Role of Private Sector Providers in Georgia National Immunization Program

Project Title

Strengthening Country-level Data on Immunization Financing and Sustainability

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Executive Summary

Private sector providers, both for-profit and not-for-profit, offer immunization services in many low and middle-income countries (LMICs). However, limited information exists on the proportion of immunization services and private expenditures taking place through the private sector. To learn more about the private sector's provision of vaccination service, Abt Associates is conducting a case study in Georgia on the role of the private sector in immunization provision. Georgia differs from other countries since all of its health facilities, both private and public, are contracted to provide immunization services by the Social Security Administration. Its providers can administer state or commercial vaccines.

Methods

The study team surveyed health providers at fifty private facilities on their provision of immunization services in Georgia. To capture private expenditures, they administered a study instrument to fifty facilities on the state and commercial vaccines that they administer, their service volume, fees for services, and collaboration with the government. The study sample included providers that offer both state and commercial vaccinations (43), some that offer only state vaccinations (3), and some those that only offer commercial vaccinations (4). The team also conducted 300 exit interviews with clients, six at each health facility in the sample.

Results

Provision of Vaccination

Most health facilities administer state vaccines but only providers in a few urban areas are also offering commercial vaccines. The health facilities that offer commercial vaccines are mostly located in the capital city of Tbilisi where there is demand for these vaccines. A few facilities that supply commercial vaccines are also located in other cities in the country. Most of the health facilities that provide commercial vaccines (91%) also administer state vaccines.

The data on service volume in the sampled facilities revealed that the majority of vaccinations given in the surveyed health facilities were state vaccines. For the hexavalent vaccine, for example, providers administered eight times more state vaccinations on average than commercial ones. For MMR vaccine, the providers administered ten times more state vaccines than commercial vaccines. The most commonly given commercial vaccinations were influenza and Hepatitis B vaccines with average monthly service volumes of 40 and 21, respectively. Thus, clients appear to be seeking commercial vaccines largely since they are not available within the state vaccination program.

Collaboration between the MoLHSA and Private Health Facilities

The NCDC collaborates closely with private health providers to ensure that they can provide vaccination services. They supply vaccines and injection supplies, provide training for the introduction of new vaccines and on improving service delivery, and supervise both the state and commercial vaccination services. They also supply over half of the cold chain equipment to the health facilities.

However, it was found that the collaboration from facilities was not always as forthcoming. Specifically, some facilities are not sending reports of their commercial vaccination to the Ministry of Labor, Health, and Social Welfare (MoLHSA) or National Center for Disease Control and Public Health (NCDC).

Quality of Care

In general, the quality of the state vaccination services in private facilities was adequate in the study facilities. The state vaccination services were supervised regularly, the waiting times for vaccination were short (3-5 minutes) and most clients were satisfied with the services that they received.

The study team observed a few issues with quality, however. Specifically, they found the following: 1) no regulatory visits in a few facilities; 2) limited supervision of commercial vaccination; and 3) ownership of non-regulation refrigerators.

Expenditure

We estimated total consumer expenditures on vaccination for registration, consultations and commercial vaccines, assuming that fees were only charged at the 47 health facilities that supply commercial vaccinations. This estimate may be conservative since some fees may be charged for consultations and commercial vaccines in other facilities. Private expenditures on commercial vaccination were estimated to be $951,245. In total, this percentage is approximately 0.08% of total health expenditures. This finding suggests that private expenditures on vaccination are not large in comparison with total health expenditures.

Policy Implications

There are potential policy implications of these findings on the private sector role in immunization in Georgia. Most health providers are private and both private and public providers are contracted through the Social Security Administration to provide immunization services. This model is innovative since it is successfully offering immunization services and other countries could learn from this experience.

Some recommendations coming out of the study are the following:

1.At present, there are no results-based incentives for routine immunization other than payments during immunization campaigns. Use of incentives may allow coverage rates to increase to the European regional target of 95% as well as improve service quality.

2. The government currently only partially purchases cold chain equipment for facilities and cannot insure that health providers procure standard equipment. They should develop a policy to encourage private facilities to purchase regulation cold chain equipment that fulfills WHO standards.

3. A small percentage of private expenditures are fees for registration and consultations in private facilities. However, Gavi and several other international organizations have a policy that user fees should not be charged for vaccination, specifically "in the absence of compelling country or regional data unequivocally documenting their value, user fees should not be levied in publicly financed national immunization services." (England 2001) These fees may be a deterrent to the utilization of vaccination. The national immunization program should investigate whether the charging of fees for consultations in private facilities is a deterrent to getting vaccinations.

4. There is some potential for doctors to influence clients to purchase commercial vaccines rather than state vaccines when they are giving consultations. Since the population is wary that vaccines could cause side effects or complications, they could be easily influenced. The NCDC should consider developing educational materials to inform the population that state vaccines are as safe and as effective as commercial vaccines are.

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1. Purpose and Scope of the Study

1.1 Purpose

Private sector providers, both for-profit and not-for-profit, offer immunization services in many low and middle-income countries (LMICs). The role of the private sector in immunization differs from country to country depending on national regulations and level of economic development. A few studies (Mitrovich et al. (2017), Amarsinghe 2017) have found that immunization service delivery in the private-for-profit sector is sometimes associated with poor performance due to lack of training, quality standards, and programme monitoring and limited supervision from governments. Limited information exists on the proportion of immunization services and private expenditures taking place through the private sector (Levin and Kaddar 2011, Levin 2017). More research on private sector provision of immunization services is needed to inform program managers as well as policymakers in LMICs.

To learn more about the private sector's provision of vaccination services, Abt Associates is conducting three case studies in LMICs: Benin, Malawi, and Georgia. This report presents the results of the case study in Georgia.

The objectives of the case study in Georgia are the following:

1. To estimate the proportion of immunization services provided through the private sector;
2. To estimate the proportion of total immunization expenditures spent on the private sector; and;
3. To determine whether the private sector and Ministry of Health are interacting to improve immunization program effectiveness and efficiency.

2. Background

2.1 Country Characteristics and Health System

Georgia is located in Eastern Europe and has a border with Russia to the north, Turkey, Armenia and Azerbaijan to the south, and the Black Sea to the west. It is a lower-middle income country according to the World Bank income group classification, and had a per capita gross national income of $3,830 and per capita gross domestic product (GDP) of $3,864 in 2016 (data.worldbank.org 2017). Its GDP growth is projected to accelerate to 4.5 % per year over the medium term (www.worldbank.org). At the same, time, its fiscal deficit is also high at 4.1% of GDP due to high investment spending.

As of 2016, Georgia had an estimated population of 3.7 million that is 54 percent urban (data.worldbank.org) with 19% of the population under the age of fifteen. The 2016 life expectancy was 74.7 years, the infant mortality rate 10 per 1000 live births and the under-five mortality rate 11 per 1000 live births (World Bank 2016).

Table 1 compares key demographic characteristics of Georgia with other middle-income European and Central Asian countries. The Georgian population's life expectancy is similar to other countries in the region. However, the percent of children less than age 15, infant mortality, and child mortality are slightly lower than other regional countries. On the other hand, the maternal mortality rate is higher than other regional countries. The main causes of mortality in Georgia are non-communicable diseases (WHO Regional Office for Europe 2017) such as cancer, diabetes, circulatory diseases, and respiratory diseases.

Table 1. Comparison of Demographic Characteristics of Georgia with Middle-income European and Central Asian Countries

Demographic Characteristic	Georgia	Europe & Central Asia (excluding high income)
Life Expectancy at Birth (2015)	73	72
Urbanization (2016)	54%	65%
Percent of Population 1-14 years (2016)	19%	21%
Infant Mortality Rate (2016)	10	13
Child Mortality Rate (2016)	11	14
Maternal mortality rate (2014)	31	17

Source: data.worldbank.org

Table 2 shows key health system indicators for Georgia. Georgia differs from other middle-income countries in the European region since it has more physicians and fewer nurses, and a higher total health expenditure (THE) as a percent of gross national product (GNP). On the other hand, the public-sector health expenditure (GHE) as a percent of THE is lower than other European countries while private household out-of-pocket payments as a percent of THE are higher in Georgia.

Table 2. Key Health System Indicators for Georgia, 2014

	Georgia 2014	% Change since 2000	Europe & Central Asia (excluding high income)
Physicians per 100,000	517	+37%	310
Nurses per 100,000	414	-11%	622
THE as percent of GDP	7.4%	+7%	6.6
Public-sector health expenditure as % of THE	20.9%	+275%	51.1
Private household OOP payments as % of THE	58.6%	-29%	46.2

Source: WHO-Georgia-Profile-of-Health 2017

In 2007, the Georgian government enacted health reforms that introduced market-based principles to health care and sold 80% of the hospitals to the private sector for redevelopment (Rukhadze 2013). The government privatized the management of most of the primary health care (PHC) facilities in 2011, although some small public ambulatories remain in hard-to-reach areas. While the government (Ministry of Economy and Sustainable Development of Georgia) owns 40%-50% of buildings of healthcare facilities, all of the facilities have private management.

In 2013, the Ministry of Labor, Health and Social Welfare (MoLSHA) launched the Universal Health Care Program to improve access to health care and strengthen financial protection.

2.2 Immunization Services

Privately-managed PHC facilities and physicians and nurses are contracted for the provision of immunization services by the Social Service Agency (SSA) through two state programs – Universal Health Care and Village Ambulatory Program (Zoidze 2016). In rural areas, immunization services (along with other PHC services) are provided through the Village Ambulatory Program, while in cities and district level facilities, immunization services are financed through the Universal Healthcare Program/UHC. In village ambulatories – village doctors and nurses receive monthly salaries for providing various PHC services (including immunization). In urban and district level facilities, all contracted privately-managed facilities receive approximately two GEL ($0.78) per registered individual (to provide immunization services and other PHC services). The latter is financed through the planned ambulatory component under the UHC program (personal communication, MoLHSA).

Starting from October 1st, 2015. immunization service delivery was designated as an activity of high risk (resolution of GoG dated as November 22nd, 2010 year). Therefore, if a facility plans to start delivering immunization services, the facility must first notify the State Regulation Agency for Medical Activities of Georgia of its interest. It also needs to have a vaccination cabinet/room that satisfies all requirements/rules established by the legislation. Once a year facilities are evaluated/monitored on a random basis (NCDC 2018).

Georgian citizens can register at any of the primary health care (PHC) privately managed facilities within the UHC program to get state immunization.[1] Also, some 8.4% of Georgians also enroll in private health insurance plans (Sehnegila 2016), Immunization is free in the country, but health facilities can get reimbursed for the service from insurers when clients have private insurance.

The types of health facilities that administer immunization services range from primary health care (PHC) network institutions and standalone medical centers (hospitals with outpatient departments) to physicians and nurses in rural areas. Most immunizations (86%) take place in small size facilities and at fixed sites. Starting from 1995, state owned health care providers were receiving financing for participating (based on contracts with the payer) in the state healthcare programs instead of getting funds directly from the state budget.

Geographical access to immunization services is adequate in Georgia, especially in major cities which are densely populated. In rural areas, due to the low density of population, health providers administer immunization services on designated dates. The frequency of immunization sessions varies by type of facility (population size) and organization of outreach services: ambulatories provide 2-3 immunization sessions per month while other facilities provide weekly or daily services. Immunization through the schools (common during the Soviet times) is being re-introduced and will be used in school catch-up of children not vaccinated in their earlier years of life *(*Source: Report on Immunization Assessment Module of HFSA).

2.3 National Immunization Program

The MolHSA oversees the National Center for Diseases Control and Public Health (NCDC). The NCDC supervises the national immunization program, performs forecasting and planning for vaccines procurement, and procures hexavalent vaccine. The NCDC also coordinates the activities of the district PHCs that supervise the immunization program at the local level. The Social Services Agency finances immunization services as part of the PHC basic package included in Universal Health Care and Village Health State Programs. The PHCs are responsible for supervision of immunization services at the local level. No results-based incentives are currently in place for immunization services at health facilities.

The NCDC medical statistics department collects reports on vaccination service volume from health providers each month. They are also introducing an electronic system for collection of immunization data.

With health reform, geographic catchment areas for health facilities were abolished, leading to difficulties in assessing immunization coverage rates using administrative data. However, data from periodic coverage surveys provide valuable information on the number of children that are vaccinated.

Table 3 shows the 2016 national immunization schedule, target population for each vaccine, WHO-UNICEF coverage, and survey vaccine coverage. Children (0-14 years) receive ten vaccines: two (BCG and Hepatitis B birth dose) at birth, four vaccines (DTP-Hib-Hep B-IPV, PCV, and rotavirus) between one and four months, four (PCV, DTwP, bOPV, MMR) at 12-18 months, and five-year-olds receive three antigens (bOPV, MMR, and DT); and one (Td) at 14 years. Other vaccines are given to special

[1] After two months, if they are not satisfied, they can re-register at a different facility.

populations: health care workers, children <18 with diabetes, and persons with chronic illnesses receive influenza vaccine. Clients typically get a consultation from a doctor before vaccination.

The 2015-16 Georgia coverage survey (Table 3, 4th column) found that vaccination coverage was lower than the estimated WHO-UNICEF rates. The rates are also lower than the European target of 95% coverage for all routine vaccines.

Table 3. National Immunization Schedule and Vaccine Coverage

Vaccine	Age	2016 WHO-UNICEF Coverage	2015-16 Georgia Coverage Survey
BCG	0-5 days	98	86
Hepatitis B BD	0-12 days	94	84
DTPa-Hib-HepB-IPV (hexavalent)	2,3,4 months	Dose 1: 97 Dose 3: 92	Penta Dose 1: 95 Penta Dose 3: 88
DTwP	18 months	NA	80/85*
OPV	18 months, 5 years	Dose 3: 92	Dose 1: 94 Dose 3: 87
PCV	2,3,12 months	Dose 3: 75	NA
Rotavirus	2,3 months	Dose 2: 75	Dose1: 72 Dose 2: 66
MMR	12 months, 5 years	93	Dose 1: 89/93* Dose 2: 76**
DT	5 years	NA	72**
BCG	0-5 days	98	86
Vaccines for Special Populations			
Influenza_Pediatric	6-59 months	NA	NA
Influenza_Adult	Health care workers/persons with chronic illnesses	NA	NA

Source: apps.who.int/immunization_monitoring/globalsummary; Georgia Coverage Survey; *2013 and 2009 cohorts, **2009 cohort

The MoLHSA permits health facilities to provide both State and commercial vaccines in their facilities. The NCDC/MoLHSA purchases state vaccines that are included in their national vaccines and provides these to health facilities. Health facilities in a few urban areas also purchase commercial vaccines directly through pharmaceuticals. Health facilities do not charge for state vaccines, but do charge fees for commercial vaccines. Demand for commercial vaccines was high after health facilities were privatized, since the population preferred vaccines that were manufactured in Europe.

The evaluation of effective vaccine management in health facilities conducted in 2014 (EVM 2014) found that maintaining temperature controls was often inadequate in rural facilities. Also, they found that recording of vaccine requests and arrival forms and temperature monitoring was sometimes inadequate in facilities.

3. Methods

The study team surveyed health providers at fifty private facilities that provide state and commercial vaccination in their provision of immunization services in Tbilisi, Imereti, and Adjara. The team also conducted 301 exit interviews, six at each health facility in the sample.

The study team adapted the facility survey from Abt Associates' Strengthening Health Outcomes through the Private Sector (SHOPS) project instruments. The facility questionnaire included questions on the following topics: 1) location and characteristics of the facility; 2) list of vaccines provided at fixed sites; 3) fee structure for vaccination services; 4) support received from the government for commodities, training, and supervision; and 5) vaccine storage;. The interviewers obtained information on monthly immunization service volume through summarizing data from vaccination registers from the last three months.

The client exit interview was adapted from the Demographic and Health Service Provision Assessment exit interview questionnaire. The questionnaire includes questions on the following topics: 1) characteristics of vaccines, 2) vaccines received; 2) waiting time; 3) client satisfaction with service; and 4) charges paid for vaccination.

3.1 Sampling

The team surveyed practices at health facilities that administer both state and commercial vaccines since these facilities are the most likely to charge fees. In total, the team identified 47 facilities that provide commercial vaccines – 43 that provide both state and commercial vaccines and four that provide only commercial vaccines. All forty-seven providers were in urban areas, and most were located in Tbilisi (43). Three were in Imereti and one in Adjara (see Table 4). The team also surveyed three additional facilities in Tbilisi that do not provide commercial vaccines for comparison purposes.

Table 4. Characteristics of Health Facilities in Sample

Characteristic	Amount (share)			Total
	Administers State and Commercial Vaccines	Administers only Commercial Vaccines	Administers only State Vaccines	
Type of Facility				
Private for profit Clinic	38 (76%)	4 (8%)	2 (4%)	44 (88%)
Maternity	2 (4%)		1 (2%)	3 (6%)
Hospital	3 (6%)			3 (6%)
Total	**43 (86%)**	**4 (8%)**	**3 (6%)**	**50 (100%)**
Affiliation/Network				
No Affiliation	29 (58%)	3 (6%)	3 (6%)	35 (69%)
Gepha	1 (2%)			1 (2%)
Hospital union	1 (2%)			1 (2%)
JSC Evex Medical Corporation	7 (14%)	1 (2%)		8 (16%)
LTD Aversi Clinic	1 (2%)			1 (2%)
LTD Medcapital	3 (6%)			3 (6%)
No response	1 (2%)			1 (2%)

Characteristic	Amount (share)			Total
	Administers State and Commercial Vaccines	Administers only Commercial Vaccines	Administers only State Vaccines	
Registered to Accept Medical Schemes				
Yes	33 (66%)	4 (8%)	1 (2%)	38 (78%)
No	2 (4%)		1 (2%)	3 (6%)
Don't know	8 (16%)		1 (2%)	9 (18%)
Health Services Provided				
Antenatal care (ANC Labor and delivery)	24	1	1	26
Routine immunizations	4	0	1	5
Sick child treatment.	43	4	3	50
Growth monitoring	44 15	4 2	1 2	47 15

Most sampled facilities are private for-profit clinics (88%). The other facilities are categorized as privately-managed maternities (6%) and hospitals (6%). Thirty percent of sampled facilities have affiliations with health facility networks. The JSC Evex Medical Corporation, for example, has locations in the Imereti, Adjara, Samegrelo, Kakheti, Samtskhe-javakheti, and Kartli regions.

The data collectors interviewed at least six vaccination clients at each facility – i.e., 301 clients in total. Of these, 228 (76%) and 73 (24%) of the respondents obtained state and commercial vaccination, respectively (see Table 5). The average age of the respondents was 32 while the median age was 30. Clients that obtained commercial vaccination clients (average 35 years) were older than clients that obtained state vaccination (mean age of 29). More than half of the clients (69%) had a university education.

Table 5. Characteristics of Exit Interview Respondents

Characteristic	State	Commercial	Total
Age of Respondent (years)			
Median (mean)	29 (31.0)	35 (36.7)	30 (32.4)
Education			
Post-primary/vocational	5 (2%)	0 (0%)	5 (2%)
Some Secondary	22 (10%)	3 (4%)	25 (8%)
Completed Secondary	40 (18%)	2 (3%)	42 (14%)
Incompleted Bachelors	18 (8%)	3 (4%)	21 (7%)
Completed bachelor	93 (41%)	25 (34%)	118 (39%)
Incomplete Master	46 (20%)	40 (55%)	86 (29%)
Completed Masters	1 (0%)	0 (0%)	1 (0%)
PhD	3 (1%)	0 (0%)	3 (1%)
Total	228 (76%)	73 (24%)	301 (100%)

3.2 Analytic Methods

The team analyzed survey data on private sector vaccination through calculating summary statistics – i.e. percentages, means, and medians to summarize characteristics of the private sector immunization services, coordination between the government and private sector facilities, service quality, share of total vaccinations, and share of private expenditures.

We measured indicators of coordination between the government and the private sector. The indicators of MoLHSA support included: 1) percentage obtaining vaccines, injection supplies, and cold chain equipment from the MoLHSA; 2) percentage participating in MoLHSA training on improving vaccination during the last two years; 3) frequency of MoLHSA supervision; and 4) reporting by private health facilities on number of monthly vaccinations conducted.

We measured service quality using the following indicators: 1) registration with a regulatory authority; 2) timing of last regulatory visit; 3) adequacy of cold chain equipment used for vaccine storage; 4) frequency of MoLHSA supervision; and 5) client satisfaction.

Private expenditures were calculated by estimating the total expenditures on vaccinations at facilities where commercial vaccines were sold.

4. Results

4.1 Immunization Services offered through the Private Sector

Of the facilities sampled, forty-three providers administered both state and commercial vaccinations, four administered only commercial vaccination, and three administered only state vaccinations. Table 6 shows the number and proportion of facilities offering state and commercial vaccines at fixed sites. Some 86% of private sector providers reported that they are providing state vaccination to children under six years and pregnant women. Only twenty percent are providing BCG vaccination since only facilities with maternities administer this vaccination.

Table 6. Vaccines Offered by Type of Vaccination

Vaccines by Target Group	State (n=50)	Commercial(n=47)
Children <6		
BCG	10 (20%)	0 (0%)
Hexavalent	43 (86%)	10 (20%)
OPV	36 (72%)	2 (4%)
PCV	43 (86%)	2 (4%)
Rotavirus	43 (86%)	2 (4%)
DT (five years)	40 (80%)	14 (28%)
Measles-Mumps-Rubella	44 (88%)	20 (40%)
IPV	1 (2%)	4 (8%)
TT	3 (86%)	2 (4%)
Hepatitis B	8 (16%)	17 (34%)
DPT	42 (84%)	18 (36%)
Influenza	17 (34%)	41 (82%)
Pentaxim	0 (0%)	15 (30%)
Chickenpox	0 (0%)	6 (12%)
Tetraxim	0 (0%)	11 (22%)
Yellow Fever	0 (0%)	2 (4%)
Typhoid	0 (0%)	1 (2%)
Hepatitis A	0 (0%)	1 (2%)
Rabies	0 (0%)	1 (2%)
Pregnant Women		
Td	7 (14%)	0 (0%)
Influenza	0 (0%)	7 (14%)
Rabies	1 (2%)	0 (0%)
Adolescents		
Td	39 (78%)	12 (24%)
HPV	0 (0%)	3 (6%)
MMR	0 (0%)	1 (2%)

Vaccines by Target Group	State (n=50)	Commercial(n=47)
Other Target Groups		
Influenza for Medical Personnel	15 (30%)	0 (0%)
Influenza for Children < 18 with Diabetes	5 (10%)	0 (0%)
Influenza for Beneficiaries Hep C elimination program	1 (2%)	0 (0%)
Influenza for diabetes management state program	4 (8%)	0 (0%)
MMR campaign for under 29 pop	1 (2%)	0 (0%)
Hepatitis A	0 (0%)	1 (2%)
Meningitis	0 (0%)	1 (2%)
Hepatitis B to Beneficiaries Hep C elimination program	1 (2%)	0 (0%)

Some 78% of health providers also provide Td, a state vaccine, to adolescents. Seven facilities also indicated that they provide Td for pregnant women on demand. A few health providers also provide state vaccines to other target groups (special populations) - influenza for medical personnel (30%), children less than 18 with diabetes (10%), and beneficiaries of the Hepatitis C elimination program (2%); and Hepatitis B vaccine for Hepatitis C elimination program beneficiaries (2%). Only 34% of health providers reported providing state influenza vaccines, possibly because the government recently introduced influenza vaccine for pediatric populations with diabetes.

Health providers also reported that they are providing commercial vaccines[2] for children under six upon demand. Eighty percent offer commercial influenza vaccine, twenty to forty percent supply commercial hexavalent, DT, MMR, Hepatitis B, DPT, Pentaxim, and Tetraxim, and ten percent or less supply commercial OPV, PCV, rotavirus, IPV, TT, yellow fever, Hepatitis A, and rabies.

Table 7 shows that 76% and 24% of clients received state and commercial vaccination, respectively. Of the clients that obtained State vaccination, 43% were given hexavalent, 36% PCV13, and 31% MMR. Of clients getting commercial vaccinations, 75% got the influenza vaccine.

[2] There is no difference in quality between state and commercial vaccines.

Table 7. Preferences for Commercial Vaccines

	State Vaccination		Commercial Vaccination	
Did you get state or commercial vaccination?	228 (76%)		73 (24%)	
Reason for Choice of State or Commercial Vaccines				
	Reason	**Number (%)**	**Reason**	**Number (%)**
	Free of charge	161 (60%)	Manufacturing country	20 (16%)
	Not enough money	15 (6%)	Manufacturing company	6 (5%)
	Same vaccines	75 (28%)	Less risk complication	33 (27%)
	Fewer complications	10 (4%)	Got influenza vaccine	25 (21%)
	Other	8 (4%)	Other	38 (31%)
Have you Received Commercial vaccines over last three years?				
Yes, for most vaccinations	0 (0%)		15 (21%)	
Yes, for some vaccination	3 (1%)		16 (22%)	
Yes, only once	3 (1%)		18 (25%)	
No, never	221 (97%)		24 (33%)	
Do not remember	1 (0%)		0 (0%)	
Vaccines Received				
BCG	8 (4%)		0 (0%)	
Hexavalent	97 (43%)		3 (4%)	
OPV	37 (16%)		0 (0%)	
Pneumococcal13	82 (36%)		1 (1%)	
Rotavirus	51 (22%)		1 (1%)	
MMR	71 (31%)		5 (7%)	
IPV	10 (4%)		3 (4%)	
TT	1 (0.4%)		0 (0%)	
Td	10 (4%)		2 (3%)	
DT	25 (11%)		1 (1%)	
Hepatitis B	4 (2%)		1 (1%)	
DPT	19 (8%)		12 (16%)	
Influenza	6 (3%)		55 (75%)	
Chickenpox	0 (0%)		1 (1%)	
Rabies	2 (1%)		0 (0%)	
Pentaxim	0 (0%)		2 (3%)	
Tetraxim	0 (0%)		1 (1%)	

Clients that opted for state vaccination reported that they did so for the following reasons: 1) the lower cost (60%), 2) believe that state vaccines are the same as commercial ones (28%), and 3) due to a lack of

money (6%). Clients that opted for commercial vaccines had a different rationale: 1) to lower the risk of complications (27%), 2) to get influenza vaccine (21%), 3) preferred a specific manufacturing country (16%), and 4) prefer a manufacturing company (5%).

4.2 Utilization Patterns of State and Commercial Vaccines

Table 8 shows the median and mean monthly service volume at health facilities by whether the vaccine is state or commercial. For state vaccines, the monthly service volume ranges from a median of one dose for MMR for adolescents to seventy-three doses for IPV. Service volume is highest for hexavalent and PCV13 (note that IPV is only supplied at two facilities) since each requires three doses. For commercial vaccines, the service volume is highest for influenza, DPT, hexavalent and OPV.

Table 8. Monthly Number of Children and Pregnant women Vaccinated in Fixed Sites

Vaccine	State Mean (Median)	Commercial Mean (Median)
Children <6 years		
BCG	29 (94.1)	NA
DT	14 (39.7)	6.5 (14.8)
Hexavalent	36 (83.5)	10 (10)
OPV	22 (78.4)	10 (10)
IPV*	73 (73*)	3 (4.8)
Pneumococcal13	30 (75.8)	2 (2)
Rota	23 (53.2)	NA
MMR	24.5 (69.3)	5 (6.7)
DPT	17 (39.5)	11.5 (12.2)
Td	9 (17.5)	5 (7.2)
Hepatitis B	0 (34)	2 (20.7)
Influenza	23 (53.3)	20 (39.7)
Pentaxim	NA	3 (11.2)
Tetraxim	NA	5 (10.7)
Varicella	NA	1.5 (2.1)
Yellow Fever	NA	3 (3)
Pregnant Women		
TT	3 (3)	NA
Influenza	NA	5 (4)
Adolescents		
HPV	NA	3 (6)
MMR	NA	1 (1)

Note: Only two facilities provide IPV.

4.3 Expenditures on Immunization in the Private Sector

Table 9 shows that 66% and 92% of providers said that they charged for state and commercial vaccination, respectively. They reported that they charged for the following types of clients: 1) clients that were not registered at the health facility, 2) clients that receive consultations, and 3) clients with private insurance. The facilities are charging an average of 28 GEL ($10.94) for consultations and 21 - 335 GEL ($9.20 -$131.00) for commercial vaccines. The three facilities that only had state vaccination did not charge fees. Sixty-four percent of facilities display their service fees.

Table 9. Official Fees Charged for Vaccination

Indicator	Value
Are clients charged for Vaccination?	
Yes, for commercial vaccination	46 (92%)
Yes, for State vaccination	33 (66%)
When do Clients Pay for Services?	
If not registered at facility	26
If have consultation	8
If have private insurance	1
Fees- Mean (Median)	
Consultation	25 (27.9)
Commercial Vaccines:	
DPT	125 (121)
Hexa	161 (156)
MMR	50 (55)
OPV	60 (60)
IPV	55 (66)
Hepatitis B	49 (48)
PCV	190 (190)
Td	41 (38)
DT	45 (68)
Yellow Fever	100 (96)
Influenza	35 (36)
HPV	335 (335)
Chickenpox	200 (203)
TT	53 (53)
Hepatitis A	102 (102)
Pentaxim	130 (131)
Tetraxim	100 (101)
Engerix	60 (62)
Rabies	21 (21)
Are fees displayed?	
Yes	34 (64%)
No	16 (32%)
Only registration	10 (20%)

$1.00 = 2.56 GEL

Table 10 shows that 19% of clients reported paying fees for vaccination: 4% for state vaccination and 14% for commercial vaccination. Of the 117 clients that paid fees, 67% paid for vaccinations, 28% for

consultations, and 52% for registration. On average, clients paid 12 GEL ($4.91) for registration, 30 GEL ($12.27) for consultations, and 35 GEL ($14.31) for vaccinations. Some 3% said that their fees were reimbursable through private insurance and 15% had prepaid plans.

Table 10. Client's Payment of Fees

Service Received or Fee Paid	Response (n=301)	State	Commercial
Did you Pay a Fee for the Immunization Service at the Facility?			
Yes, paid and will be reimbursed	8 (3%)	4 (1%)	4 (1%)
Yes, paid and not reimbursed	47 (16%)	8 (3%)	39 (13%)
No	189 (63%)	189 (63%)	0 (0%)
Other	57 (19%)	27 (9%)	30 (10%)
What did you Pay for?			
Registration	6 (2%)	6 (2%)	0 (0%)
Consultation	33 (11%)	25 (8%)	8 (3%)
Vaccination	78 (26%)	7 (2%)	71 (24%)
How much did you Pay?			
Registration	15 (18)	15 (18)	0 (0)
Consultation	30 (33.0)	30 (32.8)	30 (33.8)
Vaccination	35 (40.8)	10 (15.7)	35 (62.3)
Beneficiary of a Prepaid Plan?			
Yes	46 (15%)	31 (10%)	15 (5%)

Note: $1 = 2.56 GEL

4.4 Coordination between Private Sector and Government on Provision of Government Services

Table 11 shows indicators of coordination between the MoLHSA (NCDC) and health facilities. The MoLHSA provides several types of support to private sector facilities for the provision of vaccination services: vaccines, injection supplies (e.g., needles and syringes) and training to vaccinators to most facilities. Facility providers reported that the MoLHSA provided state vaccines to 92% of health providers and 88% of injection supplies to the health providers. It also partially financed cold chain equipment to 60% of private facilities that store vaccines. The rest of the private facilities obtained their cold chain equipment from network headquarters or other sources.

The MoLSHA provided training to a majority of private facilities on new vaccines (98%) and improving new vaccines (90%). Over a third of private providers also stated that their facility or network provided training on immunization service delivery.

Most facilities (96%) that provide state vaccination send monthly reports on the number of vaccinations. However, only 68% send monthly reports of the commercial vaccinations that they provide.

Table 11. Indicators of Coordination between MoLSHA and Private Sector

Indicators (N=47)	Value (Share)
Types of Immunization Items Obtained from MOLSHA:	
Vaccines	46 (92%)
Injection Supplies	44 (88%)
Cold Chain	30 (60%)
Private facility staff received MoLSHA training during last two years on:	
New Vaccines	49 (98%)
Vaccine Delivery	45 (90%)
Organization provides training	19 (38%)
Facility sends monthly reports on:	
State vaccination	44 (96%)
Commercial vaccination	32 (68%)

4.5 Vaccination Service Quality

Table 12 shows indicators of vaccination service quality: registration, regulatory visit frequency, storage of vaccines, and MoLSHA supervision. All but one of the providers is registered: 94% are registered with the Revenue Service. They were most likely to have had a regulatory visit during the last six to twelve months. However, at least eight facilities had never had a regulatory visit. All but two of the providers reported that they store vaccines at their facilities.

Most facilities (94%) said that their state vaccination is supervised by the MoLHSA although only 68% said that their commercial vaccination is supervised. They said that they are supervised a median of six times a year and mean of eight times a year, respectively.

Another indicator of service quality is whether clients are satisfied with the immunization services that they received at health facilities. Table 12 shows some measures of client satisfaction at health facilities based on responses to the exit interviews: responsiveness of health worker to questions, average waiting time for vaccination services, dissatisfaction with services, and being at the facility closest to home.

Table 12. Measures of Service Quality

Indicator	Value
Registration	
Facility is Registered	49 (98%)
Entity Registered with	
Justice House	1 (2%)
Revenue Service	46 (94%)

Indicator	Value
Time of Last Regulatory visit:	
<6 months	6
Between 6 and 12 months	15
More than a year	10
Never	8
Choose not to answer	2
Don't know	9
Storage	
Stores vaccines at facility	48 (96%)
Have thermometers	50 (100%)
Supervision:	
MoH supervises vaccination of	
State program	44 (94%)
Commercial program	32 (68%)
Frequency of supervision per year- Mean(Median)	6 (8)

Most clients reported that health workers had responded to their questions and their waiting time was less than ten minutes (Table 13). The waiting time was slightly longer for clients getting state vaccines (5.5 minutes) than for commercial vaccines (3.1 minutes). Only a small percent of the clients (2%) were dissatisfied with services.

Table 13. Indicators of Client Satisfaction from Exit Interviews

Characteristic	Total (n=301)	State (n=228)	Commercial (n=73)
Health Worker Responded to questions			
Yes	292 (97%)	219 (96%)	73 (100%)
No	2 (1%)	2 (1%)	0
Don't know	7 (2%)	7 (3%)	0
Waiting Time Median (mean)			
0	161 (53%)	110 (48%)	51 (70%)
<10 minutes	104 (35%)	87 (38%)	17 (23%)
Between 10 and 30 min	33 (11%)	28 (12%)	5 (7%)
Between 31 and 60	3 (1%)	3 (1%)	0 (0%)

Characteristic	Total (n=301)	State (n=228)	Commercial (n=73)
Dissatisfaction Facility Services			
Waiting time	5 (2%)	5 (2%)	0 (0%)
Days that Service is available	3 (1%)	2 (1%)	1 (1%)
Cleanliness	3 (1%)	3 (1%)	0 (0%)
How well treated	4 (1%)	4 (2%)	0 (0%)
Cost of Services	3 (1%)	3 (1%)	0 (0%)
Is the facility you currently used for immunization the closest to you?			
Yes	218 (72%)	171 (75%)	47 (64%)
No	83 (28%)	57 (25%)	26 (36%)
Reason for not using the nearest facility			
Hours of service	5 (2%)	2 (1%)	3 (4%)
Bad reputation	7 (2%)	4 (2%)	3 (4%)
Don't like facility health workers	6 (2%)	3 (1%)	3 (4%)
Poor availability of medicines	3 (1%)	1 (1%)	2 (3%)
Was referred	3 (1%)	3(1%)	0
Other	56 (19%)	43 (19%)	13 (18%)
Don't know	2 (1%)	2 (1%)	2 (3%)

4.6 Proportion of Vaccinations at Privately-Managed Facilities

According to the NCDC, all vaccinations take place at privately-managed facilities (personal communication, EPI manager).

4.7 Expenditures on Vaccination in the Private Sector

Table 14 shows the estimated total private expenditures on immunization assuming that clients are only paying for vaccination at the 47 health facilities that provide both state and commercial vaccines or only commercial vaccines. This estimate may be conservative because it assumes that no fees are charged for consultations at other private health facilities in the country. Annual expenditures are projected to be 2.4 million GEL or $0.9 million. This amount is 0.14% of the total private spending on health or 0.08% of total health expenditures in the country.

Table 14. Total Private Expenditures on Immunization in Facilities with Commercial Vaccines (in GEL)

	Mean # Vaccinations per Month	# Facilities	Fee	# Months	Total	
					Amount	%
Private Immunization Expenditure						
Consultation	166	NA	33	12	65,776	2.7%
Vaccines						
DT	14.8	14	121	12	300,854	12.4%
Hexa	10	10	156	12	187,200	7.7%
OPV	10	2	60	12	14,400	0.6%
IPV	4.8	4	66	12	15,206	0.6%
Pneumococcal13	2	2	190	12	9120	0.4%
MMR	7.7	20	55	12	88,440	3.6%
DPT	12.2	18	121	12	318,859	13.1%
Hep B	20.7	17	48	12	202,694	8.3%
Influenza	43.7	41	36	12	703,166	28.9%
Pentaxim	11.2	15	131	12	264,096	10.8%
Tetraxim	10.7	11	101	12	142,652	5.95
Varicella	2.1	6	203	12	30,694	1.3%
Yellow Fever	3	2	96	12	6,912	0.3%
HPV	6	3	335		72,360	3.0%
Total GEL USD					 2,435,187 946,261	100%
Total Private Spending on Health (in Millions)					$657	
Share of Private Immunization Spending out of Total Private Spending					0.14%	
Total Health Expenditure (2014) (in Millions)					1,127	
Share of Private Immunization Spending Out of Total Health Expenditure					0.08%	

5. Discussion

In Georgia, private health facilities are playing a unique role since they are supplying all vaccination services in the country. Unlike other countries, the private sector's role is not to improve access to vaccination services but instead to be the sole provider of services. The Social Service Agency contracts with private providers to provide immunization services through the Universal Health Care Program and the Village Ambulatory Program. These providers are supplying state vaccines provided by the NCDC to target populations: children under six years, pregnant women, adolescents, and persons with chronic diseases.

In some health facilities, mostly in Tbilisi, private providers are also selling commercial vaccines since there is demand for these vaccines. Clients have the most demand for vaccines that are not in the national schedule such as influenza vaccine, varicella, and HPV. However, in a small number of cases, clients are purchasing commercial vaccines similar to the state vaccines due to preferences for vaccines manufactured in specific countries or companies.

5.1 Provision of Vaccination

To capture private expenditures, the survey sampled facilities that supply commercial vaccines. Most of the health facilities that provide commercial vaccines (91%) also administer state vaccines. The health facilities that offer commercial vaccines are mostly located in the capital city of Tbilisi where there is limited demand for these vaccines. A few facilities that supply commercial vaccines are also located in other cities in the country. Other health facilities in the country only administer state vaccinations.

The data on service volume in the sampled facilities revealed that the majority of vaccinations given in health facilities are state vaccines. For the hexavalent vaccine, for example, the monthly average service volumes in the facilities are 84 and 10 for state and commercial vaccinations, respectively. For MMR vaccine, the monthly average service volumes are 70 and 7 vaccinations for state and commercial vaccines, respectively. The most commonly given commercial vaccinations are for influenza and Hepatitis B vaccines with average service volumes of 40 and 21, respectively. Thus, clients appear to be seeking commercial vaccines largely since they are not available within the state vaccination program.

5.2 Collaboration between the MoLHSA and Private Health Facilities

The NCDC collaborates closely with private health providers to ensure that they can provide vaccination services. They supply vaccines and injection supplies, provide training for the introduction of new vaccines and on improving service delivery, and supervise both the state and commercial vaccination services. They also supply over half of the cold chain equipment to the health facilities.

However, it was found that the collaboration from facilities was not always as forthcoming. Specifically, some facilities are not sending reports of their commercial vaccination to the MoLHSA or NCDC.

5.3 Quality of Care

In general, the quality of the private facilities' services was found to be adequate. The MoLHSA supervises regularly the private providers and have regulatory visits. Most clients are satisfied with the services that are receiving.

The study team observed a few issues with quality, however. Specifically, they found the following: 1) no regulatory visits in a few facilities; 2) limited supervision of commercial vaccination; and 3) ownership of non-regulation refrigerators.

5.4 Expenditure

We estimated total consumer expenditures on vaccination for registration, consultations and commercial vaccines, assuming that fees were only charged at the 47 health facilities that supply commercial vaccinations. Thus, this estimate may be conservative since some fees may be charged for consultations in other facilities. Private expenditures on commercial vaccination were estimated to be $951,245. In total, this percentage is approximately 6.5% of expenditures on vaccination but a lower percent of total health expenditures (0.08%). This finding suggests that private expenditures on vaccination are not large in comparison with total health expenditures.

5.5 Policy Implications

There are potential policy implications of these findings on the private sector role in immunization in Georgia. The private sector is the sole provider of vaccinations in Georgia. This finding indicates the importance of working closely with the private sector to ensure that they are providing high-quality vaccinations.

Some recommendations coming out of the study are the following:

1. At present, there are no results-based incentives for routine immunization other than payments during immunization campaigns. Use of incentives could lead to coverage rates to increase to the European regional target of 95% as well as improve service quality.

2. The government currently only partially purchases cold chain equipment for facilities and cannot insure that health providers procure standard equipment. They should consider exploring mechanisms to encourage private providers to purchase cold chain equipment that fulfill WHO standards.

3. A small percentage of private expenditures are fees for registration and consultations in private facilities. However, Gavi and several other international organizations have a policy that user fees should not be charged for vaccination, specifically "in the absence of compelling country or regional data unequivocally documenting their value, user fees should not be levied in publicly financed national immunization services." (England 2001) These fees may be a deterrent to the utilization of vaccination. The national immunization program should investigate whether the charging of fees for consultations in private facilities is a deterrent to getting vaccinations.

4. There is some potential for doctors to influence clients to purchase commercial vaccines rather than state vaccines when they are giving consultations. Since the population is wary that vaccines could cause side effects or complications, they could be easily influenced. The NCDC should consider developing educational materials to inform the population that state vaccines are as safe and as effective as commercial vaccines are.

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Annex

Facility Provider Questionnaire

Questionnaire # _____

Preliminary Section: Q1-Q7 To be completed before beginning interview

S/N	Variable	Category	Code
	Interviewer name		
	Interviewer code		
	Interview date	Day: ☐☐ Month: ☐☐ Year: ☐☐☐☐	
	Municipality name		
	Region		1
			1
	Is the facility located in a rural, urban or peri-urban area?	Rural Peri-urban Urban	1 2 3

A1. Does your facility provide vaccination service to the population?

1. Yes (continue)
2. No (finish the interview)

A2. Is your facility involved in providing commercial vaccination service to the population along with participating in the state immunization program?

1. Yes (continue)
2. No (finish the interview)

SUPERVISORY REVIEW

Name of Reviewer	Position of Reviewer	Type of Review	Date of Review	Comments

Introduction and Informed Consent

Hello, my name is ____. We are here on behalf of _____ to assist the government and donors such as the Gates Foundation to know more about the services provided by private health providers in _____.

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason. You are free to not to answer any question or questions if you choose.

If you choose to participate in this study, information on the location of the facility, the types of services provided, the fees charged for immunization, and the number and type of providers and health workers who work at the facility will be shared. All other information will be kept confidential.

Do you have any questions about the survey at this time?

Do you agree to participate in the survey?

_____

Signature of interviewer indicating informed consent was provided

_____

Date

Section A – Basic Questions

Number	Question	Answer	Code
8.	Interview start time (Use 24 hour time)	hh.mm .	
9.	Name of person responding to the survey		
10.	Interviewer: note sex of respondent here.	Male _____ Female _____	1 2
11.	Title/position of person responding to the survey *(to facilitate follow-up if needed)*		
12.	What is the cadre or qualification of the manager of this facility?	Clinical Officer _____ Nurse (specify type) _____ Physician _____ Other (specify) _____	1 2 3
13.	Facility name		
14.	Address of facility		
15.	Facility phone number		
16.	Facility email address		
17.	Type of Facility	Private for Profit Health Clinic (LTD or JSC) Maternity NGO Clinic Hospital Other (specify) _____	1 2 3 4 5 -888
18.	Does the facility have access to piped water?	Yes ____ No _____	1 2
19.	Does the facility have reliable 24 hour electricity?	Yes ____ No _____	1 2
20.	Facility operating times (use 24 hour clock) Probe for the official operating times.	Monday _____ to _____ Tuesday _____ to _____ Wednesday _____ to _____ Thursday _____ to _____ Friday _____ to _____ Saturday _____ to _____ Sunday to	
21.	Is this facility affiliated with any association or network or franchise?	Yes ____ No _____ (Skip to Q 23) _____	1 2

Number	Question	Answer	Code
22.	What organizations is this facility affiliated with? *(Interviewer: Read each option and circle all that apply. Multiple responses allowed.)*		1 2 3 4 5 6 -888
23.	Is your facility registered to accept private medical insurance schemes clients?	Yes ____ No _____ (Skip to Q 25) _____	1 2
24.	If yes, from which private medical schemes?	(Insert names of private medical schemes) Other (specify) _____	1 2 3 -888
25.	Do you provide the following maternal and child health (MCH) services at this facility? END INTERVIEW IF THEY DON'T VACCINATE? OR CONTINUE IF VACCINATION COULD BE OFFERED? *(Interviewer: read all options and circle all that apply. Multiple responses allowed.)*	Antenatal care (ANC) _____ Labor and delivery _____ Routine Immunizations _____ Sick child treatment _____ Growth monitoring _____ Other (specify) _____ Don't know _____	1 2 3 4 5 -888 -999
26.	Now I would like to ask you specifically about vaccination services for children under 6 years. For each of the following services, please tell me whether the routine service is offered by your facility, and if so, *how many days* per month the service is provided at the facility		
27.	BCG	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____
		# of days per month service is provided at Facility through commercial vaccination service Don't Know U _____ Comment:	-999

Number	Question	Answer	Code
28.	DT	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	
29.	Hexavalent (DpaT+Hib+HepB+IPV)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	
30.	Oral Polio Vaccine (OPV)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	

Number	Question	Answer	Code
31.	Inactivated Polio Vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	
32.	Measles, Mumps, Rubella Vaccination (MMR)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	
33.	Pneumococcal Vaccine (PCV)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	

Number	Question	Answer	Code
34.	Rotavirus Vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	
35. Yell	DPT vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999 888
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	____ -999 888
36.	Td vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service	____ -999

Number	Question	Answer	Code
		Don't Know _____ Comment:	888
37.	Hep B vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	____ -999 888
37.1	Influenza Vaccine	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	____ -999
37.2	Other vaccine (specify)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ ____ -999

Number	Question	Answer	Code
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	____ -999
37.3	Other vaccine (specify)	# of days per month service is provided at Facility within the State Immunization program Don't Know _____ Comment:	____ -999
		# of days per month service is provided at Facility through commercial vaccination service Don't Know _____ Comment:	____ -999
38.	On average, how many immunizations in this clinic are given per day/week/month by type through State Immunization Program (recalling the experience from last 6 months)? *(Interviewer: Probe if necessary. Use actual records if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month BCG Hexavalent (DpaT+HepB+Hib+IPV) Measles-Rubella-Mumps (MMR) OPV MONOVALENT Hepatitis B Pneumococcal (PCV) Rotavirus DT Td DPT Other (specify) _____ Don't Know _____	___ ___ ___ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____

Number	Question	Answer	Code
39.	On average, how many immunizations are given per day/week/month by type through commercial vaccination service? *(Interviewer: Probe if necessary. Use actual records if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month BCG Hexavalent (DpaT+HepB+Hib+IPV) Measles-Rubella-Mumps (MMR) OPV Monovalent Hepatitis B Pneumococcal (PCV) Rotavirus DT Td DPT Influenza vaccine Other (specify) _____ Don't Know _____	____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____ ____
40.	Now I would like to ask you specifically about vaccination services for <u>pregnant women</u>. For each of the following services, please tell me whether the service is offered by your facility, and if so, *how many days* per month the service is provided at the facility		
41.	Tetanus Toxoid (TT)/TETANUS DIPHTHERIA (Td or DT) *(Interviewer: read all options and circle all that apply. Multiple responses allowed.)*	Through commercial vaccination service # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	
		<u>Through special immunization campaign</u> # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	____ ____ -999

Number	Question	Answer	Code
42.	Influenza Vaccine	Through commercial vaccination service # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____ <u>Through special immunization campaign</u> # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	____ ____ ____ -999
43.	Other vaccine (specify)	Through commercial vaccination service # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____ <u>Through special immunization campaign</u> # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	 ____ ____ -888 -999
44.	On average, how many immunizations in this clinic are given to pregnant women per day/week/month by type within the commercial vaccination service (based on the statistics for last 6 months)? *(Interviewer: Probe if necessary. Use actual records if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month Tetanus Toxoid (TT)/Td _____ Influenza Vaccine _____ Other (specify) _____ Don't Know _____	 ___ ___ ___ 999

Number	Question	Answer	Code
45.	On average, how many immunizations are given to pregnant women per day/week/month through special immunization campaigns (based on the statistics for last 6 months)? *(Interviewer: Probe if necessary. Use actual records if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month Tetanus Toxoid (TT/Td _____ Influenza Vaccine _____ Other (specify) _____ Don't Know _____	 ___ ___ ___ ____ 9999
46.	Now I would like to ask you specifically about vaccination services for adolescent/pre-adolescent girls). For each of the following services, please tell me whether the service is offered by your facility, and if so, how many days per month the service is provided at the facility		
47.	HPV vaccine	Through commercial vaccination service # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	 ____ 888 -999
		<u>Through special immunization campaign</u> # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	 ____ 888 -999
48.	Other vaccine (specify)	Through commercial vaccination service # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	 ____ 888 -999

Number	Question	Answer	Code
		Through special immunization campaign # of days per month service is provided at Facility Not provided at this facility _____ Don't Know _____	 ____ 888 999
49.	On average, how many immunizations in this clinic are given to adolescent girls in a day/week/month by type through commercial vaccination service (based on the statistics for last 6 months)? *(Interviewer: Probe if necessary. Use actual records if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month HPV Other (specify) _____ Don't Know _____	 ___ ___ 999
50.	On average, how many immunizations are given to adolescent girls in a day/week/month by type through special immunization campaigns? *(Interviewer: Probe if necessary. Use actual records YES if possible; otherwise ask for recall.)*	Circle the option below for which you provide numbers: 1. Day; 2. Week; 3. Month HPV Other (specify) _____ Don't Know _____	 ___ ___ 999
51.	Are any other vaccines offered in your facility?	Other vaccines (specify) _____ Population getting this vaccine (specify target groups receiving this vaccination) _____ ____	____ ____
52.	Now I would like to ask you specifically about fees charged for vaccination services.		
53.			
54.	Are the fees at this facility displayed?	Yes _____ No _____ Only registration _____ Other (specify) _____ Don't Know _____	1 2 3 -888 -999

Number	Question	Answer	Code
55.	Do clients pay fees for vaccination?	Yes, for commercial vaccination service _____ Yes, within the state immunization program (specify) _____ ____ No _____ (skip to Q57) Only registration _____ Only consultation with doctor before receiving vaccination Other (specify) _____ Don't Know _____	1 2 3 4 5 -888 -999
56.	How much do clients pay per vaccination within the state immunization program (if any, i.e. fee for service those who are not registered)? Which groups pay (i.e. non-registered patients)? Specify _____ WHAT DOES FEE INCLUDE? a) _____ b) _____ c) _____ d) _____ e) _____ f) _____	BCG _____ DTP _____ Hexavalent Measles-Rubella-Mumps _____ OPV _____ IPV _____ Monovalent Hepatitis B _____ Pneumococcal _____ Rotavirus _____ Td DT _____ Other (specify) _____ Don't Know _____	___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
	How much do clients pay per vaccination within the commercial vaccination service? WHAT DOES FEE INCLUDE? _____ _____ _____ _____ _____ _____ (Interviewer: if facility has one and the same type of vaccine with different prices in the stock (i.e. manufactured in different countries) and fee differ – record prices for both)	BCG _____ DTP _____ Hexavalent Measles-Rubella-Mumps _____ OPV _____ IPV _____ Monovalent Hepatitis B _____ Pneumococcal _____ Rotavirus _____ DT _____ Td _____ YF _____ HPV _____ CHICKENPOX _____ TT _____	___ ___ ___ ___ ___ ___ ___ ____ ____ ____ ____ ____ _____ _____ _____

Number	Question	Answer	Code
		Influenza vaccine _____ Other (specify) _____ Other (specify) _____ Don't Know _____	_____ ____ 999
56.1	What is the source of funding of staff salaries for staff providing consultation or vaccination service?	a) Vaccination shots Specify _____ b) Salaries of immunization nurses Specify _____ c) Consultation with doctor before receiving the vaccination Specify _____ d) Other (specify) Specify _____	
57.	Are fees for vaccination covered by any private medical scheme/insurance plan?	Yes _____ No _____ Don't know If yes, which schemes What percentage of costs of fees are covered? (percentage)	____ ____ 999 ____ ____
58.	Are the fees applicable to all clients? Do some clients receive exemptions from fees?	Yes No (skip to question 60) Don't know	1 2 -999
59.	If there are exemptions from fees, who gets these?	_____	___
60.	Now I would like to ask you specifically about your health personnel.		
61.	What cadre of health worker is administering vaccinations?	Cadre HW providing infant vaccinations Cadre HW providing ANC vaccinations Note:	_____ ___
62.	How many health workers are generally available to provide vaccination service (vaccination nurse)?	# HWs giving Infant vaccinations # HWs giving ANC vaccinations # HWs giving adolescent girl's vaccinations Note:	____ ____ ____
63.	Has at least one staff member who provides vaccination services at the facility been trained in the last 2 years on using new vaccines? (If no, skip to Q65)	Yes _____ No _____ Don't know _____	1 2 -999

Number	Question	Answer	Code
64.	If yes, how many have been trained? Who conducted the training?	Number trained in giving new vaccines in last two years Facility _____ Headquarters _____ Ministry of Health _____ Other _____ Don't know _____	____ 1 2 3 -888 -999
65.	Have any staff received training on improving vaccine service delivery (not new vaccines) in the last two years? (If no, skip to Q67)	Yes _____ No _____ Don't know _____	1 2 -999
66.	If yes, how many have been trained? Who conducted the training?	Number trained in vaccination service delivery in last two years Facility _____ Headquarters _____ Ministry of Health _____ Other _____ Don't know _____	_____ 1 2 3 -888 -999
67.	Now I would like to ask you specifically about your relationship with the government/local authorities.		
68.	Is the facility registered with a regulatory body?	Yes _____ No _____ (Skip to Q70) _____	1 2
69.	If yes, which body?	Specify organization _____ Other (specify) _____ Don't Know _____	1 2 -999
70.	When was the last accreditation/authorization visit made to this facility by the government?	Less than 6 months ago _____ Between 6 and 12 months ago _____ More than a year ago _____ Never _____ Choose not to answer _____ Don't know _____	1 2 3 4 -888 -999
71.	Does the Ministry of Health and/or NCDC supervise your vaccination activities? If yes, how often?	Yes, within the state immunization program Yes, within the commercial vaccination service No _____ Don't know _____ # Number of times per year	1 2 -999 ____

Number	Question	Answer	Code
72.	Do you send monthly reports on vaccination conducted to district health authorities or headquarters? ASK TO SEE HOW DAILY VACCINATIONS ARE TALLIED, AND HOW MONTHLY FIGURES ARE RECORDED AND REPORTED TO VERIFY ANSWER.	Yes, within the state immunization program Yes, for commercial vaccinations…… No _____ Other (specify) _____ Don't Know _____	1 2 -888 -999 3 4
	72.1 Where do you send the reports?	State Immunization Program District authorities _____ Headquarters _____ Other (specify) _____ Don't know _____ Commercial vaccination service District authorities _____ Headquarters _____ Other (specify) _____ Don't know _____	
73.	Does the government give you vaccines, injection equipment, registries, immunization cards? ASK TO SEE SUPPLY LEDGERS to verify answers.	State Immunization program Vaccines _____ Injection equipment (Syringes and safety boxes) _____ Cold chain equipment _____ Other (specify) _____ Don't know _____	 1 2 3 -888 -999
		Commercial vaccination Vaccines _____ Injection equipment (Syringes and safety boxes) _____ Cold chain equipment _____ Other (specify) _____ Don't know _____	 1 2 3 -888 -999
74.	What is the source of your cold chain equipment (refrigerator, cold boxes, etc.)?	State Immunization program Government _____ Headquarters _____ Purchase from distributor _____ Other (specify) _____ Don't know _____	 1 2 3 -888 -999
		Commercial vaccination Government _____ Headquarters _____	1 2 3

Number	Question	Answer	Code
		Purchase from distributor _____ Other (specify) _____ Don't know _____	-888 -999
75.	Who provides training for your health workers on vaccination?	Organization _____ National Immunization Program _____ Other (specify) _____ Don't know _____	1 2 -888 -999
76.	Do you have separate staff who provides services within the State Immunization program and through commercial vaccination?	Yes _____ No _____ Other specify _____	1 2 3

Section B – Vaccine Storage

The following are some questions on the storage of the vaccines:

		Availability	Code
101.	Are routine vaccines stored at this health facility?	Yes _____ No _____ Other specify _____ Don't know _____	1 2 -888 -999
102.	From where are the vaccines transported?	National Warehouse Regional warehouse District warehouse Local Distributor Other specify _____ Don't know _____	1 2 3 4 -888 -999
103.	Where are the vaccines stored in this facility? (specify location)	EPI room Child health room Storage room Other specify _____ Don't know _____	1 2 3 -888 -999
104.	What kind of refrigerator or cold box is used to store vaccines at this facility?	Type of refrigerator _____ Second refrigerator _____ Cold box _____ Other specify _____ Don't know _____	1 2 3 -888 -999
105.	What is the source of energy for the refrigerator?	Electricity Battery Solar Gas Kerosene Other (specify) Don't Know	1 2 3 4 5 -888 -999
106.	Does the refrigerator have a thermometer?	Yes _____ No _____ Don't know _____	1 2 -999
107.	What is the source of funding for purchasing the cold chain equipment in this facility (refrigerator)?	Government Purchased by headquarters Purchased by other source (specify) _____ Don't know	1 2 -888 -999

		Availability	Code
108.	What is the source of funding for running costs of cold chain equipment?	Government Headquarters Other source (specify) _____ Don't know	1 2 -888 -999

Interviewer instructions: Check whether the following vaccines are in stock. For each vaccine, attempt to directly observe whether it is in stock. If this is not possible, ask whether it is in stock. If it is not in stock, ask whether they provide the vaccine but are out of stock.

		Availability	Code
109.	BCG	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
110.	DTP	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
111.	Hexavalent	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
112.	Measles-Mumps-Rubella or MMR)	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
113.	OPV	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
114.	IPV	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
115.	Pneumococcal (PCV)	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4

		Availability	Code
116.	Rotavirus	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
117.	Tetanus Toxoid (TT)/Td	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
118.	Influenza vaccine	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
119.	HPV	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4
120.	HepB		
121.	DT		
122.	Yellow fever		
123.	Other vaccine (specify)_____	In stock (observed) In stock (reported) Not available now but available at other times Not stocked	1 2 3 4

Section C – Prices of Vaccines and Injection Equipment

If vaccines are purchased (bulk) rather than donated, probe to see how much is being paid for these.

	Question	Response	
	Who purchases the vaccines for the facility (bulk) for commercial vaccination service?	Facility Management _____ Organization Headquarters _____ Other (specify) _____ Don't Know _____	1 2 3 -888 -999
	Vaccine	**Presentation (e.g. 2 dose vial vs. 1 dose vial)**	**Cost per vial to the facility (bulk price)**
201.	BCG		_____
202.	DTP		_____
203.	Measles Measles-Rubella Measles-Rubella-Mumps		_____ _____ _____
204.	OPV		_____
205.	IPV		_____
206.	Monovalent Hepatitis B		_____
207.	Pneumococcal		_____
208.	Rotavirus		_____
209.	Hexavalent		
210.	DT		
211.	Td		
212.	HPV		
213.	YF		
214.	Chickenpox		
215.	Other (specify)		_____
216.	Other (specify)		_____
	Injection Equipment	**Type of injection equipment**	**Cost per unit**
217.	Auto-disable Syringe,		
218.	SAFETY BOXES		
219.	Reconstitution syringe		
220.	Other injection equipment (specify)		
221.			
222.			

101.	Interview finish time hh.mm (Use 24 hour time)	.