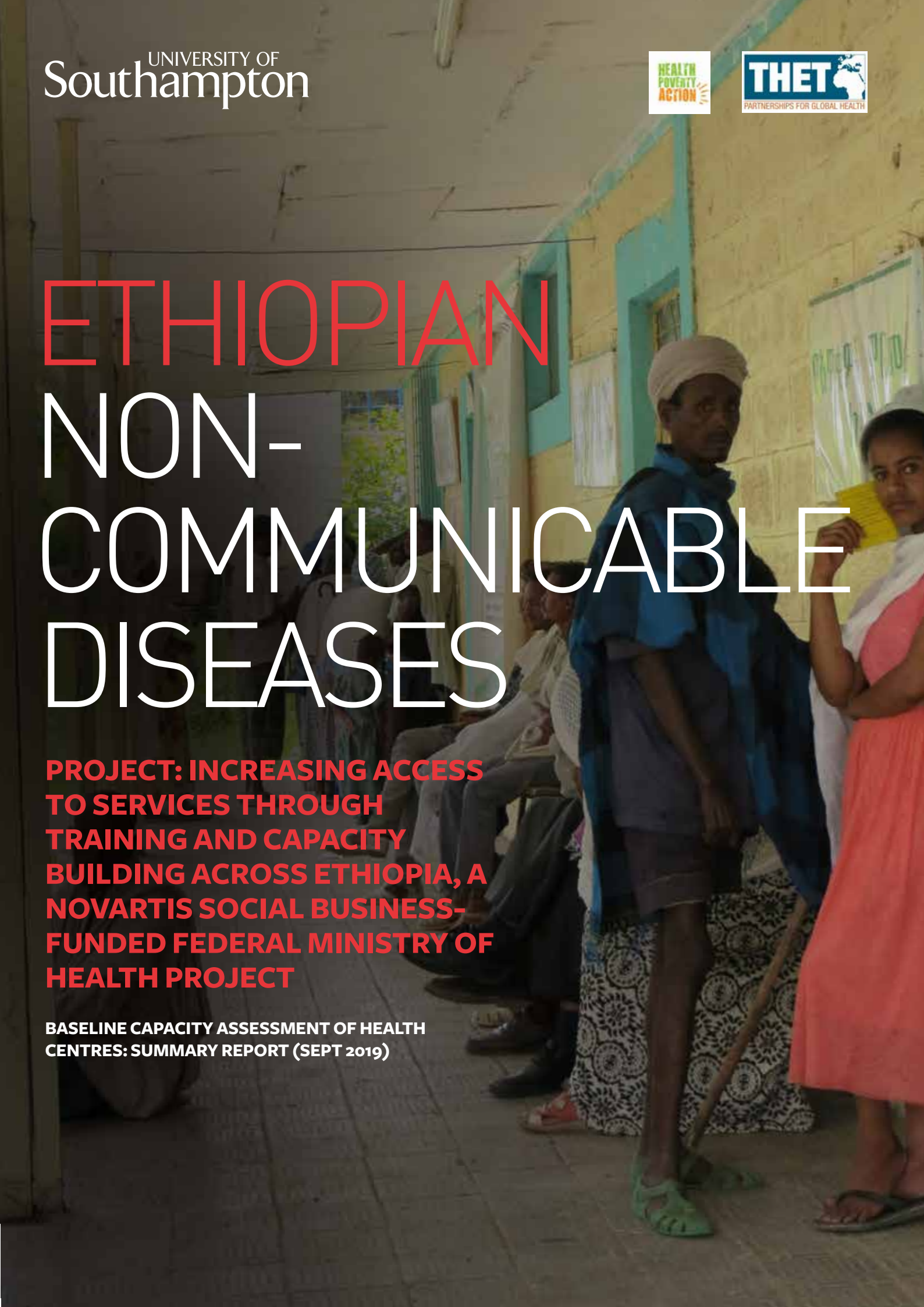


University of Southampton

HEALTH POVERTY ACTION

THET
PARTNERSHIPS FOR GLOBAL HEALTH

ETHIOPIAN NON-COMMUNICABLE DISEASES

PROJECT: INCREASING ACCESS TO SERVICES THROUGH TRAINING AND CAPACITY BUILDING ACROSS ETHIOPIA, A NOVARTIS SOCIAL BUSINESS-FUNDED FEDERAL MINISTRY OF HEALTH PROJECT

BASELINE CAPACITY ASSESSMENT OF HEALTH CENTRES: SUMMARY REPORT (SEPT 2019)

CONTENTS

Acronyms

BP	Blood Pressure
ETB	Ethiopian Birr
FMOH	Federal Ministry of Health
HC	Health Centre
HEW	Health Extension Workers
HL	Health Limited
HMIS	Health Management and Information System
HO	Health Officer
NCD	Non-Communicable Disease
SNNPR	Southern Nations, Nationalities and Peoples Region
THET	Tropical Health and Education Trust
USD	United States Dollars

Acknowledgements

The field work described in the report was conducted by:
Dr Yoseph Mamo – Clinical Lead
Ato Afendi Ousman – NCD Team Leader
Ato Addisu Worku – NCD Team member
Ato Abere Dessie – Senior Field Officer

Thanks are also due to the many staff in the regional and warida health bureaux who assisted in the assessment

The analyses were carried out by:

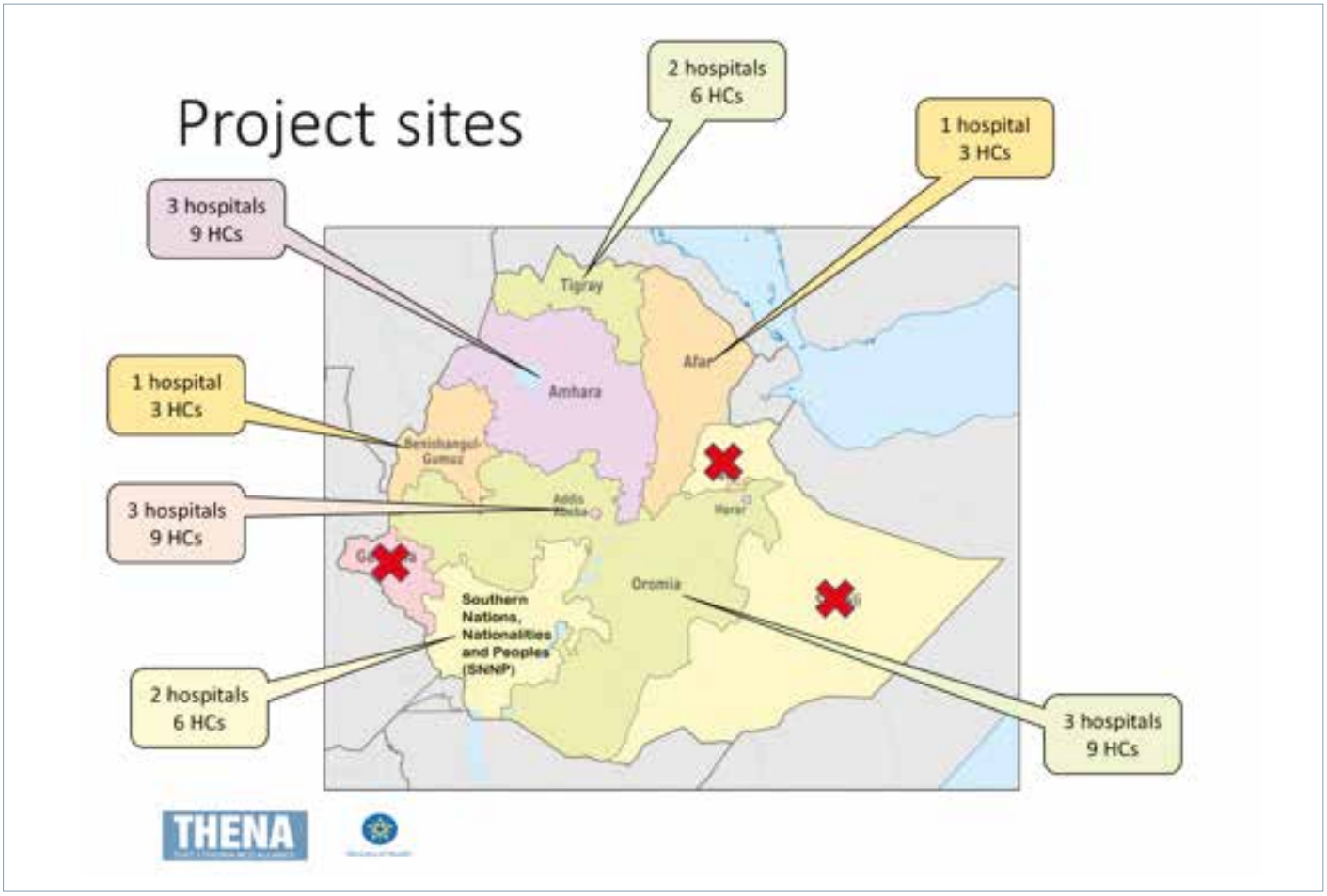
Ato Temesgen Degefa – Project Monitoring and Evaluation Officer
Dr Yoseph Mamo
Professor David Phillips – THET honorary adviser
Dr Andrew Mortimore – THET honorary adviser

A previous (interim) report is available on the THENA website (**www.THENA-Ethiopia.org**)

INTRODUCTION AND LOCATION OF HEALTH CENTRES

THE AIM OF THE PROJECT IS TO INCREASE ACCESS TO HEALTH CARE FOR NON-COMMUNICABLE DISEASES (NCDS) AMONG THE ETHIOPIAN POPULATION THROUGH CAPACITY BUILDING, DEVELOPING HUMAN RESOURCES AND DECENTRALIZING THE SCREENING, DIAGNOSIS, TREATMENT AND CARE IN A RANGE OF PRIMARY HEALTH CARE FACILITIES ACROSS ETHIOPIA.

The project was launched in December 2018 by the Federal Ministry of Health (FMOH) in collaboration with the Tropical Health and Education Trust (THET) and Health Limited (HL) with the support of Novartis Social Business funding. The FMOH selected 15 hospitals across the seven most populous regions of Ethiopia. These comprised three General Hospitals in Addis Ababa, and 12 Primary Hospitals in the Oromia, Amhara, SNNPR, Tigray, Benshangul-Gumz and Afar Regional States. Three linked health centres were identified for each of the hospitals such that there were a total of 45 health centres included in the project. The map below shows the location of the project sites showing the number of hospitals and health centres in each included region. The regions marked with a cross were not represented in the project. Table 1 lists the names of the health centres in each region.



Region	Primary/General Hospital	Health Centre
Addis Ababa	Zewditul Ras Desta Minillik	Nifas Silk Lafto Woreda 5 Nifas Silk Lafto Woreda 6 Alembank Kolfe Kotobe Semen Amoraw Addis Ketema KK Woreda 7 Kasanchis
Afar	Dupti	Dupti Mejenta Serdo
Amhara	Lalibela Weldya Debark	Lalibela Bilbala Shumshaha Weldya Mersa Kobo Debark Adarkit Dabat
Benishangul-Gumz	Asosa	Asosa Bambasi Homosha
Oromiya	Enchini Chancho Banto	Enchini Reji Olonkomi Chancho Gorfo Darba Banto Tumewayu Habebe
SNNPR	Kamba Bachuma	Kemba Balta Maze Shaybench Jemmu Gajit

Table 1: List of Health Centres according to region

GENERAL INFORMATION

During the first two quarters of 2019 comprehensive assessments were carried out in all 60 project sites (15 hospitals and 45 health centres). Most were through team visits, with follow up by phone for clarification and collection of missing data. A small number were conducted entirely through phone conversations, because of late changes in sites by FMOH and problems of timing visits and the rainy season. The capacity assessment form used to collect data for the HCs is available on the THENA website (www.THENA-Ethiopia.org). This was designed to provide information on the facilities available, workforce and readiness of the HCs to undertake NCD work.

Electrical and water supply

Almost all health centres had access to water and power supplies although periodic electricity interruptions were common in each region. All had some form of power back-up.

Population served

A total of 1.5 million people were served by the 45 HCs. Table 2 shows that there is enormous variation in the size of the catchment population covered by individual HCs. This ranged from as little as 2,000 up to 92,000 in some HCs in Benishangul-Gumz. Although the large urban areas of Addis Ababa tended to have HCs with big populations, Amhara and Benishangul-Gumz also had HCs with large catchment populations. HCs in the more remote regions (eg Afar, SNNPR) tended to serve smaller populations. Each HC is linked to a number of health posts (HPs) – the village level facilities providing the lowest level and most accessible health care for rural populations. Table 2 shows the numbers of HPs linked to the HCs again varies enormously.

Patient costs

Most health centres reported free consultations. Among those who charged fees, the average cost for a consultation per patient was 2.0 ETB (max 5.0 ETB)*. 24/45 HCs provided information on the proportion of patients accessing the centre who were eligible to receive free drugs. This was a median of 10% with one HC reporting levels as high as 28%.
(*1 USD = 30 ETB)

Region	No of HCs	Catchment population,0oos (range)	No of linked health posts (range)
Addis Ababa	9	41(33-74)	-
Amhara	9	44(19-70)	5(2-10)
Afar	3	8(5-24)	3(1-5)
Benishangul-Gumz	3	64(23-92)	8(5-10)
Oromia	9	26(18-62)	6(3-10)
SNNPR	6	29(17-50)	9(4-14)
Tigray	5	15(2-19)	3(2-3)

Table 2: Median and range of catchment population size per HC according to region. Also shown are the median and range of the number of health posts linked to each HC

PATIENT REFERRAL FACILITIES

Table 3 shows the distance and costs involved in referring and transporting a patient to the nearest hospital. These showed great variation and in some remote areas were clearly prohibitive. Most transport was by ambulance (21 HCs), public transport (11 HCs), car or bajaj* (8 HCs). Of 41 responding HCs, there were a total of 15 working vehicles (+ three non-functioning). None of the HCs in the Afar region or SNNPR had vehicles. Importantly, nearly half the patients referred from HCs to hospital are required to travel at least 20kms and nearly Ð have to pay up to 50ETB. (1.7USD)

Region	No of HCs	Median (range) distance to nearest referral hospital, Km.	Median (range) of estimated costs (ETB) of hospital referral
Addis Ababa	9	6(1-20)	8(3-30)
Amhara	9	23(1-89)	20(0-50)
Afar	3	50(2-52)	50(5-70)
Benishangul-Gumz	3	38(5-45)	0(0-40)
Oromia	9	7(1-40)	10(3-50)
SNNPR	6	33(1-58)	62(8-600)
Tigray	5	40(40-70)	20(10-55)

Table 3: Distance and cost of travel to the nearest referral hospital

HUMAN RESOURCES

Table 4 shows the total numbers of staff in the HCs and the breakdown by major role. The larger size of the HCs in major urban centres such as Addis Ababa is reflected in the larger number of staff there. The front line staff (nurses and health officers) form a modest proportion of the total workforce in the HCs which include laboratory staff, pharmacists and reception/facilities staff.

Region	No of HCs	Total no. per HC		Median number per HC by role		
		Median	Range	Health officers	Nurses	HMIS
Addis Ababa	9	130	54-173	12	34	1
Amhara	9	36	14-49	3	15	1
Afar	3	8	7-18	1	5	0
Benishangul-Gumz	3	51	28-64	4	21	1
Oromia	9	15	6-20	3	6	1
SNNPR	6	22.5	15-32	1	11	1
Tigray	5	21	11-20	3	8	1

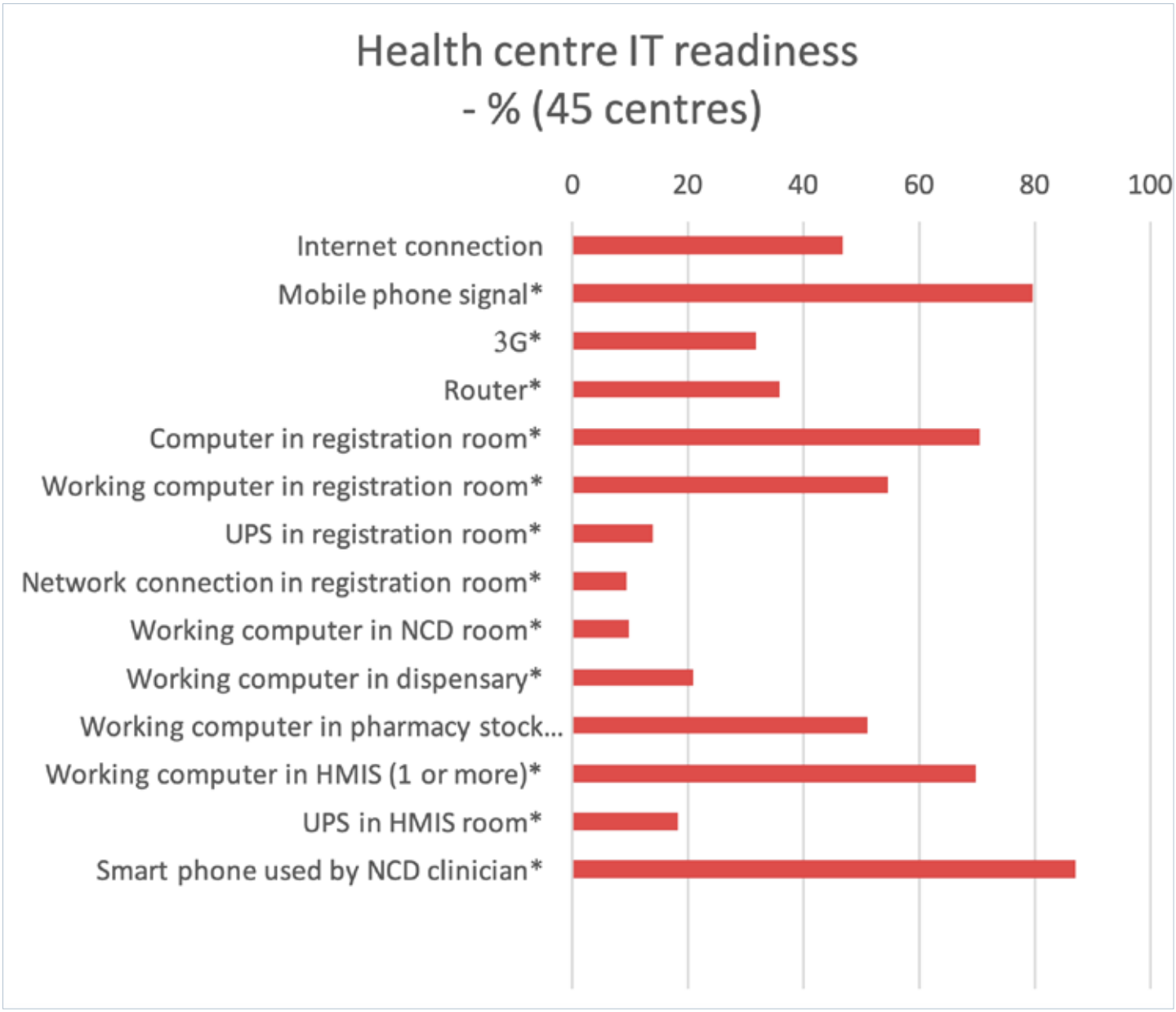
Table 4: Number of staff in the health centres by region

HEALTH MANAGEMENT INFORMATION SYSTEMS

Nearly half of the health centres had an internet connection and internet routers were found in about a third. About half of those with a connection reported that the connectivity was frequently interrupted (either daily or several times each week). 80% of health centres could receive either 2G (15 HCs) or 3G (14 HCs) phone signal.

70% of centres had a working computer in the registration room, 10% in the NCD room, 21% in the dispensary, 51% in the pharmacy stock room and 70% in the HMIS room. For every seven working computers across all the centres there was one non-working one. There were only a limited number of UPS being deployed – for example, 6 (14%) in the registration rooms and 4 (9%) in pharmacy stock rooms. Very few facilities (less than 10%) have rooms that are networked.

Android smart phones are owned and used by most NCD clinicians (87%), and some other key staff: pharmacy I/C (91%), HMIS officer (95%). Social media is being commonly used – for example, of NCD clinicians with smart phones, 44% use Whatsapp and 50% use Viber.



*indicates data not available from all 45 health centres

NCD READINESS

Current NCD clinics

Table 5 shows the number of HCs which currently provide NCD services in each region and the number of days/week on which these services are provided. Excluding Addis Ababa, where services appear to be more developed, only 15 out of 36 HCs were able to provide limited NCD services. Guidelines were generally not available with only 11 HCs stating that they had access to these. There was considerable variation in the caseload of patients seen per week with some HCs reporting considerable numbers.

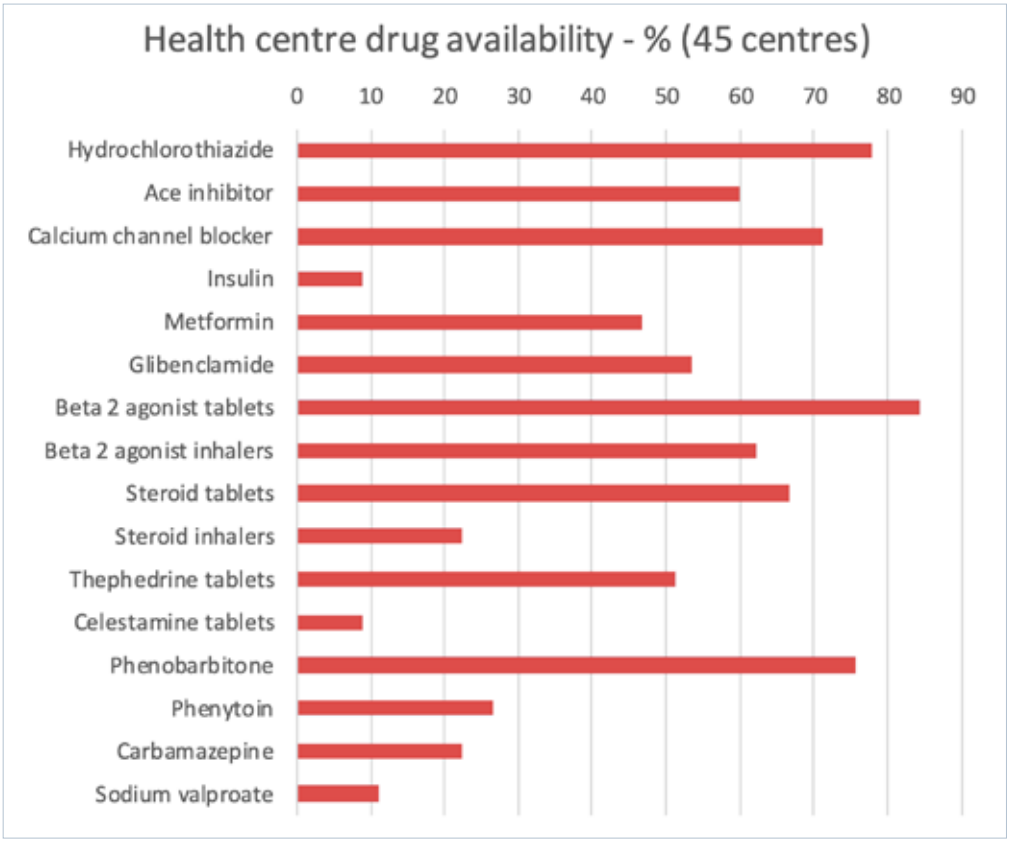
Region	No of HCs	Current NCD clinics		
		No. HCs providing (median days/ week)	Guidelines available	Patients seen/week Median (min,max)
Addis Ababa	7	7(5)	3	75(40,250)
Amhara	9	5(5)	6	100(3,160)
Afar	3	3(7)	1	25(20,30)
Benishangul-Gumz	3	0	0	0
Oromia	9	4(5)	0	100(65,280)
SNNPR	6	0	0	30(15,30)
Tigray	6	3(5)	1	8(2,60)

Table 5: Number of HCs providing NCD facilities in the seven regions together with the number having guidelines available and the number of patients seen per week.

Drug availability

The chart summarises the availability of essential non-communicable disease (NCD) drugs at all the sites. These drugs are the ones recommended in FMOH guidelines for the management of NCDs, and the data collected are by generic name or drug class. A very small amount of data are missing, so a medicine has only been counted as present if it is recorded as such.

This is a snapshot of drug availability at the beginning of the project, before staff have been formally trained in the management of NCDs and any clinics have been formally launched or re-launched. The team are able to access the data to focus on sites and geographical areas where drug availability is poorest, and the database will be updated at quarterly supervision visits/reviews



NCD READINESS (cont'd)

Numbers of staff trained in NCD management in each region

Table 6 summarises the training of staff for NCD work in the regions and focusses on nurses and health officers. It highlights the poor levels of training in all centres.

Region	No of HCs	Health Officers		Nurses	
		Total	NCD trained	Total	NCD trained
Addis Ababa	9	113	7	306	6
Amhara	9	27	7	122	3
Afar	3	2	0	17	0
Benishangul-Gumz	3	15	0	63	0
Oromia	9	28	0	49	0
SNNPR	6	8	0	74	0
Tigray	5	17	1	37	1

Table 6: Numbers trained in each region in NCD management.

Availability of equipment

Table 7 shows that equipment availability is patchy with some regions well supplied but severely lacking in others. Few HCs had access to glucometers. The quality of much of the equipment, especially sphygmomanometers, was poor and consumables such as sticks for the glucometers were difficult to obtain. Peak flow meters and spirometry were generally not available even at hospital level.

Region	No of HCs evaluated	Functioning apparatus available				
		Weight/ height scale	Sphygmo-manometer	Glucome-ter	Stetho-scope	Measuring tape
Addis Ababa	7	7	7	0	7	4
Amhara	9	6	8	3	9	2
Afar	3	2	2	1	2	2
Benishangul-Gumz	3	0	0	0	0	0
Oromia	9	6	9	1	9	0
SNNPR	6	3	4	3	4	2
Tigray	5	4	5	2	5	4

Table 7: Equipment availability in the HCs by region.

NCD READINESS (cont'd)

Availability of laboratory investigations

There was considerable variation in the investigations available (Table 8). The supply of reagents was inconsistent and limited evidence for effective quality control. At HC level the range of investigations was often limited to a blood count and dipstick urinalysis.

Region	No of HCs	Number of HCs with laboratory analyses available						
		FBC	Elec-tro-lytes	Blood glucose	Urinalysis	Micro-al-buminuri	HBA1C	Lipids
Addis Ababa	9	4	1	3	9	0	0	0
Amhara	9	2	1	8	9	6	0	1
Afar	3	0	0	2	2	1	0	0
Benishangul-Gumz	3	0	0	3	3	3	0	0
Oromia	9	2	0	8	8	5	3	0
SNNPR	6	1	0	4	5	2	1	0
Tigray	6	0	0	4	5	1	0	0

Table 8: availability of laboratory analyses in the HCs

Resources for raising NCD awareness in the community

A total of 27 out of 30 HC did not have any NCD teaching materials and although staff were aware of the new HEW programme package which covers NCDs: with the exception of within Addis Ababa, few had received orientation or training (Table 9)

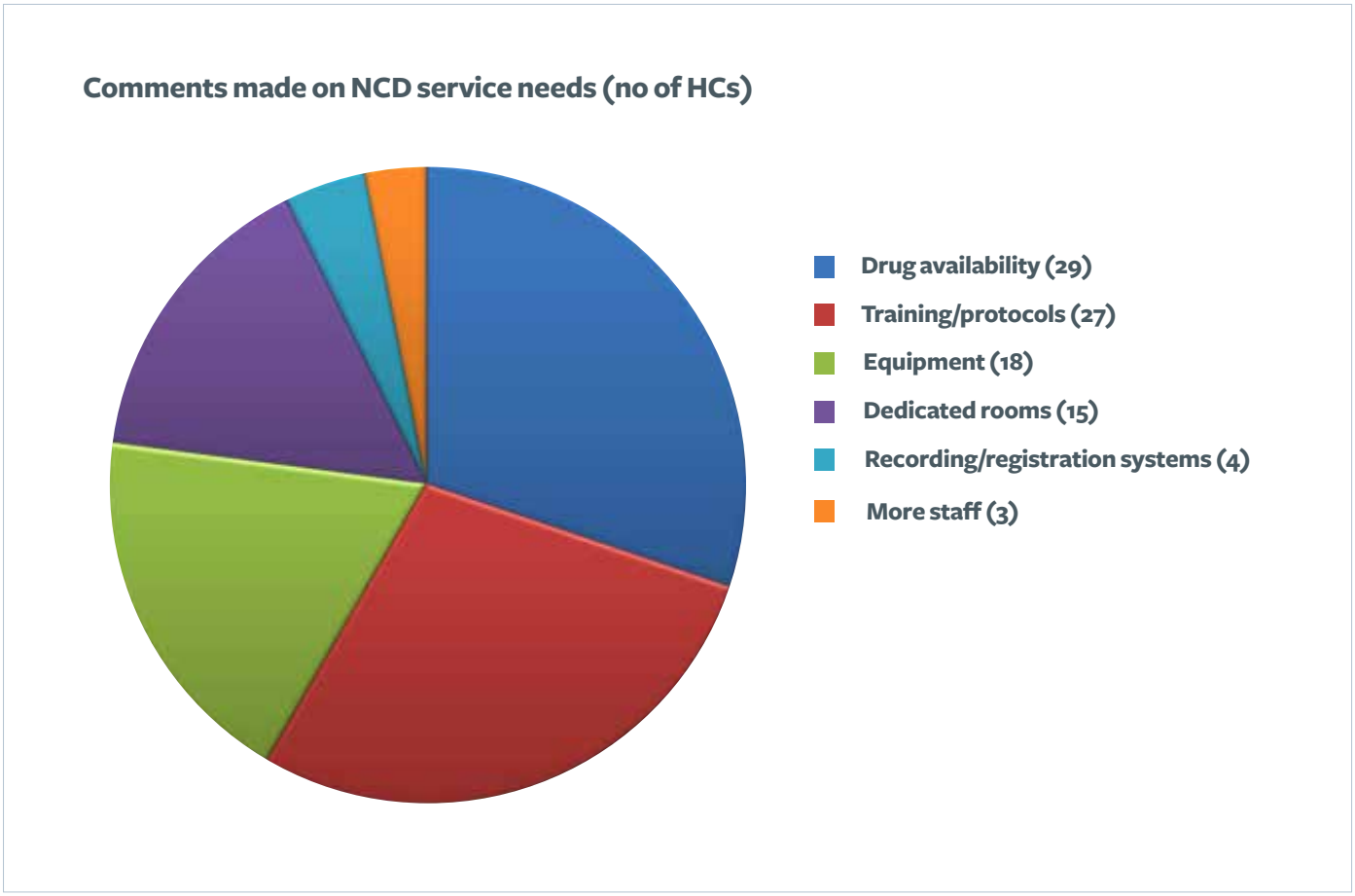
Region	No of HCs	Health extension programme package (including NCDs)	
		Aware of it	Orientation/training received
Addis Ababa	9	9	8
Amhara	9	3	1
Afar	3	3	0
Benishangul-Gumz	3	3	1
Oromia	9	5	2
SNNPR	6	2	0
Tigray	5	4	0

Table 9: Awareness and orientation/training for the new HEW programme package which covers NCDs

NCD READINESS (cont'd)

Comments from the HC staff

33/45 HCs acknowledged that NCDs are a public health problem. This includes both urban and rural HCs.



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