

2020

TUPAIA FUNCTIONALITY AND VISUALISATIONS

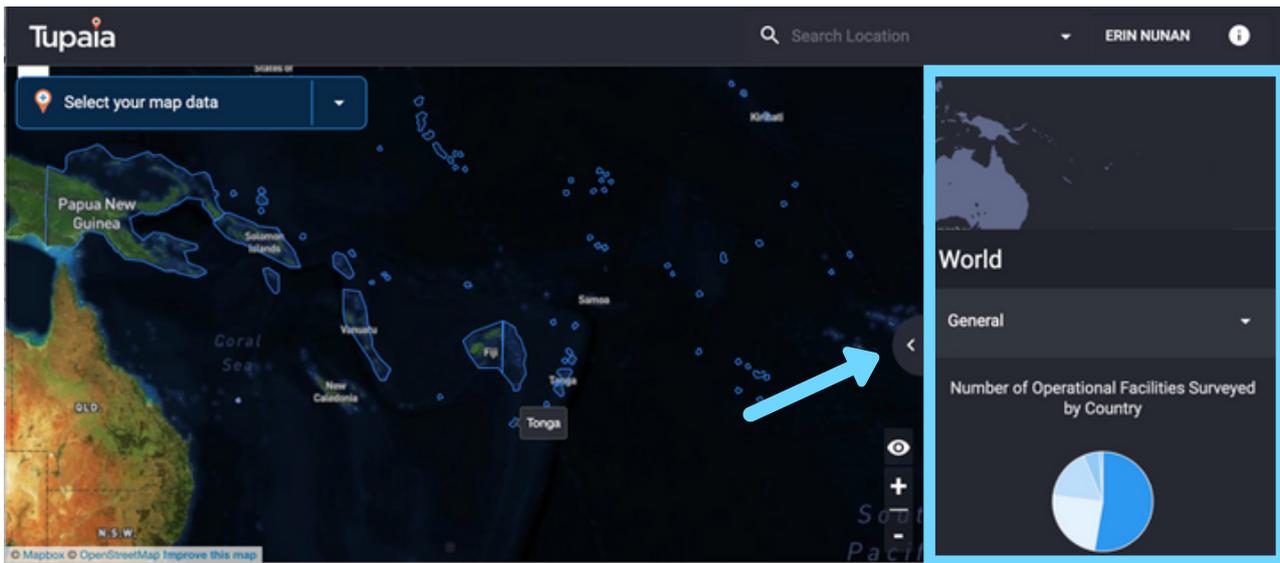


Beyond Essential
Systems

www.tupaia.org

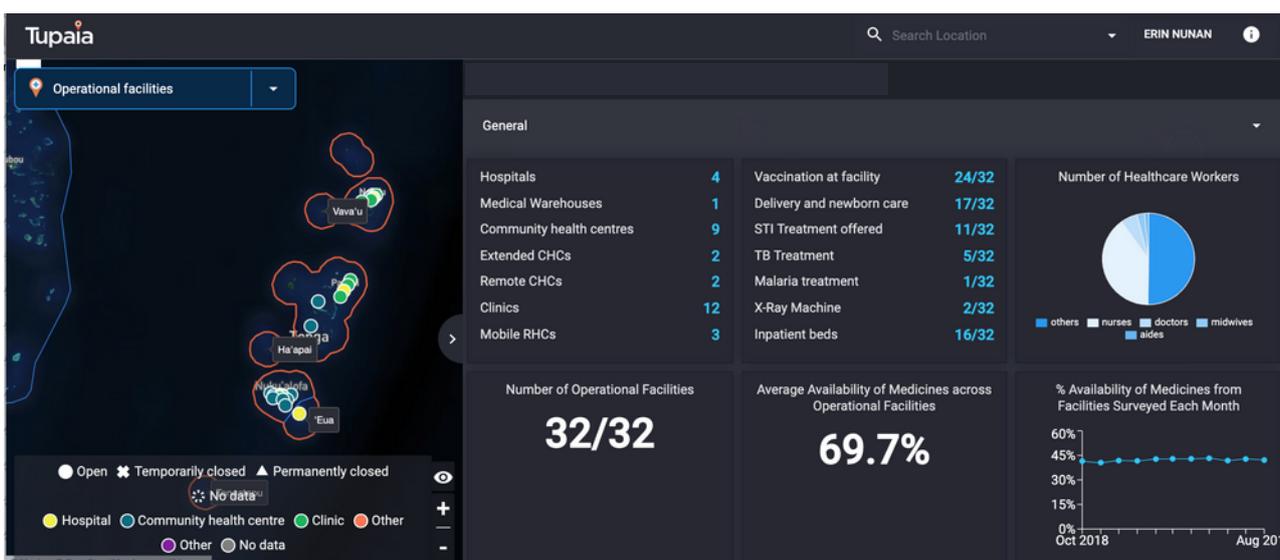
Dashboards

In Tupaia, the right hand side of the screen is called a dashboard. The information can be tailored in the dashboard according to the view. At the Regional, National or Provincial level the dashboard shows aggregate data, or it shows more specific data for a single facility.



The blue box shows the area referred to as a 'dashboard'.

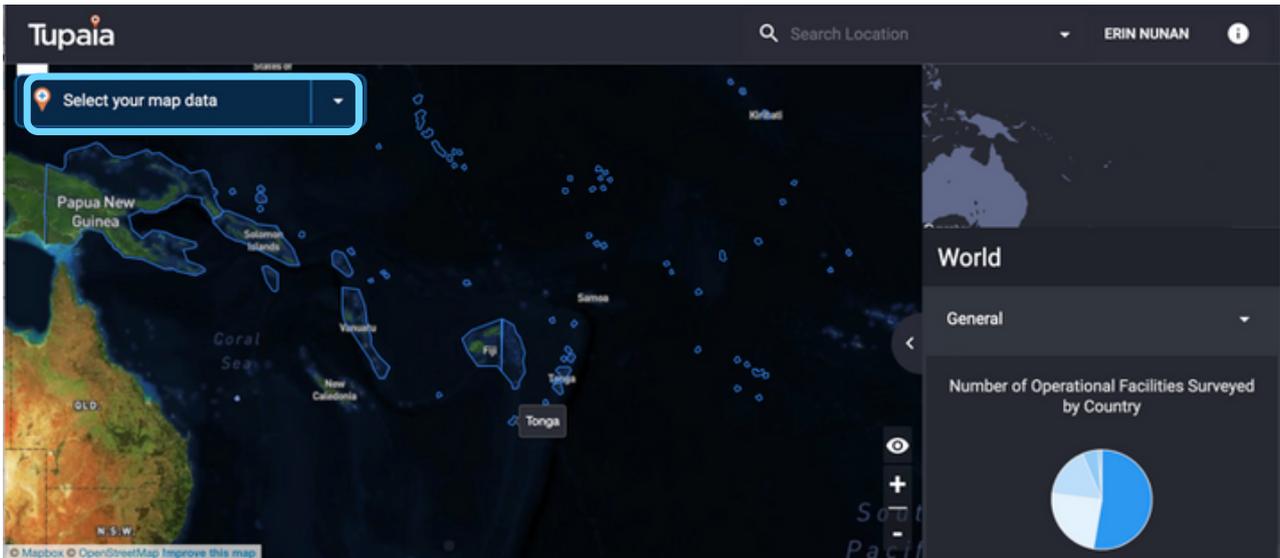
Clicking on the < tab will expand the dashboard, and many of the graphs and tables presented in the dashboard can be clicked on for a more thorough view.



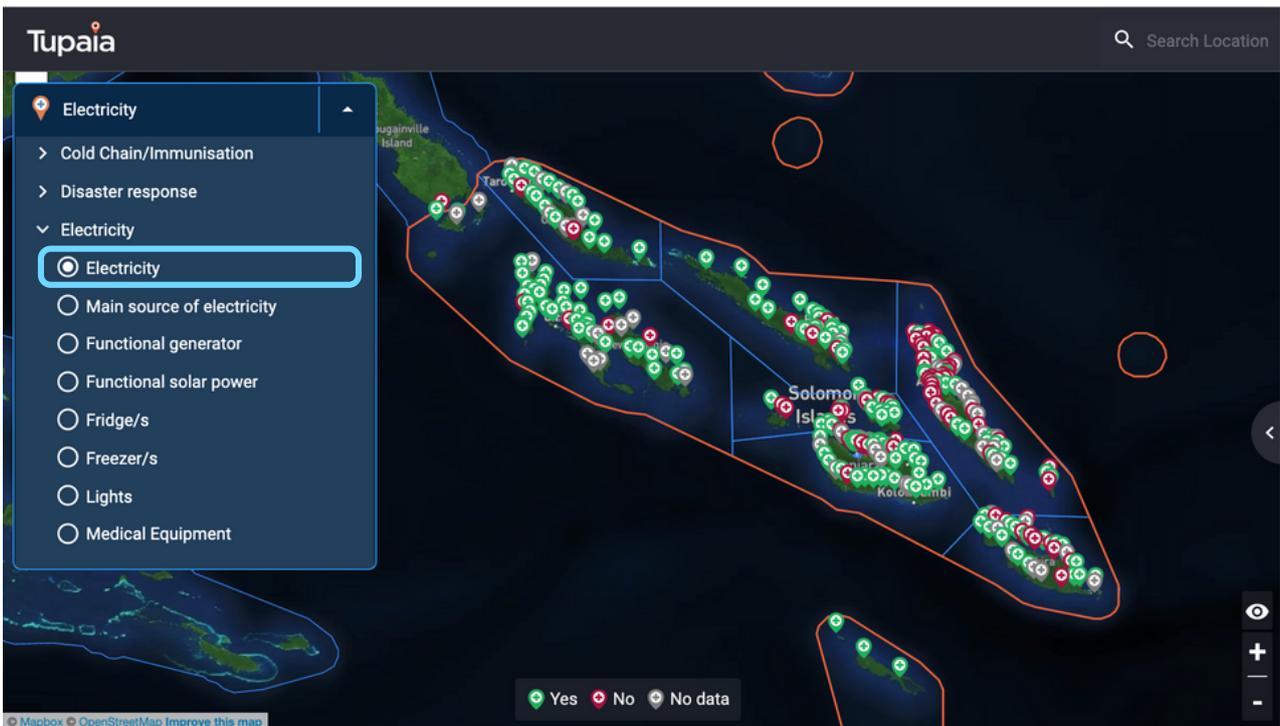
An expanded dashboard at the National level

Map Overlays

Map overlays offer a variety of options for showing specific data marked on the map. The data is generally shown with respect to health facilities based on their location.



The blue box highlights where a map overlay can be selected.



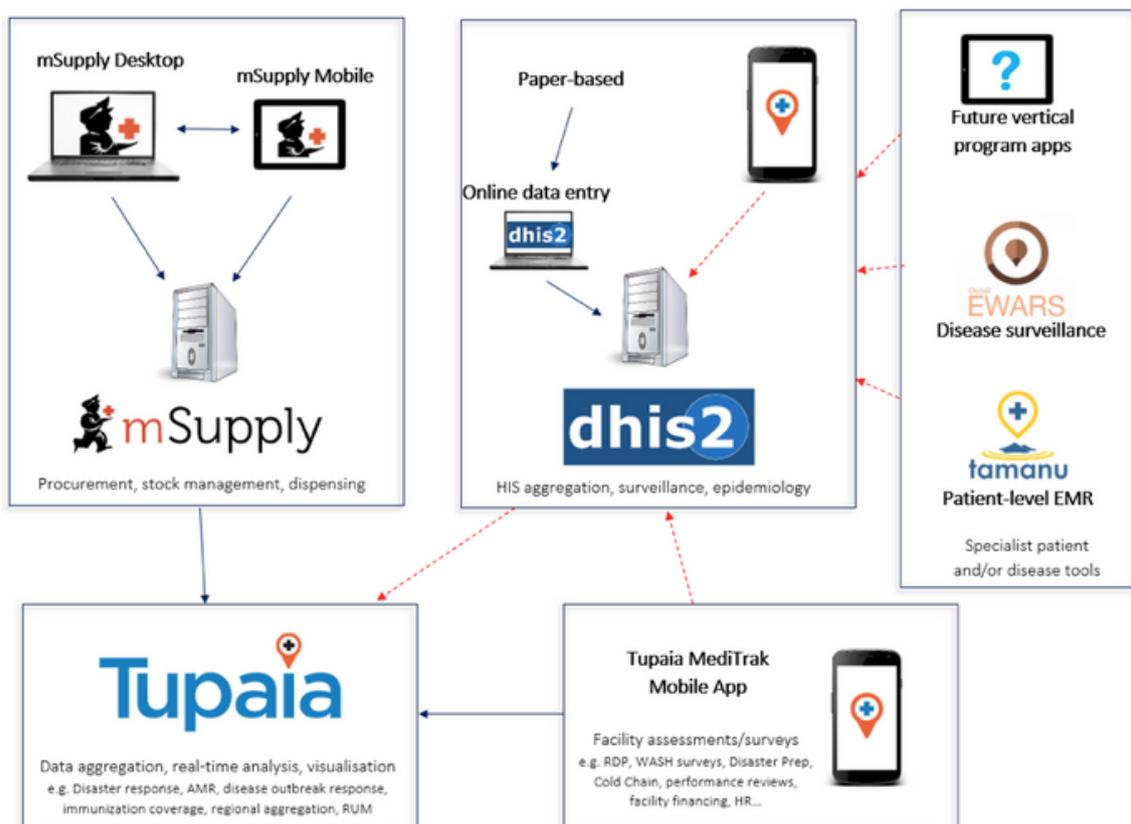
An example of a map overlay, showing results at each facility according to which data point is selected on the left

Integration

Tupaia can link with other software to enable information flow between the two without the need to re-enter data at any stage. Currently, Tupaia displays data through linking with mSupply stock management software and DHIS2 health information software. This allows the country to choose displays that ensures the data can be visualised in the most useful way, whether it be decision support tools, resource allocation support, data analysis or data displays that support reporting requirements.

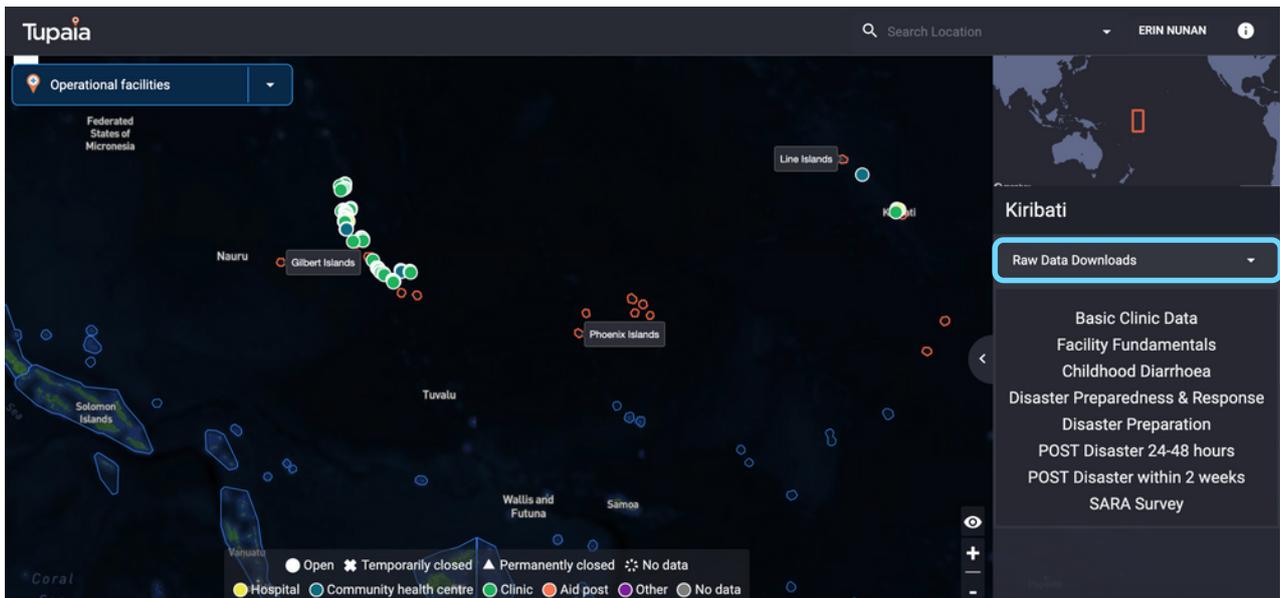
Tupaia MediTrak is a data collection tool that allows data to be collected in a simple survey format via an app. The data collected by Tupaia MediTrak can feed directly into Tupaia.org and display relevant data as it is submitted, allowing for ongoing data collection and up to date data displays.

Tupaia MediTrak can also be used in isolation without Tupaia.org, for example the monthly facility survey (MS-1) in Kiribati is collected through the use of a custom built survey in MediTrak, and the data feeds into the local MS-1 database.

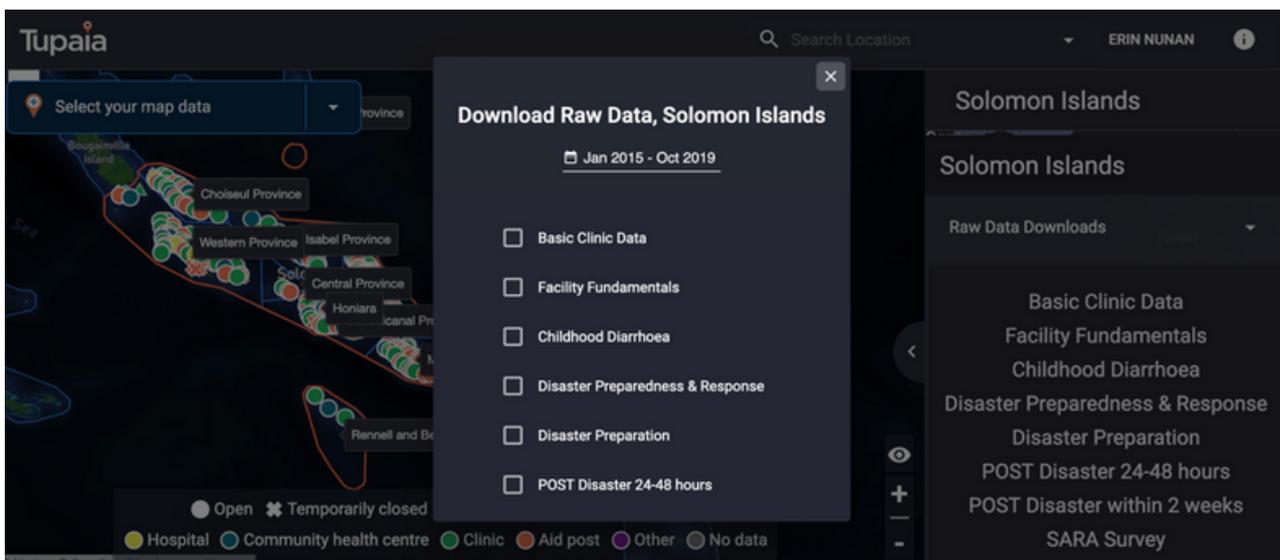


Raw Data Downloads

A dashboard can be set up to allow users access to raw data downloads pertaining to surveys submitted. Downloads can be filtered by date range and survey type. Data downloads are exported in excel format.



Raw data download dashboard shows surveys available to download



Raw data download dashboard view (expanded) allows for selection of which surveys to download and within which date range

Visualisations

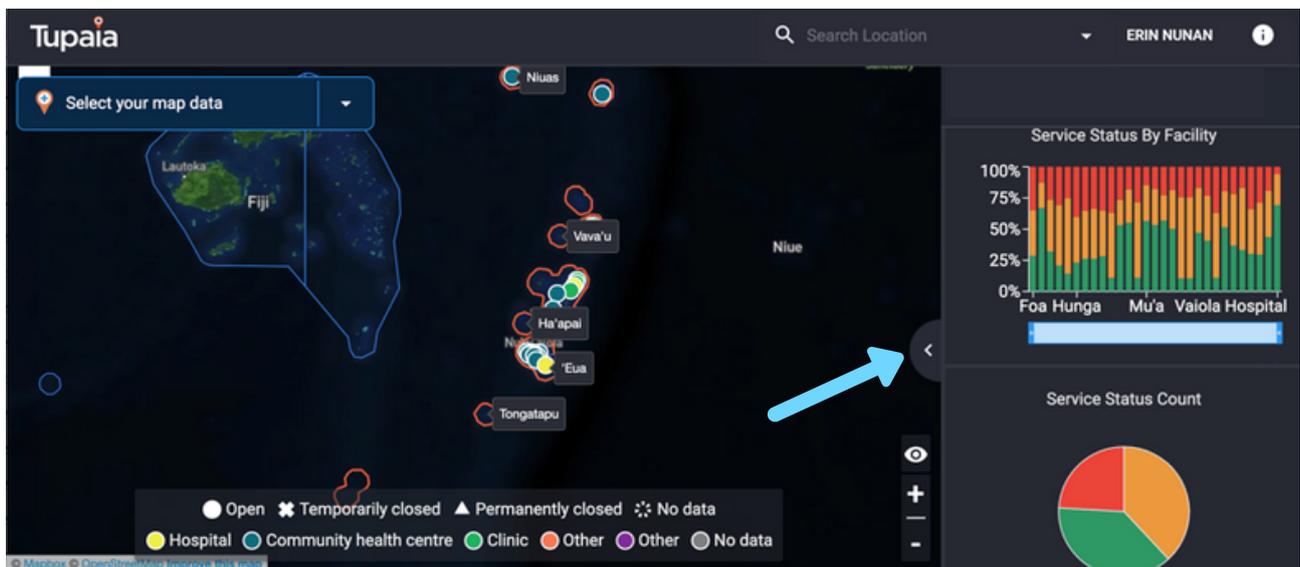
Dashboards

Tupaia currently has a number of display types in use, examples of which will be shown below. This provides an overview of how some of the current data is displayed.

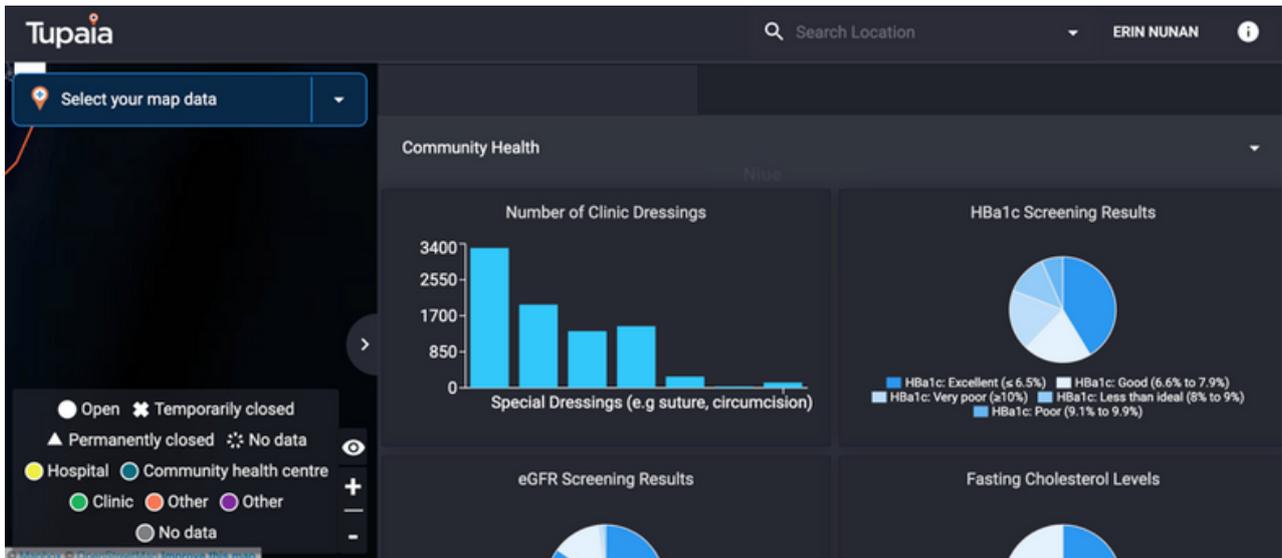
A different display is required depending on how the data is intended to be used by the relevant project or country.

We have an in house software development team capable of customising dashboard displays to enable the most appropriate display for new projects and data.

A dashboard initially displays as a panel on the right hand side, with the name of the area you are viewing (region, country, province, town, facility) on top. By clicking on the < tab you can expand the dashboard view, and from there, some of the different elements (e.g. graphs or tables) can be further expanded to see the information in more detail.

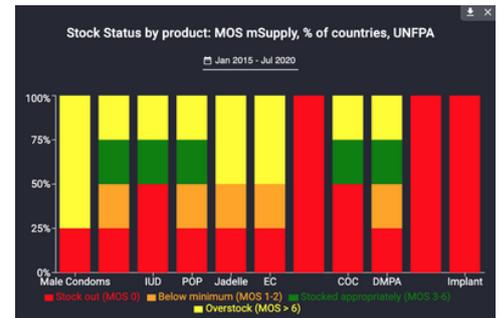
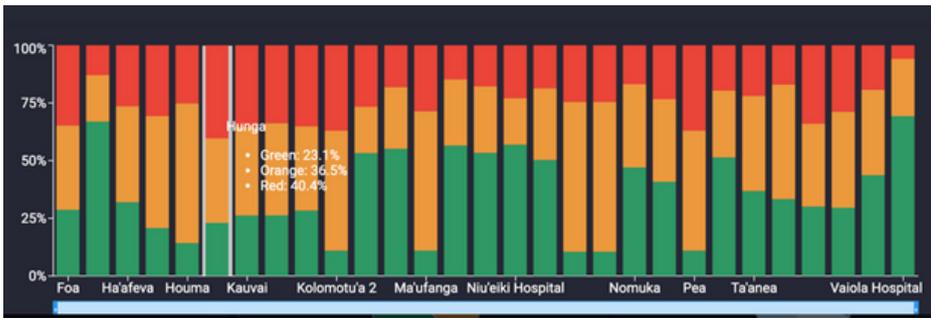


Dashboard view: a sample of the dashboard is shown in the right hand side. Clicking the < tab will expand the dashboard.

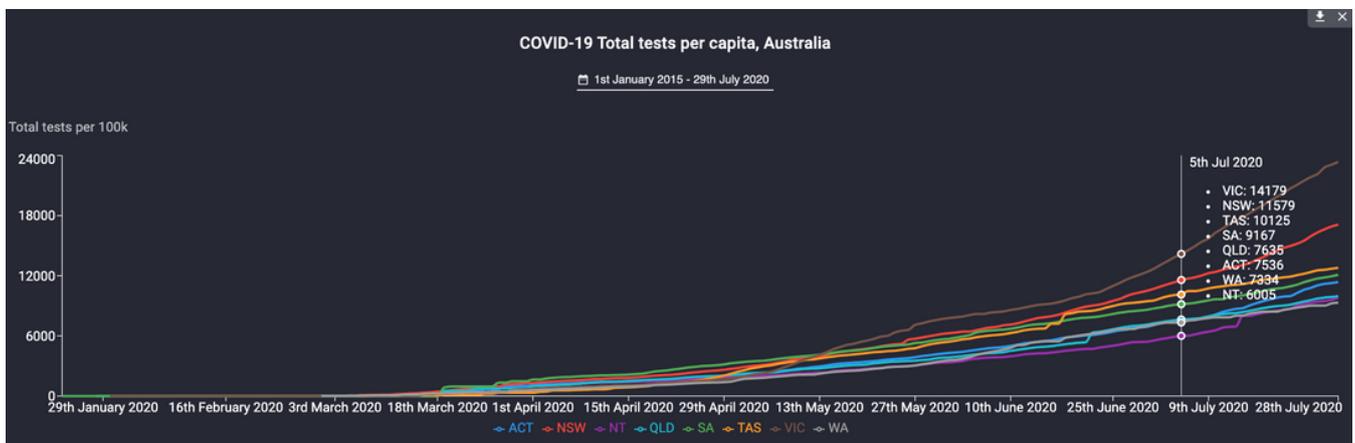


Expanded dashboard view: multiple dashboard elements are shown when the right hand side dashboard panel is expanded

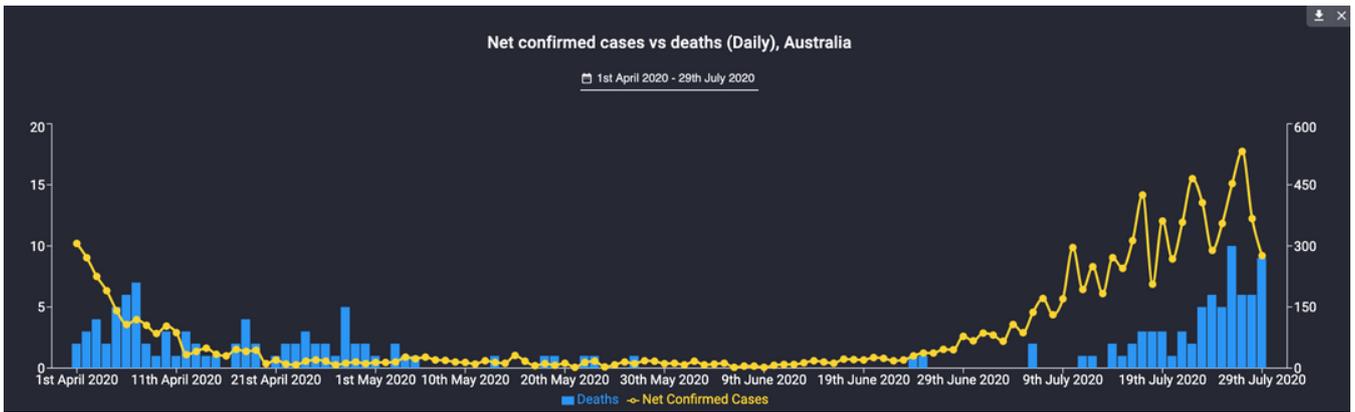
Dashboard Visual Types



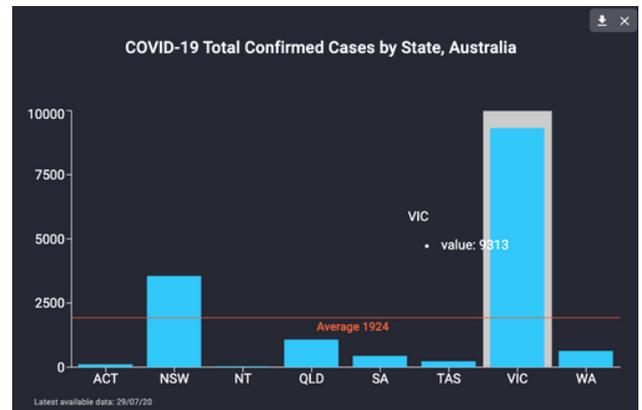
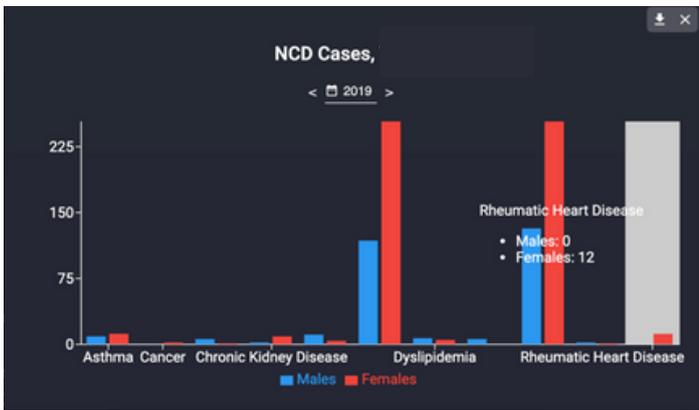
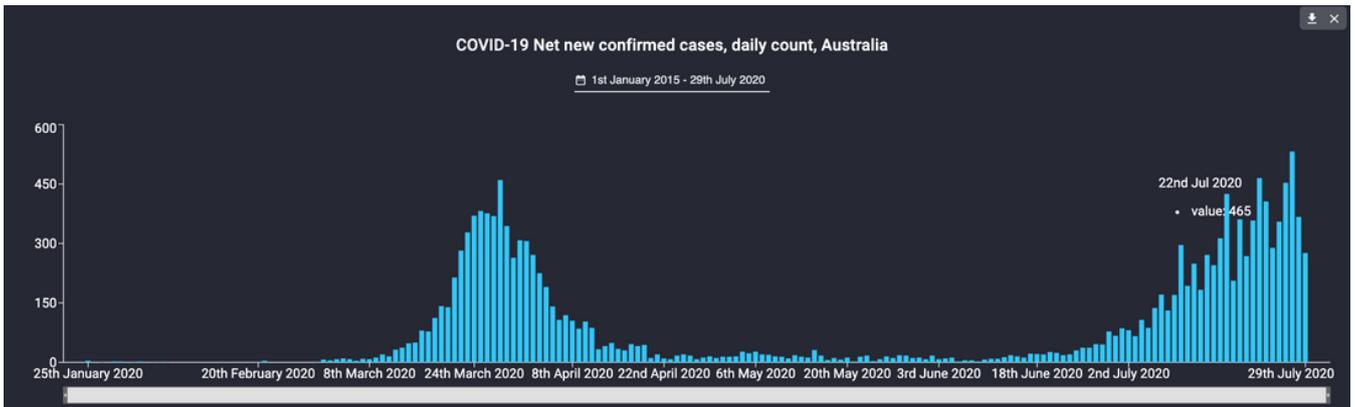
Stacked bar graph



Line graph



2 Y-axis graph



Bar graph, with or without average line

UNFPA: Does this facility provide family planning services?	✓
UNFPA: ANC services	✓
UNFPA: Provision of PNC services	✓
UNFPA: Routine Delivery services	✗

	Previous	Managed at this Facility	Stock card used at this facility	Stock card up to date
Male condoms	●	●	●	●
Female condoms	●	●	●	●
Combined oral contraceptive	●	●	●	●
Progesterone only pill	●	●	●	●
Injectable contraceptives	●	●	●	●
IUDs	●	●	●	●
Implant contraceptives	●	●	●	●
Emergency contraceptives	●	●	●	●

Binary data displays



Traffic light matrix table

Number of women provided SRH services in past 6 months

Search: e.g. Delivery

	Q3 2019	Q2 2020	Q3 2020
Delivery	1191	339	42
ANC	1442	641	55
PNC	679		
Number of Facilities Surveyed	25	13	1

Text / value matrix table

% of surveyed facilities with IPC commodities in stock

Search: e.g. Water for hand washing

Commodity	% with commodity in stock
Water for hand washing	91.7%
Soap for hand washing	75%
Alcohol hand sanitizer	95.8%
Disposable gloves	83.3%
Face masks	54.2%
Paracetamol tablets	70.8%
Equipment cleaning and disinfectant products	83.3%
Oxygen concentrator	0%
Oxygen bottles	29.2%
Oxygen masks	41.7%
Pulse oximeter	45.8%

Value matrix table with calculations

Number of women provided SRH services in past 6 months

Calendar: 2020

	Does this facility offer the service?	# women, Q1 2020	# women, Q2 2020	# women, Q3 2020	# women, Q4 2020
Delivery	●			0	
ANC	●			4	
PNC	●			2	

Combination matrix table (traffic light and value)

Tupaia

Search Location

ERIN NUNAN

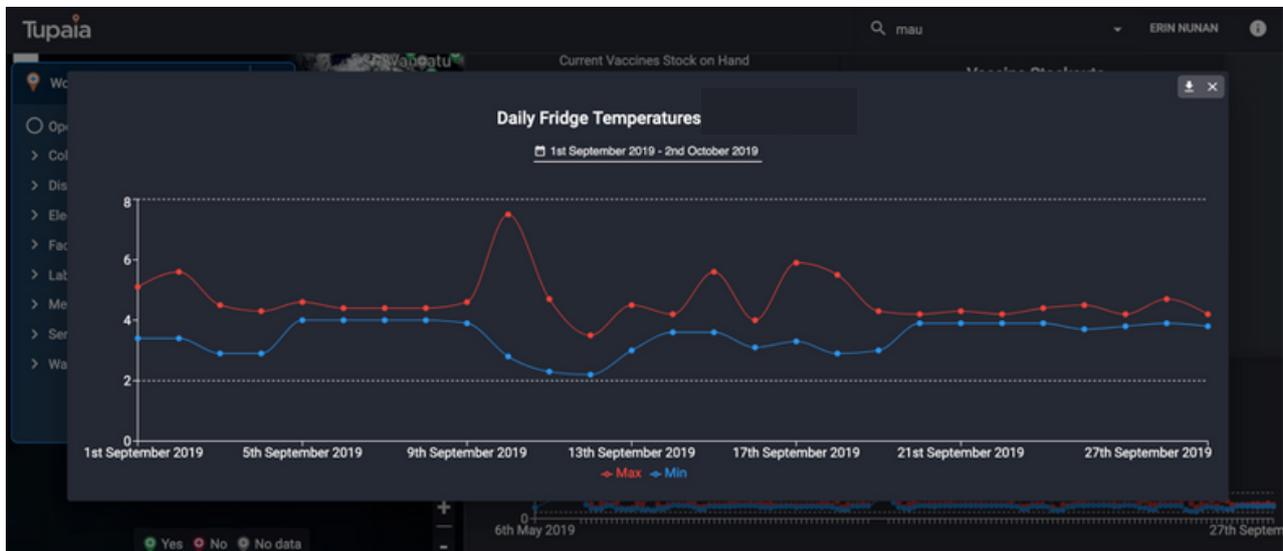
Current Vaccines Stock on Hand

eg Surgical

	Hospital Wards	Paediatric Wards VCH	Health centres	Maunifanga	Saupia	Dispensaries	Amauri	Burumba	Kaimar Takau	MCH Clinic George	Pompidouau	Silimoli
Doses of BCG vaccine						40						
Doses of Hepatitis B vaccine						3						
Doses of HPV vaccine	0	0	52			0	18	0	858	0		
Doses of IPV vaccine	0	0	0			10	15	0	90	0		
Doses of MR vaccine	70	350	320			0	0	0	670	0		
Doses of OPV vaccine	40	20	340			0	0	0	1760	20		
Doses of Pentavalent vaccine	0	44	450			10	0	0	285	0		
Doses of TD vaccine	40	140	160			0	50	0	100	0		

Yes No No data

Matrix table - data pushed to Tupaia.org from LMIS system



Live fridge temperature data via blue tooth sensor



Plain text displays



Text displays with calculations

Ministry of Health and Medical Services
NATIONAL REFERRAL HOSPITAL

Medical Services We Provide

- Emergency Department
- General Outpatient Department
- Physiotherapy Department
- Pharmacy Department
- Diagnostic Imaging Department
- National Diabetes Center
- Regional Eye Center
- Operating Theatre
- Medical Ward
- Surgical Ward

National Referral Hospital

General

Vaccination at facility **Daily**

Vaccination as outreach **As required**

Catchment population **221268**

Opening Days **Mon - Sat**

Number of staff working **583**

- Delivery and newborn care
- STI Treatment offered
- TB Treatment
- Malaria treatment
- X-Ray Machine
- Inpatient beds

Ability to take a photo in Tupaia Meditrak and add it to the dashboard

VILA CENTRAL

Vila Central

General

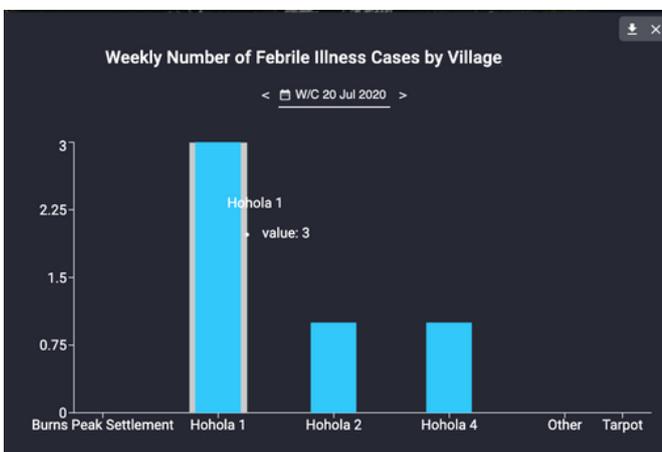
Vaccination as outreach **Weekly**

Catchment population **270402**

Opening Days **Mon - Fri**

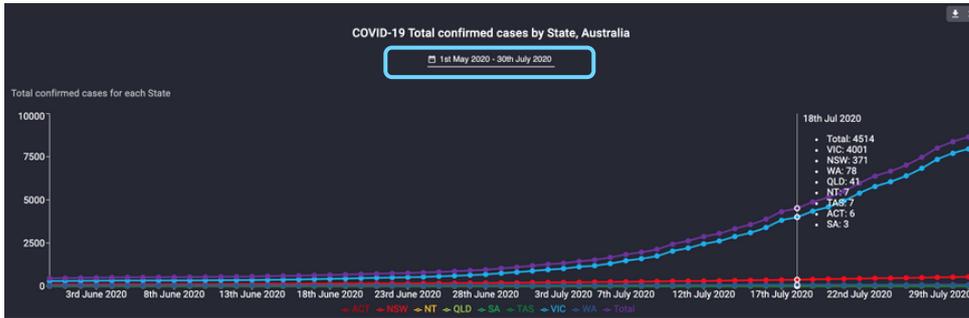
Number of staff working **391**

- Delivery and newborn care
- STI Treatment offered
- TB Treatment
- Malaria treatment
- X-Ray Machine
- Inpatient beds



Data displayed at health facility dashboard level, with data displaying by village serviced by the health facility.

Dashboard Tricks and Tips



Export this chart

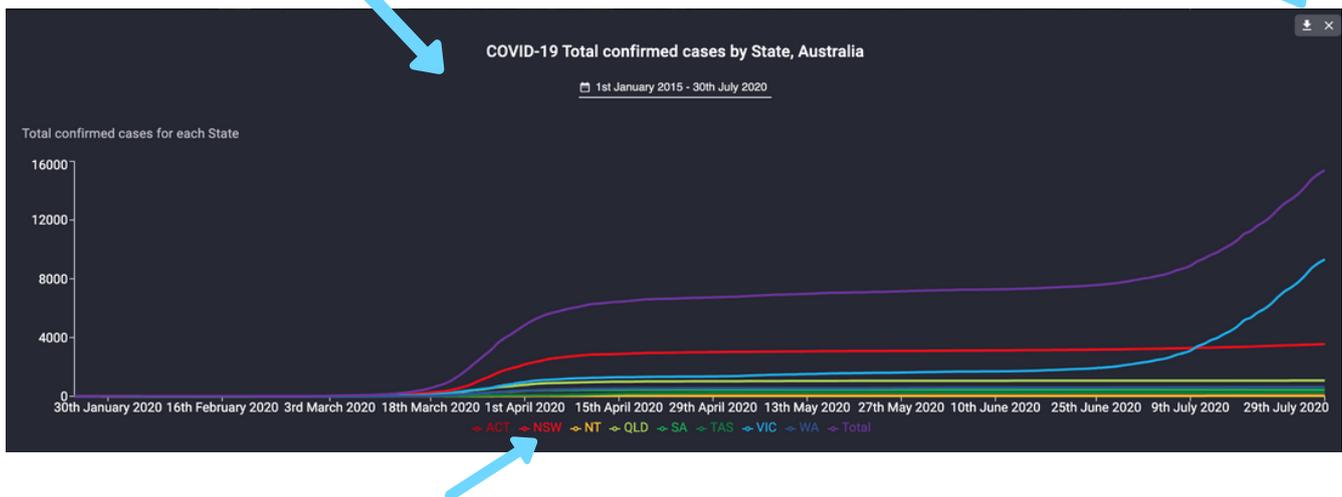
The chart will be exported and emailed as an attachment to:
erinsmitchell@gmail.com

PDF
 PNG

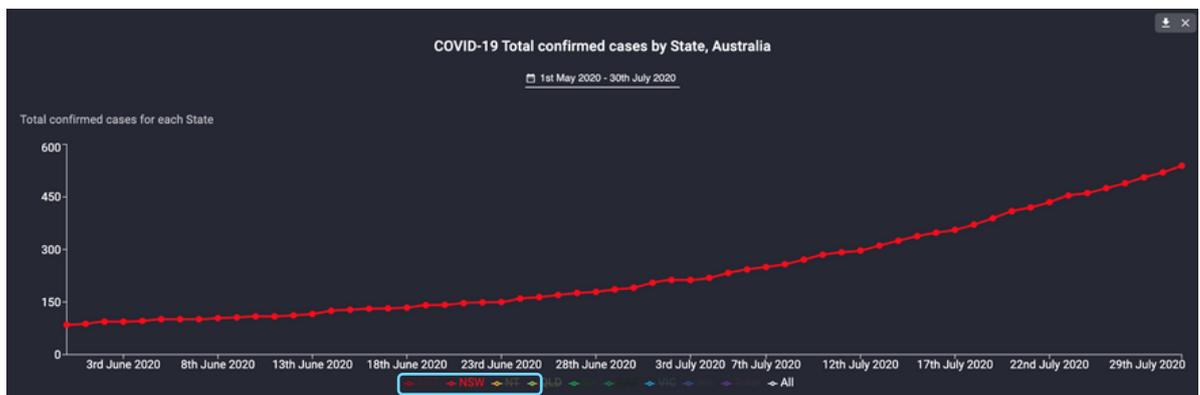
CANCEL EXPORT CHART

Date Selector: Choose any date range to show data only within those dates.

Download: Click this symbol to download any image for offline use



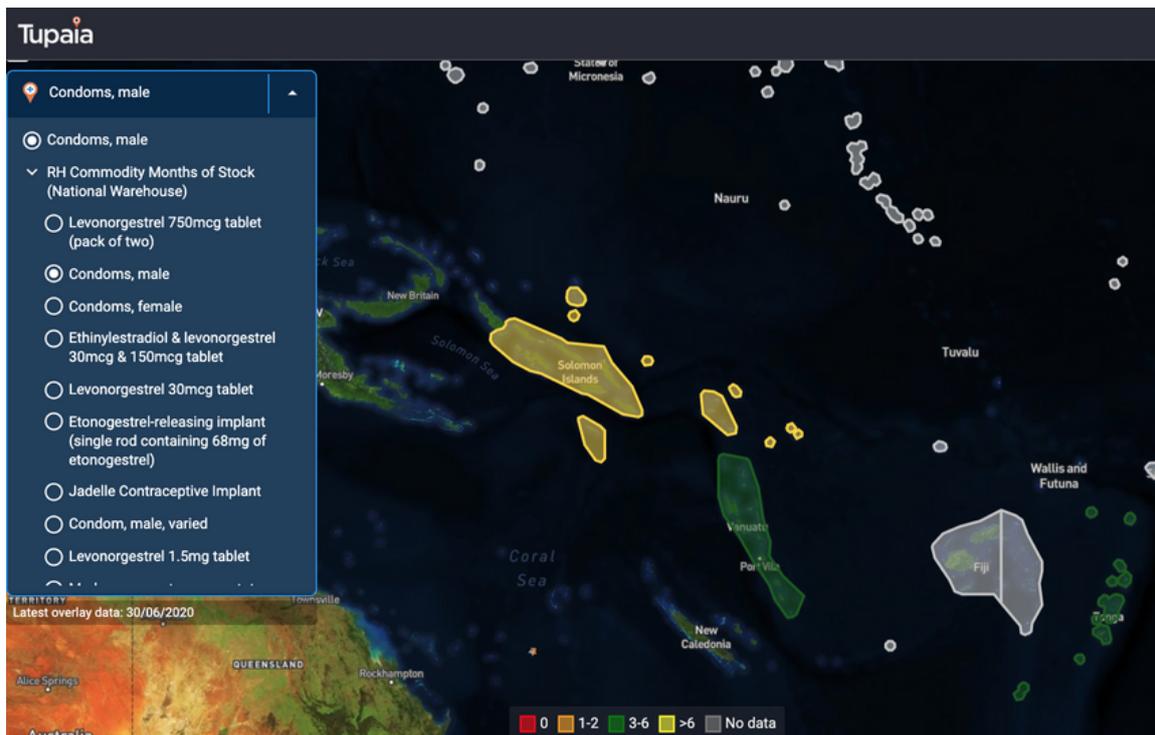
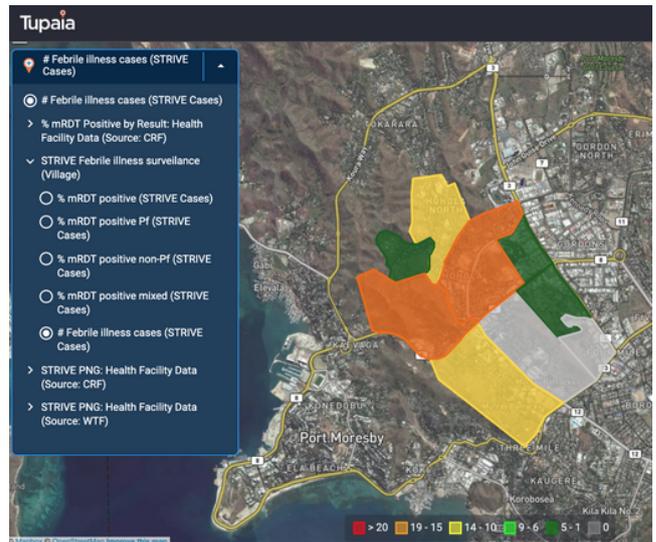
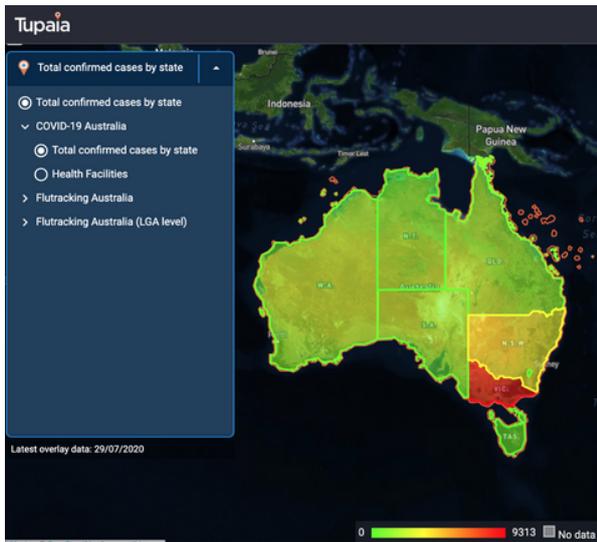
Filter by legend: Clicking on any individual item in the legend will show only that data in isolation. Click 'All' to return.



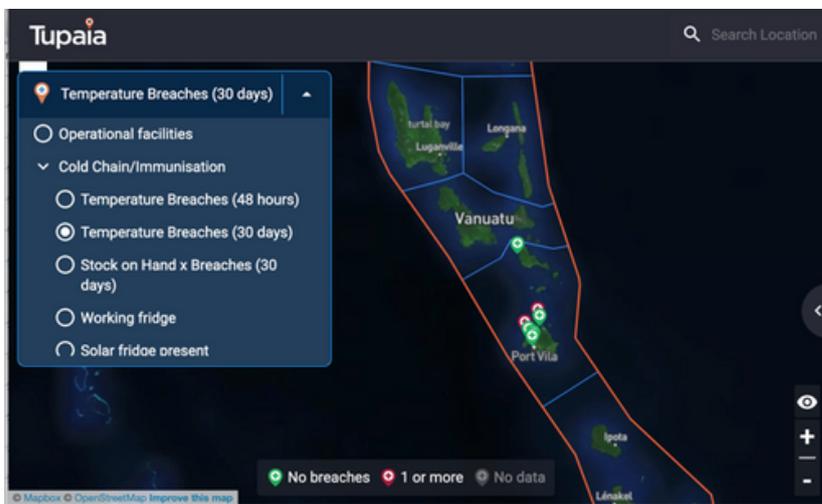
Visualisations

Map Overlays

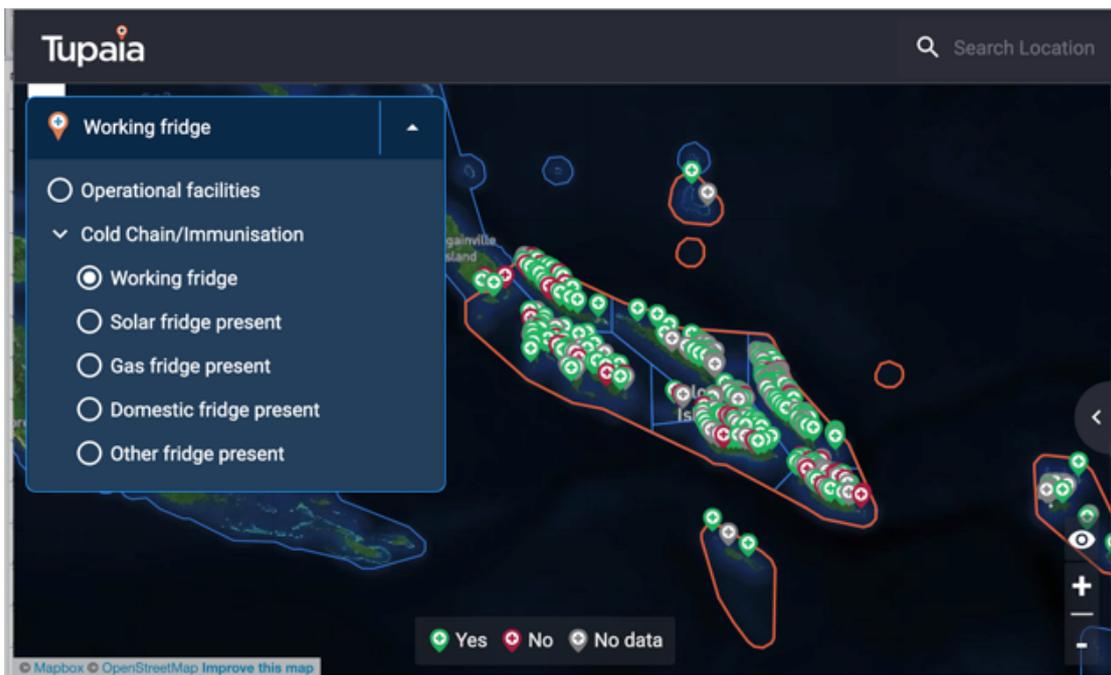
Map overlays show data for a single indicator mapped across a region, based on health facilities or villages depending on the type of data displayed.



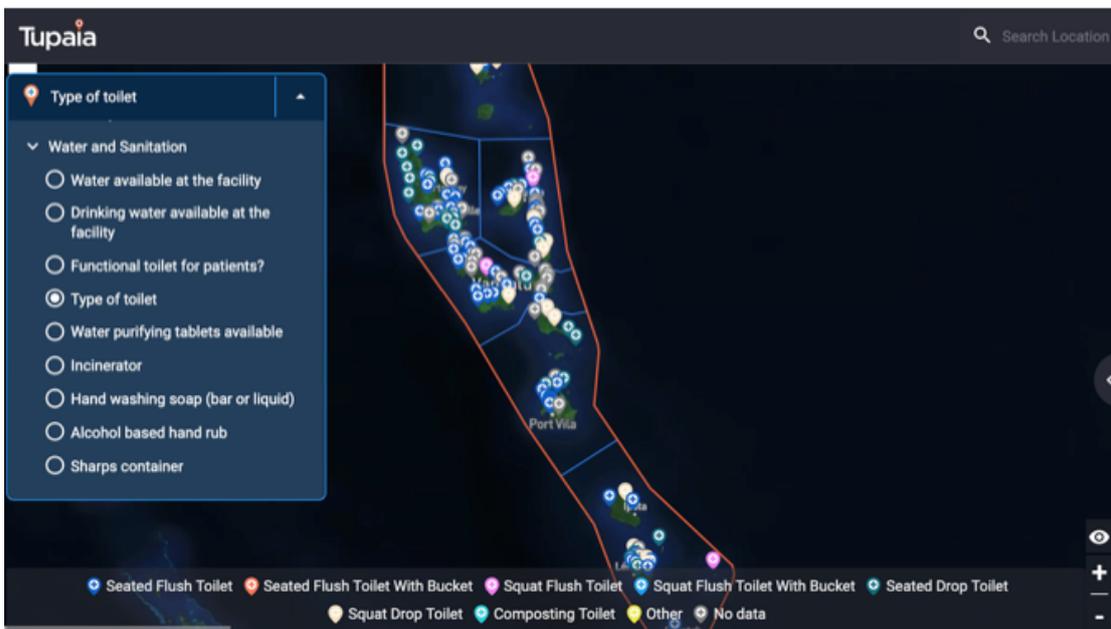
Country, Province or Village polygon shading



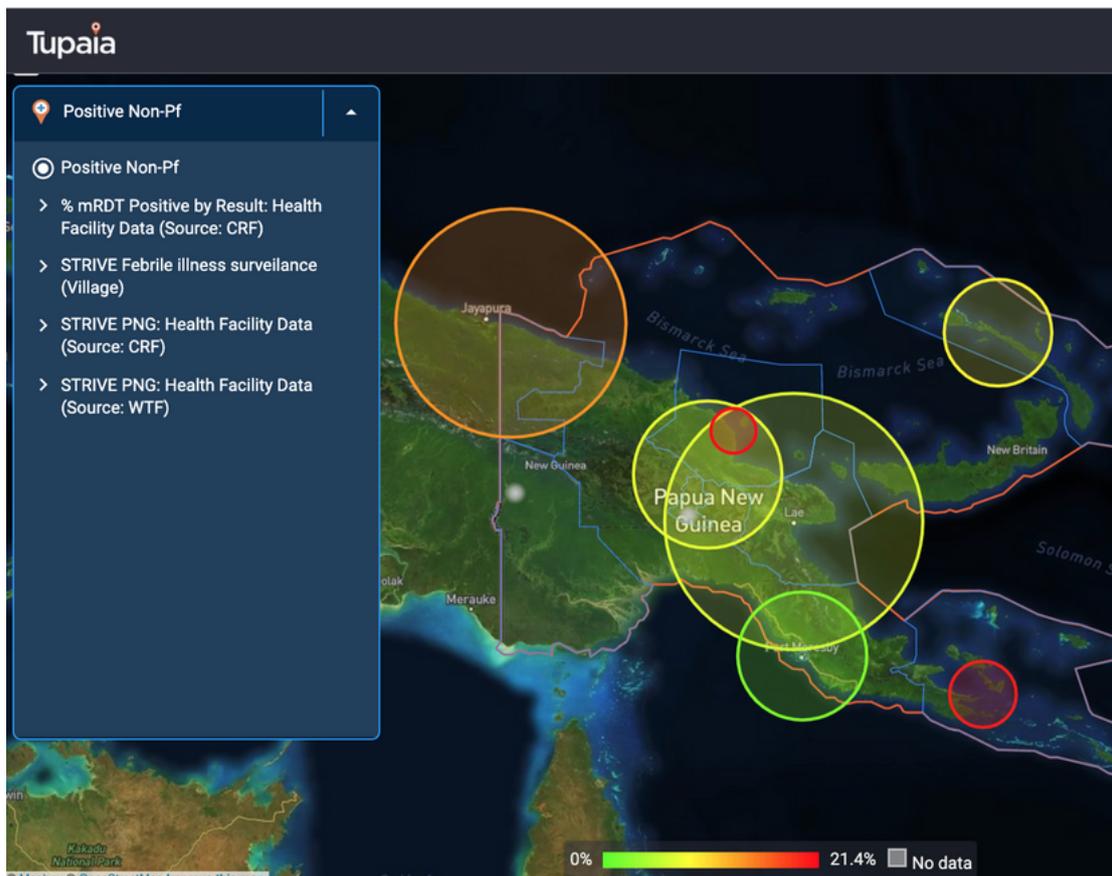
Live temperature tracking from fridge sensors, mapped by fridge location



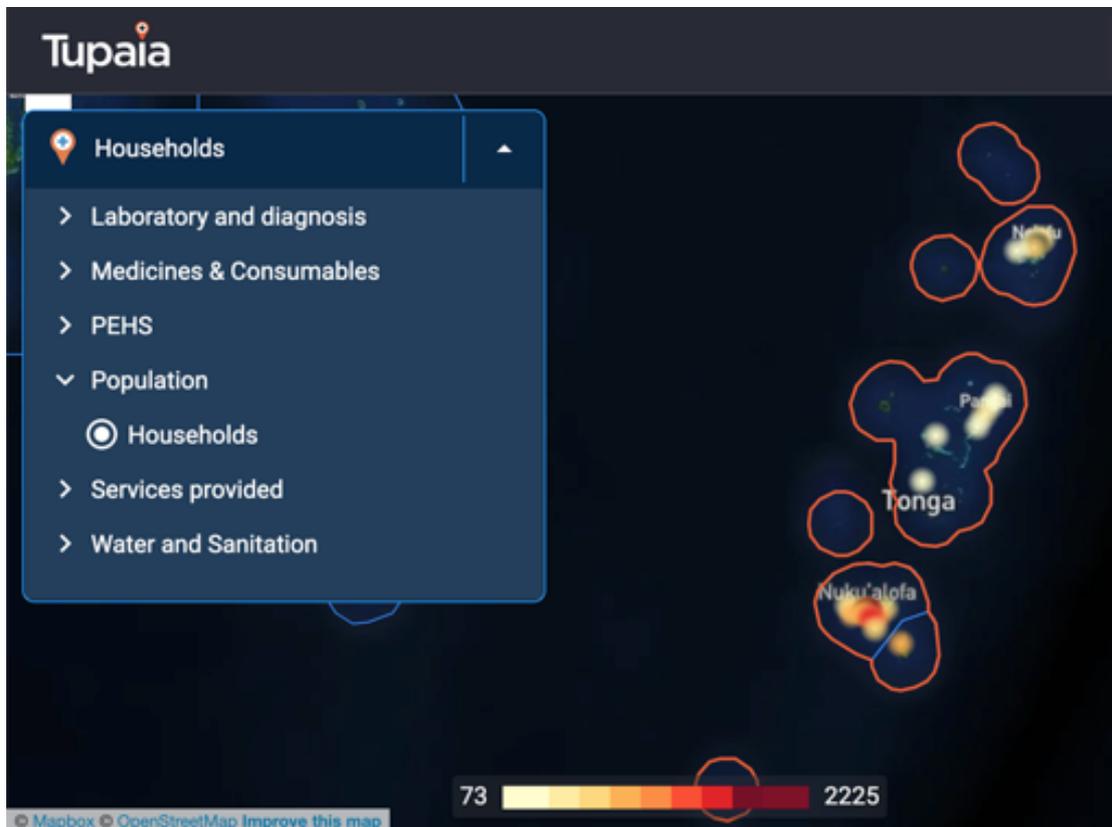
Map pins representing binary data at the facility location



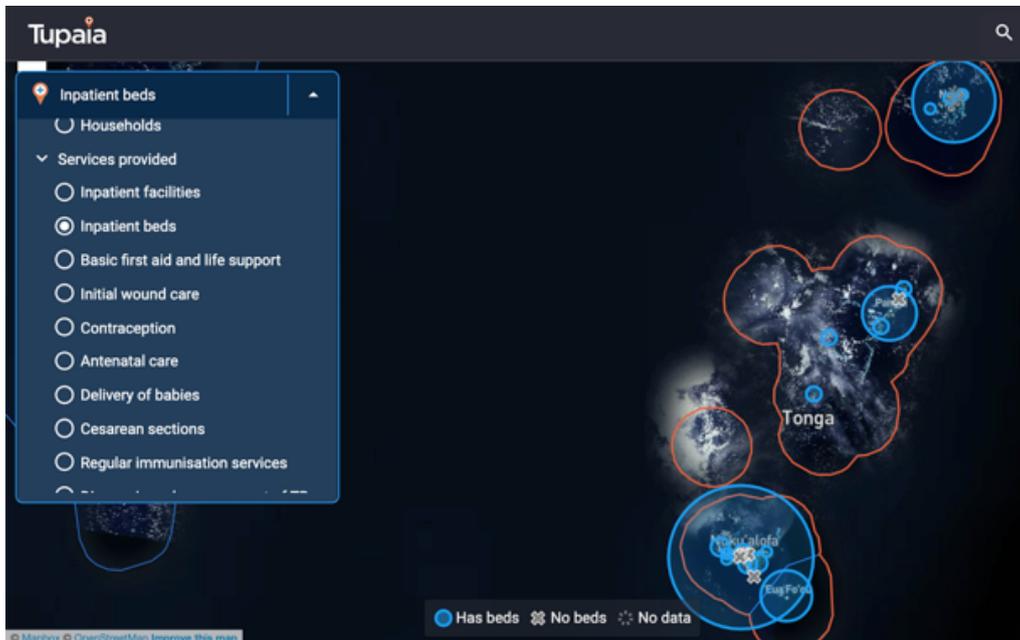
Map pins showing multiple categories at facility locations



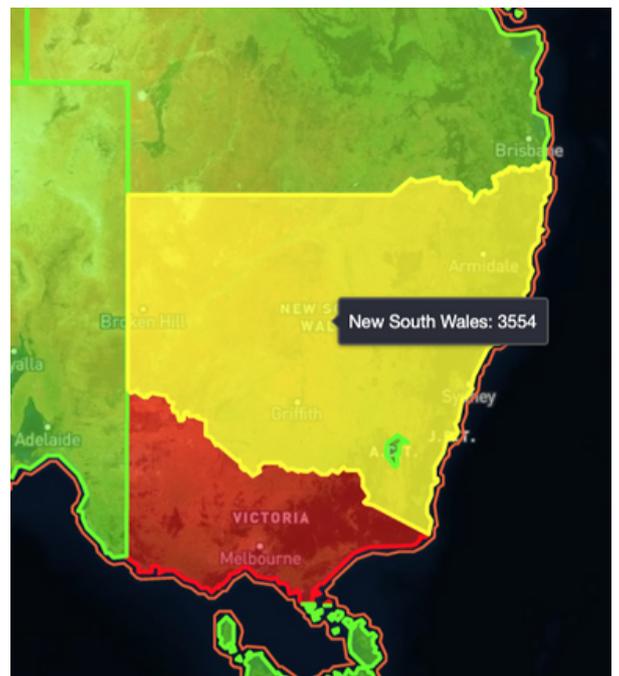
Radius / heat map - colour refers to one data point, circle size represents a different data point (health facility as the entity)



Heat map - darker colour = increasing value



Radius / bubble map, increasing size = increasing value



Clicking on an entity will display the actual value