

The background features several concentric circles in shades of teal, purple, and yellow. The central circle is yellow and contains the title text.

TT Tracker Overview

July 2018



Situational Assessment

- International commitment to eliminate Trachoma as a public health problem
- Includes reducing the level of TT to <1 cases per 1000 population
- Many TT initiatives working at scale
- We have a responsibility to monitor the quality of the service
- This responsibility is shared by surgeons, supervisors, MoH, supporting partners (NGOs), donors and WHO



The Need

- Challenges in TT outreach
 - Ensuring patient follow-up, especially at 3-6 months
 - Helping surgeons understand their strengths and weaknesses, and optimize performance
 - Thorough and timely reporting from field activities
- Partners were building various technology tools to track TT surgeries, but:
 - Designing and building technology is expensive
 - No one tool tracked the patient from registration through follow-up
 - Tools began overlapping geographically, complicating work for field staff



One TT Surgery Tracking Application

- At a consultation coordinated by WHO in 2015, it was decided that the global community needed one application that would:
 - Be available on a smartphone/tablet
 - Track the patient from registration through follow-up
 - Ensure patient follow-up
 - Optimize surgeon performance
 - Support timely reporting

The cost of development, use, and hosting would be free to countries; country programs would cover the related implementation costs





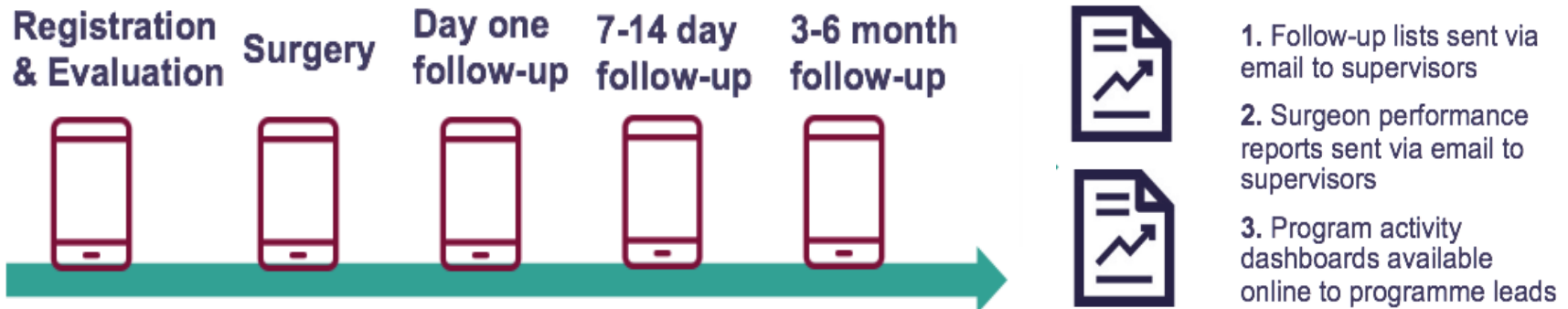
Initial Assessments

- Initial assessments were done in Malawi and Ethiopia where feedback was collected on:
 - How to effectively incorporate the application into program activities
 - Wording and order of data fields
 - What reports would be needed and by whom for program activities
 - How much time/effort is needed in each country to manage the application-related activities
- Pilot activities then conducted in Nigeria and Tanzania and additional modifications made to the TT Tracker.

The initial iteration of the app did not offer a structure for longitudinal tracking of patients. The decision was made to develop an application using the CommCare platform, which includes patient tracking functionality



TT Tracker: The Basics



- Allows programs to collect patient information at different intervention time points
- Includes timely follow-up lists, surgeon performance reports, and activity reports
- Gives surgeons access to patient information within their designated coverage area



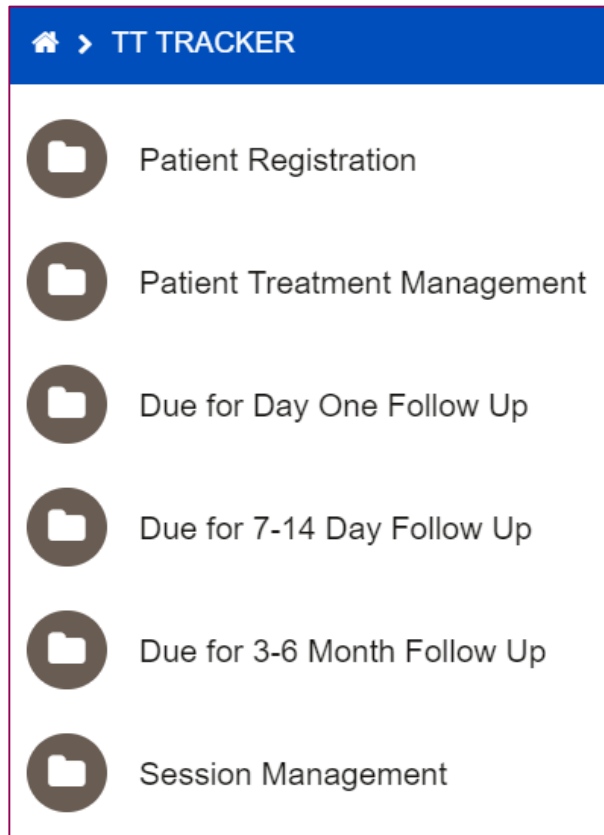
Complex System, Usable Interface(s)

- We have aimed to build a system that can address some of the complex needs but easy enough for users
 - Similar to paper forms
 - Logical progression
 - Skip logic
 - Multiple choice
 - Instructions throughout





Data Collector's View: Main menu



Patient Registration: Form used to enter personal information for a new patient receiving treatment

Patient Treatment Management: Folder for all forms related to an existing patient record (Evaluation/Screening, Record Surgery, Follow-up, Close-out)

Due for 24-hour / 7-14 day / 3-6 month follow-up: Lists of patients due for either 7-14 day or 3-6 month follow-up

Session Management: Form used to start or end the period of a surgical outreach activity

*Modelled after ICTC
Patient Record Cards*



Session Management

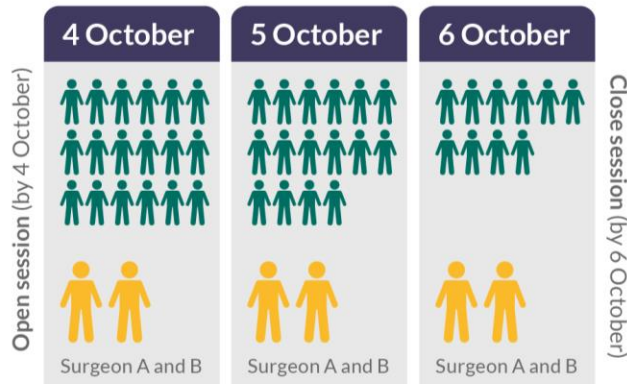
Session = specific surgical outreach event

- Can be a surgical campaign taking place over multiple days, or all surgical activities that take place at a static health center over one month.
- Patient registration and surgeries will be submitted under a designated session so that activities can be tracked to the location of the activity if needed.

Example A:

Camp Wollo School (Surgical camp)

Outreach dates: 4-6 October



Creating sessions will automatically calculate:

Open: 4 October **Close:** 6 October

Number of eye care workers: 2

Total number of days in session: 3

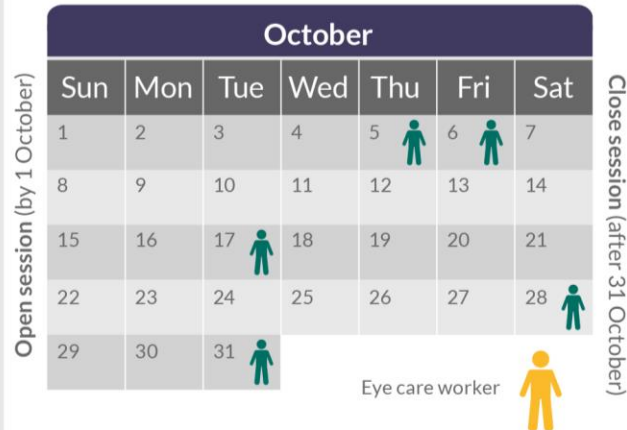
Total number of surgeries during session: 44

Average number of surgeries per surgeon per day: 7.3

Example B:

Chamwino Health Centre (Static site)

Outreach dates: 1-31 October



Creating sessions will automatically calculate:

Open: 1 October **Close:** 31 October

Number of eye care workers: 1




Total number of days in session: 31

Total number of surgeries during session: 5



Session Management

SESSION MANAGEMENT

-  Open Session
-  Update Session
-  Close Session

- **Open Session:** Form completed by a designated individual prior to the start of outreach
- **Update Session:** Form used to edit any incorrect/missing information initially entered for the Session
- **Close Session:** Form completed by a designated individual after the completion of an outreach event

OPEN SESSION

< >


District

- ☐ Alpha One
- ☐ Alpha Three
- ☐ Alpha Two

OPEN SESSION

< >

Start date of outreach



OPEN SESSION

< >

Site type

- ☐ Static site
- ☐ Surgical camp
- ☐ Surgeon on motorbike

**Not all Open Session questions appear in screenshots*



Record Registration

- Used to collect patient information for future tracking and analysis
 - Name
 - Age
 - Residence & contact information

PATIENT REGISTRATION	
<input type="text" value="Search"/> <input type="button" value="Q"/>	
ID	SITE
AA-CR-5	September Static Site Beta One
AA-CR-6	Test Site Beta
AA-TT-10	Sample Session A
AA-TT-11	Temporary Session

Session Id	AA-TT-10
Site Name	Sample Session A
Start Date	2018-04-01
Location Name	Sample Village A
District Name	Alpha One

SAMPLE SESSION A

< >

Enter patient name

SAMPLE SESSION A

< >

Patient home region

☐ Alpha

☐ Beta

☐ Delta

SAMPLE SESSION A

< >

Who owns a phone with which we can contact the patient?

☐ Patient

☐ Family member

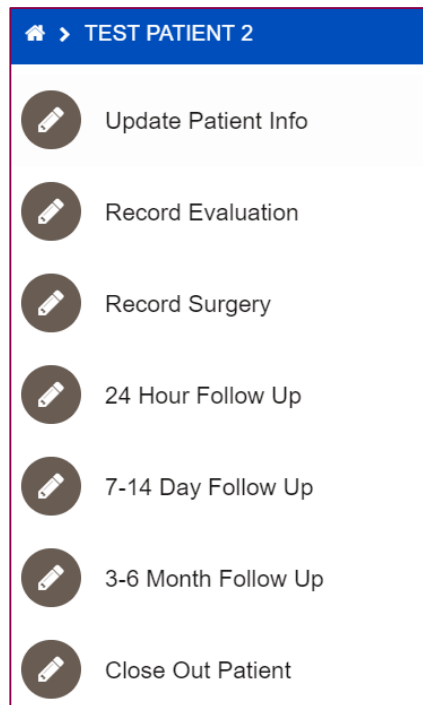
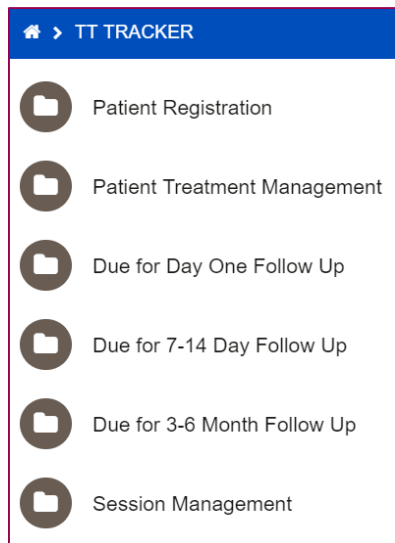
☐ Village leader

☐ Health worker

☐ Community volunteer



Data Collector's View: Patient Treatment Management



Update Patient Info: Form used to update/correct errors of patient's demographic/domicile information

Record Evaluation: Form used to enter diagnostic information for TT suspects (number of eyelashes touching the eye, evidence of epilation, etc.)

Record Surgery: Form to document what surgical procedures or treatment was performed on the patient

24-hour / 7-14 day / 3-6 month follow-up: Forms for 24-hour, 7-14 day, and 3-6 month follow-up

Close Out Patient: Form to remove a patient from the TT Tracker due to death, permanent move outside of the country, duplication, etc.

*Modelled after ICTC
Patient Record Cards*



Record Evaluation

- Evaluation questions will be asked, based on whether the eye is suspected of TT or not
 - Saves time at camps
- Contain questions found on the existing paper forms

🏠 > RECORD EVALUATION

< >

Is the right eye suspected of TT?

- ☐ Yes
- ☐ No

🏠 > RECORD EVALUATION

< >

How many right upper lid eyelashes touch the eyeball?

- ☐ None
- ☐ 1-2
- ☐ 3-4
- ☐ 5-6
- ☐ 7-9
- ☐ 10+

🏠 > SAMPLE SESSION A

< >

Is there evidence of epilation of inturned right upper lid eyelashes?

- ☐ Yes
- ☐ No

🏠 > SAMPLE SESSION A

< >

When you evert the eyelid, is there obvious scarring of the right upper tarsal conjunctiva?

- ☐ Yes
- ☐ No
- ☐ Unclear
- ☐ Can't examine

🏠 > SAMPLE SESSION A

< >


For the right eye, what have you recommended to the patient?

- ☐ Surgery (patient accepted)
- ☐ Surgery (patient refused)
- ☐ Epilation
- ☐ Referral
- ☐ Other management
- ☐ No management



Record Surgery

- Surgery questions will be asked, based on whether the eye was operated or not
- Some question will be asked for EACH eye while others will be asked for ANY eye operated.

 > RECORD SURGERY


< >

Surgeon performing the operation

- ☐ Dr Drew Baird
- ☐ Carol Burnett
- ☐ Chris Chross
- ☐ Floyd DeBarbour
- ☐ Dennis Duffy
- ☐ Wesley Snipes
- ☐ Dr Yeugh

Was an operation performed on the right eye?


- ☐ Yes
- ☐ No

 > RECORD SURGERY

< >

On the left upper eyelid, what type of operation was performed?

- ☐ Bilamellar tarsal rotation (clamp)
- ☐ Bilamellar tarsal rotation (no clamp)
- ☐ Trabut (Posterior lamellar tarsal rotation)
- ☐ Tarsal advance and rotation (modified Trabut)
- ☐ Other

 > RECORD SURGERY

<

Was the left eyelid margin fragment severed?

- ☐ Yes
- ☐ No

Was there excessive bleeding?

- ☐ Yes
- ☐ No

Was there any other complication on the left eye?


- ☐ Yes
- ☐ No



Record Follow-up

- Follow-up forms are completed for each of the 3 follow-up time points.
- In addition to the patient summary, the Tracker helps users know if an eye was epilated or operated with a reminder message.

TEST PATIENT 2	7-14 DAY FOLLOW UP	7-14 DAY FOLLOW UP	7-14 DAY FOLLOW UP
<ul style="list-style-type: none">Update Patient InfoRecord EvaluationRecord Surgery24 Hour Follow Up7-14 Day Follow Up3-6 Month Follow UpClose Out Patient	<p>Who is conducting the follow-up?</p> <ul style="list-style-type: none"><input type="radio"/> Dr Drew Baird<input type="radio"/> Carol Burnett<input type="radio"/> Chris Chross<input type="radio"/> Floyd DeBarbour<input type="radio"/> Dennis Duffy<input type="radio"/> Wesley Snipes<input type="radio"/> Dr Yeugh<input type="radio"/> Unknown / Not listed	<p>Right eye was not recommended for surgery or epilation.</p> <p>Looking at the eye, was there surgery performed on the right eye 7-14 days ago?</p> <ul style="list-style-type: none"><input type="radio"/> Yes<input type="radio"/> No	<p>Left eye was recommended for surgery.</p> <p>Looking at the eye, was there surgery performed on the left eye 7-14 days ago?</p> <ul style="list-style-type: none"><input checked="" type="radio"/> Yes<input type="radio"/> No



Data Quality and Use

The TT Tracker is not just for
collecting data, it's for USING
data





Data Collector's View: Patient Treatment Management Forms

🏠 > TT TRACKER

- 📁 Patient Registration
- 📁 Patient Treatment Management
- 📁 Due for Day One Follow Up
- 📁 Due for 7-14 Day Follow Up
- 📁 Due for 3-6 Month Follow Up
- 📁 Session Management



🏠 > TEST PATIENT 2

- ✎ Update Patient Info
- ✎ Record Evaluation
- ✎ Record Surgery
- ✎ 24 Hour Follow Up
- ✎ 7-14 Day Follow Up
- ✎ 3-6 Month Follow Up
- ✎ Close Out Patient

All forms (except Close Out Patient) can be edited by users.



Data quality at the time of entry

Home > UPDATE PATIENT INFO

< >

Enter patient name

Test Patient 2

Home > UPDATE PATIENT INFO

< >

Patient age

65

Home > UPDATE PATIENT INFO

< >

Patient home district

☐ Alpha One

☒ Alpha Three

☐ Alpha Two

Home > RECORD EVALUATION

< >

This patient has an existing evaluation completed--to update and REPLACE existing information, continue. To complete a new evaluation, create/locate new registration

If a data entry error has been submitted, surgeons can correct the error while in the field; it does not require sending the edit request to a data manager.



Data Use: Patient List

Supporting summary documentation has been included to assist users in viewing patient record information from the main patient list:

PATIENT TREATMENT MANAGEMENT			
Search			Q
ID	NAME	R/L	DSS
AATT17	Sample Patient 2	R/-	
AACR9	Surgeon Region Tester	-/-	
AATT16	Test Patient 1	-/E	
AATT18	Test Patient 2	S/E	29

- **R/L:** Right/Left (eye)
 - **S:** Surgery
 - **E:** Epilation
 - **R:** Referral
 - **X:** Refusal
 - **O:** Other
- **DSS:** Days since surgery



Data Use: Patient Case Detail

Case Detail

REG

EVAL

SURGERY

24-HR

7-14 DAY

3-6 MO

Session	Sample Session A
ID	AATT18
Name	Test Patient 2
Age	65
Sex	Female
District	Alpha Three

Continue

Case Detail

REG

EVAL

SURGERY

24-HR

7-14 DAY

3-6 MO

RE # Lashes	10+
RE Evid. Epilation	Yes
RE Conj. Scarring	Yes
RE Prev. Surgery	No
RE Lower TT	Yes
RE Action	Surgery Accepted
LE # Lashes	2
LE Evid. Epilation	No

Continue

Case Detail

REG

EVAL

SURGERY

24-HR

7-14 DAY

3-6 MO

Eyes Operated	R/-
Eyes Epilated	-/L
Surgery Date	2018-05-08
Days Since	29
RE Operation	Posterior lamellar tarsal rotation (Trabut)
RE EMF Severed	No
RE Bleeding	Yes
Suture Used	Non-Absorbable (silk)

Continue

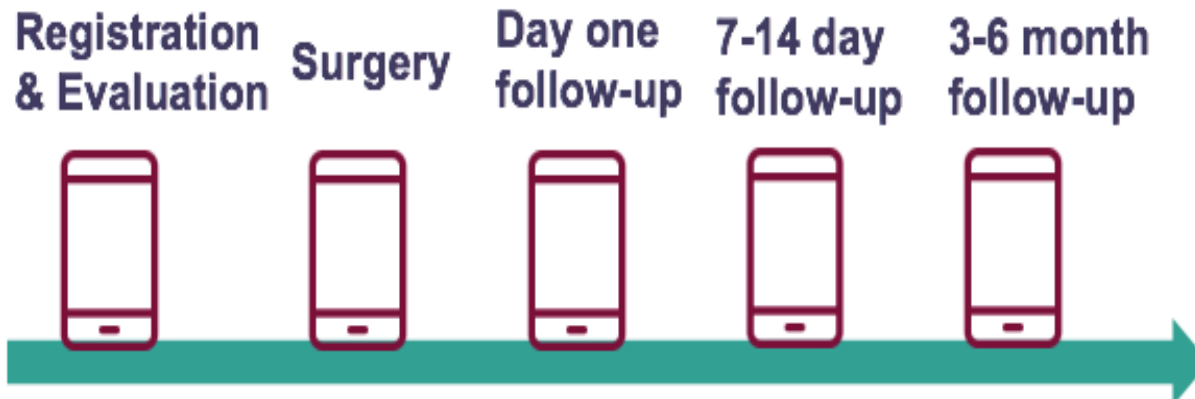
Patient summaries allow users to see all information entered for the patient in one place, selecting the specific tab to review the information entered on that form:

- Registration, Evaluation/Screening, Surgery, Follow-up (24-hour, 7-14 day, 3-6 month)





Reports and Follow-up Lists



- Follow-up Lists
- Surgical Outcome and Output Reports
- Patient Records/Line Lists
- Activity Summaries



Due for Follow-up Lists

- **Phone**

- One list per time period
- Can be searched by specific patient or district

DUE FOR 3-6 MONTH FOLLOW UP			
ID	NAME	R/L	DSS
UGCC3	Ariet Omod	S/S	129
UGCC8	Nebiyu Guell	S/S	129
UGCC23	Elizabeth Mina	S/S	127
UGCC11	Mary Joyce	S/S	129

- **Email**

- Sent to designated officials responsible for follow-up planning
- Lists are broken down by district and can be used as needed

Patients Due for 3 - 6 Month Follow Up											
Overdue?	Name	Age	Sex	Patient District	Patient Village	Phone	Owner of	Surgery Date	Session Name	Session ID	Surgeon Name
	Adam Test	90	male	Alpha One	Villagename	5555555		2017-10-13	clinic south	AA-TT-2	Carol Burnett
	Adam Test	90	male	Alpha One	Villagename	5555555		2017-10-13	clinic south	AA-TT-2	Carol Burnett
	Leah M	58	female	Alpha One	Reyn			2017-07-21	Surgeon Region Te	AA-CR-5	Carol Burnett
Y	mariana K	65	female	Alpha One	Gambella	2222222		2017-07-02	home12	AA-CR-4	Floyd DeBarbour



Surgical Outcome Reports

- Surgeon Performance Report can be emailed monthly to designated supervisors to assess surgical outcomes by surgeon.
- Report includes number of surgeries completed and surgical successes and/or complications for surgeries with outcome assessment completed.

				7-14 day follow-up YTD				
Region	Surgeon	# of surgeries this month	# of surgeries YTD	# of surgeries with 7-14 day follow-up	Complication %	Over-correction %	Granuloma %	Contour-abnormality %
Alpha	Carol Burnett	0	0	0				0%
Alpha,Beta	Chris Chross	0	0	0				0%
Beta	Dennis Duffy	0	0	0				0%
Alpha,Beta	Dr Drew Baird	1	0	0				0%

3-6 month follow-up YTD				
# of surgeries with 3-6 month follow-up	Complication %	Over- correction %	Granuloma %	Contour-abnormality %
0				0%
0				0%
0				0%
0				0%



Surgeon Output Emails



Surgeon Report for October 2017

10 messages

TT Patient Tracker <ssreporter@mg.callawaywilson.com>
To:

Mon, Nov 6, 2017 at 9:52 AM

Dr Yeugh
October 2017

Your contribution to trachoma elimination

This is what's been done nationally

2 surgeries completed this month	9 surgeries completed this year
3 7-14 day follow-ups completed this year	33% positive outcomes of completed 7-14 day follow-ups
0 3-6 month follow-ups completed this year	N/A % positive outcomes of completed 3-6 month follow-ups

Your individual report

0 surgeries this month	
1 surgeries this year	
0 7-14 day follow-ups done on your surgeries this year	0 3-6 month follow-ups done on your surgeries this year

Outcome of those 7-14 day follow-ups:

N/A % Success rate
N/A % Over-correction
N/A % Granuloma
N/A % Contour-abnormality

Outcome of those 3-6 month follow-ups:

N/A % Success rate
N/A % Over-correction
N/A % Granuloma
N/A % Contour-abnormality

See any areas you'd like to improve upon? Please contact your supervisor.

Thank you for your continued dedication to helping your community.
Keep up the good work!

Surgeon reports and performance

- Surgeons will receive a monthly email (if they are actively doing surgeries) showing their contribution and how many of those individuals completed a follow-up
- Designated supervisors will receive a report of surgical outcomes to assess what issues and surgical complications need to be addressed, if any



Metabase Dashboard

[Dashboards](#) [Questions](#) [Pulses](#) [Data Reference](#) [New Question](#)

Template - Dashboard 1



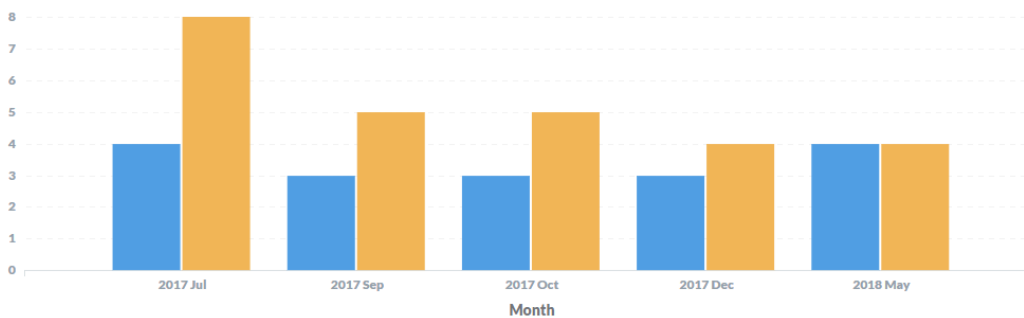
[Start Date](#) [End Date](#) [Region](#) [District](#)

Surgeries by outreach type

Type	Count
Total Patients Operated	17
Patients Operated Camp	7
Eyes Operated Camp	10
Patients Operated Site	9
Eyes Operated Site	14
Patients Operated Motorbike	0
Eyes Operated Motorbike	0
Patients Operated Other	1
Eyes Operated Other	2

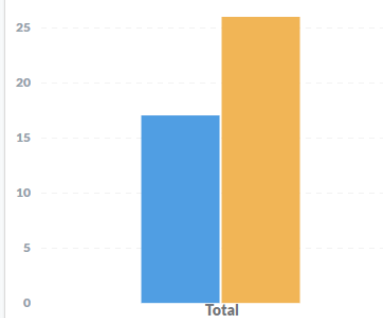
Patients and Eyes Operated - Monthly

● Patients Operated ● Eyes Operated



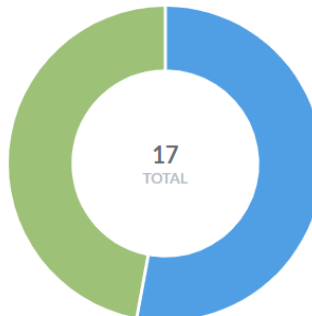
Patients and Eyes Operated - Total

● Patients Operated ● Eyes Operated

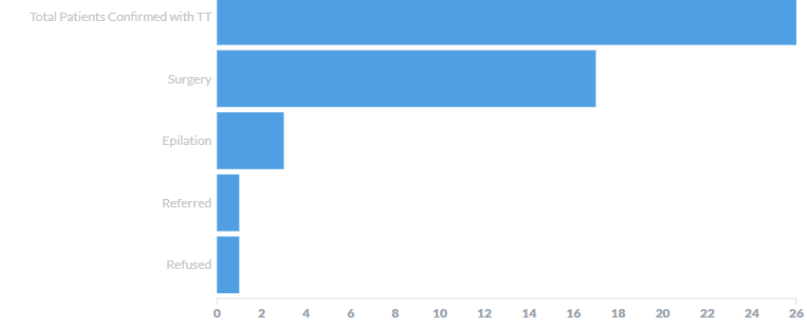


Surgery Activity - TT Patients Operated

● Males 52.94%
● Females 47.06%



TT Interventions for Confirmed TT (by patient)





Metabase Emailed Reports

Emailed reports

reporter@tttracker.org

to me

...

Activity Summary Report Test 1

Follow-up Completion Rates

	24-hour	7-14 day	3-6 month
Follow-up needed	3	3	3
Follow-up completed	1	2	0
% completion	33%	67%	0%

Activity Report - District

More results have been included as a file attachment

Region	District	Total Screened	Male Screened	Female Screened	TT Total	TT Male	TT Female	TT Under15	Surg
Beta	Beta One	60	30	30	0	0	0	0	
Beta	Beta Two				0	0	0	0	
	Alpha One	85	35	50	0	0	0	0	
	Alpha Two				0	0	0	0	
	Beta One				0	0	0	0	

Showing 10 of 18 columns.

3 Attachments

Follow-up Compl...

Activity Report - ...

Activity Report - ...

Where should this data go?

Email



To:

Kimberly Jensen

Sent

Daily

✓ Daily

Weekly

Monthly





CommCare Exports

Users ▾

Applications ▾

Web Apps

Messaging ▾



TT Tracker - Uganda

Exports are a way to download data from CommCare HQ in a variety of formats (CSV, Excel, etc.) for use in third-party data analysis tools.

[+ Create New Export](#)

Exports				
Name	Case Type	Edit	Copy	Export
Template 1: Patient Line List This template contains all indicators related to surgical outreach: patient demographic and contact information; screening, diagnosis and treatment recommendations; surgery record; and outcome assessments for 24-hour, 7-14 day, and 3-6 month follow-ups. This template should remain unchanged but can be copied and used as the basis to create additional exports as desired by programs. It is a very robust set of indicators that can easily be limited (on a Copy) for program needs.	Patient	✎ Edit	Copy	Export
Template 2: Patient Visit Dates with Notes This template contains the diagnosis, treatment, follow-up dates and notes for patients. It does not include specific complications that may have been observed during outcome assessments. Users can download this template to see all dates of visits with patient and any relevant notes that were entered by the surgeon or assistant.	Patient	✎ Edit	Copy	Export
Template 3: Patient Referrals Contains indicators to track referral patients. Contains referral reason, where patient was referred and the patient closeout information to confirm if referral action was completed. Export will include all patients and User will then filter Excel form by patients with referral information	Patient	✎ Edit	Copy	Export
Template A: Patient Information to Reassign Patients This template should remain unchanged and will be used by Administrators to reassign patient records to different sessions.	Patient	✎ Edit	Copy	Export
Template B: Session Information to Reassign Patients This template should not be modified; it will be used by Administrators to reassign patients to different Sessions.	Surgery_Session	✎ Edit	Copy	Export



How to Access Program Data

- www.tttracker.org
- Metabase
 - <https://dashboard.tttracker.org/>
 - Emailed reports
- CommCare
- PDF Exporter

Support Package

- TT Tracker Overview Documents
- Project Planning Tools
- Metabase Data Visualization Tool
- PDF Exporter
- CommCare Export Templates (Patient Line Lists)
- Mobile Worker & Administrator Manuals
- Training Presentations
- Administrator support after training

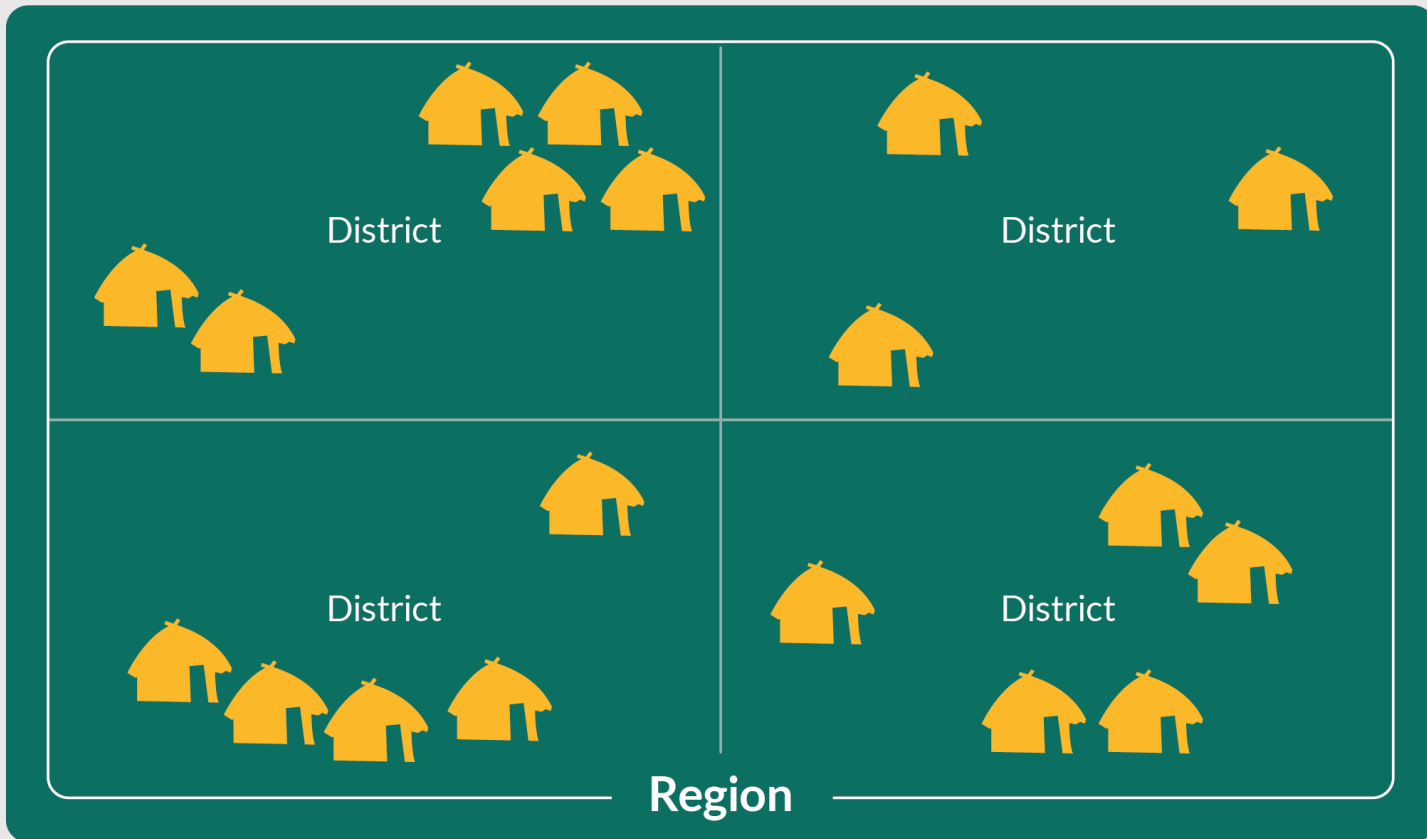


For further information contact:

support@sightsavers.org or visit www.tttracker.org



Coverage area and record access



The coverage area can be assigned to specific district(s) or entire region(s).
Assigning the coverage area to the region gives workers access to records from all districts found within that region.

Coverage area and access demonstrated

Surgeon assigned to	Can see/modify
District 1 and District 3	Patients: P42, P32, P3
District 5	Patients: P19, P20, P30, P54
District 2, District 4 and District 6	Patients: P12, P22, P34, P2

