

Statistical Bulletin of the Strengthening Pharmaceutical Systems Program for SPS-Ethiopia (Third Edition)

November 2011



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About SPS

The Strengthening Pharmaceutical Systems (SPS) Program strives to build capacity within developing countries to effectively manage all aspects of pharmaceutical systems and services. SPS focuses on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems and financing mechanisms, containing antimicrobial resistance, and enhancing access to and appropriate use of medicines.

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ACRONYMS AND ABBREVIATIONS

ACT	Artemisinin-based combination therapy
ADR	adverse drug reaction
ADT	Antiretroviral Dispensing Tool
AIDS	acquired immunodeficiency syndrome
AMDM	antimalarial drug management
AMR	antimicrobial resistance
ART	antiretroviral therapy
ARV	antiretroviral
FMHACA	Food Medicine and Health Administration Control Authority
DIS	Drug Information Service
EDT	Electronic Dispensing Tool
EHRIG	Ethiopian Health Reform Implementation Guideline
EPA	Ethiopian Pharmaceutical Association
FMoH	Federal Ministry of Health
GCPP	Good Community Pharmacy Practice
HIV	human immunodeficiency virus
HR	human resources
MIS	management information system
MSH	Management Sciences for Health
PEPFAR	President's Emergency Plan for AIDS Relief
PMI	President's Malaria Initiative
PMIS	Pharmaceutical Management Information System
PMTCT	prevention of mother-to-child transmission
QA and QC	quality assurance and quality control
RDV	rural drug vendor
RHB	regional health bureau
RMU	rational medicine use
RPMA	regional pharmaceutical management associate
RPM Plus	Rational Pharmaceutical Management Plus [Program]
SNNPR	southern nations, nationalities, people's region
SOP	standard operating procedures
SPS	Strengthening Pharmaceutical Systems
TA	technical assistance
UPS	uninterrupted power supply

PREFACE

The Strengthening Pharmaceutical Systems (SPS) program was launched in Ethiopia in September 2008 as a follow on to the Rational Pharmaceutical Management Plus (RPM Plus) program. The SPS program in Ethiopia contributes toward meeting specific PEPFAR (President's Emergency Plan for AIDS Relief) and PMI (President's Malaria Initiative) program targets by providing technical support to antiretroviral therapy (ART) and artemisinin-based combination therapy (ACT) sites for appropriate dispensing and rational medicine use (RMU), including the expansion and maintenance of a Pharmaceutical Management Information System (PMIS).

For assuring sustainability of interventions and strengthening systems, SPS supports institutional capacity-building of national organizations, such as the Food, Medicine, and Health Administration Control Authority (FMHACA), the Pharmaceutical Fund and Supply Agency (PFSA), schools of pharmacy, the Ethiopian Pharmaceutical Association (EPA), the Ethiopian Druggists Association, regional health bureaus (RHBs), and health facilities, in all aspects of patient-focused, pharmaceutical management systems. Through training, mentoring, and embedding technical staff in target facilities, the support has been focused on improving pharmaceutical good governance, policy- and practice-reform agenda, promotion and implementation of RMU, containing the emergence and spread of antimicrobial resistance (AMR), promotion of treatment adherence, and medicines safety to improve treatment outcomes.

Organized and processed statistical data are important in assisting SPS in planning, operations, and making decisions. It is also equally important for monitoring and evaluating programs and facilitating operations research activities.

This statistical bulletin is the third in a series by SPS to present summarized statistical data on SPS support in Ethiopia since 2005. We intend to produce it on a yearly basis. RPM Plus activities and output have also been included as a follow-on and historical data. In addition, the bulletin contains data on human resources (HR) used to deliver services. It is expected to serve as good reference material for SPS projects. Thus, it is our sincere belief that the bulletin will provide users with insight on the services and supports of SPS-Ethiopia.

We wish to thank all those who untiringly put their time, money, and knowledge toward the delivery of health care services in general and pharmaceutical services in particular to those who need them. The Ethiopian government's partners—the Federal Ministry of Health (FMoH), PFSA, Food, Medicine, and Health Administration Control Authority (FMHACA), the RHBs, Federal and Regional HAPCO, health facilities, and nongovernmental and private institutions—deserve special thanks for their continued support and cooperation. We also wish to acknowledge the contribution of SPS staff in providing the required data for the preparation of this bulletin.

SPS-Ethiopia welcomes any suggestions and comments for the improvement of future versions of this publication.

Planning, Monitoring, and Evaluation Unit
SPS-Ethiopia

INSTITUTIONAL CAPACITY-BUILDING SUPPORT

Institutional capacity-building (ICB) support is required to establish effective and efficient management and organizational support systems to provide quality pharmaceutical services and ensure the continued availability and appropriate use of medicines. Capacity-building support enables organizations to develop the capacity to plan, execute, and meet targets of key interventions in different program areas including HIV/AIDS, tuberculosis (TB), and malaria while helping the organization become efficient and sustainable over time.

SPS Program has been involved in different types of capacity development efforts in Ethiopia and has targeted organizational management, systems strengthening, and operational efficiency. SPS strives to build capacity through providing material and financial support; improving leadership and governance; establishing organizational systems and developing HR through staff secondments; providing technical support and skill transfer; and incorporating sustainability in all of these strategies. The key pharmaceutical stakeholders that benefit from this support include FMHACA, PFSA, EPA, RHBs, and the health facilities.

Data presented under this section contains information on staff embedment to specific stakeholders and the types of support provided to the health facilities.

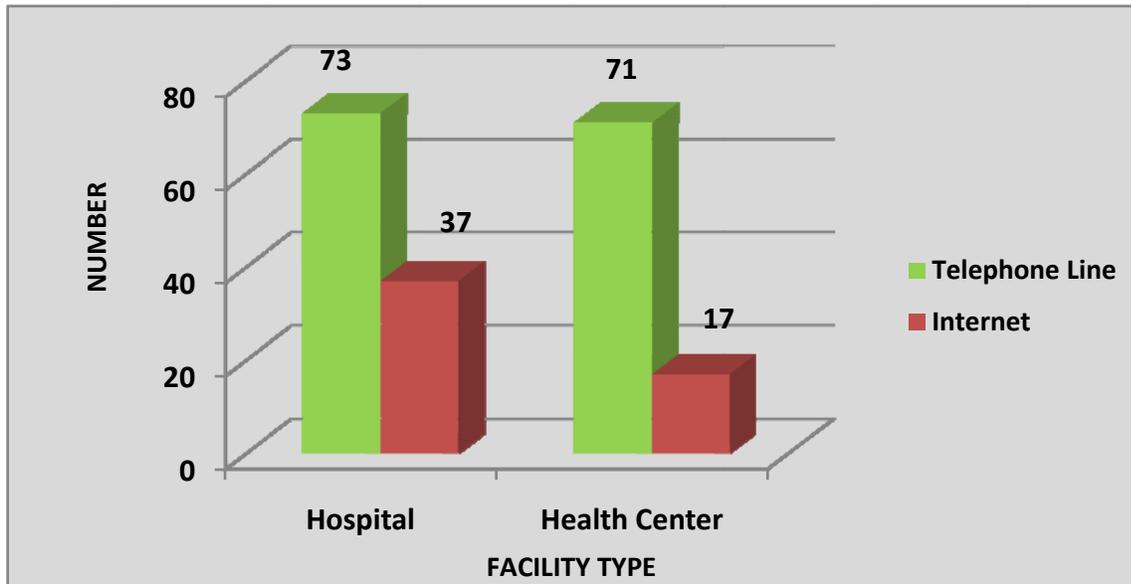


Figure ICB1. Number of health facilities with telephone and Internet by type of facility, 2011

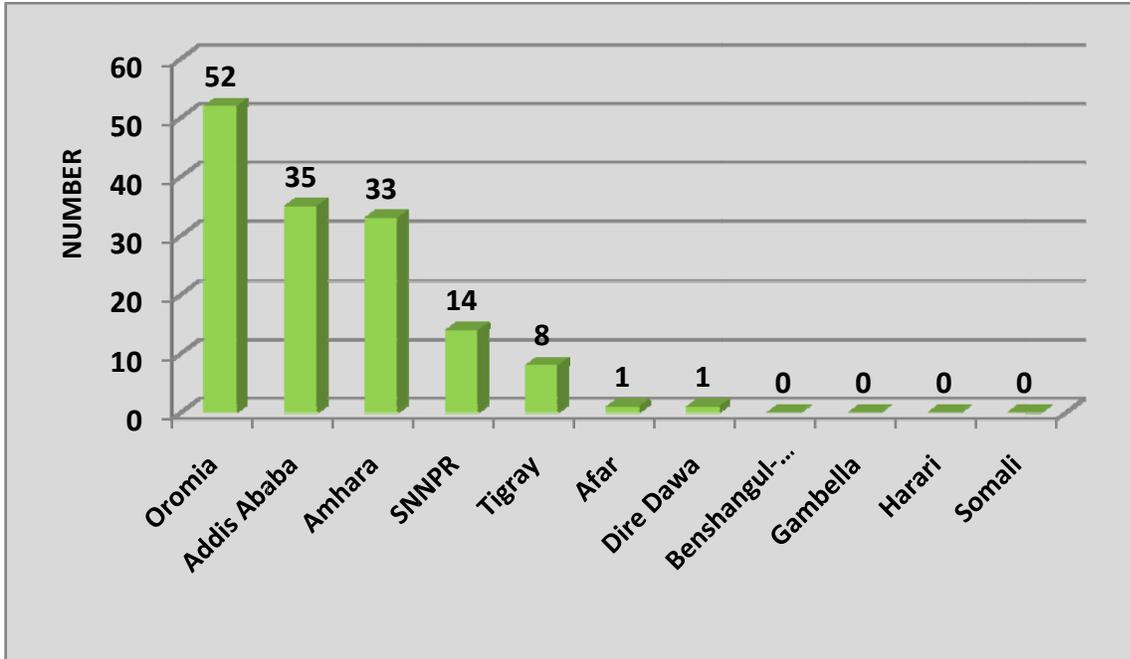


Figure ICB2. Number of health facilities supported with telephone by region, 2011

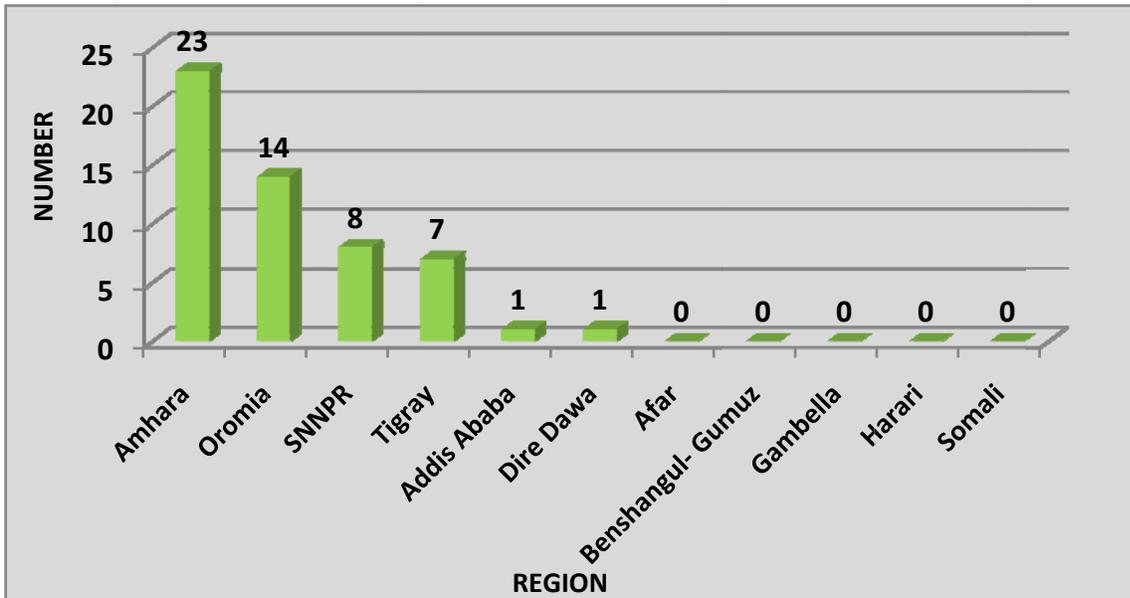


Figure ICB3. Number of health facilities with Internet by region, 2011

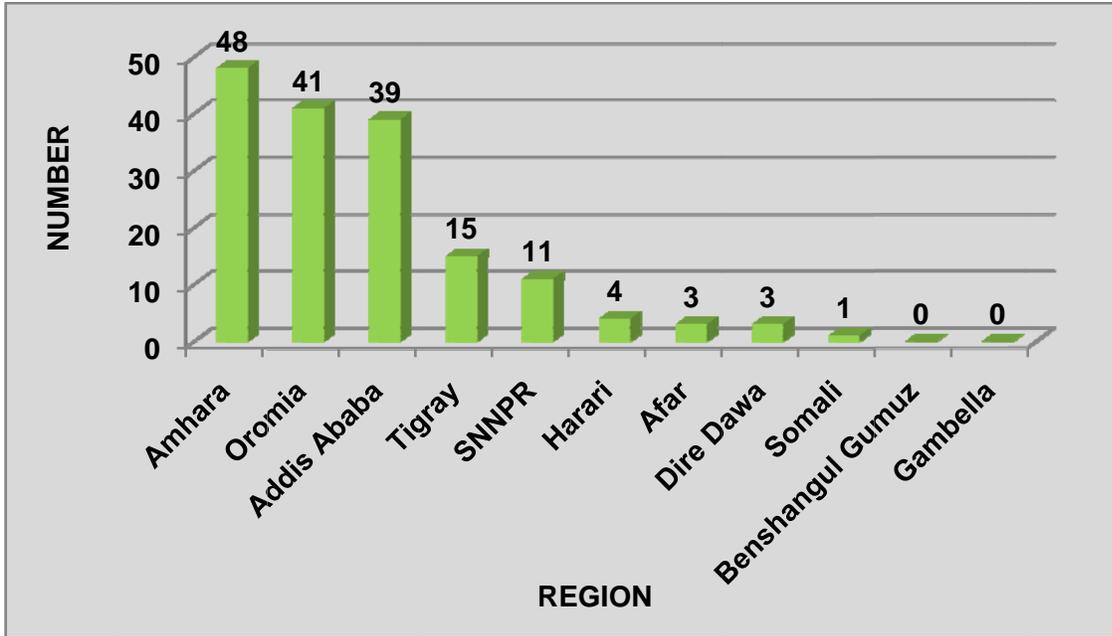


Figure ICB4. Number of health facilities installed with electronic dispensing and other electronic PMIS tools by region, 2011

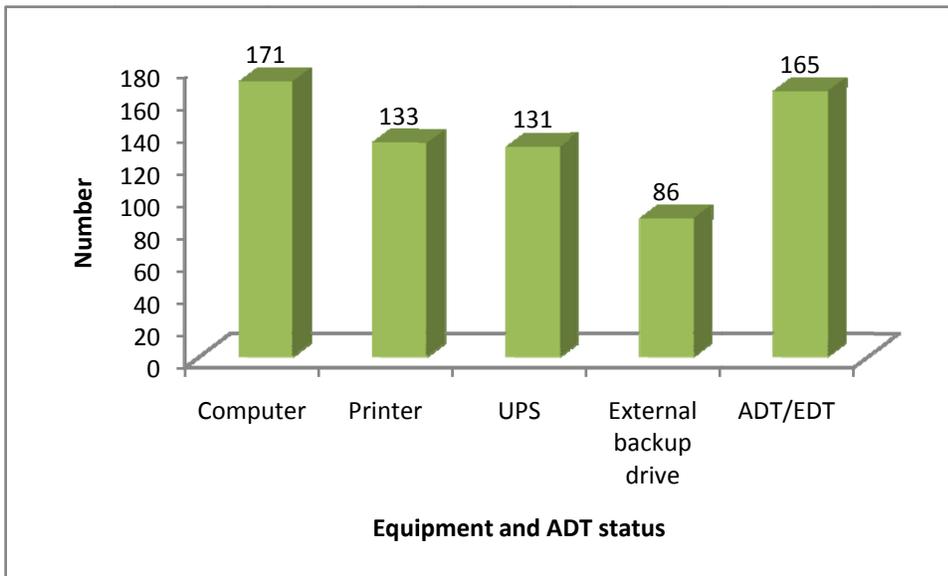


Figure ICB5. Equipment supplied by RPM PLUS/SPS and facilities with active ADT, 2011

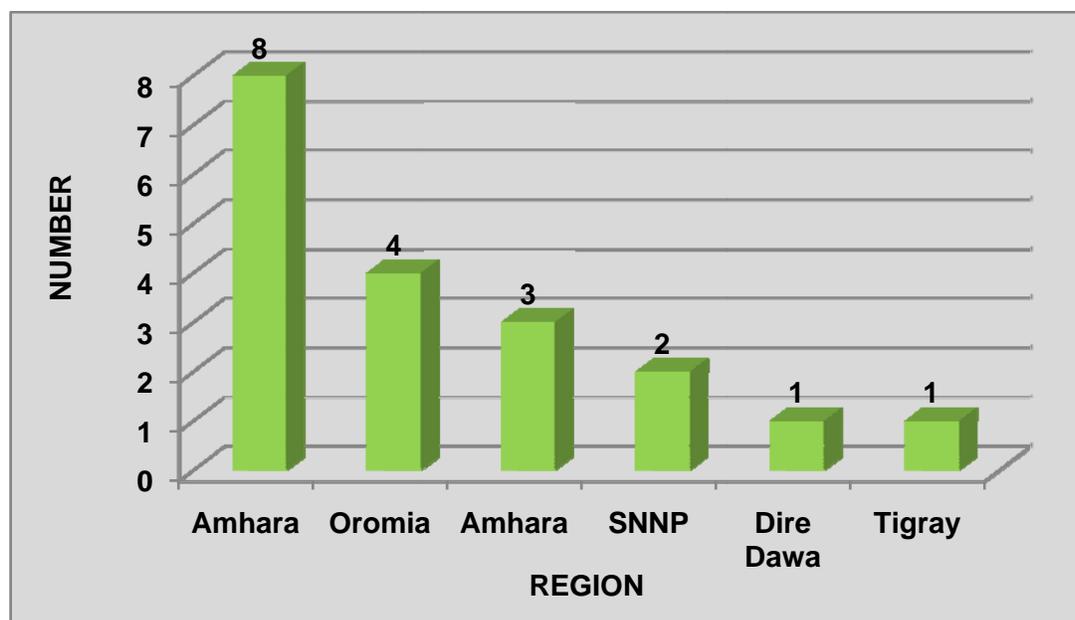


Figure ICB6. Number of hospitals implementing EHRIG by region, 2011

Table ICB1. Number of Professionals Embedded to SPS Partners, 2009–2011

SPS partner	2009	2010	2011
FMHACA	18	9	3
PFSA	0	3	4
RHB Oromia	2	2	1
EPA	0	2	1
FMoH	1	1	1
Total	21	17	10

Source: SPS-Ethiopia

Table ICB2. Number of Health Facilities with Telephone and Internet by Facility Type, 2011

Services	Hospitals	Health centers	Total
Telephone line	73	71	144
Internet	37	17	54

Source: PMIS Unit, SPS-Ethiopia

Table ICB3. Number of Health Facilities with Telephone and Internet by Region, 2011

Region	Telephone line	Internet
Addis Ababa	35	1
Afar	1	0
Amhara	33	23
Benishangul-Gumuz	0	0
Dire Dawa	1	1
Gambella	0	0
Harari	0	0
Oromia	52	14
SNNPR	14	8
Somali	0	0
Tigray	8	7
Total	144	54

Source: PMIS Unit, SPS-Ethiopia

Table ICB4. Number of Health Facilities with Manual and Electronic PMIS Tools, 2011

Region	Manual	Electronic		Total
		ADT	EDT	
Amhara	76	44	4	48
Oromia	114	31	10	41
Addis Ababa	16	25	14	39
Tigray	50	11	4	15
SNNPR	103	7	4	11
Harari	3	3	1	4
Afar	10	3	0	3
Dire Dawa	8	2	1	3
Somali	6	1	0	1
Benishangul-Gumuz	9	0	0	0
Gambella	5	0	0	0
Total	400	127	38	165

Source: PMIS Unit, MSH/SPS-Ethiopia

Table ICB5. Number of Health Facilities with Manual and Electronic PMIS tools by Facility Type, 2011

Facility type	Manual	Electronic		Total
		ADT	EDT	
Hospital	28	60	26	86
Health center	354	61	9	70
Private and other institutions	18	6	3	9
Total	400	127	38	165

Source: PMIS Unit, SPS-Ethiopia

Table ICB6. Number of Health Facilities Supplied with Different Equipment and Tools by Region, 2011

Region	Types of equipment and tools				
	Computers	Printers	UPS ^a	ADT/EDT active	External backup drives
Addis Ababa	33	32	34	39	3
Afar	3	3	3	3	1
Amhara	46	34	35	48	35
Benishangul-Gumuz	1	1	1	0	0
Dire Dawa	3	3	3	3	2
Gambella	1	1	1	0	0
Harari	5	5	5	4	3
Oromia	45	25	18	41	16
SNNPR	13	12	13	11	13
Somali	1	1	1	1	1
Tigray	20	16	17	15	12
Total	171	133	131	165	86

Source: PMIS Unit, SPS-Ethiopia

^aUPS, uninterrupt power supply

Table ICB7. Number of Facilities Renovated in Oromia Region by Type of Facility, 2011

Facility type	2010	2011	Total
Hospital	1	2	3
Health center	11	1	12
Woreda and zonal health bureau/store	4	3	7
Total	16	6	22

Source: Facility Improvement Unit, SPS-Ethiopia

Table ICB8. Number of Hospitals Implementing EHRIG by Region, 2011

Region	Number of hospitals
Amhara	8
Oromia	4
Amhara	3
SNNPR	2
Dire Dawa	1
Tigray	1
Total	19

Source: EHRIG Coordinator, SPS-Ethiopia

Table ICB9. Type and Number of Copies of Information, Education, and Communication Materials Distributed, 2011

Type of material	Number distributed
Medicine dispensing guides	275
Medicine counseling guides	275
ARV side-effects recognition and management materials	53297
Brochures on adverse drug reactions	21000

Source: RPMAs, SPS-Ethiopia

Table ICB10. Number of Copies of Medicine Dispensing and Counseling Guides Distributed, 2011

Region	Dispensing	Counseling
SNNPR	70	70
Amhara	200	200
Oromia	5	5
Total	275	275

Source: RDU Unit, SPS-Ethiopia

Table ICB11. Number of Copies of ARV Side-Effects Recognition and Management Materials Distributed by Regimen, 2011

Regimen	Region					Total
	Amhara	Addis Ababa	Tigray	Oromia	SNNPR	
TDF/3TC/EFV	3000	300	700	1800	2100	7900
TDF/3TC/NVP	3000	300	700	1800	2700	8500
TDF/FTC/EFV	0	20	0	20	220	260
ABC/3TC/NVP	0	0	0	0	1300	1300
ABC/3TC/EFV	200	20	30	540	780	1570
d4T/3TC/EFV	4200	0	1000	0	1350	6550
d4T/3TC/NVP	4200	0	2000	2000	2500	10700
AZT/3TC/EFV	0	300	0	0	1700	2000
AZT/3TC/NVP	0	300	0	0	2300	2600
ZDV/3TC/EFV	4700	0	1000	200	0	5900
ZDV/3TC/NVP	4200	0	1000	200	0	5400
Pediatric ARVs prescribing and dispensing guide	400	50		95	72	617
Total	23900	1290	6430	6655	15022	53297

Source: RDU Unit, SPS-Ethiopia

Table ICB12. Distribution of ADR Brochures by Region, 2011

Region	ADR brochures
Addis Ababa	3000
Amhara	4000
Dire Dawa	2000
Oromia	6000
SNNPR	4000
Tigray	2000
Total	21000

Source: ADR Coordinator, SPS-Ethiopia

PHARMACEUTICAL HUMAN RESOURCES CAPACITY-BUILDING

Achieving a sustainable, well trained, and motivated workforce is critical to ensuring better health outcomes. HR is essential to planning, managing, and delivering lifesaving health services. Research has shown that more mothers and babies die when there is an acute health staff shortage. The problem is compounded when practicing health professionals fall behind in their skills and knowledge because in-service training sessions are not sufficient to help them keep up with the rapid pace of advances in health and medicine.

Capacity-building interventions that involve pre-service and in-service trainings, updating curricula, and mentoring are proven methods to address HR problems. Pharmacy professionals from public facilities, private pharmacies, RHBs, and RDVs have been trained on RMU, medicines safety, ART standard operating procedures, and Drug Therapeutics Committees (DTCs) with the aim to improve health outcomes and strengthen institutional capacity. The hallmark of SPS-Ethiopia organized trainings is its participatory nature; appropriate staff from Ethiopian stakeholder institutions, such as schools of pharmacy, FMHACA, PFSA, and RHBs, actively participated in conducting the training alongside SPS. This creates institutional capacity, ownership, and sustainability.

Since 2005, the RPM/SPS-Ethiopia office has organized various in-service training events in the form of on-the-job training, training of trainers, and mentoring. The office has also been involved in pre-service trainings aimed at making just-graduated pharmacy students capable of dispensing ART and other drugs with already established dispensing tools; the trainings are conducted on the premises of pharmacy schools and in close collaboration with faculties. Similarly, a number of workshops have been conducted on numerous topics for health officials from regional and federal bureaus to enhance their implementation capacity.

Training materials are developed and updated regularly to expedite realization of the training objectives. Emphasis is given to enlisting trainers of high caliber that greatly contribute to training quality. The program's training database is capable of producing important reports regarding the contribution of SPS to pharmacy HR development. These reports have been instrumental in efficient planning and execution of training programs in a cost-effective manner. The database also has a pool of trainers, which has been helpful in selecting teachers with the most relevant background.

Data in this section includes persons and professionals by training type, year, and professional category.

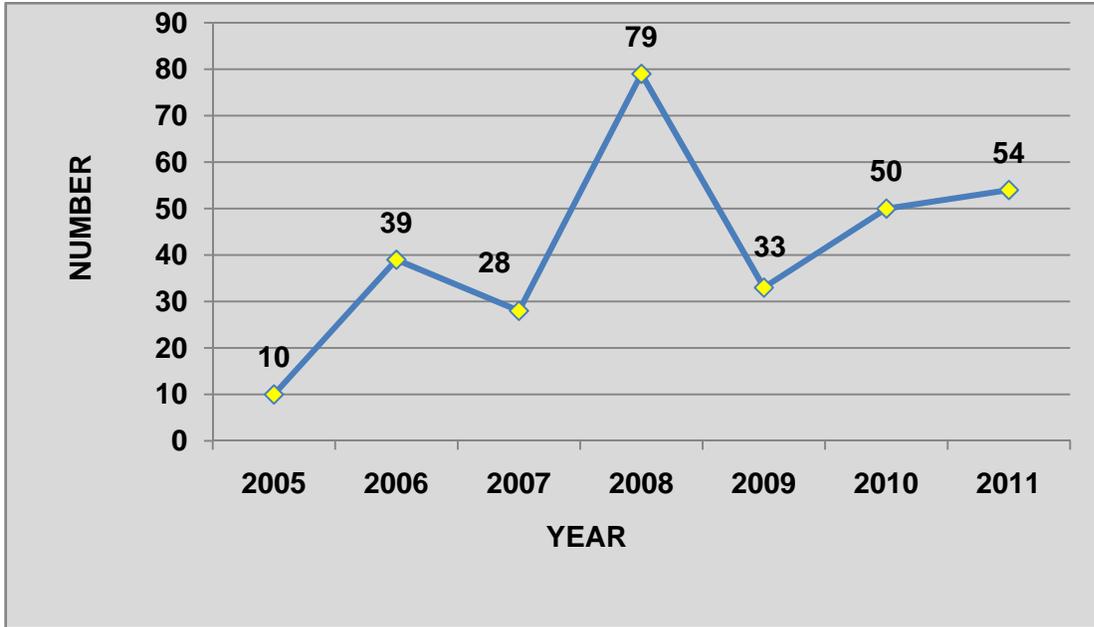


Figure HRC1. Number of training events organized, 2005–2011

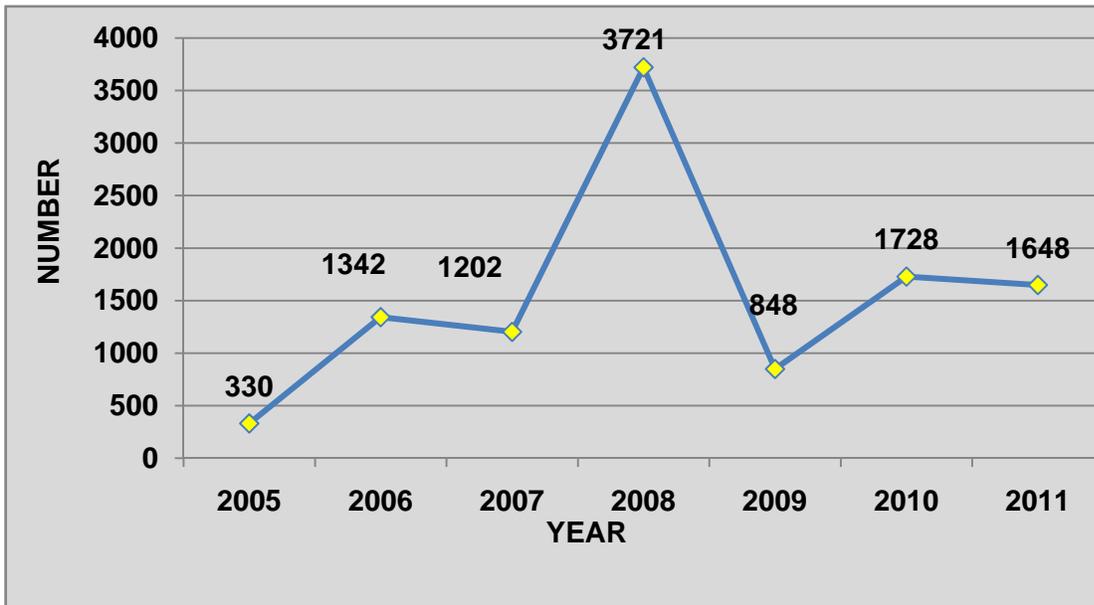


Figure HRC2. Number of people trained, 2005–2011

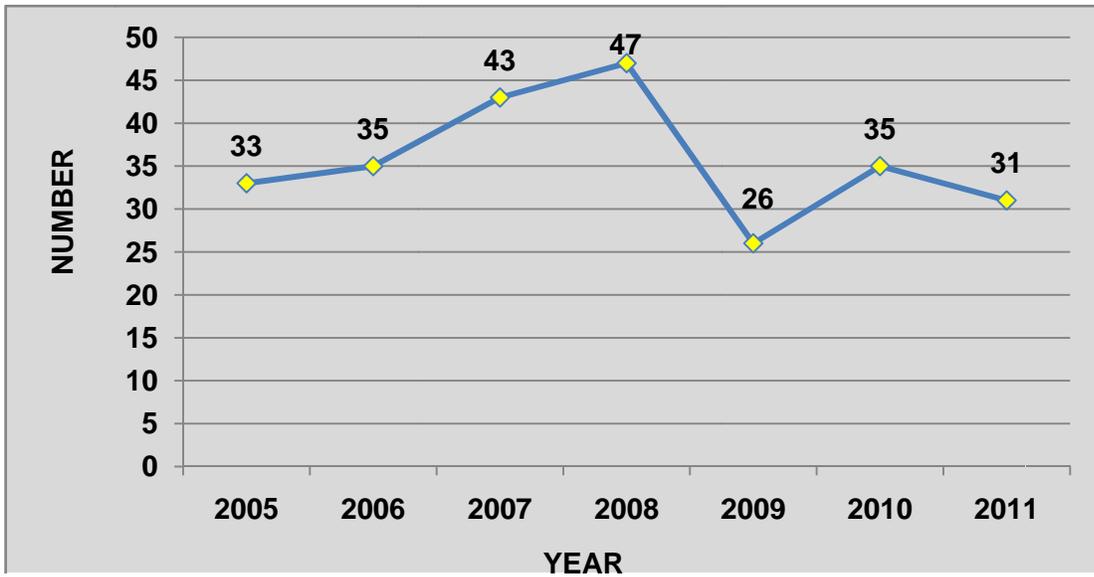


Figure HRC3. Average number of people trained per session, 2005–2011

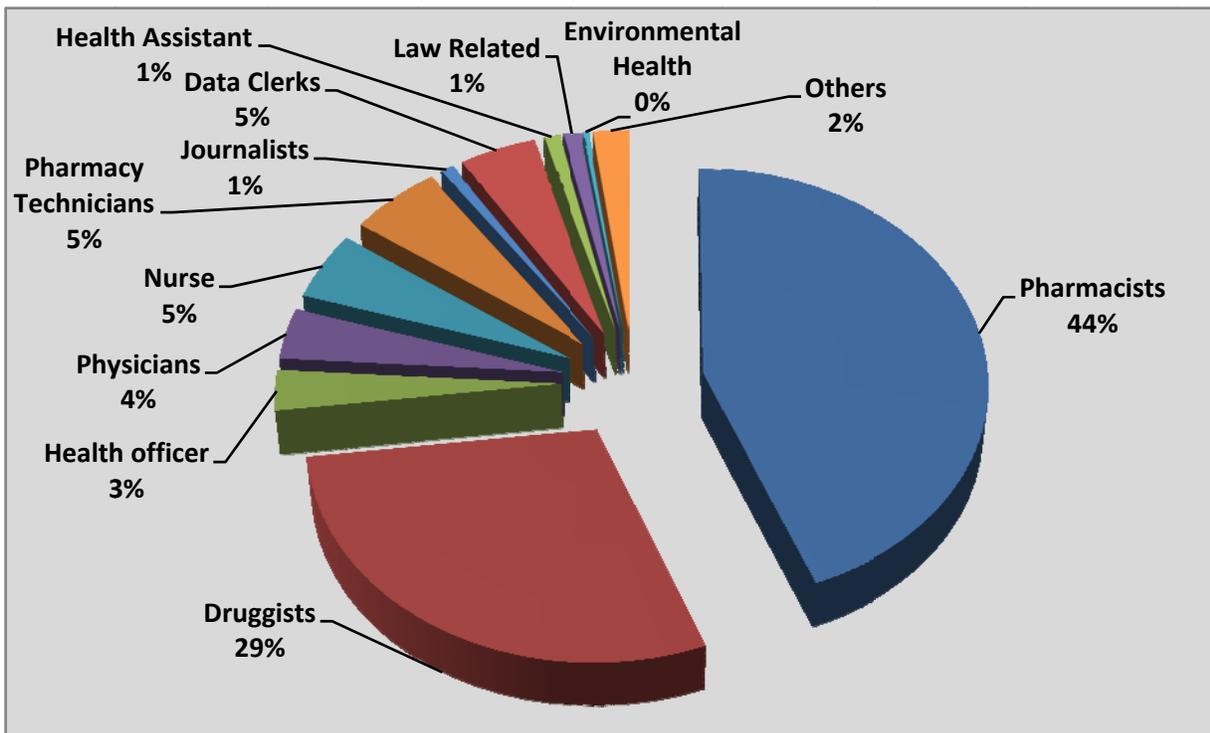


Figure HRC4. Percentage distribution of trainees by profession, 2005–2011

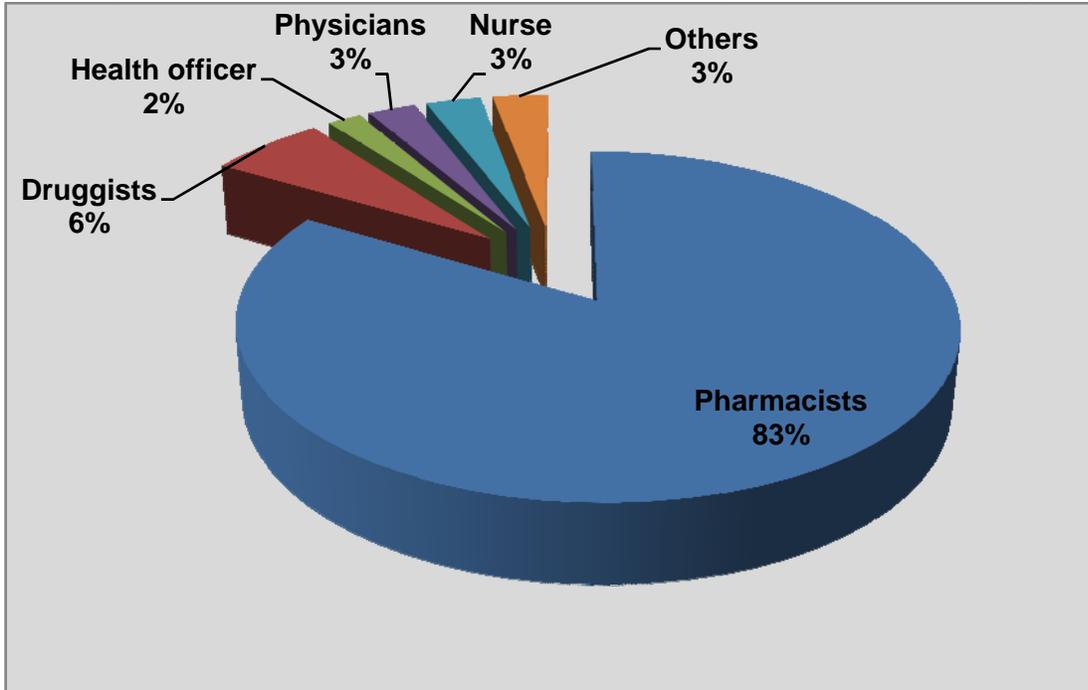


Figure HRC5. Percentage distribution of participants that took part in training of trainers course by profession, 2005-2011

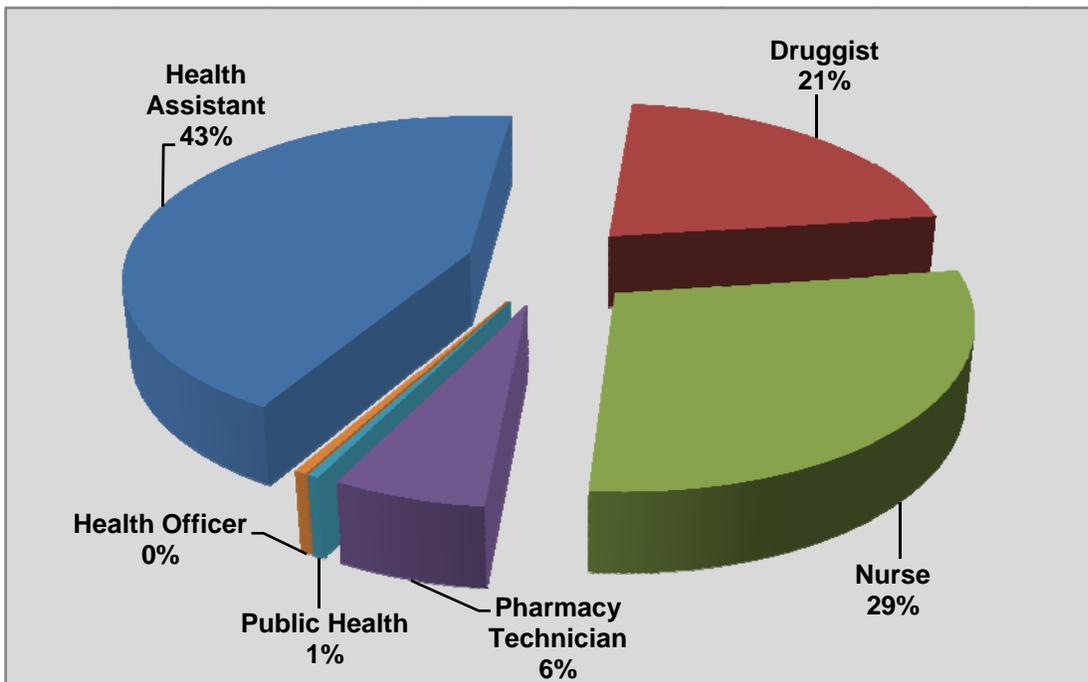


Figure HRC6. Percentage distribution of trained RDVs in Oromia region by profession, 2011

Table HRC1. Number of Training and Workshop Events Organized, 2005–2011

Year	Training	Workshop	Training of trainers
2005	10	2	-
2006	39	1	-
2007	28	2	-
2008	79	31	2
2009	33	31	5
2010	50	12	-
2011	54	16	2
Total	293	95	9

Source: Training Unit, SPS-Ethiopia

Table HRC2. Number of People that Participated in Training and Workshops, 2005–2011

Year	Training	Workshop	Training of trainers
2005	330	31	-
2006	1342	70	-
2007	1202	63	-
2008	3721	761	50
2009	848	915	174
2010	1728	333	-
2011	1648	542	49
Total	10819	2715	273

Source: Training Unit, SPS-Ethiopia

Table HRC3. Number of People Trained per Session, 2005–2011

Year	Training	Workshop	Training of trainers
2005	33	16	-
2006	35	70	-
2007	43	31	-
2008	47	25	25
2009	26	30	35
2010	35	28	-
2011	31	34	25
Total	37	29	30

Source: Training Unit, SPS-Ethiopia

Table HRC4. Number of People Trained by Profession, 2005–2011

Professional category	Year							Total
	2005	2006	2007	2008	2009	2010	2011	
Pharmacists	110	526	807	1892	208	738	486	4767
Druggists	165	495	267	878	343	388	599	3135
Health officer	2	2	0	140	1	74	106	325
Physicians	1	96	7	163	11	81	50	409
Nurses	0	78	10	151	13	113	178	543
Pharmacy technicians	40	69	51	167	93	72	103	595
Journalists	1	0	13	5	0	60	-	79
Data clerks	9	42	41	226	176	-	-	494
Health assistants	0	0	0	0	0	1	100	101
Law related	0	0	0	0	0	112	-	112
Environmental health	-	-	-	-	-	21	10	31
Others	2	34	6	99	3	68	16	228
Total	330	1342	1202	3721	848	1728	1648	10819

Source: Training Unit, SPS-Ethiopia

Table HRC5. Number of Training Events Organized by Type, 2005–2011

Training type	Year							Total
	2005	2006	2007	2008	2009	2010	2011	
ARV medicines MIS/SOP	8	26	10	33	29	15	13	134
HIV care and ART and pre-service	-	12	8	8	3	5	14	50
QA and QC laboratory	-	-	5	-	-	-	-	5
Management and RMU	2	-	-	7	-	2	3	14
Management and inventory control (orientation for third-year students in four universities)	-	-	2	5	-	-	-	7
AMR	-	-	3	-	-	1	-	4
DTC	-	1	-	6	-	8	11	26
DIS	-	-	-	6	-	-	-	6
GCPP	-	-	-	6	-	-	-	6
Pharmacy ethics and promoting standard practice	-	-	-	7	-	-	-	7
Pharmacovigilance for health providers	-	-	-	-	1	2	1	4
AMDM	-	-	-	-	-	10	5	15
FDC training	-	-	-	1	-	-	-	1
Pharmaceutical good governance	-	-	-	-	-	7	-	7
RDVs	-	-	-	-	-	-	7	7
Total	10	39	28	79	33	50	54	293

Source: Training Unit, SPS-Ethiopia

Table HRC6. Number of Trainees by Type of Training, 2005–2011

Training type	Year							Total
	2005	2006	2007	2008	2009	2010	2011	
ARV medicines MIS/SOP	226	619	267	988	706	358	297	3461
HIV care and ART and pre-service	-	682	479	481	109	229	365	2345
QA and QC laboratory	-	-	296	-	-	-	-	296
Management and RMU	104	-	-	343	-	98	89	634
Management and inventory control (orientation for third-year students in four universities)	-	-	124	253	-	-	-	377
AMR	-	-	36	-	-	24	-	60
DTC	-	41	-	307	-	330	374	1052
DIS	-	-	-	293	-	-	-	293
GCPP	-	-	-	320	-	-	-	320
Pharmacy ethics and promoting standard practice	-	-	-	694	-	-	-	694
Training on pharmacovigilance for health providers	-	-	-	-	33	82	29	144
AMDM	-	-	-	-	-	431	231	662
FDC training	-	-	-	42	-	-	-	42
Pharmaceutical good governance	-	-	-	-	-	176	-	176
RDVs	-	-	-	-	-	-	263	263
Total	330	1342	1202	3721	848	1728	1648	10819

Source: Training Unit, SPS- Ethiopia

Table HRC7. Number of Trainees that took part in Training of Trainers Course by Profession, 2005–2011

Professional category	Year				Total
	2008	2009	2010	2011	
Pharmacists	49	134	0	45	228
Druggists	0	15	0	2	17
Health officer	0	3	0	2	5
Physicians	1	6	0	0	7
Nurse	0	8	0	0	8
Others	0	8	0	0	8
Total	50	174	0	49	273

Source: Training Unit, SPS-Ethiopia

Table HRC8. Number of RDV Training Participants by Venue, 2011

Training venue	Number of participants
Adama	35
Shashemene	38
Nekemte	44
Jimma	40
Dire Dawa	39
Adama	34
Jimma	33
Total	263

Source: RDV Coordinator SPS-Ethiopia

Table HRC9. Number of RDV Training Participants by Type of Trainees, 2011

Trainees	Number of participants
RDVs	217
Regulatory body	46
Total	263

Source: RDV Coordinator SPS-Ethiopia

Table HRC10. Number of RDVs in Oromia Trained by Profession, 2011

Profession	Number
Health assistant	94
Druggist	53
Nurse	65
Pharmacy technician	13
Public health	3
Health officer	7
Pharmacists	17
Environmental health	11
Total	263

Source: RDV Coordinator SPS-Ethiopia

DRUG AND THERAPEUTICS COMMITTEE

The complexity of medicine management issues—selection, procurement, distribution, storage, and use—requires broad multidisciplinary involvement. The Drug and Therapeutics Committee (DTC) is an essential component of a health-care organization’s medicine selection and use program. This committee evaluates the clinical use of medicines, develops policies for managing medicine use and administration, and manages the formulary system.

DTCs are key to improving RMU, facilitating transparent and evidence-based procurement decisions, involving all stakeholders in patient care as a team, and ensuring sustainability. SPS supported several initiatives to reinvigorate DTCs through trainings and sharing experiences. The government has made DTC a prerequisite in hospitals and, as a result, SPS–Ethiopia has supported the establishment of DTCs in government hospitals and health centers. By strengthening DTCs, facilities created a reliable way to identify and address medicine use problems. In addition, DTCs produced facility-specific drug lists that make the selection and purchase of medicines and supplies compatible with the needs of the health facility. This has resulted in cost containment and a significant reduction in the expiry of medicines.

Some important functions of DTCs include advising medical, administrative, and pharmacy departments on medicine-related issues; developing medicine policies and procedures; evaluating and selecting medicines for the formulary and making periodic revisions; assessing medicine use to identify potential problems; promoting and conducting effective interventions to improve medicine use; and managing the system to minimize the effect of adverse drug reactions and medication errors.

Data in this section includes the number of DTCs established by region; DTC trainees by qualification and facility; and a summary of DTC-related activities performed.

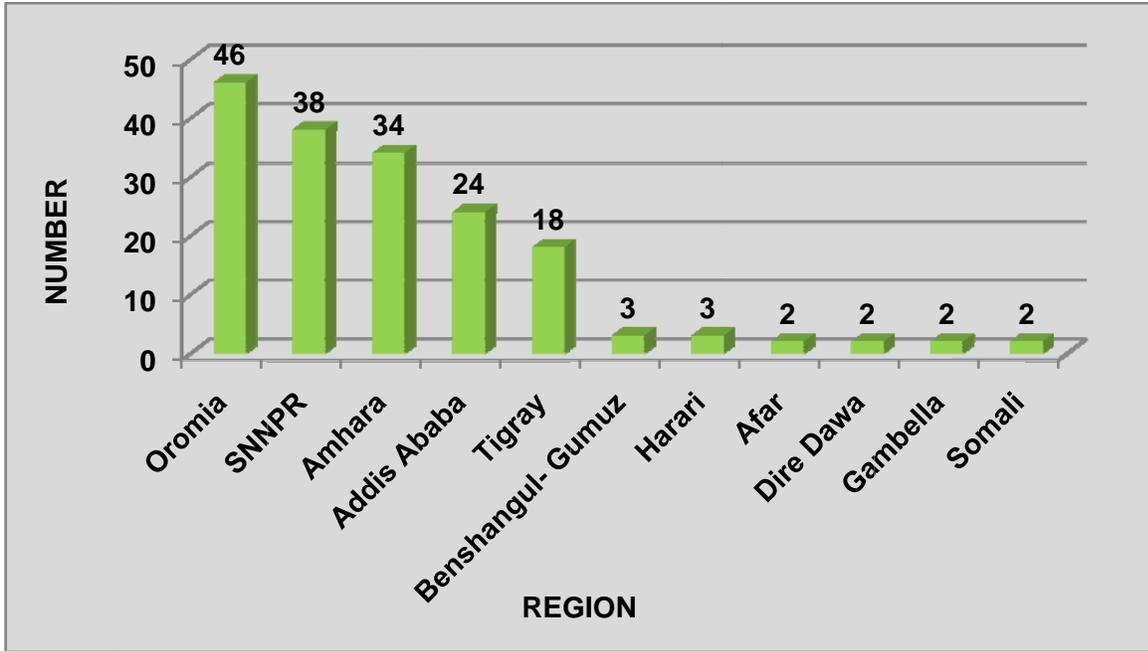


Figure DTC1. Total number of DTCs established by region, 2011

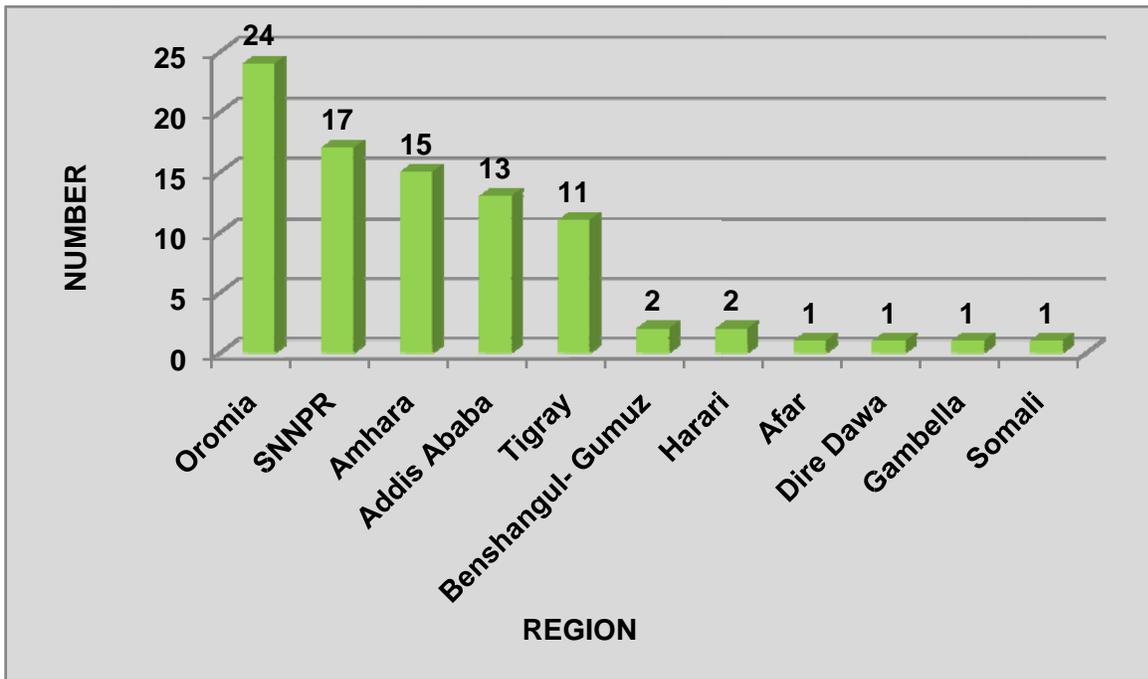


Figure DTC2. Number of DTCs established in hospitals by region, 2011

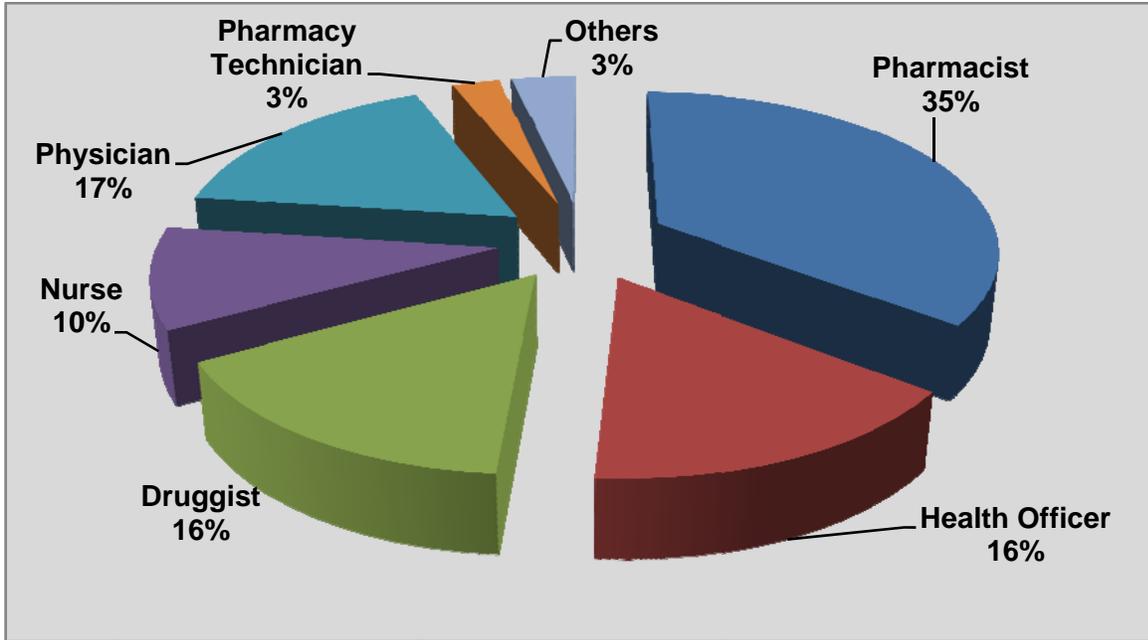


Figure DTC3. Percentage distribution of DTC trainees by profession, 2008–2011

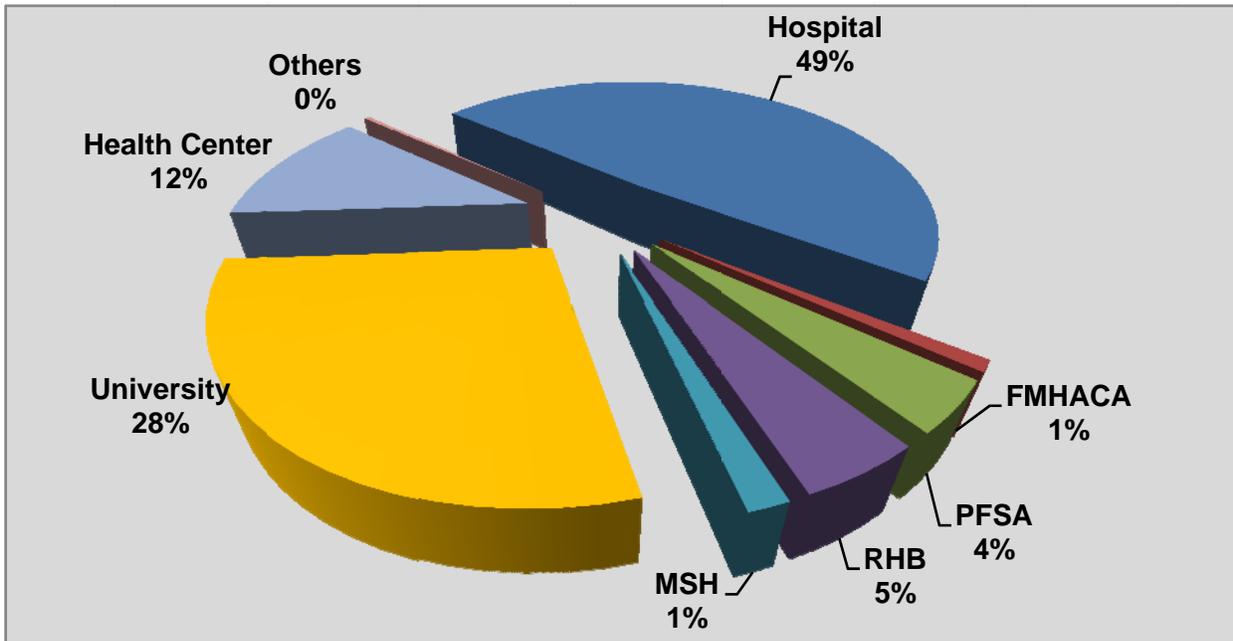


Figure DTC4. Percentage distribution of DTC trainees by facility, 2008–2011

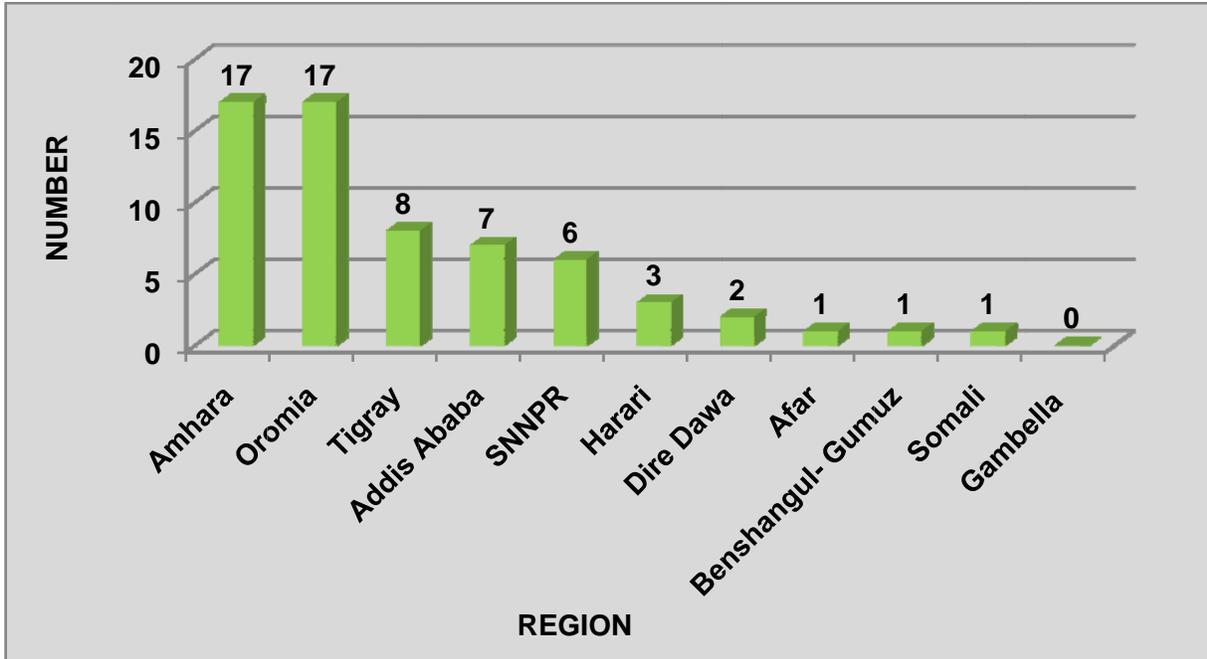


Figure DTC5. Number of facilities with facility-specific drug lists by region, 2011

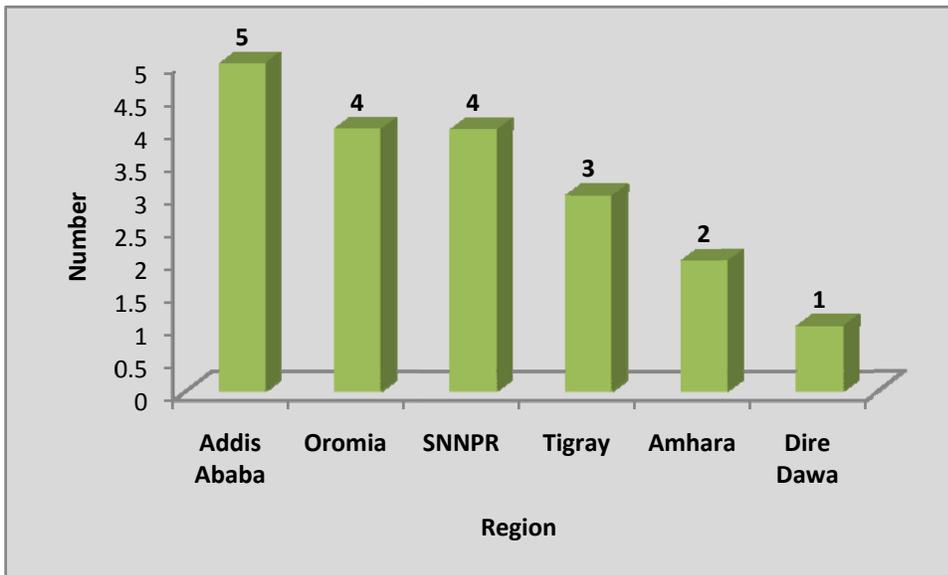


Figure DTC6. Number of health facilities with Drug Information Services, 2011

Table DTC1. Total Number of DTC Trainees by Gender, Profession, and Facility, 2008–2011

Category	2008	2010	2011	Total
Gender				
Male	256	280	331	867
Female	51	50	72	173
Profession				
Pharmacist	112	139	118	369
Health officer	31	42	90	163
Druggist	40	41	84	165
Nurse	23	27	55	105
Physician	84	64	26	174
Pharmacy technician	0	6	21	27
Others	17	11	9	37
Facility/organization				
Hospital	250	176	81	507
FMHACA	10	0	0	10
PFSA	0	18	25	43
RHB	23	7	18	48
MSH	14	2	-	16
School/university	8	3	279	290
Health center	0	123	-	123
Others	2	1	-	3
Total	307	330	403	1040

Source: DTC/DIS Unit, MSH/SPS-Ethiopia

Table DTC2. Distribution of DTCs by Facility and Region, 2008–2011

Region	Hospital	Health center	Total
Oromia	24	22	46
SNNPR	15	23	38
Amhara	17	17	34
Addis Ababa	11	13	24
Tigray	13	5	18
Benishangul-Gumuz	2	1	3
Harari	2	1	3
Afar	1	1	2
Dire Dawa	1	1	2
Gambella	1	1	2
Somali	1	1	2
Total	88	86	174

Source: DTC/DIS Unit, MSH/SPS-Ethiopia

Tables DTC3. Number of Facilities that Developed Facility-Specific Drug Lists by Region, 2008-2011

Region	Number
Amhara	17
Oromia	17
Tigray	8
Addis Ababa	7
SNNPR	6
Harari	3
Dire Dawa	2
Afar	1
Benishangul-Gumuz	1
Somali	1
Gambella	0
Total	63

Source: DTC/DIS Unit, SPS-Ethiopia

Table DTC4. Number of Health Facilities with Drug Information Services, 2011

Region	Number
Addis Ababa	5
Oromia	4
SNNPR	4
Tigray	3
Amhara	2
Dire Dawa	1
Total	19

Source: DIS Unit, SPS-Ethiopia

Table DTC5. Numbers of Various Types of DIS Equipment Supplied to Facilities, 2011

Equipment	Region						Total
	Addis Ababa	Oromia	SNNPR	Tigray	Amhara	Dire Dawa	
Computers	5	4	4	3	2	1	19
Printers	5	4	4	3	2	1	19
External hard disks	5	4	4	3	2	1	19
UPSs	6	4	4	3	2	1	20
Dividers	6	4	4	3	2	1	20
CDMAs	4	4	4	3	2	1	18
CDMA SIM cards	4	4	4	3	2	1	18
CDMA cards	20	20	20	15	10	5	90
Filing cabinets	5	4	4	3	2	1	19
Book shelves	6	4	4	3	2	1	20
Office desks	9	8	8	6	4	2	37
Swivel chairs	9	8	8	6	4	2	37
Notice boards	5	4	4	3	2	1	19
Stationary/accessories	326	104	104	78	52	26	690

Source: DIS Unit, MSH/SPS-Ethiopia

PRESIDENT’S MALARIA INITIATIVE/ANTIMALARIA DRUG MANAGEMENT

The Strengthening Pharmaceutical Systems Antimalarial Drug Management (SPS/AMDM) Program has been striving to provide technical, strategic, managerial, and operational support to implement and strengthen AMDM activities. Resources from PMI have been allocated to target Oromia Regional State, Ethiopia’s largest administrative region with a population of about 30 million. The program has a goal of building the capacity of local institutions including FMoH, ORHB, and zonal, district, and health facilities to effectively manage pharmacy services so as to optimize health outcomes. Beyond the traditional product availability at different health-system levels, the program has been focusing on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems, containing AMR, and enhancing access to and appropriate and rational use of medicines in the public and private sectors in the Oromia Region.

SPS started PMI/AMDM operations in October 2008. Initial activities focused on conducting a baseline assessment; conducting a micro-planning workshop with stakeholders and partners; selecting the first batch of health facilities for implementation; training and assigning staff to target sites to provide technical assistance (TA); developing, printing, and distributing monitoring and PMIS forms to health facilities; improving storage conditions at health facilities; and disposing of expired products. AMDM works in all 17 zones of Oromia.

Data in this section includes health facilities supported by the PMI/AMDM Program as of March 2010.

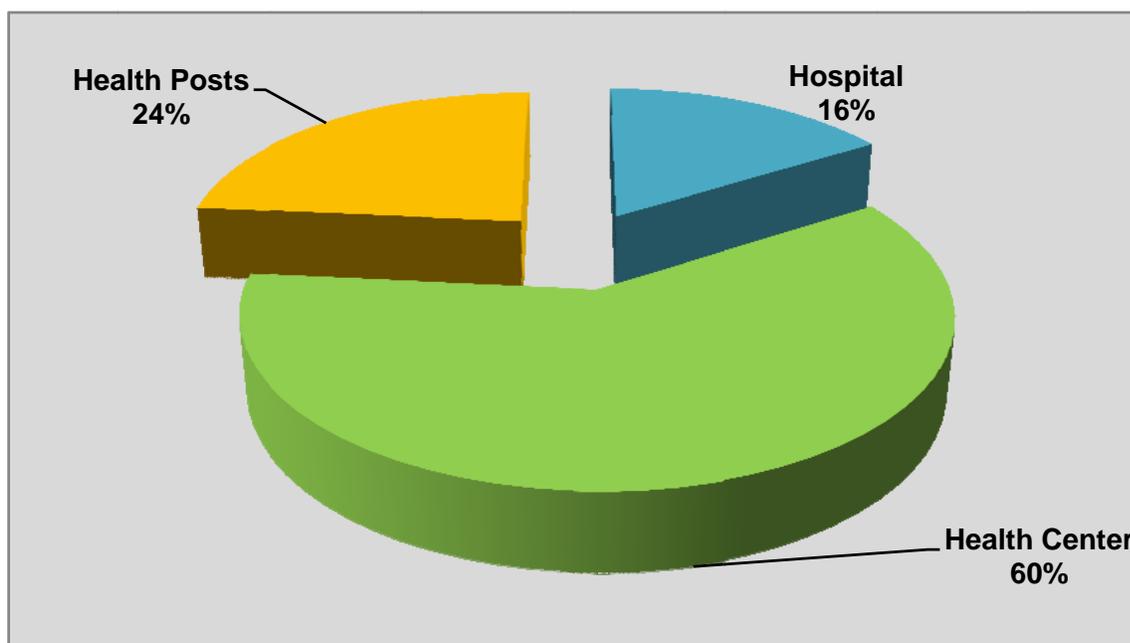


Figure PMI1. Percentage distribution of PMI health facilities, Oromia Region, 2011

Table PMI1. Total Number of Facilities Supported by the PMI/AMDM Program, Oromia Region, by Facility Type, 2011

Facility Type	Number
Hospital	24
Health center	90
Health posts	35
Total	149

Source: PMI/AMDM Project, SPS–Ethiopia

Table PMI2. Number of Health Facilities Supported by PMI/AMDM Program, Oromia Region, Categorized by Zone, 2011

Zone	Hospitals	Health centers	Health posts	Total
Bale	2	1	2	5
West Arsi	1	4	2	7
Jimma	2	7	4	13
Illubabor	1	6	0	7
West Shoa	2	9	5	16
Horo Guduru	1	1	0	2
West Hararghe	2	6	1	9
East Hararghe	2	7	4	13
East Shoa	4	13	4	21
Borena	2	5	3	10
Guji	1	5	3	9
West Wollega	1	4	0	5
Kelem Wollega	1	3	0	4
East Wollega	1	6	3	10
Arsi	0	4	1	5
North Shoa	1	2	1	4
Southwest Shoa	0	7	2	9
Total	24	90	35	149

Source: PMI/AMDM project, SPS–Ethiopia

Table PMI3. Numbers of Equipment Distributed by Type, Categorized by Zone, 2011

Zone	Type of equipment								Total
	Store shelves	Dispensing shelves	Lockable cabinets	Filing cabinets	Tables	Swivel chairs	Guest chairs	Wooden pallets	
Bale	0	15	2	1	1	0	2	5	26
West Arsi	0	0	0	0	0	0	0	0	0
Jimma	0	0	0	0	0	0	0	30	30
Illubabor	0	0	0	0	3	0	6	15	24
West Shoa	24	28	6	7	9	4	18	38	134
Horo Guduru	10	0	0	0	0	0	0	20	30
West Hararghe	0	10	0	0	0	0	0	21	31
East Hararghe	0	2	0	0	0	0	0	5	7
East Shoa	19	15	5	5	5	2	10	25	86
Borena	15	16	3	0	0	0	0	9	43
Guji	35	9	3	0	0	0	0	25	72
West Wollega	5	5	0	3	2	2	4	10	31
Kelem Wollega	20	10	0	1	1	1	2	35	70
East Wollega	52	23	0	8	7	7	14	35	146
Arsi	0	5	1	1	1	0	2	5	15
North Shoa	0	0	0	0	0	0	0	15	15
Southwest Shoa	7	0	3	3	2	2	4	20	41
Total	187	138	23	29	31	18	62	313	801

Source: PMI/AMDM project, MSH/SPS–Ethiopia

Table PMI4. Number of Health Facilities Receiving Equipment and Other Supplies from PMI/AMDM by Zone, 2011

Zone	Facility type				Total
	Hospital	Health center	Health post	Woreda and zonal health office	
Bale	1	2	0	0	3
Jimma	1	2	0	3	6
Illubabor	1	5	0	0	6
West Shoa	3	6	5	4	18
Horo Guduru	1	0	0	1	2
West Hararghe	2	3	0	3	8
East Hararghe	1	1	0	0	2
East Shoa	0	5	0	4	9
Borena	1	2	3	0	6
Guji	0	3	3	3	9
West Wollega	0	2	0	1	3
Kelem Wollega	0	2	0	2	4
East Wollega	0	6	0	4	10
Arsi	0	1	0	0	1
North Shoa	1	1	0	2	4
Southwest Shoa	0	3	0	2	5
Total	12	44	11	29	96

Source: PMI/AMDM Project, SPS–Ethiopia

SPS–ETHIOPIA PARTNERS AND COLLABORATORS

SPS–Ethiopia is working in collaboration with various national and international governmental and nongovernmental partners and counterparts that are operating in the country.

Data in this section lists partner organizations that are working closely with SPS by area of collaboration and support provided.

Table LPT1. SPS Major Partner Stakeholders, 2011

Partner	Area of collaboration	Support provided
RHB	Pharmaceutical system strengthening, building pharmaceutical HR capacity	Computers and printers, renovation, training, TA
FMoH	Staff embedment	One pharmacist embedded; meeting on AMR sponsored
Pharmaceutical Fund and Supply Agency (PFSA)	Joint implementation of SPS activities (RMU), building pharmaceutical HR capacity	Two pharmacists embedded; joint work plan implemented
FMHACA	Joint implementation of SPS activities (governance), production and distribution of pharmacy SOPs and forms, building pharmaceutical HR capacity	Three senior pharmacists embedded; joint work plan implemented
Schools of pharmacy (4)	Curriculum development, pharmaceutical care/clinical pharmacy HR development	Graduating students trained; TOT on clinical pharmacy
EPA	Joint implementation of SPS activities (HR capacity building)	One pharmacist embedded; donated one 4-wheel-drive vehicle; provided continuing education to members; constructed website
Ethiopian Druggist Association	Training and capacity building (implement a program of continuing education)	Provided continuing education to members
HIV/AIDS Prevention and Control Office	Joint supportive supervision, TA, production and distribution of pharmacy SOPs and forms	Donated one 4-wheel-drive vehicle
Health facilities (hospitals and health centers)	Implementation of SPS programs; EHRIG implementation; DTC formation; drug list development	Seconded data clerks; provided PMIS tools and other supplies; formed DTCs; EHRIG implemented; drug lists developed
DELIVER	Create synergy and harmony in pharmaceutical MIS	
I-TECH, JHU, FHI, HCSP, ICAP, UCSD, WHO	Training on ART manual SOP	Making experts available for training

ANTIRETROVIRAL TREATMENT SERVICES (PATIENT UPTAKE)

RPM PLUS, followed by SPS, has been working in Ethiopia since 2003 on a variety of health issues, including HIV/AIDS and tuberculosis. The program works in all 11 regions of the country and currently provides TA to 112 hospitals, 435 health centers, and 27 private institutions that provide ART services.

The program also introduced automated record keeping and inventory control tools to about 170 health facilities. As a result, over 110 public hospitals, 425 health centers, and 25 private health institutions all over the country benefit from a common patient-recording system and efficient reporting covering about 180,000 ART patients.

SPS promotes a comprehensive pharmaceutical management approach to ensure that the PMIS captures information on both products and patient parameters. SPS has introduced manual and electronic tools (Electronic Dispensing Tool [EDT]) in over 150 facilities. These will be scaled up and further elevated to serve as a tool for real-time dispensing, which has proven to be an efficient patient monitoring and counseling instrument for the pharmacist.

Data in this section covers the number of health facilities receiving TA from RPM Plus/SPS and the number of people receiving treatment from ART facilities.

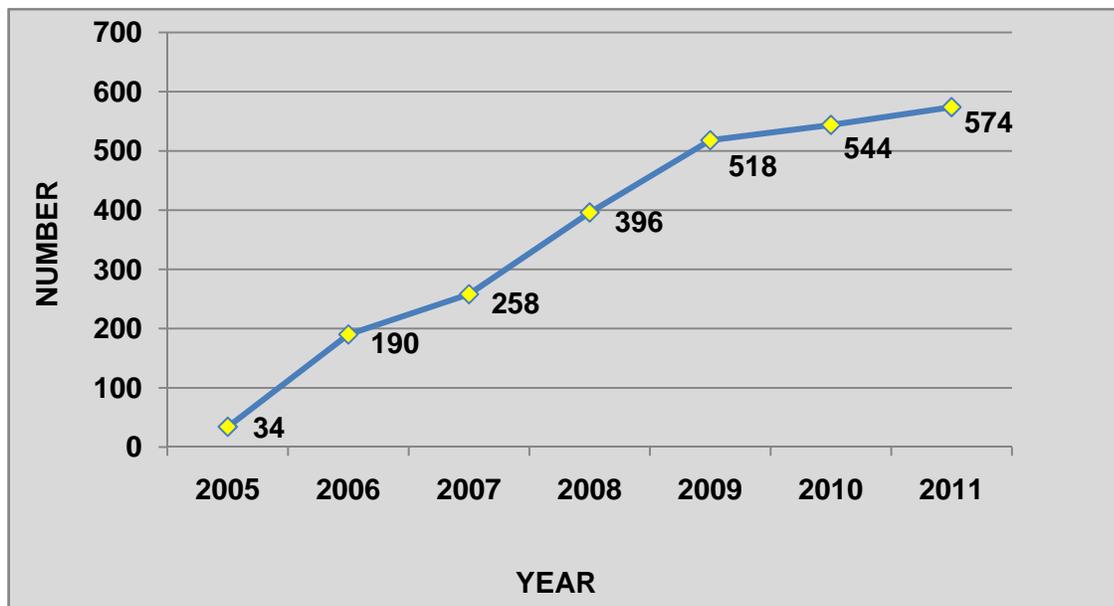


Figure ART1. Number of health facilities receiving TA from SPS, 2005–2011

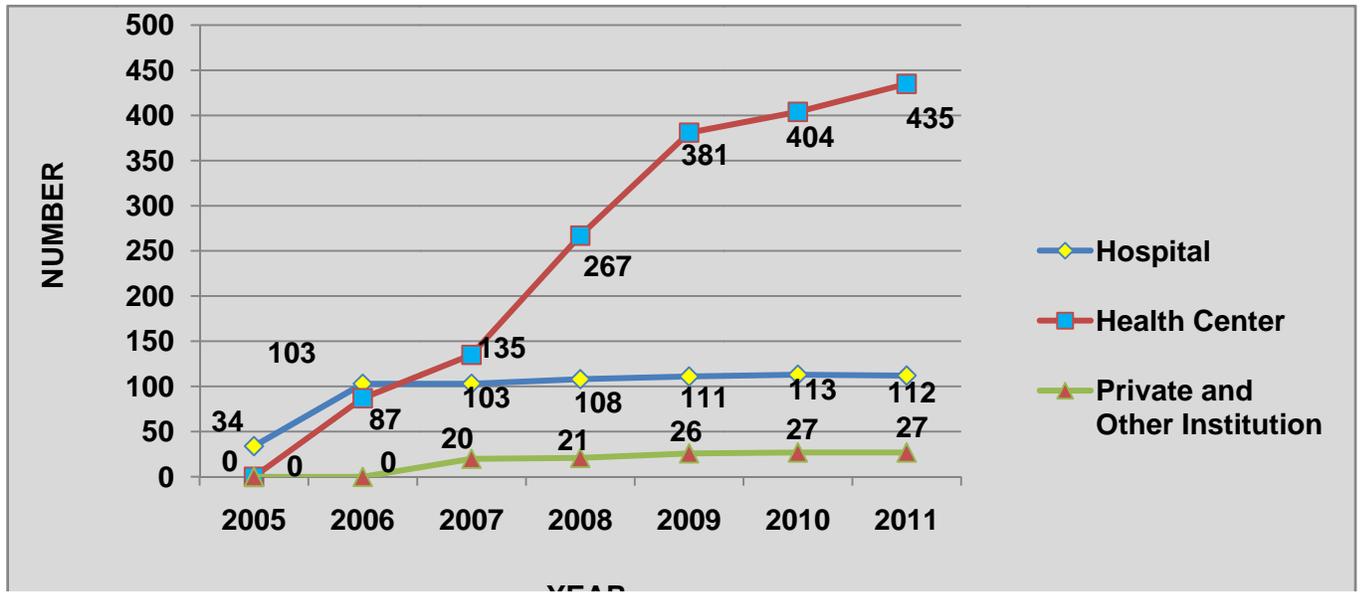


Figure ART2. Number of hospitals, health centers and private health facilities receiving TA from SPS, 2005-2011

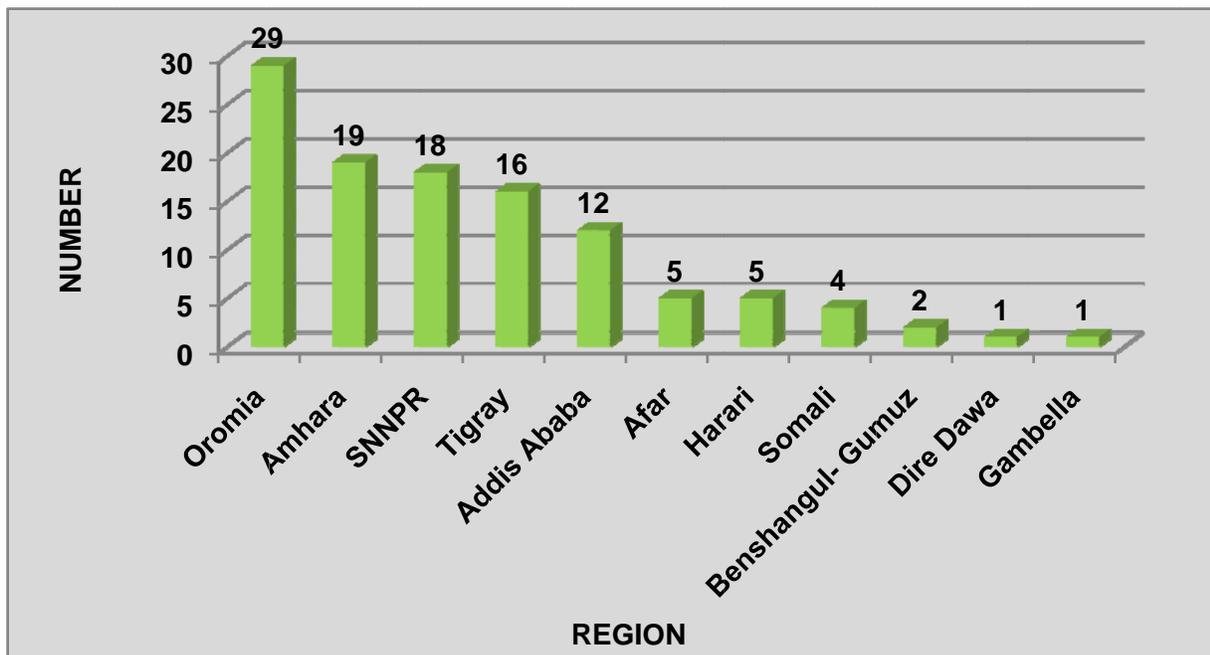


Figure ART3. Number of ART hospitals receiving TA from SPS by region, 2011

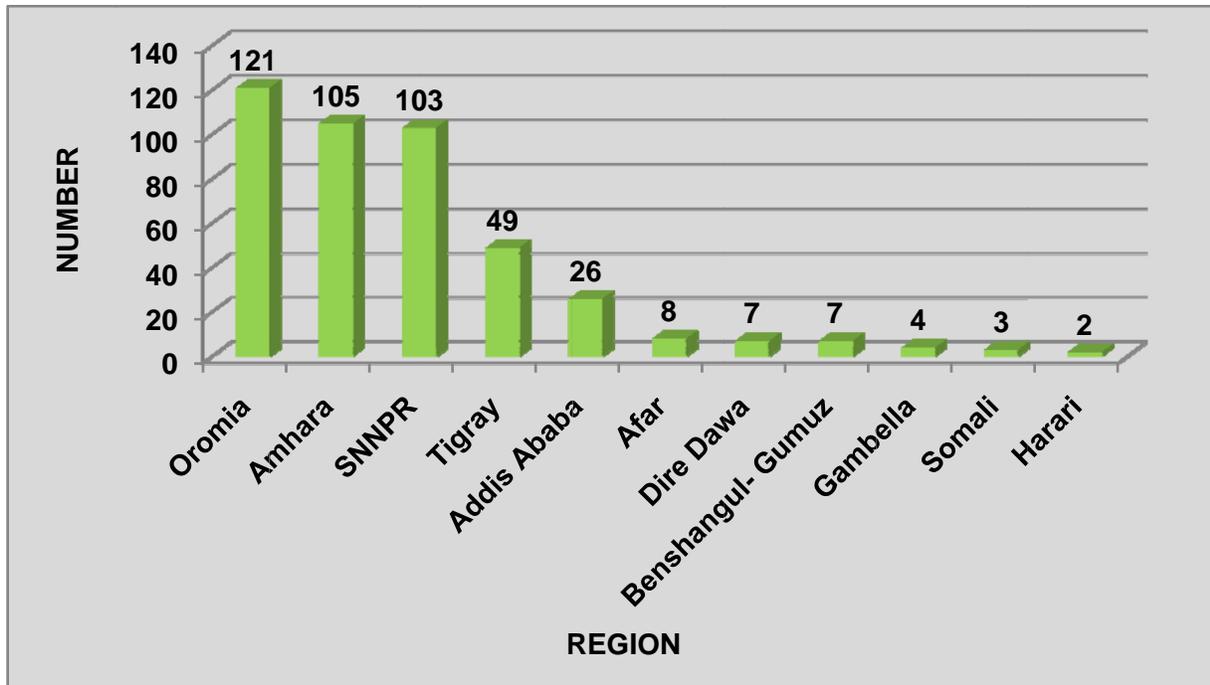


Figure ART4. Number of ART health centers receiving TA from SPS by region, 2011

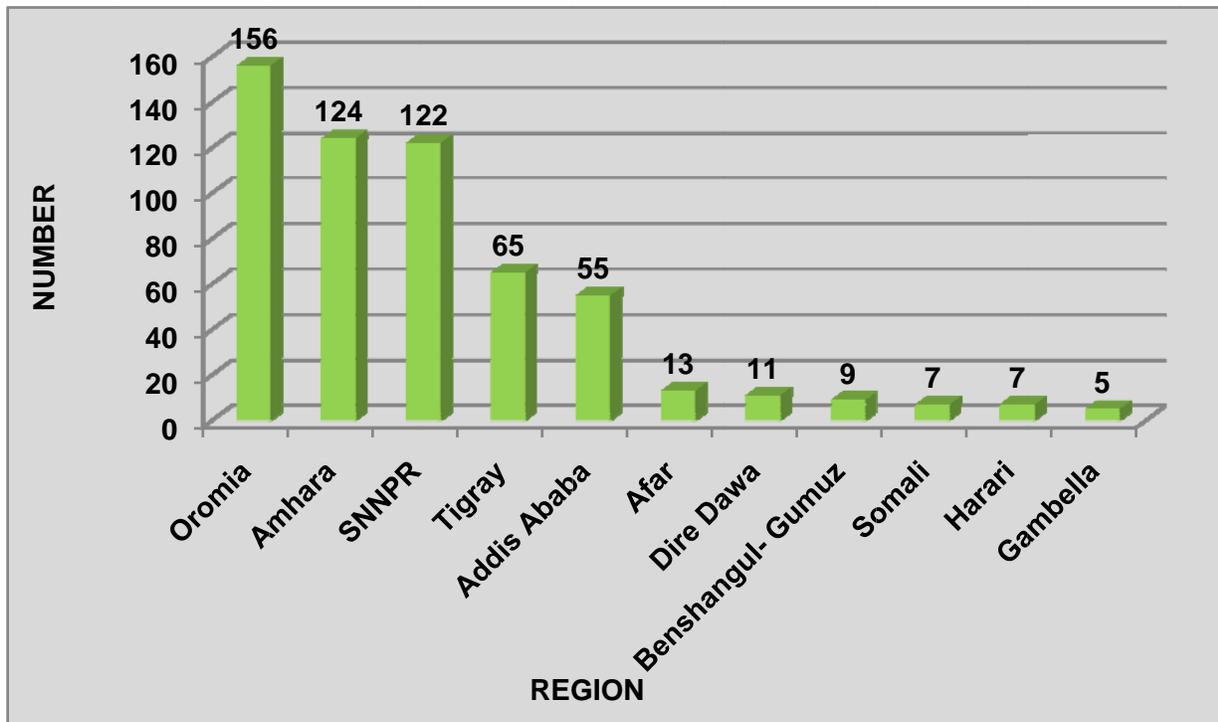


Figure ART5. Total number of health facilities receiving TA from SPS by region, 2011



Figure ART6. Number of people (adults, pediatric) on treatment at ART sites, 2005–2011

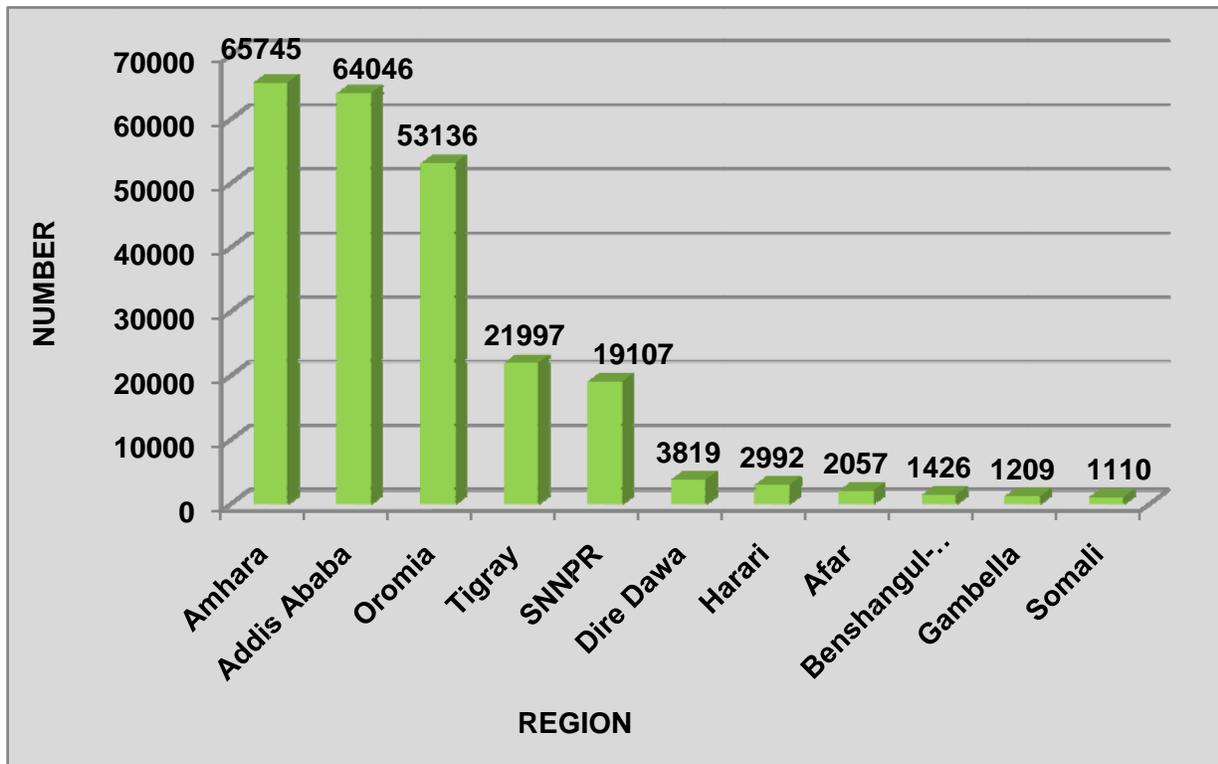


Figure ART7. Number of people on treatment by region, 2011

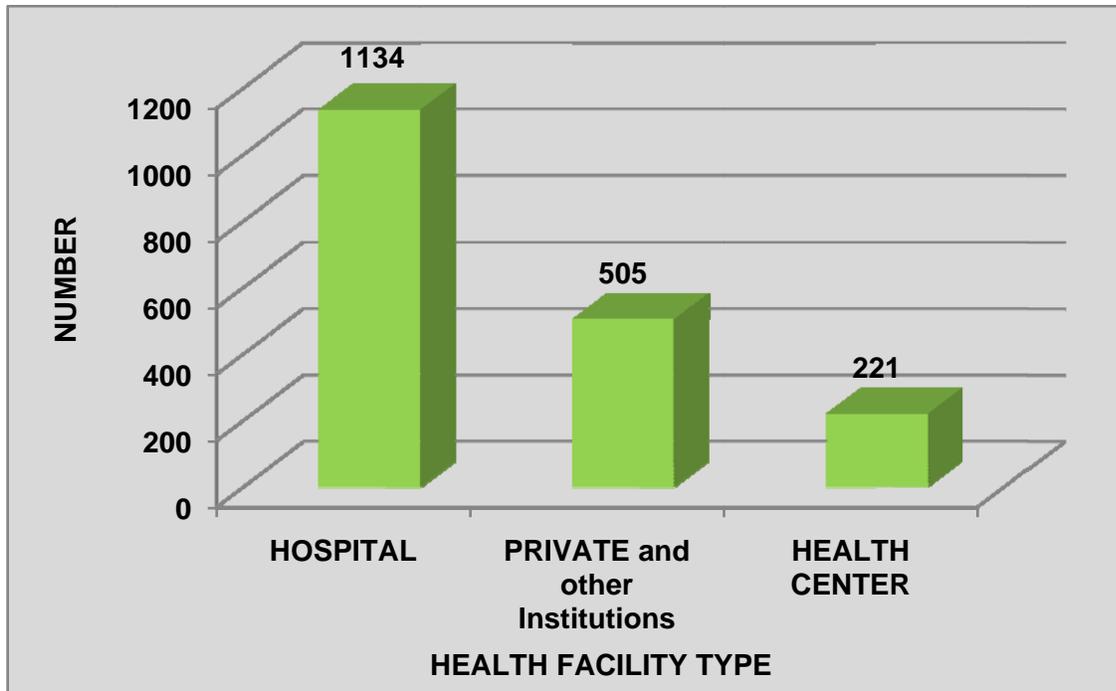


Figure ART8. Average number of people on treatment by facility type, 2011

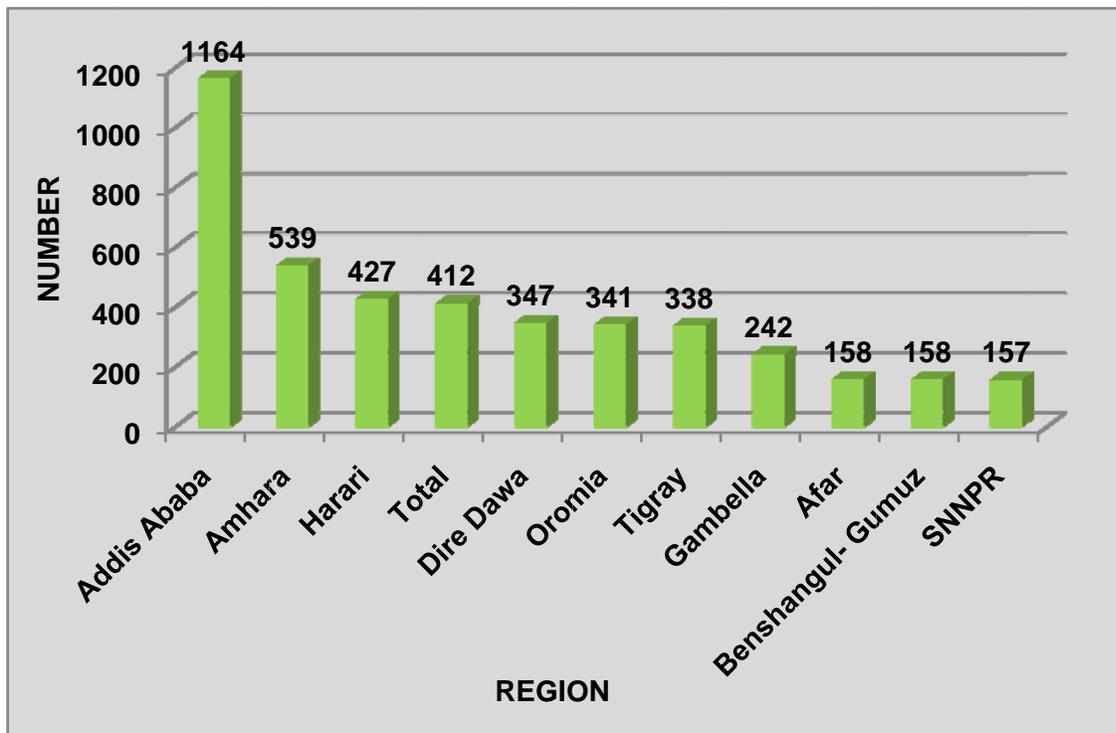


Figure ART9. Average number of people on treatment by region, 2011

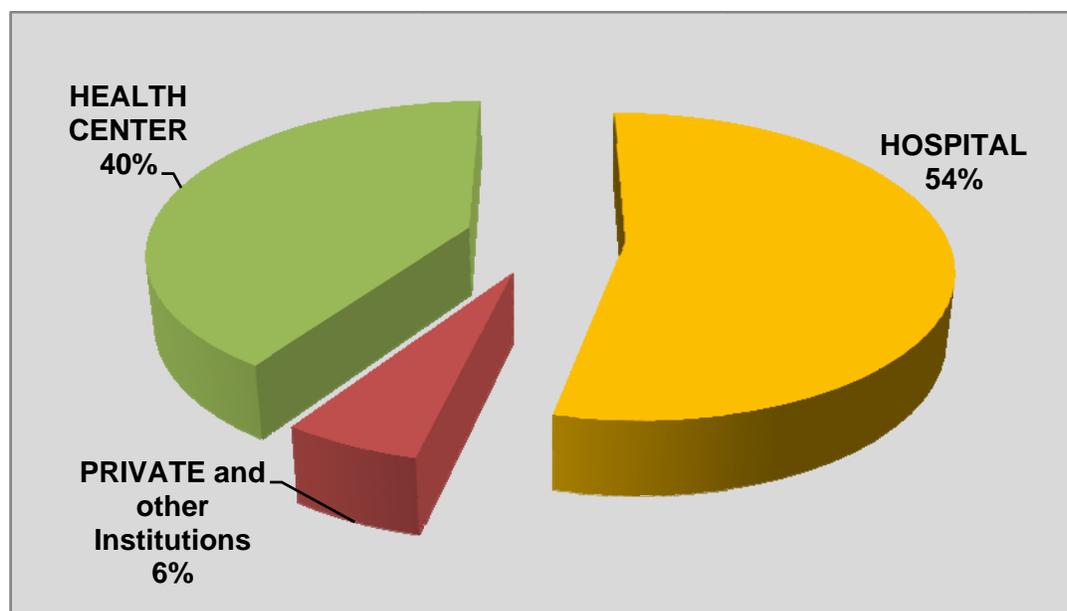


Figure ART10. Percentage distribution of people on treatment by facility type, 2011

Table ART1. Number of ART and PMTCT Sites Receiving TA from RPM Plus/SPS, 2005–2011

Year	ART sites	PMTCT sites
2005	34	Data not available
2006	190	
2007	258	
2008	396	481
2009	518	595
2010	544	595
2011	574	595

Source: PMIS Unit, SPS-Ethiopia

Table ART2. Number of ART Sites Receiving TA from RPM Plus/SPS by Type of Facility, 2005–2011

Year	ART sites		
	Hospitals	Health centers	Private and other institutions
2005	34	0	0
2006	103	87	0
2007	103	135	20
2008	108	267	21
2009	111	381	26
2010	113	404	27
2011	112	435	27

Source: PMIS Unit, SPS-Ethiopia

Table ART3. Number of ART and PMTCT Sites Receiving TA from SPS by Region, 2011

Region	ART sites			Total	PMTCT sites
	Hospitals	Health centers	Private and other institutions		
Oromia	29	121	6	156	180
Amhara	19	105	0	124	111
SNNPR	18	103	1	122	155
Tigray	16	49	0	65	58
Addis Ababa	12	26	17	55	53
Afar	5	8	0	13	6
Dire Dawa	1	7	3	11	6
Benishangul-Gumuz	2	7	0	9	10
Somali	4	3	0	7	5
Harari	5	2	0	7	7
Gambella	1	4	0	5	4
Total	112	435	27	574	595

Source: PMIS Unit, SPS-Ethiopia

Table ART4. Number of People on Treatment at ART Sites, 2005–2011

Year	Patients on treatment		
	Adults	Pediatric	Total
2005	4151	158	4309
2006	51350	2379	53729
2007	89078	4004	93082
2008	129681	6559	136240
2009	171387	9909	181296
2010	187793	11151	198944
2011	222974	13670	236644

Source: PMIS Unit, SPS-Ethiopia

Table ART5. Number of People on Treatment by Region, 2011

Region	Number of people on treatment		Total
	Adult	Pediatric	
Amhara	62122	3623	65745
Addis Ababa	60716	3330	64046
Oromia	49338	3798	53136
Tigray	20587	1410	21997
SNNPR	18177	930	19107
Dire Dawa	3607	212	3819
Harari	2824	168	2992
Afar	2025	32	2057
Benishangul-Gumuz	1342	84	1426
Gambella	1167	42	1209
Somali	1069	41	1110
Total	222974	13670	236644

Source: PMIS Unit, SPS-Ethiopia

Table ART6. Number of People on Treatment by Facility Type, 2005–2011

Year	Health facility type			Total
	Hospitals	Health centers	Private and other institutions	
2005	4309	0	0	4309
2006	50235	3543	0	53778
2007	71937	16042	5103	93082
2008	91969	37022	7163	136154
2009	109064	62571	9661	181296
2010	114721	73306	10917	198944
2011	126973	96046	13625	236644

Source: PMIS Unit, SPS-Ethiopia

Table ART7. Number of Patients on Treatment per Facility, 2011

Health facility	Number of health facilities	Number of patients	Number of patients per facility
Hospitals	112	126973	1134
Private and other institutions	27	13625	505
Health centers	435	96046	221
Total	574	236644	412

Source: PMIS UNIT, SPS-Ethiopia

Table ART8. Number of People on Treatment by Facility Type and Region, 2011

Region	Number of patients per facility			Total
	Hospitals	Health centers	Private	
Addis Ababa	31156	22365	10525	64046
Afar	1197	860	0	2057
Amhara	31635	34110	0	65745
Benishangul-Gumuz	1106	320	0	1426
Dire Dawa	2327	1142	350	3819
Gambella	873	336	0	1209
Harari	2981	11	0	2992
Oromia	28789	21602	2745	53136
SNNPR	11685	7417	5	19107
Somali	1080	30	0	1110
Tigray	14144	7853	0	21997
Total	126973	96046	13625	236644

Source: PMIS Unit, SPS-Ethiopia

Table ART9. Average Number of People on Treatment per Facility by Region, 2011

Region	Number of patients	Number of facilities	Average
Amhara	65745	124	530
Addis Ababa	64046	55	1164
Oromia	53136	156	341
Tigray	21997	65	338
SNNPR	19107	122	157
Dire Dawa	3819	11	347
Harari	2992	7	427
Afar	2057	13	158
Benishangul-Gumuz	1426	9	158
Gambella	1209	5	242
Somali	1110	7	159
Total	236644	574	412

Source: PMIS Unit, SPS-Ethiopia