EVERY CHILD COUNTS

Child Health Report

District 1

October 2014

Table of Content

About Every Child Counts - reaching every child with preventive health services

Every Child Counts is about reaching every child with preventive health services and ensure that every child is registered and followed up to ensure full vaccination. MyChild system was developed and implemented in order to enable health personnel to register, provide appropriate health services and facilitate the follow-up on every child to ensure that their vaccination plan is completed. As a result of registration and follow-up, the health personnel can generate the follow up list with the children who missed the vaccination. MyChild system is used by Nurses - to register children, administer vaccines and other health services for the children and their families. MyChild system is a solution to strengthen nurses in their daily work.

Short about MyChild and why it was built

MyChild system is a cost-effective and unique information technology platform that includes number of applications to support child health services. MyChild system is specifically designed to address issues in vaccination service delivery in underserved areas. The system supports child registration, individual follow-up on children's vaccination schedule and other preventive health services. Real time data and information provided by the system facilitate informed decision making. The systems frees up the nurses' time in administration, statistics generation and reporting which can be used to deliver health services to the local communities. National and WHO Clinical guidelines, and health management information systems standards are built into the system. MyChild system development was guided by the research done at Karolinska Institutet and supported by the Bill & Melinda Gates Foundation. MyChild system is provided free of charge.

What is Indicator Report and why it is done in this way

The advantage of electronic health information management system is in its ability to inform the decision makers about the progress and gaps in health service delivery. The system generates analysed reports to enable decision makers to quickly learn the progress/gaps in health service delivery and based on the real time information develop and implement interventions to cover the gap. Decision makers receive this report on a monthly, quarterly and annual basis.

The report has 2 parts

District Report to inform about the indicators from all the health centres in the district. It gives an overall view per district and indicates the gaps in specific health facility or area. The report is of a particular interest to district health office.

Health facility report - The detailed Indicator report from each health centre using MyChild system. The report is valuable for the health facility in-charges, nurses and District Health Office to learn the progress and gaps in the facility and develop interventions based on the real needs. It includes facility and outreach based indicators.
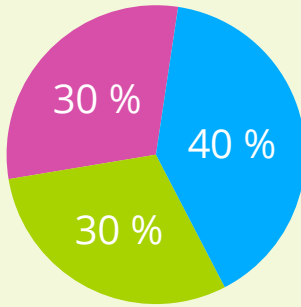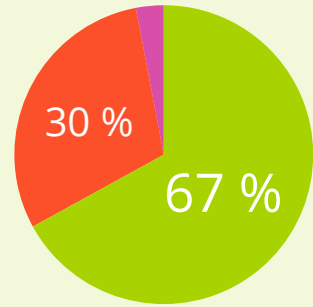
Child Health Status (children under 12 months)

Status per target population (70 000)

33 %

14 %

33 %

19 %
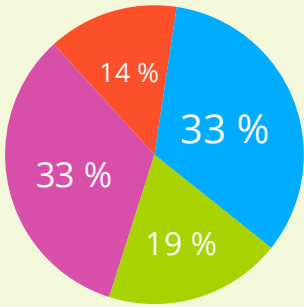
- Received vaccination follow up - 33%
- Fully vaccinated - 19%
- Missed vaccine for 8 weeks - 33%
- Unregistered - 14%

Status per registered children

30 %

40 %

30 %

- Received vaccination follow up - 40%
- Fully vaccinated - 30%
- Missed vaccine for 8 weeks - 30%

Child growth status

30 %

67 %

- Normal weight - 67%
- Underweight - 30%
- Overweight - 3%

Child health status

Immunisation Coverage % (children under 12 months)
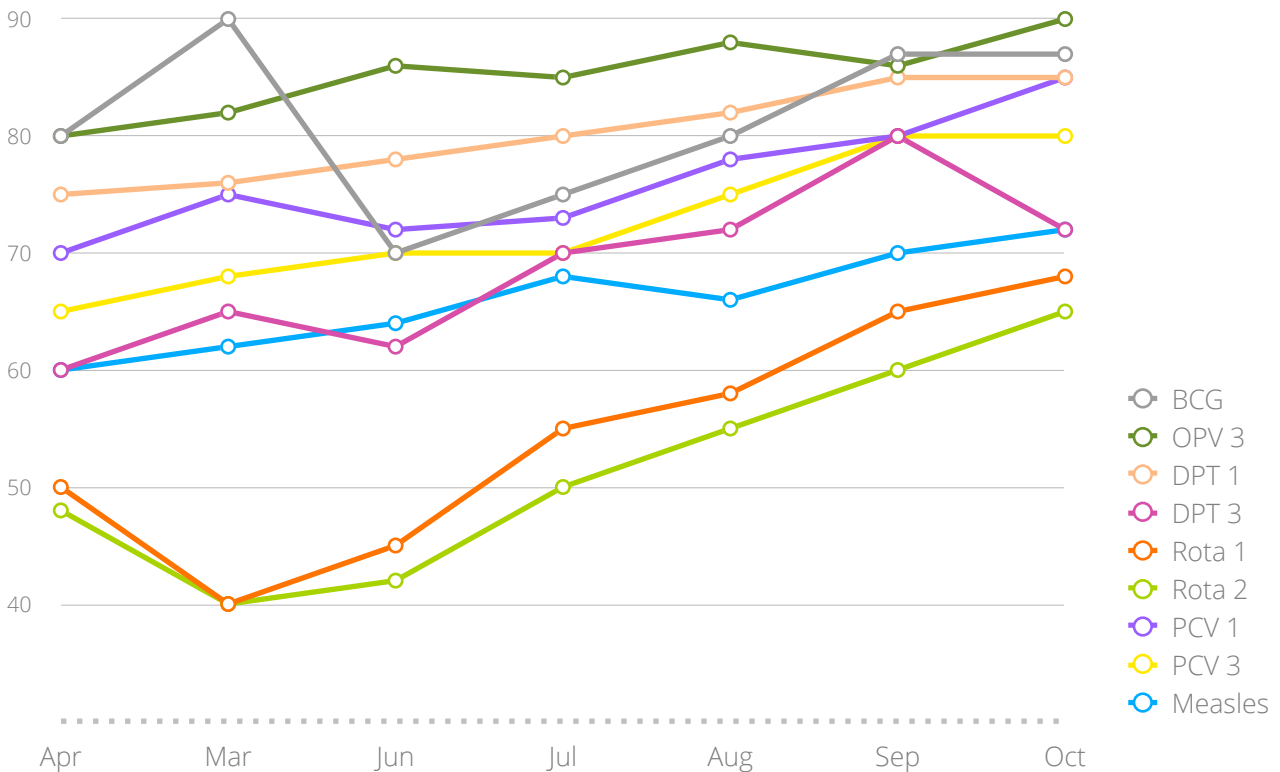
Immunisation coverage
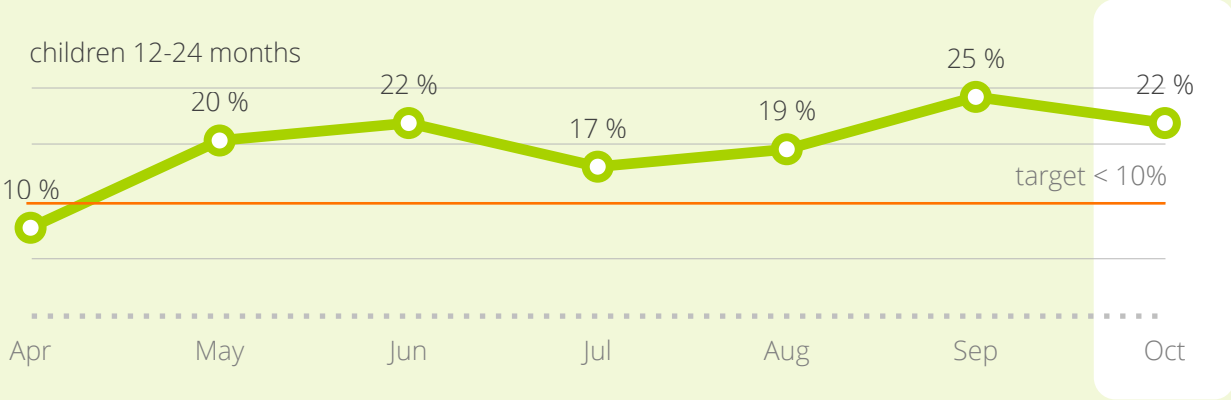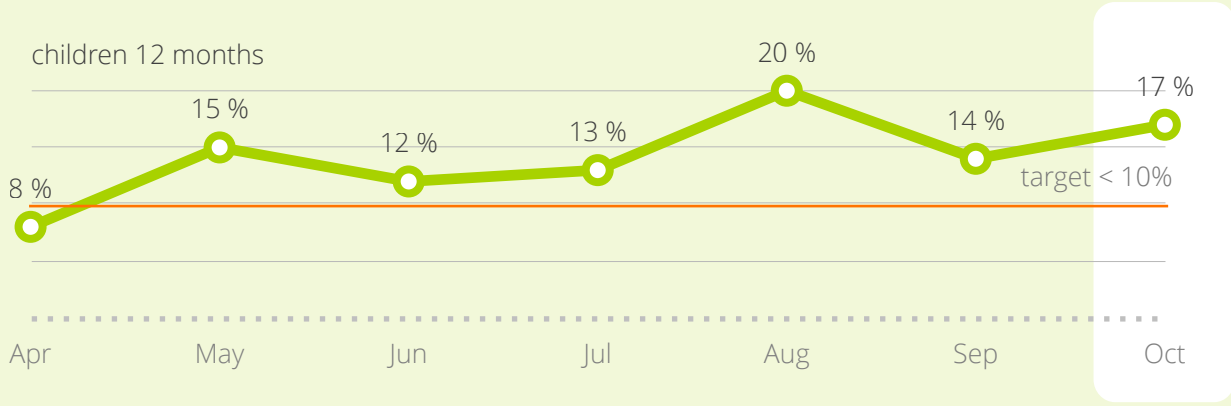
- BCG
- OPV 3
- DPT 1
- DPT 3
- Rota 1
- Rota 2
- PCV 1
- PCV 3
- Measles

Vaccination Drop Out Rate

children 12 months

8 %
15 %
12 %
13 %
20 %
14 %
17 %

target < 10%

| Apr | May | Jun | Jul | Aug | Sep | Oct |

children 12-24 months

10 %
20 %
22 %
17 %
19 %
25 %
22 %

target < 10%

| Apr | May | Jun | Jul | Aug | Sep | Oct |

Missed vaccines (8 weeks)

30 %
27 %
23 %
20 %
18 %
15 %
10 %

| Apr | May | Jun | Jul | Aug | Sep | Oct |

Reasons for Missed Vaccines

40 %
25 %
20 %
15 %

| Vaccine stock-out | No outreach | Nurse Unavailable | Family Related |

Doses of Vaccine Administered

Legend: ■ August ■ September ■ October

Vaccine	August	September	October
BCG	9 000	8 000	8 500
Polio	12 000	15 000	10 000
DPT	15 000	17 000	10 000
Measles	7 000	8 900	9 000
Rota virus	4 000	3 500	4 500
PCV	6 000	7 000	9 000
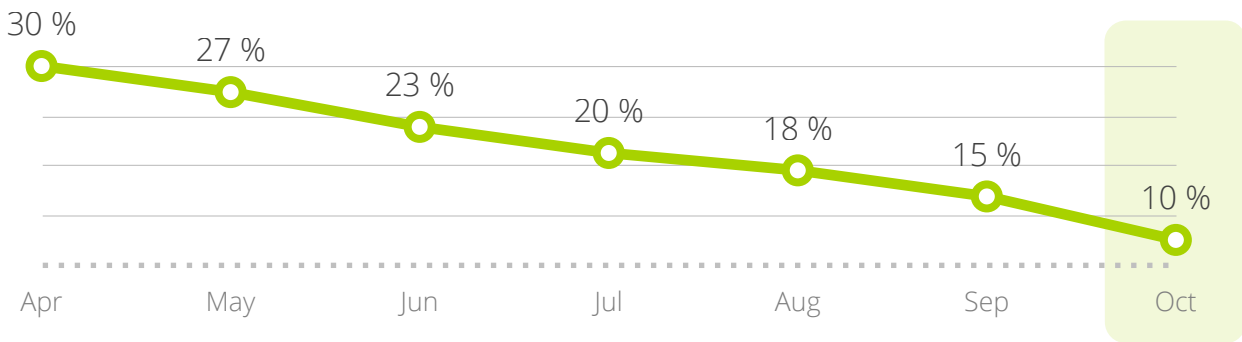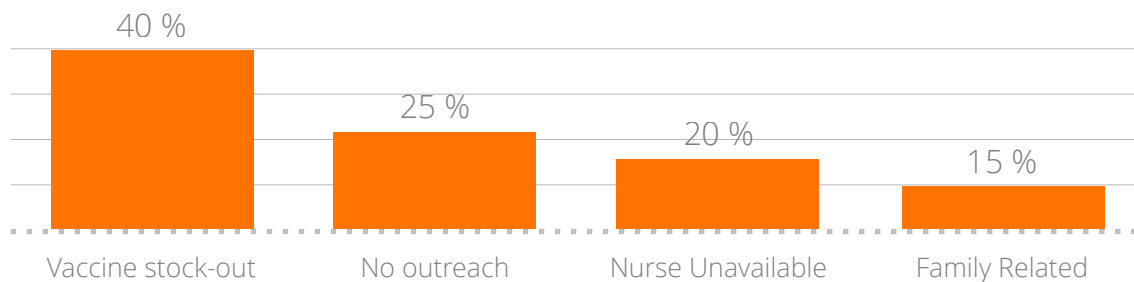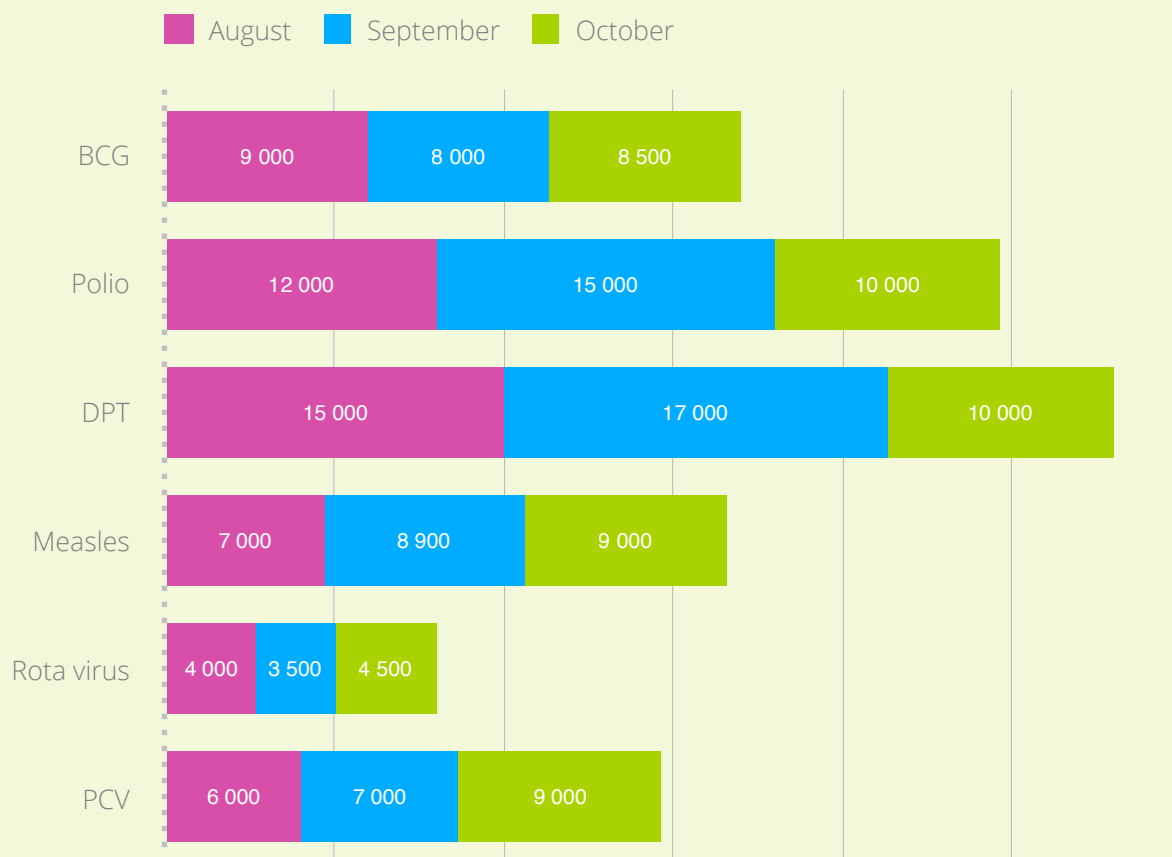
RED Strategy Categorisation (Aug-Oct 2014)

Health Centre	Target Pop. (per-quarter)	Doses of vaccine administered			Immunization coverage (%)			Unimmunized (No.)		Drop-out rates (%)	
		DPT1	DPT3	Measles	DPT1	DPT3	Measles	DPT3	Measles	DPT1-DPT3	DPT1-Measles
HC 1	648	332	280	277	51 %	43 %	43 %	368	371	16 %	17 %
HC 2	444	416	373	380	94 %	84 %	86 %	71	64	10 %	9 %
HC 3	447	440	400	390	98 %	89 %	87 %	47	57	9 %	11 %
HC 4	140	138	128	125	99 %	91 %	89 %	12	15	7 %	9 %
HC 5	412	405	370	370	98 %	90 %	90 %	42	42	9 %	9 %
HC 6	669	660	590	590	99 %	88 %	88 %	79	79	11 %	11 %
HC 7	407	347	319	315	85 %	78 %	77 %	88	92	8 %	9 %

RED Strategy Categorisation

	Quality	
	Good	**Poor**
Good	Category 1: HC 3, HC 4, HC 5	Category 2: HC 2, HC 6
Poor	Category 3: HC 7	Category 4 HC 1

(Access is the vertical axis label; Quality is the horizontal axis label.)

Strategies to Improve Access and Quality

Category 1

- Identify sub-counties/parishes/villages with large numbers of un-immunised children, utilise improved outreaches for better and sustained performance;
- Recognise good performers;

Category 2

- Ensure use of data at facility level;
- Strengthen links between communities and health facilities;
- Establish drop-out tracking systems like registering children;
- Engage media in promotion of immunisation, plan with and inform communities on outreach dates
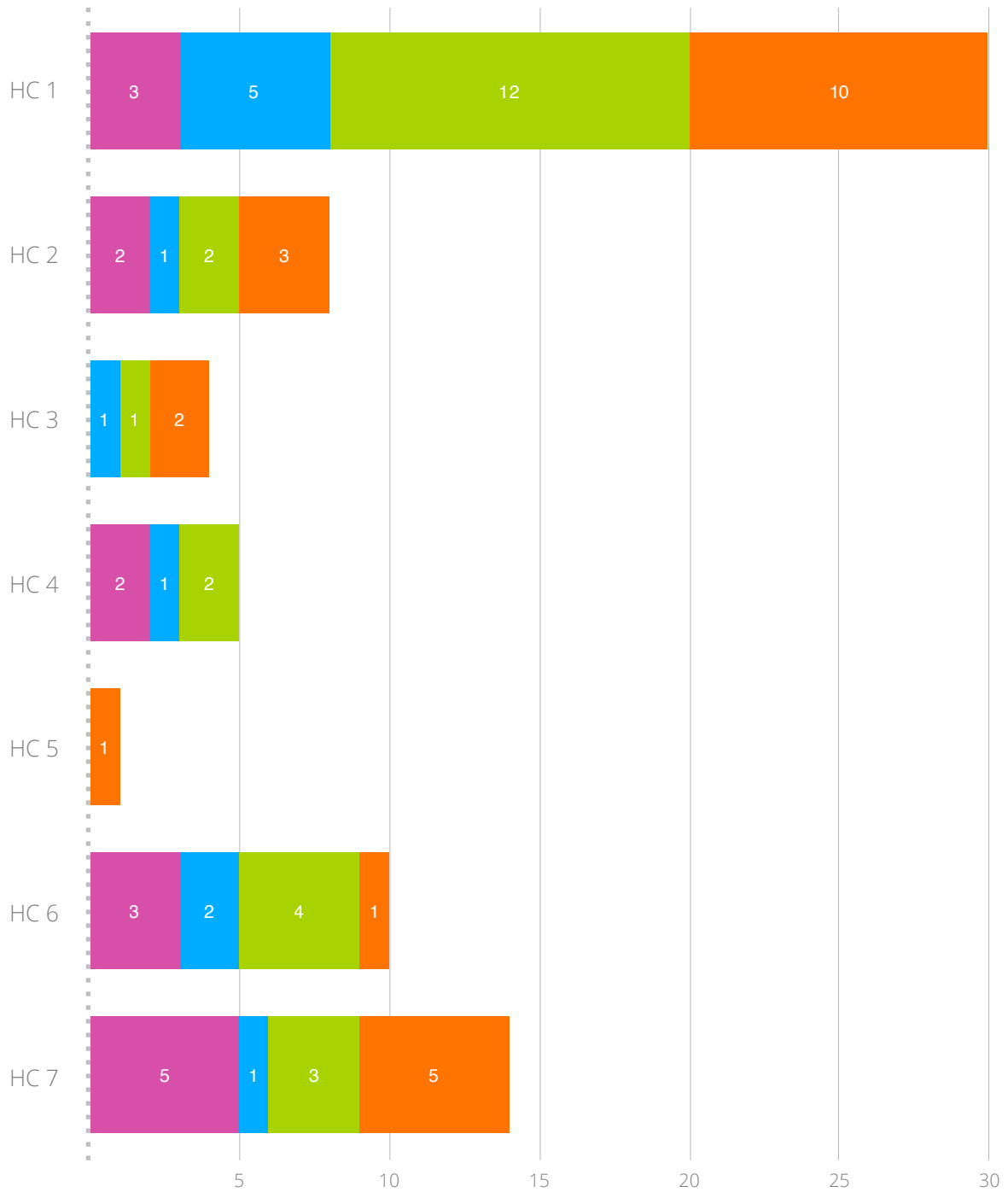
Category 3

- Improve planning at district at health facility levels;
- Map catchment areas and identify pockets of hard-to-reach children;
- Improve awareness through use of IEC materials and engagement of opinion leaders;
- Improve outreaches;
- Identify populations with resistance to immunisation and design awareness strategies. Plan with and inform communities on outreach dates

Category 4

- Improve planning at district at health facility levels;
- Map catchment areas and identify pockets of hard-to-reach children;
- Improve outreaches and use pulse vaccinations;
- Address awareness and resistance through use of IEC materials;
- Ensure regularity of immunisation logistics in districts affected by insurgency - improve immunisation services for IDP camps;
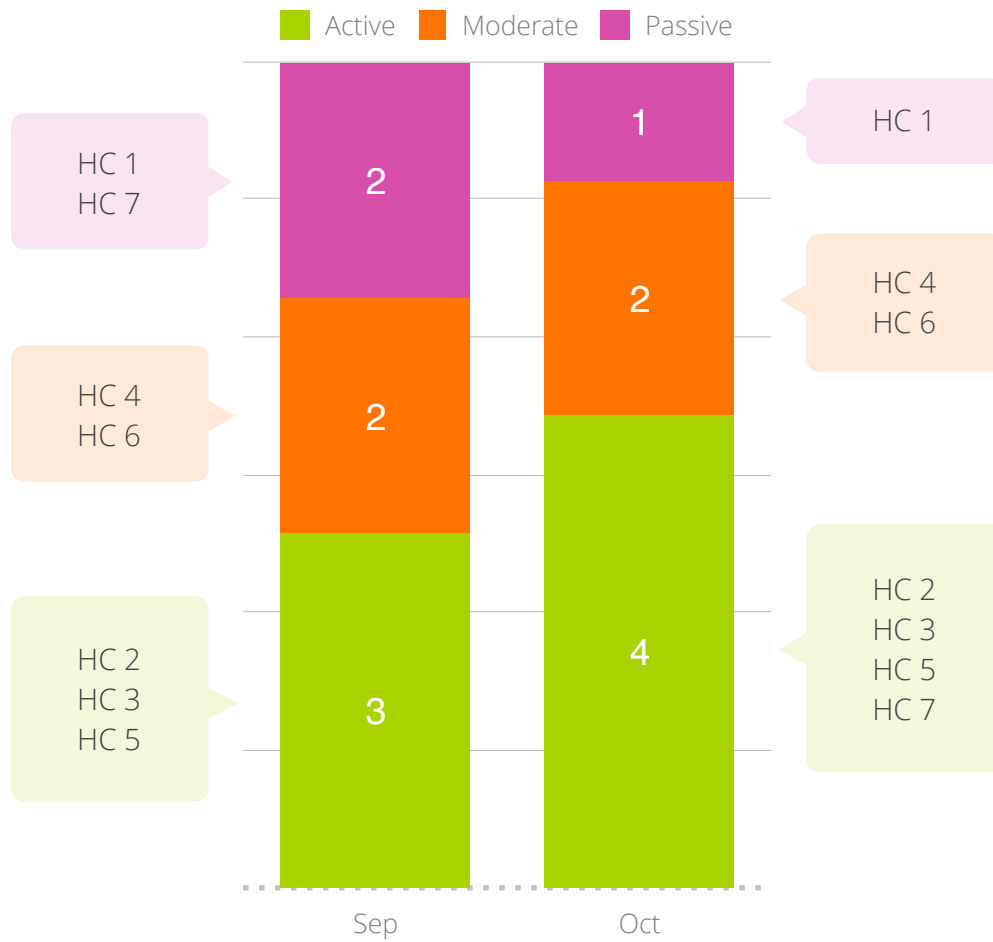- Plan with and inform communities on outreach dates

Issues per Health Centre

Legend:
- No outreach (sessions) — magenta
- Non functional cold chain (days) — blue
- Stock out (days) — green
- Nurse unavailable (days) — orange

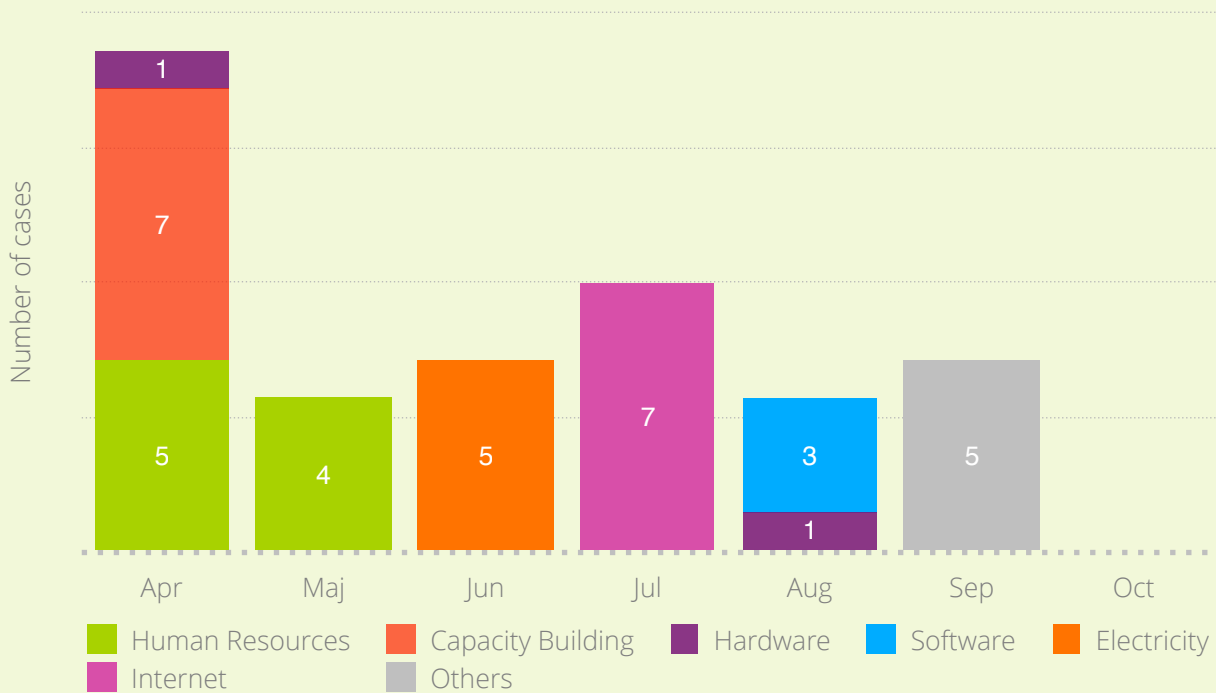| Health Centre	No outreach (sessions)	Non functional cold chain (days)	Stock out (days)	Nurse unavailable (days)
HC 1	3	5	12	10
HC 2	2	1	2	3
HC 3		1	1	2
HC 4	2	1	2	
HC 5				1
HC 6	3	2	4	1
HC 7	5	1	3	5

Issues per health centre

MyChild System Usage

Active   Moderate   Passive

HC 1
HC 7

HC 4
HC 6

HC 2
HC 3
HC 5

HC 1

HC 4
HC 6

HC 2
HC 3
HC 5
HC 7

Sep   Oct

Reasons why MyChild system was not used

Number of cases

Apr   Maj   Jun   Jul   Aug   Sep   Oct

Human Resources   Capacity Building   Hardware   Software   Electricity
Internet   Others

Health Center 1 Summary

Child Health Status

Status per target population (10 000)
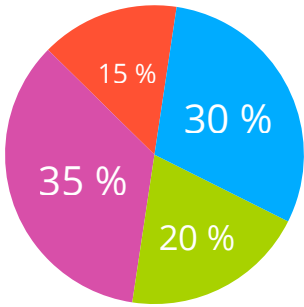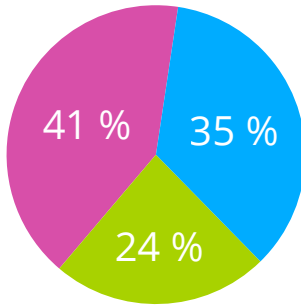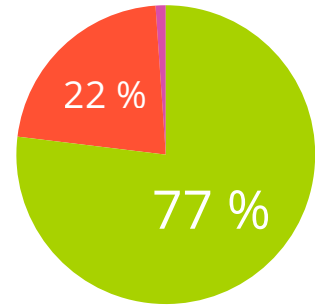
- ● Received vaccination follow up - 30%
- ● Fully vaccinated - 20%
- ● Missed vaccine for 8 weeks - 35%
- ● Unregistered - 15%

30 % / 20 % / 35 % / 15 %

Status per registered children

- ● Received vaccination follow up - 35%
- ● Fully vaccinated - 24%
- ● Missed vaccine for 8 weeks - 41%

35 % / 24 % / 41 %

Child growth status

- ● Normal weight - 77%
- ● Underweight - 22%
- ● Overweight - 1%
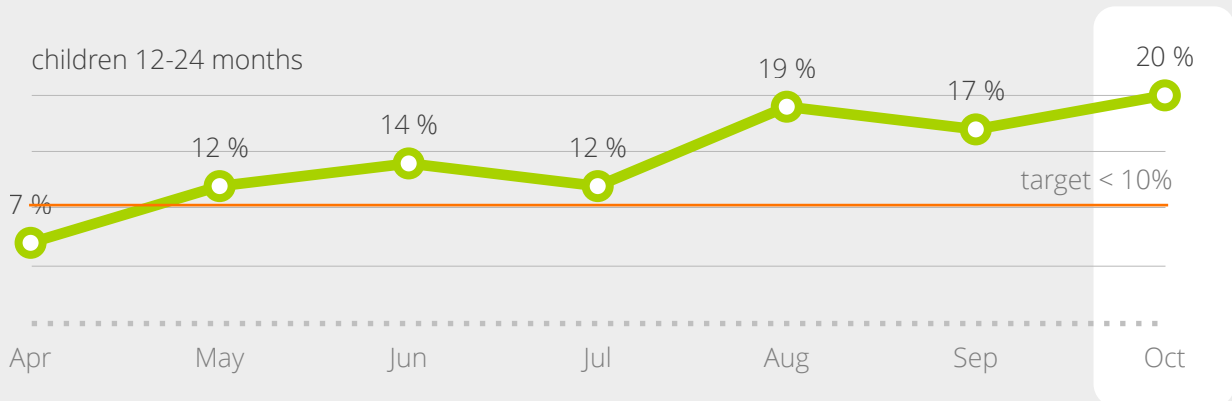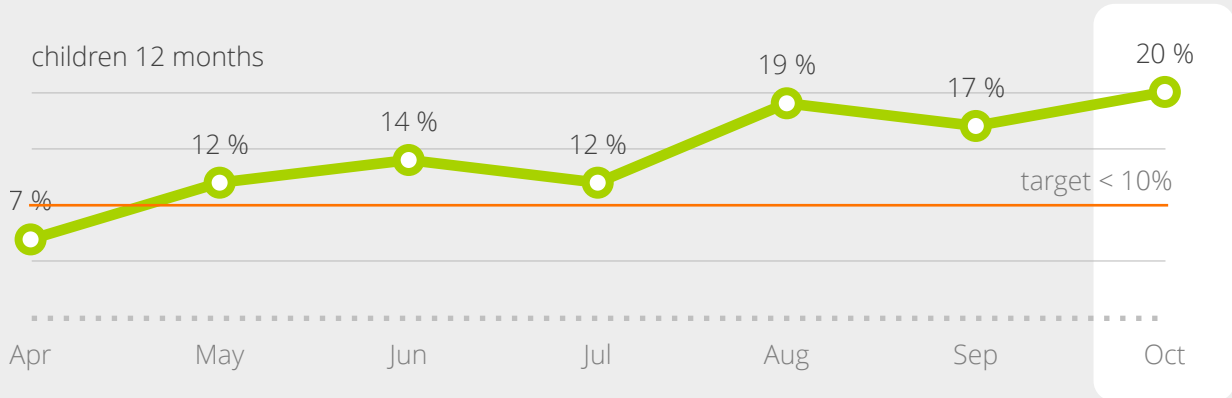
77 % / 22 %

Vaccination Drop Out Rate

children 12 months

7 % — 12 % — 14 % — 12 % — 19 % — 17 % — 20 %

target < 10%

| Apr | May | Jun | Jul | Aug | Sep | Oct |

children 12-24 months

7 % — 12 % — 14 % — 12 % — 19 % — 17 % — 20 %

target < 10%

| Apr | May | Jun | Jul | Aug | Sep | Oct |

Hours providing child health services (with MyChild system)

hours per day

8

7

6

5

1

1 Oct   7 Oct   15 Oct   23 Oct   30 Oct

hours per month

30

27

23

17

15

13

10

Apr   Mar   Jun   Jul   Aug   Sep   Oct
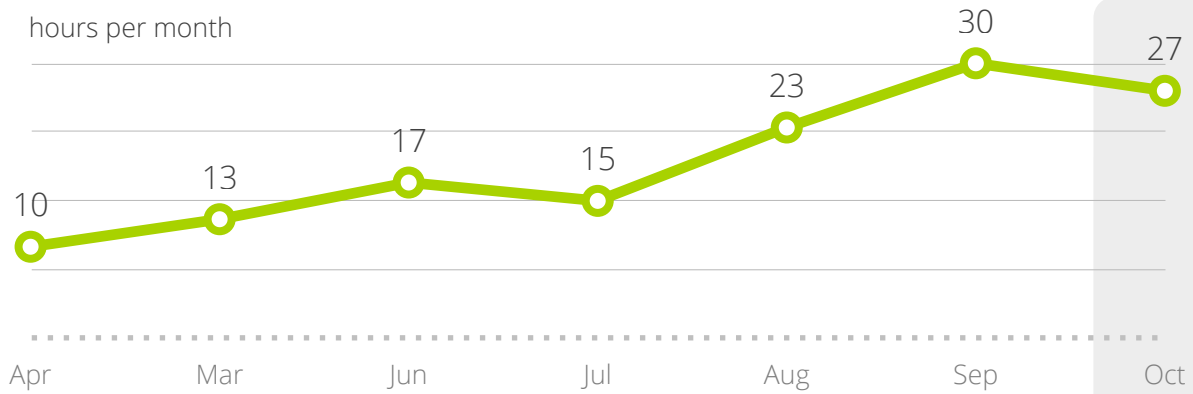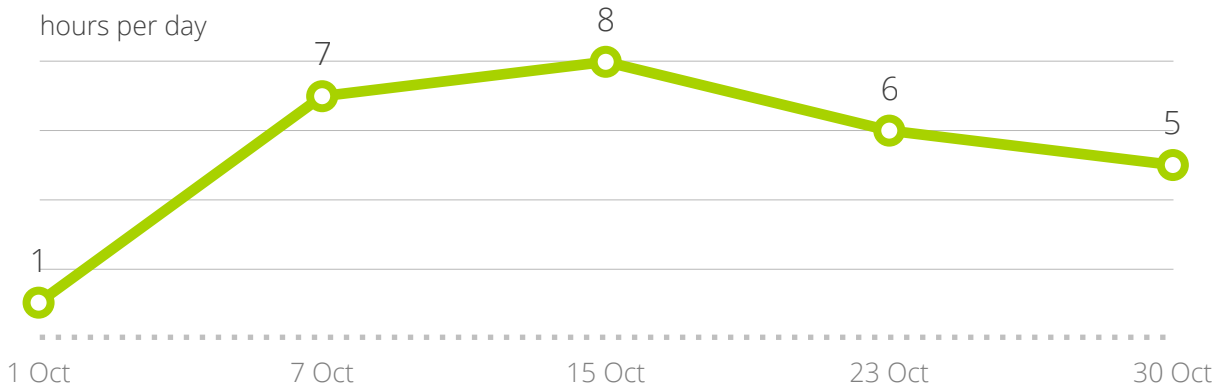
Health Center 1 Health Indicators

Children registered
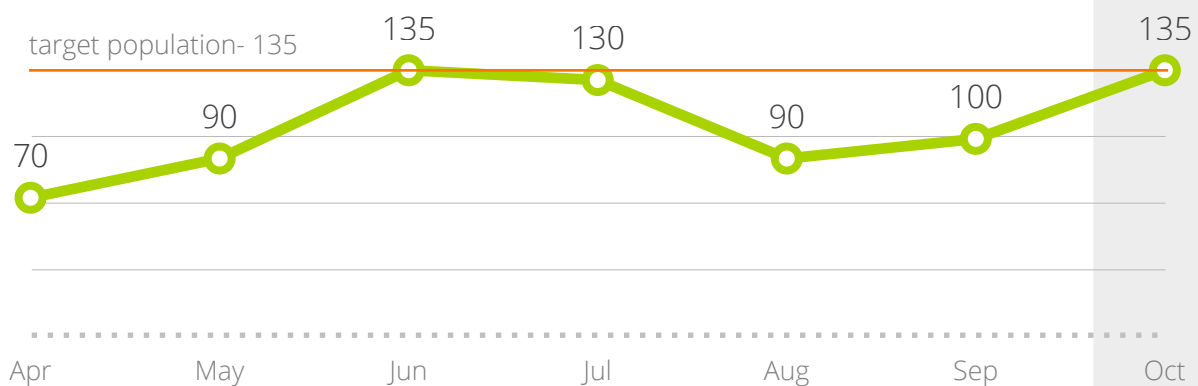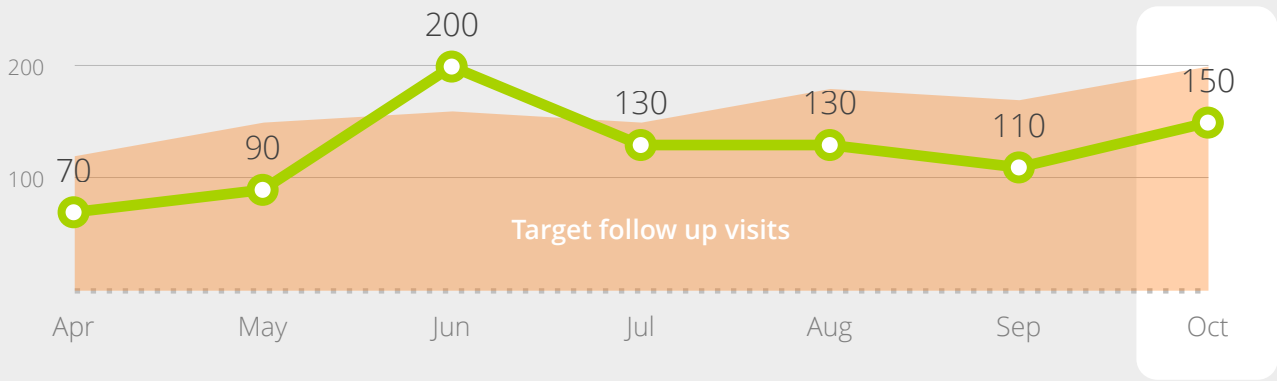
target population- 135

135   130   135

90   90   100

70

Apr   May   Jun   Jul   Aug   Sep   Oct

Children vaccinated

200

200

90
70

130   130
110

150

100

Target follow up visits

Apr   May   Jun   Jul   Aug   Sep   Oct

Fully Immunised

target - 135

135

110

90

75

54

5   10

Apr   May   Jun   Jul   Aug   Sep   Oct

Missed vaccines (8 weeeks)

30 %
27 %
23 %
20 %
18 %
15 %
10 %

Apr   May   Jun   Jul   Oct   Sep   Oct
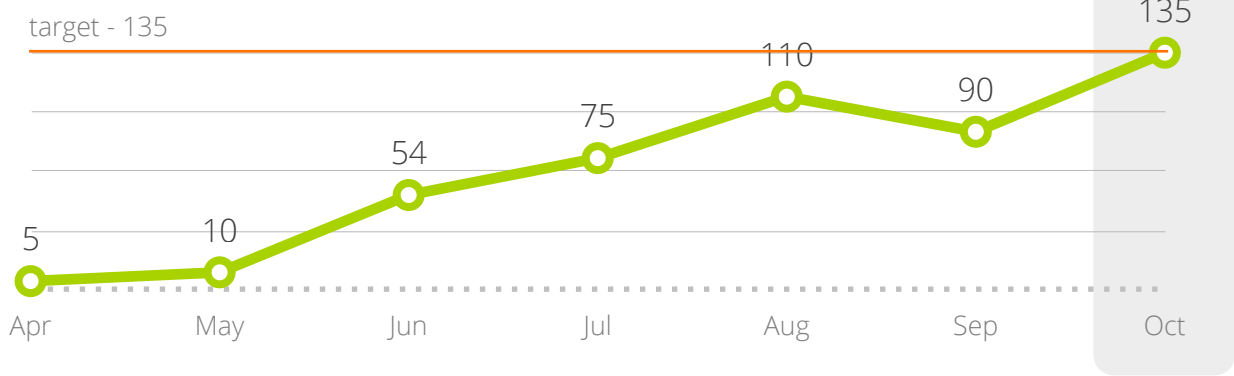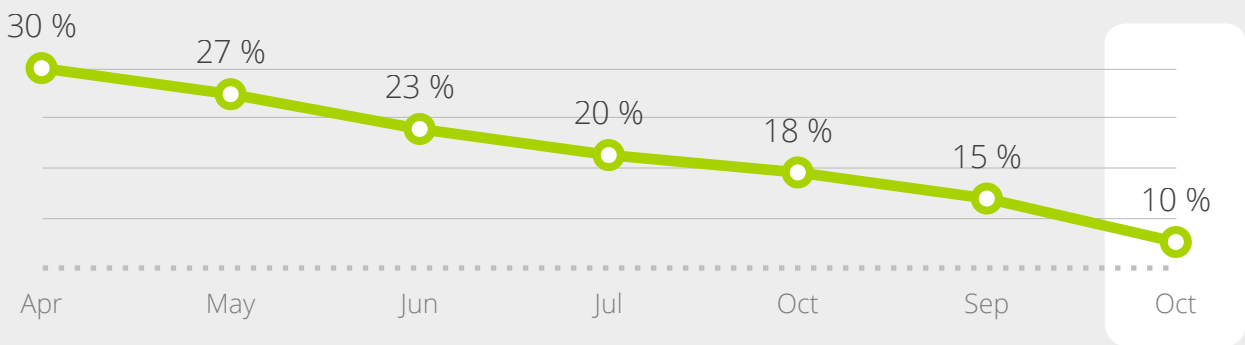
Reasons for Missed Vaccines (october)

Vaccine stock-out	No outreach	Nurse Unavailable	Family Related
40 %	25 %	20 %	25 %
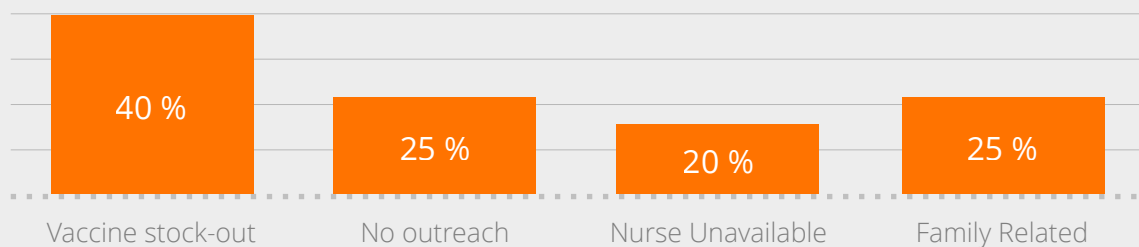
Immunisation Coverage (children under 12 months)

Vaccine - Target	Apr	Mar	Jun	Jul	Aug	Sep	Oct
BCG - 94%	95	95	99	98	99	94	95
OPV 3 - 88%	75	88	90	95	72	89	80
DPT 1 - 96%	96	98	95	80	97	97	95
DPT 3 - 88%	88	89	90	98	88	89	95
Rota 1 - 96%	82	75	96	97	97	95	90
Rota 2 - 88%	88	88	89	90	95	97	98
PCV 1 - 96%	96	97	95	97	97	98	99
PCV 3 - 88%	88	88	89	90	95	97	98
Measles - 88%	75	88	90	95	72	89	80

Vitamin A and Deworming Coverage (children under 5 yrs.)

	Apr	Mar	Jun	Jul	Aug	Sep	Oct
Vitamin A - 97%	65	60	77	90	80	94	95
Deworming - 95%	95	97	99	98	95	97	98

Health Center 1 Performance Indicators

Child Visits in October

	1 Oct	7 Oct	15 Oct	23 Oct	30 Oct
	10	30	40	30	40
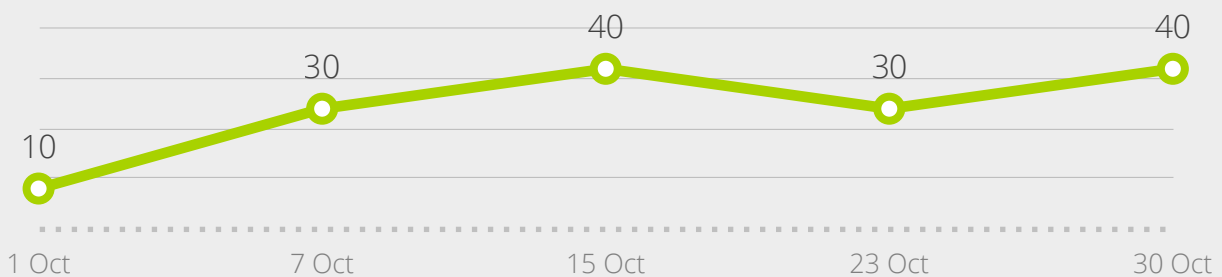
Children Visits per month

	Apr	Mar	Jun	Jul	Aug	Sep	Oct
	70	100	210	130	150	220	150

Time per child visit

Avg - **1,5 min** | Max - **3,5 min** | Min - **0,9 min**

3,5

3

2,7

2,3

1,5

1

0,9

| Apr | Mar | Jun | Jul | Aug | Sep | Oct |

Outreach Session Performance

Number of outreach sessions

target per month - 3

1

2

1

3

1

4

2

| Apr | May | Jun | Jul | Aug | Sep | Oct |

Why outreach session did not take place

Number of cases

| Apr | May | Jun | Jul | Aug | Sep | Oct |

- Vaccination stock-out: Apr 1, Jun 1, Aug 2
- Transportation related: Apr 1, Jun 1
- Nurse unavailable: May 1
- Weather conditions: Oct 1

■ Transportation related   ■ Vaccination stock-out
■ Weather conditions   ■ Nurse unavailable

Time per outreach session
Avg - **3,3 hrs** | Max - **5 hrs** | Min - **2 hrs**
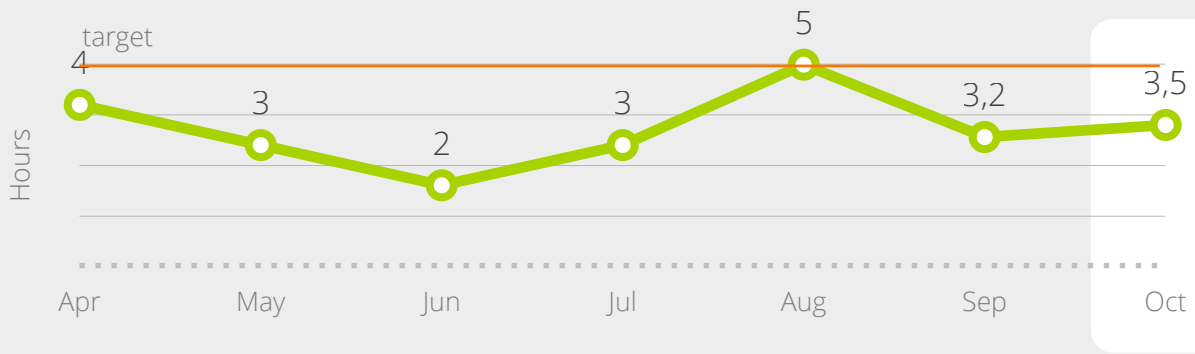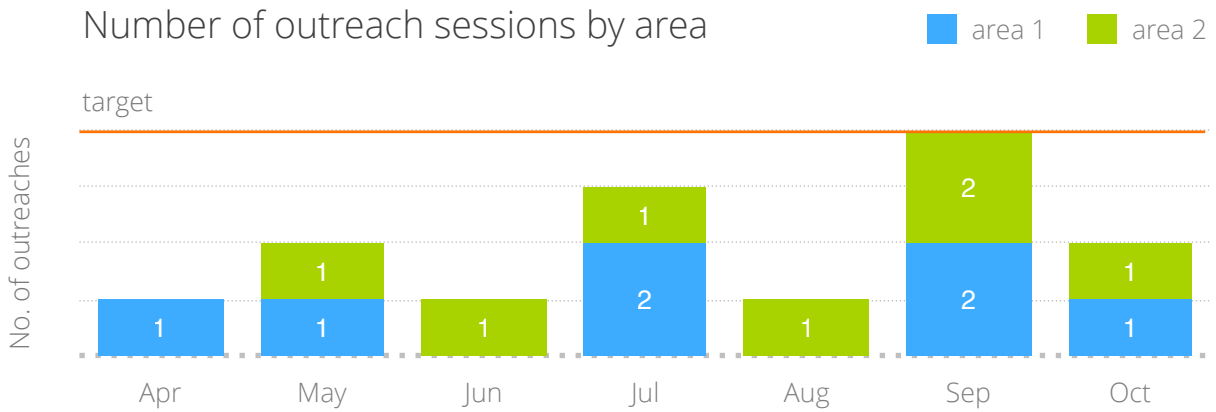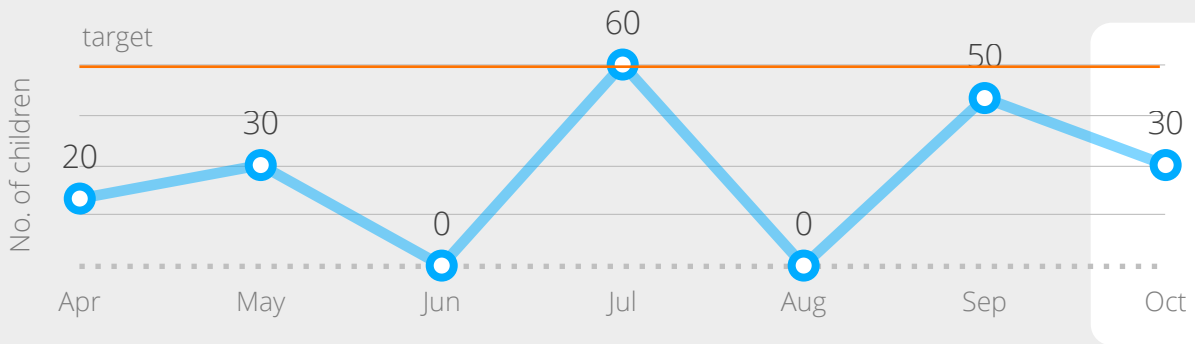
target

Hours

Apr	May	Jun	Jul	Aug	Sep	Oct
4	3	2	3	5	3,2	3,5

Number of outreach sessions by area

■ area 1   ■ area 2

target

No. of outreaches

	Apr	May	Jun	Jul	Aug	Sep	Oct
area 2		1	1	1	1	2	1
area 1	1	1		2		2	1

Child visits during outreach (Area 1)

target

No. of children

Apr	May	Jun	Jul	Aug	Sep	Oct
20	30	0	60	0	50	30

Child visits during outreach (Area 2)

target

No. of children

Apr	May	Jun	Jul	Aug	Sep	Oct
0	30	10	40	20	40	20

Outreach Session Performance

Nurse absence by period

Nurse 3 — **10 days**

Nurse 2 — **5 days**

Nurse 1 — **3**

Date: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
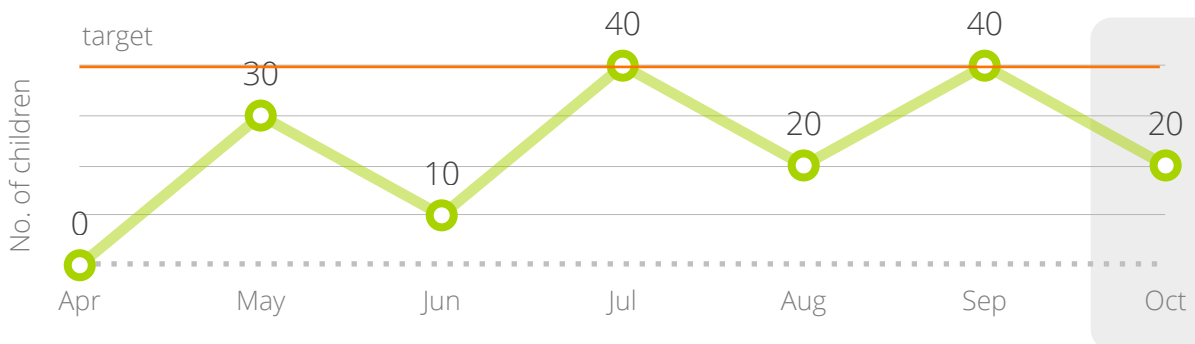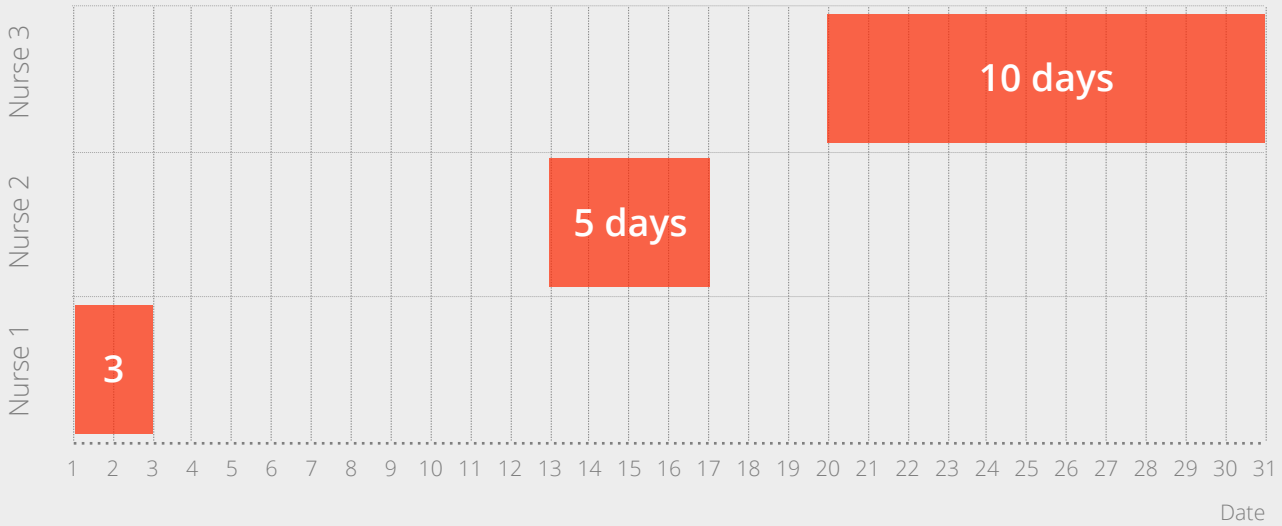
Number of nurses not receiving salary

Total number of nurses working with child health services- 5

No. of nurses

Apr	May	Jun	Jul	Aug	Sep	Oct
1	1		2		2	1
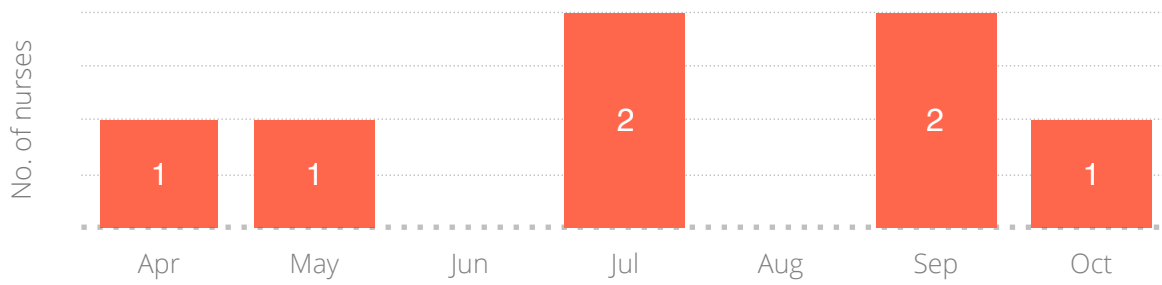
Health Center 1 Technical indicators

MyChild System Usage- **80%**
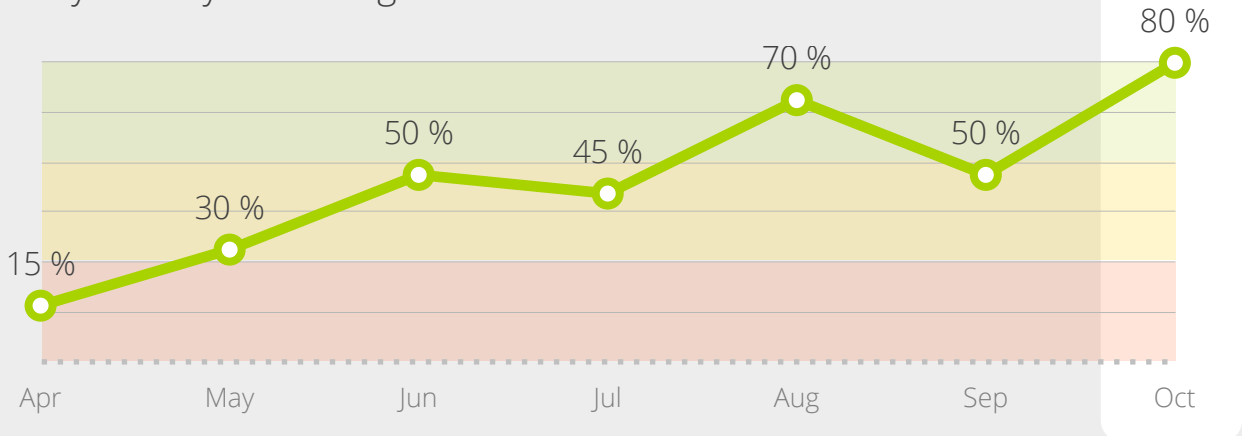
15 % — 30 % — 50 % — 45 % — 70 % — 50 % — 80 %

Apr   May   Jun   Jul   Aug   Sep   Oct

Reasons why MyChild system was not used

Number of cases

1 (Hardware)						
1 (Capacity Building)				1 (Software)		
1	2	1	1	1	1	
Apr	Maj	Jun	Jul	Aug	Sep	Oct

■ Human Resources ■ Capacity Building ■ Hardware ■ Software ■ Electricity
■ Internet ■ Others

Internet Traffic (MB)

2   2

1,34   1,5   1   1

0,51

Apr	May	Jun	Jul	Aug	Sep	Oct

Average time per Registration / Start-end visit

○ Registration   ○ Start-end visit

3

2,5

2

Minutes

1,5

1

0,5
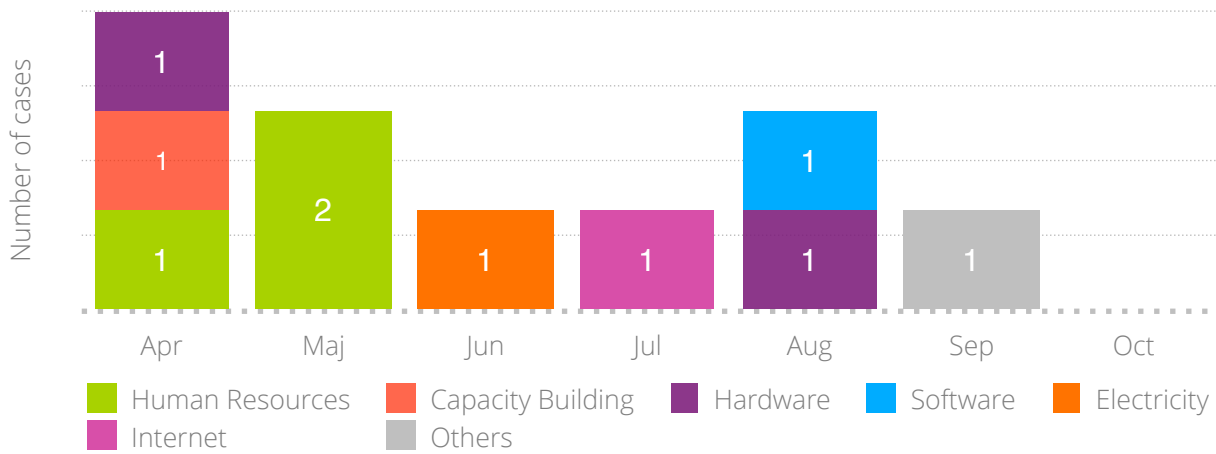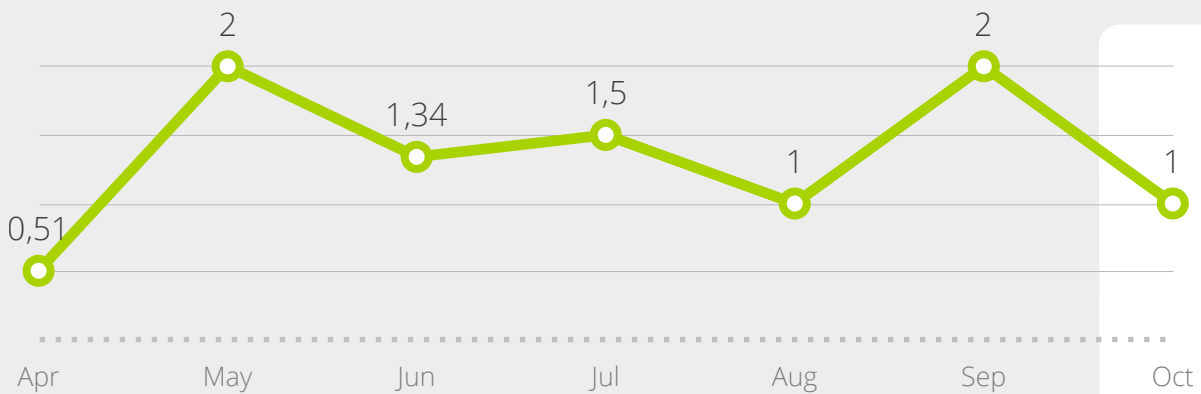
Apr	Mar	Jun	Jul	Aug	Sep	Oct
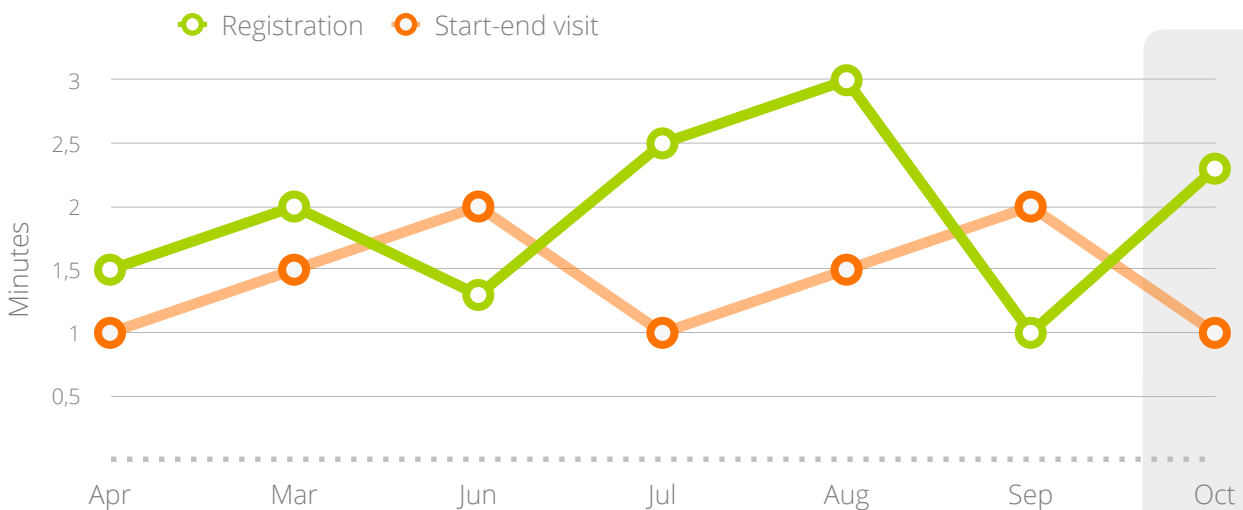
Registration Parameters Recorded in MyChild System (October)
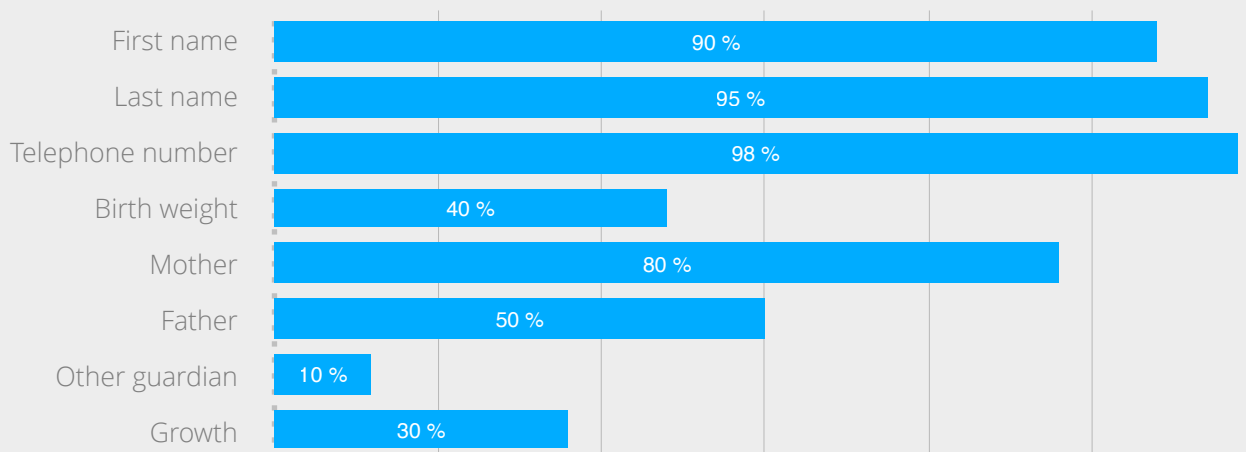
Parameter	Percentage
First name	90 %
Last name	95 %
Telephone number	98 %
Birth weight	40 %
Mother	80 %
Father	50 %
Other guardian	10 %
Growth	30 %

Stock management indicators

Vaccine stock status

Legend: Wasted ■ Used ■ in Stock ■

Vaccine	Wasted	Used	in Stock	Notes
BCG	10	50	80	
Polio	30	75	30	
DPT-HebB	15	53	15	
Hib	24	64	24	
Measles	13	89	13	
TT	29	93	29	
Rota virus	4	30		⚠ Stock out
PCV	14	50		⚠ Stock out
Hepatitis B	12	76	10	

Doses

Vaccine stock out period (October)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
PCV															**17 days**																
Rota virus																			**13 days**												

Date

Vitamin A & Deworming stock status

■ Used   ■ in Stock

Vitamin A	**50** ⚠ **Stock out**
Deworming	**75** **30**

Vitamin A & Deworming stock out period (October)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Vitamin A																			**13 days**												

Date
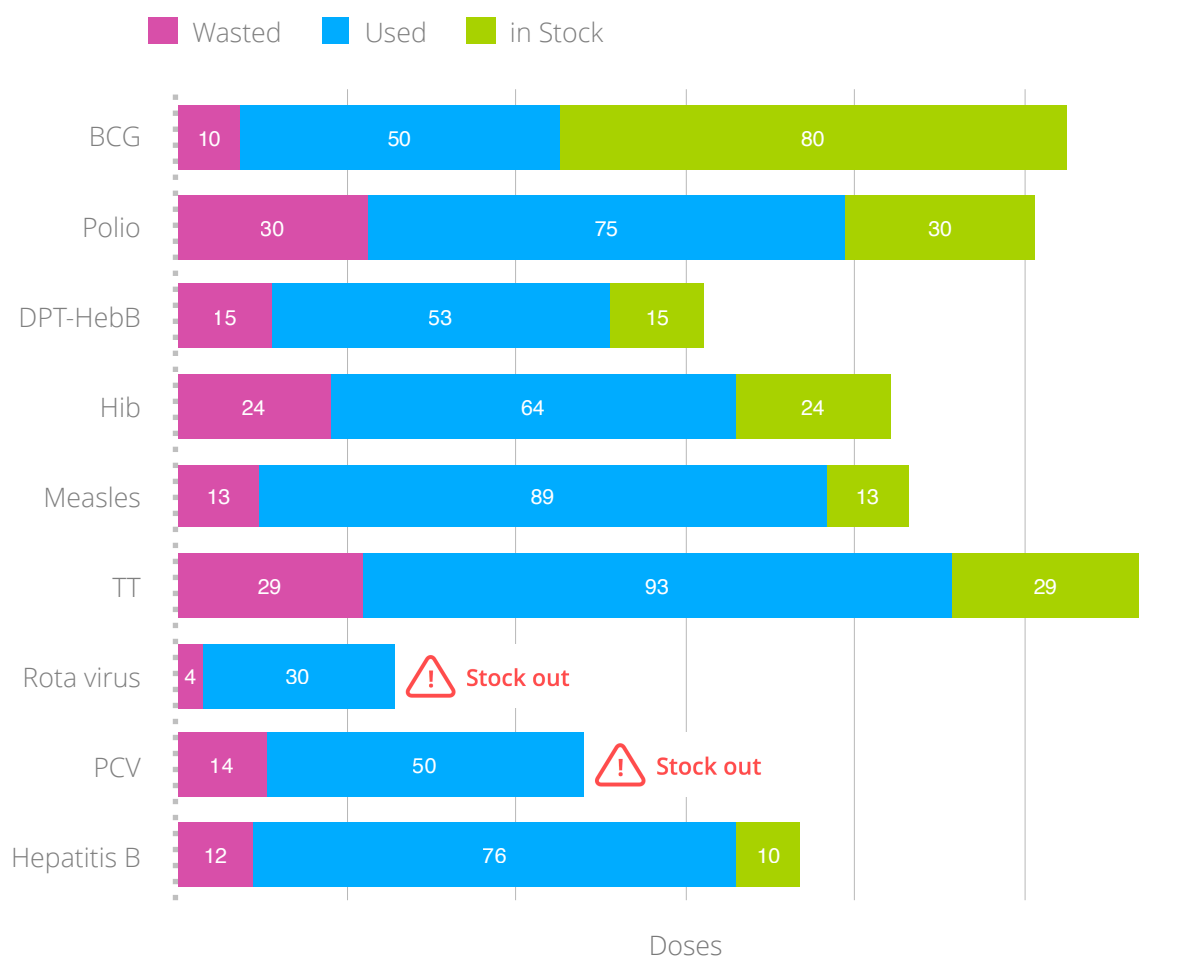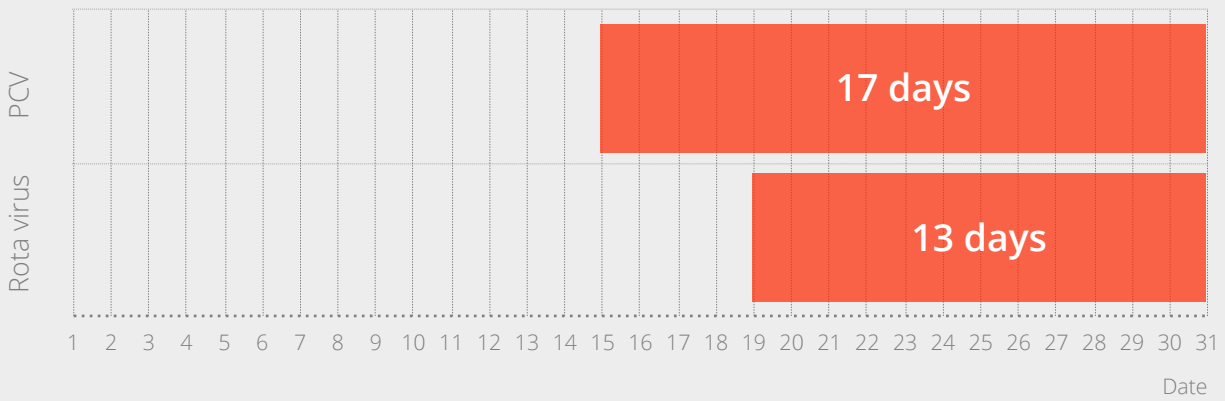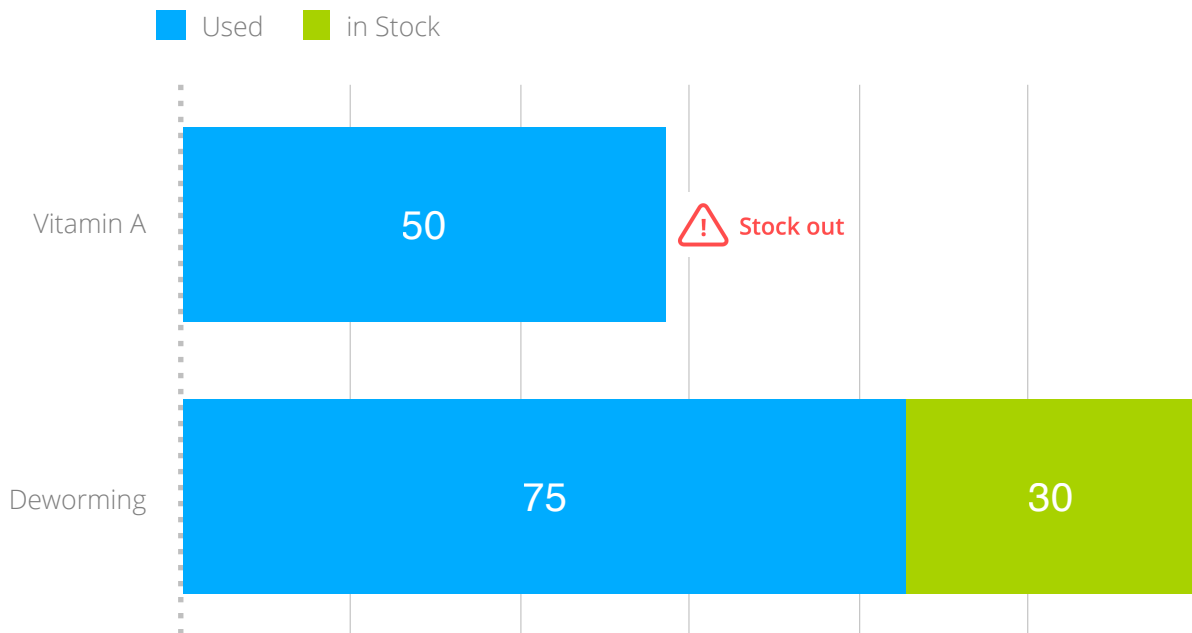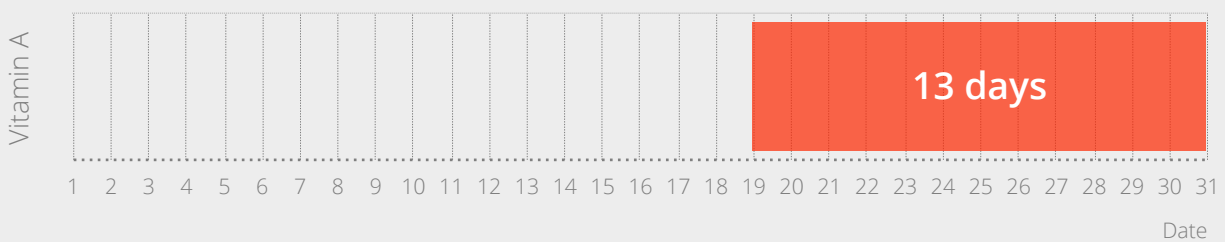
Clarification of indicators

The District level report represents all the health centres' performance for a given district.

* Target (Reference point) is presented as an orange line in the graphs

Swallow shows the indicator will be available in the 2nd version of MyChild System

Status per target population.

The chart informs about the the status of all children living in a catchment area of all health centres (using MyChild System) in the district.

- **Received vaccination follow up** - % of children who received vaccination and are followed up in time from total target population

- **Fully vaccinated** - % of fully vaccinated children from the total target population

- **Missed vaccines for 8 weeks** - % of children who is more than 8 weeks overdue with 1 or several vaccines from their vaccination plan

- **Unregistered** - children who are not yet registered in MyChild system (missed out and unknown)

Status per registered children

The chart informs about the the status of children who are registered in all health centres which use MyChild system.

Child growth status

The chart indicates the child weight status for the children who have the weight parameter registered in MyChild system. The reference point is defined according to WHO Child Growth Standards.

Immunisation coverage

% of children who received specific vaccine in relation to the target population, in the district.

Vaccination drop out rate

- **Children 12 month** - % of children who are 12 months and are not fully immunised from registered population per district

- **Children 12- 24 months** - % of children 12-24 months who are not fully immunised from registered population per district

Missed Vaccines (8 weeks)

% of children who is more than 8 weeks overdue with 1 or several vaccines from their vaccination plan

Reasons for Missed Vaccines

Issues related to why children missed their vaccines for 8 weeks or more for a given month

- **No outreach** - number of scheduled outreach sessions that did not take place during specific month

- **Vaccine stock-out** - based on number of days one or several vaccines were out of stock during the given month per health centre

- **Nurse unavailable** - based on number of day nurse was absent from vaccination delivery service during the given month per health centre

- **Family related** - family has not come to receive vacation services

Doses of vaccine administered

Total number of doses administered per specific vaccine

Red Strategy Categorisation

Analysis of child health services according to RED Strategy Categorisation Tool, quarterly based:

- **Target population** - total number of children targeted per health centre

- **Doses of vaccine administered** - total number of doses administered for DTP1, DTP3 and Measles

- **Immunisation coverage** - % of children who received DTP1, DTP3, Measles per target population

- **Un-immunised** - number of children who did not receive DTP3 and Measles from target population

- **Drop out rates** - % of children who did not receive DTP3 from those who received DTP1 & % of children who did not receive Measles from those who received DTP 1

Category Classification

- **CATEGORY 1** - in this category, health centres have good access (DPT1 coverage > 90%), and good service delivery (DPT1-3 drop out rates <10%)

- **CATEGORY 2** - in this category, health centres have good access (DPT1 coverage > 90%), and poor service delivery (DPT1-3 drop out rates >10%)

- **CATEGORY 3** - in this category, health centres have poor access (DPT1 coverage <90%), and good service delivery (DPT1-3 drop out rates <10%)

- **CATEGORY 4** - in this category, health centres have poor access (DPT1 coverage <90%), and poor service delivery (DPT1-3 drop out rates >10%)

Issues per health centre

Types and number of issues that were encountered in provision of child health service delivery in health centres during specific month.

- **No outreach** - number of scheduled outreach sessions that did not take place per month per health centre

- **Non-functional cold chain** - number of days cold chain was not functioning during the given month per health centre

- **Stock-out** - number of days one or several vaccines were out of stock during the given month per health centre

- **Nurse unavailable** - number of day nurse was absent from vaccination delivery service during the given month per health centre

MyChild System Usage

The graph shows the utilisation of MyChild system during immunisation service provision in specific health centres.

- **Active** - Regular data synchronisation for registered/vaccinated children, health centre uses the system every time they provide immunisation services

- **Moderate** - Moderate data synchronisation for registered/vaccinated children, in the health centres 40- 70% of the times the system is used when providing immunisation services

- **Passive** - Passive data synchronisation for registered/vaccinated children, health centre uses the system seldom - never when providing immunisation services

Reasons why MyChild was not used

The graph shows the issues associated to poor utilisation of MyChild system by number of cases encountered per month.

- **Human resources** - unavailable/absent nurse

- **Internet** - no internet connection

- **Capacity building** - no trained end-user who knows how to use MyChild (due to job rotation and low capacity retention)

- **Hardware** - hardware malfunction

- **Software** - issues with MyChild system

- **Electricity** - due to electricity black outs end users is unable to charge the laptop battery

Health Centre - Summary

The Health Center level report presents the indicators specific to a Health Centre.

* Target (Reference point) is presented as an orange line in the graphs

Swallow shows the indicator will be available in the 2nd version of MyChild System

Status per target population

The chart informs about the status of all children living in a catchment area for a given health centres (using MyChild System).

- **Received vaccination follow up** - % of children who received vaccination and are followed up in time from total target population.

- **Fully vaccinated** - % of fully vaccinated children from the total target population.

- **Missed vaccines for 8 weeks** - % of children who is more than 8 weeks overdue with 1 or several vaccines from their vaccination plan.

- **Unregistered** - children who are not yet registered in MyChild system (missed out and unknown).

Status per registered children

The chart informs about the status of children who are registered in MyChild system per health centre.

Child growth status

The chart indicates the child weight status for the children who have the weight parameter registered in MyChild system. The reference point is defined according to WHO Child Growth Standards.

Vaccination drop out rate

- **Children 12 months** - % of children who are 12 months and are not fully immunised from registered population.

- **Children 12- 24 months** - % of children 12-24 months who are not fully immunised from registered population.

Hours providing child health services (with MyChild system)

- **Hours per day** - total hours health centre provided child health services per day.

- **Hours per month** - total hours health centre provided child health services per month.

Children registered

Total number of children registered in MyChild system with a unique patient ID per month. Target - total number of children under 12 months in the health centre target population.

Children vaccinated

Total number of children vaccinated per month. Target - total number of vaccination follow-up visits due in the registered population in the given month.

Fully immunised

Total number of fully immunised children per month. Target - total number of children under 12 months in the health centre target population.

Fully immunised - children who received (BCG), three doses of the diphtheria, pertussis, and tetanus (DPT 1-3), Polio 1-3, PCV 1-3 and Measles.

Missed vaccines (8 weeks)

 % of children who is more than 8 weeks overdue with 1 or several vaccines from their vaccination plan

Reasons for Missed Vaccines

Issues related to why children missed their vaccines for 8 weeks or more for a given month.

- **No outreach** - number of scheduled outreach sessions that did not take place during specific month
- **Vaccine stock-out** - based on number of days one or several vaccines were out of stock during the given month per health centre
- **Nurse unavailable** - based on number of day nurse was absent from vaccination delivery service during the given month per health centre
- **Family related** - family has not come to receive vacation services

Immunisation coverage

% of children who received specific vaccine in relation to the target population

Vitamin A and Deworming coverage

% of children who received first or second dose of Vitamin A and Deworming for specific age group and month.

Health Centre 1 Performance Indicators

Child visits during a given month

Number of child visits to receive child health services during service days in a given month

Child visits per month

total number of child visits to receive child health services per month

Time per child visit

How long provision of child health service per 1 child lasts in minutes (average, maximum, minimum)

Outreach session performance

Number of performed outreaches sessions per month. Target - based on monthly target defined in the health centre

Why outreach session did not take place

Reasons for no outreaches (cases) for specific month. Based on among others:

- **Transportation related** - lack of transportation (car break down, lack of fuel, lack of funds for transportation) has cause outreach cancelation

- **Weather conditions** - bad weather conditions such heavy rain has cause outreach cancelation

- **Vaccine stock out** - due to lack of vaccines outreach session was canceled

- **Nurse unavailable** - due to nurse absence outreach did not take place

Time per outreach session

How long the outreach session lasts in hours (on average, maximum, minimum) in a given month

Number of outreach sessions by area

How many time the outreach sessions were performed in specific area per month

Child visits during outreach in Area 1 (Area 2)

How many children visited outreach session in specific area in a given month

Nurse absence by period

Number of days specific nurse was not available during immunisation service days in a given month

Number of nurses not receiving salary

Number of nurses not receiving salary in a given month. Total number of nurses working with child health services in the health centres

MyChild System Usage

MyChild system utilisation against number of days the health centre provides vaccination services (in %)

Reasons why MyChild was not used

The issues associated to poor utilisation of MyChild system by number of cases encountered per month. Number of cases based on:

- **Human resources** - unavailable/absent nurse

- **Internet** - no internet connection

- **Capacity building** - no trained end-user who knows how to use MyChild (due to job rotation and low capacity retention)

- **Hardware** - hardware malfunction

- **Software** - issues with MyChild system

- **Electricity** - due to electricity blackouts end users is unable to charge the laptop battery

Internet Traffic

The amount of data sent and received by health centre per month (MB)

Average time per Registration/Start-end visit

- **Registration time:** the amount of time it takes to register a child into MyChild System on average in trend.

- **Start -end visit time:** the mount of time it takes to record in MyChild system given preventive health services per child on average.

Registration Parameters Recorded in MyChild System (month)

Child parameters registered in MyChild System from the total number of registered children

Stock management indicators

Vaccine Stock status

- **Wasted** - number of vaccine doses wasted per specific month

- **Used** - number of vaccine doses used per specific month

- **In stock** - number of vaccine doses available in stock

- **Stock out** - vaccines out of stock

Vaccine stock out period

Period when specific vaccine was not available in a given month

Vitamin A & Deworming stock status

- **Used** - number Vitamin A or Deworming used per month

- **In stock** - number of Vitamin A or Deworming available in stock

- **Stock out** - Vitamin A or Deworming out of stock

Vitamin A & Deworming Stock-out period

Period when Vitamin A & Deworming was not available in a given month