MINISTRY OF HEALTH AND SOCIAL WELFARE

2012 ANNUAL REPORT

Presented To

The National Legislature

Republic of Liberia

List of Abbreviation

ACT	Artemisinin-based Combination Therapy
AIDS	Acquired Immune deficiency Syndrome
ARI	Acute Respiratory Infection
ART	Anti- Retroviral Therapy
ARV	Antiretroviral
CDDs	Community Directed Distributors
CDTI	Community Directed Treatment with Ivermectin
CHV	Community Health Volunteer
CHT	County Health Team
EPI	Expanded Program on Immunization
GAVI	Global Alliance for Vaccines and Immunization
gCHV	General Community Health Volunteer
GoL	Government of Liberia
GFATM	Global Fund for AIDS Tuberculosis and Malaria
HCT	HIV Counseling and Testing
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IPT	Intermittent Preventive Treatment
ITN	Insecticide Treated Nets
MOHSW	Ministry of Health and Social Welfare
MDGs	Millennium Development Goals
NACP	National AIDS Control program
NGOs	Non Governmental Organization
NLTCP	National Leprosy and TB Control Program
NMCP	National Malaria Control Program
NTDs	Neglected Tropical Diseases
OPD	Out-patient Department
PMTCT	Prevention of Mother to Child Transmission
STI	Sexually Transmitted Infection
TB	Tuberculosis

Table of Contents

List of Figures and Tables

Executive Summary

The mission of the Ministry is to reform and manage the health and social welfare sector to effectively and efficiently deliver comprehensive, quality services that are equitable, accessible and sustainable for all people in Liberia. The policy vision is a healthy population with social protection for all, and the goal is to improve the health and social welfare status of the population of Liberia on an equitable basis. The ten-year plan adapts the WHO health systems framework and includes seven building blocks: financing, governance and leadership, human resources, information systems, management and organization, medical products and technology, and network infrastructure. Decentralization and the primary health care (PHC) approach are used to achieve the goal and objectives of the policy and plan. In the execution of this goal, the Ministry made gains over the past one year.

In 2012, the Ministry in collaboration with her partners increased geographic access to health care delivery. The physical access to primary health care improved in the country by the construction of seven new health facilities. During the period, 3 health centers (Belefanai and Yolo Town in Bong and Pipeline Road Health Center in Montserrado), 3 clinics (Gbogessay in River Cess, Jarkaken in River Gee and Ziah Town clinic in Grand Gedeh) and a 100 bed hospital in Fish Town, River Gee County were erected.

Recognizing the urgent need for qualified and competent health workers and to address the high unemployment, the Ministry embarked on diverse strategies to bridge the human resource gap within the sector and increase the health workforce. In 2012, 330 health workers were placed on the MOHSW GOL Basic Salary Payroll and 627 new staff on the General Allowance Payroll. Currently, the MOHSW has a total of 9,510 employees nationwide, an increased from little over 8,000 in 2011. Out of the total number of health workforce, 3,597 employees are on GOL Basic Salary Payroll, 2,195 are receiving only monthly incentive from government and 3,718 are paid by Donor/NGOs.

With support from the national government, donors and partners, the Ministry provided local scholarships to 439 students at various health training institutions (Cuttington University, Mother Patern College of Health Sciences, United Methodist University, Smythe Institute, Phebe School of Nursing, Esther Bacon and South Eastern Midwifery) and is about to provide 30 international scholarships in various health related disciplines through a grant from USAID in early 2013.

Malaria is the leading cause of morbidity and mortality in Liberia. In an effort to reduce the burden of Malaria, the National Malaria Control Program has instituted various measures, which include the distribution of bed nets, Indoor Residual Spraying and the administration of anti-malaria drugs. Gains made thus far include increased Insecticide Treated Nets (ITNs) ownership from 47% in 2009 to 50% in 2012 and the distribution of 1,185,780 insecticide treated nets to the general population through routine and mass distribution. This over one million ITNs distribution is an increased compared to 830,000 nets distributed in 2011. ITNS mass distribution campaign were carried out in Gbarpolu, Bomi, Montserrado, Margibi, Nimba, Grand Bassa, Lofa, Bong and Grand Cape Mount Counties while routine ITNs distribution targeted pregnant women who attended antenatal clinics. A total of 98,901 structures were sprayed during the year compared to 92,464 structures in 2011, in Grand Bassa, Bong, Nimba, Margibi and Rural Montserrado Counties.

The National TB and Leprosy Control program registered 6,212 TB cases of all forms and achieved a treatment success rate of 88%. The program established one Direct Observation Treatment Center at the Kakata Prison center, renovated one microscopy center at the Monrovia Central Prison, established school health club in seven schools in Montserrado County and conducted 13 Community TB Forums in 6 counties.

The National AIDS and STI Control program in collaboration with stakeholders have been working to improve the quality of HIV services and scaling up to increase access to the services in every sector of Liberia. A total of 154,022 persons were tested in all fifteen counties in 2012 and 98.7% of them received their results compared to 79,934 persons tested in 2011. At present, there are 367 HIV Counseling and testing (HCT) centers, 336 Prevention of mother to child transmission (PMTCT) sites, and 40 care and treatment and support (ART) sites around the Country.

The Ministry is making frantic effort towards transparency, accountability and anti-corruption, which are fundamentals of good governance. Towards this endeavor, the Ministry established an Internal Audit Unit which includes the Office of Compliance. During the year 2012, the Internal Audit Unit conducted financial audits of the Liberian Government Hospital (Grand Bassa County), St. Francis Hospital (River Cess County), F.J. Grant Hospital (Sinoe County), Martha Tubman Hospital and the Midwifery School (Grand Gedeh County), Fish Town Health Center (River Gee County), Rally Time Hospital (Grand Kru), J.J. Dozen Hospital (Maryland County), Liberian Government Hospital (Bomi County), St. Timothy Hospital (Grand Cape Mount County), Gbarpolu Health Center (Gbarpolu County), Nimba County Health Team, Lofa County Health Team, Bong County Health Team and two of the MOHSW's major programs (National Leprosy and Tuberculosis Control Program and the National Aids/STI Control Program). The necessary actions have been instituted to ensure that these institutions comply with the Public Financial Management Act, PPCC regulations and other fiduciary regulation within the health sector.

The Ministry launched the Essential Package of Social Services (EPSS) document this year at the National Health Conference which serves as a major step forward towards improving the social welfare sector of Liberia and to address the needs of Liberia's vulnerable population, espcially, persons with disabilities, orphans and children in conflict and contact with the law. The Ministry distributed 26 Wheel Chairs among persons with disabilities, provided subsidies to 25 welfare institutions, reunified 637 (boys 364, girls 273) children with their parents or family members, and reunified 59 Juveniles in conflict and contact with the law with their parents and families from twenty (20) police depots, two Safe Homes and one juvenile court.

In 2012 birth registration and certification for children under 13 years old was decentralized to the 15 counties of Liberia. Over 70,000 children births were registered during the period through regular campaigns and the routine system available in every county.

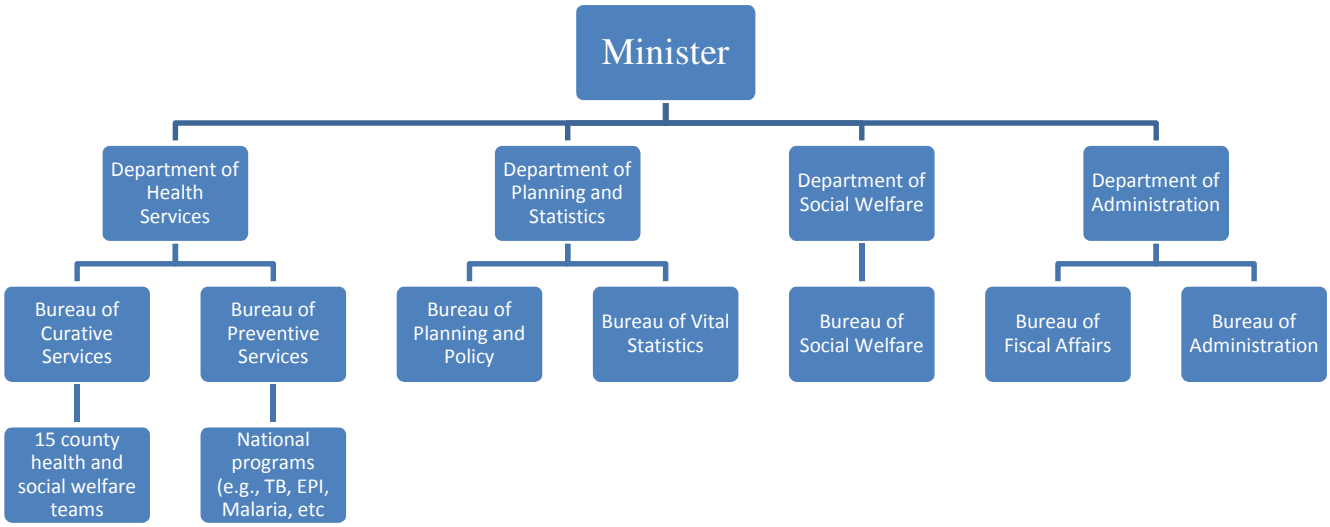
A major accomplishment of the health sector in 2012 was the 3 day National Conference to review the performance of the sector after one year of implementation of the 10 year National Health and Social Welfare Policy and Strategic Plan formulated in 2011. The Conference focused on reducing maternal and

childhood mortality and a Maternal and Child Ambassador was named and ushered in to support the health sector in the reduction of maternal deaths.

The launch of the first Report of the Women's Commission of the World Health Organization and the World Malaria Report in Liberia by the President of the Republic of Liberia is a huge milestone that coincides with the reduction of malaria prevalence in Liberia from 66% in 2005 to 28% in 2012.

CHAPTER 1: Introduction

The central MOHSW serves as the policy and regulatory level of the health system while the 15 administrative counties, 89 health districts and communities serve as the operational level. The central ministry is comprised of four departments: Health Services, Administration, Social Welfare and Planning. Under the Minister there are four deputy ministers and seven assistant ministers managing the four departments and seven bureaus. See MOHSW structure below.



At the operational level, a County Health and Social Welfare officer (CHO) heads the County Health and Social Welfare Teams (CHSWTs), while Officers in charge (OICs) manage health services at the facility level. Primary level care facilities are intended to supervise community level services in their catchment communities but this has proven to be difficult due to long distances to reach many of the communities served by the facility.

The health sector has three distinct levels of service delivery, primary, secondary, and tertiary levels. At the primary level, clinics are to serve a population between 3,500 to 12,000 people with services that include promotional health, basic mental health services and the management of common conditions for children and adults, including basic emergency obstetrics care at the health center. Within the clinic catchment area, community-based outreach services are provided by either an outreach team from the clinic or by a Community Health Volunteer (CHV) to increase access to high-impact health interventions. The secondary level is composed of first and second tiers referral facility, health centers and hospitals. Health centers (HCs) offer 24-hour primary care services as well as inpatient care (up to 40 beds) and laboratory services for catchment populations of 25,000 to 40,000 beneficiaries. Most HCs and all district hospitals should provide Basic Emergency Obstetric and Newborn Care (BEmONC). The only tertiary level facility is the John F. Kennedy Medical Center (JFKMC), a 500+ bed facility, located in Monrovia which includes specialist services not provided at the secondary level of care.

CHAPTER 2: Department of Health Services

2.0 Introduction

The Department of Health Services is the technical arm of the Ministry of Health and Social Welfare (MOHSW). The Department is headed by the Deputy Minister for Health Services, who is also the Chief Medical Officer (CMO) of the Republic of Liberia. The department has two Assistant Ministers, who respectively head the Bureau of Curative Services, responsible for the supervision and coordination of county health care delivery services in communities and at health facilities, and the Bureau of Preventive Services, which oversees national programs associated with the prevention and control of diseases.

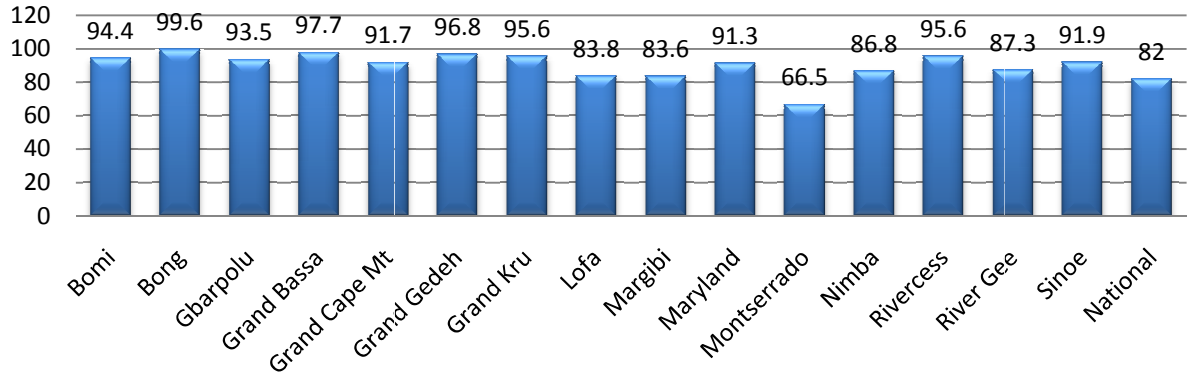
2.1 Bureau of Curative Services

The Bureau of Curative Services is composed of the Ministry's operational level, which is the county health teams and health facilities (e.g., clinics, health centers and hospitals). The Bureau deals with services provided at health facilities within Liberia.

2.1.1 Counties Reporting Coverage

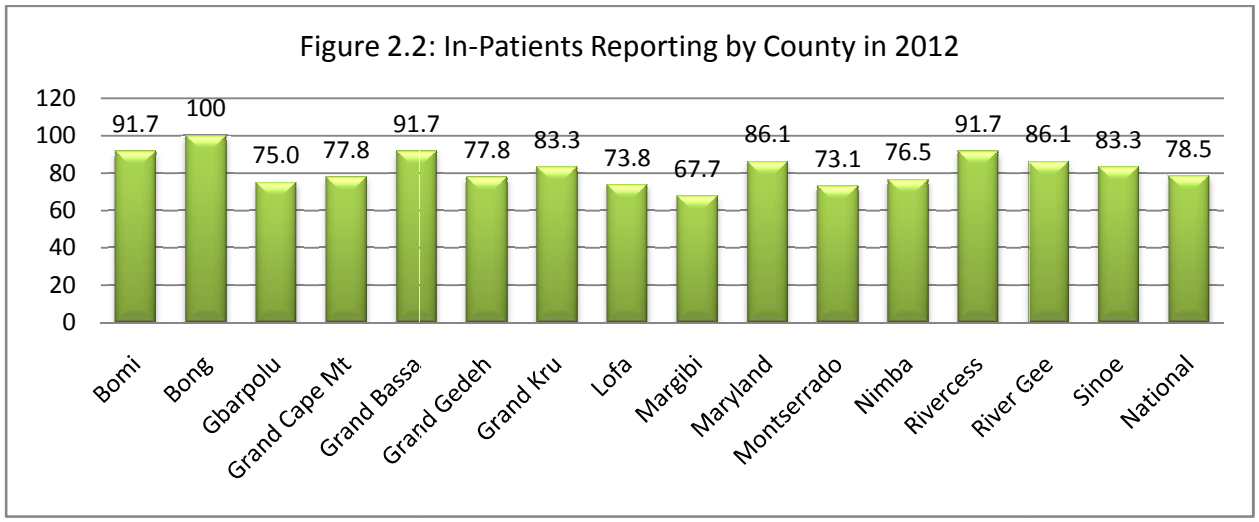
Out-patients reporting at the national level have improved over the past three years. However, individual county reporting continues to show fluctuation especially with Bomi, River Gee and Grand Gedeh. The current national out-patient department reporting coverage is 82% with the highest reporting counties being Bong, Grand Bassa and Grand Gedeh. The lowest reporting county is Montserrado, however, it has shown remarkable improvements over the past three years, from 41% in 2010 66.5% in 2012. Annex A provides the number of functional health facilities by county, expected number of reports and actual reports received.

Figure 2.1: Out-Patients Reporting Coverage by County in 2012



In-patient reporting from health centers and hospitals across the country has also improved over the past two years. Reporting coverage increased from 40% in 2011 to 78.5% in 2012. The county with the noticable reporting increase is Montserrado, from a very low 8% in 2011 to 73.1% in 2012. At the national

level, there has been rapid improvement in reporting with few counties showing significant decline. Counties that experienced lower coverage include Lofa, River Gee and Gbarpolu. Figure 2.2 presents In-patient reporting coverage by county in 2012. Annex B provides number of function in-patients facilities and their reporting status.



Health facility reporting coverage and quality continue to improve as a result of training in data management and reporting, quarterly data verification and quality checks and the initiation of the performance based health financing program.

2.1.2 Health Facility Utilization

Utilization of health services in Liberia is gauged by Primary Health Care (PHC) head count and the number of curative consultations[1]. In 2012, 82% (656) of the functional health facilities in the country reported on health services provided. Utilization records revealed a total of *4,981,322* visits across the country with 34% (3,760,510) of these visits made by patients' under-5 years old. Curative consultations constituted 75% of all visits.

The utilization rate for 2012 is 1.3 with variations across counties ranging from 0.8 in Gbarpolu to 2.0 in Bomi County. The low utilization rate in most part of Liberia is mainly attributed to the limited access and the quality of health care delivery. The majority of the populations in counties have to walk over 5 kilometers or over one hour to reach the nearest health facility. Table 2.1 presents data on health facilities utilization by county. The availability, reliability and timeliness of health services data is key to making informed decisions and prompt health interventions. In light of the above, data gatherers and producers are being continuously trained (In-service or in workshops), including during 2012, to improve the quality of data.

[1] PHC head count means the number of visits made to health facilities that includes preventive and curative services while curative consultation refers to health services provided at health facilities to patients that exclude preventive services such as immunization, counseling and family planning. Both preventive and curative consultation data provides an opportunity to assess the utilization of services at health facilities and within each county and the country.

Table 2.1: Utilization of Health Facilities by County

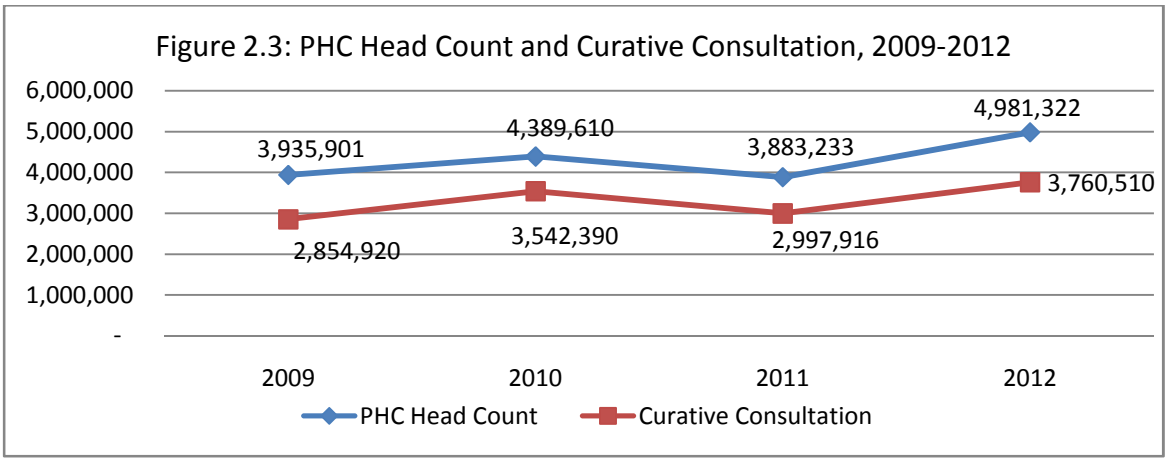
County	Catchment Population	PHC Head Count			Curative consultations (OPD)			% of Curative Cons.	Utiliz. Rate
		< 5 yrs	5yrs and above	Total	< 5 yrs	5yrs & over	Total		
Bomi	91,411	56735	121565	178,300	59427	110815	170,242	95%	2.0
Bong	362,388	125638	261201	386,839	105282	195805	301,087	78%	1.1
Gbarpolu	90,616	20186	52550	72,736	22994	40974	63,968	88%	0.8
G. Bassa	240,910	101970	195272	297,242	65916	139866	205,782	69%	1.2
G. C. Mt	138,091	60984	106406	167,390	53751	92772	146,523	88%	1.2
G. Gedeh	136,116	46272	89206	135,478	28360	64438	92,798	68%	1.0
G. Kru	62,933	27968	62873	90,841	23399	47335	70,734	78%	1.4
Lofa	300,862	126087	274232	400,319	99111	199404	298,515	75%	1.3
Margibi	228,120	100257	222994	323,251	78359	140446	218,805	68%	1.4
Maryland	147,722	50491	102587	153,078	40387	82094	122,481	80%	1.0
Monts.	1,215,174	584093	1326944	1,911,037	396792	936932	1,333,724	70%	1.6
Nimba	502,076	186696	354999	541,695	164861	297617	462,478	85%	1.1
R. Gee	72,578	34123	75184	109,307	29211	56574	85,785	78%	1.5
R. Cess	77,708	32906	67362	100,268	33761	63210	96,971	97%	1.3
Sinoe	111,267	38077	75464	113,541	28960	61657	90,617	80%	1.0
National	3,777,972	1,592,483	3,388,839	4,981,322	1,230,571	2,529,939	3,760,510	75%	1.3

Analysis of patients' utilization records across Liberia in 2012 shows an average of 31visit/day/facility (22working days/month)[2]. However, this varies greatly between and within counties. The highest utilization of health facility on average per day was reported in Bong (39 visits/day/facility), Margibi (36 visits/day/facility), and Montserrado (36 visits/day/facility). The lowest average patient visits to health facility per day was seen in Sinoe (13 visits/day/facility), Gbarpolu (20 visits/day/facility) and Grand Kru (20 visits/day/facility). The low level of utilization of health services can be attributed to seeking behavior (cultural practices and beliefs), long distances to access health care (an estimated 28% or 1,057,832 population living more than one hour walk from a health facility), poor road network, health workers attitudes to patients, long waiting time, and the erratic stock out of essential drugs.

2.1.2.1 Out-Patient Department Consultations

The use of health facilities by the population increased over the past four years though they decreased in 2011. The number of visits to health facilities increased from 3,935,901 in 2009 to 4,981,322 in 2012. Curative consultations also swelled from 2,854,920 visits in 2009 to 3,760,510 in 2012. The gradual increase of patients at health facilities is attributed to improvement in the quality of health services, suspension of user fees at various public health facilities at the primary level and the construction of new health facilities. Figure 2.3 presents PHC head counts and curative consultations from 2009 to 2012.

[2] Estimation is based on 600 functional health facilities with a total of 4,981,322 PHC visits within 264 working days (excluding Saturdays, Sundays and holidays especially for health clinics).



2.1.2.2 In-Patient Department Consultations

In 2012, data from around the country showed that 167,169 patients were admitted for various medical conditions. Montserrado accounts for 64.3% of total admission nationwide, followed by Nimba (12.2%), Margibi (10.1%) and Lofa (8.5%). The majority of patients were admitted for malaria treatment (27.8%) and Acute Respiratory Infections (ARI) (6.5%). Table 2.2 presents in-patient admission by causes and by county.

Table 2.2: In-patients Admission by Causes and by County 2012

County	Malaria	Anemia	ARI	UTI	STIs	Hypert	Pelvis Inflam Disease	RTA (car/bike)	Other Injuries	Typhoid	Others	Total
Bomi	1,970	344	229	105	15	102	32	183	157	53	834	4,024
Bong	3,623	1,695	253	199	36	130	29	59	213	25	6,306	12,568
Gbarpolu	664	60	72	10	3	55	10	25	24	4	742	1,669
G. Bassa	3,641	609	977	212	41	286	108	128	351	559	3,623	10,535
G. C. Mt	1,713	568	363	97	124	168	96	64	40	156	453	3,842
G. Gedeh	792	291	100	19	5	32	6	132	72	21	3,383	4,853
G. Kru	161	10	5	3	1	14	4	18	14	10	348	588
Lofa	5,110	807	409	255	73	276	159	310	311	86	6,435	14,231
Margibi	4,017	571	534	342	192	290	247	561	232	1,646	8,175	16,807
Maryland	1,608	120	72	18	14	92	57	180	148	17	1,821	4,147
Monts.	28,050	5,348	9,238	7,423	6,887	5,380	5,354	4,279	4,380	3,016	28,123	107,478
Nimba	6,246	3,105	487	206	56	333	129	233	205	326	9,084	20,410
R. Cess	259	46	36	10	6	13	4	12	23	6	232	647
R. Gee	428	37	21	7	8	21	4	21	18	1	749	1,315
Sinoe	587	70	35	10	8	19	8	38	16	8	747	1,546
National	**46,466**	**10,114**	**10,837**	**8,274**	**7,245**	**6,438**	**5,966**	**5,652**	**5,347**	**5,116**	**55,714**	**167,169**

In patient records from across Liberia shows that 167,169 patients were admitted in 2012, which is a large decline from 264,784 in 2011. The dropped in admission could be attributed to the decline in the reported cases of malaria episodes from approximately 61.2% in 2011 to 44% in 2012 due to preventive measures

such as ITNs ownership and use[3]. Examination of the in-patient report shows that 95% of the admitted patients were discharged and 5.3% (8,404) died. Deaths across counties vary with the highest proportion of maternal deaths being reported by Maryland (16.8) and Sinoe (8.9). Compared to previous years (2,531 in 2010 and 1,725 in 2011) the mortality rate has increased (8,404 in 2012). Furthermore, inpatient records indicate that on a daily basis, there were approximately two neonatal and one maternal death in Liberian health facilities. Table 2.3 presents admissions and deaths by county in 2012.

Table 2.3: In-patient admissions and deaths by county in 2012

County	Admission	Inpatient Deaths					Proportion of maternal deaths
		< 5 yrs	5 yrs and above	Neonatal deaths	Maternal	Total	
Bomi	5,496	185	86	13	18	302	6.0
Bong	14,090	401	355	64	57	877	6.5
Gbarpolu	2,789	86	19	13	3	121	2.5
Grand Bassa	10,154	159	177	14	3	353	0.8
Grand Cape Mt	1,788	91	25	14	0	130	0.0
Grand Gedeh	4,027	96	152	38	10	296	3.4
Grand Kru	599	7	19	3	1	30	3.3
Lofa	13,908	246	228	33	27	534	5.1
Margibi	7,643	1,554	135	37	21	1,747	1.2
Maryland	3,161	20	41	28	18	107	16.8
Montserrado	78,244	1,338	1,044	248	127	2,757	4.6
Nimba	13,092	531	345	68	57	1,001	5.7
River Cess	633	3	16	11	2	32	6.3
River Gee	1,317	21	27	11	2	61	3.3
Sinoe	1,226	16	25	10	5	56	8.9
Liberia	**158,167**	**4,754**	**2,694**	**605**	**351**	**8,404**	4.2

2.1.3 Child Health

In an effort to attain MDG 4, the Ministry of Health and Social Welfare has prioritized cost effective child health interventions at the community and health facility levels. These child survival activities include immunization, integrated management of neonatal and childhood illnesses (IMNCI), Vitamin A supplementation and nutrition. Progress made during the year on these interventions is discussed below.

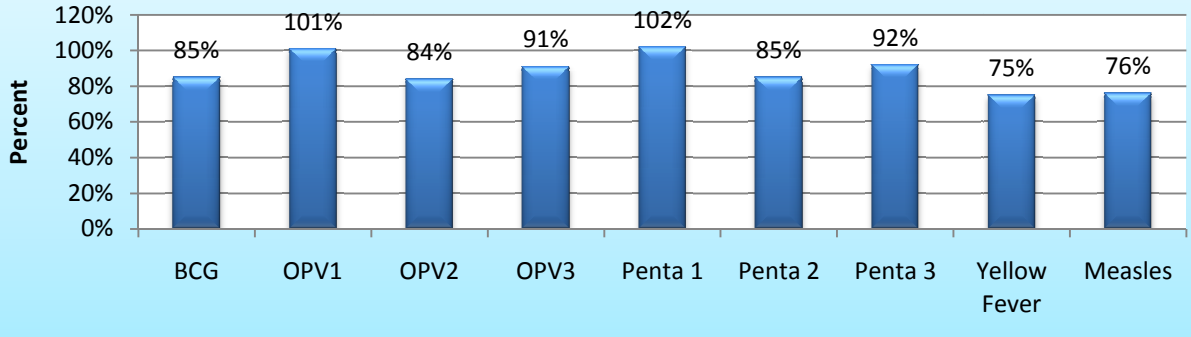
2.1.3.1 Immunization

Reaching universal immunization coverage continues to be a challenged in Liberia, however, significant gains have been made in recent years. Liberia's program of immunization offers five antigens to children less than one year. The antigens administered to children age 0-11 months are as follows: BCG (85%),

[3] The Liberia Malaria Indicator Survey (LMIS) 2011 results showed an increased in ITNs used from 33% in 2009 to 39 in 2011 for pregnant women and for children under five an increase of 11% (26% to 37%) over the same period.

OPV3 (91%), Penta-3 (92%), Measles (76%) and Yellow fever (75%). Although, the current rates are encouraging, there are data abnormalities. For examples, OPV-1 and Penta-1 coverage are above 100%, OPV2 coverage is lower than OPV3 and Penta-2 coverage is lower than Penta-3. These irregularities could be attributed to cross borders migration, issues related to the projection of catchtment population, double counting, entry errors and vaccination of over age children in few cases. Figure 2.4 presents national immunization coverage by antigen in 2012.

Figure 2.4: Immunization Coverage by Antigen, 2012



Whilst gains are made nationally, immunization coverage varies by county and by antigen with OPV 1 and Penta-1 doses achieving the highest coverage at 101 and 102% respectively, followed by third dose of OPV and Penta. The South Eastern Region reported the lowest immunization rates in 2012: River Gee, Maryland, Grand Kru and Sinoe, for Measles and Yellow Fever vaccines. The proportion of fully immunized children is approximately 70% using measles and yellow fever coverage as proxy.

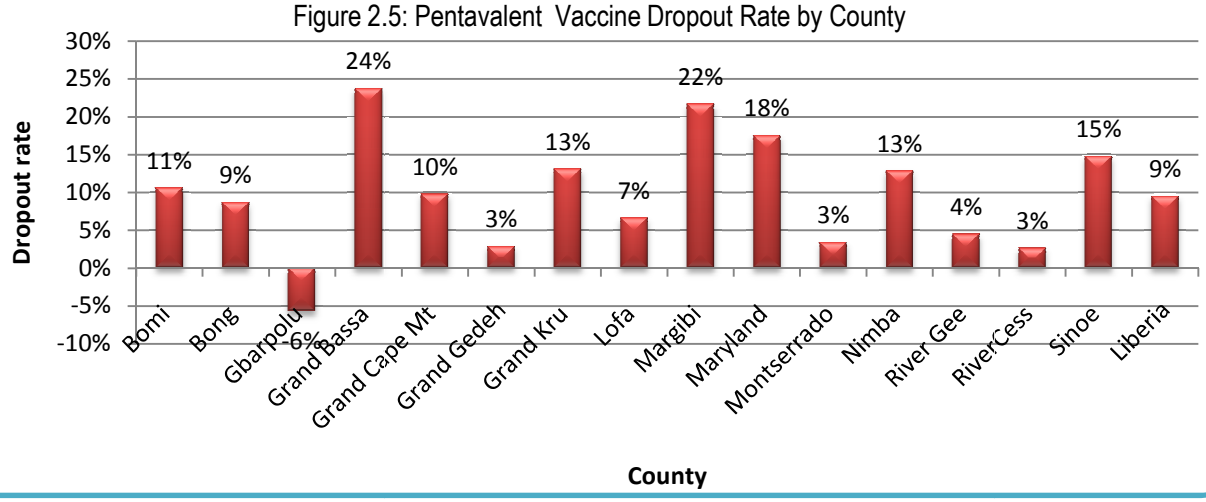
According to the revised Global Alliance for Vaccine and Immunization (GAVI), co-financing policy approved in December 2010 by the GAVI Board, Liberia is within the low –income group and Liberia has agreed to co-finance US$ 0.20 per dose for both Pentavalence and Yellow Fever vaccines. In 2012, the total cost of vaccines was US$ 1,196,500 of which Liberia contributed US$ 158,186.12 for the National Budget.

Table 2.4: Immunization Coverage by Antigens and by County in 2012

County	BCG	OPV1	OPV2	OPV 3	Penta1	Penta 2	Penta 3	Measles	Yellow Fever
Bomi	92	147	135	129	146	135	131	108	112
Bong	105	115	89	105	115	89	105	92	90
Gbarpolu	82	104	101	111	105	101	111	90	90
Grand Bassa	100	108	76	80	108	76	82	71	70
Grand Cape Mt	71	121	104	110	122	103	110	87	87
Grand Gedeh	82	94	80	91	94	80	91	85	83
Grand Kru	67	93	81	80	94	82	81	69	69
Lofa	61	84	72	79	87	74	82	73	73
Margibi	82	113	98	87	112	98	88	74	73
Maryland	84	111	92	91	111	93	92	63	62
Montserrado	85	89	72	85	89	73	86	71	71
Nimba	85	111	97	98	112	98	98	73	73
River Gee	62	79	74	75	79	74	76	59	59
River Cess	94	110	92	107	110	92	107	109	98
Sinoe	89	102	91	87	102	91	87	71	70
Liberia	**85**	**101**	**84**	**91**	**102**	**85**	**92**	**76**	**75**

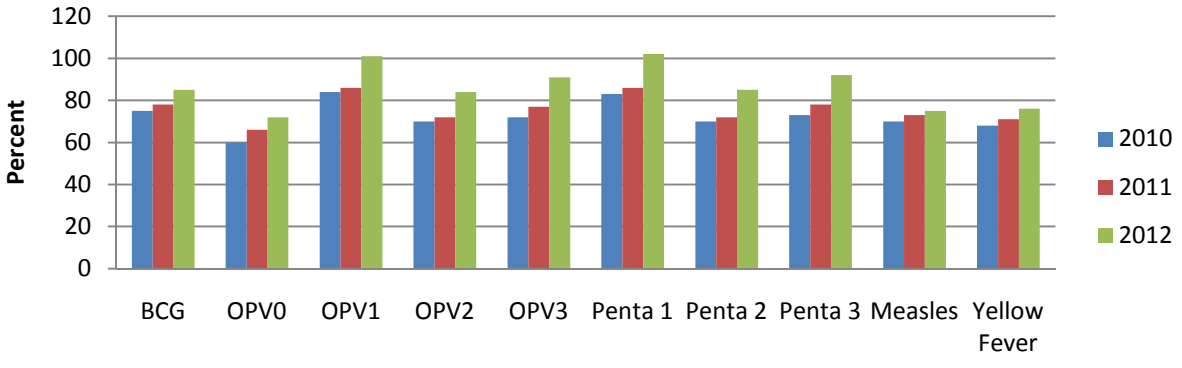
The difference between Penta1 and Penta 3 (dropout rate) is used as a performance indicator for the immunization program. In 2012, counties with the highest dropout rate were Grand Bassa (24%), followed by Margibi (22%), and Maryland (18%). The negative dropout rate in Gbarpolu County is due to the proximity of few of its health facility to Bomi and Grand Cape Mount Counties where immunization services are offer to children who are not part of their catchment population. However, the huge dropout and the negative dropout rates is being address by the immunization program by regular monitoring and supervisory visits and the coaching of vaccinators and health workers. Figure 2.5 presents penta dropout rates by county.

Figure 2.5: Pentavalent Vaccine Dropout Rate by County



Immunization coverage shows a gradual increase from 2010. Penta-3 coverage increased from 73% in 2010 to 92% in 2012, while the coverage of OPV 3 dose increased from 72% in 2010 to 91% in 2012. Figure 2.6 shows immunization coverage trends by antigens from 2011 and 2012.

Figure 2.6: Immunization Coverage Trends by Antigens



2.1.3.2 Integrated Management of Neonatal & Childhood Illness (IMNCI)

Another vital child survival intervention that the Ministry has prioritized for the accomplishment of MDG 4 is the Integrated Management of Neonatal and Childhood Illness (IMNCI). Diseases and health conditions that contribute to high childhood mortality are in Liberia include malaria, diarrhea, pneumonia, acute respiratory infection and malnutrition. In 2012, Malaria accounted for the highest disease burden among children under-five years old, followed by Acute Respiratory Infection (ARI) and Pneumonia. Approximately 50% of children less than five years that visited health facilities were diagnosed of with Malaria and 15% had ARI. Table 2.5 presents selected under-five diseases by county in 2012.

Table 2.5: Selected Under 5 Diseases by County in 2012

County	Diseases									% of Malaria
	Malaria	Diarrhea	Pneumonia	Malnut.	ARI	Anemia	Injuries	Others	Total	
Bomi	25,887	1,802	11,870	1,969	15,042	2,280	252	12,098	71,200	36%
Bong	58,079	3,829	11,812	1,064	14,214	2,287	465	25,091	116,841	50%
Gbarpolu	10,230	740	6,111	12	6,120	802	84	4,926	29,025	35%
Grand Bassa	31,444	779	3,155	908	15,191	1,678	618	15,142	68,915	46%
Grand Cape Mt	26,236	1,296	11,674	190	11,716	2,503	193	11,512	65,320	40%
Grand Gedeh	17,703	398	1,130	1,191	3,911	83	51	5,008	29,475	60%
Grand Kru	11,603	660	428	35	5,358	331	243	5,253	23,911	49%
Lofa	55,568	5,583	11,602	1,414	16,811	2,311	551	16,438	110,278	50%
Margibi	47,329	2,437	13,250	688	12,146	2,494	274	13,382	92,000	51%
Maryland	21,160	1,573	1,974	334	8,325	611	362	8,150	42,489	50%
Montserrado	214,047	13,324	18,800	11,274	60,935	14,906	3,414	75,172	411,872	52%
Nimba	87,941	9,295	24,337	4,227	26,577	6,572	602	28,426	187,977	47%
River Cess	15,723	2,801	4,588	39	6,063	1,216	300	7,533	38,263	41%
River Gee	16,638	1,338	1,015	769	5,533	198	192	4,533	30,216	55%
Sinoe	15,550	1,227	955	76	6,428	449	301	4,816	29,802	52%
National	655,138	47,082	122,701	24,190	214,370	38,721	7,902	237,480	1,347,584	50%

2.1.3.3 Vitamin A Supplementation

The administration of Vitamin A to children under the age of five as a supplement has proven to reduce diarrhea episodes, shorter and lessen severe attacks of measles, pneumonia and reduce the overall childhood morbidity and mortality. In 2012, 16,007 doses of Vitamin A supplements were administered to children under-five constituting 3% coverage and 42,359 doses to postpartum mothers accounting for 23% coverage. Table 2.6 presents Vitamin A supplementation coverage by county. Though the routine Vitamin A supplementation data is reporting with very low coverage, however, Vitamin A supplementation during the two rounds of integrated immunization campaigns for under-5s reached over 95% of children under the age of 5 years nationwide. The low coverage is attributed to stock out and the lack of communication between the service providers, county health teams and the central Ministry.

Table 2.6: Vitamin A Supplement Administered to Children under-five and Postpartum Mothers by County in 2012

County	Vitamin A Supplementation			
	Under 5 yrs		Post partum Women	
	Number	Percent	Number	Percent
Bomi	2,382	19	2,171	48
Bong	5,551	24	7,773	43
Gbarpolu	280	3	1,185	26
Grand Bassa	565	4	2,080	18
Grand Cape Mt	3,338	25	2,092	34
Grand Gedeh	2,350	11	2,196	32
Grand Kru	508	3	1,021	32
Lofa	1,783	8	4,209	27
Margibi	877	3	3,195	29
Maryland	2,202	6	1,766	23
Montserrado	2,740	7	17,326	31
Nimba	5,737	11	10,671	40
River Cess	1,141	2	1,381	37
River Gee	698	1	1,320	34
Sinoe	321	0	1,470	21
National	16,007	3	42,359	23

2.1.3.4 Child Mortality

Analysis of the 2012 data from across the country shows that curative services (diagnosis and treatments) for children under –five years accounts for 34% (1,230,571) of the 3,760,510 curative consultations in 2012. A total of 3,734 under five deaths were reported by health facilities nationwide. Malaria accounts for 27.7% and anemia 24.4% of reported under-five deaths in health facilities. Table 2.7 presents under-five mortality by causes and by county in 2012. There is an increase in the number of under-five deaths from 1,207 in 2010 to 1,707 in 2011 and 3,734 in 2012. The increase could be attributed to the system strengthening of our reporting at all levels then and now. Reporting coverage has improved and including the quality of data generated from the health information system.

Since 1990, the global under-five mortality rate has dropped by 41 percent from 87 deaths per 1,000 in 1990 to 51 in 2011. The 2012 Atlas for MDGs 4 indicates that Liberia is among eight countries that have made significant progress in achieving reduction of under-5 mortality. Also, Liberia attained the fastest rate of annual reduction of under-5 mortality among these eight countries at a rate of 5.4%. This has placed Liberia among countries on track for achieving MDG 4. This phenomenon progress is attributed to the government's robust child survival strategies that include integrated immunization campaigns with deworming, Vitamin A supplementation and increasing number of fully immunized children through the routine EPI system.

Table 2.7: Under five Deaths by County in 2012

County	Consultation	Under 5 deaths								Prop of Malaria deaths
		Malaria	Diarrhea	Anemia	ARI	Injuries	Malnut.	Others	Total	
Bomi	59427	49	34	27	7	1	1	66	185	26.5
Bong	105282	103	4	66	5	2	7	214	401	25.7
Gbarpolu	22994	75	0	0	7	0	0	4	86	87.2
Grand Bassa	65916	76	0	18	13	0	1	50	158	48.1
Grand Cape Mt	53751	38	1	6	1	0	2	43	91	41.8
Grand Gedeh	28360	19	3	14	2	0	12	46	96	19.8
Grand Kru	23399	2	0	0	0	1	0	4	7	28.6
Lofa	99111	81	7	31	12	1	10	104	246	32.9
Margibi	78359	665	91	115	59	3	6	615	1,554	42.8
Maryland	40387	12	0	1	0	3	0	4	20	60.0
Montserrado	396792	126	87	623	100	25	74	301	1,336	9.4
Nimba	164861	130	7	137	25	5	21	206	531	24.5
River Cess	29211	2	0	0	0	0	0	1	3	66.7
River Gee	33761	12	0	0	2	0	1	6	21	57.1
Sinoe	28960	5	0	4	2	0	0	5	16	31.3
National	1,230,571	1,035	192	911	200	38	112	1,246	3,734	27.7

2.1.4 Maternal Health

In order to accomplish MDG 5 (Improving maternal health), the Ministry of Health and Social Welfare developed the Essential Package of Health Services (EPHS) with defined maternal health interventions at both the community and health facility levels. The EPHS is an assortment of health services that the Ministry is committed to providing at every health facility. Health interventions undertaken to improve maternal health in Liberia include, antenatal care, delivery, postnatal services, Intermittent Preventive Treatment, Family Planning and Tetanus Toxoid immunization.

2.1.4.1 Antenatal Care

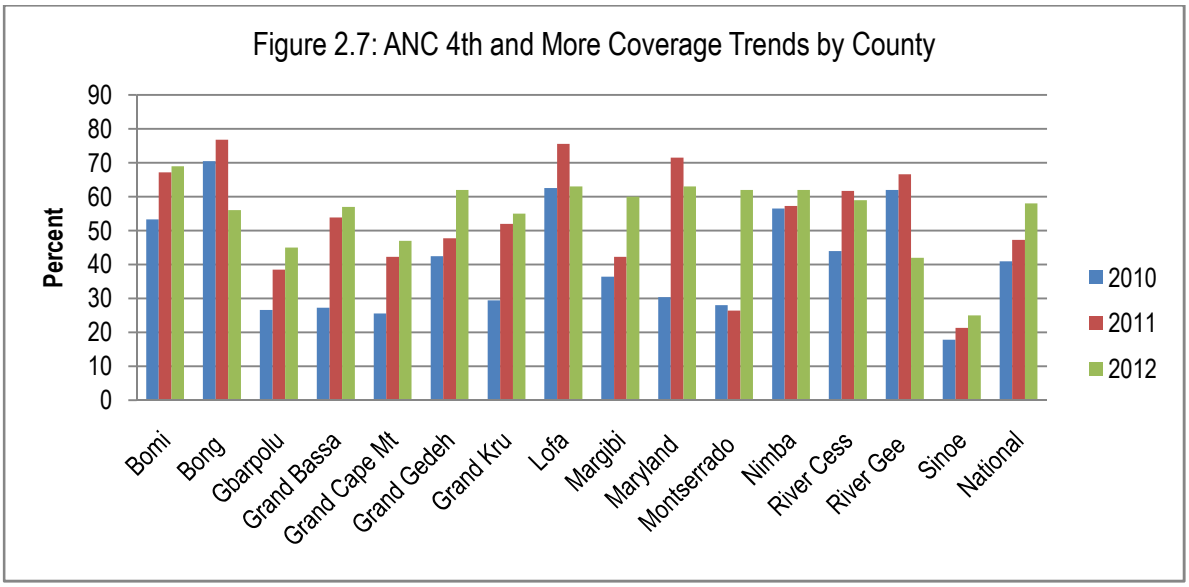
Antenatal services are a cost effective maternal health intervention that is globally encouraged to ensure that pregnant women are assessed periodically and prepared for labor and delivery. ANC coverage[4] data is used to find out the proportion of pregnant women who received care during pregnancy. With an estimated 5% of the general population expected to be pregnant women, the 1st ANC visit in 2012 is 87% and the 4th visit accounts for 58%. While ANC 4th and more visits statistics are encouraging, ANC 1st visit has declined by approximately 12% over the one-year period. Table 2.8 presents ANC visits by county. Although ANC 4th and more visits show remarkable improvement nationally, there are large disparities across counties, Sinoe, Grand Cape Mount, River Gee and Gbarpolu recording the lowest ANC visits. Analysis of the data indicates that in these three counties, only 4 out of every 10 pregnant women attended at least 4 antenatal services.

Table 2.8: Antenatal Coverage by County in 2012

County	Catchment Population	Est. Pregnant Women (5%)	ANC 1st Visit	ANC 4th+ Visit	% of ANC 1st visit	% of ANC 4th+ visit
Bomi	91,411	4,571	4,930	3,158	108%	69%
Bong	362,388	18,119	17,008	10,180	94%	56%
Gbarpolu	90,616	4,531	2,068	2,055	46%	45%
Grand Bassa	240,910	12,046	10,301	6,562	86%	54%
Grand Cape Mt	138,091	6,905	5,029	2,860	73%	41%
Grand Gedeh	136,116	6,806	4,462	4,279	66%	63%
Grand Kru	62,933	3,147	1,984	1,777	63%	56%
Lofa	300,862	15,043	11,764	9,672	78%	64%
Margibi	228,120	11,406	9,139	6,489	80%	57%
Maryland	147,722	7,386	5,191	4,733	70%	64%
Montserrado	1,215,174	60,759	58,061	34,640	96%	57%
Nimba	502,076	25,104	24,807	16,325	99%	65%
River Cess	77,708	3,885	2,810	2,292	72%	59%
River Gee	72,578	3,629	1,589	1,565	44%	43%
Sinoe	111,267	5,563	3,041	1,684	55%	30%
National	3,777,972	188,899	162,184	108,271	86%	57%

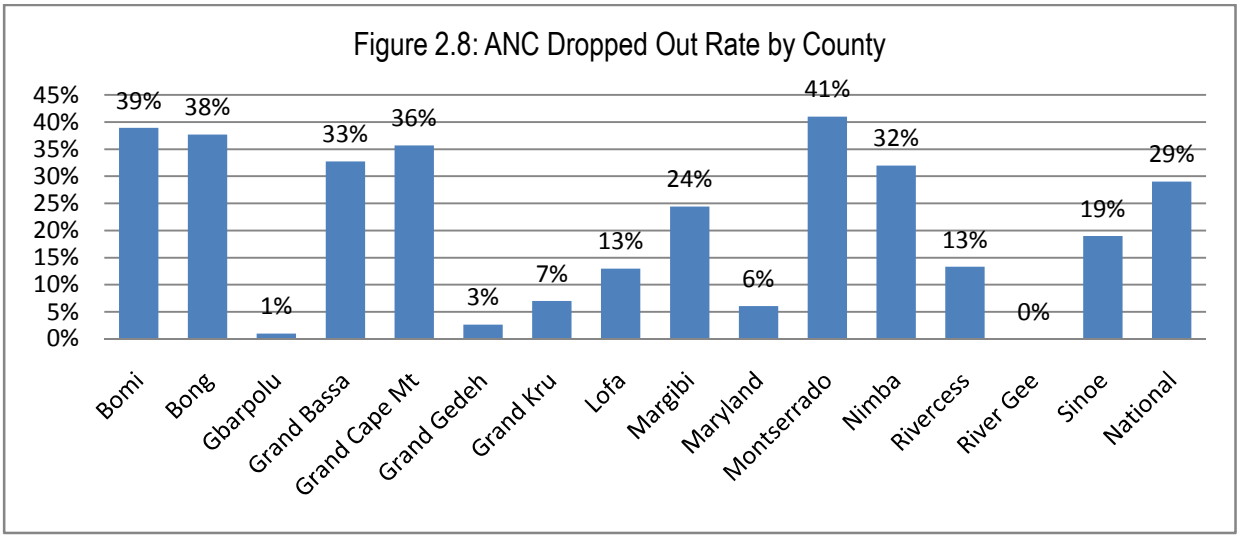
Fourth ANC attendance by county shows little improvement over the past 3 years. The national coverage was estimated at 41% in 2010, 47.3% in 2011 and 58% in 2012 respectively. Counties with very low ANC coverage include Sinoe, Gbarpolu and Grand Cape Mount (less than 50% coverage over the past three years). Figure 2.7 presents ANC 4th and more visits coverage Trend by County. See Annex A for detailed coverage.

[4]ANC coverage is calculated by dividing the number of ANC visit by the expected number of pregnant women in the catchment population



ANC Dropped Out Rate

ANC drop-out rate is determined by the difference between those attedning ANC first and 4th visits. In 2012, the national drop-out rate is 41% with variations across counties. Montserrado (41%) and Bomi (39%) reported the highest drop-out rates while in River Gee, pregnant women that attended 1st ANC visit were maintained. Figure 2.8 presents ANC dropped out rate by county.



2.1.4.2 Delivery

The expected number of deliveries[5] for 2012 was projected to be 185,792. However, only 47% of the expected deliveries were reported (86,470). Institutional deliveries account for 39% of the expected deliveries while reported home deliveries represent 8% of the expected deliveries. The proportion of

[5] Expected deliveries is derived by estimating 4.5% of the population

expected deliveries attended by skilled personnel is 37%. Deliveries assisted by skilled staff increased by 8% from 2011 to 2012. This modest improvement in skilled attendant at birth could be attributed to increased awareness created at the community level and motivational packages for TTMs to refer pregnant women to the facilities. Table 2.9 presents deliveries by places, by county and by skilled attendance.

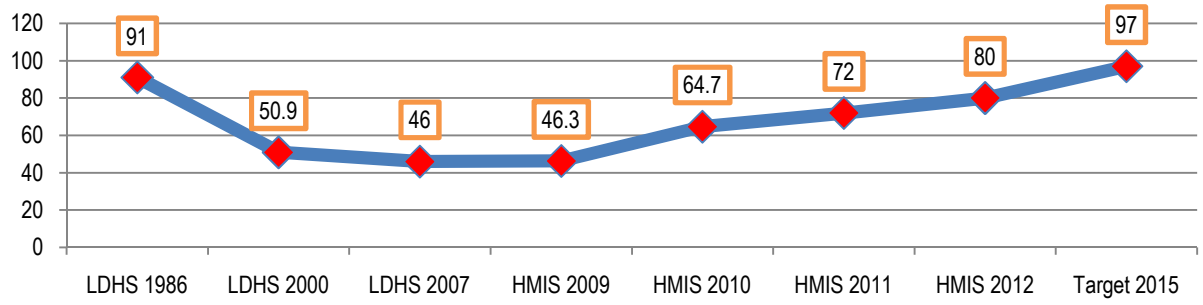
Table 2.9: Deliveries by Places and by Skilled Staff in 2012

	Number of Deliveries					Percentage of Deliveries		
County	2012 Expected	2012 Actual	Institutional	Home	By skilled staff	Facility	Home	By skilled staff
Bomi	4,551	2,596	2,140	456	2,128	47%	10%	47%
Bong	18,119	8,921	8,005	916	7,952	44%	5%	44%
Gbarpolu	4,531	1,335	1,179	156	1,175	26%	3%	26%
Grand Bassa	11,430	4,694	3,016	1,678	3,006	26%	15%	26%
Grand Cape Mt	6,082	2,764	2,392	372	2,366	39%	6%	39%
Grand Gedeh	6,856	3,368	2,915	453	2,911	43%	7%	42%
Grand Kru	3,213	1,138	792	346	708	25%	11%	22%
Lofa	15,467	6,946	6,776	170	6,589	44%	1%	43%
Margibi	10,850	6,695	4,183	2,512	4,140	39%	23%	38%
Maryland	7,541	2,859	2,241	618	1,924	30%	8%	26%
Montserrado	56,131	26,483	21,108	5,375	19,975	38%	10%	36%
Nimba	26,519	13,454	12,725	729	12,273	48%	3%	46%
River Cess	3,885	1,671	1,579	92	1,548	41%	2%	40%
River Gee	3,749	1,624	1,327	297	1,264	35%	8%	34%
Sinoe	6,868	1,922	1,648	274	1,570	24%	4%	23%
National	185,792	86,470	72,026	14,444	69,529	39%	8%	37%

Liberia has made significant progress by steadily increasing facility-based delivery. Comparative analysis of the delivery data shows a decline using estimates of either reported or expected deliveries. The proportion of institutional delivery (based on expected deliveries within the population) indicates an increase of 8% from 2011 to 2012. Improvement in delivery statistics could be attributed to many reasons that include: the construction of maternal waiting homes in a few counties, incentives for institutional delivery (distribution of mama and baby starter kits[6] to mothers who deliver in the facility), diversified public awareness campaign on maternal mortality reduction, the deployment of skilled health workers, the training of traditional midwives to recognize danger signs and refer patients and the introduction of performance based financing. Also the incentivizing of traditional midwives with money (US$) and/or lappa in few countries contributed to the increased. Figure 2.9 shows the trend of reported deliveries by skilled attendant.

[6] Mama and baby starter kit is a package of assorted items such as baby bath tower, soap, powder, blanket, etc provided to mothers upon delivery to encourage institutional delivery.

Figure 2.9: Reported Deliveries by Skilled Attendant



2.1.4.3 Postnatal Care

Regardless of where the delivery occurs, a mother must attend postnatal care clinics and be examined by trained health worker within 42 days of the birth to identify and prevent postpartum complications. In 2012, only 35% (64,597) of expected postpartum mothers attended postnatal care clinic. Only Bomi reported 50% of women who delivered attended PNC. Table 2.10 shows PNC visits by county. However, postpartum visits reported are not disaggregated by visits (first, second or third) due to lack of additional PNC information.

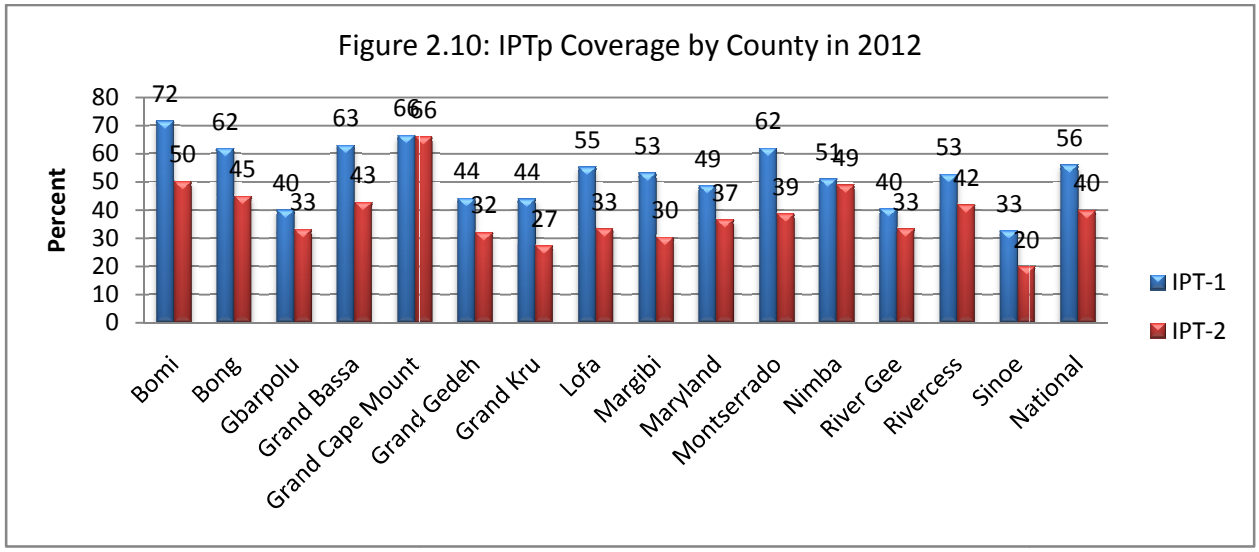
Table 2:10: Postnatal Visits by County in 2012

County	2012 Expected Deliveries	2012 Actual Deliveries	PNC Visit	PNC
Bomi	4,551	2,596	2280	50%
Bong	18,119	8,921	6977	39%
Gbarpolu	4,531	1,335	1053	23%
Grand Bassa	11,430	4,694	2919	26%
Grand Cape Mt	6,082	2,764	2171	36%
Grand Gedeh	6,856	3,368	2188	32%
Grand Kru	3,213	1,138	1117	35%
Lofa	15,467	6,946	4282	28%
Margibi	10,850	6,695	3059	28%
Maryland	7,541	2,859	1843	24%
Montserrado	56,131	26,483	24073	43%
Nimba	26,519	13,454	7861	30%
River Gee	3,749	1,624	1505	40%
River Cess	3,885	1,671	1246	32%
Sinoe	6,868	1,922	2023	29%
National	185,792	86,470	64,597	35%

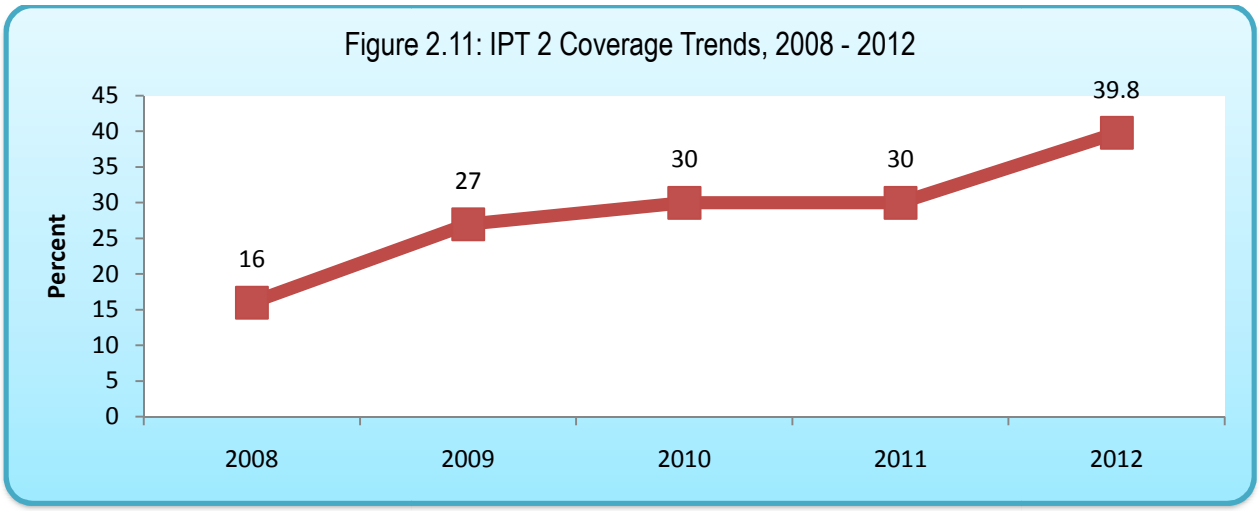
2.1.4.4 Intermitted Preventive Treatment (IPTp)

The administration of Intermitted Preventive Treatment (IPTp) to pregnant women is an effective strategy endorsed by WHO and Rollback Malaria to reduce severe malaria in pregnancy and the associated complications. Pregnant women are encouraged to take at least two doses of IPTp to prevent severe

malaria whilst pregnant. Figure 2.10 depicts IPTp administration in 2012. Nationally, IPT1 first dose coverage is 55.9% while IPT2 is estimated to be 39.8% with variations across counties.



Although Intermitted Preventive Treatment (IPT-2) second dose coverage is very low (39.8%), coverage has increased by nearly 10% over the one year period. An analysis of IPT-2 coverage shows encouraging trend from 2008 to 2012. Figure 2.11 presents IPT 2 trend over the past five years period.



2.1.4.5 Family Planning

Liberia has a low contraceptive prevalence rate (2007 LDHS- 11%) and a large unmet need for family planning services (36%). Increasing access to family planning services is an important component towards fertility control, and the reduction of maternal and infant mortality. In 2012, 232,132 women of reproductive age (15-49 years) were provided family planning services, excluding those that opted for condoms. Oral pills and injectables (Depo) were widely accepted and a total of 89,477 new users' (oral pills-41,726 and Depo-47,751) were provided services. IUCD and implant were scarcely used by females partly due to

limited service provision as well as inadequate access to family planning information. Only 426 women opted for IUCD while 6,852 accepted implants. Table 2.11 shows family planning commodities issued by type and by county in 2012.

Table 2.11: Family Planning commodities by type and by county

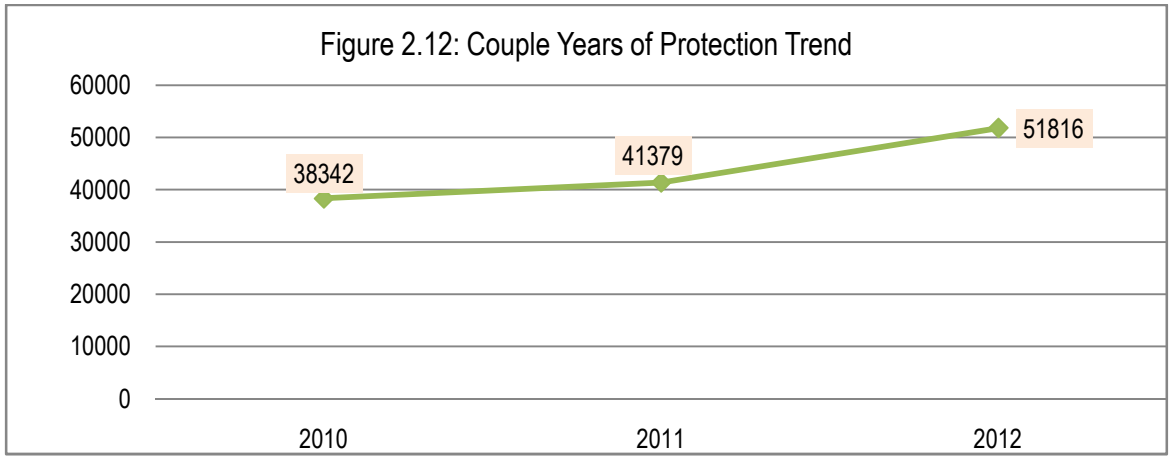
	Condoms		IUCD		Depo		Oral Contraceptives			
County	Female Condom	Male condom	Re-visit	New	Re-visit	New	Re-visit	New	Implant	Total
Bomi	1064	38162	8	7	2902	2066	1747	1030	142	7760
Bong	1258	84732	8	73	6881	3837	7304	7217	567	25320
Gbarpolu	0	13018	0	0	3007	1428	3217	776	54	8428
Grand Bassa	2071	56629	145	135	3423	2602	4597	3515	455	14417
Grand Cape Mt	1697	57621	106	35	3112	2434	3066	1785	570	10538
Grand Gedeh	566	28536	6	11	3686	2743	1064	725	545	8235
Grand Kru	242	12135	0	0	2341	1229	931	528	16	5029
Lofa	5800	68291	1	10	4722	3295	5801	3348	447	17177
Margibi	4495	286071	8	15	6807	3696	6790	3244	233	20560
Maryland	196	7694	50	4	1251	991	1881	1143	505	5320
Montserrado	20517	325845	62	91	22445	14148	20930	12705	2008	70381
Nimba	2506	189973	9	19	6317	5041	5595	3544	795	20525
River Gee	87	1888	18	8	4243	1580	658	343	407	6850
River Cess	118	10890	0	9	1652	1260	824	496	0	4241
Sinoe	926	36523	0	9	1923	1401	2691	1327	108	7351
National	**41,543**	**1,218,008**	**421**	**426**	**74,712**	**47,751**	**67,096**	**41,726**	**6,852**	**232,132**

Analysis of the family planning data from across the country shows a gradual increased in family planning use over the past five years. In 2010, there were 65,812 new users of family planning commodities (pills, implants, depo and IUCD) and 54,900 in 2011. In 2012, out of the 96,755 new users, 51,816 couples were protected from pregnancy. Table 2.12 presents couples years of protection by county in 2012.

Table 2.12: Couples Years of Protection (CYP) by County

County	Pills	Implant	Depo	IUD	Male Condom	Female Condom	Total CYP
Bong	185	41	1,242	53	318	9	1,847
Gbarpolu	968	162	2,680	284	706	10	4,810
Grand Bassa	266	15	1,109	-	108	-	1,499
Grand Cape Mt	541	130	1,506	980	472	17	3,646
Grand Gedeh	323	163	1,387	494	480	14	2,861
Grand Kru	119	156	1,607	60	238	5	2,184
Lofa	97	5	893	-	101	2	1,097
Margibi	610	128	2,004	39	569	48	3,398
Maryland	669	67	2,626	81	2,384	37	5,863
Montserrado	202	144	561	189	64	2	1,161
Nimba	2,242	574	9,148	536	2,715	171	15,386
River Cess	609	227	2,840	98	1,583	21	5,378
River Gee	67	116	1,456	91	16	1	1,746
Sinoe	88	-	728	32	91	1	939
TOTAL	268	31	831	32	304	8	1,473
National	7,255	1,958	30,616	2,965	10,150	346	53,289

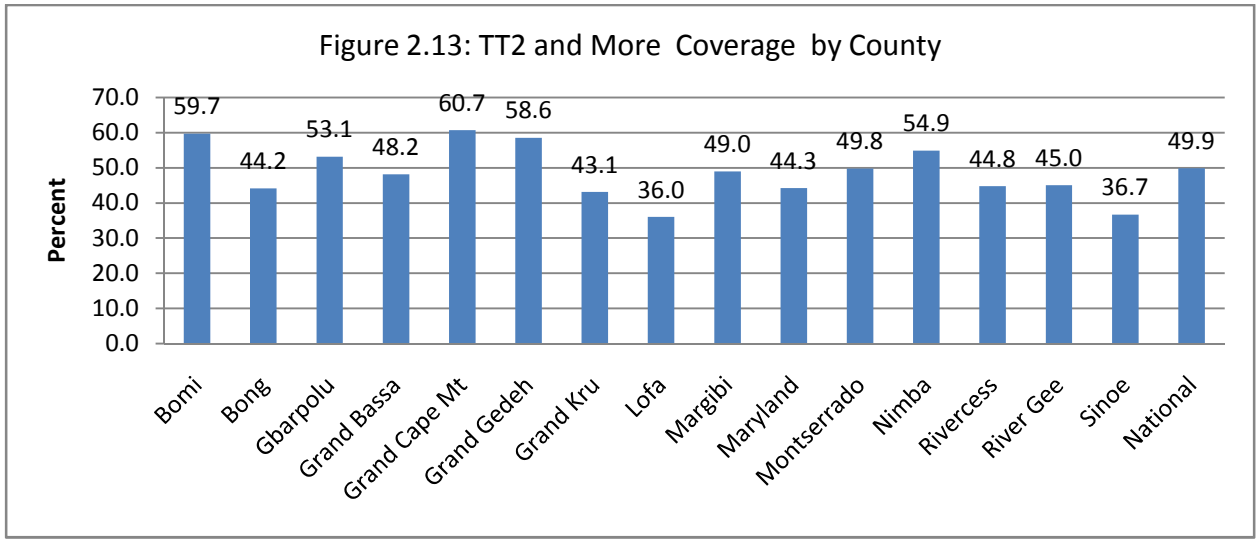
Couples years of protection (CYP) continue to increase with the number of new family planning users. The number of couples that were protected from being pregnant increased from 38,342 in 2010 to 51,816 in 2012. Figure 2.12 presents trend in couples's years of protection.



2.1.4.6 Tetanus Toxoid (TT)

Globally, Tetanus Toxoid (TT) vaccines are administered to pregnant and non-pregnant women of childbearing age (15–49 yrs) to protect their unborn children from neonatal tetanus. In Liberia, TT vaccines are administered through routine immunization services. In 2012, 352,194 doses of TT-2+ vaccines were administered to women of reproductive age. Grand Cape Mount County reported the highest TT second

dose coverage for pregnant women (60.7%) while Lofa reported the lowest (36%) coverage. Figure 2.13 shows TT coverage by county. Annex C provides details on TT administration by County.



2.1.4.7 Maternal Mortality

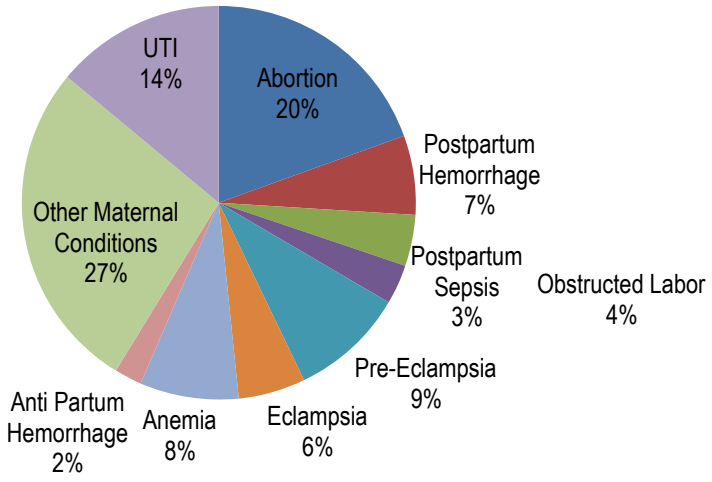
Liberia is among countries with the worst maternal mortality rates, at 770 deaths per 100,000 live births in 2010. To ensure that this undesired rate plummets, the health sector has formulated a maternal and newborn mortality reduction road map with clear goals, strategic objectives, and cost effective interventions. Liberia has named a prominent Liberian Musical Artist as an Ambassador for maternal mortality reduction. Factors affecting maternal health include, limited access to basic and emergency obstetric services, low utilization of family planning services, low coverage of antenatal and postnatal services, unskilled birth attendant during home deliveries, delays in referrals, and weak referral systems. Despite the under-reporting of maternal deaths by health facilities for fear of been investigated, criticized and punished, maternal death records for 2012 indicate that for every 1,000 live births there were approximately 3 maternal deaths. Counties that reported high maternal deaths were Bomi (7 deaths per 1,000 deliveries), River Cess (7 deaths per 1,000 deliveries) and Bong (6 deaths per 1,000 deliveries). It is worth noting that this figure excludes maternal deaths that occurred within the community. The majority of maternal deaths in Liberia are due to postpartum hemorrhage, obstructed or prolonged labor, complications from unsafe abortions, eclampsia, malaria and anemia. Table 2.13 shows the distribution of maternal deaths by county.

Table 2.13: Maternal Deaths by County			
County	Deliveries	Maternal deaths	Rate of deaths/1000 deliveries
Bomi	2,596	18	6.9
Bong	8,921	57	6.4
Gbarpolu	1,335	3	2.2
Grand Bassa	4,694	3	0.6
Grand Cape Mt	2,764	0	0.0
Grand Gedeh	3,368	10	3.0
Grand Kru	1,138	1	0.9
Lofa	6,946	27	3.9
Margibi	6,695	21	3.1
Maryland	2,859	18	6.3
Montserrado	26,483	127	4.8
Nimba	13,454	57	4.2
River Cess	1,671	2	1.2
River Gee	1,624	2	1.2
Sinoe	1,922	5	2.6
National	**86,470**	**351**	**4.1**

Causes of Maternal Deaths

The causes of maternal deaths documented at health facilities across the country shows that majority of pregnant women died from induced abortion (20%), follow by anemia in pregnancy (8%), pre-eclampsia (9%), and postpartum hemorrhage (7%). Figure 2.14 presents causes of maternal deaths in Liberia in 2012. It is also worth stating that maternal deaths recorded in this report only reflect those occurring at or reaching health facilities and precludes community maternal mortality.

Figure 2.14: Causes of Maternal Deaths in Liberia in 2012



2.1.5 Morbidity and Mortality

This section of the report discussed three major diseases (Malaria, Tuberculosis and HIV/AIDS) that have generated both national and international interest and are very relevant to Liberia's MDGs accomplishments. Although these priority diseases account for a significant proportion of Liberia's disease burden, mortality and are of major public health concern. However, other communicable and non communicable diseases are equally of public health relevance and have been provided due attention.

2.1.5.1 Malaria

Liberia has made efforts towards reducing the untold suffering associated with and burden of malaria; however, it remains a major public health problem in Liberia, taking the greatest toll on young children and pregnant women. To address the malaria burden, the MOHSW introduced a policy and strategic plan for malaria control and prevention. Measures instituted are attempts to fulfill the Roll Back Malaria (RBM) objective for reducing malaria morbidity and mortality by 50% in 2010, Liberia did not achieved.

In 2012, 3,760,510 curative consultations were made at 656 health facilities across Liberia of which malaria diagnosis accounts for 44% of all diagnosis (1,669,764). The number of children under-5 diagnosed with malaria represents 32.6% of all malaria cases. Approximately 78% of all diagnosed malaria cases were treated with ACT. It is worth noting that these malaria cases are confirmed by either RDT or microscopy. Also, for every 1,000 reported cases of malaria there was one reported death. Table 2.14 presents malaria cases (diagnosed and treated) and deaths by county.

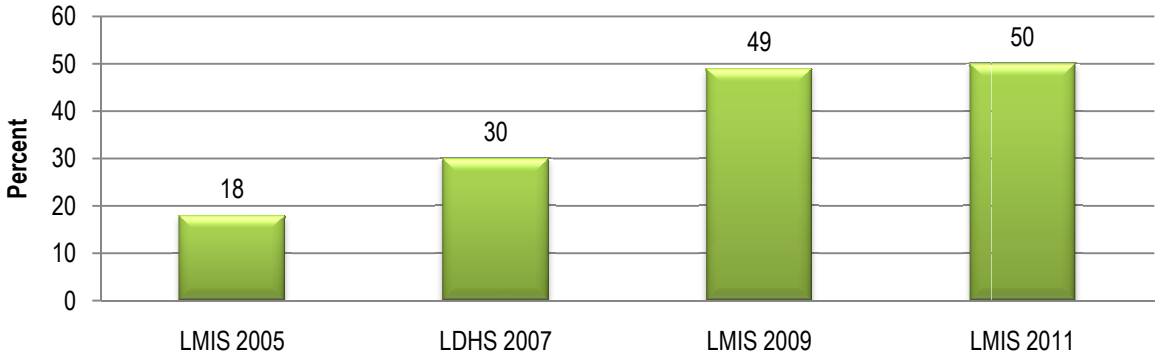
Table 2.14: Malaria Cases Diagnosed, Treated and Deaths by County in 2012

County	Consultation	Malaria Cases	Treated with ACT			Not treated with ACT	Malaria deaths
			< 5 years	>=5 years	# Treated		
Bomi	170,242	59704	23391	28795	52186	7518	79
Bong	301,087	116241	52598	49693	102291	13950	154
Gbarpolu	63,968	23191	9153	11286	20439	2752	86
G. Bassa	205,782	83246	28035	42908	70943	12303	121
G. C. Mt	146,523	60623	22897	29307	52204	8419	49
G. Gedeh	92,798	41054	16220	21544	37764	3290	43
G. Kru	70,734	24265	10092	11103	21195	3070	3
Lofa	298,515	132451	49984	63626	113610	18841	131
Margibi	218,805	101475	24909	43983	68892	32583	677
Maryland	122,481	47283	18280	21312	39592	7691	19
Monts.	1,333,724	678886	166383	297146	463529	215357	217
Nimba	462,478	194760	78890	86559	165449	29311	179
River Gee	85,785	33056	15607	15362	30969	2087	17
River Cess	96,971	35979	15103	18681	33784	2195	3
Sinoe	90,617	37550	13392	18969	32361	5189	9
National	3,760,510	1,669,764	544,934	760,274	1,305,208	364,556	1,787

The overarching goal of the Liberia National Malaria Strategic Plan for 2010-2015 is to reach Millennium Development Goal 6: to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases. Liberia has adopted four major strategies to control malaria in the country. The first strategy is to improve treatment by scaling up the availability, accessibility and use of artemisinin-based combination therapy (ACT), the first-line treatment for malaria. The second strategy is an Integrated Vector Management (IVM) approach, and the third strategy addresses malaria in pregnancy. The fourth approach to malaria prevention is to increase support for advocacy, health education, and behavior change.

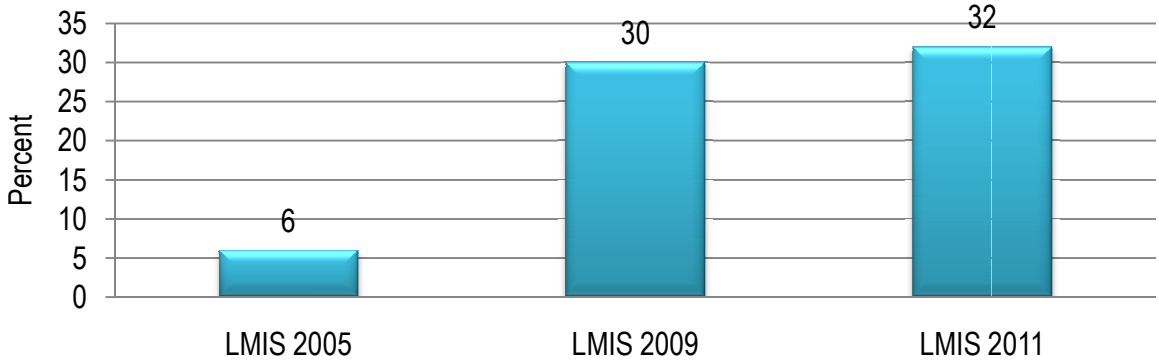
In fulfillment of these strategies the MOHSW with support and collaboration from partners have made substantial gains. First, treatment with ACT has improved from 66% in 2011 to 78% in 2012. Second, mosquito net ownership increased from 18% in 2005 to 50% in 2012. Third, IPTp administration increased from 16% in 2008 to 39.8% in 2012 (HMIS). Fourth, the use of mosquito net raise from 6% in 2005 to 32% in 2011 and the prevalence of malaria in children under the age of five reduce from 66% in 2005 to 49% in 2012. The below figures presents households mosquito net ownership, net use, and the prevalence of malaria in children respectively.

Figure 2.15: Mosquito Net Ownership Trends



The distribution of mosquito nets nationwide and the massive malaria education created in the public through various channels have help to increase the use of net. Figure 2.16 shows household use of net from 2005 to 2011.

Figure 2.16 Mosquito Net Use Trends



2.1.5.2 Tuberculosis

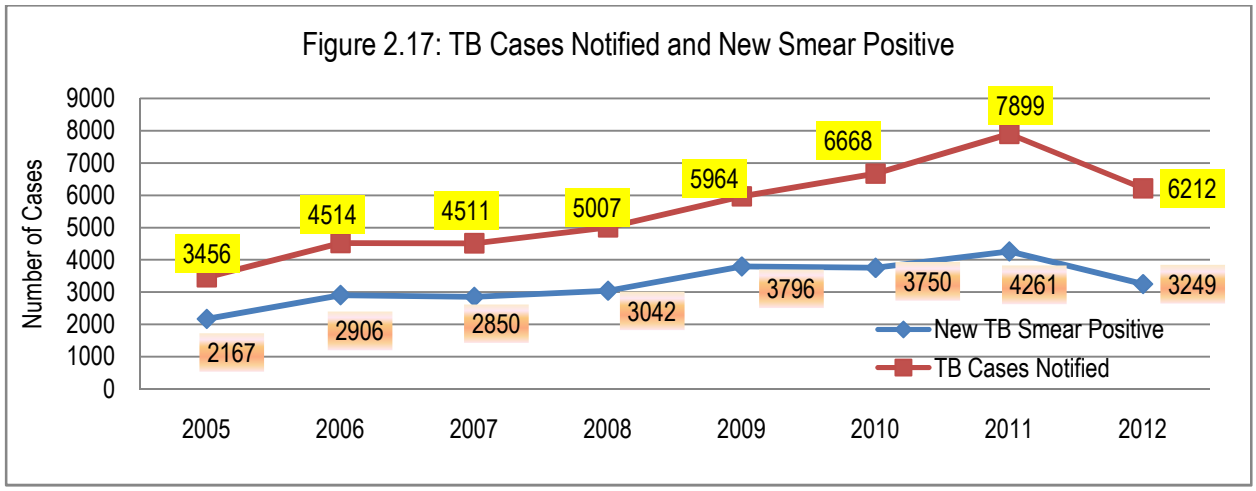
In Sub –Saharan Africa, Liberia is amongst countries with the highest prevalence and burden of tuberculosis. Although few cases of TB were detected between 2005 and 2007, an increase in notification was observed from 2008 to 2012 notable because of the expansion of the program through funding from the Global Fund. The estimated number of all forms of TB cases in 2012 was expected to be 10,276 while the smear positive cases were projected to be 4,458. However, the actual cases of all forms of TB notified were 6,212 and the reported number of new smear positive cases detected during the year was 4,222. Table 2.15 provides information on the expected and confirmed TB cases from 2006-2012.

Table 2.15: TB Cases Estimated and Reported from 2006 – 2012

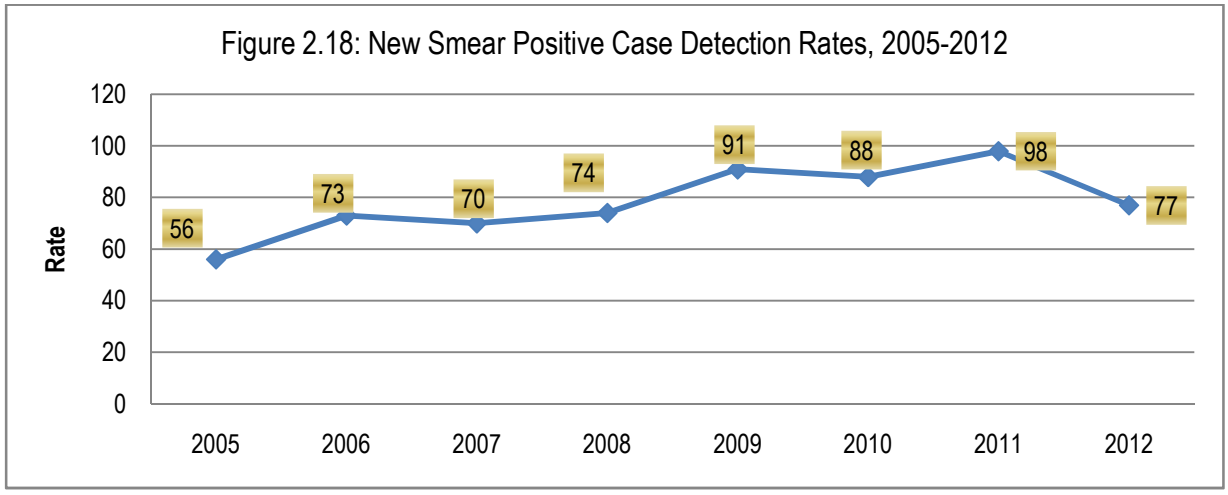
Classification	Years						
	2006	2007	2008	2009	2010	2011	2012
Estimated Population	3,362,026	3,419,317	3,476,608	3,549,617	3,624,159	3,700,266	3,777,972
Estimated TB Cases of All Forms	9,145	9,301	9,447	9,655	9,858	10,065	10,276
Estimated Smear Positive TB Cases	3,967	4,035	4,111	4,189	4,277	4,366	4,458
TB Cases Notified (***New Smear Positive***)	2,906	2,850	3,042	3,796	3,750	4,261	3,249
TB Cases Notified (***All Forms of TB***)	4,514	4,535	5,007	5,964	6,668	7,899	6,212
Case Detection Rate (***New Smear +ve***)	73%	70%	74%	91%	88%	98%	77%
Case Detection Rate (***TB Cases of All Forms***)	49%	49%	53%	62%	68%	78%	60%

TB notification trend over the years has shown a steady rise with 3,456 cases of all forms of TB reported in 2005 to 6,212 cases in 2012. On the other hand, TB Smear positive cases detected in 2012 decreased by 1,012[7] over a one year period. The dropped in TB positive cases detection could be attributed to the level of public awareness and education on TB and alleviation of stigma associated with the disease. Figure 2.17 presents TB notification by years.

[7] TB 2012 data (# of Notified TB Cases, success rate, etc) is based on only 3 quarters report (Jan-Sept.)

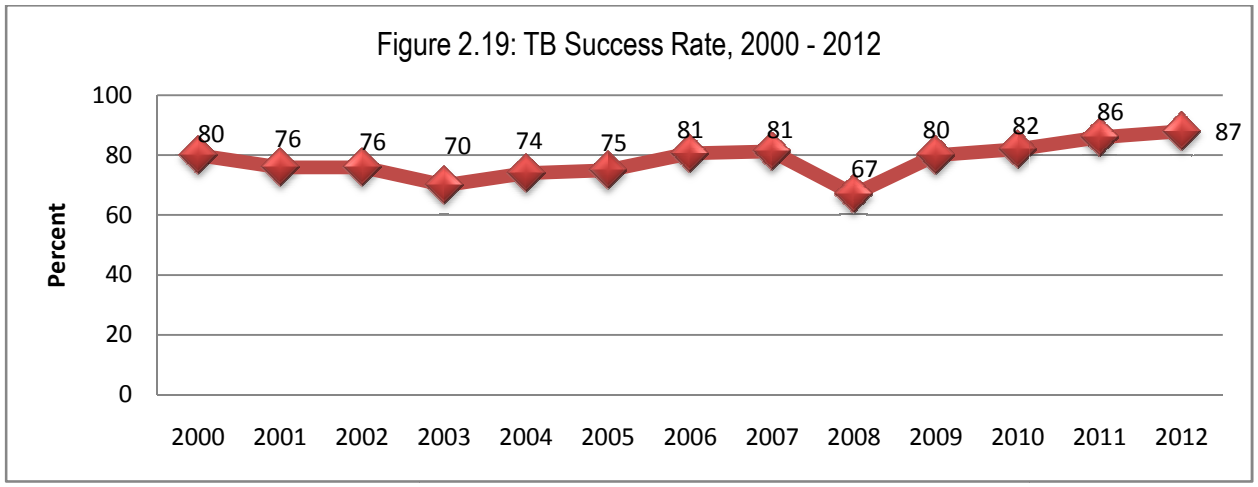


TB case detection rate is gradually increasing, however, there has been fluctuation over time. The case detection rate for 2011 was 98% and has dropped to 77%[8] in 2012. The decline in the current figure could be attributed to lack data for the last quarter (October –December) of 2012. However, this current figure is above the WHO recommended target of 70%. Therefore, all efforts must be mustered to sustain and further increase the current rate by expanding services and by creating greater access. Figure 2.18 presents TB detection rates from 2006-2012.

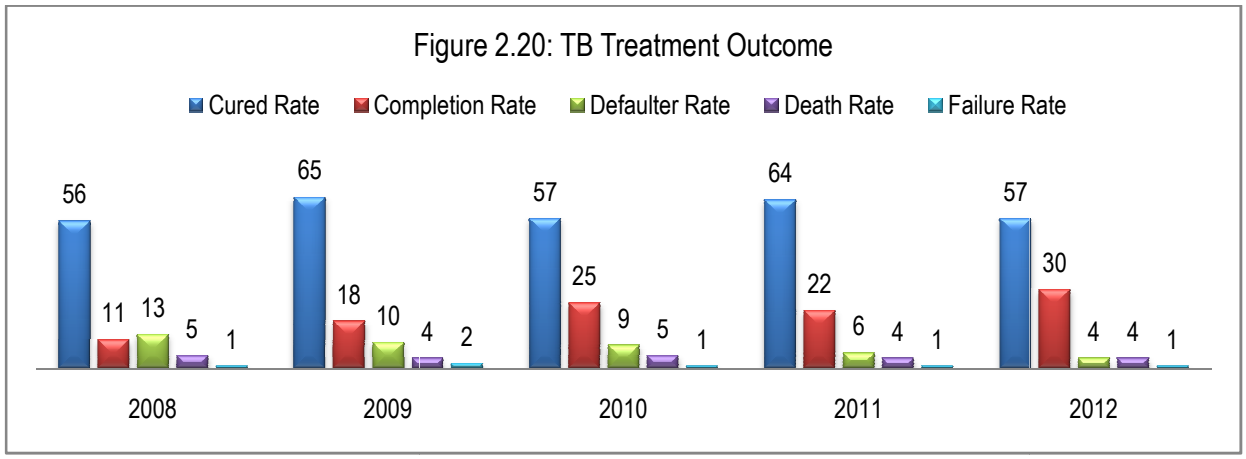


Treatment Success Rate: TB treatment success rate (total number of patients who completed TB treatment and were declared cured) has shown slight improvement over a 12 year period. Improvements in the treatment success rate were realized from 2008 to 2012 due to greater social stability in the country, the infusion of GFATM Round 7 TB grant and the implementation of TB control activities. In addition, massive public awareness and education have significantly influence treatment success. Figure 2.19 shows TB treatment success rate.

[8] TB 2012 success rate is based on 3 quarters reports (January to September 2012) because of their reporting cycle and the Government's mandate to submit report to the Parliament before the 4th week of January.



Treatment Outcome: Cured, completion, defaulters, deaths and treatment failure rates reported from 2008 to 2012 indicate that the program has made progress in maintaining low death, and failure rates. On the other hand, TB cured rates continue to oscillate. The number of patients that defaulted treatment reduced from 13% in 2008 to 4% in 2012, while death rate reduced from 5% in 2008 to 4% over the past two years. The program targets for defaulter and death rates are less than 5%, and 4% for failure. Though the program has achieved its targets, more work needs to be done to further reduce current defaulters and death rates and increase cured and completion rates. Figure 2.20 presents TB treatment outcome from 2008 to 2012.



Analysis of the 2012 data shows that 2,816 TB patients completed their treatment and were cured (87%) out of the 3,249 new smear positive cases detected. Margibi (94%), Sinoe (92%) and Bong (74%) Counties recorded the highest treatment success rates. Table 2.16 shows TB cured and success rate by county.

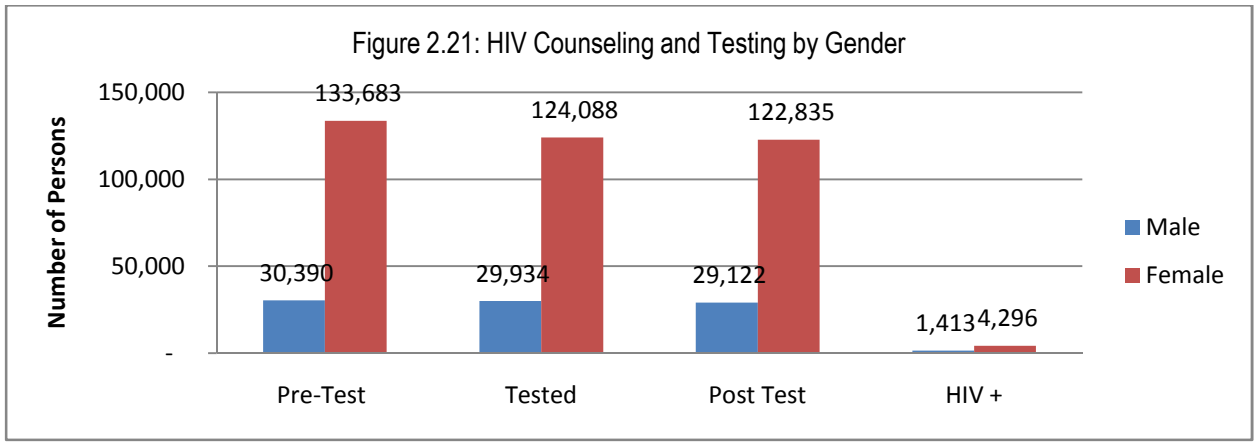
Table 2.16: TB Patients Cured and Treatment Success by County in 2012					
County	Smear Positive	Patients Cured & Completed Treatment	Treatment Success %	# of Death	% of Death
Bomi	64	44	69%	5	8%
Bong	109	98	90%	6	6%
Gbarpolu	26	22	85%	0	0%
Grand Bassa	81	68	84%	1	1%
Grand Cape Mt	65	57	88%	1	2%
Grand Gedeh	59	40	68%	3	5%
Grand Kru	28	23	82%	0	0%
Lofa	76	63	83%	3	4%
Margibi	162	152	94%	3	2%
Maryland	86	67	78%	5	5%
Montserrado	2234	1960	88%	86	4%
Nimba	182	157	86%	4	2%
River Gee	27	21	78%	3	11%
River Cess	26	22	85%	2	8%
Sinoe	24	22	92%	2	8%
National	3,249	2,816	87%	124	

2.1.5.3 HIV/AIDS

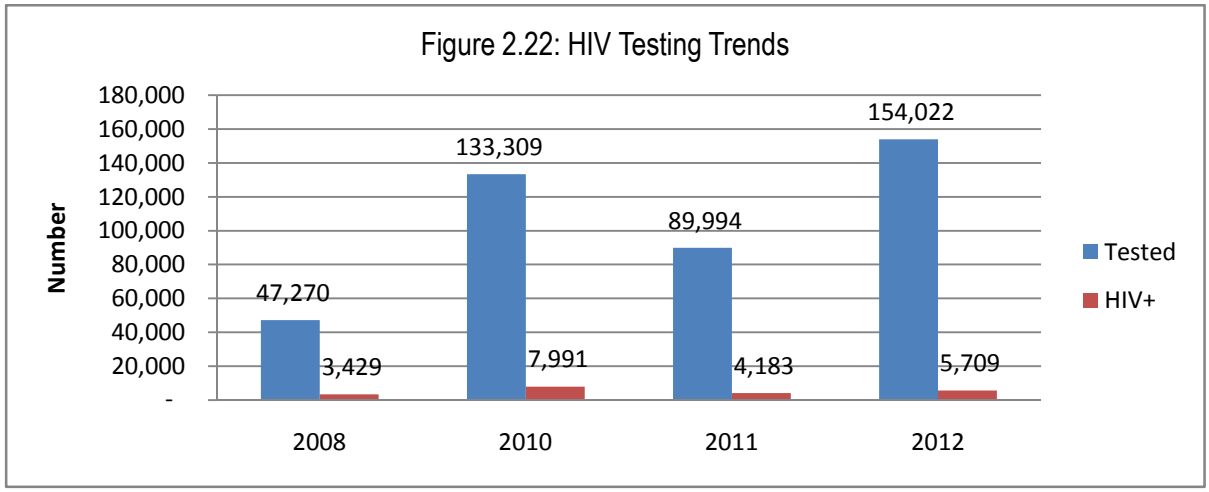
Despite the burden of the HIV/AIDS pandemic in Africa, it was reported during the International Conference on AIDS and STI held in Africa (ICASA-2011), that Africa has made tremendous gains toward reducing the prevalence, and incidences of the disease. However, it was stressed that more needed to be done to stop the Stigma and Discrimination against Persons Living With AIDS (PLWHAs), sexual abuse, rape, and reduce poverty that serve as the main drivers of the disease in the Sub-Saharan Africa region.

Cognizant of the many social and programmatic problems associated with HIV and AIDS, the MOHSW, the National AIDS Commission (NAC), the National AIDS Control Program (the arm of the MOHSW responsible for the health response to HIV and AIDS), and partners are committed to reducing the burden of the disease.

HIV Counseling and Testing: HIV Counseling and Testing (HCT) is a very important component of HIV prevention, care and treatment services and have proven over the years to influence behavioral change. The scaling up of HCT interventions since 2008 by increasing the number of HCT facilities provided enormous access to HIV services in general. Data generated from 367 centers across the country in 2012 revealed that 164,073 persons were pre-counseled, 154,022 were tested and 5,709 were confirmed HIV positive, constituting 3% positive cases. Gauging the data from these HCT sites also shows gender disparities in counseling, testing and confirmed positive cases. Figure 2.21 presents HIV counseling and testing by Gender in 2011. Annex E provides detailed data on counseling and testing services by county.



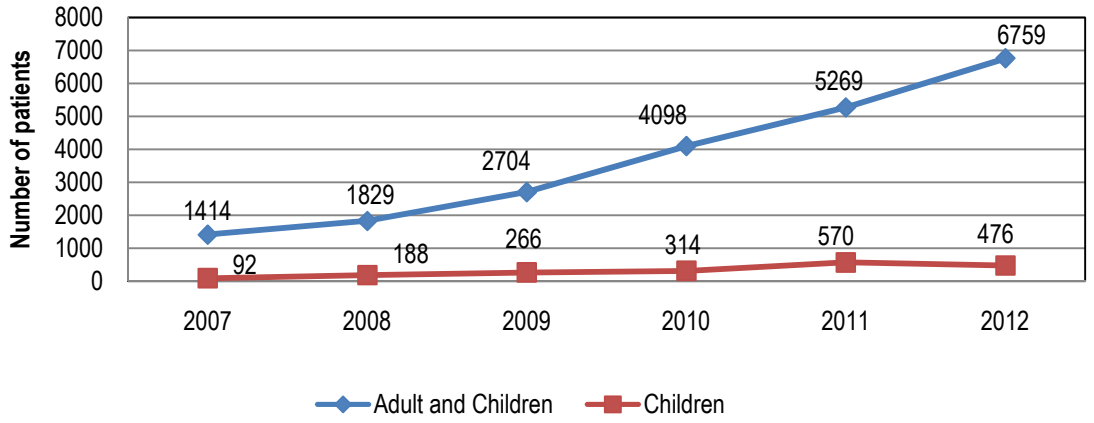
HIV testing is gradually increasing due to the level of HIV knowledge and education that is available within the population that has been documented by the LDHS and other national studies that have shown high HIV awareness and education. The number of persons counseled, tested and confirmed positive for HIV continues to fluctuate. In 2012, 154,022 persons were tested and 5,709 were confirmed positive. Figure 2.22 shows trends in HIV testing.



People living with HIV and AIDS can live healthy and productive lives when they have access to information, treatment, care and support. Support is defined as acceptance, affection, respect and love from friends, family members and the community. Care includes moral support and access to necessary medical treatments, a healthy diet, clean water and accommodation.

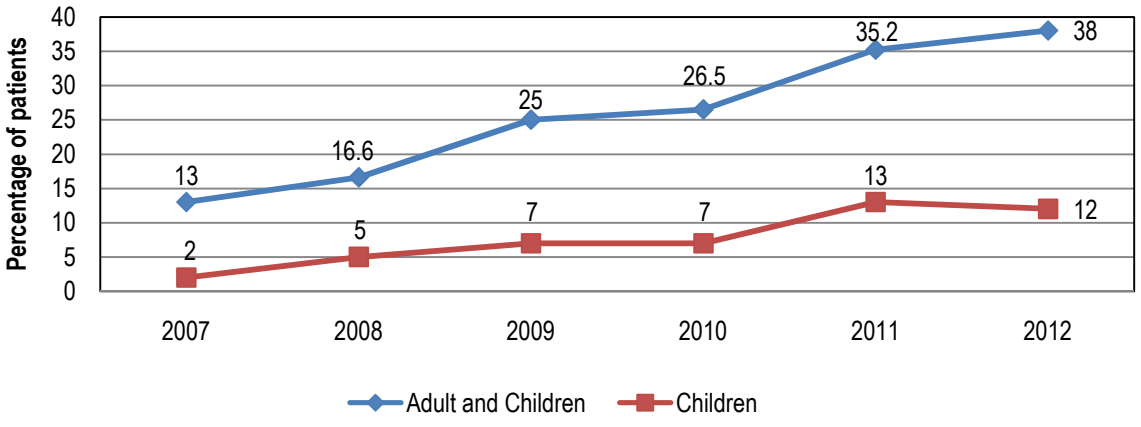
HIV care, treatment and support are dominant aspects of the HIV program. The aim of HIV and AIDS care and support is to improve the quality of life of people living with the condition, their families and communities. The number of patients placed on ART continues to increase with the expansion of the ART services. In 2012, the number of adult and children enrolled into ART care and treatment was 6,759, and 476 respectively. Figure 2.23 shows the number of adults and children that were placed on ART since 2007.

Figure 2.23:Number of eligible adults and children with HIV infection receiving ART



HIV Care and Treatment services have rapidly expanded since 2007 increasing the number of facilities providing services from 15 in eight counties to 40 in all counties in 2012. Improving the quality of services while scaling up has been the primary focus of the Program. In 2010, the Integrated Guidelines for HIV treatment Services was revised incorporating a comprehensive package with major highlights being early treatment initiation and CD4 threshold, nutritional supplements. The initiation of the national clinical mentoring program for HIV has also improved the quality of lives and increase the survival of patients enrolled into HIV care and treatment. To date, the cumulative number of people enrolled into HIV care and treatment is 10,911 with 6,759 on anti-retroviral therapy (ART). These numbers includes 1,196 children with 476 on ART. Currently, HIV coverage has increased for eligible adults and children with advance HIV infection receiving ART, 38% (6,759/17,702 as end September 2012) compare to 27% and 35% respectively in 2010 and 2011. Additionally, access to treatment services for children having access to ART increased from 2% in 2007 to 12% at the end of September 2012. Figure 2.24 presents percent of eligible adults, and children with HIV infection that are receiving ART.

Figure 2.24: Percent of eligible adults and children with HIV infection receiving ART



2.2 Bureau of Preventive Services

The Bureau plans and coordinates activities related to the prevention and control of diseases of public health concern, including communicable and non-communicable diseases, as well as mental health. It coordinates the MOHSW response to health emergencies, facilitating monitoring activities for control of emergencies and disease outbreaks. The Family Health Division (FHD), Expanded Program on Immunization (EPI), National Health Promotion Unit, National Diagnostic Division (Laboratory and Blood Safety, NDU), National Malaria Control Program (NMCP), National Leprosy and Tuberculosis Control Program (NLTCP), National AIDS and STI Control Program (NACP), Division of Mental Health, Environmental and Occupational Health, Community Health, Emergency Response Program (EPR), Neglected Tropical Diseases (NTDs), Eye Care Program, Pharmacy Division, Program Coordination Unit (PCU) and Epidemiology Units are all subdivisions of the bureau.

2.2.1 Family Health Division

The Division of Family Health is responsible for setting standards and guidelines, developing policy, planning, coordinating and monitoring of activities related to: reproductive health, child survival, adolescent and women's health programs in the country. The Division also oversees the development of strategies designed to promote and strengthen family-centered primary health care initiatives at the community and facility levels. The division has Reproductive Health, Child and Adolescent Health as sub units. Below are key accomplishments of the Division:

- Trained 96 health workers in Basic Life Saving Skills (BLSS)
- Build the capacity of 115 service providers in family planning provision
- Strengthened the capacity of 120 health workers in neonatal resuscitation
- Enhanced the capacity of 50 staff in Home Based Maternal and Newborn Care (HBMNC)
- Trained 173 professions in clinical management of rape
- Trained 54 health professionals in the prevention of obstetric fistula
- Reviewed and printed the Adolescent Sexual Reproductive Health (ASRH) Strategy and Standards
- Printed and distributed 100,800 maternal and 195,840 child health cards to public health facilities nationwide with support from partners
- Developed SGBV training manual
- Reviewed and revised the Reproductive Heath Commodity Security Strategy and Standards
- Developed family planning training manual and job aid
- Adapted the WHO recommended Home Based Maternal and Newborn Care training manual
- Piloted Misoprostol in three districts in 2 counties (Grand Bassa-2 and Bong-1) in collaboration with partners
- Increased PMTCT sites from 234 in 2011 to 334 in 2012, and provided training to 198 service providers at new PMTCT sites in 6 counties (Bong, Gbarpolu, Grand Cape Mount, Margibi, River Gee and Maryland)
- Trained 32 staff as trainers in PMTCT
- Trained 120 CHVs in two counties (Bong and Grand Bassa) and 10 Social Workers in five counties (Bomi, Bong, Grand Bassa, Grand Gedeh and Nimba,) on Fistula case identification,

tracking of client and prompt referral for management.
- Trained 54 health professionals from five counties (Bomi, Bong, Grand Bassa, Margibi and Montserrado) in the prevention of fistula using foley catheter and parthograph.
- Conducted Fistula surgical campaign in five counties (Bomi, Bong, Grand Gedeh Maryland and Nimba) and provided surgical services to 126 victims.
- Provided 2500 adults, adolescents and youth with family planning services during the commemoration of World Contraceptive Day, and distributed 1,090,860 pieces of male condoms and 29,212 pieces of female condoms.
- Developed community based SGBV training manual, and train 120 health care providers in the clinical management of rape and 90 gCHVs in the referral of SGBV cases from the community to the health facility
- Trained 325 community members from 12 communities in Lofa and Montserrado counties to provide psychosocial services to SGBV survivors and do referral to health facilities.
- Provided reporting ledgers for the 15 counties and opened one stop home for comprehensive SGBV case management in Montserrado County

2.2.2 Nutrition Division

The Nutrition Division is the central level coordinating office for nutrition services and support. The Division promotes cooperation among partners working in the field of nutrition, and regulates all nutrition activities in the health sector. It also has numerous partners under the umbrella of the National Nutrition Coordinating Committee which is comprised of the government ministries, NGOs and other development partners. Major activities and achievements of the Division are as follows:

- Strengthened capacity of 214 health workers and 483 community volunteers in 6 counties in nutrition counseling using the 7 Essential Nutrition Actions (ENAs) This was accomplished with the support of partners (PCI, OICI Samaritan Purse, Care-Liberia, Merci, IRC and Africare).
- Briefed members of Parliament and key partners on the importance of the Code of Marketing on Breast Milk substitutes for their enactment in law;
- Integrated polio campaign with the administration of Vitamin A supplementation and Mebendazole (De-worming). During the campaign, over 95% of 642,255 children 6 – 59 months received vitamin A supplementation.
- Developed Integrated Management of Acute Malnutrition (IMAM) protocol and national scale up plan with support from UNICEF;
- Combined treatment of SAM and MAM and enhanced the capacity of 14 national IMAM Certified Master Trainers'. The intent is to train county and health facility staff in nutrition interventions.
- Completed IMAM program in five counties (Nimba, Grand Gedeh, Maryland, Margibi and River Gee), and trained 341 health workers and support staff in 45 health facilities nationwide.
- Screened 53,472 children and identified 7,437 children with severe malnutrition that were treated at 55 centers in 5 counties including 2 CMAM implementing facilities. Ninety one percent (91%) of the severe malnourished children were cured, 8% defaulted and <2% died.

2.2.3 Expanded Program on Immunization (EPI)

The Expanded Program on Immunization (EPI) Division is responsible for all vaccinations in the country. The division with support from partners continues to improve the immunization status of children as

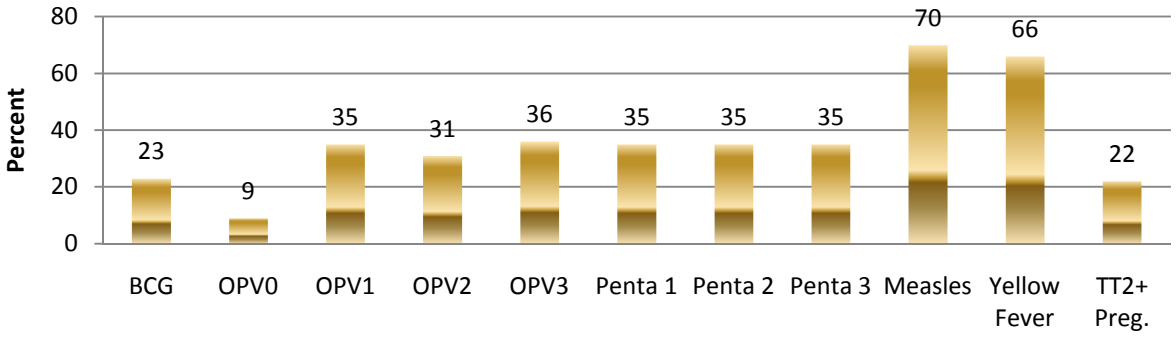
evidenced by zero case of Wild Polio Virus (WPV) and the reduction in the outbreak of measles cases according to the HMIS and AFRO Polio monthly updates. The EPI's objective is to reduce morbidity and mortality due to vaccine preventable diseases among children from birth to five years.

Routine Immunization (RI)

Currently, there are 469 health facilities in the country conducting routine immunization. These health facilities are expected to operate three sessions where applicable. These sessions are: Fixed, Outreach, & Mobile. Outreach sites are operated once per month to supplement the fixed sites, while mobile is operated once every quarter. However, it was observed that counties with low immunization coverage were able to catch-up in the fourth quarter of the year.

In an effort to increase the routine immunization coverage and subsequently reduce the drop-out rates in all 15 counties, Periodic Intensification of Routine Immunization (PIRI) was conducted in all 15 counties by 469 health facilities (three members per HF), targeting children 0-11 months for a period of five days. Figure 2.25 presents PIRI data in 2012 by antigen.

Figure 2.25: PIRI Data



Data quality harmonization: Four successful rounds of EPI quarterly quality data harmonization activities were conducted from in 2012. The harmonization framework developed entails (1) empowering CHSWT members through orientation and provision of logistical support to conduct data harmonization in line with the Ministry's Decentralization Policy (2) A total of 45 health facilities (10% of the total HF) doing routine immunization were randomly selected based on Probability Proportionate to Size (PPS) sampling method and visited nationwide by central level staff every quarter.

Synchronized Immunization Activities: The WHO Executive Board declared polio eradication a public health emergency in January of this year and requested strong execution of implementation of strategies, strong national attention and accountability. The board recommends vaccination for all travelers to and from infected countries (3 endemic countries presently). As a result of this declaration, Liberia conducted four rounds of synchronized Polio NIDs in 2012 targeting 945,463 children in the age range 0-59 months.

From the NIDS data analysis an average ≥ 96% (n=907,645) for administrative coverage and for independent monitoring ≥95% were attained.

In addition to the NIDs, a mop-up exercise (Polio Sub-Nation Immunization Days Campaign) was conducted in 28 districts within 10 counties (Grand Bassa, Grand Cape Mount, Gbarpolu, Grand Gedeh, Grand Kru, Lofa, Nimba, River Cess, River Gee, and Sinoe) not attaining the minimum coverage of ≥95%. This was integrated with the administration of vitamin A and mebendazole in all fifteen counties.

Surveillance of Vaccine Preventable Disease

Acute Flaccid Paralysis: 51 AFP cases were reported, investigated with two stool sample collected within fourteen days of onset of paralysis. The non-Polio AFP rate (1/100000) is 3.1, stool adequacy 98%, non-polio enterovirus condition 20.9% at national level. Results from the lab showed that all specimens sent were negative of wild polio virus (WPV). However, four of the cases were confirmed being sabin vaccine related.

Yellow Fever: 19 cases of YF were reported with CFR 0% at the national level. Grand Cape Mount reported 8 cases, Bomi, Lofa 4, Nimba and River Gee 2 cases each, Grand Gedeh and Sinoe 1 case each. All of the cases were investigated, specimens collected and one case was confirmed positive by Institute Pasteur in Ivory Coast. The confirmed case came from Grand Cape Mount County

Neonatal Tetanus (NNT): 12 cases of NNT were reported with CFR 66.6% during the year under review. Grand Bassa County reported 9 cases out of which 8 babies died. Bong, Lofa and River Gee Counties reported 1 case each but all of the patients survived. The globally accepted neonatal tetanus mortality rate is less than 1 case per 1000 live births in every district. Liberia conducted MNT validation in 2010 and was declared certified, however in 2012 cases were discovered.

2.2.4 National Health Promotion

The National Health Promotion Division is an integral part of the MOHSW within the bureau of preventive services. The core functions of the Division are; to create public awareness, facilitate community involvement and participation, promote activities which will foster and maintain healthy behavior and advocate for an environment that enables individuals, families and communities to translate health information into desired action to promote health. During the year under review, the Division implemented the below activities:

- Conducted Training of Trainers (TOT) training for 750 gCHVs and CHT staff in the use of flip chart, Journey of Hope, CHEST kit and PHAST.
- Developed operational guidelines and standards for Health Promotion (HP) practices at all levels.
- Developed, produced and disseminated HP messages and materials for the EPHS. These messages and materials include Malaria, Routine immunization, NTDs, NCDs, TB, Hand wishing and Food safety.

- Trained 27 District Health Promotion Focal Persons and 600 gCHVs, in collaboration with RBHS, in the use of CHEST kit and Journey of Hope.

2.2.5 National Malaria Control Program

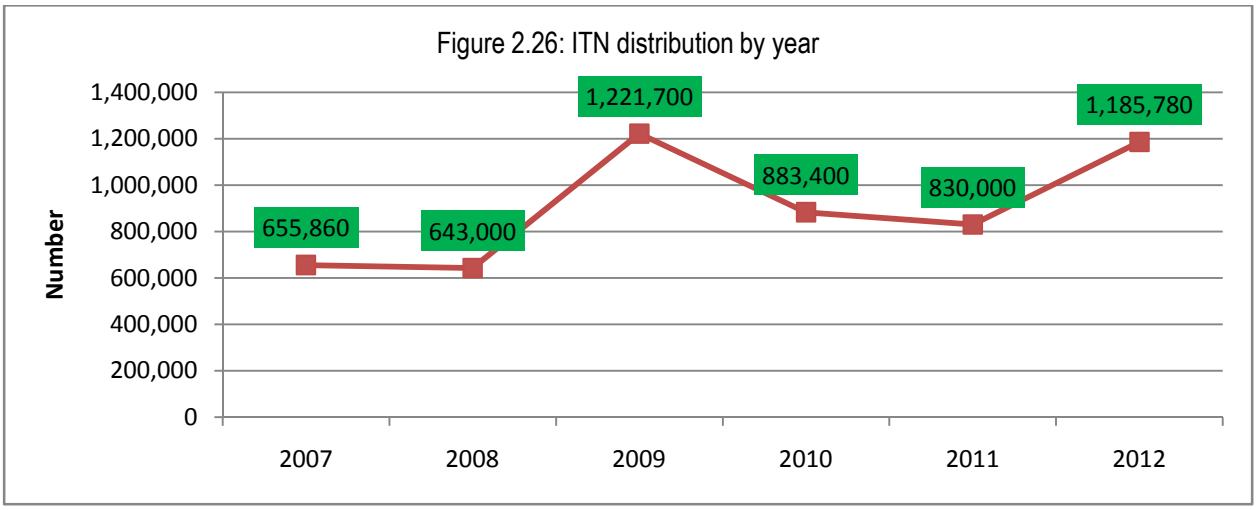
The National Malaria Control Program (NMCP) is responsible for the implementation of malaria control and prevention activities.

The overall objective of the program is to reduce morbidity and mortality caused by malaria and subsequently eliminates the spread of the disease. The program has four strategic approaches to controlling the spread of malaria. They are the provision of prompt and effective treatment, the effectuation of integrated vector management and the use of information, education and behaviour change communication.

Insecticide Treated Nets: Integrated Vector Management is one of the program's strategic approaches to controlling the spread of malaria. The program uses the provision of insecticide treated nets and the provision of indoor residual spraying services as key interventions for vector control. For the period under review, nets distribution by routine fell short of the projected number. The program planned to distribute 65,000 nets quarterly through routine or health facility distribution. This was not achieved due to the unavailability of nets at ANC facilities during most parts of the year.

However, during the period under review, a total of 1,185,780 insecticide treated nets were distributed to selected counties through mass distribution. The mass distribution campaign was done in Gbarpolu, Bomi, parts of Montserrado, Margibi, Nimba, Grand Bassa, Lofa, Bong and Grand Cape Mount counties. Figure 2.26 shows the trend of net distribution in Liberia from 2007 to present. Given the quantity of nets distributed over the six years period and the durability of the nets (at least 2 years) it seem that net ownership is universal in Liberia. On the contrary, national surveys (LQAS, LIMS, DHS, etc) have shown that less than 60% of households have mosquito nets.

Figure 2.26: ITN distribution by year



Indoor Residual Spaying (IRS): Indoor Residual Spraying is another vector control strategy used by the program to control the spread of malaria. For the period under review, the program conducted IRS activities in Grand Bassa, Bong, Nimba, Margibi and Montserrado (rural) counties. A total of 98,901 structures were sprayed compared to 92,464 in 2011. The program experienced financial and logistical gaps and as such, only few counties benefited and IRS was not done comprehensively as was envisioned by the NMCP.

IEC/BCC: The use of Information education communication and behavior change communication is one of the strategies of the National Malaria Control Program in controlling the spread of malaria. For the period under review, approximately 400,000 persons were reached through communication on malaria control and prevention interventions. In 2012, malaria messages with a focus on sleeping under the nets were aired 1,826 times on the various radio stations across the country and 88 short messages were published in the local dailies.

Operational Research: The NMCP assessed Malaria RDT use and adherence among health workers, conducted formative research to identify gaps in malaria prevention and control activities, conducted a baseline study on the extend and use of anti-malaria mono-therapy and a feasibility of introducing ACTs and RDTs in Private Sector Pharmacies and Medicines Shops.

2.2.6 National Leprosy and TB Control Program

The National Leprosy and TB Control Program (NTLCP) was established in 1989 to organize and coordinated all leprosy and tuberculosis related activities within Liberia. To address these diseases, Liberia endorsed and adopted the Global STOP TB and the DOTS Strategies and developed a five-year strategic plan (2007-2012) aimed at reducing the national TB burden. Liberia subsequently established a partnership with the Global Fund to finance a 5-year plan (2008-2013) aimed at; (1) reducing the burden of TB by 50%; (2) promoting the "STOP TB" partnership targets for increasing case detection rate by 70%, and (3) increasing treatment success rate by 85%.

The control of Tuberculosis remains a serious public health problem in Liberia, recognizing the challenges related to Multi Drug Related-TB. The NLTCP plans to implement and strengthen Directly Observed Therapy Short Course (DOTS) Strategy, institutionalize Programmatic Management of Drug Resistant TB (PMDT), and establish appropriate TB Infection Control measures in the country. Strengthening DOTS implementation will minimize the emergence of drug resistant TB (DR-TB), and institutionalizing of PMDT will enable the program to promptly enroll and manage any MDR-TB cases that will be detected. In addition, TB infection control measures, if appropriately implemented, will minimize the spread of drug susceptible as well as drug resistant TB.

During the period, the Program developed the MDR-TB expansion plan which seeks to address the following priority areas:

- Strengthen DOTS nationwide and institute or scale-up programmatic management of MDR-TB;
- Strengthen laboratory capacity for timely diagnosis of MDR-TB;
- Introduce drug resistance surveillance to better understand the magnitude and trends of drug resistance to first and second-line anti-TB drugs;

- Establish infection control measures to avoid MDR-TB transmission, and
- Pursue resource mobilization for MDR-TB.

The NLTCP continues to decentralize TB control services into the primary health care system of Liberia and ensure quality of service. The program established 72 new DOT centers and trained 156 health workers of different cadres. Presently, there are 153 microscopy centers and 429 treatment centers with a center in each of the 89 health district. Key achievements during this reporting period include:

- Diagnosed and registered 6,212 TB cases of all forms of which 3,249 were pulmonary Smear Positive TB cases;
- Attained a treatment success rate of 87%;
- Provided 60% (3,774) of TB patients who had TB/HIV with their test result out of the total of 6,212 TB cases diagnosed;
- 80% of the 602 HIV positive TB patients were placed on CPT;
- 244 New Smear Positive Pulmonary TB patients were placed on DOTS within the community;
- Established a DOTS center in the Kakata Prison Center
- Renovated a Microscopic center at the Monrovia Central Prison
- Established school health club in seven schools in Montserrado County
- Conducted 13 Community TB Forums in 6 counties

Leprosy

Leprosy remains a major public health problem in Liberia. Liberia is one of the few countries that have not attained the global target for leprosy elimination of less than 1 case per 10,000 population. The present prevalence rate of leprosy in Liberia is 1.7%. The country data over the last three years show a trend of continuous transmission of the disease.

The National Leprosy & TB Control Program (NLTCP) continues to provide leprosy services. However, very few health facilities in the counties have the capacity to diagnose and treat leprosy cases. Leprosy cases are reported in all counties and the highest notifications are from Nimba, Grand Kru, Grand Gedeh and Grand Bassa Counties. Current interventions focused mainly on high burden counties and the primary means of case detection is facility based. Multi drug therapy (MDT) is provided with support from WHO to facilities that detects positive cases.

During the year under review, leprosy assessment was done in five counties, Maryland, Grand Kru, River Gee, Montserrado and Grand Cape mount Counties. The assessment sought to create awareness about the disease among health workers and the communities. Active screening for cases was done in schools, market places and other community meeting sites. Staffs at the health facilities were trained in the management of leprosy.

According to a recent country wide assessment, there is a suspicion that pockets of hidden cases exist and evidence that transmission was high by the new cases in very young children and there is little in country capacity to manage cases finding and case holding was poor.

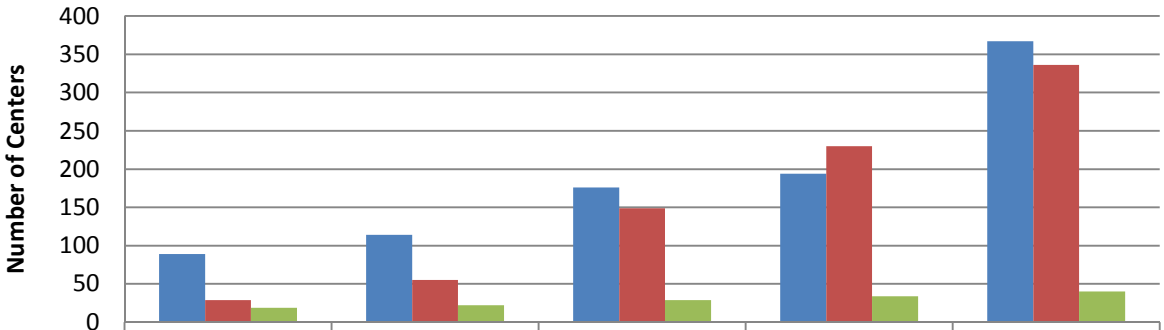
Table 1.18: Leprosy Cases Trend in Liberia								
	Years							
Cases	2005	2006	2007	2008	2009	2010	2011	2012
Total new Cases	323	418	410	414	415	482	293	91
New MB Cases	104	270	301	302	307	357	179	64
New Children Cases	43	68	45	47	43	84	13	8
New Cases with Disability	0	22	0	0	6	6	26	3
New Female Cases	124	220	388	150	138	178	118	40

2.2.7 National AIDS and STI Control Program (NACP)

The National AIDS and STI Control Program (NACP) is responsible for coordinating and monitoring the provision of quality care and treatment and support services for people affected and infected with HIV and AIDS. The major program objectives include: (1) prevent new infections in the general population and from mother to child transmission; (2) provide quality care to those affected and infected by the HIV/AIDS; and (3) mitigate the impact caused by HIV and AIDS. In order to achieve these objectives, HIV Counseling Testing, Prevention of Mother-to-Child Transmission, and Antiretroviral Therapy (ART) interventions were introduced.

The NACP in collaboration with stakeholders has made gains in the provision of quality HIV services, and scaling up the number of service delivery points. At present, there are 367 HIV Counseling and testing (HCT) centers which is an increase from 194 in 2011, 336 Prevention of Mother-to-Child Transmission (PMTCT) sites which also increased from 230 in 2011, and 40 care and treatment and support (ART) sites around the country. Figure 2.27 presents HIV/AIDS Services Centers from 2008 to 2012.

Figure 2.27: HIV/AIDS Services Centers



	2008	2009	2010	2011	2012
HCT	89	114	176	194	367
PMTCT	29	55	149	230	336
ART	19	22	29	34	40

Sexually Transmitted Infections: The reduction of Sexually Transmitted Infections remains a serious challenge for the MOHSW. The cases of STIs in Liberia have recently taken a downward trend partly due to the population behavioral change as a result of public awareness and gradual acceptance and use of condoms. A total of 141,032 cases of various sexually transmitted infections were reported during the period, compared to 191,152 in 2011. However, disaggregation of STI cases by sex and syndromes is unavailable due to the reporting tool.

2.2.8 Division of Mental Health

The Mental Health Division is the policy and technical arm of the Ministry that is responsible to ensure that the Mental Health National Policy and Strategies are implemented.

The division is working closing with partners to train mental health nurses and other cadre of health workers that will provide services at earmarked health facilities. The Ministry intends to establish a Wellness Unit in all public health facilities within Liberia and is presently training mental health nurses to provide these services in the interim due to insufficient psychiatric and other specialized providers. There are 16 mental health nurses that will be completing their training in March 2013, already 65 of these nurses have graduated from this program and are providing services.

2.2.9 Environmental and Occupational Health

The Division of Environmental and Occupational Health is mandated with ensuring better environmental health programs to improve the health of Liberians, including ensuring water quality control for all public water points, food safety, food safety and quality control, basic sanitation/environmental sanitation, Occupational health and Safety among all occupations in Liberia, proper health care waste management practices and sanitation of all public buildings and places including hospitality industries, schools, health facilities. Activities implemented and accomplishments are indicated below:

- Chlorinated 2,500 water points (hand dug wells and bore holes with pumps affixed) in cholera hotspot counties and communities. This intervention positioned the Ministry in averting an outbreak of cholera in Liberia;
- In collaboration with UNICEF, the division prepositioned assorted emergency materials including water purification chemicals, water holding containers (jerry cans, buckets with lids, etc) in Acute Watery Diarrhea prone counties including River Gee, Grand Kru, Nimba, Grand Cape Mount, Lofa, Maryland, Gbarpolu and Grand Gedeh Counties. This intervention places the County Health Teams in a better position to respond to a water sanitation and hygiene emergency.
- Physical, chemical and microbial contaminants analysis was conducted on 1,000 water samples from 1,000 water points. The analysis of these water points is in pursuant of the MOHSW mandate to monitor public wells for quality. Corrective measures were taken to render water potable in cases where water did not meet set quality;

- Conducted orientation sessions for 15 counties EHTs in the use of the standard operational procedures for Environmental and Occupational Health Services;
- Developed a national food safety brochure. 5,000 copies are being printed with support from WHO. The brochure will be used to raise awareness on food safety among the population
- Condemned and disposed 400 cartons of unwholesome fish belonging to Fresh Frozen Inc; 1400 sacks of un-iodized salt belonging to WHO, and 2600 bags of soy flour belonging to International Relief and Development (IRD);
- Implemented Community-Led Total Sanitation (CLTS) in 114 communities with 69 communities becoming Open Defecation Free (ODF). The ODF status of these 69 communities puts them in a better situation to prevent common environmental health related diseases. This achievement was made possible with support from CHF International and UNICEF.

2.2.10 Community Health Services

The Community Health Services Division is responsible for setting standards, developing policy and coordinating community health programs nationally. Facility based health workers and community health providers are responsible for implementing the EPHS at the community level. Community health activities are rapidly being scaled up in all counties with the intent to increase access to basic health care services.

As the MOHSW transitions from the BPHS to EPHS, there is a need for a rational and standardized approach to community health services; it is prudent to revise the community policy and strategy that will reflect community health components of the national Health Plans 2011-2021. The revised policy and strategy is therefore intended to address all issue raised and embedded in the EPHS document. Major policy achievements of the Division are:

- Revised the National Community Health Services Policy and Strategic Plans and printed 500 copies.
- Reviewed and revised the Malaria, ARI and Diarrhea training modules for general Community Health volunteers (gCHV).
- Review and finalized gCHV supervisory tools.
- Produced and revised facilitators guide for ARI, diarrhea and malaria.

Integrated Community Case Management Pilot: In order to increase access to basic health services, the Ministry and her partners designed a strategy to fill the gap in curative services at the community level. In view of the above, it was recommended that ARI, Diarrhea and malaria cases for under five be treated in communities by gCHVs.

The goal of this Integrated Community Case Management Pilot project was to identify the strengths and weakness and make recommendations for the successful scale up of the ICCM program in every community.

Scaling up Integrated Community Case Management (ICCM): Lesson learnt and recommendations from the ICCM pilot case study to scale up provided the impetus for the MOHSW and partners to developed an ICCM scale up. Presently Bong, Nimba, Gbarpolu, Grand Cape Mount, River Cess and Lofa counties are cascading the ICCM project and the NMCP and other partners are training gCHVs to implement ICCM in other counties.

The general community health volunteers provided family services in Lofa and Montserrado counties to both women of reproductive age (15-49yrs) and the male population. A total of 43,036 male condoms were distributed (38,117-Montserrado and 4,919-Lofa) and 1,872 females received depo family planning commodities in the same counties (1,701 clients-Montserrado and 171 clients-Lofa).

In 2012, gCHVs diagnosed, treated and referred patients especially, children with fever, diarrhea, acute respiratory infections and malaria to health facilities. A total of 25,766 patients with diarrhea, ARI and malaria were treated, and 22,374 patients with these same conditions but severe were referred to health facilities. Annex G provides diseases diagnosed and treated by gCHVs.

2.2.11 Neglected Tropical Diseases (NTDs)

The Neglected Tropical Diseases program in Liberia was established after the 5th Mano River Union meeting held in Monrovia from October 28-30, 2009. The Mano River Meeting on onchocerciasis was held by the MOHSW in collaboration with APOC/WHO and Sight Savers and aimed at providing a platform for sharing experiences and lessons learnt among MANO River Union Countries with regards to the implementation of CDTI and co-implementation with other NTDs.

Globally, there are over thirteen conditions or diseases outlined by WHO as neglected; Buruli Ulcer, Chagas Disease, Dengue Haemorrhagic Fever, Dracunculiasis, Fascioliasis, Leprosy, Lymphatic Filariasis, Onchocerciasis, Schistosomiasis, Soil Transmitted Helminthiasis, Snake Bites, Trachoma and Yaws. The program in Liberia is currently targeting Onchocerciasis, Lymphatic Filariasis, Soil Transmitted Helmenthes, schistosomiasis, Leprosy and Guinea Worm. Other conditions that will be given due consideration include Snake Bites and Trachoma.

In realization of the danger posed by the NTDs in the fight against poverty, the MOHSW included the control, eradication or elimination of NTDs of public health importance in Liberia i.e Onchocerciasis, lymphatic Filariasis, Soil transmitted Helminthes, Schistosomiasis and Leprosy among the priority diseases to be addressed in its National Health Plan (2012 – 2021).

The MOHSW collaborated with partners to develop an integrated NTDs master plan based on evidence gathered on the burden, prevalence and co-endemicity from nationwide epidemiological mapping of the different NTDs namely Onchocerciasis, lymphatic Filariasis, schistosomiasis and soil transmitted Helminthes in the country. The Master plan includes activities for ongoing Guinea worm surveillance, leprosy control and Buruli ulcer. Mapping will be conducted for HAT, Trachoma, Rabies, Snake bites, Buruli ulcer and yaws.

The goal of the NTDs program is to reduce the burden of targeted NTDs to level that is no longer a public health problem through an integrated control programme, contributing to the socio-economic development of Liberia.

The Ministry conducted three NTDs studies to inform policy direction and interventions. These studies include; Onchocerciasis, Lymphatic Filariais, Buruli Ulcer, Schistosomiasis and Soil transmitted Helminthes.

The Schistosomiasis survey conducted in 2012 findings indicates that Bong has a prevalence rate of 68.9 follow by Nimba 50. Bong and Nimba counties' high prevalence rate means that all school age children and communities at risk should be treated on a yearly basis while Lofa prevalence of <50% translates to receiving treatment of every two years. Margibi with the lowest prevalence rate translates to all school age children treatment before entry into school. See below for average Schistosomiasis scores by County.

Counties	Prevalence Rate
Bong	68.9%
Nimba	50.0%
Lofa	45.4%
Margibi	9.9%
Average Prevalence	50.04%

During the detail mapping of schistosomiasis, Soil Transmitted Helminthes (STH) was also mapped in the three counties. The mapping found that Bong County STH prevalence has now exceeded 50%, thereby qualifying it for two rounds of MDA per year. Below are prevalence rates by county.

Counties	Prevalence Rate
Margibi	7.1%
Bong	52.9%
Lofa	19.1%
Nimba	32.4%

The NTDs program conducts regular Mass Drugs Administration (MDA) nationwide. To improve the MDA, a TOT workshop was conducted, and 31 health workers were trained in Bomi County for MDA.

National Eye Care Program

The National Eye Care Program is responsible for overall eye care activities in Liberia including the Community Directed Treatment with Ivemectin CTDI program for Onchocerciasis. In 2012, the program implemented some major planned activities which include: Conducted a Rapid Assessment of Avoidable Blindness Survey, conducted medical and surgical eye outreach, initiated the establishment of in- country ophthalmic training program, trained non-ophthalmic personnel in eye care and review the National Eye Health Strategic Plan & Policy.

Rapid Assessment for Avoidable Blindness Survey

A Rapid Assessment of Avoidable Blindness (RAAB) was carried out in by the MOHSW with support from Sight Savers and LISGIS. The survey aimed at establishing the prevalence and causes of avoidable blindness that will inform program interventions and policy and plan formulation.

Findings of the Survey showed that:

- 3,544 peoples aged 50 years and above were examined.
- Out of those examined (3,544), 144 were bilaterally blind (presenting visual acuity (PVA) <3/60 in the better eye with available correction).
- 107 persons were severely visually impaired (3/60-5/60) and 330 representing 9.3% of the sampled population were visually impaired (6/24-6/60).
- 97 (2.7%) persons had functional low vision (functional low vision is defined as PVA<6/18 in the better eye with best correction, not due to refractive error, cataract or aphakia uncorrected).
- The prevalence of blindness, severe visual impairment and visual impairment was similar in men and in women.
- The prevalence of blindness was associated with increasing age ranging from 0.7% in those aged 50-54 years to 11.7% in those aged 80 years and above.
- Amongst the approximately 310,341 people aged over 50 years in Liberia 11,943 (3.85% $\pm$ 0.85%) persons are estimated to be blind; severe visual impairment affects 8,955 (2.89% $\pm$ 0.5%) and visual impairment affects 27,856 (8.9% $\pm$ 1.4%)
- The all-age magnitude of blindness for Liberia is estimated to be 0.5%. (This is based on the assumption that 80% of all blindness is in those over age 50 and that 10% of the population of Liberia is over age 50.)
- Cataract (un-operated) accounted for 60.4% of blindness, 62.6% of severe visual impairment and 35.2% of visual impairment in people in the study.
- Posterior segment pathologies accounted for 27.8% of blindness in people in the study. Over half (16%) of the posterior segment blindness is due to glaucoma.
- Surgical complications accounted for 4.2% of blindness followed by non trachomatous corneal opacities (3.5%), and uncorrected aphakia (2.8%).
- Refractive error was not a cause of blindness.
- Avoidable causes accounted for 72.2% of blindness, 72.9% of severe visual impairment and 86.1% of visual impairment.

Outcome of cataract surgery (eyes) with available correction

- Out of the 174 eyes that were operated, 62 (35.6%) had a poor (<6/60) outcome; 41 (23.6%) had a borderline (6/24-6/60) outcome; and 71 (40.8%) had a good (6/18+) outcome. Also, 7 patients' eyes were treated with couching and 21 an IOL. The outcome was much better among eyes with an IOL implant compared to eyes operated with no IOL implant
- The causes of poor outcome (VA<6/60) (among eyes with surgery less than 3 years ago) were due to selection (n=2; 10%), surgical complication (n =9; 45%), spectacles (n=2; 10%) and sequelae (n = 7; 35%).

The program screened 14,586 persons and treated 10,572 in the five counties of the South Eastern region.

2.2.12 Pharmacy Division

The Pharmacy Division is one of the several units under the Health Services Department. The Division reports to the Deputy Minister for Health Services through the Assistant Minister for Curative Services.

- Through the County Pharmacists, conducted route inspection of health facilities. The reports of the routine inspection are compiled and sent to the office of the Chief Pharmacist on a monthly basis. The reports cover health commodities distribution in the counties, continuing education on rational use of medicines, pharmacy management, and Logistics management information system (LMIS). The routine inspections that are conducted in the counties covered both the public and private health facilities nationwide;
- The Pharmacy Division, under the auspices of the Liberia Medicines and Health Products Regulatory Authority (LMHRA), organized a special taskforce in response to theft of anti-malaria medications in Montserrado County. The Taskforce, following a one day operation, April 16, 2012, collected anti-malaria medications from commercial shops which were worth $101,085.64 USD;
- Given the gravity of the matter, the MOHSW, through its legal office, instituted a law suit against the 34 pharmaceutical business houses that were implicated in the theft of property. The case is currently ongoing.

Supply Chain Management Unit (SCMU)

During the period under review, the Supply Chain Management Unit was theoretically merged with the Pharmacy Division thereby constituting the Division of Pharmaceutical Services. This initial attempt is in the direction to seeking a Bureau Status for the Division (Bureau of Pharmaceutical Services).

Since the merger, the Division has begun the following activities:

a) Developed a simple spread sheet designed to collect consumption data of health commodities at the health facilities level in all fifteen counties;
b) Conducted workshop on the roll-out of the Logistics Management Information System (LMIS) tools in eight of the fifteen (15) counties;
c) Concomitantly rolled-out the distribution of the Standard Treatment Guidelines to 8 counties along with the LMIS training workshop;
d) The Division successfully launched the first National Standard Treatment Guidelines combined with the National Essential Medicine List in a single volume. The document has been rolled out in the 10 to 15 counties with appropriate dissimilation workshop on its usage;
e) Completed the revision of the National Medicine Policy to be printed and published;
f) Developed the First National Donation Guidelines to be printed and published;

CHAPTER 3: Department of Administration

3.0 Introduction

The Department of Administration manages personnel services, financial matters, logistical support systems, oversees procurement of goods and services, and maintenance of the Ministry's physical assets. It consists of two bureaus: Central Administration and Fiscal Affairs. This report covers major activities and results of the two bureaus.

3.1 Bureau of Central Administration

The Bureau of Central Administration has nine subdivisions: Personnel Services, Procurement & Warehouse Services, Information Technology, Health Infrastructure Development, Internal Audit & Compliance, General Counsel, Transportation Services, Maintenance Services, and Housing & Property Control.

3.1.1 Personnel Services

The Division of Personnel is responsible for the recruitment, retention, and retirement of health workers throughout the country and within the public sector. The Division implements rules and regulations governing health workers behavior, attitudes, and performances in accordance with Civil Service Guidelines.

In 2012, the division was involved with the cleaning of Government Payroll in collaboration with the Civil Service Agency (CSA), and the Ministry of Finance (MOF). The payroll cleaning process successfully removed 469 illegal names from the MOHSW payroll.

The division also placed 330 employees on the MOHSW GOL Payroll and 627 new names on the General Allowance Payroll. Currently, the MOHSW has a total of 9,510 employees nationwide. The present health workforce consists of 3,597 employees on GOL Salary Payroll, 2,195 on General Allowance only, and 3,718 are on Donor/NGO's payroll.

For the period under review, the MOHSW submitted 150 employee names to the CSA for retirement because of long tenure (25 years and over), age (65 years and above), and as a result of ill health. The MOHSW also granted 4 female employees maternity leave as well as 41 employees annual leave.

In 2012, 2,500 employees of the Ministry benefited from MOHSW insurance scheme. These beneficiaries comprised of accident victims, ill health workers, and deceased staff families.

3.1.2 Procurement Services

The function of the division is to procure goods and services in accordance with the Public Procurement Concession Commission, (PPCC) regulations.

In keeping with law, the division provides timely and efficient procurement of civil works, goods and services for the Central Ministry of Health & Social Welfare, County Health & Social Welfare Teams, and donor funded projects.

The Division of Procurement accomplished the following in 2012:

- Contracted the service of Africare for twenty-seven months under the Fixed Amount Reimbursable Agreement (FARA), to provide Essential Health and Social Welfare Services in Nimba County for a total contract price of US$ 5,600,332.
- Hired the services of Pharmaceutical Systems Africa at a total contract price of US$ 296,900 in order to provide technical assistance for the Ministry's Supply Chain Unit.
- Hired the services of Professional Services at a total contract price of US$ 121,111.25 in order to provide and set up an Internet Network System and Design for the Ministry.
- Contracted the services of LAMDA Consultants at a total contract price of US$ 87,450 to provide services relative to the assessment, design of a Medical Warehouse which is a joint initiative by USAID and the Global Fund.
- Hired Liberia Institute of Research, Capacity Building Consultancy and Training (LICARE) to provide services relative to Community Case Management Study at a total contract price of US$ 23,997.20
- Initiated a National Competitive Bidding Process in order to contract a supplier of petroleum products for FY 2012/13. Two entities were selected (Super Petroleum and Don Kan Incorporated) and subsequently recommended to PPCC for the award of one year contracts.
- Initiated a national competitive bidding process and hired the City Business Services to provide two 750 KVA diesel generators at a total contract price of US$ 278,000.
- Transferred to UNOPS US$ 764,380.96 from funds under the Global Fund Grant to purchase eight Toyota Land Cruisers SUVs Hardtops, one bus and one pickup (for use by the National Leprosy and Tuberculosis Program, National Malaria Control Program, Supply Chain Unit) and six Land Rover SUVs for use by LISGIS to carry out the Liberia Demographic Health Survey.
- Three 18 seated buses at the total of US$ 112,500 were purchased (one for Saclepea Health Center, one for Telleweyan Hospital, and one for G.W. Harley Hospital).
- The amount of US$ 38,000 representing a duty free price was used to purchase two sedans; one for Bomi County Health Team and one for the Pool Fund Secretariat.
- Contracted 14 firms as primary vendors to provide printing and binding services during FY2012/13 as well as one firm to supply and delivered scratch cards
- Contracted the service of Flag Pole to operate and provide catering services at the Ministry's cafeteria at its central office and provide catering services for workshops and other functions.
- Contracted the services of an Individual Consultant to provide Multi Drug Resistant Consultancy Service to the National Leprosy and Tuberculosis Control Program for twenty one days at a total contract price of US$ 15,750.00.
- Contracted a firm to provide consulting services for the development of a Human Resource Health Information System at a total contract price of US$ 7,000.00.
- US$ 206,619.67 was used to carry out construction of De-Mafort incinerators under the Global Fund Grant.

The procurement process for hiring a consultancy firm for the distribution of malaria drugs (ACT) through the private sector is nearing completion. Currently, the proposed contract is being concluded by the Office of General Council in order to forward all documentations relative to the procurement process to the Public Procurement Concession Commission for review and approval.

The sum of US$ 120,115.65 has been committed under the Global Fund Tuberculosis Grant for the construction of eight Microscopic Centers in eight counties and one water tower at the Liberia Institute of Biological Research (LIBR). Another US$ 429,640.64 has been committed for the payment of contractors that renovated laboratories at various government hospitals under the Global Fund grant.

3.1.3 Information Technology

The IT Unit is responsible to ensure and maintain internet connectivity at central Ministry of Health and Social Welfare and to provide technical ICT support to staff at central and the county levels.

Major achievements of the Unit for the year under review include:

- Relocated and reactivated the VSAT equipment in February 2012 at the Central MOHSW
- Provided 'Unlimited Domain Space Package' to increase the MOHSW web content storage capacity and mailbox quota for email users
- Provided technical support for the implementation of the District Health Information (DHIS-2) server setup and configuration
- Setup complete Network Solution, Anti-Virus and firewall system, corporate intranet (internal information portal) and email (MS Exchange/Outlook) system to facilitate work within the MOHSW
- Made the MOHSW website functional by redesign
- Currently working on the development of Human Resource Information System (HRIS)

3.1.4 Infrastructure Development

The Infrastructure Unit is responsible for all health infrastructure related activities within the sector. Key functions of the Unit are; monitoring of constructions (e.g., clinics, health centers, hospitals, drug depots, incinerators, etc), design of health facilities standards, and infrastructure policy. Achievements in 2012 include:

- Constructed 8 bedroom duplexes two in each of the counties; Bomi, Grand Gedeh, Nimba, Margibi, and Montserrado
- Constructed the Belefanai and Yolo Town Health Centers in Bong County and the Pipeline Road Health Center in Montserrado County
- Constructed 4 dormitories and the Administrative building of the Zwedru Midwifery School in Grand Gedeh
- Constructed Ziah Town Clinic in Grand Gedeh and a multi-purpose building, water tower, generator house and a security booth
- Constructed Gbogessay Health Center in River Cess and Jarkaken Clinic in River Gee
- Constructed 100 bed room Hospital in River Gee
- Constructed the Anatomy Lab at A.M. Dogliotti Medical School as well as the Generator house

In addition to the completed health infrastructures, there are construction works that are ongoing and are expected to be completed in 2013 based on available resources. These ongoing projects are:

- Gaya Hill Clinic in Bomi, Rock Crusher Clinic in Bong, Gokala, Bellebaloma, and Palakwekkeh Clinics, along with two bedroom duplex and drug depot in Gbarpolu County;
- Senya, Edina and Baiconnie Clinics and two bedroom duplex in Grand Bassa County;
- Zwedru School of Midwifery in Grand Gedeh County, Gbogeezay and Rockcess Clinics in River Cess County, Putuken, Chebruken, Kayliken Clinics, 100 bed hospital and 2 housing units in River Gee County.

3.1.5 Internal Audit and Compliance Units

The Ministry has made frantic effort promoting transparency, accountability and anti-corruption, which are fundamentals for good governance. This is geared towards the prevention and reduction of the risks of corruption in light of the Government Decentralization process. Towards this endeavor, the Ministry established an Internal Audit Unit which includes the Office of Compliance.

The Internal Audit Unit periodically review the organization of financial management; assess the adherence to all financial management procedures and processes prescribed, its regulations and instructions issued by the Minister; evaluate the adequacy of management checks and balances, and controls in the financial management practices within the MOHSW.

During the year 2012, the Internal Audit Unit made the following achievements which include:

- Conducted pre-audits of the MOHSW various accounts (GOL Accounts, Pool Fund Accounts, Global Fund Accounts and Project Accounts) to ensure existence and accuracy of financial records
- Carried out physical verification of all material goods entering MOH&SW's warehouse
- Conducted financial audits of the below institutions and programs:
    a. Liberian Government Hospital (Grand Bassa County)
    b. St. Francis Hospital (River Cess County),
    c. F.J. Grant Hospital (Sinoe County)
    d. Martha Tubman Hospital and the Midwifery School (Grand Gedeh County)
    e. Fish Town Health Center (River Gee County)
    f. Rally Time Hospital (Grand Kru),
    g. J.J. Dozen Hospital (Maryland County)
    h. Liberian Government Hospital (Bomi County)
    i. St. Timothy Hospital (Grand Cape Mount County)
    j. Gbarpolu Health Center (Gbarpolu County)
    k. Nimba County Health Team
    l. Lofa County Health Team
    m. Bong County Health Team
    n. National Leprosy and Tuberculosis Control Program and
    o. National Aids/STI Control Program)

The Office of Compliance complements the efforts of the Internal Audit Unit by ensuring the implementation of recommendations and reports carried out by the Internal Audit. Coordinated external audits and ensured that recommendations emulating from these external audits are implemented. The Unit manages the audit engagement process with the GAC which includes pre-engagement meetings and ensures that documents requested by GAC are collated and submitted. Another core function of the Unit include: design, implement and maintain internal controls and conduct reviews in the counties to ensure administrative and financial compliance.

During the year 2012, the Office of Compliance made followed up on the following audits conducted by both internal and external auditors, to ensure that recommendations emanating from the audits are implemented. Follow ups were made on 2011 Pool Fund Audit; 2011 Global Fund Audit; 2011 UNFPA Audit; and audits from Grand Bassa County Health Team, Liberian Government Hospital (Buchanan), River Cess County Health Team, and St. Francis Hospital (River Cess).

3.1.6 Office of General Counsel

The Office of General Counsel (OGC) is the legal arm of the Ministry. It was established in 2008 by the authority of the Minister of Health & Social Welfare with a sector wide cooperation from the Ministry of Justice. The OGC has the mandate to provide legal services to the Ministry that include; the review of the Health and Social Welfare Laws, representation of the Ministry at all legal proceedings, act as the Ministry's liaison with the Ministry of Justice with respect to requests for legal opinions and advice on all judicial litigation involving the Ministry.

During the period under review, the OGC was engaged in activities pursuant to its mandate which include the following:

- Drafting of contracts for Works, Goods and Services and reviewed of several Memoranda of Understanding.
- Commenced legal proceedings against Morweh at the City Magisterial Court, of the Temple of Justice in Montserrado County for uncompleted constructions projects in River Cess and Maryland Counties.
- Commenced legal action in and obtained opened arrest warrants from the Monrovia City Court, Temple of Justice, Monrovia, against the management representative of VACONIC for criminally misrepresenting the level of completion of a construction project in Grand Kru County after receipt of 1st installment of advance payment.
- Commenced legal action in and obtained opened arrest warrant from the Monrovia City Court, Temple of Justice, Monrovia, against management representative of Wonders for receiving 1st installment on a contract for Works after which the works was never commenced.
- Commenced legal action against 33 commercial pharmacies for illegal possession and attempted sale of Malaria donated pharmaceutical supplies
- Completed the following draft legislation and submitted same to the MOJ for review: the Mental Health Law and the Reproductive Health Law.

Additionally, The OGC was host to some international Lawyers from the International Seniors Lawyers Project based in New York and Hogan and Lovells based in Washington DC USA respectively. These Institutions provided Junior and Senior Lawyers who volunteer and committed their time to serve in Liberia in support to the MOHSW through the OGC in its legal work. Due to the need for additional staff for the unit, two staff were recruited in 2012 to mitigate staff challenges.

3.1.7 Transportation Services

The Division of Transport is charged with the responsibility of ensuring that all MOH&SW vehicles and other mobile equipment are secured, maintained and/or repaired regularly to make them road worthy for program implementation.

During the period 2012, the Ministry vehicles increased by 26. The MOHSW procured 12 new vehicles with funds from the National Budget and 14 were donated by donors and partners (UNICEF, Merlin, Liverpool School of Tropical Medicine, UNHCR, UNOPS, UNDP, WB and SC-UK).

These vehicles were assigned to both the county health teams and programs at the Central Ministry. Currently there are approximately 208 functional vehicles and 308 motorcycles being used by the Ministry of Health and Social Welfare at all levels of health care delivery.

3.2 Bureau of Fiscal Affairs

The Bureau of Fiscal Affairs consists of the Office of Financial Management. It has the responsibility of managing National Government Budget, grants and project funds.

3.2.1 Office of Financial Management

The Office of Financial Management (OFM) has the responsibility for the internal financial administration and accountability of the MoHSW which includes, developing financial policy, human resource policy, accounting, and internet technology systems. During the year under review, the bureau achieved the following in consonance with it mandate to provide sound financial management system.

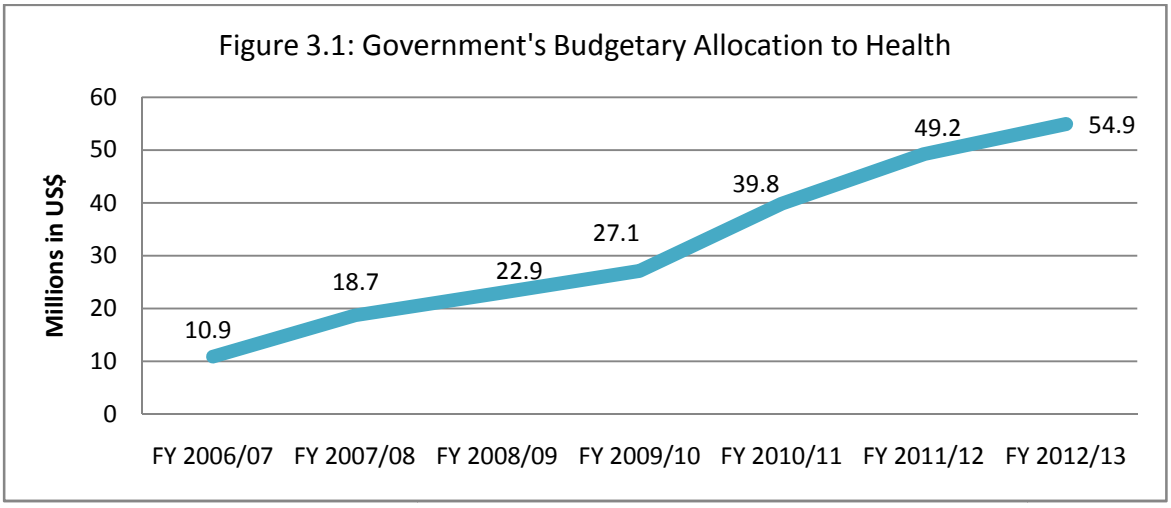
- Prepared and submitted monthly, quarterly and yearly financial statements and donor specific reports for distribution to senior management, government and donors.
- Prepared monthly bank reconciliation statements for all MOHSW accounts.
- Conducted soft skills training for MOHSW Senior management to address some of the gaps in Leadership and Governance and enhance management capacity in dealing with daily management activities.
- Conducted regular monitoring and supervisory visits to the CHTs and Health institutions to assist accounting personnel in an effort to continuously improve the MOHSW's decentralized financial management system.
- Rolled out the Integrated Financial Management information system (IFMIS) from Ministry of Finance as part of the Public Financial Management Reforms.

- Revised and updated the Financial Management Procedures Manual of 2010 to respond to changes in government financial management systems and address other developments such as the introduction of IFMIS, new Chart of Accounts (COA), cash basis accounting and to synchronize MOHSW Financial Management systems with the government.
- Drafted the fixed assets policies and procedures as an annex to section 10 of the Financial Management Policies & Procedures Manual and developed a new coding scheme to effectively track MOHSW fixed assets at central level and the counties.

Financing the health sector is a critical input that requires GOL's and donors' full commitments. To maximize the resources available from all sources, a financing policy was formulated that establishes a mixed approach to mobilizing resources that includes a sustainable level of government financing, more efficient use of donor support and potential alternative financing mechanisms. However, the implementation of this policy has just started. The Government of Liberia is committed to doing its part by progressively increasing the share of the national budget that goes to the health and social welfare sector as evidence in the allocation to health over the past six years.

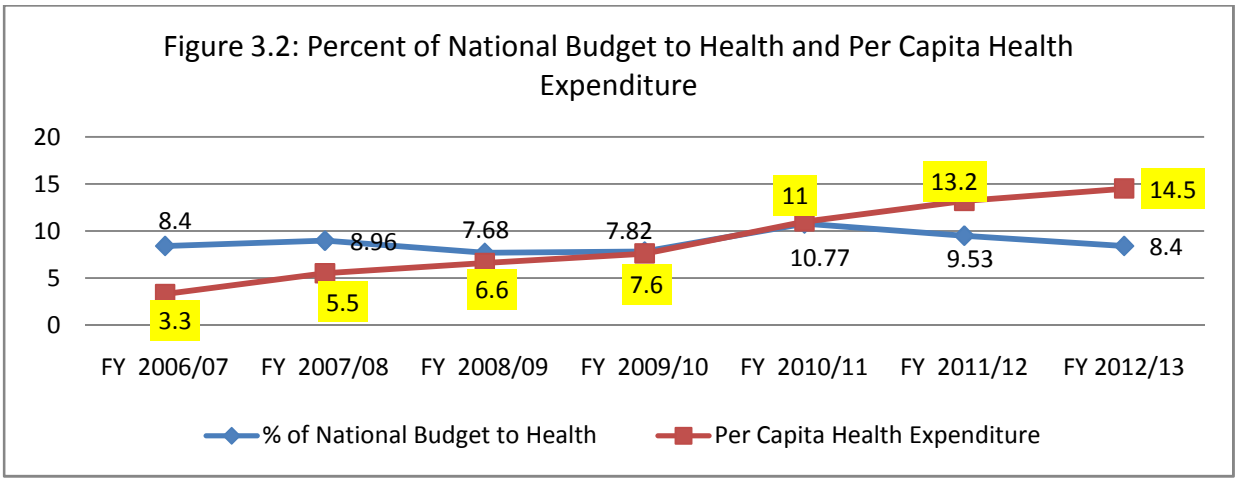
National government budgetary allocations to the health sector continue to show a gradual increased over the past seven fiscal years (2006-2013). The health sector budget has increased from 10.9 million in fiscal year 2006/2007 to 54.9 million in fiscal 2012/2013. Although the Ministry's budget has increased by approximately US$ 44 million from over the past six fiscal years, this increment has not fulfilled the government's commitment to the Abuja Declaration of 15% of National Budgetary allocation to the health sector. However, these increments in budgetary allocations reflect the government's commitment to improve the health status of the population and move towards the fulfilment of commitments made regionally to provide 15% of national budget to health by the Abuja declaration made by African governments in 2000. Figure 3.1 displays government's budgetary appropriation to health. Annex XX provides summary allocations to the different segments of the health sector.

Figure 3.1: Government's Budgetary Allocation to Health

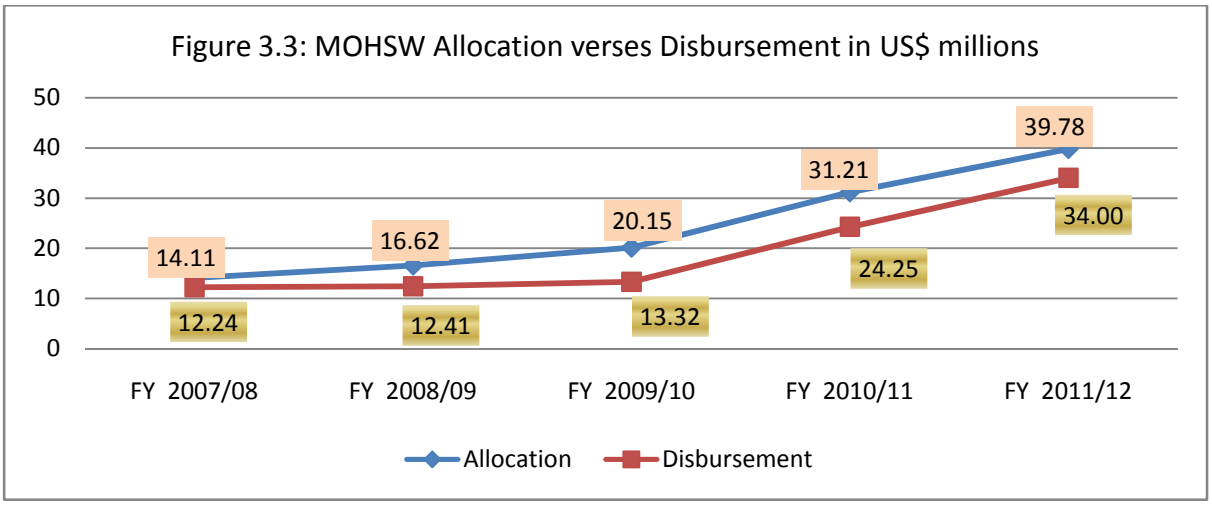


The per capita health expenditure is encouraging, although Liberia is still far from achieving the required target that will influence the attainment of the MDGs 4, 5 and 6. In 2006, the per capita health expenditure was US$ 3.30 person compare to US$ 14.50 per person in 2012, excluding donors' funds. Investments by the government and her partners have contributed to the improvement of the health sector indicators,

especially MDGs 4, 5 and 6. Figure 3.2 presents government's allocation as a percent of the total national budget and the per capita health expenditure in relation to the government's appropriations.



Over the years, there have been gradual increased in government's allocation to the Ministry of Health and Social Welfare. However, what have been appropriated during the five years period has never been received by the Ministry. For example, in fiscal 2009/10 the amount of US$ 20.15 million was allocated for the Ministry by only US$ 13.32 million was disbursed by the Ministry of finance. The disparities between government allocation actual disbursements is partly attributed to the delay in the approval and disbursement of the National Budget and the bureaucracy associated with the processing of payments and release of quarterly allotments. Figure 3.3 presents MOHSW's allocation verses actual disbursements.



The Ministry received funds from various sources that include, Global Fund, UN agencies, Global Alliance Vaccines and Immunization (GAVI), USAID, West African Health Organization, the European Union, Foundations, Bilateral and Multilateral Institutions among others. The actual amount of monies received from various funding sources against expenditures is shown below in Table 3.2. Table 3.1 shows less revenue than expenditures in FY 2010/11 and 2011/12. However, this is due balances carried forward that are not reflected in the income component of the table.

Table 3.1: MOHSW Funding Sources and Expenditures						
Category	**FY 2007/08**	**FY 2008/09**	**FY 2009/10**	**FY 2010/11**	**FY 2011/12**	**Total**
Government	12.24	12.41	13.32	24.25	34.00	96.22
Pool Fund	3.98	6.84	9.65	4.09	10.45	35.01
Global Fund	1.73	4.12	8.36	13.58	12.49	40.28
NGOs	0.17	0.92	0.44	0	0	1.53
Project Funds	5.64	7.32	9.95	10.79	8.65	42.35
Total Received	**23.74**	**31.60**	**41.71**	**52.70**	**65.61**	**215.39**
Expenditures						
Personnel	4.56	6.13	8.55	15.49	24.66	59.39
Goods and Services	7.92	9.14	12.91	21.54	22.27	73.78
Capital Equipment	1.66	2.55	1.71	8.39	5.41	19.72
Transfer and Subsidies	4.11	9.34	7.02	11.63	16.99	49.09
Total Expenditures	**18.24**	**27.16**	**30.19**	**57.04**	**69.34**	**201.98**

Note: Balances which have been carried forward are not presented in the illustration.

CHAPTER 4: Department of Social Welfare

4.0 Introduction

The Department of Social Welfare has the mandate to provide targeted social services to Liberia's vulnerable population. In order to fulfill this mission, the Ministry developed the Essential Package of Social Services (EPPS) which sets the foundation for the delivery of comprehensive social services to orphans, disabled population, children in conflict or contact with the law, and persons in difficult circumstances (ie: disaster victims, etc). The EPSS contains four programmatic areas: Family Welfare and Juvenile Services, Rehabilitation Services, Community Welfare (Division of the Elderly and Psychosocial Program) and the Institutional and Organizational Development which has been proposed and yet to be established.

4.1 Family Welfare Division

The Division of Family Welfare is responsible for all welfare institutions in Liberia. The division regularly monitors these institutions to ensure that they are providing social services to orphans or vulnerable children meet the minimum standards required by the Ministry of Health and Social Welfare. Moreover, it also provides support to dysfunctional families that need parenting skills and other support necessary to keep children in families. The achievements of the division during the period were:

- Reunified 133 children in Bong, Margibi, Nimba, Bomi and Montserrado counties.
- Conducted an intensive one day in-service training on foster care for 20 staff of the family Welfare Division.
- Conducted two days home management workshop for 25 parents and relatives of reunified children in Montserrado County.
- Created awareness on Foster Care in Grand Bassa, Bomi, and Grand Cape Mount Counties
- Provided 33 single mothers and mothers with multiple births with assorted items and financial assistance. This was achieved in collaboration with Family Rescue Inc.
- Distributed Regulations and Tools on Accreditation of orphanages in Margibi County to ensure compliance by those welfare institutions.

4.1.1 Deinstitutionalization Project

The De-institutionalization project funded by the Government of Liberia and UNICEF is within the Division of Family Welfare. The core objective of the project is to reunite abandon, destitute, and orphan children with either their biological parents of relatives. Accomplishments during the period include:

- 4,274 children profiled within orphanage homes across Liberia
- Documented 2,197 children (boys 1195, girls 1002) in six counties; Gbarpolu, Bomi, Grand Cape Mount, Nimba, Bong and Montserrado. The documentation process involved the children, their caregivers in institutions, and community members.

- Reunified 637 (boys 364, girls 273) children with their parents or family members. These children are currently being supported by the Department of Social Welfare and are adjusting to family and community life. Social workers are assigned to these reunified children and are to ensure that they are reintegrated and supported by their parents or relatives.
- Designed and rolled out a robust child placement programs
- Conducted one day Orientation workshop on foster care (remedy to help take children out of welfare institutions and put them into families' homes) for 35 stakeholders (line ministries, INGOs, and NGO partners). The intent of the workshop was to introduce the formation of a formal foster care system for children as an option. The process of setting the system is ongoing with the commitment of UNICEF to provide consultant to the program.
- Advocated for the legislation of the New Adoption Law so that the moratorium on child adoption can be lifted.
- Conducted an awareness meeting with members of the Parliament on institutionalizing of children and adoption.
- Provided training intervention for caregivers on how to implement the norms and accreditation standards.

In 2012, 88 orphanages were identified and supported by the Ministry through various means. The number of orphans in these homes was 3,451 with boys in majority. Table 4.1 presents the distribution of orphanages and orphans by county.

Table 4.1: Distribution of Orphans by County and Gender

No.	County	# of orphanages	Boys	Girls	Total
1.	Montserrado	44	1,010	812	1,822
2.	Bassa	10	114	113	257
3.	Margibi	8	186	214	400
4.	Nimba	8	133	170	303
5.	Bong	9	223	186	409
6.	Bomi	4	108	74	182
7.	Grand Cape Mount	1	13	10	23
8.	Gbarpolu	1	9	6	15
9.	River Cess	1	16	24	40
Total		**88**	**1,918**	**1,719**	**3,451**

The declined of children in institutions is partly due to the vigorous awareness on family and community based care, monitoring and supervision visits by social workers and senior staff of the department, and the deinstitutionalization program of the Ministry.

4.2 Juvenile Services

This unit is responsible to provide services to children who come in conflict and contact with the law. The goal of the Juvenile Division is to reduce the number of children who come in conflict and contact with the

law and build the capacity service providers. The following activities were conducted during the period under review.

- Trained 32 police officers (2-staff each from the juvenile court, 6-staff from Safe Homes) and 14 social workers from Montserrado in child justice system. The intent of the training was to strengthen the collaboration between the police officers (WACPS) and social workers and improved the capacity within Justice System in handling Juvenile cases.
- Assigned 15 Social Workers at 18 police depots, the central police station, Juvenile court and Safe Homes to monitor the detention process of Juvenile in contact and/or conflict with the law in Montserrado.
- Fifty nine (59) Juveniles in conflict and/ or contact with the law at 20 police depots, 2 Safe Homes and 1 Juvenile Court were traced and reunified with their parents and families from. Counseling services were provided by both the social workers to children.
- The Ministry assessed the Dolokeh Center in Maryland because of the lack of Juvenile rehabilitation programs for juvenile that are eligible for diversion programs. The assessment revealed that the Dolokeh's infrastructure needs to be renovated and professional staff needs to be employed, and beds along with furniture be provided to the center.
- An assessment was conducted in 5 counties (Bong, Nimba, Grand Gedeh, Maryland, and Grand Bassa) to identify the availability of service providers for juveniles in conflict and contact with the law. Results from the assessment showed that services for juveniles in these five counties remains due to insufficient trained case managers and social workers to monitor the detention process of Juveniles.
- Provided technical support to the Ministry of Justice to establish a Diversion Program for juveniles that come in conflict and contact with the law from entering the child justice system. The Diversion Program now exists at the following locations: New Kru Town Magisterial Court, Paynesville Magisterial Court, and the Juvenile Court. Plans are underway to extend the diversion activities to across Liberia.

4.3 Community Services Division

The Community Welfare Services Division provides ageing and psychosocial services. During the year 2012, the division tracked, documented and reintegrated 24 discharged fistula victims and collaborated with the Ministry of Education to train 20 teachers and 10 members of the disabled community in Margibi County. This training helped the participants developed capacity to train individuals with special needs.

4.3.1 Aging Services

The Aging Unit was just established with the goal to improve social assistance to individuals 65 years and over. In 2012, an assessment of the elderly was carried out in six counties (Gbarpolu, Bomi, Maryland, Sinoe, River Cess and Grand Cape Mount) to formulate programs that will address their needs. The assessment findings shows that there is no old folks programs in Gbarpolu, River Gee, Maryland, River Cess, Grand Kru, and Grand Cape Mount Counties. The Unit closed down 2 substandard institutions providing services to the elderly in Montserrado County and provided three days awareness exercises on the division's mandate. The Unit provided used cloths to the elderly at three centers (Old Folks Refuge

Home, Nelson Street and Faith Old Folks Home in Lower Margibi in Smell-no-Taste), reunited one homeless elderly with this family and placed eight into old folk homes. Below is a summary of activities implemented by the Unit:

- Conducted monitoring, supervision & evaluation in Grand Gedeh, River Gee and Nimba Counties at various welfare facilities. The objective of these activities was to verify whether these institutions were providing the appropriate services, and using government subsidies according to plan.

- Held a workshop for welfare institution (old folk home) directors/proprietors and heads. The purpose of the workshop was to fully implement the minimum standards for old folks in residential care and community based services.

4.4 Division of Rehabilitation

This Division provides rehabilitation and disability services to vulnerable population. It is also responsible to coordinate and monitor the activities of all organizations and welfare institutions providing disability and rehabilitation services. The implemented the following during the period:

- In collaboration with MRC (Monrovia Rehabilitation Center) funded by Handicap International the Division distributed 26 wheel chairs among persons with disabilities in Bong County.
- Provided subsidies to 25 welfare institutions that provide services to persons with disabilities
- Conducted 3 substance abuse workshops in Grand Bassa, Sinoe and Gbarpolu Counties
- Conducted several ghettoes outreaches in Montserrado County in collaboration with Teen Challenge
- Assigned 3 social workers to prisons and detention centers in Montserrado to provide psychosocial counseling and case management for vulnerable prisoners.

- Conducted monthly supervision of welfare institutions that are providing services to persons with disabilities
- Conducted Needs Assessment of Welfare Institutions in Lofa County (Salayea, Zorzor, Voinjama, Kolahun, and Foyah).

4.5 Essential Support and Training Unit

The Division of Organizational and Institutional Development (OID) is yet to be established. However, the training unit of the OID carried out the following activities.

- Conducted three days psychosocial workshop for 30 Social Workers and Nurses assigned in hospitals and clinics in Montserrado County. This training objective was to provide nurses basic skills and knowledge in psychosocial services.
- Conducted training impact assessment in three counties; Nimba, Margibi and Grand Bassa respectively. The purpose of the assessment was to evaluate caregivers and cooks who were trained in child care practices and protections. During the assessment the followings were observed to have improved: Personal Hygiene, Communication skills, Adoption and Human Rights issues, Food and clothing, Sleeping places, and Learning conditions.

CHAPTER 5: Department of Planning

5.0 Introduction

The Department of Planning, Research, Human Development and Statistics is responsible for macro-level planning, policy development, monitoring and evaluation, research, health information system and the dissemination of health statistics. The department consists of two Bureaus: Planning and Statistics.

5.1 Bureau of Planning

The Bureau of Planning is headed by an assistant minister who supervises three directors and focal persons. Major accomplishments include overseeing the county planning process in 15 counties and the successful conduct of the national health conference. As part of its core functions, the bureau provide oversights in the following areas; policy and planning, aid coordination and health financing, and human resources development. Activities and achievements of the various Units are presented below:

5.1.1 Human Resource Division

The Human Resource (HR) Division within the Ministry of Health & Social Welfare (MOHSW) has a mandate to develop and implement various HRH components to meet the demands of the Ministry's 10 years National Health & Social Welfare Policy and Plan (2011-2021). To carry out this mandate, the Division collaborates with other departments, all of the County Health and Social Welfare Teams, development partners (ie: UN Agencies, USAID, etc), Universities and health training institutions to address the human resources needs of the sector at all levels of health service delivery.

This mandate is guided by the Human Resources for Health Policy and Plan with four (4) main pillars as follows:

1. Increase number of equitably distributed qualified and high performing workforce at all levels;
2. Increase number of high performing facilities and institutions which promote continuous learning;
3. Strengthen gender- sensitive, service-oriented and people-centered workforces;
4. Increase number of safe and conducive working and learning environments equipped with tools of the trade.

In 2012, the Division completed the HRH scholarship Guidelines, compiled and documented a comprehensive inventory of all GOL positions for which salaries or other compensations are fully or partially paid by donors, developed a list of GOL prioritized positions funded by development partners and projected salaries/compensations for these positions for the next three (3) years, procured and assigned 15 laptops to 15 Human Resources Managers within the 15 counties and completed a motivation and compensation survey of doctors, nurses, certified midwives and patients in Lofa, Bong, Nimba and Grand Bassa Counties.

Noticeable accomplishments of the Division are:

- Provided scholarships and subsidies to 439 students at the following institutions: 1). Cuttington University 2). Mother Patern College of Health Sciences 3). United Methodist University 5). Smythe Institute 6). Phebe School of Nursing, 7). Esther Bacon and 8). South Eastern Midwifery School
- Certified 42 candidates for health related international scholarships expected to be funded by USAID grant through World Learning.
- Provided an international scholarship to a Liberian physician to study Orthopedic Surgery in Kenya.

5.1.2 Decentralization Support Unit

The Decentralization Support Unit (DSU) serves as the focal advisory body of the MoHSW on decentralization support and implementation matters, including the further development and implementation of the decentralization strategic and implementation plans. It represents the institutional and operational arm of the MoHSW on decentralization; oversees and participates in the organization, capacity development, supervision and monitoring and evaluation of the transfer of competencies to the County Health & Social Welfare Teams.

The DSU validated and finalized the health sector Decentralization Policy and Plan and carried out a functional restructuring analysis of the MoHSW. The function review process methodology had three major components which included:

1. Assessment of functions performed at the central and county Health and Social Welfare Ministry;
2. Identification of functions to be kept, introduced, strengthened or abolished at central / county level and delegated from central to county level;
3. Formulation of options and next steps for restructuring the Ministry in a gradual approach;

Functional reviews are concerned with the re-evaluation of the functions of governments. Accordingly, the ultimate goal of a functional review is the establishment of a functional, efficient bureaucracy through clear determination of the mandatory roles for the government. It seeks to clearly determine the functions that the government should and will carry out, with the view of gradually divesting activities in areas in which non-state actors have acquired service delivery capacity or can be encouraged and enabled to provide the needed services.

5.1.3 Division of Policy & Health Financing

The Division is responsible to provide technical guidance during the formulation of subsector policies and plans and to coordinate health financing activities. During the year, the Division worked with external consultants and partners to produced the 2nd National Health Accounts Institutional health spending for 2009/2010 report, conducted the marginal budgeting for bottlenecks (MBB) workshop in Grand Bassa, assessed the private health sector readiness to scale-up health insurance scheme, developed User Fees guidelines for public hospitals, assessed the viability of alternative financing for health, and developed a road map Community Based Health Insurance & Social Health Insurance schemes acceleration.

The second round of the Liberia's NHA estimated expenditures for fiscal year 2009/2009. The survey captured institutional health spending excluding households. Household expenditures will be added upon completion of the next Demographic and Health Survey. Synopsis of findings from the 2nd NHA includes:

1. Total GOL health expenditure – US $18,856,0291
2. Total institutional health expenditure(TIHE) - $126,640,438
3. Total Institutional Health Expenditure (TIHE) per capita – US $32.35
4. Funding source as % of TIHE (pubic 15%; private 3%; donor 82%)

In collaboration with UNICEF, the Ministry completed its second Marginal Budgeting for Bottlenecks (MBB) exercise for Maryland County. The marginal budgeting for bottlenecks performs the functions as below:

1. It identifies the constraints of the health system at all levels;
2. It estimates additional resources for removing bottlenecks necessary to achieve expected results; and
3. Manages spaces for dialogue, negotiation and advocacy.

The Maryland County MBB Analysis focused on ITN coverage and utilization. The analysis shows availability of ITNs (100 percent), limited access, and utilization of ITNs. The key bottleneck identified was low utilization coverage of households having one or more bed nets (any type). The attributed causes were discomfort of ITNs, and the lack of educative usage/awareness of nets. The strategies recommended to increased coverage and utilization are; to conduct corporate advocacy, use prominent person in the community to promote ITNs, intensify health education at the community level and involve all community structures or leaders during community awareness programs.

5.1.4 External Aid Coordination Unit

The National Health and Social Welfare Policy and Plan articulated the Ministry's commitment to strengthen coordination mechanisms between the Government, donors, Non-For Profit, and Private For Profit organizations, including the Health Sector Coordinating Committee (HSCC), the Health Coordinating Committee and various technical committees. According to the National Health Policy document, strengthening coordination will be achieved by systematizing collaboration in common planning exercises and resource allocation (by level, by county). Some of the achievements in this area include:

The HSCC continues to serve as the main coordination body and membership has been expanded to include other stakeholders, such as JICA. The terms of reference (ToR) for the HSCC has been revised and updated.

a) The MOHSW participated in the Medium-Term Expenditure Framework process led by the MOF, which will become the main fiscal planning tool for government in the coming years.
b) A Program Management Unit (PMU), led by a Principal Director, has been established in the MOHSW, but the various donor-funded project units remain to be integrated under the oversight of the PMU
c) The Unit chaired the implementation of the 5th Annual National Health and Social Welfare Review Conference on the implementation of the National Health Plan in October this year.
d) A common Annual Operational Plan was produced and will be revised annually, but integrating all sources of funding remains a challenge.

e) The MOHSW, with direct support from donor funding, has been using performance-based contracts with NGOs and FBOs. This has resulted, in most counties, in a coordinated donor approach to assisting health facilities, capacity building of CHSWTs, and geographic coordination of assistance by county has increased over the years.
f) As the number of donors funding through the pool fund has increased, the number of different donors funding through parallel mechanisms has decreased. Improvements in coordinating support were made both in terms of defragmentation of donor funding as well as by a reduced number of NGOs funded per county, resulting in less effort required by the CHSWTs to manage and coordinate partners.
g) The Health Sector Pool Fund is currently supporting activities in Maryland, Grand Gedeh, River Cess, Gbarpolu, River Gee, Bomi, Nimba (G.W. Harley Hospital), Montserrado, and Grand Bassa. But this support to NGOs for implementation is set to change beginning next year as the MOHSW looks set to support the CHTs for the delivery of the EPHS.
h) Grand Cape Mount County will still be supported by USAID going into next year and the European Union is directly supporting implementing partners through its European Development Fund in Grand Kru, Sinoe, Margibi, and part of Bong at the present time. USAID supports part of Bong, Lofa, and Nimba counties through a reimbursement agreement with the MOHSW.
i) In September 2011, USAID and the GOL signed a Fixed Amount Reimbursement Agreement (FARA) for up to $42 million in financial support for implementation of NHSW Plan between September 2011 and June 2015.
j) In the agreement, USAID will reimburse the MOHSW for the cost of implementing specific activities, namely performance-based contracting of NGOs for health service delivery as well as certain health system strengthening activities. The FARA replaces the previous arrangement whereby USAID funds for service delivery were provided through a cooperative agreement with a U.S.-based company. This change in approach reflects the USAID commitment to strengthen partner country capacity to improve aid effectiveness and sustainability by increasing use of reliable partner country systems and institutions to provide support.

The NHSW Policy and Plan emphasize that faith-based and non-governmental organizations (NGOs) and private health and social welfare services will continue to be major contributors to the health and social welfare delivery system. In the initial three to five years of the ten-year plan, performance-based contract (PBCs) will primarily be used between the Government and NGOs to support continuity of service provision at Government-owned facilities.

On an increasing basis, PBCs will be used between the central MOHSW and CHSWTs. The intent is to gradually reduce the role of NGOs and increase the role of CHSWTs in managing government facilities. CHSWTs may in turn contract directly with government health facilities for service delivery as well as with privately owned facilities (primarily non-governmental and faith- based). In all instances where contracts are used, emphasis will be placed on establishing distinct catchment populations in a given health system to ensure appropriate allocation of resources and measureable performance.

While the MOHSW's intent is to rely more on national systems, the roles of NGOs will increasingly be to enhance specific capacity-building efforts of the county and district health and social welfare teams.

To date, only Bomi County has been contracted-in by the MOHSW with funds from the Health Sector Pool

Fund, while steps are being taken to prepare Bong County to become "the next Bomi" and receive a direct funding contract with the MOHSW. Bomi County in turn contracted an NGO, Africa Humanitarian Action (AHA), to support service delivery at selected health facilities as a strategy to augment the capacity of the county health system.

In 2011-2012, an assessment was conducted to review the two-year PBC between the Bomi County health and social welfare team and the Ministry of Health and Social Welfare to identify areas that needed strengthening, and to present lessons learned and suggestions for scaling up the model elsewhere in Liberia. The assessment found that the Bomi CHSWT has shown great leadership and management in running their county's health services with strong ties to local government structures and good efforts to keep the central MOHSW involved in their work when needed.

The Bomi experience offers invaluable insight into what it takes to effectively apply a PBC tool between levels of the health system. It also offers best practices in using the PBC model for de-concentrated health services and illuminates the need for clear policy reforms on a national level to create an environment conducive for model scale up.

5.2 Bureau of Vital Statistics

The Bureau of Vital Statistics is headed by an Assistant Minister with three directors (Research, HIMS, and M&E), a Principal Registrar, and two coordinators (Birth Registration, and HMIS, M&E and Research). The bureau has the mandate to produce birth and death certificates, collect, compile and disseminate health information (data), supervise health research, and monitor health programs in the country.

5.2.1 Monitoring and Evaluation

One of the key functions of the Central Ministry of Health and Social Welfare is monitoring and evaluation. As decentralization takes central stage coupled with multiple actors in the health sector, M&E cannot be overemphasized. Monitoring and evaluation is needed for health interventions, programs and policies effectiveness, efficiency and accountability, and compliance to guidelines and protocols in service delivery.

The ten year National Health Policy and Plan and the M&E Policy and Strategy provide the framework for monitoring health and social welfare interventions. This framework provides the basis for Monitoring and Evaluation activities implemented by the unit during the year under review-2012. Achievements and activities implemented among others include strengthening M&E capacities, data quality checks and improvement interventions, routine monitoring, and provision of technical M&E support to various units and programs.

In line with the M&E capacity building plan, series of interventions were undertaken. All county M&E officers were trained to conduct data verification and harmonization. Support was provided to counties under the USAID's FARA project conduct data harmonization in all facilities.

Two M&E staffs attended an international M&E training course organized by Measure Evaluation in collaboration with the Addis Continental Institute of Public Health in Addis Ababa, Ethiopia. These two participants were sponsored by RBHS and Measure Evaluation.

M&E officers from the 15 counties of Liberia were trained in data management using the District Health Information Software (DHIS-2). The DHIS-2 Academy was organized in Liberia by the West Africa Health Organization (WAHO) and University of Oslo. The training for the county M&E Officers was supported with funding from GAVI Health System Strengthening Project and WHO.

The M&E Unit carried out integrated monitoring of health programs and project on a quarterly basis during the year. Data verification and selected projects implementation were assessed for Pool Fund implementing partners, county Health Teams and selected facilities. Findings from these verifications showed the need for rigorous follow ups of NGOs implementing health programs and Counties activities, and continue capacity building for the County Health Teams to strengthen oversight and improve performance on key health indicators as the counties take on more responsibility.

The Unit also provided support to national programs and the Global Fund Program Coordination Units. They worked closely with the programs to elaborate their program specific M&E Plans and work on M&E sections of Progress Update and Disbursement Request (PUDR) quarterly to meet Global Fund Reporting Requirements for the three programs (NACP, NLTCP and NMCP). The unit did assessments and verifications of implementation of GF programs with sub-recipients or implementing partners working in communities and health facilities providing services supported by Global Fund. The assessment was done for NGOs that apply to become the implementers for the TB programs. The assessment was done to ascertain NGOs capacities.

One of the key priorities for the M&E Unit for the year ended based on assessment done in 2011 was to work towards data quality improvement along with key stakeholders including HMIS. The key interventions implemented were the training of county M&E Staff and clinical supervisors in data validation skills and the implementation of data validation by county health team staff and central MOHSW staff. The M&E Unit, working along with stakeholders successfully integrated the data validation and harmonization to ensure effectiveness in the exercises and improve data quality while at the same time to achieve PBF validation for key indicators.

The Performance based Financing scheme and Fixed Amount Reimbursement Agreement provided a golden opportunity to support data quality improvement. The M&E unit worked with the HMIS and PBF Units to implement the quarterly Data Verification at the county and health facility levels. A positive effect of the exercise is that health workers and support staff at the various facilities are beginning to paying more attention to the records and are taking steps to improve reports accuracy and completeness. The data verification exercise was adapted to none PBF counties. This has contributed to the improvement of data quality across the health sector.

5.2.2 Research Unit

In its second year of functioning, the Research Unit worked with units and divisions within the MOHSW (NTDs, NLTCP, etc) and international partners (WAHO, COHRED, etc) in carrying out capacity building initiatives, and assist in the conduct of surveys. The major activities of the Unit include capacity building, and the coordination of health research.

The Unit in collaboration with WAHO and COHRED organized and conducted a workshop on Health Research Ethics in July 2012, and conducted a training workshop on Operational Research from December 10-14, 2012

In relation to the coordination and collaboration of studies the Unit collaborated with the World Bank to conduct a study on Compensation and Motivation of Health Workers in Five (5) Counties, Knowledge, Attitude, And Practice (KAP) survey on Onchocerciasis, Soil Transmitted Helminthes (STH), Schistosomiasis and Lymphatic Filariasis (LF) for the Neglected Tropical Diseases (NTDs) Unit, and with WAHO, organized and conducted a study on situational analysis of quality health care norms and standards in nine facilities from July to September 2012.

Consultative Expert Working Group (CEWG) on Research and Development: Coordination and Financing meeting was held on August 16, 2012 at the conference room of the National AIDS and STIs Control Program on the JFK Medical Center compound. The purpose of this meeting was the review of the CEWG report on research and development: coordination and financing of research for health in Liberia.

5.2.3 Health Management Information System

Health Management Information System (HMIS) is responsible for the provision of data for decision making and interventions. The National Health Policy avowed that HMIS will be strengthened in order to better collect, organize and maintain relevant data in a timely fashion. The system will have the capacity to produce reports related to health sector development, including the analysis of trends, in order to understand the progression of the health sector over time. With the introduction of the District Health Information Software Version 2 (DHIS) and the standardization of reporting instruments, the coverage of routine health facility reporting has increased and data quality is gradually improving.

During the period, the HMIS Unit in its drive to improve data quality conducted both a national and international DHIS Academy (Training Workshop) in Monrovia. The District Health Information System (DHIS 2) Academy is the educational branch of the DHIS2 project. It is an international forum that is conducted annually by the developer of the DHIS in selected countries. The first and second West African Workshops were held in Accra, Ghana (Anglophone Countries) and Lome, Togo (Francophone Countries). DHIS2 is a global software project aimed at improving access to accurate health information in developing countries. DHIS 2 is developed by a network of software developers, health professionals, information officers, research fellows and students.

The major accomplishments of the Unit are; the hosting of the DHIS international workshop the brought together 15 country representative from the ECOWAS Region, the training of 48 data managers and users at national and county levels including NGOs partners in DHIS 2, developing of community based health services reporting tools in collaboration with the Community Health Services Unit and conducting of the

PRISM assessment to determine the current capacity of data managers and producers at all levels of data generation, in order to plan for capacity strengthening in HMIS.

5.2.4 Births and Deaths Registration

5.2.4.1 Births Registration

Birth registration is fundamental to ensuring a child's legal status, their basic rights and services (UNICEF, 2006; United Nations General Assembly, 2002). Field assessments conducted by the Ministry of Health and Social Welfare in 2008 indicated that there was no functioning and proper birth registration system in Liberia, and results from the 2007 Liberia Demographic and Health Survey (LDHS) show that only 4 percent of Liberian children under age five had birth certificates.

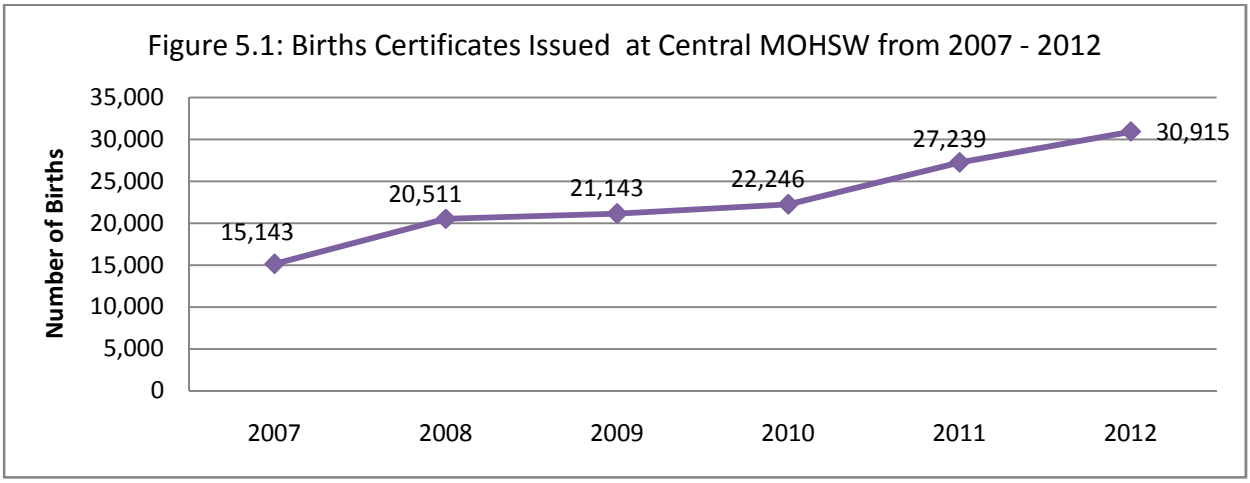
The Bureau of Vital Statistics has the responsibility to produce and issue birth certificates to persons born in Liberia regardless of economic and social status. The low registration is a result of the over two decades of highly centralized birth registration system, and limited resources (Human, logistics, and financial) for birth registration.

To ensure that Liberia reach universal birth registration coverage in education, information and services, several measures have been instituted to include, decentralization of birth registration, routine registration of children, regular birth registration campaigns, collaboration with other institutions, and awareness creation.

During the year 2012, the Ministry conducted a birth registration campaign and registered and certificated 6,669 children in the following locations: Bomi (1,275), Margibi (4,669) and at the S.K.D Sport Stadium (725) during the Children's Day Program.

Births certificates production trend at central MOHSW continues to show a significant increase. From 2007 to 2012, the registration of births at central MOHSW doubled. Although there has been a major increase in registration over the past 6 years, Liberia's progress is diminutive compared to the proportion of registered persons in the Country. A total of 137,197 certificates have been produced from 2007 to 2012. Figure 5.1 presents birth certificates issued from 2007 to 2012.

Figure 5.1: Births Certificates Issued at Central MOHSW from 2007 - 2012

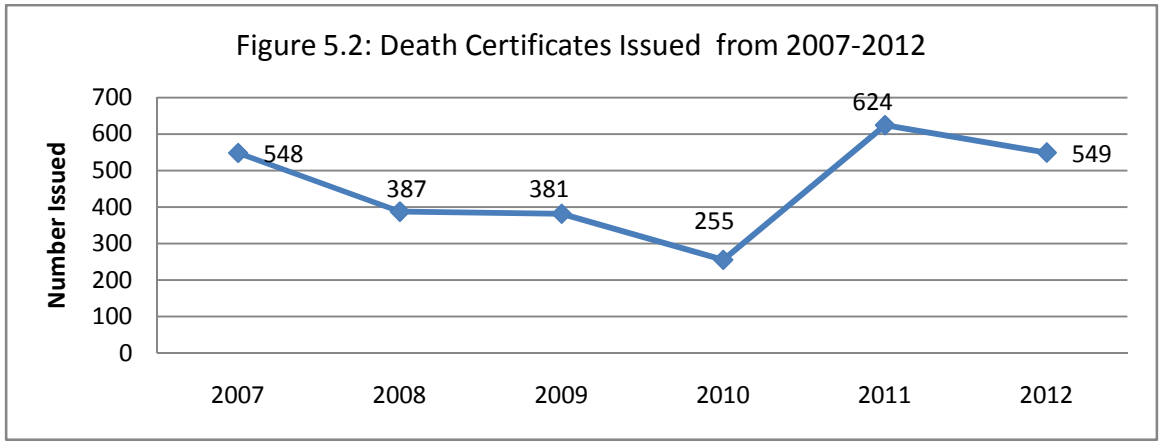


The decentralization of birth registration started in 2010 with three counties; Bomi, Gbarpolu and Grand Gedeh. In 2011, the number of counties providing birth registration services for children under 13 years increased to six counties. These counties are; Bomi, Bong, Gbarpolu, Grand Bassa, Grand Gedeh and Margibi. The Ministry made remarkable progress in 2012 by establishing birth registration centers in all of the 15 counties of Liberia and these centers are registering children less than 13 years. Over the two years, approximately 90,000 children have been registered through the decentralized system across the counties. In 2012, 48,980 children under 13 years were registered in all counties through the decentralized birth registration process.

5.2.4.2 Death Registrations

The Liberian Public Health Law of 1976 mandates the MOHSW to register all deaths within 24 hours after their occurrence. This regulation has not been implemented to its fullest by the Ministry due to limited access to death registration services and information on the importance and need for death certificates. As a result of inadequate access, the coverage of registration has always been low. Apart from the mentioned plausible reasons for low registration of deaths, traditional and religious practices contribute to low registration in Liberia. Death certificates are usually processed in Liberia with the intent to obtain insurance benefits, to settle inheritance issues and not as a requirement for burial and documentation of cause of death.

The registration of deaths continues to fluctuate over the years, since 2007 with 2011 presenting the highest number of registration. In 2007, 548 deaths were registered compared to 624 in 2011 and 549 in 2012. Figure 5.2 presents death certificates issued from 2007 to 2012 by the Ministry of Health and Social Welfare.



CHAPTER 6: Challenges and Recommendations

6.1 Challenges

In order to achieve the National Health Policy goal and objectives, the Millennium Development Goals (MDGs 4, 5 and 6) and the Roll Back Malaria Targets, the Ministry has mammoth challenges to surmount. The health sector challenges are summary below in the context of the health system building blocks.

HS Building Blocks	Key health systems challenges
Health services	• Approximately one-third of the nation's population have to walk 5KM to reach the nearest health facility because of insufficient service delivery points, limited public transport facility and bad road network • Unsatisfactory quality of health services because of erratic stock out of essential drugs and medical supplies • High proportion of unimmunized children and high dropout rate because of limited logistics, cold chain facilities and vaccine management • Insufficient quarterly supportive supervision • Weak referral system as a result of limited GSM coverage and ambulance services
Health workforce	• Fewer skilled and qualified health workforce especially physicians and certified midwives • De-motivation of health workers due to low incentive and salary, leading to low quality of services and high turn over • Limited health training institutions with uneven distribution that impedes enrollment and production of health workers • Over 40% of the work force are paid by incentive because of difficulties of placing staff on GOL payroll
Health information	• Limited use of health facility data at the facility, district and county levels • Weak feedback mechanism • No mechanism to provide communities access to reports • Limited qualified staff at all levels of reporting (health facility, district, county and central) • Inadequate incentive and motivation for ensuring quality and timely data collection and reporting • Poor data quality • Inadequate operational research to guide the programs interventions • Insufficient dissemination of data or information
Medical products, vaccines &technologies	• Inadequate capacities (limited refrigerators, cold boxes, transport, etc) at county and district levels in managing the distribution of vaccines and related supplies • Insufficient cold chain capacity at the county level to meet the vaccine requirements of the country • Inadequate information on the quality, safety and efficacy of essential medicines including vaccines • Limited storage facility and logistics for drugs • Weak projection or forecasting of commodities leading to stock out

Health financing	• National government budgetary allocation not exceeding 8% over the past 6 years • Delays in disbursement of the committed funds and low absorptive capacity at all levels • Limited capacities in evidence based planning and budgeting particularly at the county level • Unpredictable health sector financing
Leadership & governance	• Inadequate dissemination of national health policies and plans • Weak leadership at operational level, including poor coordination • Weak feedback mechanisms from national to operational levels • Inadequate quality supportive supervision at all levels • Limited analysis and use of information at the operational levels (community, health facility and county) • Low implementation of existing policies and plans

6.2 Recommendations

To attain the health policy goal and objectives and the MDGs, the following recommendations are suggested for consideration.

- Improve motivation for health workers by placing skilled and qualified staff on GOL payroll
- Work closely with health training institutions to increase production and quality of training
- Mobilize resources to address human resources motivational needs, increase access to quality health facilities by new construction of service delivery points and medical supplies

The Ministry must continue to draw lessons from accomplishments made in other areas and introduce best practices by changing the paradigm to achieve the objectives of the 10-year National Health and Social Welfare Policy and Plan. The MOHSW must intensify efforts towards the full implementation of the National Health Policy and Plan and initiate cost effective and proven strategies to reduce the high maternal and child mortality rates.

MOHSW should scale-up the implementation of available policies (e.g., HR, Health Financing, Decentralization, Community Health Services, etc) and strategies (e.g, Reach Every District –RED and Reach Every Pregnant Woman-REP, etc) to improve the quality of care and indicators.

Scaling –up of performance based financing (PBF) to many counties and health facilities will introduce quality, performance and efficient use of resources in the sector. This will also address the problem of equity, quality and overall health sector performance.

Annex A: Reporting Coverage by County in 2012						
County	*No. of facilities per county*	*Reports Received*	*Expected Reports*	*Reporting Coverage*	*Reports On Time*	*Percent On Time*
Bomi	24	272	288	94.4	225	78
Bong	39	466	468	99.6	418	89
Gbarpolu	14	157	168	93.5	103	61
Grand Bassa	29	340	348	97.7	290	83
Grand Cape Mt	32	352	384	91.7	269	70
Grand Gedeh	18	209	216	96.8	192	89
Grand Kru	17	195	204	95.6	155	76
Lofa	56	563	672	83.8	405	60
Margibi	33	331	396	83.6	234	59
Maryland	24	263	288	91.3	244	85
Montserrado	240	1916	2880	66.5	815	28
Nimba	63	656	756	86.8	489	65
River Cess	17	195	204	95.6	194	95
River Gee	17	178	204	87.3	142	70
Sinoe	33	364	396	91.9	347	88
National	**656**	**6,457**	**7,872**	**82.0**	**4522**	**57**

Annex B: Distribution of function Health Centers and Hospitals by County and by Reporting Status in 2012						
Name	*No. of facilities per county*	Actual Reports	Expected Reports	*Expected Report Percent*	Reports On Time	Percent On Time
Bomi	1	11	12	91.7	10	83.3
Bong	3	36	36	100	34	94.4
Gbarpolu	1	9	12	75.0	5	41.7
Grand Cape Mt	3	28	36	77.8	22	61.1
Grand Bassa	4	44	48	91.7	37	77.1
Grand Gedeh	3	28	36	77.8	27	75
Grand Kru	1	10	12	83.3	9	75
Lofa	7	62	84	73.8	43	51.2
Margibi	8	65	96	67.7	37	38.5
Maryland	3	31	36	86.1	25	69.4
Montserrado	9	79	108	73.1	33	30.6
Nimba	11	101	132	76.5	74	56.1
River Cess	1	11	12	91.7	10	83.3
River Gee	3	31	36	86.1	24	66.7
Sinoe	1	10	12	83.3	10	83.3
Liberia	59	556	708	78.5	400	56.5

Annex C: ANC 4th Visit Coverage by County			
County	2010	2011	2012
Bomi	53.3	67.2	69
Bong	70.5	76.8	56
Gbarpolu	26.6	38.5	45
Grand Bassa	27.3	53.9	57
Grand Cape Mt	25.6	42.3	47
Grand Gedeh	42.5	47.7	62
Grand Kru	29.4	52	55
Lofa	62.5	75.6	63
Margibi	36.4	42.3	60
Maryland	30.4	71.5	63
Montserrado	28	26.4	62
Nimba	56.5	57.3	62
River Cess	44	61.7	59
River Gee	62	66.6	42
Sinoe	17.8	21.3	25
National	***40.9***	***47.3***	***58***

Annex D: IPT Coverage by County in 2012					
County	2012 Expected Delivery	Number 1st Dose	Number 2nd Dose	Percent of 1st Dose	IPT 2nd dose coverage
Bomi	4,551	3,255	2280	71.5	50.1
Bong	18,119	11,196	8120	61.8	44.8
Gbarpolu	4,531	1,812	1497	40.0	33.0
Grand Bassa	11,430	7,191	4879	62.9	42.7
Grand Cape Mt	6,082	4,040	4013	66.4	66.0
Grand Gedeh	6,856	3,018	2191	44.0	32.0
Grand Kru	3,213	1,409	875	43.9	27.2
Lofa	15,467	8,527	5153	55.1	33.3
Margibi	10,850	5,762	3295	53.1	30.4
Maryland	7,541	3,663	2754	48.6	36.5
Montserrado	56,131	34,742	21680	61.9	38.6
Nimba	26,519	13,509	12935	50.9	48.8
River Gee	3,749	1,515	1249	40.4	33.3
River Cess	3,885	2,044	1624	52.6	41.8
Sinoe	6,868	2,237	1364	32.6	19.9
National	185,792	103,920	73,909	55.9	39.8

Annex E: Tetanus Toxoid Coverage by County in 2012									
		Est. Preg.	TT 1		TT 2			TT Coverage	
County	Catchment Population	Women (5%)	Non-preg.	Preg.	Non-preg.	Preg.	Total	TT1 preg	TT2 preg
Bomi	91,020	4,551	3421	2525	2813	2716	11475	55	59.7
Bong	362,388	18,119	4299	8213	5572	8001	26085	45	44.2
Gbarpolu	90,616	4,531	2461	1815	3328	2408	10012	40	53.1
Grand Bassa	228,606	11,430	5493	6660	3935	5506	21594	58	48.2
Grand Cape Mt	121,646	6,082	3267	4537	4546	3694	16044	75	60.7
Grand Gedeh	137,119	6,856	5754	4382	5132	4015	19283	64	58.6
Grand Kru	64,255	3,213	2439	1909	1647	1385	7380	59	43.1
Lofa	309,343	15,467	3096	7161	2285	5571	18113	46	36.0
Margibi	217,000	10,850	3168	5953	3940	5313	18374	55	49.0
Maryland	150,824	7,541	8839	5516	3667	3339	21361	73	44.3
Montserrado	1,122,615	56,131	29789	40825	11561	27929	110104	73	49.8
Nimba	530,390	26,519	7193	18964	5442	14558	46157	72	54.9
River Cess	77,708	3,885	2437	2135	1492	1740	7804	55	44.8
River Gee	74,986	3,749	1303	1063	1303	1688	5357	28	45.0
Sinoe	137,358	6,868	4535	2550	3448	2518	13051	37	36.7
National	3,715,873	185,794	87,494	114,208	60,111	90,381	352,194	61	48.6

Annex F: Distribution of Persons Counseled and Tested				
Counties	Pre-test counseled	Tested for HIV	Post-test counseled	Tested HIV+
Bomi	4132	4014	3988	128
Bong	16645	16097	16047	288
Gbarpolu	2407	2310	2283	72
Grand Bassa	10478	9318	9303	223
Grand Cape Mt	5831	5368	5282	138
Grand Gedeh	6067	5755	5705	368
Grand Kru	1365	1313	1283	62
Lofa	13071	11825	11512	272
Margibi	8073	7533	7452	203
Maryland	6601	6557	6537	239
Montserrado	56552	53351	52225	2864
Nimba	24984	23125	22971	584
River Gee	2402	2388	2381	154
River Cess	3014	2867	2851	42
Sinoe	2451	2201	2137	72
National	164,073	154,022	151,957	5,709

Annex G: Pregnant Women and children who received ARVS by County										
COUNTY	In Care & on ARVs					On ART				
	Males ≥ 15	Female≥ 15	Children	Pregnant Women	Total	Males ≥ 15	Females ≥ 15	Children	Pregnant Women	Total
Bomi	16	56	17	17	106	9	36	1	2	48
Bong	34	105	31	16	186	26	45	17	4	92
Gbarpolu	1	12	7	0	20	1	7	2	0	10
Grand	193	145	29	33	400	155	111	13	26	305
G. Cape	12	17	3	1	33	6	10	0	1	17
Grand	89	297	64	22	472	66	221	10	2	299
Grand Kru	7	15	0	1	23	0	6	0	0	6
Lofa	63	223	58	24	368	48	130	18	5	201
Margibi	183	243	24	12	462	103	129	16	3	251
Maryland	59	191	51	6	307	35	103	9	4	151
Monts.	2542	4124	785	258	7709	1452	3017	371	133	4973
Nimba	103	353	98	48	602	72	207	17	8	304
River Gee	17	78	17	5	117	11	28	1	0	40
River Cess	9	12	3	3	27	6	5	0	1	12
Sinoe	16	52	9	2	79	15	34	1	0	50
Grand	**3344**	**5923**	**1196**	**448**	**10911**	**2005**	**4089**	**476**	**189**	**6,759**

Annex H: Diseases diagnosed, treated and Referred by gCHVs by County							
#	Counties	Diarrhea		ARI		Malaria	
		Treated	Referred	Treated	Referred	Treated	Referred
1	Bomi	0	0	0	0	0	0
2	Bong	694	93	1291	4335	368	0
3	Gbarpolu	536	49	512	18	148	145
4	Grand Bassa	160	0	0	0	169	0
5	Grand Cape Mt	0	0	123	0	50	0
6	Grand Gedeh	60	0	0	0	124	0
7	Grand Kru	711	100	1107	112	1580	444
8	Lofa	3084	5230	3724	7500	372	153
9	Margibi	467	8	1031	3064	203	0
10	Maryland	153	112	153	38	499	37
11	Montserrado	200	47	490	870	222	0
12	Nimba	1218	0	1138	0	4121	19
13	River Cess	65	0	89	0	153	0
14	River Gee	46	0	46	0	25	0
15	Sinoe	153	0	153	0	328	0
	Total	7547	5639	9857	15937	8362	798

Annex I: Distribution of Pharmaceutical Outlet by County				
No.	County	# of Pharmacies	# of Medicines Stores	Total
1	Bomi	1	7	8
2	Bong	2	29	31
3	Gbarpolu		2	2
4	Grand Bassa	5	24	29
5	Grand Cape Mt		12	12
6	Grand Gedeh	3	23	26
7	Grand Kru		4	4
8	Lofa		20	20
9	Margibi	3	25	28
10	Maryland		17	17
11	Montserrado	126	454	580
12	Nimba		49	49
13	River Cess		3	3
14	River Gee		7	7
15	Sinoe		7	7
	Total	140	683	823

Annex J: Analysis of GOL Budget to the Health Sector (2007-2012)

	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
Health Sector Budget	**18,705,242**	**22,906,608**	**27,122,030**	**39,771,557**	**49,199,191**	
MoHSW	14,110,079	16,628,880	20,146,400	31,205,025	39,778,023	
JFK	3,947,064	5,521,736	6,000,000	6,865,380	6,871,588	
Phebe Hospital	411,178	391,637	600,000	1,201,143	1,822,180	
LIBR	236,921	364,355	375,630	500,009	727,400	
National Budget	**208,819,357**	**298,087,792**	**347,035,687**	**369,379,000**	**516,430,000**	
% budget to Health	**8.96**	**7.68**	**7.82**	**10.77**	**9.53**	

Annex K: Receipt & Payment Analysis (2007-2012)

	Year to June 2008	Year to June 2009	Year to June 2010	Year to June 2011	Year to June 2012
	US$	**US$**	**US$**	**US$**	**US$**
Receipts	**Year to June 2008**	**Year to June 2009**	**Year to June 2010**	**Year to June 2011**	**Year to June 2012**
GoL Funds	12,228,075	12,408,635	13,315,810	24,245,973	34,009,699
Pool Funds	3,975,538	6,838,816	9,646,929	4,091,817	10,454,722
Global Fund	1,729,681	4,119,750	8,364,080	13,578,819	12,488,987
Project Funds	5,638,785	7,315,118	9,946,990	10,787,010	8,652,576
NGOs	166,662	918,428	439,141		-
Total Receipts	**23,738,741**	**31,600,747**	**41,712,950**	**52,703,619**	**65,605,984**
Payments	**Year to June 2008**	**Year to June 2009**	**Year to June 2010**	**Year to June 2011**	**Year to June 2012**
Personnel Expenditure	4,555,057	6,139,932	8,545,900	15,488,625	24,663,164
Goods & Services	7,924,416	9,140,041	12,908,618	21,537,062	22,270,012
Transfers & Subsidies	4,106,918	9,339,553	7,016,963	11,627,050	16,997,700
Capital Expenditure	1,657,033	2,549,036	1,713,773	8,391,653	5,408,886
Total Payments	**18,243,424**	**27,168,562**	**30,185,254**	**57,044,390**	**69,339,762**