated by country demand for technical assistance to incorporate economic evidence into the decision making framework for new vaccine introduction, ProVac has developed and implemented tools and trainings for cost-effectiveness analysis on new vaccines, among other capacity building activities (Jauregui et al. 2012). In the context of new budget concerns related to the sustainability of higher cost national immunization programs, countries are increasingly requesting support to assess the costs and financing of their programs. Additionally, there is a need to better understand the estimated cost impact of particular policy changes and strategies such as outreach for vaccine delivery, new vaccine introductions and strategic investments in program infrastructure.

Existing ProVac cost-effectiveness analysis tools model the incremental program costs due to new vaccine introduction but there are several limitations to this approach, namely the reliance on assumptions (Urueña et al. 2011; Clark et al. 2013). In collaboration with National University of Colombia and the Center for Health Decision Science at Harvard School of Public Health, ProVac has developed a suite of tools named COSTVAC to provide guidance to program managers for collecting, analyzing and estimating baseline and incremental costs to the routine immunization program (Castañeda 2013).

In 2011, Honduras expressed interest in performing a comprehensive cost and financial flows analysis of their routine immunization program. The Expanded Programme

on Immunization (EPI) in Honduras regularly develops comprehensive Multi-Year Plans (cMYP) and annual Plans of Action (PoA) in conjunction with international and national evaluations of program performance, but the lack of empirical data on program costs and financing has resulted in budgets and resources plans informed mostly by assumptions and historical execution. Under the leadership of the immunization program manager, Honduras requested support from PAHO to gather and analyze local level data to better inform their resource plans and activities in coming years, with a particular interest in preparing for the transition away from GAVI support for new vaccines towards a program fully financed with domestic resources.

In parallel, the BMGF made a call for proposals to implement a harmonized approach for immunization program costing and financial flows analysis to contribute to building the evidence base on routine immunization and new vaccines costs and financing, globally. PAHO was awarded a small grant to support the work in Honduras and other partners were awarded funding to support similar work in Benin, Ghana, Moldova, Uganda and Zambia. As part of this award, the partners and country program counterparts contributed to discussions on harmonizing methodological approaches to costing and financial flow analysis of immunization services. These harmonized methods, described in “Common approach for the costing and financing of routine immunization and new vaccines”, were then adapted for each country setting (Brenzel et al. 2013, forthcoming). Being a part of this multi-country study award, later coined EPIC multi-country study, provided for an opportunity to strengthen local knowledge in costing and financial analysis and generate useful and timely information for planning and budget development in Honduras as well as further test and refine the COSTVAC tool. The COSTVAC suite of tools is currently under revision based on the lessons learned from this pilot in Honduras

and a subsequent regional consultation workshop on immunization program planning and costing.

III. Routine immunization and new vaccine introduction in Honduras

For over three decades, vaccines have been considered a public good and key strategy for reducing childhood mortality in Honduras. The government began providing four childhood vaccines at no cost in 1979 and today the government provides 11 vaccines to children and special risk groups free-of-charge (Secretary of Health, EPI cMYP 2006-2011). The national immunization schedule recommends vaccines to protect against 14 childhood diseases as well as to provide protection for pregnant women and the elderly, among other risk groups (**Table 1**).

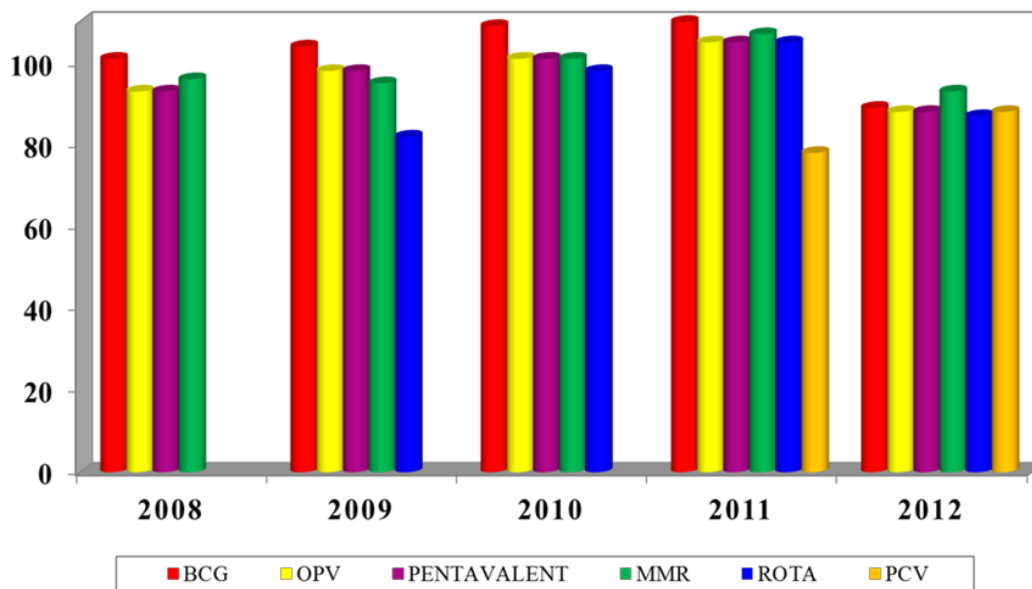
Table 1. Recommended vaccination schedule in Honduras, 2011

	Birth	2 months	4 months	6 months	12 to 23 months	18 months	4 years	11 years	Pregnant women	Risk groups
BCG	Single dose									
HepB	Single dose									Single dose
OPV		Dose 1	Dose 2	Dose 3		Booster 1				
DPT/HepB/Hib		Dose 1	Dose 2	Dose 3						
PCV13		Dose 1	Dose 2	Dose 3	Dose 1					
Rotavirus		Dose 1	Dose 2							
DPT						Booster 1	Booster 2			
MMR					Dose 1					
Td								Booster	3 doses	Single dose
Yellow fever					Single dose					
Influenza										Single dose
IPV										

*In 2011 (year of PCV13 introduction), all children age 12-23 months received one dose of PCV13

In 2011, the program target covered an estimated 177, 733 children under age-one in Honduras (WHO/UNICEF JRF 2012). In the same year, coverage >100% in children under 2 years of age was reported for all traditional childhood vaccines, which excludes the 13-valent pneumococcal conjugate vaccine recently introduced in April 2011 (WHO/UNICEF JRF 2012). At this time, the country still used the 2001 census projections to estimate the denominators for administrative vaccination coverage. Reported coverage >100% is likely due to underestimated denominators. The 2012 census should help improve the accuracy of coverage reporting but still it is also likely that pentavalent (diphtheria-pertussis-tetanus+HepB+Hib) coverage is greater than 95% at the national level given historical trends (**Figure 1**).

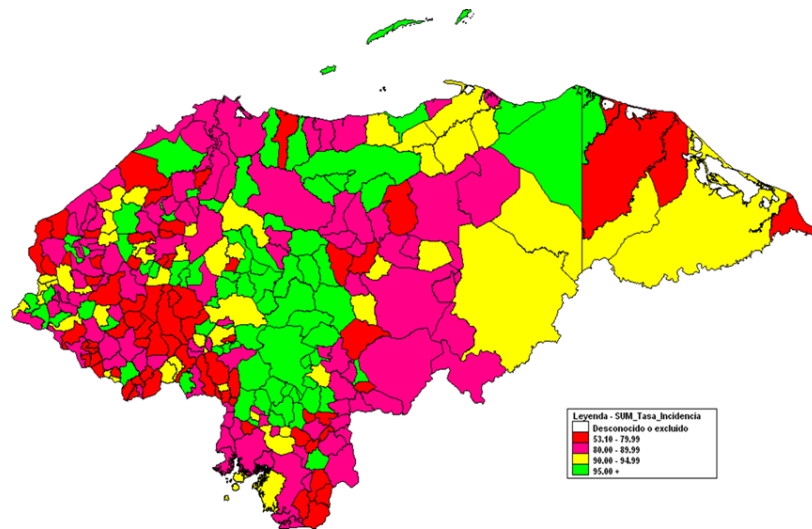
Figure 1. Vaccination coverage in children <2 years in Honduras, 2008-2012



Political backing and public acceptance of immunization is strong in Honduras. The program has successfully eliminated neonatal tetanus, measles, rubella, congenital rubella

syndrome and poliomyelitis and contributes to the control of all other vaccine-preventable diseases (WHO/UNICEF JRF 2012). Still, several challenges, most recently security issues, are apparent at the local level. Over a quarter of municipalities across the country are not meeting the national vaccination coverage target (>95%) (**Map 1**). Municipalities highlighted in red and pink represent coverage levels of $\leq 80\%$. These vulnerable municipalities have required intensified efforts to reach under-vaccinated children. Specifically, the sanitary regions of Intibucá, Lempira, Cortés and Olancho were selected in 2011 for concentrated support to raise vaccination coverage in low-coverage districts (Secretary of Health, EPI POA 2011). In addition to routine facility-based delivery of the program, outreach strategies are used in some areas of the country to induce demand and to ensure high capture of the child population in rural and hard-to-reach areas.

Map 1. DPT3 coverage by district in Honduras, 2012



Another important strategy for the program includes the National Vaccination Weeks (Jornada Nacional de Vacunas [JNV]). Until 2009, intensified efforts to meet coverage targets for Measles, Mumps and Rubella (MMR) vaccine and Oral Polio Vaccine

(OPV) to interrupt circulation of these viruses concentrated in an annual weeklong, nationwide vaccination campaign. Today, these targets are met in routine delivery and so these National Vaccination Weeks were rebranded to more intensely focus on completing schedules and promoting the community-level visibility of the program. Doses applied during these periods of intensification of routine immunization (PIRI) are registered as JNV doses, whereas doses applied during the rest of the year are registered as ‘sustained doses’, sostenidas (SOS). More than 85 percent of doses are registered in the SOS category. Both SOS and JNV doses contribute to reaching goals of the routine program.

In light of global recommendations to recast the Expanded Programme on Immunization as an intervention to provide primary prevention to the entire family, Honduras has opted to extend vaccination, where recommended, to adolescents and priority risk groups, including the elderly and pregnant women (GVAP 2012). This transition occurred in tandem with the incorporation of new vaccines into the routine schedule. Since the arrival of vaccines to prevent against pneumococcal and rotaviral disease in small children, Honduras had been preparing the way to make informed decisions about the introduction of these vaccines. Initial vaccination plans were explored in 2004 and 2007 for the rotavirus and pneumococcal vaccines, respectively. In both 2008 and 2009, the National Immunization Technical Advisory Committee (Comisión Consultiva Nacional de Inmunización [CCNI]) emitted technical recommendations in favor of introducing these two vaccines. The window of support from Gavi enabled the government to endorse the technical recommendations with a political decision to introduce these vaccines into the routine schedule. With Gavi support, the rotavirus vaccine was introduced in 2009 and the pneumococcal vaccine was introduced in mid-2011 (Honduras Gavi progress report 2011).

The newly adopted vaccines and expanding program have resulted in increasing financing requirements to meet programmatic goals as well as to sustain historical achievements. The Interagency Committee on Health (CCIS) in Honduras has supported the national immunization program for over two decades. Under the guidance of this committee, the government has prioritized domestic funding for all vaccines in the recommended schedule for the medium and long-term sustainability of the program. With a 2011 Gross National Income (GNI) per capita just over US\$ 2000, Honduras is well below the average GNI per capita for LAC (World Bank 2012). However, the government has successfully managed to finance 100 percent of traditional childhood vaccines (Secretary of Health, EPI POA 2011). PAHO Revolving Fund's pooled procurement mechanism drives down the market price for vaccines in the Americas region, making more affordable options accessible to all PAHO Member States, including Honduras. The adoption of newer vaccines was accelerated in Honduras as a result of the Gavi subsidy offer of support. Both vaccines were incorporated with a co-financing agreement (US\$ 0.17 per dose for PCV13 and US\$ 0.46 per dose for rotavirus), which reaches a maximum tail price per dose of \$US 3.50 and US\$ 2.50 for pneumococcal conjugate and rotavirus vaccines, respectively, in 2016. Honduras is currently preparing to make this transition and more precise information on the resource needs to sustain the program is needed. Specifically, resource needs both in terms of the line item inputs to the program and of the planned activities have increased in the past few years and the current methods for tracking central level expenditures do not adequately reveal the full resource amount required to sustain the gains of the Honduran National Immunization Program (NIP).

IV. Cost analysis of routine immunization

This section summarizes the methods, results and conclusions from the costing analysis of routine immunization in Honduras for the year 2011. The methods described in this section are a more detailed description of country specific adaption of the Common Approach developed under the umbrella of the EPIC studies (Brenzal et al. 2013). All deviations from the Common Approach and/or specific adaptations of the methods to accommodate the existing tools and practices for planning and budgeting processes in the PAHO Region are thoroughly detailed.

A. Methods

i. Perspective and key assumptions

We retrospectively assessed and estimated the *public sector* routine immunization program costs for 2011. Services provided at Maternal and newborn clinics were excluded as well as Hospitals, with some minor exceptions described in sample design. We assumed the two types of community level health facilities, CESAR and CESAMO, represent rural and urban program delivery costs, respectively. CESAR health facilities generally are located in rural, population sparse areas and CESAMO health facilities deliver services in the more urban areas. Other service delivery categories explored in analysis of cost variation include those facilities located in Metropolitan (METRO) Regions, specifically Tegucigalpa and San Pedro de Sula, as opposed to those located in the non-Metropolitan (NONMETRO) Regions.

For this analysis, routine immunization program is defined as the routine activities to deliver vaccines to the recommended target populations in Honduras. There are two important differences between the Honduras cost analysis and other EPIc country immunization program cost analyses. Honduras' national recommended immunization schedule (**Table 1**) targets risk groups in older populations and includes additional booster doses for children <5. For the purposes of the base case cost analysis (and financial flows) and in contrast to other EPIc country studies, all doses administered in the Honduran routine program (i.e. populations >1 year) were included in the cost assessment of vaccines and non-vaccine costs. However, additional analyses were undertaken to estimate the cost of delivering immunization to the under-1 population in Honduras in order to have a baseline comparison to other EPIc country studies. These analyses are further described in the calculations section and presented in **Annex 9**.

Secondly, routine immunization in Honduras involves facility-based vaccination, outreach activities and periodic intensification of facility and outreach immunization during national vaccination days around the time of Vaccination Week in the Americas. Vaccination nurses register one of two official NIP delivery strategies for each dose applied. Doses are either applied in the 'sustained program' (SOS=Sostenida) or 'national vaccination days' (JNV=Jornada Nacional de Vacunación), as described previously. While other EPIc country studies exclude 'campaigns' from the cost analysis, Honduras does not consider those doses applied during and registered as JNV to be supplementary immunization delivery. Instead, this strategy's main aim (~10% of all doses) is to complete schedules, which also includes on-time, routine vaccination. Therefore, the annual total number of doses applied in the routine program included those applied during the JNV period, but excluded doses applied to achieve a supplemental non-routine program goal,

such as vaccination of adult risk groups with the pneumococcal polysaccharide vaccine which Honduras received as a donation in 2011. Data on the proportion of doses applied during outreach activities versus those doses applied in the health facility based setting was collected at each health facility included in sample. It was assumed 8% of doses during the JNV period were administered out-of-facility.

While the number of doses delivered per vaccination unit was collected at the facility level, this data is also available in a centrally managed database that routinely collects and analyzes the number of doses delivered per vaccination unit. Some discrepancies between the number of doses per antigen reported at the facility level and the same data at the central level were identified. To ensure consistency in error, we opted to use the centrally managed administrative database. Also, the availability of dose data for all facilities in the country allowed for the team to explore predicted costs in regression functions and easily extrapolate sample costs to the non-sampled units.

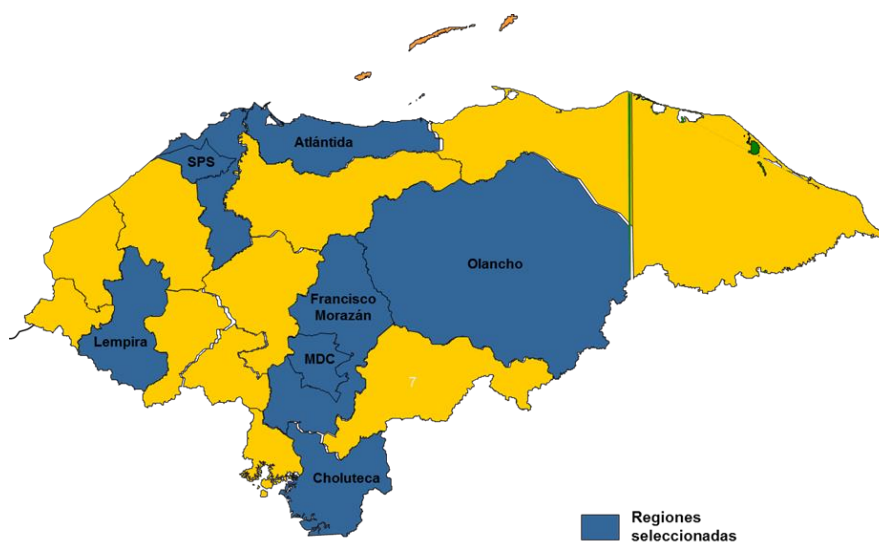
The economic costs and resources identified to support the routine program in 2011 also represent the costs associated with incorporating the 13-valent pneumococcal conjugate vaccines (PCV13) into the recommended vaccination schedule. This is an important difference between the Honduras analysis and other EPIc country analyses because of the program baseline in terms of number and cost of vaccines included in routine schedule. The retrospective assessment allowed for evaluating the resource needs to adopt and sustain PCV13 vaccination in the routine program. However, specific resources associated with PC13 introduction at the facility level were difficult to identify and to differentiate from the resources supporting general routine vaccination activities to complete the full recommended schedule. Additionally, interviews with program staff both at the central coordination level and the operational levels revealed that there were few, if

any, resource increases at the service delivery level. For example, no new staffing plans were made as a result of the new vaccine introduction. Therefore, it was assumed tangible new vaccine costs were only incurred at the central levels and administered through the regional levels if needed, in the case of trainings.

ii. Sample design

The primary sampling unit (PSU) was health facilities delivering public sector vaccinations, excluding those facilities *only* delivering infant doses. Additionally, the central, regional and municipal EPI offices were surveyed to ensure all exchange of resources and reporting flows were identified and included in the analysis. Eight sanitary regions of the 20 in the country were selected purposefully by the EPI to represent a range of settings in terms of urbanity, socioeconomic status, and terrain (**Map 2**). Two of the regions are geographically small, but very populous metropolitan regions (Tegucigalpa and San Pedro de Sula). The other six regions are more characteristic of the country as a whole. Within the 8 regions, we gathered data from each regional sanitary office for the Secretary of Health located in the capital of each region.

Map 2. Sanitary Regions (blue) purposefully selected for a immunization



To obtain information about costs at the municipal and health facility level, a sample of 31 rural (CESAR) and 40 urban health facilities (CESAMOs) participating in the routine delivery of public sector vaccinations was selected using a multi-stage probabilistic design. First, from each of the six non-metropolitan regions which are organized in smaller administrative units, which is not the case in the two metropolitan regions, three municipalities were selected without replacement and with probability proportional to the size of population under 1 year old. Then, in each municipality, the facility designated as the “lead” facility for EPI in the municipality was selected, as was one non-lead CESAMO and one CESAR. In the two metropolitan regions, the facilities were drawn directly without clustering. All facilities were selected by simple random sampling within the three strata described, “lead”, non-lead CESAMO and CESAR.

The probability of selection for each facility was calculated using a Monte Carlo simulation in which 10 million samples were drawn from the full list of health facilities in the frame, and the probability of selection equaled the fraction of samples containing the

facility. Most lead facilities were CESAMOs, but in three cases the lead facility was a hospital and therefore included in the sample despite the initial study design calling to exclude vaccination sites primarily delivering infant doses. In some instances a municipality did not have a non-lead CESAMO or non-lead CESAR to select, and in these cases, a facility of the other type was selected instead. For this reason, some selected municipalities have one CESAMO and two CESARs in the sample instead of a ratio of two to one. Characteristics of the health facilities in the sample (n=71) are similar to other facilities in and outside of the sampling frame, including the ratio of urban to rural sites and mean number of doses applied by health facility type (**Table 2**). A full list of the facilities selected for the sample and their weights is provided in **Annex 1**.

The sampling weights, the inverse probability of selection of each unit, were calculated to correct for differences between the sample and universe when estimating weighted average costs and aggregating costs to the national level. The base analytical weight for each sampled unit is the reciprocal of its composite probability of selection into the sample at each stage. For instance, each municipality has a probability p_i of selection at the first stage and each health facility has a probability p_{ij} of selection at the second stage. The composite probability of selection is then the product of p_i and p_{ij} and the base weight is the reciprocal of the product, or $w_{ij} = 1/p_{ij}$. For this study, the probability of selection at the first stage was proportional to the population under one year with no replacement, as previously reviewed, but the second stage selection was performed using simple random probability of selection within each strata, which varied from municipality to municipality due to a difference in total health facilities by strata. All municipal lead health facilities had a selection probability of one, being that there is one per municipality. For example, **Annex 1** illustrates that the probability of selection for the municipality La Ceiba was 0.01479, or

the inverse of the under-one population in La Ceiba. The probability of selection of the CESAMO Metropolitano was equal to one because it is a lead municipal facility and the probability of selection of the other two facilities, La Pizzatty and Yaruca, were equal to 0.25 and 0.5 respectively because La Pizatty was one of four remaining CESAMOs and Yaruca was one of two CESARs in the municipality La Ceiba.

Table 2. Characteristics of sampled and non-sampled administrative offices and health facilities administering the routine immunization program in Honduras

Characteristic	Sample		Frame	Nationwide
Number of central office	1		1	1
Number of regional offices	8		8	20
<i>by type: non-metropolitan</i>	6		6	18
<i>by type: metropolitan</i>	2		2	2
Number of health facilities	71		784	1535
<i>by type: CESAMO</i>	37		211	412
<i>by type: CESAR</i>	31		526	1020
<i>by type: HOSPITAL</i>	3		14	30
<i>By type: Other</i>	0		31	73
Total under-one population	63,632		102,709	177, 733
Total doses applied	541,862		2,450,891	4,104,310
	<i>Metro</i>	<i>Non-metro</i>		
<i>mean doses applied by type: CESAMO</i>	15,104	4,792	6,822	5,270
<i>mean doses applied by type: CESAR</i>	1,926	1,089	1,160	1,182
<i>mean doses applied by time: HOSPITAL</i>	20,133	20,646	24,390	16,671
Fraction of total doses applied during PIRI	0.0988		0.0972	0.0927
Fraction of total doses applied to children under-one	0.6149		0.6416	0.6498

iii. Survey instruments and data collection

Survey instruments were developed, tested, revised and then administered to all 71 health facilities and 8 regional offices selected (**Annex 2**). The survey questionnaires were designed to identify and to quantify costs and resource use at all administrative and service delivery levels of the national immunization program. They gathered information on programmatic resource inputs such as vaccines and supplies, personnel, vehicles and transport, travel allowances and per diems, cold chain, buildings and other infrastructure, as well as other recurrent and capital costs such as printing, office furniture, and immunization cards, among others. Additionally, surveys prompted respondents to identify how these inputs contribute to the different activities of the routine immunization program. These activities were defined in alignment with the 12 EPI components used for annual and multiannual planning and budgeting in the PAHO Region (**Table 3**). With the exception of cold chain capital and recurrent costs, each program input was allocated across the 12 EPI components. These planning categories differ slightly from those proposed in the Common Approach (CA). Some tracing assumptions have been applied in order to develop the activity cost structures for the facility level using the CA activity definitions (**Annex 3 and Annex 8**).

With some variability, most programmatic inputs and EPI components were assessed at every level of the program. To do this, three different survey questionnaires were administered to the central office, regional office and health facilities. Vaccine, injection and other material supplies and their costs were only identified at the central level where all procurement and transactions for this input occur. The health facility surveys focused more on outreach and in-facility vaccine administration activities. In some cases,

the same information was collected at all levels in order to triangulate and verify data quality at the analysis stage (i.e. doses applied, vehicle use, cold chain and other equipment use, etc.)

Table 3. Definitions of EPI planning and budgeting components in PAHO Region

EPI Component	Cost definition
Political priority, advocacy and legal basis	Time and resources dedicated to advocacy and policy, including developing legal frameworks for immunization.
Planning and coordination	Time and resources dedicated to managing, planning, and budgeting and coordinating at all levels of the program.
Vaccines and supplies	Includes all vaccines and safe injection supplies.
Cold chain	Time and resources dedicated to installing, maintaining and using the cold chain, which encompasses vaccine storage and distribution.
Training	Time and resources developing, administering and/or participating in training and continuous learning opportunities.
Social mobilization	Time and resources dedicated to community level mobilization to raise awareness about vaccination, including television spots, information and education campaigns, and importantly resources dedicated to support the Jornadas Nacionales de Vacunación.
Other operating costs	Time and resources dedicated to other recurrent and capital costs of the immunization program, for example printing and office furniture.
Monitoring and supervision	Time and resources dedicated to local level staff to perform supervision visits and meetings in order to monitor coverage and other performance indicators.
Surveillance, vaccine safety and laboratories	Time and resources dedicated to epidemiological investigation of Adverse Events Following Immunization (AEFI) and VPD outbreaks.
Information systems	Time and resources dedicated to record keeping and reporting data between programmatic levels.
Research	Time and resources dedicated to operational research.
Evaluation	Time and resources dedicated to evaluating program performance at sub-national and national level.

These surveys were designed following a study team planning visit to Honduras in September 2012, where both the national and international members of the study team visited each type of health facility and one regional office to verify the quality and availability of information at these levels. Later in the year, the draft survey instruments were tested at each site targeted in the study and the surveys were revised to address the problems and clarity issues identified during the testing (**Annex 4**). Survey instruments were then prepopulated with information available at the central level, such as total doses applied and ambulatory visits, and this information was to be verified at the local level.

Between September and March 2013, the study team collected the necessary information to complete the central level survey instrument. Regional office and facility surveys were administered in February 2013 to all sites selected for the sample. Four nurses were identified for data collection and entry. They all had substantial experience with immunization service delivery and coordination. The data collection team received a weeklong training designed to provide didactic sessions on the study and survey design as well as on-site training to practice survey administration. After the weeklong training workshop, data collectors traveled to their assigned regions, two per person, and commenced data collection. Each data collector visited the regional office first, and then proceeded to the municipal lead facility and the other selected health facilities in the first municipality before moving onto the next municipality. At the completion of each region, they prepared and submitted short reports summarizing any pertinent qualitative information and/or challenges encountered in the field. The data collection team was in the field for four weeks before returning to Tegucigalpa to join the entire study team for data cleaning, processing and preliminary analysis. During this time, the data collection team

made follow-up calls to obtain missing information or clarify any pending data collection needs.

iv. Data entry, quality control and verification

Data collectors completed the paper-based surveys during their visits to the selected facilities and administrative office. Later, they entered the data into electronic survey formats developed in EpiInfo7. Data entry was performed at the end of each day in the field to avoid recall or completeness errors. The electronic survey fields were programmed to accept only logical ranges of values for quantitative questions and strings for open-ended questions. Each data collector worked with an individual laptop, where the project file for the electronic survey entry was placed in a Dropbox folder to allow for real time data entry review by the national and international study coordination team.

In mid-March 2013, the study team met with the data collectors for one full week to review, clean and process data. First, electronic surveys were checked for duplicates and completion. Next, the raw database in EpiInfo7 was exported and converted into a Stata data file to perform error checks and clean the data, where needed. This step allowed for the team to quickly identify missing and/or implausible responses and consult with the data collection team to make the appropriate corrections and/or obtain the missing data. For example, there were a few problems with data entry not following the correct skip patterns embedded in the survey instruments or fields not summing to the expected values.

While one part of the team dedicated time to identifying and correcting these data entry mistakes, another team prepared the master database, which included database

management tasks such as recoding/naming variables, merging survey databases with other price and inventory databases – such as national salary scale and staffing lists, cold chain equipment inventories and reference price lists, etc., and creating composite variables. Finally, another team worked to complete the cost analysis at the central level directly in the COSTVAC tool. At the time of the Honduras study, the COSTVAC Excel-based tool was ready to process data from the central level while the bridge to support processing and importing of the survey database was still in a proof-of-concept, beta version stage and was finally not used. This visit ended with a short presentation and discussion of preliminary results on central level costs and personnel costs at all levels with the Honduran Inter-Agency Health Commission, including authorities and professionals from the Secretary of Health and National Immunization Technical Advisory Group (NITAG). The EPI staff was tasked with reviewing the master database to provide more qualitative review of some of the outliers.

v. Analysis and aggregation of costs

All costs were reported in the local currency, Lempiras, and converted to 2011 US dollars with the official exchange rate of \$18.8915 Lempiras to \$1 US dollar. Capital costs were annualized and discounted at a rate of 3%. Data analysis was performed in Excel 2010 and STATA12. For the central level costs, all analysis was performed in the ProVac COSTVAC tool. For the regional and health facility data, intermediate composite variables were constructed from the clean survey dataset in STATA12 and then exported to Excel 2010 for further descriptive analysis. With the exception of meeting, travel allowance and transport costs, all costs were estimated using a bottom-up approach.

v.a. Cost of vaccines and supplies

The dose data recorded in the surveys was compared with the administrative data. Small, but frequent, differences were noted between the doses reported in the surveys and the doses reported in the administrative database, which compiles doses applied monthly per health facility, per municipality, per region and nationally. These differences may be explained by a lag period between reporting levels. Without a way to resolve differences, all calculations used administrative dose data. Unit prices for vaccines and supplies, including reconstitution syringes, safety boxes and diluent, were obtained from central level records and most are publically available through the PAHO Revolving Fund and Gavi. **Table 4** shows the unit and per dose prices by antigen for Honduras in 2011. This information was obtained from purchase orders and invoices but is also publically available from the PAHO Revolving Fund and Gavi. All vaccines with the exception of rotavirus and PCV13 were procured through the PAHO Revolving Fund at 2011 prices. With respect to Gavi supported vaccines (PCV13 and rotavirus), the base case scenario for the cost analysis considered the prices per dose negotiated between Gavi and the manufacturers. Alternative scenarios were also explored, including the government co-financing prices per dose and the Gavi graduation prices per dose (**Annex 5**). Total costs for vaccines and supplies were adjusted for wastage (**Annex 6**).

Table 4. Unit prices and per dose by antigen in Honduras, 2011

Vaccine, by antigen and presentation	Unit Price	Price per dose
BCG, Doses per vial: 10	\$0.10	\$0.01
Hepatitis B Recombinant (Pediatric), Doses per vial: 1	\$0.23	\$0.23
Oral Polio (Plastic), Doses per vial: 10	\$0.21	\$0.02
Diphtheria-Tetanus-Pertussis-Hib, Doses per vial: 10	\$3.19	\$0.32
Rota Vaccine (schedule 2 dose), Doses per vial: 1*	\$2.50	\$2.50
Pneumo. Conjugate vaccine, Doses per vial: 1**	\$7.00	\$7.00
Measles-Mumps-Rubella (Zagreb), Doses per vial: 1	\$1.60	\$1.60
Diphtheria-Tetanus-Pertussis, Doses per vial: 10	\$0.18	\$0.02
Diphtheria-Tetanus (Adult), Doses per vial: 10	\$0.08	\$0.01
Yellow fever (Brazil), Doses per vial: 10	\$0.67	\$0.07
Polio Inactivated, Doses per vial: 1	\$5.50	\$5.50
Hepatitis B Recombinant (Adult), Doses per vial: 1	\$0.37	\$0.37
Diphtheria-Tetanus (Adult), Doses per vial: 10	\$0.08	\$0.01
Oral Polio (Plastic), Doses per vial: 10	\$0.21	\$0.02
Diphtheria-Tetanus-Pertussis, Doses per vial: 10	\$0.18	\$0.02
Diphtheria-Tetanus (Adult), Doses per vial: 10	\$0.08	\$0.01

* In alternate scenario, country co-financing price and Revolving fund price per rotavirus dose was explored at \$US 0.46 and \$US 7.50, respectively.

** In alternate scenarios, country co-financing price, GAVI graduation AMC price and Revolving fund price per PCV13 doses were explored at \$US 0.17, \$US 3.50 and \$US 14.85, respectively.

v.b. Cost of labor

Full time equivalents (FTE) dedicated exclusively to immunization were identified at each health facility, regional and central offices. Only those persons dedicating some proportion of their productive work time to the immunization program were surveyed. Additionally, survey respondents were requested to allocate person time dedicated to immunization across the 12 EPI components. Information on employee identification number, position, contract type and employment status (full time versus part time) was

recorded for each employee and employee-specific wages and benefit scales were obtained from a national database. Where employee identification numbers were unknown or not available, these employees were matched to an average pay scale for their specific skill and position level.

v.c. Cost of volunteer time

All volunteer hours registered for the year were recorded for the sample. Their primary contribution to the program, being social mobilization, surveillance or vaccination, was documented as well. Volunteer time by community health workers and medical/nursing students was valued using the standard daily minimum wage.

v.d. Per diem, travel allowances, meetings and other transport costs

This program input includes all costs supporting outreach and training activities that require staff to mobilize from one place to another. Unlike the other inputs, the cost of travel allowances, meetings and gasoline was estimated based on budget execution. For each sub-input, the total budget executed for 2011 was recorded. For instance, total costs for training meetings, including lunches for those who did not receive other allowances, room rentals and materials, was recorded for each entity surveyed. Generally, these meetings (primarily for training or planning) were only identified at the central and regional level. The amount per item was then allocated across the 12 EPI components.

v.e. Cold chain equipment, energy and maintenance costs

Valuing the cold chain for the national immunization program includes identifying all cold chain equipment and their related energy and maintenance costs. At each level of the program, cold storage equipment was identified and data collectors recorded the brand, technical characteristics, useful years of life (UYL), capacity (volume used) and energy consumption rate. Photos were also taken of all equipment identified in the field to have on hand for verification at time of data entry. Replacement prices were obtained from the national inventory, a full list of refrigerators, freezers and other cold chain capital items for the entire country. If the inventory did not report a replacement price for a specific piece of equipment, reference prices were obtained from the UNICEF Supply Division Cold Chain Equipment Database. Each piece of equipment identified in the field was then matched to its replacement price. Annualized capital costs were then calculated, using the average UYL for each equipment type.

Additionally, recurrent costs were estimated for each equipment piece. Unit prices for energy consumption were calculated using the Kilowatt-hour (kWh) or energy use reported for each type of equipment in the UNICEF Cold Chain Equipment Database and the 2011 cost per kWh for health sector buildings in Honduras. When energy consumption for specific equipment was not available from UNICEF, an assumed energy consumption rate was derived from other equipment similar in type, brand and volume. As a last resort, the average energy consumption rate for all cold chain equipment was applied.

Routine maintenance for equipment in 2011 was recorded in the surveys administered at each level. All cold chain is given maintenance at the central level garage.

v.f. Vehicle costs

Vehicles are generally shared between multiple activities and programs in the Honduran health sector. The proportion of vehicle use exclusively dedicated to support vaccine distribution, mobilization of vaccinators and other immunization activities requiring transportation was identified at each level of the program. Only at the central level are there vehicles exclusively dedicated to immunization activities.

Identified vehicles were matched to their specific brand and type's replacement price, which was obtained from central level inventory records. The average UYL of all EPI vehicles in the country was used to estimate the annualized economic costs per vehicle per facility/level. Interviews with driver staff helped define the fuel consumption rate for each vehicle, the total distance traveled and the allocation of vehicle use to immunization activities. The national fuel authority provided the average cost per liter of fuel in 2011. In a few cases, regional sanitary offices leased vehicles to support immunization activities. Data collectors recorded the monthly payments as well as the proportion of vehicle use dedicated to immunization activities in 2011.

v.g. Building costs

Square meter area of each facility surveyed in this study was recorded as well as the proportion of this area exclusively dedicated to immunization activities, including surveillance, and/or shared with other health programs. Data collectors had the option to allocate building space supporting immunization services either to vaccine administration, surveillance, cold chain or other operational activities. Capital cost of the building

infrastructure was estimated by multiplying the recorded square meter area by the reported price per square meter of construction in Honduras. Annualized costs were then calculated using an assumption of 20 years of UYL per building. Overhead, or recurrent energy costs for buildings, was documented for central level. At the facility level, energy and water bills for a rural and urban facility were obtained and these costs were assumed across all rural and urban facilities.

v.h. Other recurrent and capital costs

Other costs not included in the items previously reviewed were recorded in the other category. Capital costs included furniture and office equipment. Recurrent costs included mobile phone cards, printing, paper and other office supplies.

v.i. Unit costs and national aggregation

Weighted and un-weighted total and per unit outputs costs were calculated for each health facility and regional office included in the sample. These costs were also calculated by line item and EPI activity component. Per unit output costs calculated at facility only represent delivery cost (or exclude all vaccine and supply costs because these resources are centrally procured): per capita, dose applied, per child under the age of one and per DPT3 vaccinated child. Additional analyses for the childhood program and for the cost structure based on the CA defined activities are presented in Annex 8 and Annex 9. Slightly diverging for the CA definition, cost per FIC was calculated under the assumption

that the cost to fully vaccinate a child includes all costs associated with completing the recommended schedule in Honduras for children at the age of one, which includes the 12 month old dose of MMR. The cost per FIC is estimated by multiplying the total recommended doses at age one (14) adjusted for wastage per vaccine and vaccine-specific unit price and adding to this value other supply, freight and handling costs as well as the delivery and administrative costs per dose derived from the survey data at the three levels of the program, central-, regional- and facility-level. The CA defined cost per FIC (cost per DPT3 dose applied) is provided in Annex 9.

To extrapolate costs from the sampling frame to the 12 regions that were not surveyed, we assumed that the facilities outside the frame were similar to those in the 6 non-metropolitan regions of the frame. Total facility costs were derived from extrapolating the weighted average delivery cost per dose estimated for the sample to those health facilities outside of the sample, accounting for sample design. For the regional administrative levels, excluding those administrative costs identified at the two metropolitan regional offices (Tegucigalpa and San Pedro de Sula), which were substantially higher than the other regions surveyed, we averaged the administrative cost per dose and applied this average to all other regional offices in the country. These extrapolated cost estimates for all facilities and regional levels in the country were then summed with the central level costs, including vaccine and supply costs, to construct an estimate of the total cost of the routine immunization program in Honduras for 2011.

v.j. Construction of costs of immunization in under-1 population

In addition to the baseline cost estimates for the full routine program (including vaccination in children <2 and age 4, adolescent populations and risk groups), other

analyses were performed to estimate the cost of delivering immunization to the under-1 population in the country to generate more comparable baseline data to other EPIC country studies. To do this, we first estimated the cost of vaccines and injection supplies for only doses recommended in the under-1 population. We performed this analysis by health facility in order to include vaccine and injection supply costs in the extrapolations and bottom-up cost aggregation. Approximately 55% of all doses in the program are children doses; however, this varies from facility to facility. To attribute a proportion of all delivery (non-vaccine) to the child doses delivered, we applied the facility-specific fraction of child doses to the total delivery costs calculated per facility. We recalculated all facility level results, including weighted average total and per unit outputs costs by facility type (**Annex 9**). We also reconstructed a national cost estimate for the child program by extrapolating the weighted average total facility cost (including vaccine) per child dose applied to all facilities outside the sample. For the regional and central level costs, we assumed the costs for delivering all child doses equaled the fraction of child doses delivered multiplied by total costs. These supplemental analyses are presented in **Annex 9** and summarized in the results presentation that was delivered at the EPIC launch in November 2014 at the Center for Global Development.

B. Results

i. Total costs of routine immunization in Honduras at national and facility levels

The total economic cost to deliver the routine immunization program in Honduras for 2011 was US\$ 32.5 million. Vaccines and other supplies represented a large share of the costs, amounting to 25%. Labor, cold chain and vehicles represented 54%, 4% and 1%, respectively (**Table 5**). Other costs (11%) represent both other recurrent and capital costs, but also per diems and travel allowances. Total costs account for the administrative and service delivery levels of the program, including the central, regional, municipal program offices and the vaccination delivery sites at health facilities. Vaccine costs consider unit prices for PCV13 and rotavirus that Gavi negotiated with the manufacturers, \$US 7.00 and US\$ 2.50 per dose respectively. Other scenarios considered country co-financing per dose, Gavi graduation prices per dose and PAHO Revolving fund prices per dose in 2011 (**Annex 5**).

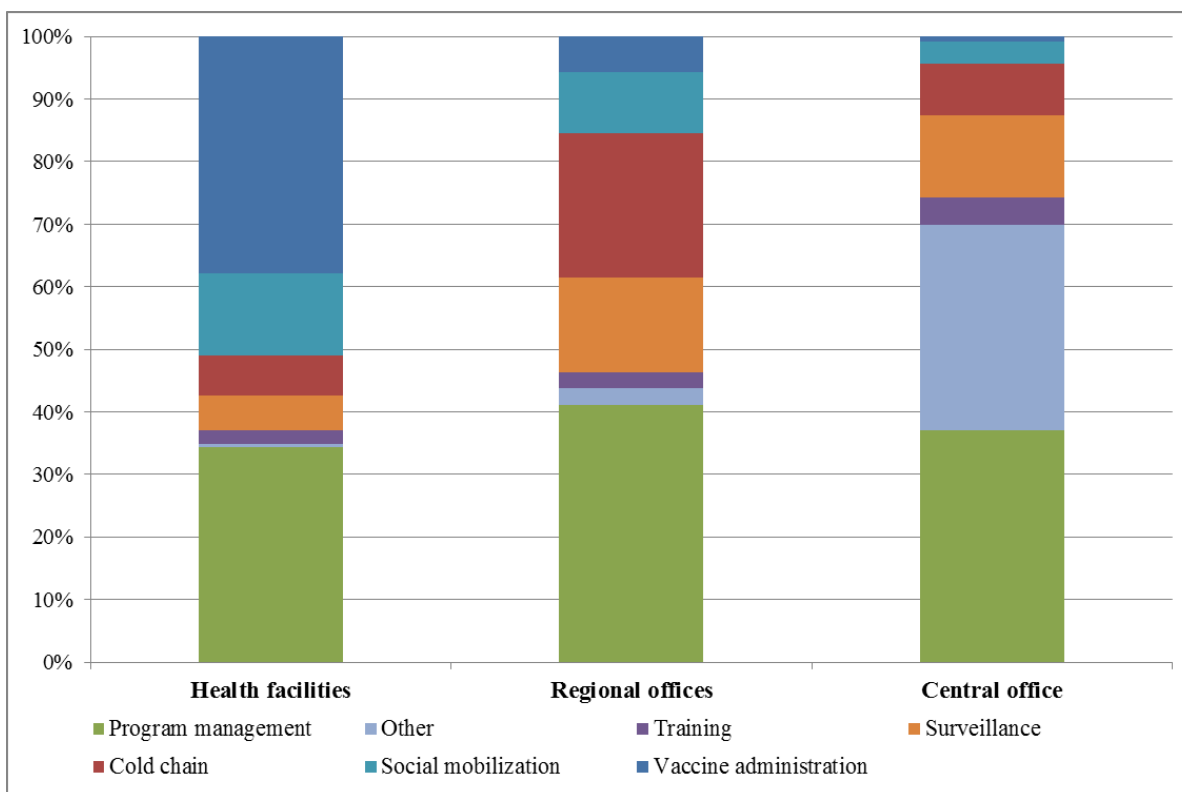
Excluding the cost of vaccine in the base case, 78% of delivery costs are incurred at the health facilities and only 14% and 9% at the regional and central offices, respectively. Labor costs are substantial at all levels but the activities supported by these costs vary between levels of the program (**Figure 2**). Activities to support program management, including planning and coordination, supervision, monitoring and evaluation, research, among others, are consistently a large share of total labor across levels while vaccine administration and social mobilization are more substantial at the facility level. At the regional offices, labor costs are tied up mostly in program management, cold chain and

surveillance. Other labor costs that represent administrative and support activities such as drivers and secretaries carry a large share of the costs at the central level. Volunteers are critical to achieving vaccination targets in rural areas and outreach activities during the National Vaccination Days. The value of their time contributions amounts to US\$ 0.7 million (**Table 5**).

Table 5. Total economic costs of the routine immunization program in Honduras (2011 US Dollars, in thousands)

CAPITAL COSTS				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$0	\$0
Labor	\$0	\$0	\$0	\$0
Volunteers	\$0	\$0	\$0	\$0
Cold chain	\$625	\$176	\$12	\$813
Vehicles	\$53	\$44	\$65	\$162
Buildings	\$613	\$104	\$17	\$734
Other	\$28	\$10	\$103	\$141
TOTAL	\$1,319	\$334	\$197	\$1,850
RECURRENT COSTS				
Category	Facility	Regional	Central	All Levels
Vaccine*	\$0	\$0	\$7,990	\$7,990
Labor	\$15,404	\$1,800	\$449	\$17,653
Volunteers	\$713	\$0	\$0	\$713
Cold chain	\$357	\$70	\$30	\$457
Vehicles	\$60	\$71	\$21	\$152
Buildings	\$220	\$0	\$6	\$226
Other	\$1,021	\$1,046	\$1,381	\$3,448
TOTAL	\$17,775	\$2,987	\$9,877	\$30,639
TOTAL COSTS				
Category	Facility	Regional	Central	TOTAL
Vaccine*	\$0	\$0	\$7,990	\$7,990 (25%)
Labor	\$15,404	\$1,800	\$449	\$17,653 (54%)
Volunteers	\$713	\$0	\$0	\$713 (2%)
Cold chain	\$982	\$246	\$42	\$1,270 (4%)
Vehicles	\$113	\$115	\$86	\$314 (1%)
Buildings	\$833	\$104	\$23	\$960 (3%)
Other	\$1,049	\$1,056	\$1,484	\$3,589 (11%)
TOTAL	\$19,094	\$3,321	\$10,074	\$32,486 (100%)

Figure 2. Share of total labor costs by activity at each level of the routine immunization program



At the facility level, over 30% of all delivery (non-vaccine) costs support vaccine administration (**Table 6**). Social mobilization and vaccination information systems represent the activities that absorb the second and third largest share of delivery costs at facility level, respectively. After accounting for sample design, the total delivery (non-vaccine) cost ranged from US\$ 7,825 in the CESAR (rural) facilities to US\$26,118 in the LEAD (urban) facilities. CESAMO (urban), non-municipal lead facilities delivery costs amounted to nearly the same total delivery costs as the LEAD (urban) facilities that serve as the municipal head for the Honduran Health Secretary (**Table 6**). This finding countered the initial hypothesis that delivery costs would substantially differ between LEAD and

NONLEAD facilities. The same analyses for the childhood immunization program are presented in Annex X.

Table 6. Total facility delivery costs, by activity and facility type (2011 US Dollar

Activity	CESAR	CESAMO	LEAD	Weighted ave.	%
Vaccine administration	\$ 2,290	\$ 10,489	\$ 8,371	\$ 4,566	(33%)
Cold chain	\$ 1,540	\$ 2,163	\$ 2,128	\$ 1,733	(13%)
Supervision	\$ 103	\$ 1,427	\$ 1,309	\$ 506	(4%)
Information systems	\$ 1,815	\$ 6,056	\$ 5,366	\$ 3,058	(22%)
Training	\$ 186	\$ 408	\$ 560	\$ 281	(2%)
Social mobilization	\$ 1,300	\$ 3,308	\$ 4,440	\$ 2,122	(16%)
Surveillance	\$ 259	\$ 585	\$ 1,934	\$ 579	(4%)
Program management	\$ 131	\$ 1,121	\$ 1,428	\$ 496	(4%)
Research	\$ 14	\$ 37	\$ 4	\$ 16	(0%)
Evaluation	\$ 32	\$ 208	\$ 214	\$ 89	(1%)
Advocacy and institutional strengthening	\$ 5	\$ -	\$ 11	\$ 5	(0%)
Other	\$ 152	\$ 165	\$ 353	\$ 186	(1%)
TOTAL	\$ 7,825	\$ 25,967	\$ 26,118	\$ 13,638	(100%)

When evaluating the total output by strata, CESAR (rural) facilities administer nearly 6000 fewer doses than the Municipal lead (urban) facilities. There is less of a difference between the Municipal lead (urban) facilities and CESAMO (non-lead). However, this difference is substantial given that their total delivery costs are nearly the same (**Table 7**).

Table 7. Total doses applied by facility type

TOTAL DOSES, by	OBSERVATIONS	WT. MEAN	SE	95CI LB	95CI UB
CESAR NONLEAD	30	967	178	612	1,322
CESAMO NONLEAD	22	5,456	1,132	3,197	7,715
LEAD	19	7,003	1,958	3,096	10,909

New vaccine introduction costs to support the launch of vaccination against pneumococcal disease in April 2011 were also surveyed. Besides the cost of procuring the vaccine and needed supplies (~US\$ 4.8 Million assuming Gavi prices of US\$7 per PCV dose and US\$2.50 per rotavirus dose), nationwide trainings and revision of vaccination manuals represented the only other incremental costs identified for the study period. These costs totaled US\$ 142,300. The survey of costs at the facility level did not reveal any incremental costs solely related to incorporating the new vaccine. Leading up to the introduction of rotavirus vaccine in 2009 and in anticipation of future PCV13 introduction, Honduras invested substantially in the cold chain infrastructure to ensure adequate capacity for both Rotavirus and PCV13. However, our study did not gather data on the cost of these investments that occurred prior to the 2011 study period.

ii. Unit costs and costs to fully vaccinate a child

In 2011, more than 4 million doses of vaccine were delivered to provide protection to children, adolescents and adults against 12 vaccine-preventable diseases in Honduras. The mean cost per dose to deliver the vaccines, including labor, transport, cold chain, infrastructure, trainings among others, at health facilities totaled US\$ 5.97. When accounting for the stratification by facility type in the sample design, the cost per dose delivered varies from US\$ 1.58 (95CI: US\$ 1.23-1.92) in hospitals to US\$ 7.68 (95CI: US\$ 4.16-11.21) in rural vaccination posts (**Table 8**).

Table 8. Weighted average facility delivery cost per dose, by facility type (2011 US Dollars)

Facility type	OBS.	MEAN	SE	95CI LB	95CI UB
CESAMO	37	\$ 4.56	\$ 0.60	\$ 3.34	\$ 5.77
CESAR	31	\$ 7.68	\$ 1.75	\$ 4.16	\$ 11.21
HOSPITAL	3	\$ 1.58	\$ 0.17	\$ 1.23	\$ 1.92

These unit costs exclude vaccine and supplies [see **Annex 9** for weighed mean facility cost per dose for child program incl. vaccine and injection supplies]. While the health facility type was used as a proxy to represent different delivery contexts, the delivery cost per dose varies even more substantially if the sampled health facilities are stratified by size or the number of doses applied (**Table 9**). The facilities delivering the fewest number of doses (<500 doses, n=4) have the highest weighted average cost per dose, reaching over US\$ 25 per dose, whereas the facilities producing the greatest number of doses applied (>10,000 doses, n=16) have the lowest cost per dose at US\$2.84 (95CI: US\$2.03-3.66).

Table 9. Weighted average facility delivery cost per dose, by facility output category (2011 US Dollars)

Facility size	OBS	MEAN	SE	95CI LB	95CI UB
HUGE (>=10000)	16	\$ 2.84	\$ 0.40	\$ 2.03	\$ 3.66
LARGE (5000-9999)	4	\$ 4.63	\$ 1.67	\$ 1.28	\$ 7.97
MEDIUM (1500-4999)	20	\$ 5.05	\$ 0.85	\$ 3.34	\$ 6.75
SMALL (500-1499)	27	\$ 9.28	\$ 0.83	\$ 7.61	\$ 10.96
TINY (<500)	4	\$ 25.55	\$ 2.02	\$ 21.48	\$ 29.61

These unit delivery costs were used to construct estimates for the cost per fully immunized child (FIC) by summing vaccine costs to complete the recommended schedule for children aged-one with the administrative and delivery costs at each level. After adjusting for

wastage and accounting for transaction costs, the vaccine and injection supply cost to fully complete the vaccination schedule recommended for children at age one in Honduras amounts to US\$ 48.67.. Another US\$ 83.57 is added to this to account for the delivery cost per dose associated with the service delivery and administrative levels. After considering both the vaccine and injection costs, adjusted for wastage and other transactions, the administrative and delivery costs, the total cost per FIC at age of one is \$132.24 (Table 9).

Table 10. Vaccine, administrative and delivery cost breakdown per fully immunized child @ age 1 (2011 US Dollars)

Vaccine	Doses/U1 FIC	Cost/Dose	Total Cost
BCG	1	\$ 0.10	\$ 0.10
Hepatitis B	1	\$ 0.23	\$ 0.23
Oral Polio	3	\$ 0.21	\$ 0.63
Pentavalent	3	\$ 3.19	\$ 9.57
Rotavirus	2	\$ 2.50	\$ 5.00
PCV 13	3	\$ 7.00	\$ 21.00
MMR	1	\$ 1.60	\$ 1.60
<i>Vaccine only</i>	14		\$ 38.13
with CIF, Syringe, Sbox & Oth supply			\$ 46.01
with waste	17.11		\$ 48.67
<i>All other resources employed for delivery (labor, cold chain, infrastructur, etc) by dose</i>			
Central administration		\$ 0.51	\$ 7.12
Regional administration		\$ 0.81	\$ 11.33
Facility delivery		\$ 4.65	\$ 65.13
TOTAL for delivery			\$83.57
TOTAL ECONOMIC COST PER FULLY IMMUNIZED CHILD			\$ 132.24

C. Discussion and conclusions

The unit cost variation between facility types is illustrative of the additional but necessary resource needs to reach children in different settings in Honduras. Two-thirds of all vaccination delivery centers in Honduras are classified as serving rural or population sparse areas, where fewer doses are generally delivered. Unit costs in these settings are almost two-fold higher than those estimated for the larger facilities. In facilities delivering less than 500 doses in the year, these costs rise to US\$ 25.55 per dose (**Table 9**). While these costs are high in comparison to the national weighted mean, they contribute to reaching goals of the national immunization program in vulnerable and hard-to-reach populations. Similar findings on the variation of unit costs in different health service settings are reported for Peru (Walker et al. 2004). With an increasing number of municipalities registering DPT3 coverage rates below 80 percent in Honduras (WHO/UNICEF JRF 2012), more resources may be needed to achieve the national, regional and global goal of extending the benefits of immunization to all.

In 2009 and 2011, the Secretary of Health in Honduras leveraged partnerships with international donors to incorporate the rotavirus and pneumococcal conjugate vaccines into the recommended routine schedule. Early evidence suggests that these two new vaccines have greatly reduced the annual number of outpatient and inpatient visits for childhood pneumonias and diarrheas. Forthcoming studies will contribute to an already strong evidence base in Latin America regarding the significant impact these vaccines have on childhood mortality reduction. But these life-saving vaccines are much more expensive

than other traditional childhood vaccines and substantial levels of subsidies needed to be secured to support their introduction. Similarly, a comprehensive cost analysis of the routine immunization program in Colombia reported a cost per FIC nearly five-fold higher than earlier reported estimates due to new vaccine costs (Castañeda et al. 2011).

In Honduras, expenditures for the routine program have dramatically increased since 2005 (PAHO 2013). While the domestic funding for immunization in Honduras has increased too, the available domestic financing has not been able to expand as quickly as the resource needs to sustain the program. This tendency, in large part, is due to the successful collaboration between the government and partners to accelerate the adoption of new vaccines. This study demonstrates similar findings for 2011, where the resource needs to procure vaccines is near similar to the amount reported in the WHO-UNICEF Joint Reporting Form (JRF). In the coming months and years, Honduras is faced with addressing a dual and potentially troublesome sustainability issue. In addition to maintaining existing levels of financing for sustained high, universal coverage of the program, Gavi subsidies for rotavirus and pneumococcal conjugate vaccines expire after 2015. The country is in preparatory stages now for the 2015 Gavi-graduation. Importantly, precise understanding of the economic costs of delivering the routine immunization program, including these two new vaccines, will help inform discussions to secure a sustainable source of government financing.

D. Study limitations

Some limitations exist to the internal and external validity of the findings reported in this article. Results accurately reflect the costs for the eight regions surveyed. However,

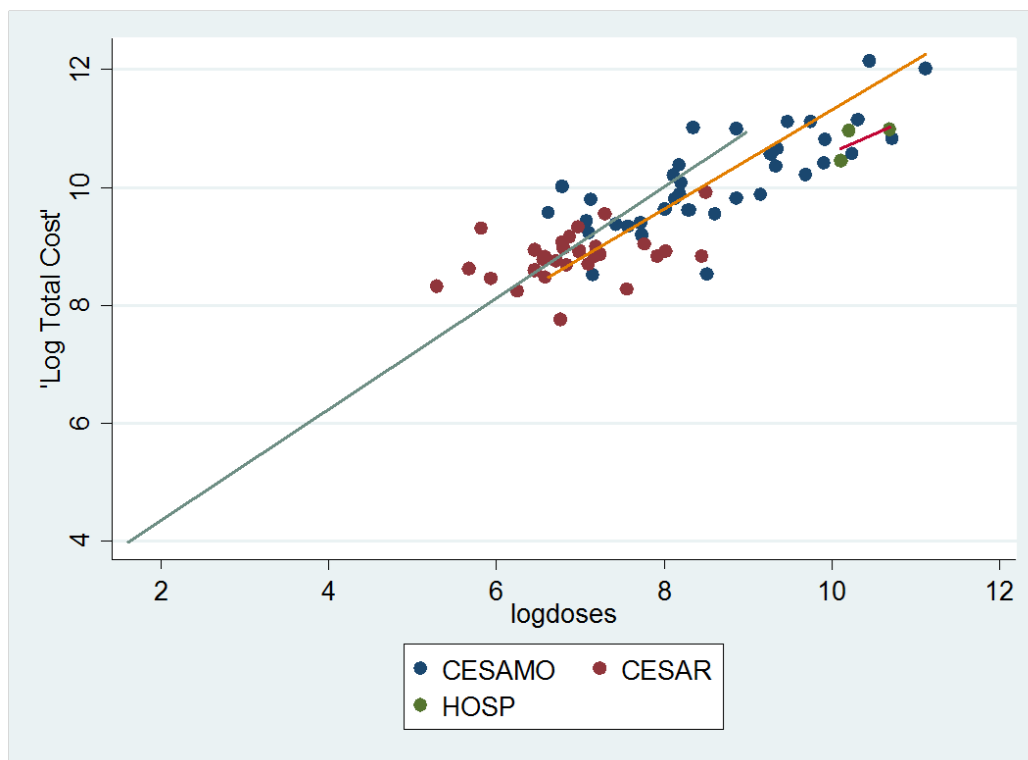
there is likely some level of uncertainty introduced from directly extrapolating the weighted average costs estimated for the sample frame to the out of sample regions. Because of this, we may have underestimated the total national costs, particularly due to excluding two regions that require substantial resources to transport vaccines and other resources by air across water ways. Secondly, labor costs may be over or under-documented due to bias in self-reporting person time shared between service delivery programs. However, efforts were made to mitigate these data quality issues. For example, care was taken to confirm that personnel with similar profiles reported contributing to similar activities. Finally, the determinants of total facility costs identified support earlier arguments of facility level cost drivers. But more work to identify relationships between coverage, or other program performance proxies, and total costs would help to determine more useful recommendations geared towards achieving greater programmatic efficiencies.

V. Determinants Analysis of Routine Immunization Cost

A. Descriptive statistics on facility cost variation

In this study, we observed significant variation in the service delivery cost per dose across sampled facilities ranging from about US\$1.17 to US\$33.41 per dose delivered. This variation has a direct linear relationship with volume of doses delivered (**Figure 3**). We conducted further data analysis to gain insight regarding the variation in immunization program costs at the facility level.

Figure 3. Log of total doses applied and log of total facility costs (US\$ 2011), by facility type



In this analysis we observed some clear patterns (**Table 11**). Hospitals, which typically only delivery vaccines such as Polio 1st Dose and BCG to newborns, had a high volume of doses delivered per facility, and very low service delivery costs, since the specific limited role in delivering vaccination is integrated into routine newborn care and requires only a small amount of human resources at the margin.

In contrast, the other two main facility types, CESARs and CESAMOs, have a similar service goals that necessitate multiple contacts with each child under 1 year old, in order to complete the schedule of 7 vaccines. The two facility types were about equally successful at achieving coverage targets (38% of CESAMOs and 39% of CESARs achieved >95% coverage). Although they face similar tasks with respect to vaccination and were about equally successful, the CESAMOs and CESARs have different cost structures.

CESAMOs tended to be larger in terms of physical space and staffing, more equipped, and located in more populated areas. The mean doses delivered in CESAMOs (11,000) is almost ten times the mean for CESARs. However, in our sample there were a number of CESARs and CESAMOs with similar vaccine delivery volume. Nonetheless, the only facilities with as little as 500 doses delivered per year were CESARs.

We found that CESAMOs may rely somewhat more on national outreach campaigns, but the difference was small (10.5% vs. 8.7% of doses delivered in campaigns). One area where CESAMOs were distinctive was the volume of vaccine doses relative to outpatient visits (0.65 vs. 0.45 in CESARs). This indicates that for every outpatient visit, an average of 0.65 vaccine doses were delivered in CESAMOs, while in CESARs, about 30% fewer vaccines were delivered per outpatient visits. Finally, we noted that wage bill for CESAMO-based immunization was higher. The mean annual FTE wage for a CESAMO was \$10,810, which is \$2710 higher than that of CESARs in our sample. This is likely an important driver of cost, since wages accounted for over 90% of the service delivery costs (excluding the vaccine itself).

Table 11. Descriptive statistics for key variables from cost analysis of Honduras immunization program

Total Cost for 2011					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	\$51,760	\$14,190	\$35,490	\$61,580
CMO	37	\$37,430	\$39,050	\$9800	\$190,910
CSR	31	\$8230	\$4110	\$4100	\$20,970
Total Doses Administered in 2011					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	31,749	10,546	24,487	43,845
CMO	37	10,972	14,193	748	67,175
CSR	31	1311	1141	198	4897
Coverage > 95% of Annual Target					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	.667	.577	0	1
CMO	37	.378	.491	0	1
CSR	31	.387	.495	0	1
METRO					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	0	0	0	0
CMO	37	.351	.484	0	1
CSR	31	.161	.374	0	1
TINY					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	0	0	0	0
CMO	37	0	0	0	0
CSR	31	.129	.341	0	1
Fraction of doses delivered in annual vaccination campaign					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	5.6%	2.2%	3.9%	8.1%
CMO	37	10.5%	2.8%	4.2%	15.4%
CSR	31	8.7%	4.3%	2.3%	20.7%
Doses to Visit Ratio (a measure of the share of outpatient activity related to immunization)					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	0.43	0.27	0.24	0.74
CMO	37	0.65	0.37	0.13	1.71
CSR	31	0.45	0.21	0.15	0.98
Average annual wage of EPI labor force					
	<i>Observations</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Min</i>	<i>Max</i>
HOSP	3	\$9580	\$1350	\$8450	\$11,080
CMO	37	\$10,810	\$2660	\$7310	\$19,470
CSR	31	\$8100	\$2200	\$5550	\$15,470

B. Regression methods and results

When we explored the determinants of vaccination service delivery cost in a multivariable regression framework, we found that many of the individual attributes were significant. In these models, the natural log of costs was modeled, natural log of doses delivered served as a scale factor. The log transformation of these two continuous variables was carried out because the transformed variables were far closer to normally distributed—a requirement of weighted least squares regression.

We compared two alternative specifications (**Table 12**). The first contained, in addition to the scale factor, dummy variables for high coverage, CESAR facility type, metropolitan (SPS or TGU) location, very low volume (<500 doses delivery). This model, with exception of the coverage variable, is very similar to the model used to extrapolate study findings to all of Honduras. We found that all of the independent variables were statistically significant. The coefficient on natural log of doses suggest that after controlling for extremely low volume facilities and the other covariates, for each additional 10% increase in doses delivered, the service delivery costs at the facility increase by 3.8%. The model also includes a dummy variable for facilities of extremely low volume (<500 doses per year), of which there are 4 in the sample. This variable was also significant, and indicated that the cost was higher in these facilities. However, all the facilities of extremely low volume were CESARs, and the dummy variable for CESAR was negative, indicating that controlling everything else in the model, CESARs have lower costs.

In sum, this means that when comparing a CESAR to a CESAMO with similar volume of doses delivered, the costs will be lower in the CESAR. This is probably in part

due to lower average wages for immunization program labor in CESARs. But when facilities are very low volume (which only occurs in rural CESARs) the costs are much higher. Indeed, the crude average service delivery cost per dose in facilities with very low volume was over \$25. One should not necessarily interpret this as inefficiency. For one thing, it is possible that in these facilities it requires more labor to reach the population which is sparse and distributed widely across a large catchment area. Moreover, in these settings, the labor force and infrastructure can be viewed as a fixed cost (often a very small number of workers and minimal equipment and buildings that could not be reduced due to “lumpiness” in units of equipment and the need to provide full-time positions for staff). The facility may have slack capacity to deliver more health services, but due to the sparseness of the population, the demand for service is below the minimum capacity that can be supplied. Thus, when workers at these facilities allocate their time between vaccination and other services, a portion of their underutilized time is allocated to vaccination. The model also showed that facilities in metropolitan region of San Pedro de Sula and Tegucigalpa were higher cost.

About half of the facilities in our sample met their coverage targets during 2011. We used this variable as an indicator of performance. These high-performing facilities, controlling for other covariates, appeared to have somewhat lower cost, which is a counterintuitive finding, since higher performance is usually assumed to cost more. There are some reasons to be cautious about this finding. First, the measurement of coverage is based on the comparison of doses delivered to a target. The target is based on estimated population, but Honduras has not done a census in over a decade, and population levels at the level of facility catchment areas is very uncertain. Additionally, some facilities are in close enough proximity that their catchment populations overlap. In other words, for some

facilities, their “target” might be easier to reach, because it was underestimated, and other facilities may have a target that is overestimated. A facility which is “off-track” during monthly reviews of performance, but which is striving to reach a target which is in fact overestimated, may increase the level of resources dedicated to immunization in an attempt to boost coverage, yet still not meet their target because it was overestimated. In this situation, high costs would be associated with low performance (as we observed).

In the second model specification, a variable for the share of doses delivered in national outreach efforts was added. We hypothesized that because outreach mobilized substantial human resources, that sites having a greater share of their vaccinations due to outreach would have higher cost per dose. We also added a variable for the wage rate of EPI workers, as the price level of this major input would likely impact cost per dose. Finally, we considered the EPI share of total clinic volume. This was proxied by the ratio of doses delivered to outpatient visits. We hypothesized that facilities in which immunization is a larger share of their overall business would be more efficient.

The results of the Model 2 specification, in which the coefficient for average EPI wage per FTE was significant and positive, and the coefficient for CESAR was less negative, supports the hypothesis that the reason CESARs are lower cost than CESAMOs when controlling for doses delivered is partly due to the lower wage level. We also found that when immunization is a bigger portion of the total service delivery at the facility, the costs for immunization were lower. We were somewhat surprised to find that the fraction of doses delivered through the national immunization (“JNV”) days outreach program did not have a significant impact on cost.

Table 12. Determinants of total economic facility costs in Honduras, 2011

Variables	Dep. Var.: ln Total Economic Cost, Facility Level	
	Model (1)	Model (2)
In vaccine doses delivered (Continuous)	0.379**** (0.056)	0.527**** (0.063)
Local coverage exceeds 95% of target Referent: facilities with less than 95% coverage	-0.214** (0.096)	-0.139** (0.056)
CESAR facility type Referent: CESAMO and Hospitals	-0.594**** (0.120)	-0.304** (0.131)
Metropolitan location (SPS or TGU) Referent: non-metro regions	0.413** (0.162)	0.312* (0.181)
Very low volume (<500 doses per year) Referent: 500 or more doses per year	0.592**** (0.157)	0.513**** (0.118)
Fraction of doses delivered during national outreach days (Continuous between 0 and 1)		-0.326 (1.09)
Average annual wage of 1 full-time EPI worker (Continuous)		0.0000536*** (0.000017)
Ratio of Immunization Doses to Outpatient Visits (Continuous between 0 and 1)		-0.771**** (0.156)
Constant	6.89**** (0.425)	5.53**** (0.507)
R-squared	0.746	0.83

**** p < 0.001, *** p < 0.01, ** p < 0.05, * p < 0.1

VI. Analysis of Financial and Commodity Flows for Routine Immunization

This section summarizes the methods, results and conclusions from the financial flows analysis of routine immunization in Honduras for the year 2011. The methods described in this section are a more detailed description of country specific adaption of the Common Approach developed under the umbrella of the EPIc studies (Brenzal et al. 2013). All deviations from the Common Approach and/or specific adaptations of the methods to accommodate the existing tools and practices for planning and budgeting processes in the PAHO Region are thoroughly detailed.

Resource tracking is a real-time planning and evaluation tool to understand and to evaluate the flow of resources for health, or in this case for immunization services, (CGD 2007). A more precise description and understanding of these resource flows enables a management team to demonstrate their good stewardship of both domestic and external funding sources as well as identify any overlap and/or inefficiencies. Additionally, these methods may point to funding gaps and arguments to support resource mobilization efforts.

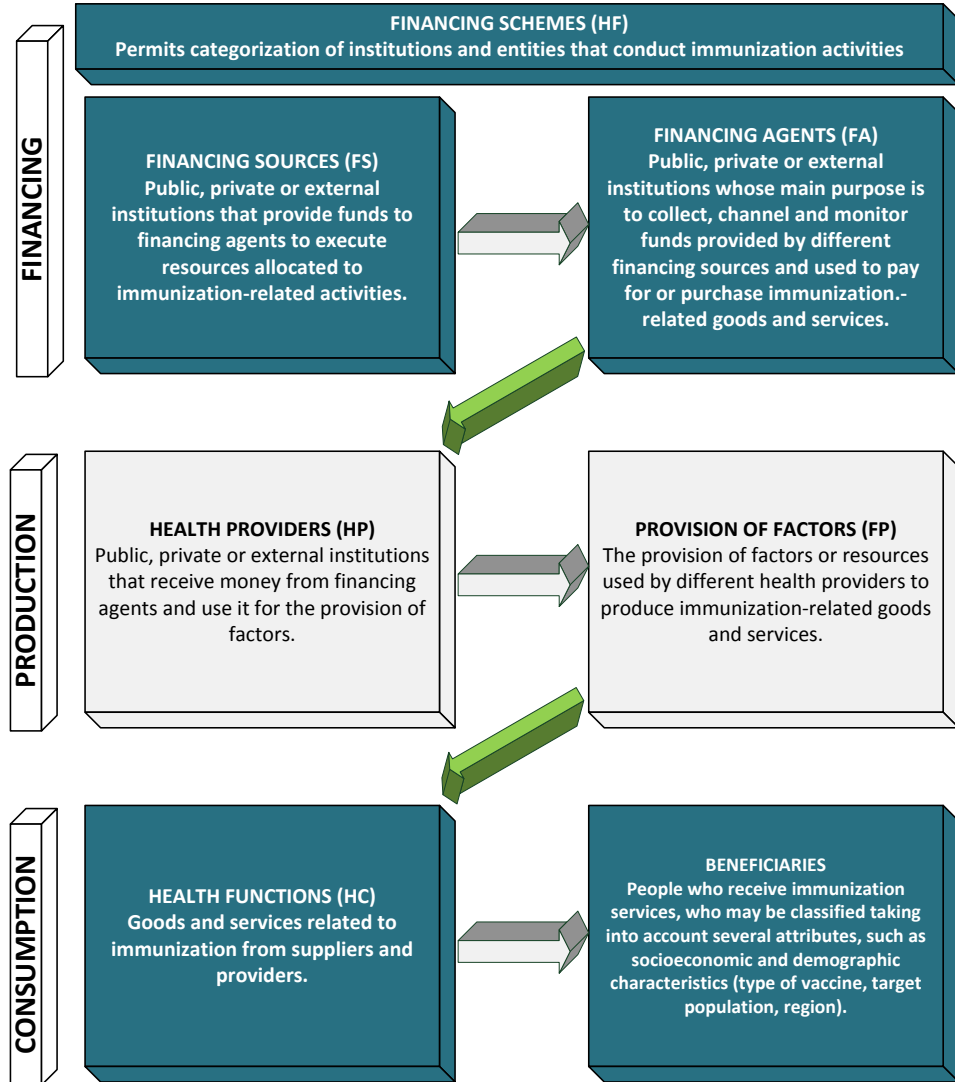
A. Methods

i. Conceptual framework

This analysis focuses on the financial flows for the routine immunization program from external, government and other domestic sources. Following the EPIc Common Approach recommendations, this analysis borrowed from the coding system developed for the System Health Accounts (SHA) 2011. This coding system facilitates the identification and

categorization of various financing sources, agents and schemes that subsequently can be distributed between different health care providers, health care functions (similar to EPI components or activities), health care provisions (similar to line item classifications) and ultimately beneficiaries by vaccine type and/or region. **Figure 5** demonstrates the relationship between the different transactional vectors and a more detailed description of the adapted SHA 2011 codes employed for this analysis is available in **Annex 7**. The only deviation from the EPIc CA recommended SHA 2011 codes include those codes developed for the beneficiary group (REG, VAC, POP).

Figure 3. System of Health Accounts (SHA) 2011 Financing, Production and Consumption codes



ii. Perspective and key assumptions

All financial flows identified for the fiscal year 2010/2011 were quantified, coded and reported. This 12 month periods begins January 1, 2011 and extends to December 31, 2011. EPI financing was evaluated at the national, regional and local levels. The information at the local level was estimated through a survey conducted in a representative sample of health units (described previously). Information from bilateral and multilateral

agencies that provided some type of support to the immunization program, whether in cash or in kind was also included in the study. Donations in kind were recorded through the use of estimates or appraisals. For example, Project HOPE donated approximately 150,000 doses of the PPV23 vaccines for special risk groups. In this case, the local monetary value of the doses was considered and subsequently recorded as a financial flow for immunization.

The accrual accounting method was used for this study, which refers to identifying all financial transactions, or committed budgets that have been transferred, that were completed in the period in which the value of a good or service was generated (SNA 2008). All costs were reported in the local currency, Lempiras, and converted to 2011 US dollars with the official exchange rate of \$18.8915 Lempiras to \$1 US dollar. Administrative records from public, private and foreign institutions were obtained to estimate the total financing amount transferred to support the routine immunization program in Honduras. In the event that financial records were not adequately detailed to ascertain allocation of the financing source, agent and scheme to health provider, health care function, health care provision and beneficiaries, several allocation rules were assumed:

- **Health Providers (HP):** Financing records do not provide information to code directly for health provider type. As such, the total 2011 financing for immunization was allocated to each health provider based on the proportion of doses applied by each provider.
- **Health Care Provision (FP):** Most financing records provide sufficient information to classify the transaction by FP. In the event of insufficient

information on the record to inform the allocation by FP, records from other institutions with similar expense detail was used to apply an assumption regarding the FP.

- **Region (REG):** Not all financing records identify where the flow is destined. In order to allocate by REG, the same assumption as HP was considered. Total 2011 financing for immunization was allocated to each region based on the proportion of doses applied in each respective region.
- **Vaccine (VAC):** Not all financing records identify to which vaccine the flow is destined. In order to allocate by VAC, the same assumption as HP was considered. Total 2011 financing for immunization was allocated to each vaccine based on the proportion of total doses applied by vaccine antigen.
- **Target population (POP):** No financing records identify to which population the flow is destined, besides purchase orders for biologics and supplies. In order to allocate by POP, the same assumption as HP was considered. Total 2011 financing for immunization was allocated to each target population based on the proportion of doses applied to each respective population group.

Additionally, another series of allocation rules were derived from the facility-based survey implemented primarily for the costing analysis. While the facility questionnaires

surveyed the financing sources for the resources identified, many accounts managers at facility level were unaware of the program's financial system and therefore could not provide precise information on new equipment or infrastructure, whereas most had information on resources received to support per diems, travel allowances, etc.

- **Financing for gasoline at regional level:** The financial record detail for this item does not permit allocation by Health Care Function (HC). As a proxy, the same allocation by EPI component reported by the regional offices surveyed in the sample for the cost analysis was used.
- **Full time equivalents (FTE) dedicated to immunization:** The national personnel database does not distinguish the health worker activity (HC). Therefore, the proportion of FTE dedicated to immunization activities reported in the facility surveys for the cost analysis was used and applied to all personnel nationwide. As such, the %FTE by activity (HC) reported in the cost analysis is the same for the financial flows analysis.
- **Vehicle use:** any vehicles for local or regional level procured in 2011 were identified and quantified via the facility surveys and simple averages were applied to out of sample facilities.
- **Financing for meeting, per diem and travel allowances at health facility and regional level:** financial contributions to the local level to support the mobilization and training of health workers working with immunization services

was captured in the facility-based survey and applied to the financial flows analysis.

iii. Data collection

Several data sources were consulted to identify, quantify and correctly code all financial flows. **Figure 4** shows the varied data sources reviewed by institution (rows) and by type (column). Through key informant interviews, primarily with the immunization program management and other key actors in financial management at the Honduran Secretary of Health, a mapping exercise was conducted to better understand all potential financial sources and actors in the flow of resources for immunization in the country. Information, by way of in-person interviews and also official letters, was solicited from each of the institutions identified in the mapping exercise. Additionally, some facility-level financial sources and flows were identified in the facility-based survey administered primarily for the cost analysis.

Specifically, the Secretary of Health provided information on payroll, inventories, financial records, and national statistics, among others, at the administrative central and regional levels. The national payroll database provided a listing of all staff at Secretary of Health dedicating some or all of their person time to immunization services. Importantly, this database identified the financing source for each employee. The cold chain inventory listing was obtained to determine the location, brand, model, series, operational use, condition of equipment, replacement cost and financing source for all equipment acquired in 2011. A secondary source for equipment was obtained from the national inventory of assets listing, which details all goods and property of the Secretary of Health that support

immunization services. Vehicles procured in 2011 were identified in this listing. Next, financial transaction records (F01 forms) were obtained from the budget office to identify, quantify and code many financial flows related to vaccines, supplies, per diems, travel allowances, among other transfers. This form reports the line item detail, including intended use (activity or Health care Provision), executing unit, accounting period, financing source, financing agent as well as total amount transferred (**Annex 8**). Finally, national statistics on production (doses applied) by health facility, municipality, region, sector and antigen was obtained from the national statistics bureau. The Management, Planning and Evaluation Unit provided information on financing from international cooperation partners, and importantly the financing provided by Gavi is administered through this Unit in the Secretary of Health. Information regarding financing from the U.S. Agency for International Development (USAID) and the Spanish Agency for International Development and Cooperation (AECID) was obtained from the Extending Coverage and Financing Unit in the Secretary of Health.

In addition to the Secretary of Health, the Secretary for Public Finance provided additional health-related F01 forms detailing financial transactions at the lower administrative levels, specifically regional and municipal jurisdictions. The Honduran Social Security Institute provided information on vaccination statistics (doses applied) and payroll. Finally, information was gathered from international organizations to track all resource flows originating outside of the country. PAHO, UNICEF, Gavi among other multilateral and bilateral organizations, NGOs and Foundations contributed information regarding their financing of immunization services in Honduras. Importantly, PAHO provided all purchase invoices for vaccines and other supplies procured through the PAHO Revolving Fund. These invoices detail vaccine prices, quantity, administrative fee, freight

and insurance for each purchase order. Transfers from PAHO and UNICEF to the central and regional level for immunization services were also identified.

Figure 4. Data sources consulted for financial flows analysis of routine immunization

INSTITUTIONS	HR Payroll	Cold Chain Inventory	Asset Inventory	Budget Execution	Statistics	UPEG	UECF	International Cooperation	Survey
Secretariat of Health	✓	✓	✓	✓	✓				
Expanded Program on Immunization	✓	✓	✓	✓	✓			✓	
Secretariat of Finance				✓					
Honduran Social Security Institute	✓				✓				
Health Regions	✓	✓	✓	✓				✓	✓
Health Units									✓
National Institute of Statistics					✓				
Pan American Health Organization								✓	
GAVI						✓			
UNICEF								✓	
USAID								✓	
Bilateral and Multilateral Organizations							✓	✓	
NGOs and Foundations								✓	

B. Results

i. Mapping of financial flows for Honduras

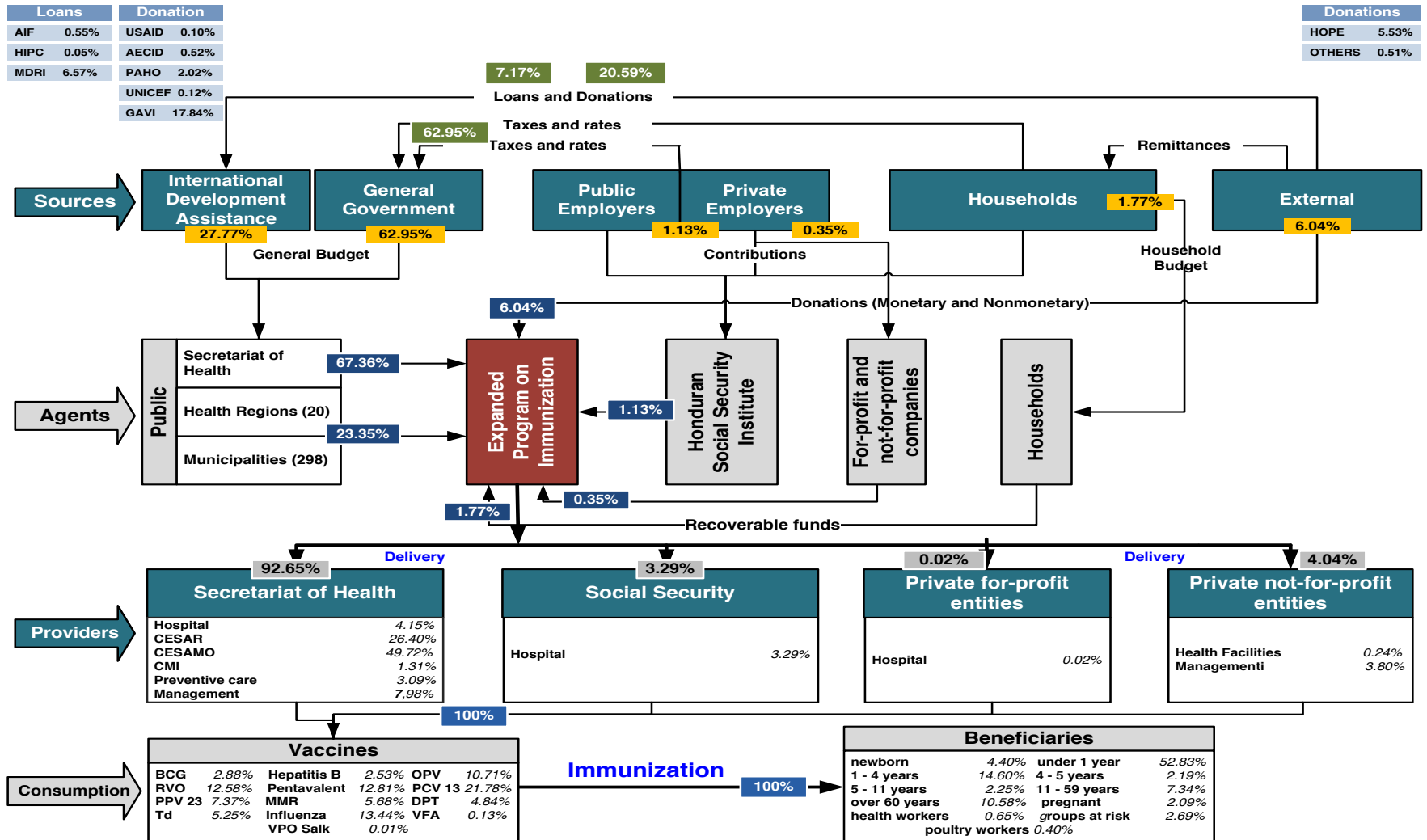
Figure 5 details the financial flows for routine immunization services in Honduras. The mapping of financial flows led to a systematic approach for identifying and quantifying, with the application of some assumptions previously described, financing from its origin to its intended beneficiary, grouped by region, antigen and target population. The direction of resource flows between the financing sources, agents, providers and ultimately beneficiaries is demonstrated by directional arrows in **Figure 5**.

An estimated 64% of total financing for immunization services originates from national revenue schemes, principally generated from taxes and royalties on public and private companies and/or households. External financing for immunization amounts to

34%, which represents primarily financing schemes based on donations (21%) and loans (7%). Gavi financial transfers account for over 18% of all donations. More specifically, financing sources for immunization include central government, public and private employers, households and international cooperation. These sources are then channeled to the financing agents responsible for allocating the resources to the intended provider. All external financing is redirected to the Secretary of Health as financing agent, either at central, regional or municipal level (91%).

The NIP, in conjunction with higher leadership at the Secretary of Health, makes resource allocation decisions as an important financing agent for all immunization services financing. This primary agent for immunization financing allocates resources to the service provider level, including all public, social security and private clinics providing immunization services. Public sector clinics, where the majority of vaccinations take place, received ~93% of the total available financing for immunization. Of the total financing, 21.8% supported PCV13 vaccinations. Alongside this vaccine, other vaccinations including influenza, pentavalent and rotavirus carry the majority share financing at 13.4%, 12.8% and 12.6%, respectively. Finally, financing tagged for beneficiaries is largely represented by the under-one population (53%).

Figure 5. Mapping of financial flows for immunization services in Honduras (2011)



ii. Key summary results

In 2011, an estimated US\$ 49.1 million in financing was identified for immunization services in Honduras. This amount equals 3.3% of total national health expenditures and 0.29% of the GDP. The following sections provide a more detailed description of each of the financial flows dimensions: financing, production and consumption.

Financing Sources (FS)

Financing sources can originate from public, private or external sources. These financing sources for immunization services are comprised of general revenue from the national treasury, resources from the private sector (for-profit and households) and external international cooperation, including multilateral and bilateral organizations.

Table 13. EPI financial flows by source

FS	FINANCING SOURCE	FINANCING (\$us)	%
FS 1	Transfers from government domestic revenue	30,896,796	62.9%
FS 1.1.1	Internal transfers within central government	19,757,049	40.3%
FS 1.1.2	Internal transfers within region/local government	11,139,747	22.7%
FS 2	Transfers distributed by government from foreign origin	10,106,693	20.6%
FS 2.1.1	From bilateral organizations	303,208	0.6%
FS 2.1.2	From multilateral organizations	1,046,968	2.1%
FS 2.1.3	From GAVI Alliance	8,756,517	17.8%
FS 3	Social insurance contributions	553,996	1.1%
FS 5	Voluntary prepayment	867,324	1.8%
FS 6	Other domestic revenues n.e.c.	170,643	0.3%
FS 7	Direct foreign transfers	2,966,657	6.0%
FSR 1	Loans	3,521,518	7.2%
FSR 1.1.1.1	Concessional loans	269,736	0.5%
FSR 1.1.1.3	Debt relief	3,251,782	6.6%
TOTAL FINANCING SOURCE		49,083,626	100%

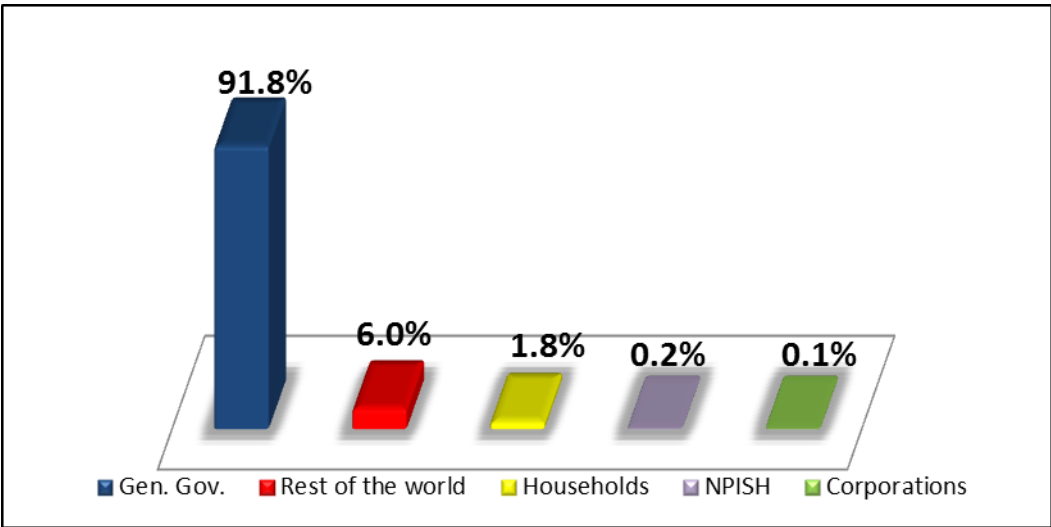
In **Table 13**, *Public Financing (FS 1+FS 3)* represents the main source of financing for the EPI in 2011 and is equal to 64% of total financing (\$30.1 million). This funding source is comprised of resource transfers made by the national treasury to the central government and the sub-national governments (regional and municipal). Resources from Honduran Institute of Social security (IHSS) for activities related to EPI are also categorized in Public Financing. *Private Financing (FS 5+FS 6)* comprises health facility revenues generated through out-of-pocket payments, a token \$Lempira per visit, and resources from private institutions (domestic nonprofits or for-profits) that supported some activities related to the EPI. For 2011, the resources from both financing sources totaled \$ 1 million; this corresponds to 2% of total expenditure.

External Financing (FS 2+FS 7+FSR 1) used for immunization-related activities represent 34% of total spending (\$ 16.5 million), of which 78% (13.1 million) corresponds to external grant and the remaining 21% (3.5 million dollars) corresponds to loans from international agencies. It is important to note that there are two types of categories related to external donation: 1) Resource donations formally entering in the budget of the Secretary of Health as a transfer and subsequently administered by the EPI (UNICEF, PAHO, AECID, USAID and Gavi) and 2) Resource donation that were managed directly by organizations for international cooperation related to immunization (HOPE Project and other external agencies) activities. In relation to these loans related to concessional loans (IDA) and public debt relief (HIPC and MDRA).

Financing Agent (FA)

In 2011, the main financing agent that channeled resources towards activities related to immunization in Honduras was the General Government with approximately \$ 45.1 million. This represented 92 % of total financing, a third of which is managed at lower administrative levels. The other financing agent "rest of the world" has channeled financing for immunization services via Project HOPE and other international organizations with 6% (\$ 3 million) of total financing. The remaining 2.1% of financing (approximately \$ 1 million) was managed and administered in order importance: households, nonprofit institutions and private companies related to health services (**Figure 6**).

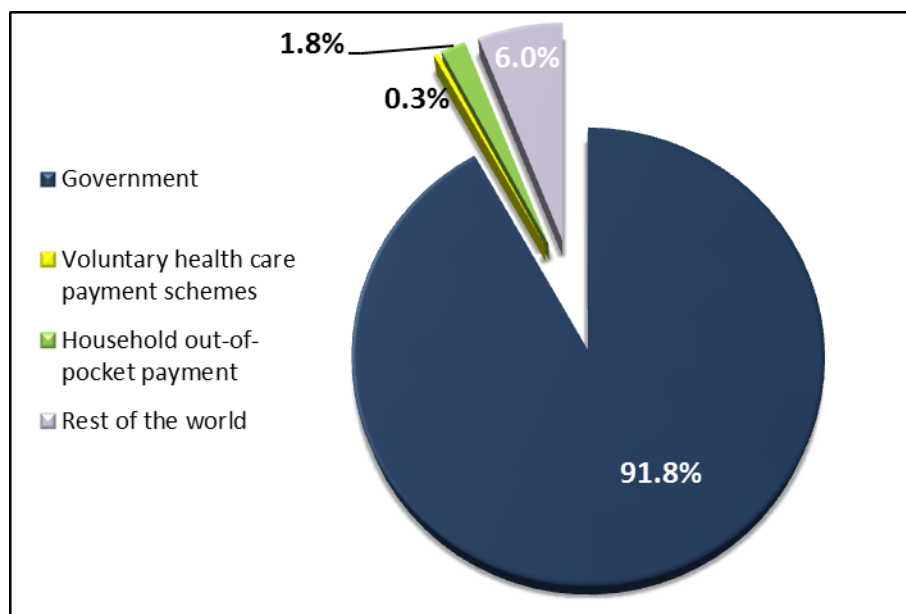
Figure 6. Percent financing for immunization services, by financing agent



Health Financing (HF)

The main financing scheme for the EPI in 2011 corresponded to the general government revenue (taxes) and compulsory contributions, totaling approximately US\$ 42.1 million. This amount represented 92% of total available financing. The financing scheme related to the external funds (“rest of the world”) was the second largest with 6% (\$ 3 million) of total financing. The remaining 2% (approximately \$ 1 million) represents financing schemes derived from, in order of importance, households, insurers, and nonprofits (Figure 7).

Figure 7. Financing for immunization services, by financing scheme



Health Providers (HP)

The role of health care providers in immunization activities is essential to achieving the coverage goals and objectives established through national and international commitments. For this reason, it is critical to understand the financial flows destined for each type of provider. In **Table 14**, the percentage breakdown of health care providers that received financing on immunization activities is shown. In this breakdown, health facilities providing outpatient medical care were the most important and represented 78% of total financing.

Table 14. Financing for immunization services, by health provider

HP	HEALTH PROVIDERS	FINANCING (\$us)	%
HP 1	Hospitals	3,656,114	7.4%
HP 1.1.1	General Hospitals - Public	2,034,899	4.1%
HP 1.1.2	General Hospitals - Social Security	1,613,731	3.3%
HP 1.1.3	General Hospitals . Private	7,485	0.0%
HP 3	Providers of ambulatory health care	38,125,149	77.7%
HP 3.4.9.1	All other ambulatory centres - Public	38,007,395	77.4%
HP 3.4.9.1.1	CESAR	12,959,394	26.4%
HP 3.4.9.1.2	CESAMO	24,406,094	49.7%
HP 3.4.9.1.3	CMI	641,907	1.3%
HP 3.4.9.3	All other ambulatory centres - Private	117,753	0.2%
HP 6	Providers of preventive care	1,518,343	3.1%
HP 7	Providers of health care system administration and financing	5,784,020	11.8%
HP 7.1	Government health administration agencies	3,917,188	8.0%
HP 7.9	Other administration agencies	1,866,832	3.8%

The financing received by hospitals (HP 1) for immunization activities totaled \$ 3.6 million, of which US\$ 2 million (4.1%) was destined for public sector administration. IHSS hospitals totaled US\$ 1.6 million in financing, or 3.3% of the total. Ambulatory healthcare facilities (HP 3) were the most important operational arm to support immunization services in 2011. These health facilities totaled US\$ 38 million in financing. Of this, 50% financed immunization services in the more urban, larger facilities (CESAMOs) and 27% financed immunization services in the smaller, rural facilities (CESARs). Private sector facilities represented a minimal amount of total financing (0.2%) for immunization services.

Health Care Provision (FP)

The provision of inputs used by health care providers and financing agents is very important to the immunization program because they facilitate the main objective of attaining vaccination coverage. Wages for health workers, immunization managers and administrative staff represents the bulk of the financing for 2011 (**Table 15**). Employee remuneration consumed 47% of total financing for immunization. Other important input items requiring substantial financing included: materials and services (45%), taxes and customs duties (5%) and fixed capital (2%), followed by 1% of financing that could not be allocated to a specific FP. After wages and salaries, the majority of financing in 2011 supported the procurement of vaccines and supplies (nearly 100% of financing allocated to FP3).

Table 15. Financing for immunization services, by health care provision

FP	Health Care Provision	FINANCING (Dollar)	%
FP 1	Compensation of employees	23,069,312	47.0%
FP 1.1	Wages and salaries	20,555,398	41.9%
FP 1.3	All other costs relating to employees	2,513,914	5.1%
FP 1.3.1	Per diem	2,513,914	5.1%
FP 3	Materials and services used	22,070,259	45.0%
FP 3.2	Health care goods	20,270,709	41.3%
FP 3.2.1	Pharmaceuticals	19,898,559	40.5%
FP 3.2.1.1	Vaccines	19,858,663	40.5%
FP 3.2.1.1.1	Other vaccines	5,947,277	12.1%
FP 3.2.1.1.2	Childhood vaccines	13,911,386	28.3%
FP 3.2.1.2	Other goods	39,897	0.1%
FP 3.2.2	Other health care goods	372,150	0.8%
FP 3.2.2.1	Injection supplies	197,647	0.4%
FP 3.2.2.2	Other supplies	174,503	0.4%
FP 3.3	Non-health care services	1,479,173	3.0%
FP 3.3.1	Transport	445,463	0.9%
FP 3.3.2	Maintenance	720,309	1.5%
FP 3.3.3	Printing	100,969	0.2%
FP 3.3.4	Other	212,431	0.4%
FP 3.4	Non-health care goods	320,377	0.7%
FP 3.4.1	Utilities and communications	157,840	0.3%
FP 3.4.2	Other	162,537	0.3%
FP 4	Consumption of fixed capital	1,155,704	2.4%
FP 4.1	Cold chain equipment	1,000,754	2.0%
FP 4.2	Vehicles	51,106	0.1%
FP 4.3	Other equipment	103,845	0.2%
FP 5	Other items of spending on inputs	2,448,130	5.0%
FP 5.1	Taxes and customs duties	2,448,130	5.0%
FP 99	Not disaggregated/n.e.c	340,221	0.7%

Health Care Functions (HC)

Following the CA proposed for the EPIc multi-country studies, SHA 2011 classification codes for HC were further developed to introduce new groups for immunization-specific activities (Brenzal et al. 2013, forthcoming). These codes match the same immunization activities proposed for the cost analysis, described previously. **Table 16** shows that in Honduras during the year 2011, 99.9% of total financing supported preventative care (HC6), and specifically activities required for a successful immunization program.

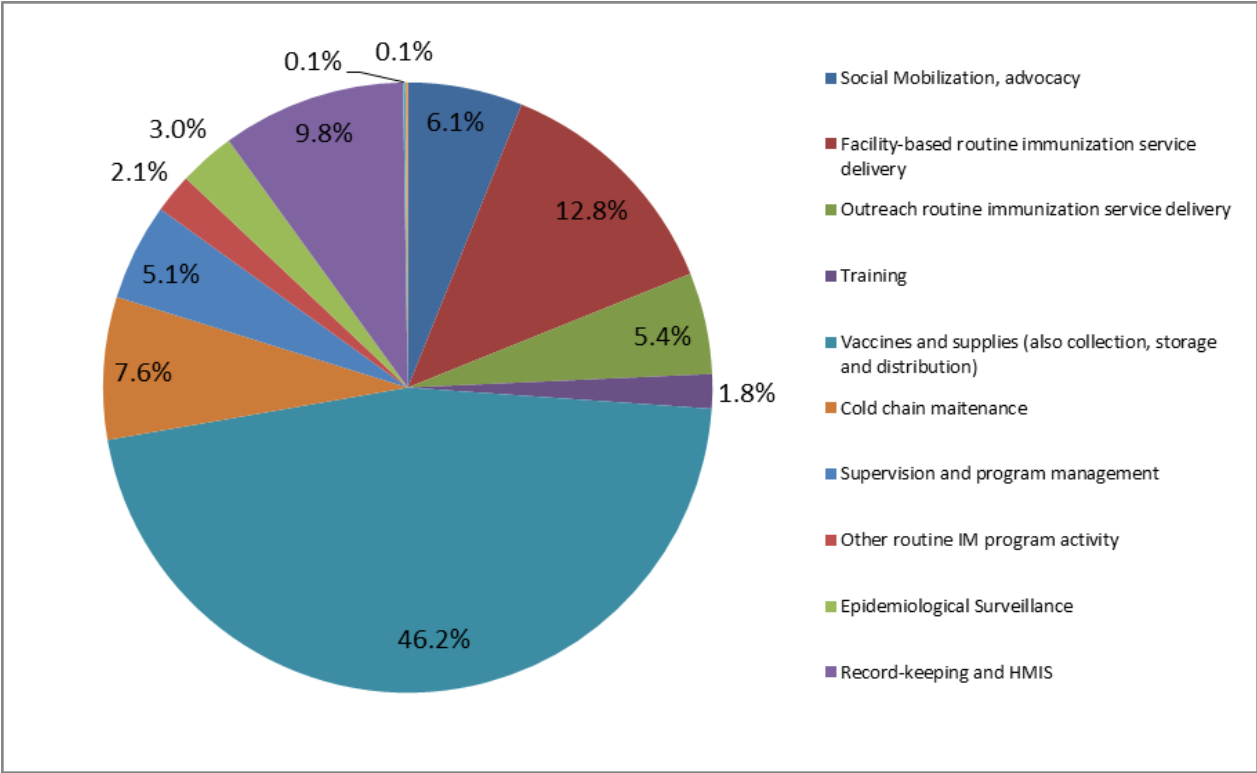
Table 16. Financing for immunization services, by health care function

HC	HEALTH CARE FUNCTION	FINANCING (\$us)	%
HC 6	Preventive care	48,992,359	99.8%
HC 6.1	Information, education and counseling programmes	2,998,009	6.1%
HC 6.1.1	Social Mobilization, advocacy	2,998,009	6.1%
HC 6.2	Immunization programmes	39,744,829	81.0%
HC 6.2.1	Facility-based routine immunization service delivery	6,293,986	12.8%
HC 6.2.2	Outreach routine immunization service delivery	2,637,626	5.4%
HC 6.2.3	Training	892,542	1.8%
HC 6.2.4	Vaccines and supplies (also collection, storage and distribution)	22,661,997	46.2%
HC 6.2.5	Cold chain maintenance	3,707,934	7.6%
HC 6.2.6	Supervision and program management	2,522,535	5.1%
HC 6.2.7	Other routine IM program activity	1,028,210	2.1%
HC 6.5	Epidemiological surveillance and risk and disease control programmes	6,249,522	12.7%
HC 6.5.1	Epidemiological Surveillance	1,459,004	3.0%
HC 6.5.2	Record-keeping and HMIS	4,790,518	9.8%
HC 7	Governance, and health system and financing administration	31,928	0.1%
HC 7.1	Governance and Health system administration	31,928	0.1%
HC 7.1.1	Priority Policy and Legal Basis	31,928	0.1%
HC RI 3	Prevention and public health services	59,339	0.1%
HC RI 3.3	Prevention of communicable diseases	59,339	0.1%
HC RI 3.3.1	Research	59,339	0.1%
TOTAL HEALTH CARE		49,083,626	100%

Financing for vaccines and supplies was accounted for in HC 6.2.4, which represents the largest share of total financing (46%). **Figure 8** demonstrates that other

important activities requiring substantial financing include vaccine administration (both facility-based and outreach) and training, totaling 18% and record keeping/information systems 10%, respectively.

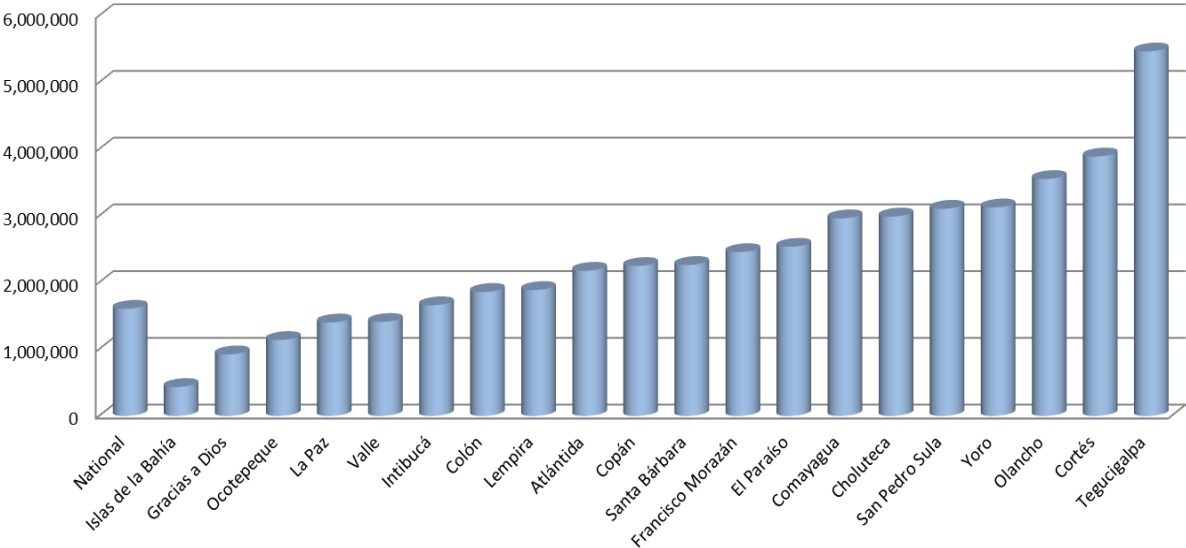
Figure 8. Total percentage of financing for immunization, by activity



Health Region (REG)

Financing directed towards the 20 Sanitary Regions for immunization services is represented in **Figure 9**, where Tegucigalpa, Olancho and Cortes require the largest share of financing.

Figure 9. Distribution of financing for routine immunization services, by sanitary region



The central level management for immunization services represents 3.3% of total financing for the program, or approximately US\$ 1.6 million.

Type of vaccine (VAC)

In 2011 the recommended immunization schedule in Honduras included 12 vaccines: Yellow Fever (VFA), Rotavirus (RVO), Bacillus Calmette–Guérin (BCG),

pentavalent (DPT+Hib+HepB), Hepatitis B (HEP B), oral polio (OPV), pneumococcal conjugate (PCV 13), Measles-Mumps-Rubella (MMR), Diphtheria-Pertussis-Tetanus (DPT), Tetanus-Diphtheria (Td), injectable polio (Salk), and Influenza (INFLU). It is noteworthy that the EPI administered Pneumococcal Polysaccharide Vaccine (PPV 23) as it had been donated by Project HOPE International.

Figure demonstrates that four vaccines represent the largest share of financial flows, including PCV13 (21.8%), Influenza (13.4%), Pentavalent (12.8%) and Rotavirus (12.6%) vaccines. Vaccines targeting special risk groups, such as Yellow Fever and IPV, represent a very small share of all financing (<1%).

Target Population (POP)

Table 17 summarizes how financing for immunization services was distributed across the multiple target groups for the program. Nearly two-thirds of all financing supports immunization in children <5, where majority of financing is marked for in-facility vaccination. Another 10% targets the elderly, where adults>60 receive the seasonal flu vaccine.

Table 17. Financing for immunization services, by population target group

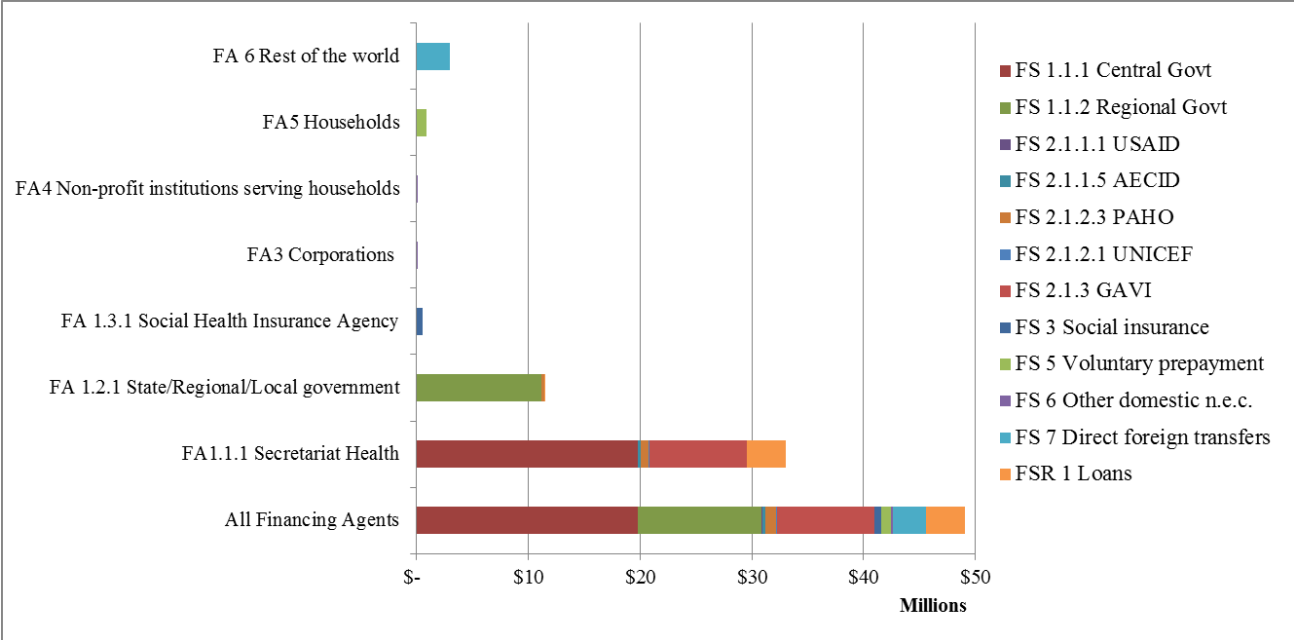
POP	TARGET	<i>Outreach (\$us)</i>	<i>In-facility (\$us)</i>	<i>Financing (\$US)</i>	<i>%</i>
POP 01	Newborn	88,545	2,069,532	2,158,077	4.4%
POP 02	Under 1 year	2,216,588	23,712,272	25,928,859	52.8%
POP 03	1-4 years	866,021	6,301,195	7,167,217	14.6%
POP 04	4-5 years	182,743	892,815	1,075,558	2.2%
POP 05	5-11 years	1,101,946		1,101,946	2.2%
POP 06	11-59 years	2,820,322	780,073	3,600,395	7.3%
POP 07	Over 60 years old	87,712	5,106,145	5,193,857	10.6%
POP 08	Pregnant	98,017	926,706	1,024,723	2.1%
POP 09	Poultry Worker	9,537	185,347	194,883	0.4%
POP 10	Health Worker	2,938	314,010	316,948	0.6%
POP 11	Groups at Risk	93,396	1,227,766	1,321,162	2.7%
TOTAL TARGET		7,567,765	41,515,861	49,083,626	100%
		15.4%	84.6%	100.0%	

iii. Findings from crossing FA by FS

Crossing the Financing Agent by Financing Source codes demonstrates the key role the government plays in financing and administering financial flows for use in the immunization program (**Figure 10**). The Secretary of Health manages and administers an important share of all financing (67%). At the regional and local government level, a smaller but substantial amount of domestic revenues is managed and administered, approximately US\$ 11.1 million or 33% of total financing. However, almost all transfers of foreign origin are administered by the central government responsible entity, the Secretary of Health. Some PAHO resources are directly transferred to the local level, approximately US\$ 300,000. This financing is likely earmarked for per diems and travel allowances to mobilize outreach efforts in low-coverage districts. Finally, it is important to note that most other external financing aimed at supporting immunization services in Honduras is

earmarked for vaccine and supply purchases. These purchases are executed at the central level and therefore most financing of external origin, for example Gavi financing, is centralized.

Figure 10. Financing Agent by Financing Source for routine immunization, 2011

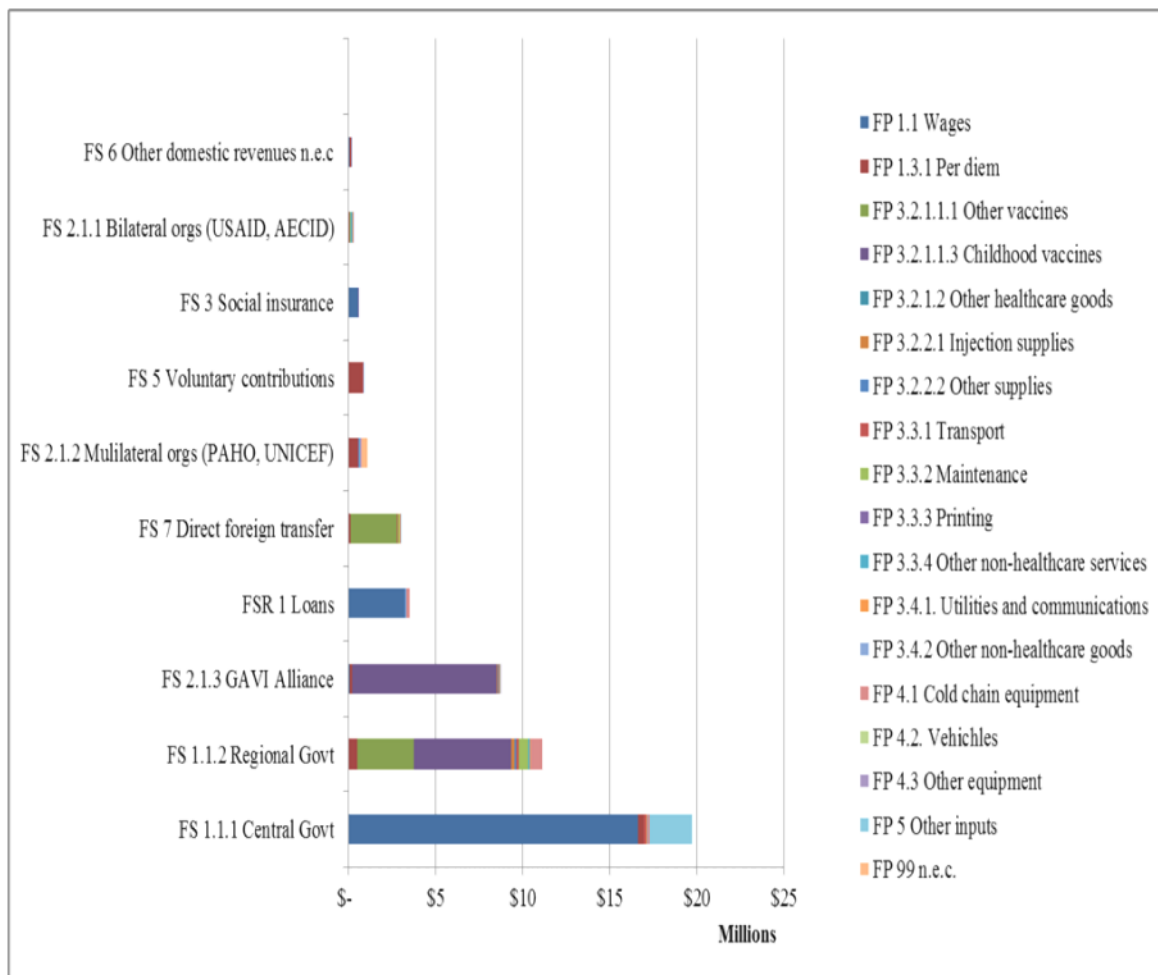


iv. Findings from crossing FS by FP

This matrix demonstrates how various financing sources contribute to different inputs to the national immunization program (Figure 11). Again, we can see that the government finances nearly two-thirds of the program. The central government primarily finances wages and other employee benefits, including per diems and travel allowances. In contrast, the regional government finances all vaccines (childhood + other risk groups) as well as the majority of the cold chain equipment acquired for 2011. This finding is of interest because procurement for vaccines and supplies is centralized but the available financing is located at decentralized accounts. The third largest source of financing is from

the Gavi, which exclusively finances childhood new vaccines (PCV13 and rotavirus), injection supplies and a small amount of per diem and travel allowances as well as printing. Loans from international organization, mostly originating from agreements related to the country's status as a Heavily Indebted Poor Country (HIPC), finance wages for health workers at the regional level and facility level, as well as security boxes and some cold chain equipment.

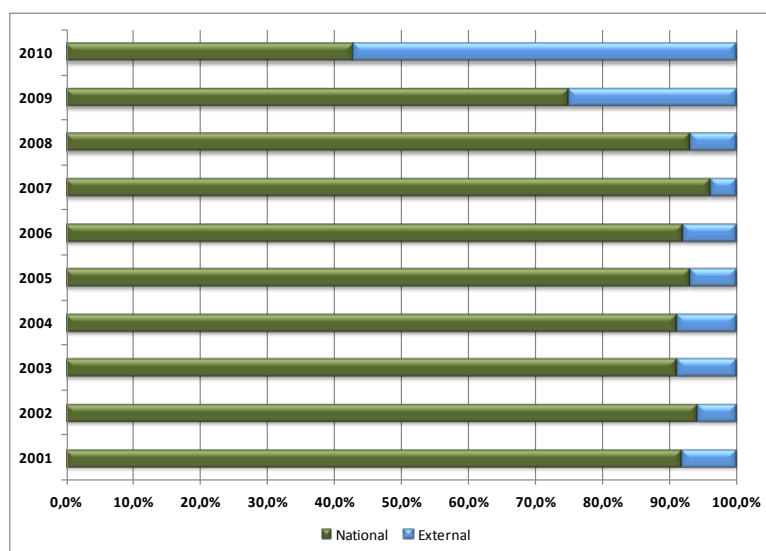
Figure 11. Financing Source by Health Care Provision for routine immunization, 2011



C. Discussion and conclusions

In the last decade, financing for immunization services can be grouped into two clear, but separate periods for the program. From the period 2001-2008, more than 90% of financing for the NIP originated from domestic sources (**Figure 12**). Following 2008, external financing for routine immunization services, primarily from the Gavi, increased from 7.3% to 25% in 2009 and to 57% in 2010 (**Figure 12**). Rotavirus vaccine was first procured with Gavi and PAHO support in 2009 and PCV13 at the end of 2010. Additionally, WHO donated pandemic influenza vaccine (AH1N1) to the country during this period.

Figure 12. % Financing of EPI by source (2001 – 2010)

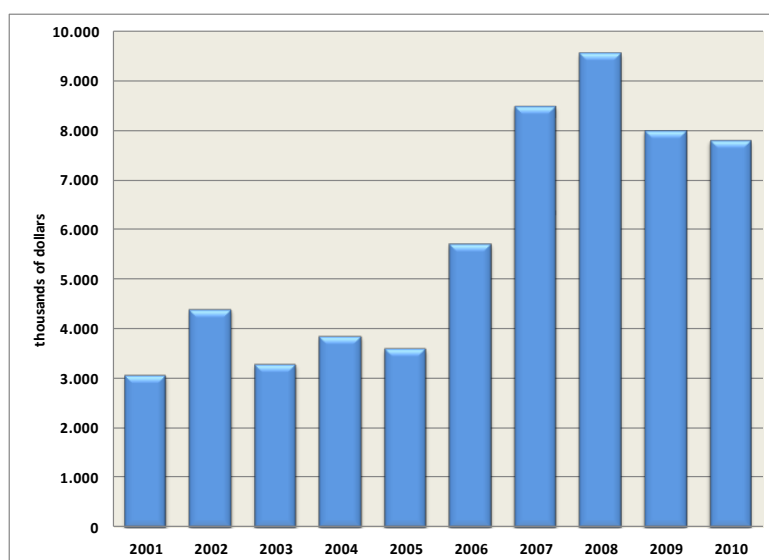


Source: EPI Annual Report 2011.

Despite a decreasing overall share of total financing originating from domestic sources for immunization services, the government of Honduras has increased the fiscal space available for vaccine purchase and strengthening of the routine program. Legislation first enacted in 1998 has protected up to 2% of the budget assigned to the

Secretary of Health for vaccine and supply procurement. From 2005 to 2008, the budget approved for immunization more than doubled (**Figure 13**). Both 2007 and 2008 represent atypical years, during which a change in policy extended routine seasonal flu vaccination to new risk groups, including pregnant women and the elderly, and the country launched a massive MR follow-up campaign to maintain the country free of susceptibles for measles and rubella (**Figure 13**). The approved budget for routine immunization services, as seen in **Figure 13**, represents budget for vaccine purchase, new acquisitions of capital and other recurrent items at the central level, such as wages and benefits for central management team and meetings, trainings, information and education campaigns (IEC), etc. This may explain why the approved budget differs substantially from the financial flows estimated for 2011, which also accounts for financing of the program at lower levels that may not be reflected in the formal EPI budget.

Figure 13. EPI Budget (2001 – 2010)



Source: EPI Assessment Report 2011.

The Gavi has provided financing to the program since 2004. Through 2010, Honduras had received US\$ 9.7 million in support for injection safety, generalized strengthening of immunization services, generalized strengthening of the health system and new vaccine introduction, primarily rotavirus. More than 80% of all Gavi support has been directed towards the procurement of new vaccines. In 2011, Gavi financing for immunization in Honduras totaled US\$ 8.7 million, or nearly double the total financing from the previous six year period. The hike in financing supported the universal introduction of PCV13, the most expensive vaccine in the routine program, as well as efforts to strengthen the immunization information system, including the purchase of computers for the regional level to begin implementation of a computerized nominal registry system.

Support from donor partners, particularly the Gavi, has strengthened the government's financial capacity to incorporate new vaccines, leading to more vaccine-preventable deaths averted among children in Honduras. However, Gavi subsidies will expire in the matter of two years (2016) where the government will assume the full payment of the new vaccines, though at greatly reduced negotiated price. In addition to gaps in financing of new vaccines, there are other important financing gaps (**Figure 14**) that need to be more closely assessed for near term resource mobilization efforts and planning.

Figure 14. Domestic and external financing by activity (2011)

Activity (or Health Care Function)	Domestic financing	External financing
Social Mobilization	79.5%	20.5%
Facility-based vaccination	84.0%	16.0%
Outreach	82.4%	17.6%
Training	65.0%	35.0%
Vaccine + supplies	51.0%	49.0%
Cold chain	81.0%	19.0%
Supervision	75.5%	24.5%
Evaluation	52.7%	47.3%
Program management	84.7%	15.3%
Other	38.0%	62.0%
Surveillance	77.2%	22.8%
Record keeping and HIS	80.6%	19.4%
Political priority	51.1%	48.9%
Research	96.4%	3.6%
TOTAL	66.2%	33.8%

For 2011, the EPI reported approximately US\$ 21.3 million in expenditures (WHO/PAHO JRF 2012). Vaccine and supply purchases represented over 80% of this amount. It is likely this reported expenditure figure only represents the budget managed and executed by the central EPI management, which generally would cover vaccine and supply procurement via the PAHO Revolving Fund, trainings, other meetings and employee wages and benefits for management team. Still, this amount does not elucidate important and real financing gaps for the same year. The program had received a budget approval in the amount of US\$ 25 million. Due to unforeseen revisions to the committed budget, financed both from domestic and external resources, the program suffered a financing gap just under US\$ 4 million. This gap most severely impacted the acquisition of needed cold chain equipment and vehicles. Nonetheless, the program successfully rolled out the PCV13 vaccine and met nation wide targets for completing childhood vaccination schedules during the two annual national vaccination weeks. Still, many districts suffered from lower coverage in 2011

than seen in previous years and these financing gaps, particularly for general operations and transport, put the program's operational capacity at serious risk.

The incremental Gavi co-financing payment, from US\$ 0.17 in 2011 to US\$ 2.17 in 2014 for PCV13 for example, is seen as a useful mechanism to begin transitioning towards more sustainable, domestic financing streams. However, the EPI is concerned that the existing financing gaps for operational activities, including transport, cold chain maintenance, among others, may become wider as a result of the increased government financing responsibility for the new vaccines. In the near and long term, the government's primary strategy to ensure sustainability and to maintain the great progress the program has made in the reduction of VPDs is tied to securing 100% of immunization financing from domestic sources. In 2013, the legislative body passed a new law to earmark increased domestic funding for immunization services, including language to protect financing for general strengthening of the program in addition to the procurement of vaccines and supplies. This law has yet to be published in the Official Legislature Gazette, but program management is extremely hopeful that this new legislative framework will help secure increased funding for the sustainability of both vaccine procurement and programmatic strengthening.

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Annex 1. Selected facilities and sampling weights for Honduras immunization program cost analysis, 2011

Table 1. First draw of facilities for the sample (September 2012)

Health facility	Sanitary region	Municipality	Head CMO	Sampling notes	pi	pii	pk	weight
[CMO] El Porvenir	Atlántida	El Porvenir	1	Didn't have CSR	0.056732892	1	0.056732892	17.6265
[CMO] El Pino	Atlántida	El Porvenir			0.056732892	0.5	0.028366446	35.2529
[CMO] La Union	Atlántida	El Porvenir			0.056732892	0.5	0.028366446	35.2529
[CMO] Metropolitano	Atlántida	La Ceiba	1		0.426048565	1	0.426048565	2.3472
[CMO] La Pizzatty	Atlántida	La Ceiba			0.426048565	0.25	0.106512141	9.3886
[CSR] Yaruca	Atlántida	La Ceiba			0.426048565	0.5	0.213024283	4.6943
[H.Are] Tela	Atlántida	Téla	1		0.214900662	1	0.214900662	4.6533
[CMO] Mezapa Del Norte	Atlántida	Téla			0.214900662	0.333333333	0.071633554	13.9599
[CSR] Las Minas	Atlántida	Téla			0.214900662	0.076923077	0.01653082	60.4931
[CMO] Apacilagua	Choluteca	Apacilagua	1	Only one CMO	0.014786418	1	0.014786418	67.6296
[CSR] Los Limones	Choluteca	Apacilagua			0.014786418	0.142857143	0.002112345	473.4074
[CSR] Mezcales	Choluteca	Apacilagua			0.014786418	0.142857143	0.002112345	473.4074
[H.Reg.] Del Sur, Choluteca	Choluteca	Choluteca	1		0.371522453	1	0.371522453	2.6916
[CMO] Linaca	Choluteca	Choluteca			0.371522453	0.090909091	0.033774768	29.6079
[CSR] Tapaire	Choluteca	Choluteca			0.371522453	0.047619048	0.017691545	56.5242
[CMO] Monjaras	Choluteca	Marcóvia	1		0.118291347	1	0.118291347	8.4537
[CMO] Los Llanitos	Choluteca	Marcóvia			0.118291347	0.5	0.059145674	16.9074
[CSR] Guapinol	Choluteca	Marcóvia			0.118291347	0.125	0.014786418	67.6296
[CMO] Choloma	Cortés	Choloma	1		0.262998486	1	0.262998486	3.8023
[CMO] Monterrey	Cortés	Choloma			0.262998486	0.333333333	0.087666162	11.4069
[CSR] El Rancho	Cortés	Choloma			0.262998486	0.333333333	0.087666162	11.4069
[CMO] Cornelio Moncada (Puerto Cortes)	Cortés	Puerto Cortes	1		0.127814235	1	0.127814235	7.8239
[CMO] Bajamar	Cortés	Puerto Cortes			0.127814235	0.5	0.063907118	15.6477
[CSR] Caoba O Pantano	Cortés	Puerto Cortes			0.127814235	0.125	0.015976779	62.5908
[CMO] San Manuel	Cortés	San Manuel	1	Only one CMO	0.041595154	1	0.041595154	24.0413
[CSR] Cowlee	Cortés	San Manuel			0.041595154	0.2	0.008319031	120.2063
[CSR] Guadalupe	Cortés	San Manuel			0.041595154	0.2	0.008319031	120.2063

[CMO] Alubaren	Francisco Morazán	Alubaren	1	Including all facilities	0.018629021	1	0.018629021	53.6797
[CSR] Tablones	Francisco Morazán	Alubaren			0.018629021	1	0.018629021	53.6797
[CMO] Ojojona	Francisco Morazán	Ojojona	1	Including all facilities	0.031290933	1	0.031290933	31.9581
[CSR] Guasucaran	Francisco Morazán	Ojojona			0.031290933	0.5	0.015645466	63.9163
[CSR] El Aguacatal	Francisco Morazán	Ojojona			0.031290933	0.5	0.015645466	63.9163
[CMO] San Buena Ventura	Francisco Morazán	San Buenaventura	1	Including all facilities	0.006549265	1	0.006549265	152.6889
[CSR] El Terrero	Francisco Morazán	San Buenaventura			0.006549265	0.5	0.003274633	305.3778
[CSR] El Sauce	Francisco Morazán	San Buenaventura			0.006549265	0.5	0.003274633	305.3778
[CMO] Guarita	Lempira	Guarita	1	One additional facility to adjust the number of facilities at the region	0.021560319	1	0.021560319	46.3815
[CSR] Terlaca	Lempira	Guarita			0.021560319	0.25	0.00539008	185.5260
[CSR] Chinquin	Lempira	Guarita			0.021560319	0.25	0.00539008	185.5260
[CSR] Olosingo	Lempira	Guarita			0.021560319	0.25	0.00539008	185.5260
[CMO] San Manuel Colohete	Lempira	San Manuel Colohete	1	Only one CMO	0.045613161	1	0.045613161	21.9235
[CSR] Guacutao	Lempira	San Manuel Colohete			0.045613161	0.5	0.02280658	43.8470
[CSR] Corante	Lempira	San Manuel Colohete			0.045613161	0.5	0.02280658	43.8470
[CSR] San Rafael	Lempira	San Rafael	1	Including all facilities	0.04499003	1	0.04499003	22.2271
[CSR] San Jose, Lempira	Lempira	San Rafael			0.04499003	1	0.04499003	22.2271
[CMO] Catacamas	Olancho	Catacámas	1	One additional facility to adjust the number of facilities at the region	0.212995246	1	0.212995246	4.6949
[CMO] Tatabicoche	Olancho	Catacámas			0.212995246	0.5	0.106497623	9.3899
[CSR] Las Parcelas	Olancho	Catacámas			0.212995246	0.045454545	0.009681602	103.2887
[CSR] La Bodega	Olancho	Catacámas			0.212995246	0.045454545	0.009681602	103.2887
[H.Reg.] San Francisco	Olancho	Juticalpa	1		0.205863708	1	0.205863708	4.8576
[CMO] El Bijao	Olancho	Juticalpa			0.205863708	0.25	0.051465927	19.4303
[CSR] La Empalizada	Olancho	Juticalpa			0.205863708	0.045454545	0.009357441	106.8668
[CMO] Mangulile	Olancho	Mangulile	1	Only one CMO	0.021394612	1	0.021394612	46.7407
[CSR] Portillo De La Peña	Olancho	Mangulile			0.021394612	0.5	0.010697306	93.4815
[CMO] Miguel Paz Barahona	SPS	SPS	1	Including all CSR and adjusting the sample with additional CMO	1	1	1	1.0000
[CMO] Tomala De Cortes	SPS	SPS			1	0.076923077	0.076923077	13.0000
[CMO] Armenta	SPS	SPS			1	0.076923077	0.076923077	13.0000
[CMO] San Antonio De Chamelecon	SPS	SPS			1	0.076923077	0.076923077	13.0000

[CMO] Brisas Del Valle	SPS	SPS			1	0.076923077	0.076923077	13.0000
[CMO] Calpules	SPS	SPS			1	0.076923077	0.076923077	13.0000
[CMO] Fesitranh	SPS	SPS			1	0.076923077	0.076923077	13.0000
[CSR] Santa Martha	SPS	SPS			1	0.5	0.5	2.0000
[CSR] Buenos Aires	SPS	SPS			1	0.5	0.5	2.0000
[CMO] Alonzo Suazo	Tegucigalpa	Tegucigalpa	1		1	1	1	1.0000
[CMO] El Bosque	Tegucigalpa	Tegucigalpa			1	0.043478261	0.043478261	23.0000
[CMO] Tamara	Tegucigalpa	Tegucigalpa			1	0.043478261	0.043478261	23.0000
[CMO] San Francisco	Tegucigalpa	Tegucigalpa			1	0.043478261	0.043478261	23.0000
[CMO] Colonia Divanna	Tegucigalpa	Tegucigalpa			1	0.043478261	0.043478261	23.0000
[CMO] Colonia 3 De Mayo	Tegucigalpa	Tegucigalpa			1	0.043478261	0.043478261	23.0000
[CSR] Rio Hondo	Tegucigalpa	Tegucigalpa			1	0.028571429	0.028571429	35.0000
[CSR] Nueva Esperanza	Tegucigalpa	Tegucigalpa			1	0.028571429	0.028571429	35.0000
[CSR] San Juan Del Rancho	Tegucigalpa	Tegucigalpa			1	0.028571429	0.028571429	35.0000

Table 2. List of excluded health facilities and justification notes (September 2012)

Health facility	Department	Municipality	Excluding notes
[CSR] San Felipe	Choluteca	Apacilagua	Difficult access (over 4 hours by foot and crossing a river by boat).
[CSR] Las Trojas	Choluteca	Apacilagua	Difficult access (similar to San Felipe).
[CSR] Altabarandilla	Lempira	Guarita	Closed during 2011.
[CSR] Quebrada Grande	Olancho	Mangulile	Inaccessible. Replaced by the higher next random number from other two municipalities in the sanitary region.



ANNEX 2. Survey questionnaires for regional and facility level, Honduras cost analysis 2011

Encuesta a Regiones Sanitarias del Honduras.

Esta encuesta tiene como fin identificar información sobre el uso de recursos del Programa Ampliado de Inmunizaciones (PAI) para la administración de vacunas en Honduras a través de las distintas oficinas regionales sanitarias. Por favor complete los datos de forma tan precisa como le sea posible. Le recomendamos que para responder estas preguntas se base en los reportes administrativos y otros “datos oficiales” cuando se encuentren disponibles. Si no cuenta con información oficial se recomienda reportar el mejor dato o “estimación” posible por parte los expertos de su oficina. *El Estudio de costeo del PAI se realiza para 2011.*

Formulario 1. Identificación para la Herramienta de Costeo del PAI

1. Región sanitaria	
2. Dirección de la Institución	
3. Población objetivo Total	
4. Población menor de un año	
5. Persona entrevistada	

6. Contactos claves para el seguimiento. Identifique 2 personas que puedan ser contactadas para seguimiento del presente estudio.

Nombre	Cargo	Teléfono	Email	Notas
1.				
2.				

7. Vacunas aplicadas

Vacuna	BCG	HepB ped	Sabin	Penta	Rota	Neumo	SRP	DPT	Td
Dosis totales									
% intra-mural de rutina*									
% extra-mural de rutina*									
% en campañas*									
Vacuna	SR	FA	Salk	HepB adulto	DT	Influenza	NP23	TOTAL	
Dosis totales									
% intra-mural de rutina*									
% extra-mural de rutina*									
% en campañas*									

*Verificar que cada columna sume el 100%.

Formulario 2A. Empleados involucrados en el PAI.

Liste a continuación TODAS las personas que trabajan en esta oficina regional y su asignación al PAI. Si NO dedica esfuerzos al PAI en la asignación coloque 0 (Columnas E), y omita las columnas F, G y H. Si su oficina tiene más de 20 empleados solo incluya aquellos que dedican algún esfuerzo en el PAI.

En las columnas F1 a F9 ingrese, del tiempo que trabaja para el PAI, qué proporción está dedicado a cada componente. Verifique que la suma sea 100%. El componente 'Otro' (Columna F9) incluye: (1) otras actividades operacionales, (2) sistemas de información, (3) investigación, y (4) evaluación. Por favor especifique la definición del 'Otro' asignando uno de estos códigos en paréntesis e incluya el valor en la celda. En las columnas G1 a G3 ingrese, del tiempo dedicado a administrar vacunas, qué proporción dedica aplicando vacunas del programa rutinario intramural, extramural, o en campañas, verificando que la suma sea 100%.

En H, identifique la fuente de financiamiento para el ETC de cada persona; cuando sea diferente del presupuesto central de la Secretaría de Salud, use la siguiente codificación: (1) Alcaldía, (2) Fondos de Salud (fondos comunitarios), (3) Donaciones, u (4) Otro.

Persona 1															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
			<input type="checkbox"/> Sí <input type="checkbox"/> No			Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
H. Fuente de financiamiento para el pago						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas			
<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____															
Persona 2															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
			<input type="checkbox"/> Sí <input type="checkbox"/> No			Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
H. Fuente de financiamiento para el pago						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas			
<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____															



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Persona 3																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud		<input type="checkbox"/> Otro _____		G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 4																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud		<input type="checkbox"/> Otro _____		G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 5																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud		<input type="checkbox"/> Otro _____		G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 6																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud		<input type="checkbox"/> Otro _____		G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	



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Persona 7														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas		

Persona 8														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas		

Persona 9														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas		

Persona 10														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas		



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Persona 11															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
			<input type="checkbox"/> Sí <input type="checkbox"/> No												
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 12															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
			<input type="checkbox"/> Sí <input type="checkbox"/> No												
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 13															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
			<input type="checkbox"/> Sí <input type="checkbox"/> No												
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	

Persona 14															
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)									
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9	
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	
			<input type="checkbox"/> Sí <input type="checkbox"/> No												
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural		G3. Campañas	



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Persona 15														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas						

Persona 16														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas						

Persona 17														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas						

Persona 18														
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)								
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9
						Admin de vacunas	Prioridad política	Planificación y coord	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas						



SECRETARÍA DE SALUD
HONDURAS, C. A.



Persona 19																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas	
Persona 20																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8	F9		
						Admin de vacunas	Prioridad política	Planificación y coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro		
H. Fuente de financiamiento para el pago						<input type="checkbox"/> Secretaría de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural			G2. Vacunación de rutina extramural			G3. Campañas	

Nota. Enfermeras en servicio social son consideradas empleadas y reciben pago.
ETC = Equivalente de Tiempo Completo

Observaciones adicionales

Formulario 2B. Voluntarios involucrados en el PAI.

Para cada voluntario involucrado en el PAI, identifique el número de días dedicados al PAI durante el 2011 y especifique los componentes del PAI en los cuales participó y el número de días dedicados a actividades de rutina y suplementarias (campañas).

Persona	Componente del PAI	Número de días dedicados a actividades de rutina en 2011	Número de días dedicados a actividades suplementarias en 2011
1	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
2	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
3	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
4	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
5	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
6	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
7	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
8	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
9	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
10	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		

Observaciones adicionales

Formulario 3. Gastos en la Oficina regional del PAI

En esta sección nos centramos en el desarrollo de actividades de campo relacionadas con el PAI, por parte de su oficina, incluyendo campañas de vacunación. Por favor describa los costos e identifique la cantidad en la siguiente tabla. Cuadros adicionales están disponibles para incluir otros costos. Por ejemplo, usted puede reportar los costos de las reuniones en un cuadro adicional, siempre y cuando estos costos no hayan sido reportados en otros formularios.

Además de indicar si el costo es para apoyar actividades de rutina, suplementaria o ambas. En las columnas D1 a D6 (fuentes de financiamiento) se debe ingresar el porcentaje del valor consignado en C. Verifique que la suma de D1 a D6 sea 100%. Por favor distribuya la cantidad total por componente del PAI en columnas E1-E8, verificando que la suma sea 100%. El componente 'otro' en la columna E8 incluye: (1) administración de vacunas, (2) otras actividades operacionales, (3) sistemas de información, (4) investigación, y (5) evaluación. Por favor especifique la definición del 'Otro' asignando el código en paréntesis e incluyendo el valor en la celda.

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Secretaría de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones Nacionales	Donaciones Internacionales
	PAI de rutina							
	Campañas							
	Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución del financiamiento por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

Nota: Incluir costos de viajes hechos en taxi, renta de vehículo solo por corto tiempo.

Observaciones adicionales

Formulario 4A. Cadena de frío del PAI en la oficina regional o de su almacén.

Sólo incluya el equipo que había en 2011. En la columna A4: Si el ítem fue donado marque un *.

En la columna B incluya cada ítem con un valor mayor a US\$500 por separado. Sólo combine grupos de ítems similares de bajo valor o si hay varias unidades del mismo equipo. Si reporta un grupo de ítems similares, registre el número de ítems en la columna B y diligencie la información de las columnas C a F como *promedio por unidad*. Identifique la fuente de financiamiento en la columna G; cuando sea diferente al presupuesto central del PAI use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones, u (5) Otro.

A1	A2	A3	A4		B	C
Tipo de equipo 1	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos Nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos Nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 2	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 3	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 4	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 5	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 6	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 7	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 8	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 9	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
	Refrigerador	Congelador				
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 10	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
	Refrigerador	Congelador				
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

Observaciones adicionales

Formulario 4B. Cadena de frío del PAI de sus unidades de salud.

Sólo incluya el equipo que había en 2011. En la columna A3: Si el ítem fue donado marque un *.

En la columna B incluya cada ítem con un valor mayor a US\$500 por separado. Sólo combine grupos de ítems similares de bajo valor si hay varias unidades del mismo equipo. Si reporta un grupo de ítems similares, registre el número de ítems en la columna B y detalle la información de las columnas C a la F como promedio por unidad. Identifique la fuente de financiamiento en la columna G; cuando sea diferente del presupuesto central del PAI use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones, u (5) Otro.

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011? <input type="checkbox"/> Sí <input type="checkbox"/> No	Fuente de financiamiento para la compra <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	Fuente de financiamiento para el mantenimiento <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
	Refrigerador	Congelador				

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011? <input type="checkbox"/> Sí <input type="checkbox"/> No	Fuente de financiamiento para la compra <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	Fuente de financiamiento para el mantenimiento <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
	Refrigerador	Congelador				

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

Centro de Salud: _____						
A1	A2		A3	B	C	
Tipo de equipo 2	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

Centro de Salud: _____						
A1	A2		A3		B	C
Tipo de equipo 2	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
	Refrigerador	Congelador				

Observaciones adicionales

Formulario 5A. Vehículos rentados usados por lo menos una vez para las actividades del PAI

Verifique que la suma de las columnas H sea 100%. El componente 'otro' en columna H8 incluye: (1) administración de vacunas, (2) otras actividades operacionales, (3) sistemas de información, (4) investigación, y (5) evaluación. Por favor especifique la definición del 'Otro' asignando uno de estos códigos en paréntesis e incluyéndolo en la columna. Identifique la fuente de financiamiento en la columna I; use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de Salud (fondos comunitarios), (4) Donaciones, u (5) Otro.

A	B	C	D	E	F	G			I
Tipo de Vehículo 1 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									
	H1	H2	H3	H4	H5	H6	H7	H8	
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G			I
Tipo de Vehículo 2 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									
	H1	H2	H3	H4	H5	H6	H7	H8	
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G			I
Tipo de Vehículo 3 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por <u>AÑO</u>	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo <u>ANUAL</u> de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									
	H1	H2	H3	H4	H5	H6	H7	H8	
	Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G			I
Tipo de Vehículo 4 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por <u>AÑO</u>	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo <u>ANUAL</u> de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									
	H1	H2	H3	H4	H5	H6	H7	H8	
	Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G			
Tipo de Vehículo 5 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									
	H1	H2	H3	H4	H5	H6	H7	H8	I
	Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales

Formulario 5B. Vehículos propios usados por lo menos una vez en las actividades del PAI

Verifique que la suma de las columnas H sea 100%. El componente 'otro' en columna G8 incluye: (1) administración de vacunas, (2) otras actividades operacionales, (3) sistemas de información, (4) investigación, y (5) evaluación. Por favor especifique la definición del 'Otro' asignando uno de estos códigos en paréntesis e incluyéndolo en la columna. Identifique la fuente de financiamiento en la columna H; use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de Salud (fondos comunitarios), (4) Donaciones, u (5) Otro.

A	B	C	D		E		F		H
Tipo de Vehículo 1 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)		Costo ANUAL de mantenimiento (mda local)		% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)		
							% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas		
Distribución de la dedicación por componente del PAI (%)									
	G1	G2	G3	G4	G5	G6	G7	G8	
	Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D		E		F		H
Tipo de Vehículo 2 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)		Costo ANUAL de mantenimiento (mda local)		% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)		
							% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas		
Distribución de la dedicación por componente del PAI (%)									
	G1	G2	G3	G4	G5	G6	G7	G8	
	Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F				
Tipo de Vehículo 3 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)	Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)				
					_____ % Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas				
Distribución de la dedicación por componente del PAI (%)									H
G1	G2	G3	G4	G5	G6	G7	G8		
Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento	
								<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	

A	B	C	D	E	F				
Tipo de Vehículo 4 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)	Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)				
					_____ % Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas				
Distribución de la dedicación por componente del PAI (%)									H
G1	G2	G3	G4	G5	G6	G7	G8		
Prioridad política	Planificación/coor dinación	Supervisión	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento	
								<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	

A	B	C	D		E		F		
Tipo de Vehículo 5 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)		Costo ANUAL de mantenimiento (mda local)		% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)		
							% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas		
Distribución de la dedicación por componente del PAI (%)									
	G1	G2	G3	G4	G5	G6	G7	G8	H
	Prioridad política	Planificación/coordinación	Supervisión	Capacitación	Cadena de frío	Mobilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales

Formulario 6. Edificios usados por lo menos parcialmente para actividades del PAI (Omita edificaciones que no están involucradas con el PAI)

Verifique que la suma de las filas D1 a D4 sea 100%. Especifique la fuente de financiamiento en la fila E; use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones (especifique nacional vs. Internacional) y (5) Otro.

		Componente del PAI	Edificación 1	Edificación 2	Edificación 3
A		Área total de la edificación (metros cuadrados)			
B		Área total dedicado <u>exclusivamente</u> al PAI (metros cuadrados)			
C		Área total <u>compartida</u> con el PAI (metros cuadrados NO incluidos en B)			
Distribución de la dedicación por componente (%)	D1	Administración de vacunas			
	D2	Cadena de frío			
	D3	Vigilancia			
	D4	Otras actividades operacionales			
E		Fuente de financiamiento	<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales

Formulario 7. Otros costos capitales y recurrentes

Identifique el componente del PAI en la columna C: (1) prioridad política, (2) Planificación/coordiación, (3) Cadena de frío, (4) Capacitación, (5) Movilización social, (6) Administración de vacunas, (7) Otras actividades operacionales, (8) Monitoreo/supervisión, (9) Vigilancia, (10) Sistemas de información, (11) Investigación y (12) Evaluación.

Especifique la fuente de financiamiento en la columna E, use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones (especifique nacional vs. Internacional) y (5) Otro.

A	B	C	D	E
Tipo de costo	Actividad del PAI	Componente PAI	Cantidad (moneda local)	Fuente de financiamiento
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales

Encuesta a las instituciones vacunadoras del PAI de Honduras (CESAMO líder).

Esta encuesta tiene como fin identificar información del uso de recursos del Programa Ampliado de Inmunizaciones (PAI) para la administración de la vacunación en Honduras. Por favor complete los datos de forma tan precisa como le sea posible. Le recomendamos que para responder estas preguntas se base en los reportes administrativos y otros “datos oficiales” cuando se encuentren disponibles. Si no cuenta con “datos oficiales” se recomienda reportar el mejor dato o “estimación” posible por parte los expertos de su establecimiento. *El Estudio de costeo del PAI se realiza para 2011.*

Formulario 1. Identificador para la Herramienta de Costeo del PAI

1. Nombre Establecimiento	
2. Dirección Establecimiento	
3. Región Sanitaria	
4. Municipio	
5. Persona entrevistada	

6. Contactos claves para el seguimiento. Identifique 2 personas que puedan ser contactadas para seguimiento del presente estudio.

Nombre	Cargo	Teléfono	Email	Notas
1.				
2.				

7. Atenciones ambulatorias

Por favor reporte el número TOTAL de atenciones (Formulario AT2R) que llevó a cabo su institución durante el año 2011:

8. Dosis de vacunas aplicadas

Vacuna	BCG	HepB ped	Sabin	Penta	Rota	Neumo	SRP	DPT	Td
Dosis totales									
% intra-mural de rutina*									
% extra-mural de rutina*									
% en campañas*									
Vacuna	SR	FA	Salk	HepB	DT	Influenza	NP23	TOTAL	

				adulto				
Dosis totales								
% intra-mural de rutina*								
% extra-mural de rutina*								
% en campañas*								

*Verificar que cada columna sume el 100%

9. (Para el encuestador) Cálculo de la proporción del TOTAL dosis aplicadas y el TOTAL de consultas externas de esta institución:

Cálculo: Total dosis aplicadas/(Atenciones AT2R+Total dosis aplicadas)

Formulario 2A. Empleados involucrados en el PAI.

Liste a continuación TODAS las personas que trabajan en esta institución y su asignación al PAI. Si NO dedica esfuerzos al PAI en la asignación coloque 0 (Columnas E1 y E2) y omita las columnas F, G y H. Si su institución tiene más de 20 empleados solo incluya aquellos que dedican algún esfuerzo en el PAI.

En las columnas F1 a F8 ingrese, del tiempo que trabaja para el PAI, qué proporción dedica a cada a componente. Verifique que la suma de F1 a F8 sea 100%. La columna “otros” (F8) incluye los componentes: (1) prioridad política, (2) monitoreo/supervisión, (3) sistemas de información, (4) investigación y (5) evaluación. Por favor especifique la definición del ‘Otro’ asignando uno de estos códigos en paréntesis e incluyéndolo en la columna. En las columnas G1 a G3 ingrese, del tiempo dedicado a administrar vacunas, qué proporción dedica aplicando vacunas del programa rutinario intramural, extramural, o en campañas. Verifique que la suma sea 100%.

En la columna G, identifique la fuente de financiamiento para el ETC de cada persona. Cuando la fuente sea diferente del presupuesto central de la Secretaría de Salud, marque la casilla ‘Otro’ y defina la fuente con la siguiente codificación: (1) Alcaldía, (2) Fondos de Salud (fondos comunitarios), (3) Donaciones, u (4) Otro.

Persona 1																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8			
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro			
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago		<input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____					G1. Vacunación de rutina intramural		G2. Vacunación de rutina extramural		G3. Campañas					
Persona 2																
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)										
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8			
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro			
			<input type="checkbox"/> Sí <input type="checkbox"/> No													
H. Fuente de financiamiento para el pago		<input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____					G1. Vacunación de rutina intramural		G2. Vacunación de rutina extramural		G3. Campañas					

Persona 3													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 4													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 5													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 6													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					

Persona 7													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 8													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 9													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 10													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					

Persona 11													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 12													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 13													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 14													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					

Persona 15													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 16													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 17													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					
Persona 18													
A	B	C	D	E1	E2	Distribución de la dedicación por componente del PAI (%)							
Nombre	Número de ID	Cargo del personal	Trabajó en 2011 <input type="checkbox"/> Sí <input type="checkbox"/> No	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	F1	F2	F3	F4	F5	F6	F7	F8
						Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
H. Fuente de financiamiento para el pago <input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____						G1. Vacunación de rutina intramural	G2. Vacunación de rutina extramural	G3. Campañas					

Persona 19						Distribución de la dedicación por componente del PAI (%)							
A	B	C	D	E1	E2	F1	F2	F3	F4	F5	F6	F7	F8
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
			<input type="checkbox"/> Sí <input type="checkbox"/> No										
H. Fuente de financiamiento para el pago			<input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural		G2. Vacunación de rutina extramural		G3. Campañas			
Persona 20						Distribución de la dedicación por componente del PAI (%)							
A	B	C	D	E1	E2	F1	F2	F3	F4	F5	F6	F7	F8
Nombre	Número de ID	Cargo del personal	Trabajó en 2011	% ETC dedicado al PAI prom. anual	Hrs prom. x semana	Admin de vacunas	Otras act. operativas	Planificación y coord	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro
			<input type="checkbox"/> Sí <input type="checkbox"/> No										
H. Fuente de financiamiento para el pago			<input type="checkbox"/> Sec, de Salud <input type="checkbox"/> Otro _____			G1. Vacunación de rutina intramural		G2. Vacunación de rutina extramural		G3. Campañas			

Nota. Enfermeras en servicio social se consideran empleadas y reciben pago.
ETC = Equivalente de Tiempo Completo

Observaciones adicionales

Formulario 2B. Personal voluntario involucrado en el PAI.

Para cada voluntario involucrado en el PAI, identifique el número de días dedicados al PAI durante el 2011 y especifique los componentes del PAI en los cuales participó y el número de días dedicados a actividades de rutina y suplementarias (campañas).

Persona	Componente del PAI	Número de días dedicados a actividades de rutina en 2011	Número de días dedicados a actividades suplementarias en 2011
1.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
2.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
3.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
4.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
5.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
6.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
7.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
8.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		

9.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		
10.	<input type="checkbox"/> Administración de vacunas <input type="checkbox"/> Movilización social <input type="checkbox"/> Vigilancia		

Observaciones adicionales

Formulario 3. Gastos en la unidad de salud

En esta sección nos centramos en el desarrollo, por parte de su institución, de actividades de campo relacionadas con el PAI, incluyendo campañas de vacunación. Por favor describa los costos e identifique la cantidad en la siguiente tabla. Cuadros adicionales están disponibles para incluir otros costos. Por ejemplo, usted puede reportar costos de reuniones en un cuadro adicional, siempre y cuando estos costos no hayan sido reportados en otros formularios.

Además de indicar si el costo es para apoyar actividades de rutina, suplementaria o ambas. En las columnas D1 a D6 (fuentes de financiamiento) se debe ingresar el porcentaje del valor consignado en C. Verifique que la suma de D1 a D6 sea 100%. Por favor distribuya la cantidad total por componente del PAI en columnas E1- E8, verificando que la suma sea 100%. El componente 'otro' en la columna E8 incluye: 1) prioridad política, (2) monitoreo/supervisión, (3) sistemas de información, (4) investigación y (5) evaluación. Por favor especifique la definición del 'Otro' asignando el código en paréntesis e incluyendo el valor en la celda.

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
E1	E2	E3	E4	E5	E6	E7	E8	
Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro	

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

A	B	C	Fuentes de financiamiento (%)					
			Fondos Nacionales				Fondos Externos	
			D1	D2	D3	D4	D5	D6
Tipo de costo 7	Objetivo del apoyo	Cantidad (moneda local)	Sec. de Salud†	Alcaldía	Fondos de salud	Otro	Donaciones nacionales	Donaciones internacionales
	<input type="checkbox"/> PAI de rutina							
	<input type="checkbox"/> Campañas							
	<input type="checkbox"/> Ambos							
†Los fondos de la Sec. de Salud incluyen fondos dirigidos a las regiones sanitarias.								
Distribución de la dedicación por componente del PAI (%)								
	E1	E2	E3	E4	E5	E6	E7	E8
	Administración de vacunas	Otras actividades operativas	Planificación y coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otro

Nota: Incluir costos de viajes hechos en taxi, renta de vehículo solo por corto tiempo.

Observaciones adicionales

Formulario 4. Cadena de frío del PAI

Sólo incluya el equipo que había en 2011. En la columna A4: Si el ítem fue donado marque un *.

En la columna B incluya cada ítem con un valor mayor a US\$500 por separado. Solo combine grupos de ítems similares de bajo valor o si hay varias unidades del mismo equipo. Si reporta un grupo de ítems similares registre el número de ítems en la columna B y detalle la información de las columnas C a F como *promedio por unidad*. Identifique la fuente de financiamiento en la columna G; cuando sea diferente al presupuesto de la Secretaría de Salud, use la siguiente codificación: (1) PAI Central, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones, u (5) Otro.

A1	A2	A3	A4		B	C
Tipo de equipo 1	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011? <input type="checkbox"/> Sí <input type="checkbox"/> No	Fuente de financiamiento para la compra <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	Fuente de financiamiento para el mantenimiento <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
	Refrigerador	Congelador				

A1	A2	A3	A4		B	C
Tipo de equipo 2	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011? <input type="checkbox"/> Sí <input type="checkbox"/> No	Fuente de financiamiento para la compra <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	Fuente de financiamiento para el mantenimiento <input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
	Refrigerador	Congelador				

A1	A2	A3	A4		B	C
Tipo de equipo 3	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 4	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 5	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2				
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4	B	C	
Tipo de equipo 6	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	
	D1	D2			G2	
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
A1	A2	A3	A4	B	C	
Tipo de equipo 7	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	
	D1	D2			G2	
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____
A1	A2	A3	A4	B	C	
Tipo de equipo 8	Marca	Modelo	Descripción del equipo	Cantidad por establecimiento	Años de uso	
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro	Capacidad de almacenamiento (litros)		E	F	G1	
	D1	D2			G2	
	Refrigerador	Congelador	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
				<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____

A1	A2	A3	A4		B	C
Tipo de equipo 9	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro						
	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
	Refrigerador	Congelador				
			<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	

A1	A2	A3	A4		B	C
Tipo de equipo 10	Marca	Modelo	Descripción del equipo		Cantidad por establecimiento	Años de uso
<input type="checkbox"/> Refrigerador <input type="checkbox"/> Congelador <input type="checkbox"/> Otro						
	Capacidad de almacenamiento (litros)		E	F	G1	G2
	D1	D2	% de uso de la capacidad	Requirió mantenimiento el equipo en 2011?	Fuente de financiamiento para la compra	Fuente de financiamiento para el mantenimiento
	Refrigerador	Congelador				
			<input type="checkbox"/> Sí <input type="checkbox"/> No	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales <input type="checkbox"/> Otro: _____	

Observaciones adicionales

Formulario 5A. Vehículos rentados usados por lo menos una vez en las actividades del PAI

Verifique que la suma de las columnas H sea 100%. El componente 'otro' en columna H8 incluye: (1) prioridad política, (2) monitoreo/supervisión, (3) sistemas de información, (4) investigación y (5) evaluación. Por favor especifique la definición del 'Otro' asignando uno de estos códigos en paréntesis e incluyéndolo en la columna. Identifique la fuente de financiamiento en la columna I; use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones, u (5) Otro.

A	B	C	D	E	F	G			
Tipo de Vehículo 1 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									I
	H1	H2	H3	H4	H5	H6	H7	H8	
	Administración de vacunas	Otras actividades operacionales	Planificación/coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G			
Tipo de Vehículo 2 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)									I
	H1	H2	H3	H4	H5	H6	H7	H8	
	Administración de vacunas	Otras actividades operacionales	Planificación/coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G		
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A	B	C	D	E	F	G		I	
Tipo de Vehículo 3 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)								I	
	H1	H2	H3	H4	H5	H6	H7		H8
	Administración de vacunas	Otras actividades operacionales	Planificación/coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: ____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G		I	
Tipo de Vehículo 4 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)								I	
	H1	H2	H3	H4	H5	H6	H7		H8
	Administración de vacunas	Otras actividades operacionales	Planificación/coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: ____ <input type="checkbox"/> Otro: _____

A	B	C	D	E	F	G		I	
Tipo de Vehículo 5 (Año, Marca, Modelo)	Pago MENSUAL de renta (moneda local)	Qué esta incluido en el pago mensual	Distancia promedio Kms por AÑO	Si no está incluido, Consumo de combustible (Litros por 100km)	Si no está incluido, Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)			
		<input type="checkbox"/> Combustible <input type="checkbox"/> Mantenimiento				_____% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas			
Distribución de la dedicación por componente del PAI (%)								I	
	H1	H2	H3	H4	H5	H6	H7		H8
	Administración de vacunas	Otras actividades operacionales	Planificación/coordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento
									<input type="checkbox"/> Fondos nacionales: ____ <input type="checkbox"/> Otro: _____

Observaciones adicionales

Formulario 5B. Vehículos propios usados por lo menos una vez en las actividades del PAI

Verifique que la suma de las columnas G sea 100%. El componente ‘otro’ en columna G8 incluye: (1) prioridad política, (2) monitoreo/supervisión, (3) sistemas de información, (4) investigación y (5) evaluación. Por favor especifique la definición del ‘Otro’ asignando el código en paréntesis e incluyendo el valor en la celda. Identifique la fuente de financiamiento en la columna H; cuando sea diferente al presupuesto de la Secretaría de Salud use la siguiente codificación: (1) PAI Central, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones, y (5) Otro.

A	B	C	D	E	F				
Tipo de Vehículo 1 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)	Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)				
					% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas				
Distribución de la dedicación por componente del PAI (%)									H
G1	G2	G3	G4	G5	G6	G7	G8		
Administración de vacunas	Otras actividades operacionales	Planificación/co ordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento	
								<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	

A	B	C	D	E	F				
Tipo de Vehículo 2 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)	Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)				
					% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas				
Distribución de la dedicación por componente del PAI (%)									H
G1	G2	G3	G4	G5	G6	G7	G8		
Administración de vacunas	Otras actividades operacionales	Planificación/co ordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento	
								<input type="checkbox"/> Fondos nacionales: _____ <input type="checkbox"/> Otro: _____	

A	B	C	D	E	F				
Tipo de Vehículo 3 (Año, Marca, Modelo)	Años de uso en el PAI	Distancia promedio (Km) ANUAL	Consumo de combustible (Litros por 100 Km)	Costo ANUAL de mantenimiento (mda local)	% asignación al PAI (estimado por la porción del total de Kms, o de tiempo usado)				
					% Método usado: <input type="checkbox"/> %Kms <input type="checkbox"/> %Horas				
Distribución de la dedicación por componente del PAI (%)									H
G1	G2	G3	G4	G5	G6	G7	G8		
Administración de vacunas	Otras actividades operacionales	Planificación/co ordinación	Capacitación	Cadena de frío	Movilización social	Vigilancia	Otros	Fuente de financiamiento	
								<input type="checkbox"/> Fondos nacionales: _____	

Formulario 6. Edificios usados por lo menos parcialmente para actividades del PAI (Omita edificaciones que no están involucradas con el PAI)

Verifique que la suma de las filas D1 a D4 sea 100%. Especifique la fuente de financiamiento en la fila E, use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones (especifique nacional vs. Internacional) y (5) Otro.

		Componente del PAI	Edificación 1	Edificación 2	Edificación 3
A		Área total de la edificación (metros cuadrados)			
B		Área total dedicado exclusivamente al PAI (metros cuadrados)			
C		Área total compartida con el PAI (metros cuadrados NO incluidos en B)			
Distribución de la dedicación por componente (%)	D1	Administración de vacunas			
	D2	Cadena de frío			
	D3	Vigilancia			
	D4	Otras actividades operacionales			
E		Fuente de financiamiento	<input type="checkbox"/> Fondos nacionales _____ <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales _____ <input type="checkbox"/> Otro: _____	<input type="checkbox"/> Fondos nacionales _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales



ProVac EPI cost tool paper forms
Universidad Nacional de Colombia



Formulario 7. Otros costos capitales y recurrentes

Identifique el componente del PAI en la columna C: (1) prioridad política, (2) Planificación/coordinación, (3) Cadena de frío, (4) Capacitación, (5) Movilización social, (6) Administración de vacunas, (7) Otras actividades operacionales, (8) Monitoreo/supervisión, (9) Vigilancia, (10) Sistemas de información, (11) Investigación y (12) Evaluación. Especifique la fuente de financiamiento en la columna E, use la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de salud, (4), Donaciones (especifique nacional vs. Internacional) y (5) Otro.

A	B	C	D	E
Tipo de costo	Actividad del PAI	Componente PAI	Cantidad (moneda local)	Fuente de financiamiento
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____
<input type="checkbox"/> Recurrente <input type="checkbox"/> Capital	<input type="checkbox"/> PAI de rutina <input type="checkbox"/> Campañas <input type="checkbox"/> Ambos			<input type="checkbox"/> Fondos Nacionales: _____ <input type="checkbox"/> Otro: _____

Observaciones adicionales



Primer Informe Parcial Estudio de Costeo del PAI-Honduras

**Informe del Proceso de Validación de las Encuestas para el
Estudio de Costeo del PAI Honduras a nivel de Regiones
Sanitarias, Unidades de Salud líder y Unidades de Salud**

Secretaria de Salud Honduras

Programa Ampliado de Inmunizaciones

Organización Panamericana de la Salud

Consultor: Gabriel Perdomo

Tegucigalpa M.D.C 21 de diciembre de 2012

Introducción

El siguiente informe de validación muestra el comportamiento del instrumento de recolección de datos en el campo y su forma de interactuar con los informantes. La desventaja principal se da por el objetivo de mantener formatos internacionales y estandarizados, situación que no permite recabar y sistematizar las particularidades del sistema de salud en Honduras.

Este informe propone varias sugerencias concretas y simples para poder mejorar el momento en que el instrumento recoge los datos requeridos al informante por medio del encuestador.

La jornada comenzó con la dedicación de la logística de vehículo y conductor por parte del PAI al consultor. Donde se transportó a las oficinas de la Región Metropolitana para las entrevistas con las Licda. Mirna Cruz y la Licda. Silvia Lopez que tienen como cargo la coordinación del PAI a nivel regional. Una vez terminada la entrevista se procedió a movilizarse al CESAMO Las Crucitas donde la Licda. Norma Tomasa Jefa de Enfermera compartió la información requerida. Al día siguiente se movilizó al CESAR Aldea Santa Rosa donde la Enfermera Auxiliar Bessy Murillo atendió al equipo investigador.

- 1. ¿Cuánto tiempo le llevó administrar cada una de las encuestas? Si le llevó más de 2 horas en las unidades de salud o más de 4 horas en la oficina regional, cuáles fueron las causas principales de retraso? (ej. tuvo que esperar a la persona que iba a entrevistar, demoró extraer la información de los bases de datos en físico, etc.)**

El tiempo para aplicar la encuesta en el nivel de oficinas regionales fue de 2, a nivel de unidad de salud fue de 1 hora con 30 minutos con la característica de que las personas informantes estuvieron a tiempo completo y dejaron de realizar otras actividades para poder atender al consultor donde el mismo contó con el apoyo de las Coordinadoras del PAI a nivel regional que acompañaron el proceso de validación. Esta característica podría variar al momento de realizar la encuesta ya que los informantes podrían no destinar todo su tiempo al encuestador, aumentando los tiempos de recolección de información repercutiendo en la veracidad, representatividad y puntualidad de la misma información.

Un fenómeno bastante peculiar se dio en que varios formularios no fueron llenados por la falta de información o la no aplicación del mismo. El formulario que fue dejado de lado por su no aplicación fue el formulario 5A Vehículos rentados usados por lo menos una vez para las actividades del PAI, ya que las unidades de salud y la oficina regional no cuenta con los recursos para incurrir en este tipo de gasto. Las valoraciones de los expertos consultados desde coordinadores del PAI y Enfermeras Auxiliares detallan que en el 2011 no se

rentaron vehículos sino mas bien, se utilizo vehículos del Estado de distintas secretarias, vehículos particulares que fueron financiados con recursos provenientes de la “Cuota Recuperada” que son pagos simbólicos de los pacientes al centro de salud que equivalen a 25 centavos de dólar. Por esta razón los tiempos de realización de la encuesta se acortan por la no aplicación de algunos formularios y segmentos de los mismos. También con el formulario 5B con vehículos propios se encontraron problemas ya que Este enunciado se detallara en los siguientes párrafos.

Es importante notar que varios segmentos de las encuestas fueron llenados con percepciones subjetivas de los informantes. Ya que no existen registros estadísticos de los datos requeridos, se tuvo que recurrir a valoraciones del informante con respecto a los siguientes formularios:

Formulario 1: En la pregunta 7 Vacunas Aplicadas se encontró que existirán casos donde a nivel de unidad de salud CESAMO y CESAR no cuenta con un detalle contable del total de vacunas aplicadas extra e intra mural de rutina y extra mural de campaña.

2. ¿Cuántas personas tuvo que encuestar para llenar cada encuesta?

Para el nivel regional se entrevisto a dos personas que tienen como cargo la Coordinación del PAI que son las Licda. Silvia López y la Licda. Mirna Cruz.

Para el nivel de unidad de salud líder del municipio CESAMO se entrevisto a una persona siendo esta la Lic. Norma Tomasa, Jefa de Enfermeras

Para el nivel de unidades de salud CESAR se entrevisto a la Enfermera Auxiliar Bessy Murillo

3. ¿Cuáles dudas generales sobre las preguntas en las cuestas surgieron?

- a. Especifique cuales preguntas de las encuestas fueron poco claras o meritaban repetición por causar confusión en la persona siendo entrevistada (es decir, tuvo que administrar la pregunta varias veces para recibir la respuesta correcta?)**

Las preguntas que no fueron claras son detalladas a continuación:

En el formulario 2A, 3, 5A y 5B donde se encuentran los componentes de PAI, el informante tuvo complicaciones para poder determinar la significancia de la “Prioridad

Política” sin poder vincularlo a su trabajo quedando por fuera algún tipo de recolección de información de el mismo.

En la distribución de la dedicación por componente del PAI de los diferentes formularios se encontró una leve confusión al momento de distinguir entre dedicación a la Cadena de Frio y la Vigilancia de la Cadena de Frio ya que en esta última actividad es realizada de forma rutinaria y sus resultados pueden ser mezclados con las actividades propias del técnico de cadena de frio que es realizado por el PAI central y no por las unidades.

En el formulario 2B Voluntarios involucrados en el PAI, el informante mostro dudas al momento de catalogar las diferentes personas que interactúan en el PAI ya que hay una mezcla de personal de diferentes secretarias de Estado que son enviados por sus ministros para apoyar las campañas de vacunación, personas en pasantías, personal de ONG, personal internacional en apoyo.

En el formulario 3 Gastos en la oficina regional y en las unidades de salud se genero dudas sobre las actividades de campo y sus tipos de costos ya que las instrucciones están generalizadas y el informante no percibe de forma clara que información se le está requiriendo. También se puede incurrir en una doble asignación de información ya que con la información disponible no se puede desagregar los costos de campo requeridos en el formulario 3 y los costos incurridos en los formularios 5A y 5B.

En el formulario 2A la columna B que trata sobre el Numero de Identificación de los empleados, los informantes sugirieron que el número de identificación no lo tienen a disposición en un registro y esta situación requeriría de preguntar directamente a los involucrados al PAI su número de identificación lo que conllevaría al encuestador utilizar tiempo considerable para recolectar información que no es tan pertinente a los objetivos del estudio, proponiendo la derogación de la columna de número de identificación.

En el formulario 4 Cadena de frio del PAI, en las unidades de salud no cuentan con una cadena de frio sino mas bien con almacenes de biológicos ya que el técnico de cadena de frio no se encuentra y las enfermeras auxiliares no tienen la información requerida para poder llenar dicho formulario de forma veraz. Con el formulario 4 también se genero la duda de cómo recabar la información y como agrupar los ítems de forma que se pueda responder de forma solida las columnas A1, A2, A3, B y C. En la columna C surgió que como existen varios equipos se tienen años de uso varios y que también mucho equipo es usado y surge la pregunta de años de uso en la unidad de salud en el que actualmente funciona o todo su tiempo de vida en uso del equipo.

En el formulario 6 Edificios utilizados por lo menos parcialmente para actividades del PAI se encontraron varias dudas:

En el componente del PAI área total los informantes se encontraron que no percibían a que se refería dicho componente, si era al total de centro de salud o las piezas donde funcionaba cualquier actividad relacionada con el PAI.

La situación en Honduras es tal que en una pieza de edificación funcionan diferentes programas de salud y que el personal de dichos programas en algún momento apoya al PAI. Por ejemplo en el CESAMO Las Crucitas y en la Región Metropolitana en una misma pieza funcionaba el PAI, Atención a la Mujer y otros donde solamente la única división era el escritorio que cada persona utiliza. Por esta razón surge la pregunta si el encuestador deberá medir el área total y después el área de los escritorios para responder a la fila B.

Un ejemplo de esta situación es el del CESAR Aldea Santa Rosa donde en una pieza 4x3 funcionaba todos los componentes donde se vacunaba estaba el almacén de biológicos y se realizaba la vigilancia y otras actividades operacionales.

Ante esta situación surge la duda de cómo responder a la distribución porcentual en las columnas D1, D2, D3 y D4. La siguiente imagen muestra esta situación, de hacinamiento de todos los componentes del PAI, donde surge el problema de distribuir porcentualmente los componentes del PAI de forma efectiva.



Ante esta situación se tiene la duda de la metodología para medir área física donde solamente y se dio también en la validación que una pieza tiene todos los componentes del PAI.

En el formulario 7 los tipos de costos generaron dudas al informante ya que no estaban familiarizados con los conceptos de Costo Recurrente y Capital y se tuvo que recurrir a tiempo considerable para investigar y explicar el significado de los mismos y la diferenciación que hay con los costos fijos y variables.

b. ¿Cuáles sugerencias tiene usted para aclarar estas preguntas poco claras? ¿Hay una aclaración para el encuestador que se le ocurre?

La recomendación general para que los encuestadores puedan interactuar de mejor manera con el informante, es que en el proceso de capacitación de los mismo se contextualice las particularidades del sistema de salud en Honduras y como poder sistematizar la información recibida para poder plasmarla en las encuesta del estudio de costos del PAI. También se propone de dotar a los encuestadores de cámaras fotográficas para poder tener copia de la información en físico ya que no se cuenta con fotocopiadora ni registros electrónicos.

Glosario de términos para el encuestador y que este se pueda compartir con el informante para una visión más claras de los objetivos e información a alcanzar.

El entrevistador deberá de hacer la explicación de los componentes del PAI al informante antes de abordar la encuesta y explicar que en el caso de no existir registros administrativos de tiempo dedica a dichos componentes se tendrá que obtener una valoración personal y distribuir sus respuestas en porcentajes que sumen el 100%.

Una fusión entre los Formularios 3, 5A y 5B para evitar la doble asignación de información con respecto al uso de vehículos en actividades de campo.

En el formulario 4A y 4B se debe de proporcionar la formula matemática que los técnicos de la cadena de frio utilizan para calcular la capacidad de almacenamiento. Se debe de instruir a los entrevistadores de que para agrupar los ítems se debe de usar la marca y modelo para poder tener mejor un numero por regiones, años de uso y descripción. Teniendo en tipos de equipo por ejemplo varias refrigerados de distinta marcas agrupadas por las mismas.

Para el formulario 6 generar instructivo de abordaje del tema y dotar de instrumentos de medición física a los encuestadores.

Para el formulario 7 se sugiere construir un instructivo para el entrevistador y el informante detallando los significados de los tipos de costos. También en la columna C componente del PAI se debe de tener en casilla los cinco componentes para ser marcados.

4. ¿Qué información no logró recibir? ¿Por qué?

Producto del contexto nacional y las carencias sufridas en el sector de salud de Honduras, no se tiene a disposición registros estadísticos, contables ni administrativos que puedan satisfacer el nivel de detalle de algunos formularios de la encuesta. La información que no se logro compilar de forma completa y la incompleta se detalle a continuación:

En el formulario 2A se presenta la dificultad de no contar con registros de horas trabajadas a nivel de detalle por componentes de PAI, distribución de la dedicación por lugar y el

porcentaje del equivalente de trabajo completo dedicado al PAI en promedio en 2011. La falta de información resulta en que el informante solamente puede emitir opiniones personales y cálculos subjetivos de los porcentajes de dichos componentes y elementos y crea un sesgo de información ya que no es respalda estadísticamente. También surge problemas de distribuir los pesos porcentuales en un 100% ya que los cálculos subjetivos del informante son hechos en el momento y hay que manipular los datos para poder cumplir con los pesos porcentuales. En el caso de las columnas E1, E2 y E3 correspondiente a las distribución por el lugar el informante al no contar con la información requerida, respondió con valoraciones cualitativas por ejemplo en el % de vacunación intra mural de rutina respondió “siempre”, en vacunación extra mural de rutina respondió “cada mes “ sin especificar la duración de la vacunación extra muro y en la columna E3 de vacunación en campañas respondió “ dos veces al año”.

Se recomienda ante esta situación capacitar y generar instructivos para el encuestador para que pueda discernir en cuantos días representan cada respuesta y calcular en base a 365 días del año para obtener los pesos porcentuales y que estos sumen un 100%.

A continuación se adjunta una imagen del formulario 2A a nivel de oficina regional, para tener una representación grafica de los problemas encontrados, donde se puede observar que las columnas F1 hasta F8 son manipuladas para que los porcentajes de distribución vertidos por el informante sumen el 100%.

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Formulario 2A. Empleados involucrados en el PAI.

A continuación haga un listado de TODAS las personas que trabajan en esta oficina regional y su asignación al PAI. Si NO dedica esfuerzos al PAI en la asignación coloque 0 (Columna D), y omita las columnas E y F. Si su institución tiene más de 20 empleados solo incluya aquellos que dedican algún esfuerzo en el PAI. En las columnas E1, E2 y E3 ingrese, del tiempo que trabaja para el PAI, que porcentaje dedica a cada una de las actividades. Verifique que la suma de las columnas E (1-3) sea 100%.

En las columnas F1 a F8 ingrese el porcentaje del tiempo que trabaja para el PAI dedicado a cada componente. Verifique que la suma de las columnas F1-F8 sea 100%. El componente 'Otro' (Columna F8) incluye: (1) administración de vacunas, (2) otras actividades operacionales, (3) sistemas de información, (4) investigación, y (5) evaluación. Por favor especifique la definición del 'Otro' asignando uno de estos códigos en paréntesis e incluya el valor en la celda. En la columna G, identifique la fuente de financiamiento para el ETC de cada persona. Cuando la fuente sea diferente al presupuesto del PAI central marque la casilla 'Otro' e identifique la fuente con la siguiente codificación: (1) Secretaría de Salud, (2) Alcaldía, (3) Fondos de Salud (fondos comunitarios), (4) Donaciones, u (5) Otro (ej. ONG).

A	B	C	D	Distribución de la dedicación por lugar (%)			Distribución de la dedicación por componente del PAI (%)								G
				E1	E2	E3	F1	F2	F3	F4	F5	F6	F7	F8	
Nombre	Número de ID	Cargo del personal	% ETC dedicado al PAI en promedio en 2011	Vacunación de rutina intramural	Vacunación de rutina extramural	Campañas	Prioridad política	Planificación/ coordinación	Supervisión	Capacitación	Cadena de frío	Monitoreo social	Vigilancia	Otro	Fuente de financiamiento
Silvia Lopez	coa	coa	100%	-	-	-	-	70	20	15	-	5%	50%	1	<input type="checkbox"/> PAI central <input checked="" type="checkbox"/> Otro 1
Mirna Gao	coa	coa	-	-	-	-	-	70	20	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Belinda	sist	sist	-	80%	-	20%	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Guana	sist	sist	-	100%	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Miriam	sist	sist	-	100%	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Orlando	atc	atc	-	11%	50%	20%	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Maria Ines	atc	atc	-	100%	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Secchi	atc	atc	-	50%	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Carla	atc	atc	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro
Silvia	atc	atc	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/> PAI central <input type="checkbox"/> Otro

def etc

* definir ETC? de forma contable
* no hay registro % de horas dedicadas

no se sabe lo que se refiere
competencia a nivel central
compensación de sus territorialidad

Los formularios 2A, 3, 5A, 5B que cuenta con la distribución de la dedicación por componente del PAI % no tendrán información disponible teniendo que recurrir a las valoraciones personales del informante.

En el formulario 2B no se cuenta con un registro de días dedicados al PAI de los diversos voluntarios y se recurre nuevamente a valoraciones subjetivas y cálculos no representativos.

Por ejemplo una persona que está en condición de Pasantía labora en el centro de salud de pilotaje solamente dos días a la semana y estos días realiza actividades de todo tipo sin una total de dedicación al PAI, la misma situación se repite con el personal en servicio social y voluntarios de ONG ya que no se cuenta con un registro detallado.

En el formulario 3 las unidades de salud no cuenta con un registro de los gasto de actividades de campo detallado, solamente en el mejor de los casos existe un reporte de gastos de forma general para todo el año.

En el formulario 5A no se cuenta con información de ningún tipo para poder responder a las columnas D, E, F y G correspondiente el uso de vehículos rentados si se da el caso. La misma situación se repite en el formulario 5B para obtener información de la distancia promedio, consumo de combustible, costo anual y % de asignación al PAI. Ya que en la mayoría de los casos la unidad de salud no cuenta con vehículos y estos provienen de los CESAMO líder pero no se genera un registro detallado del mismo.

5. ¿Tiene sugerencias sobre el formateo de las encuestas? Por ejemplo, requirió ¿usted mayor espacio en las cajitas de observaciones?

Las sugerencias con respecto al formato de las encuestas son:

En el formulario 1 en la pregunta 7 de vacunas aplicadas debe de haber celdas vacías para poder agregar vacunas que se aplican y no están reflejadas en el cuadro original de la encuesta.

En el formulario 2B debe de haber más espacio para las columnas A y C y todos los formularios que lleven el segmento de distribución de componente del PAI en la columna otros deben de haber casillas para poder asignarle el peso porcentual a dicha actividad como lo refleja el siguiente ejemplo.

F8				
Otro				
1	2	3	4	5

En el formulario 7 se debe de destinar las cinco casillas correspondientes a los componentes del PAI para que puedan ser seleccionados, como lo resalta el siguiente ejemplo,

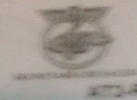
C
Componente PAI

1	2	3	4	5

ANEXOS

A continuación se adjunta imágenes de los principales documentos de información estadística donde esta visualizado el AT2R y el monitoreo de vacunación. También se adjunta un segmento de las entrevistas realizadas a nivel regional

Secretaría de Salud



Región de Salud: Michoacana Nivel: CESQA Establecimiento: Santa Rosa Código: 82894
 Mes: Dic Año: 2011 Director del Establecimiento: Oswaldo Cabeza
 Servicio: Consulta Externa Emergencia: _____

Concepto	Enfermera		Médico		TOTAL
	Auxiliar	Profesional	General	Especialista	
1. Menores de 1 Mes de 1a. Vez	3		4		7
2. Menores de 1 Mes Subsiguiente	1				1
3. 1 Mes a 1 año de 1a. Vez			11		11
4. 1 mes a 1 año Subsiguiente	11				11
5. 1 - 4 años 1a. Vez			22		22
6. 1 - 4 años Subsiguiente	17				17
7. 5 - 9 años 1a. Vez	1		15		16
8. 5 - 9 años Subsiguiente	7				7
9. 10 - 14 años 1a. Vez			13		13
10. 10 - 14 años Subsiguiente	6				6
11. 15 - 19 años 1a. Vez			14		14
12. 15 - 19 años Subsiguiente	9				9
13. 20 - 49 años 1a. Vez			104		104
14. 20 - 49 años Subsiguiente	54				54
15. 50 - 59 años 1a. Vez			9		9
16. 50 - 59 años Subsiguiente	8				8
17. 60 y + años 1a. Vez			17		17
18. 60 y + años Subsiguiente	13				13
19. Total Pacientes Atendidos	130		210		340
20. No. Atenciones de Mujeres	95		149		244
21. No. Atenciones de Hombres	35		61		96
22. No. Consultas Espontáneas	130		210		340
23. No. Consultas Referidas					
24. Detección de Sintomáticos Respiratorios	1		2		3
25. Detección de Cáncer Cervicouterino			1		1
26. Embarazadas Nuevas	3		1		4
27. Embarazadas en Control	3		1		4
28. Controles Puerperales			1		1
29. Anticonceptivo Oral 1 Ciclo	3		1		4
30. Anticonceptivo Oral 3 Ciclos	2		1		3
31. Anticonceptivo Oral 6 Ciclos					
32. Condones 10 Unidades	1				1
33. Condones 30 Unidades	1				1
34. Dazo provera Aplicadas	12		11		23
35. DIU insertados			1		1
36. (Cloran)					
37. Otras Actividades de PF					
38. No. Niños/as menores de 5 años con Diarrea	3		5		8
39. No. Niños/as menores de 5 años con Diarrea que acuden a cita de seguimiento					
40. No. Niños/as menores de 5 años con Deshidratación Rehidratados en la US					
41. No. Niños/as menores de 5 años con casos de Neumonía nuevos en el Año					
42. No. Niños/as menores de 5 años con Neumonía que acuden a su cita de Seguimiento					
43. No. Niños/as menores de 5 años con algún grado de Síndrome Anémico Diagnosticado por Laboratorio					
44. Total de Niños/as Menores de 5 años Atendidos	32		38		70
45. No. Niños/as menores de 5 años con Crecimiento Adecuado	32		38		70
46. No. Niños/as menores de 5 años con Crecimiento Inadecuado					
47. No. Niños/as menores de 5 años Bajo Percentil 3					
48. No. Niños/as menores de 5 años con Daño Nutricional Severo					
49. No. Niños/as menores de 5 años con Neumonías Nuevas en el Año					

Segmento de Transcripción de entrevistas a nivel Regional

Algo que no tienen en esta encuesta, es el cargo. Aquí tienen contactos claves para el seguimiento. Aquí tienen a quienes se pueden avocar para tener la misma información.

Lic Silvia Lopez: Ah ya, está bien, póngale Lic. Mirna Cruz, Coordinadora del PAI.

Entonces dice, contactos claves para el seguimiento:

Intente identificar dos personas que pueden ser contactadas para el seguimiento del presente estudio. Las personas que fueran aplicar, sería ustedes dos verdad.

Lic Silvia Lopez: si, nosotros seríamos

¿Teléfonos?

Lic Silvia Lopez: 22137228

Correo electrónico

Lic Silvia Lopez:...

Bueno yo lo tengo allá en la... bueno yo lo pongo después esto

No hay ninguna otra persona clave que pueda estar a la disposición , en caso de que usted no estuviera cuando llegara el entrevistador .

Lic Silvia Lopez: No hay nadie

Okay , ahora vamos a una parte complicada

Vacunas aplicadas

Lic Silvia Lopez2: de que período?

Del 2011. Entonces aquí tiene un elemento un poco diferente. Dosis totales y hay que sacarles el porcentaje intramural , extramural , y extramural en campañas. Y eso el entrevistador tiene que ver si eso suma 100%.

Lic Silvia Lopez2: Aquí se da una particularidad, que extra-muro no lo tenemos, puntual , solo tenemos cuando se van a hacer visitas de campo , pero por lo general no se tiene documentado aparte la vacunación de intra mural . En Campaña si, en Programa Sostenido, entonces ahí si le podemos proporcionar datos. ¿Que datos ocupa?

Entonces , por ejemplo , dosis total BCG.

Lic Silvia Lopez: 30468 de BCG

Ese es de Programas sostenidos.

Lic Silvia Lopez: si , y en porcentaje , tiene el 100%

Lic Silvia Lopez: Y Hepatitis B, pediátrica tenemos 28,099. 100% intra-muro. Aquí se tiene que poner menor de un año verdad, porque estas vacunas se le pueden poner de 1 a 4 años, o menor de un año. Todos estos datos que le dimos son para menor de un año. Habría que hacer dos casillas, pero parece que le encuesta solo quiere menor de un año. Pero parece que le están pidiendo la cobertura, y la cobertura solo se mide a personas menores que un año. Es decir, lo que uno mide en las coberturas, el objetivo principal son menores que un año. Ok, cual otro.

Sabin

Lic Silvia Lopez: 22833, y le voy a contar que por ejemplo de Sabin hay tres dosis , la primera , segunda, y tercera, pero la cobertura se mide en base a la tercera dosis. Ahora no se cual será el objetivo, si quieren el costo , que en ese caso habría que incluir las tres dosis .

Esto yo también lo retroalimentó con la Lic. Berenice , con todo el grupo.

Lic Silvia Lopez: O le damos el dato total, porque aquí no dice.

Bueno el dato ahorita no es el problema, sino que no se sabe si son las tres dosis, si es menor que un año, o la edad de 1 a 4.

Lic Silvia Lopez: Porque si es total de dosis, no serían estos datos, porque faltarían las primeras y las segundas dosis. ¿Entonces cual le daríamos?

Mire ahorita no importa, porque como solo estamos viendo las modificaciones que se le tienen que hacer a la encuesta.

Porque fuera algo muy diferente si me pidieran cobertura.

Entonces anote ahí, se anotan total de dosis, ¿o solo terceras? No dice, ahí hay que investigar si es TD o DT total de población, o son vacunas aplicadas en general. Toda esa población. La pediátrica es en DT, menor que 5. Cualquier duda o inquietud, se puede advocar con la licenciada. Imagínese que ya teniendo tabulada unas 100 encuestas, teniendo este montón de inquietudes, sería un gran problema para la base de datos.

Hagamos un ejemplo, ahorita, cual es la dosis total de DPT.

Lic Silvia Lopez: de 11 años es 22,921, y embarazadas 21190.

DT está en otros grupos.

Y también va a hacer falta la intra-mural.

Lic Silvia Lopez: Por ejemplo, hay otras vacunas que no aparecen ahí, como la fiebre amarilla, la hepatitis adulto... En el análisis de costos tuvieron que ir todas las vacunas verdad.

¿Qué otras vacunas faltarían que no están acá?

Lic Silvia Lopez: Las de campaña, la Neumococo Polisacáridos, en la que hay de dos, la conjugada y la de polisacáridos. La conjugada es la que se aplica en la menor de un año, y la de polisacáridos, se aplica en campaña para los adultos mayores de 60 años. Salt es la otra que falta, es la vacuna de polio que se les pone para los niños que son convivientes de pacientes VIH.

Si porque aquí deberían de estar todas las vacunas que aplica el PAI.

Annex 5. Total economic cost for national EPI using alternative new vaccine prices

Table 1. Total economic costs for national EPI using GAVI tail prices for PCV13 (US\$3.50) and rotavirus (\$US2.50)

CAPITAL				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$0	\$0
Labor	\$0	\$0	\$0	\$0
Volunteers	\$0	\$0	\$0	\$0
Cold chain	\$625	\$176	\$12	\$813
Vehicles	\$53	\$44	\$65	\$162
Buildings	\$613	\$104	\$17	\$734
Other	\$28	\$10	\$103	\$141
TOTAL	\$1,319	\$334	\$197	\$1,850
RECURRENT				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$10,040	\$10,040
Labor	\$15,404	\$1,800	\$449	\$17,653
Volunteers	\$713	\$0	\$0	\$713
CC	\$357	\$70	\$30	\$457
Vehicles	\$60	\$71	\$21	\$152
Buildings	\$220	\$0	\$6	\$226
Other	\$1,021	\$1,046	\$1,381	\$3,448
TOTAL	\$17,775	\$2,987	\$11,927	\$32,689
TOTAL				
Category	Facility	Regional	Central	TOTAL
Vaccine	\$0	\$0	\$10,040	\$10,040 (29%)
Labor	\$15,404	\$1,800	\$449	\$17,653 (51%)
Volunteers	\$713	\$0	\$0	\$713 (2%)
CC	\$981	\$246	\$42	\$1,269 (4%)
Vehicles	\$113	\$115	\$86	\$314 (1%)
Buildings	\$833	\$104	\$23	\$961 (3%)
Other	\$1,049	\$1,055	\$1,484	\$3,589 (11%)
TOTAL	\$19,094	\$3,321	\$12,124	\$34,539 (100%)

Table 2. Total economic costs for national EPI using PAHO Revolving Fund 2011 prices for PCV13 (US\$14.85) and rotavirus (\$US7.50)

CAPITAL				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$0	\$0
Labor	\$0	\$0	\$0	\$0
Volunteers	\$0	\$0	\$0	\$0
Cold chain	\$625	\$176	\$12	\$813
Vehicles	\$53	\$44	\$65	\$162
Buildings	\$613	\$104	\$17	\$734
Other	\$28	\$10	\$103	\$141
TOTAL	\$1,319	\$334	\$197	\$1,850
RECURRENT				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$18,272	\$18,272
Labor	\$15,404	\$1,800	\$449	\$17,653
Volunteers	\$713	\$0	\$0	\$713
CC	\$357	\$70	\$30	\$457
Vehicles	\$60	\$71	\$21	\$152
Buildings	\$220	\$0	\$6	\$226
Other	\$1,021	\$1,046	\$1,381	\$3,448
TOTAL	\$17,775	\$2,987	\$20,159	\$40,921
TOTAL				
Category	Facility	Regional	Central	TOTAL
Vaccine	\$0	\$0	\$18,272	\$18,272(43%)
Labor	\$15,404	\$1,800	\$449	\$17,653 (41%)
Volunteers	\$713	\$0	\$0	\$713 (2%)
CC	\$981	\$246	\$42	\$1,269 (3%)
Vehicles	\$113	\$115	\$86	\$314 (1%)
Buildings	\$833	\$104	\$23	\$961 (2%)
Other	\$1,049	\$1,055	\$1,484	\$3,589 (8%)
TOTAL	\$19,094	\$3,321	\$20,356	\$42, 771 (100%)

Annex 6. Recommended vaccination schedule, vaccine prices and wastage assumptions in Honduras for children, adolescents and risk group target populations

Vaccine	Doses recommended (number primary doses + booster)	Target group schedule (month)	Price per dose (US\$, 2011)	Wastage (%)
BCG	1	0	\$0.10	68%
Hepatitis B (HepB)	1	0	\$0.23	0%
Oral polio (OPV)	3+1	2, 4, 6, 18	\$0.21	18%
Pentavalent (DPT+HepB+Hib)	3	2,4,6	\$3.19	1%
Pneumococcal conjugate, 13-valent (PCV13)	3+1	2, 4, 6, 18	\$7.00*	7%
Rotavirus	2	2, 4	\$2.50*	2%
Diphtheria-Tetanus-Pertussis (DTP)	2	18, 48	\$0.18	19%
Measles-Mumps-Rubella (MMR)	1	18	\$1.60	3%
Tetanus-diphtheria (Td)	1	Risk groups	\$0.08	24%
Yellow fever (YF)	1	Risk groups	\$0.67	40%
Influenza	1	Risk groups	\$3.60	21%
Inactivated polio (IPV)	NR	Risk groups	\$5.50	-

***GAVI prices; all other prices are referenced from PAHO Revolving Fund**

Annex 6. Definitions of adapted SHA 2011 codes for financial flows analysis

Financing Sources (FS) are institutions or public, private and external entities that provide funds for financing agents to execute on activities related to immunization. Among the sources of funding that exist within the health system, there are public, private and foreign funds.

The first financing source identified was **Transfers from domestic government revenue (FS 1)**. This refers to income received internally (taxes, fees, royalties and other) by the general government and which are intended for immunization-related activities. It is important to note that the general government is composed of the central government, including local governments (regional, departmental and municipal). A second source identified was **Transfers of foreign origin distributed by the government (FS 2)**. It refers to all income from international cooperation partners (multilateral, bilateral and other agencies) that are registered and channeled through the general budget of the nation and are used to carry out activities in the field of immunization. A third source of financing was **Social insurance contributions (FS 3)**. This source refers mainly to payments by employers in both public institutions and private companies to fund social security in the area of employee health. Voluntary contributions of temporary employees or households seeking health services offered by social security are also found within this category. The fourth source identified is the category of **Compulsory prepayment (FS 4)**. This category refers mainly to the mandatory payment incurred by households and employers purchasing health insurance premiums. It is important to mention that this obligatory payment is established on individual country regulations. A fifth source is **Voluntary prepayment (FS 5)**. This category refers mainly to the voluntary payment incurred by households and employers purchasing health insurance premiums or health services. The sixth category identified was **Other domestic revenues n.e.c. (FS 6)**. This category excludes any domestic revenues mentioned in FS1 to FS 5 and which are performed by the household (excluding pocket spending), private companies and non-profit institutions identified. The seventh category was **Direct foreign transfers (FS 7)**. This category refers to all monetary and non-monetary income from international cooperation partners (multilateral, bilateral and other agencies) that are channeled directly and are used to carry out activities in the field of immunization. Finally, the last financing source identified was the category of **Loans (FSR 1)**. These are financial resources from international organizations that are assigned to the general budget of the nation through loans (concessional and non-concessional). It is worth mentioning that the purpose of these resources is to enable to the national government to meet certain needs that cannot be financed by their own resources due to the lack of liquidity. Usually these resources are used to support public investment projects such as health, and for example to support for immunization programs.

Financing Agents (FA) are institutions or public and/or private entities that have the central objective to accumulate, channel, and control funds provided by the different sources of financing for the health system and use them later to pay for or buy goods and services related to immunization. The first category of financing agents is **General government (FA 1)**. This category covers all institutional units of central, regional, and local governments, as well as social security administrations at all levels of management. Within this category, nonprofit institutions that are controlled and mainly financed by institutional units of government are included. A second category is that of **Insurance corporations (FA 2)**. This category includes all

private health insurance companies that exist in a country. This includes both for profit and nonprofit insurance systems, with the exception of social security institutions. The third is **Corporations (FA 3)**. This category includes all companies whose primary focus is the production of goods and services. Market also includes all public institutions and nonprofit residents that are market producers of goods and non-financial services. A fourth category is that of **Non-profit institutions serving households (FA 4)**. The NPISH also known as Non-Governmental Organizations (NGOs) are national institutions and charitable organizations created for philanthropic purposes. These institutions offer goods and services directly related to health care to the neediest households. It is important to mention that the resources received from these institutions are mainly donations in cash or in kind (public, private and/or external). The fifth category is **Households (FA 5)**. This category includes direct payments made by households for goods and health services, i.e. the payment is done directly by the patient without the intervention of a public, social or private insurance. Importantly, this category is also known as "out-of-pocket expenses". Finally, the sixth category is called the **Rest of the world (FA 6)**. This category includes all institutions that originate and residence abroad, among which we can mention multilateral and bilateral cooperation agencies and other international organizations like NGOs and foundations that directly support health-related activities.

Healthcare Financing Schemes (HF) allow for the categorizing of institutions and entities that engage in immunization. Financing agents include institutions that pool resources for immunization collected from different sources, as well as institutions (such as households and companies) that directly pay for healthcare with own resources. In Honduras, for example they are called Recoverable Funds for Health. For this study, they were categorized as follows. Category one: **Government schemes and compulsory contribution healthcare financing schemes (HF 1)**. This category includes all projects, programs, and activities aimed to ensure and improve access to basic health services for the majority of the population or at least of some more vulnerable groups. The structure of health care the part of the general government, social security, compulsory private insurance and compulsory medical savings accounts is included in this category. The second category was **Voluntary health care payment schemes (HF 2)**. This category includes prepaid plans for financing medical care, where access to health services is at the discretion of private agents. The voluntary health insurance, the financing schemes of ISFLSH, and companies are included within this category. A third category was **Household out-of-pocket payment (HF 3)**. This category includes expenditure incurred by households through their own income, remittances or savings on the purchase of goods and health services as needed and/or emergencies encountered. Here there are no another payers involved, only households. Finally, the fourth category was labeled as the **Rest of the world financing schemes (HF 4)**. This category includes all institutions that originate and residence abroad, among which we can mention multilateral and bilateral cooperation agencies and other international organizations like NGOs and foundations that directly support health-related activities.

Healthcare Providers (HP) are institutions or public and/or private entities that receive money from Health System financing agents for the production of goods and services related to immunization. Generally, healthcare providers behave as end users in the public, private, and foreign funds. These were grouped into seven categories during the Honduras analysis. The first category is that of **Hospitals (HP 1)**. This category includes health facilities whose main purpose is to provide medical, diagnostic and treatment services, including doctors, nurses and other

health services to inpatients, as well as specialized services stay required by these patients. They might also provide outpatient services as a secondary activity. Hospitals provide inpatient services often only available in these units due to their specialized equipment and personnel. The second category is that of ***Providers of ambulatory healthcare (HP 3)***. It is comprised of health facilities whose activities are focused on providing services directly to outpatients who do not require hospitalization. This category includes health facilities specialized in the treatment of patients in day hospitalization and the provision of home care. Therefore, these health units do not usually provide hospital with overnight stays. A third category is defined as ***Providers of ancillary services (HP 4)***. This category includes health facilities that provide some specific outpatient ancillary services under the supervision of health professionals. The fourth category, ***Providers of preventive care (HP 6)***, includes institutions that offer programs of prevention and health promotion to specific groups and/or the general population. The fifth is ***Providers of health care system administration and financing (HP 7)***. This category includes entities that are primarily responsible for regulating the activities of agencies that provide health care, general administration of health policy and administration of health insurance. A sixth category was called ***Rest of economy (HP 8)***. This category is comprised of households as health care providers in homes and other industries like secondary suppliers of health care. Finally, the last category of healthcare providers was defined as ***Rest of the world (HP 9)***. This category includes all non-resident units that provide health goods and services for final use of resident units in the country.

The ***Factors of Healthcare Provision (FP)*** are the provision of resources or factors used by different health care providers or financing agents in the Health System to produce goods and services related to immunization. These can be grouped in the five following categories. The first category is ***Compensation of employees (FP 1)***. This category refers to the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period. It includes wages, salaries, and all kinds of social benefits, payments for working overtime and/or nights, meals, and the value of payments in kind such as the provision of uniforms for health personnel. The second category was ***Self-employed professional remuneration (FP 2)***. This category refers to payments made on final consumption by patients or recipients of healthcare provided by freelancers. Third, ***Materials and services used (FP 3)***. This category consists of the total value of goods and services that are used to carry out the provision of health (not self-manufactured). These are purchased from other suppliers and other sectors of the economy. All materials and services will be totally consumed during the production activity. The fourth category is ***Consumption of fixed capital (HP 4)***. Consumption of fixed capital is the cost of production that determines the decrease of the present value of fixed assets as a result of physical deterioration, planned obsolescence, or normal or accidental damage to these assets. Finally, the fifth category is ***Other items of spending on supplies (FP 5)***. This item includes all financial costs, such as interest payments on loans, taxes, etc.

Healthcare Functions (HC), when referring to immunization programs, are framed within the function called prevention. Therefore, the particular classification of these activities are found distributed within the coding the SHA 2011. These activities can then be categorized into the 12 EPI components and are defined as follows. The first category, or component, is ***Social Mobilization (HC 6.1.1)***. It refers to advocacy and community participation in public events related to the immunization program, and also includes the preparation of public service

announcements and other promotional materials, such as: radio programs, brochures, advertisements, promotional films, public workshops, activities associated with the mobilization the public for national immunization days, etc. The ***Provision of immunization services on routine (HC 6.2.1)*** refers to the administration of all vaccines during all days of the year in health facilities; this strategy is most commonly used for immunization programs in the region. Is worth mentioning that health personnel serve children that are brought to their facilities to be vaccinated or received at health facilities when they consult for other cause. This strategy is carried out by spontaneous in-facility demand. Additionally, the ***Provision of immunization services in campaigns (HC 6.2.2)*** refers to mass mobilization and organization of the population in a day or in a short period of time in order to apply the greatest possible number of doses of vaccine. It includes the participation of various community groups, institutions in other sectors and a very determined action of mass media. Generally, the EPI has two seasons scheduled per year, one per semester. These are based on detailed planning, intense communication, and social mobilization. Campaigns may be national, regional or local according to the time and/or need. The next component is ***Training (HC 6.2.3)***. This category refers to all the training activities related to immunization (cold chain, monitoring, supervision, etc.). It also includes all materials associated with training, transportation expenses and per diem for participants. ***Biological and supplies (HC 6.2.4)*** includes the acquisition and distribution of biological and supplies to carry out vaccination activities. It's worth mentioning that within this category the costs incurred from the nationalization, storage and transportation of biological and supplies are also considered. The ***Cold Chain (HC 6.2.5)*** category refers to the process of receipt, storage, handling and distribution of vaccines. The purpose of this process is to ensure that vaccines are preserved within appropriate temperature ranges at all times, in order to avoid losing their immunizing power. Within this category, the costs related to the maintenance and operation of the cold chain as well as the acquisition and replacement of the same should be considered. The ***Supervision and monitoring (HC 6.2.6)*** category refers to actions associated with the management and oversight of immunization activities at all levels by the personnel involved in the program's implementation. Within this category, consider all production costs for manuals, national or regional meetings, activities related to the EPI personnel mobilization, transportation costs and per diems for supervision. Some examples of this kind of activity include regular visits to health facilities, monitoring of immunization coverage, local meetings, etc. ***Evaluation (HC 6.2.7)*** refers to expenses associated with the work, time and/or studies related to the evaluation of all aspects of the EPI. Some examples include assessment of the distribution of the EPI, consideration of immunization personnel performance, examination of the achievement of objectives and goals in defined time periods, and potential improvement associated with the performance of operations/staff. The ***Planning and coordination (HC 6.2.8)*** category refers to the functional coordination of actions required from technical and administrative areas of the EPI to achieve annual targets. Includes all expenses related to the program's planning and coordination. As for ***Other operational expenses (HC 6.2.9)***, it refers to the activities and objectives associated with the management and support of the infrastructure needed to maintain the effective functioning of daily immunization services. ***Epidemiological Surveillance (HC 6.5.1)*** refers to everything that is needed for a systematic and consistent collection process, analysis, interpretation and dissemination of data related to specific vaccine preventable diseases. This data is used for planning, implementation and evaluation of public health practice. This category should include expenditure on reagents and laboratory equipment that are used by the EPI. The ***Information Systems (HC 6.5.2)*** category includes all activities performed by actors in

the area of immunization allowing them to interact and provide feedback to the information they generate, according to specific country. The **Political priority and legal bases (HC 7.1.1)** category refers to harmonized actions with stakeholders. These activities are aimed at garnering political and legal backing for those responsible for carrying out the technical and operational measures to protect and sustain the progress of EPI activities and face new programmatic challenges. Finally, the **Research (HC RI 3.3.1)** category includes the programming of special studies to inform decision-making processes and reformulation of program strategies to address issues such as missed opportunities, municipalities with low coverage levels, burden of illness studies, cost benefit analyses, etc. Any expenses associated with these studies should be included.

In a financing and resource flow analysis, **Beneficiaries** are those who receive immunization services, these can be classified based on several attributes, such as economic and demographic characteristics (age, sex, race, place of residence, etc.). In this study, the following characteristics were analyzed (see Table 2):

TABLE 2
Beneficiaries

REG	REGIÓN	VAC	VACUNA	POP	OBJETIVO
REG 00	National	VAC 01	BCG	POP 01	Recién nacidos
REG 01	Atlántida	VAC 02	DPT	POP 02	Menor 1 año
REG 02	Choluteca	VAC 03	HEP B	POP 03	1 - 4 años
REG 03	Colón	VAC 04	INFLU	POP 04	4 - 5 años
REG 04	Comayagua	VAC 05	PCV 13	POP 05	5 - 11 años
REG 05	Copán	VAC 06	PCV 23	POP 06	11 - 59 años
REG 06	Cortés	VAC 07	Pentavalente	POP 07	Mayor 60 años
REG 07	El Paraíso	VAC 08	RVO	POP 08	Embarazadas
REG 08	Francisco Morazán	VAC 09	SRP	POP 09	Trabajadores Avícolas
REG 09	Gracias a Dios	VAC 10	Td	POP 10	Trabajadores Salud
REG 10	Intibucá	VAC 11	VFA	POP 11	Grupos de Riesgo
REG 11	Islas de la Bahía	VAC 12	VPO		
REG 12	La Paz	VAC 13	VPO Salk		
REG 13	Lempira				
REG 14	Ocotepeque				
REG 15	Olancho				
REG 16	Santa Bárbara				
REG 17	Valle				
REG 18	Yoro				
REG 19	San Pedro Sula				
REG 20	Tegucigalpa				

- **Type of vaccine (VAC).** Resources are allocated to immunization services and are classified according to the routine immunization schedule of the Honduran EPI.
- **Target Population (POP).** Resources are allocated to immunization services and are classified by the different target groups for vaccination, according to the basic outline of the Honduran EPI.
- **Geographic Region (GEO).** Sets the regional distribution of resources for immunization services according to the administrative division of the Honduran Health System.

Annex 7. Example F01 form, Honduras EPI

Institución:	0060	Secretaría de Salud	Compromiso	01							
Gerencia Administrativa:	031	GERENCIA ADMINISTRATIVA DEPARTAMENTO DE COLÓN	Devengado	01							
Unidad Ejecutora:	030	DIRECCIÓN DEPARTAMENTAL DE COLÓN	Secuencia	00							
			Sin Imputación Presupuestaria								
REGISTRO DE:	Precompromiso	<input checked="" type="checkbox"/>	Compromiso	<input checked="" type="checkbox"/>							
	Devengado	<input checked="" type="checkbox"/>	Regularización	<input type="checkbox"/>							
BENEFICIARIOS:											
Nombre o Razón Social	Tipo y No de Documento		Banco y Cuenta								
ORG PANAM DE LA SALUD JO M DE LA S	Tipo	Documento	Código	Cuenta							
	RTN	08019993406462	00007	909401001							
				164,092.00							
DOCUMENTOS DE RESPALDO											
Tipo de documento	OFICIO	455-SSRS-11	Secuencia								
	Denominación	21/03/2011	Fecha de Vencimiento	30/04/11							
			Proceso de Compra No	OFI							
CLASE DE GASTO:											
Servicios Personales	<input type="checkbox"/>	Bienes de uso	<input type="checkbox"/>	Transferencias							
Servicios Profesionales y Técnicos	<input type="checkbox"/>	Construcciones	<input type="checkbox"/>	Otros							
Bienes y Servicios	<input checked="" type="checkbox"/>	Deuda Pública	<input type="checkbox"/>	Pasajes y Viaticos							
SIN IMPUTACION PRESUPUESTARIA:											
Anticipos	<input type="checkbox"/>	Deuda Pública	<input type="checkbox"/>	Devoluciones							
				Otros							
FUENTE DE FINANCIAMIENTO: 11 Tesoro Nacional		Denominación									
ORGANISMO FINANCIADOR: 1 Tesorería General de la República - Efectivo		Denominación									
		SIGADE									
		TRAMO:									
		BIP:									
		TIPO:									
		CONVENIO:									
IMPUTACION											
PRO	SUB	PROY	ACT OBRA	OBJ GTO	BEN TRAN	CUENTA CONTABLE	DESCRIPCION	IMPORTE MONEDA NACIONAL	IMPORTE MONEDA EXTRANJERA	Dif. Camb.	
15	02	000	003	39500	0000		Instrumental Médico-Quirúrgico Menor y de Laboratorio	164,092.00	0.00	0.00	
REGIONALIZACIÓN											
PRO	SUB	PROY	ACT	OBJ	REGION	DEPTO	MUNICIPIO	DESCRIPCION	IMPORTE MONEDA NACIONAL	IMPORTE MONEDA EXTRANJERA	Dif. Camb.
15	02	000	003	39500	R05	02	08	Sonaguera	164,092.00	0.00	0.00
TOTAL									164,092.00	0.00	0.00
SON: CIENTO SESENTA Y CUATRO MIL NOVENTA Y DOS 00/100								TOTAL AFECTADO	164,092.00	0.00	0.00
								TOTAL DEDUCCIONES	0.00	0.00	0.00
								TOTAL RETENCIONES	0.00	0.00	0.00
								MONTO A PAGAR	164,092.00	0.00	0.00
RESUMEN DE LA OPERACION PRESUPUESTO PARA EL PAGO DE JERINGAS SEGUN CONVENIO OPS/SECRETARIA DE SALUD.							CUENTAS BANCARIAS Código Banco: 1	TGR-CUENTA UNICA EN MONEDA NACIONAL Nombre			

Table 1. Cost per dose by sample strata

Cost per dose, by	OBSERVATIONS	MEAN	SE	95CI LB	95CI UB
CESAR NONLEAD	30	\$ 8.09	\$ 1.57	\$ 4.96	\$ 11.23
CESAMO NONLEAD	22	\$ 4.76	\$ 0.66	\$ 3.45	\$ 6.07
LEAD	19	\$ 3.73	\$ 0.61	\$ 2.52	\$ 4.94

Table 2. Total routine immunization economic costs by line item by facility type (US\$ 2011)

Line item	CESAR	CESAMO	LEAD	Weighted ave.	% distribution
Salaried labor	\$ 5,846	\$ 23,055	\$ 22,311	\$ 11,218	82.3%
Volunteer labor	\$ 367	\$ 644	\$ 686	\$ 463	3.4%
Per diem and travel allowances	\$ 442	\$ 696	\$ 1,283	\$ 617	4.5%
Cold chain energy	\$ 171	\$ 361	\$ 373	\$ 233	1.7%
Transport, fuel and vehicle maintenance	\$ -	\$ 59	\$ 198	\$ 41	0.3%
Building overhead	\$ 93	\$ 281	\$ 243	\$ 147	1.1%
Other recurrent	\$ 24	\$ 84	\$ 56	\$ 39	0.3%
Subtotal recurrent	\$ 6,944	\$ 25,181	\$ 25,150	\$ 12,757	93.5%
Cold chain equipment	\$ 456	\$ 279	\$ 258	\$ 396	2.9%
Vehicles	\$ -	\$ 70	\$ 180	\$ 40	0.3%
Buildings	\$ 413	\$ 425	\$ 483	\$ 426	3.1%
Other capital (lab, etc)	\$ 12	\$ 13	\$ 47	\$ 18	0.1%
Subtotal capital	\$ 881	\$ 787	\$ 968	\$ 880	6.5%
TOTAL facility costs	\$ 7,825	\$ 25,967	\$ 26,118	\$ 13,638	100%
TOTAL doses	967	5,456	7,003	2647	-
Fraction child doses of total doses	0.55	0.59	0.59	0.56	-
Fraction JNV doses of child doses	0.10	0.10	0.07	0.09	-
N	30	22	19	71	-

Table 3. Total routine immunization economic costs by CA activity by facility type (US\$ 2011)

Activity	CESAR	CESAMO	LEAD	Weighted ave.	% distribution
Facility-based delivery services	\$ 1,944	\$ 8,930	\$ 7,193	\$ 3,895	28.6%
Outreach services	\$ 346	\$ 1,559	\$ 1,178	\$ 672	4.9%
Cold chain	\$ 1,540.04	\$ 2,163.32	\$ 2,127.66	\$ 1,733.19	12.7%
Supervision	\$ 103	\$ 1,427	\$ 1,309	\$ 506	3.7%
Record-keeping & HMIS	\$ 1,815	\$ 6,056	\$ 5,366	\$ 3,058	22.4%
Training	\$ 186	\$ 408	\$ 560	\$ 281	2.1%
Social mobilization	\$ 1,300	\$ 3,308	\$ 4,440	\$ 2,122	15.6%
Surveillance	\$ 259	\$ 585	\$ 1,934	\$ 579	4.2%
Program management	\$ 182	\$ 1,366	\$ 1,657	\$ 607	4.4%
Other	\$ 152	\$ 165	\$ 353	\$ 186	1.4%
<i>TOTAL</i>	\$ 7,825	\$ 25,967	\$ 26,118	\$ 13,638	100.0%

Table 4. Total routine immunization economic costs by line item by location (US\$ 2011)

Line item	METRO	NON-METRO	Weighted ave.	% distribution
Salaried labor	\$ 32,095	\$ 8,726	\$ 11,218	82.3%
Volunteer labor	\$ 487	\$ 460	\$ 463	3.4%
Per diems/travel	\$ 532	\$ 627	\$ 617	4.5%
Cold chain energy	\$ 277	\$ 228	\$ 233	1.7%
Transport, fuel and vehicle maintenance	\$ 82	\$ 36	\$ 41	0.3%
Building overhead	\$ 221	\$ 138	\$ 147	1.1%
Other recurrent	\$ 53	\$ 37	\$ 39	0.3%
Subtotal recurrent	\$ 33,746	\$ 10,252	\$ 12,757	93.5%
Cold chain equipment	\$ 267	\$ 412	\$ 396	2.9%
Vehicles	\$ 132	\$ 29	\$ 40	0.3%
Buildings	\$ 925	\$ 367	\$ 426	3.1%
Other capital	\$ 10	\$ 19	\$ 18	0.1%
Subtotal capital	\$ 1,334	\$ 826	\$ 880	6.5%
TOTAL facility costs	\$ 35,080	\$ 11,078	\$ 13,638	100.0%
TOTAL doses	7,419	2,077	2,647	-
Fraction child doses	0.56	0.61	0.59	-
Fraction JNV doses	0.1341	0.0897	0.0944	-
N	18	53	71	-

Table 5. Total routine immunization economic costs by activity by location (US\$ 2011)

Activity	METRO	NONMETRO	Weighted ave.	% distribution
Facility-based delivery services	\$ 11,253	\$ 3,016	\$ 3,895	29%
Outreach services	\$ 2,009	\$ 512	\$ 672	5%
Cold chain	\$ 2,909	\$ 1,593	\$ 1,733	13%
Supervision	\$ 1,519	\$ 385	\$ 506	4%
Record-keeping & HMIS	\$ 8,712	\$ 2,383	\$ 3,058	22%
Training	\$ 856	\$ 212	\$ 281	2%
Social mobilization	\$ 4,407	\$ 1,849	\$ 2,122	16%
Surveillance	\$ 1,307	\$ 492	\$ 579	4%
Program management	\$ 1,993	\$ 441	\$ 607	4%
Other	\$ 115	\$ 194	\$ 186	1%
TOTAL	\$ 35,080	\$ 11,078	\$ 13,638	100%

Table 6. Comparison of facility output and economic unit costs by facility type (US\$2011)

Indicator	CESAR	CESAMO	LEAD	Weighted average
<i>Outputs and costs</i>				
Total doses	967	5456	7003	2647
Total child doses	544	3235	4276	1570
Total DTP3 doses	40	229	259	105
Under-one population	43	278	285	119
	\$	\$	\$	\$
Total costs	7,825.28	25,967.28	26,117.53	13,637.64
<i>Unit costs</i>				
Cost per child dose	\$ 14.37	\$ 8.03	\$ 6.11	\$ 8.69
Cost per DTP3 dose	\$ 39.84	\$ 229.26	\$ 258.55	\$ 104.97
Cost per under-one	\$ 184.03	\$ 93.57	\$ 91.72	\$ 114.93

Table 7. Comparison of facility output and economic unit costs by location (US\$2011)

Indicator	METRO	NONMETRO	Weighted average
<i>Outputs and costs</i>			
Total doses	7419	2077	2647
Total child doses	4142	1263	1570
Total DTP3 doses	279	84	105
Under-one population	359	90	119
Total costs	\$ 35,080.07	\$ 11,078.42	\$ 13,637.64
<i>Unit costs</i>			
Cost per child dose	\$ 8.47	\$ 8.77	\$ 8.69
Cost per DTP3	\$ 125.67	\$ 131.60	\$ 129.92
Cost per under-one	\$ 97.70	\$ 123.14	\$ 114.93

Line item	Atlantida	Lempira	Olancho	Choluteca	Cortes	San Pedro de Su	Tegucigalpa	Francisco Morazan
Salaried labor	\$ 39,583	\$ 32,065	\$ 77,815	\$ 71,466	\$ 138,064	\$ 98,375	\$ 120,362	\$ 144,705
Volunteer labor	\$ 734	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Per diems/travel	\$ 44,399	\$ 75,304	\$ 52,297	\$ 67,498	\$ 40,061	\$ 15,560	\$ 33,808	\$ 23,633
Cold chain energy	\$ 5,198	\$ 626	\$ 4,878	\$ 2,319	\$ 8,502	\$ 1,339	\$ 1,129	\$ 2,405
Transport, fuel and vehicle maintenance	\$ -	\$ -	\$ 565	\$ 48	\$ 15,338	\$ 5,065	\$ -	\$ 6,560
Building overhead	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other recurrent	\$ -	\$ -	\$ 4,315	\$ 695	\$ -	\$ 1,475	\$ 2,328	\$ 2,062
Subtotal recurrent	\$ 89,914	\$ 107,995	\$ 139,870	\$ 142,026	\$ 201,965	\$ 121,814	\$ 157,627	\$ 179,364
Cold chain equipment	\$ 11,367	\$ 1,309	\$ 10,238	\$ 5,286	\$ 28,664	\$ 1,327	\$ 1,059	\$ 6,684
Vehicles	\$ -	\$ -	\$ 858	\$ 268	\$ 8,508	\$ 4,148	\$ -	\$ 4,247
Buildings	\$ 2,842	\$ 1,130	\$ 1,446	\$ 1,379	\$ 26,211	\$ 1,480	\$ 1,312	\$ 8,096
Other capital	\$ -	\$ -	\$ 1,056	\$ 676	\$ 470	\$ -	\$ 686	\$ 623
Subtotal capital	\$ 14,209	\$ 2,439	\$ 13,599	\$ 7,608	\$ 63,854	\$ 6,955	\$ 3,056	\$ 19,650
TOTAL regional office costs	\$ 104,122	\$ 110,434	\$ 153,469	\$ 149,635	\$ 265,818	\$ 128,769	\$ 160,683	\$ 199,014
TOTAL doses	9,060	8,024	12,620	9,130	19,810	14,547	22,647	6,871
Under-one population	191,510	153,977	270,908	221,492	322,291	242,442	402,787	159,537
Human Development Index (HDI)	0.731	0.592	0.66		0.746	0.746	0.763	0.763

Annex 10. Supplemental analyses for CHILD immunization program

Total cost of the routine CHILD immunization program in Honduras (2011 US Dollars, in thousands)

CAPITAL COSTS				
Category	Facility	Regional	Central	All Levels
Vaccine	\$0	\$0	\$0	\$0
Labor	\$0	\$0	\$0	\$0
Volunteers	\$0	\$0	\$0	\$0
Cold chain	\$343	\$97	\$7	\$447
Vehicles	\$29	\$24	\$36	\$89
Buildings	\$337	\$57	\$9	\$403
Other	\$16	\$5	\$57	\$78
TOTAL	\$725	\$183	\$109	\$1,017
RECURRENT COSTS				
Category	Facility	Regional	Central	All Levels
Vaccine*	\$7,738	\$0	\$0	\$7,738
Labor	\$8,472	\$990	\$247	\$9,709
Volunteers	\$392	\$0	\$0	\$392
Cold chain	\$196	\$39	\$17	\$252
Vehicles	\$33	\$39	\$12	\$84
Buildings	\$121	\$0	\$4	\$125
Other	\$562	\$575	\$759	\$1,896
TOTAL	\$17,514	\$1,643	\$1,039	\$20,196
TOTAL COSTS				
Category	Facility	Regional	Central	TOTAL
Vaccine*	\$7,738	\$0	\$0	\$7,738 (36%)
Labor	\$8,472	\$990	\$247	\$9,709 (46%)
Volunteers	\$392	\$0	\$0	\$392 (2%)
Cold chain	\$539	\$136	\$24	\$699 (3%)
Vehicles	\$62	\$63	\$48	\$173 (1%)
Buildings	\$458	\$57	\$13	\$528 (2%)
Other	\$578	\$580	\$816	\$1,974 (9%)
TOTAL	\$18,239	\$1,826	\$1,148	\$21,213 (100%)

*Note: Total vaccine costs reflect the following assumptions. PCV13 and rotavirus price per dose consider GAVI-manufacturer price agreements of US\$7.00 per dose and US\$2.50 per dose, respectively. Only cost of administering child doses, including vaccine, injection and other supplies, and all other system costs, are included in this results table

Total Routine CHLD Immunization Economic Costs an Unit Costs by Line Item by Facility Type (\$2011, Weighted Average and Range)

Line item	CESAR	CESAMO	LEAD	Weighted ave.	% distribution
Vaccines & syringes	\$ 2,081	\$ 12,478	\$ 14,794	\$ 5,792	43.0%
Salaried labor	\$ 3,156	\$ 13,467	\$ 12,661	\$ 6,309	46.9%
Volunteer labor	\$ 210	\$ 338	\$ 452	\$ 270	2.0%
Per diem and travel allowances	\$ 238	\$ 443	\$ 685	\$ 344	2.6%
Cold chain energy	\$ 89	\$ 209	\$ 220	\$ 129	1.0%
Transport, fuel and vehicle maintenance	\$ -	\$ 27	\$ 103	\$ 21	0.2%
Building overhead	\$ 51	\$ 172	\$ 137	\$ 83	0.6%
Other recurrent	\$ 14	\$ 50	\$ 35	\$ 23	0.2%
Subtotal recurrent	\$ 5,838	\$ 27,185	\$ 29,087	\$ 12,972	96.4%
Cold chain equipment	\$ 244	\$ 167	\$ 147	\$ 216	1.6%
Vehicles	\$ -	\$ 42	\$ 90	\$ 22	0.2%
Buildings	\$ 224	\$ 234	\$ 297	\$ 238	1.8%
Other capital (lab, etc)	\$ 7	\$ 8	\$ 28	\$ 11	0.1%
Subtotal capital	\$ 475	\$ 452	\$ 562	\$ 486	3.6%
TOTAL facility costs	\$ 6,313	\$ 27,637	\$ 29,649	\$ 13,459	100.0%
TOTAL delivery costs	\$ 4,232	\$ 15,159	\$ 14,855	\$ 7,667	57.0%
TOTAL child doses	544	3223	4228	1570	-
TOTAL DTP3 child doses	40	227	259	105	-
TOTAL infant population	43	281	282	119	-
TOTAL Cost per Dose	\$ 11.60	\$ 8.57	\$ 7.01	\$ 8.57	-
Delivery cost per dose	\$ 7.77	\$ 4.70	\$ 3.51	\$ 4.88	-
TOTAL Cost per DTP3 dose	\$ 157.84	\$ 121.75	\$ 114.48	\$ 128.18	-
Delivery cost per DTP3 dose	\$ 105.80	\$ 66.78	\$ 57.36	\$ 73.02	-
			\$ 113.10		

Total routine CHILD immunization economic costs by activity by Facility Type (US\$ 2011)

Activity	CESAR	CESAMO	LEAD	Weighted ave.	% distribution
Facility-based and outreach delivery services	\$ 3,344	\$ 18,756	\$ 19,608	\$ 8,406	62.5%
Cold chain	\$ 814	\$ 1,292	\$ 1,227	\$ 955	7.1%
Supervision	\$ 59	\$ 859	\$ 692	\$ 286	2.1%
Record-keeping & HMIS	\$ 925	\$ 3,435	\$ 2,930	\$ 1,640	12.2%
Training	\$ 112	\$ 242	\$ 307	\$ 164	1.2%
Social mobilization	\$ 721	\$ 1,851	\$ 2,641	\$ 1,216	9.0%
Surveillance	\$ 148	\$ 348	\$ 1,095	\$ 338	2.5%
Program management	\$ 107	\$ 770	\$ 940	\$ 347	2.6%
Other	\$ 85	\$ 83	\$ 209	\$ 106	0.8%
TOTAL	\$ 6,313	\$ 27,637	\$ 29,649	\$ 13,459	100.0%
TOTAL child doses	544	3223	4228	1570	
TOTAL DPT3 child doses	40	227	259	105	
TOTAL infant population	43	281	282	119	