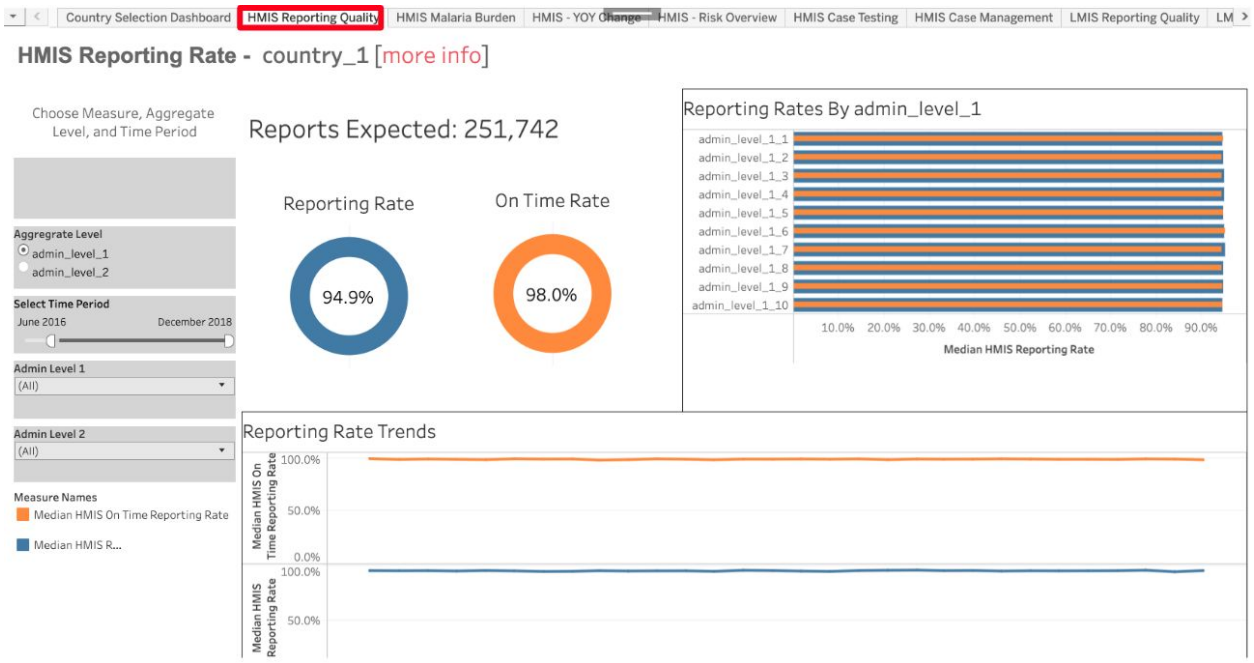
Below you will find use cases, or example questions, that you can answer using some of the dashboards in M-DIVE. You can find the dashboards that you have access to by clicking 'Reports' in your M-DIVE menu bar. Note that not every user will have access to all M-DIVE dashboards due to data security and governance requirements.

1a. Quarterly Reporting Dashboard Workflow 1: Data Completeness

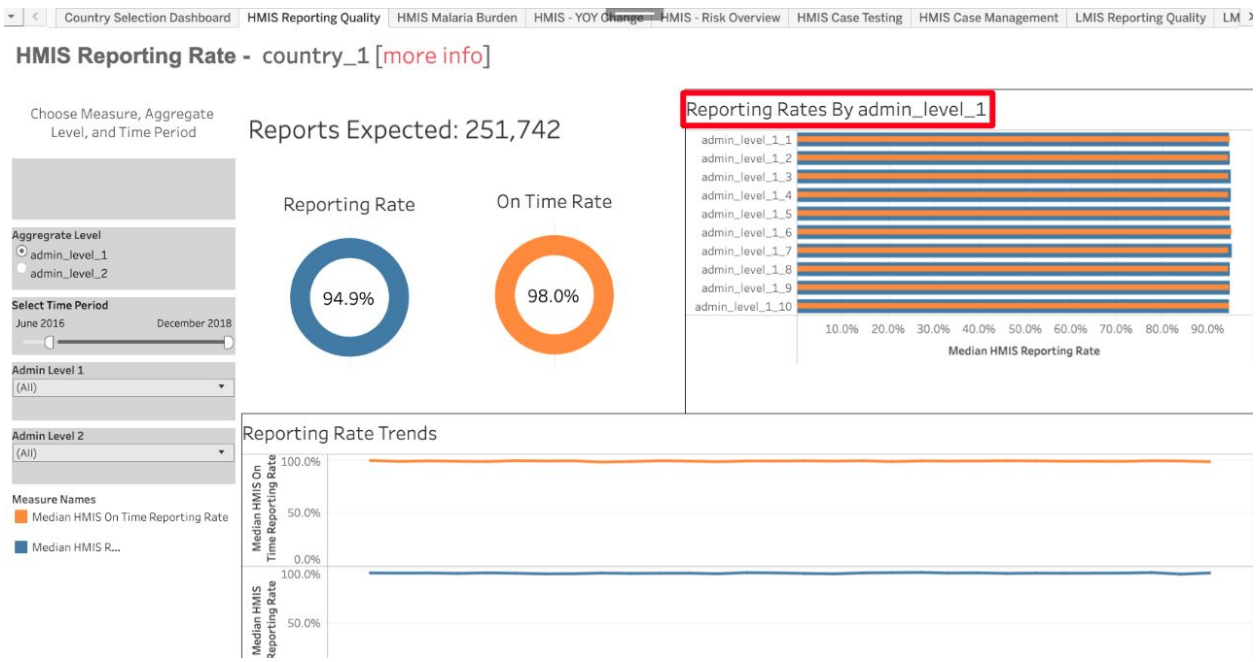
"Which areas have health facilities submitting reports for malaria health indicators?"

Step 1: Navigate to the Malaria Quarterly Report by clicking 'Reports' in your menu bar
Step 2: Select your country on the 'Country Selection Dashboard' tab

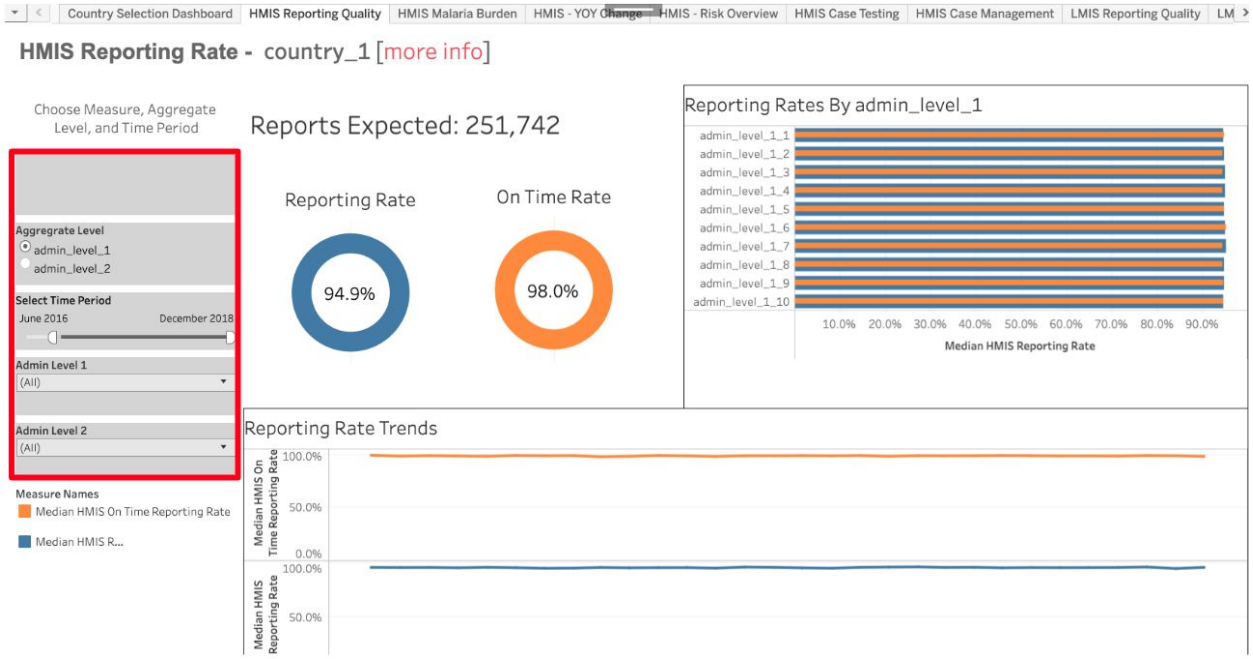
Step 3: Navigate to the 'HMIS Reporting Quality' tab



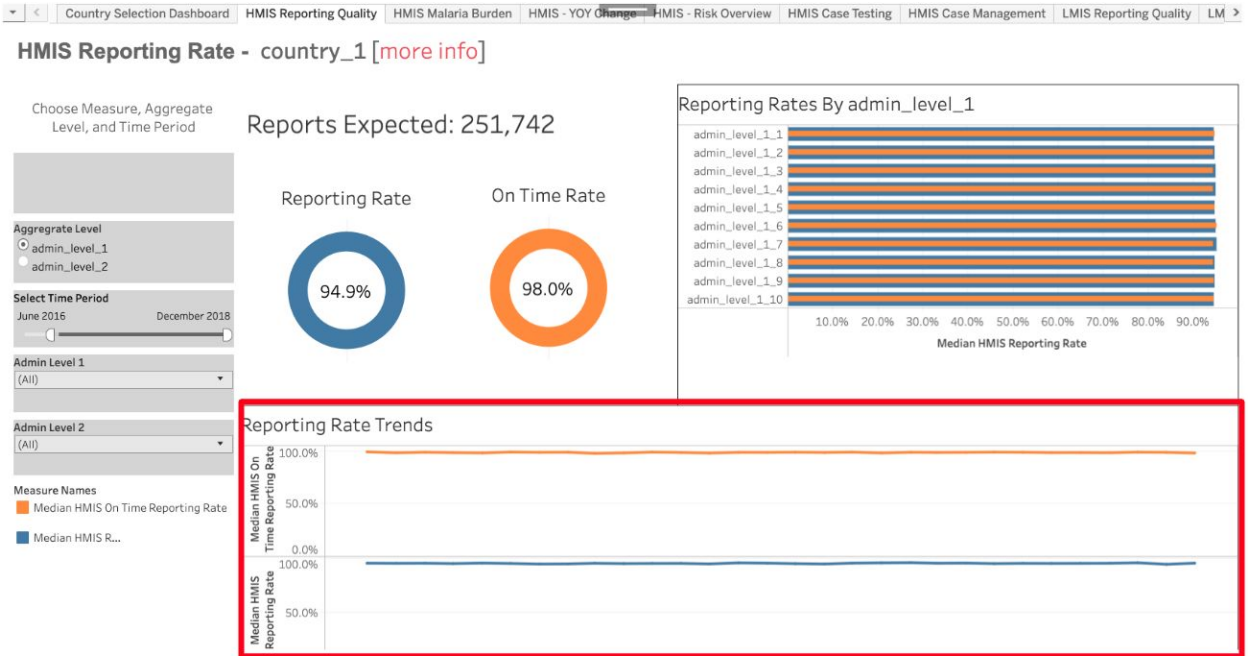
Step 4: View the reporting rate by region to understand reporting rates broken down by region.



Step 5: Filter based on aggregation levels, time periods, regions, or districts to drill down further into geographic areas.



Step 6: View the 'Reporting Rate Trends' line graph visualization to see the reporting rate over time.



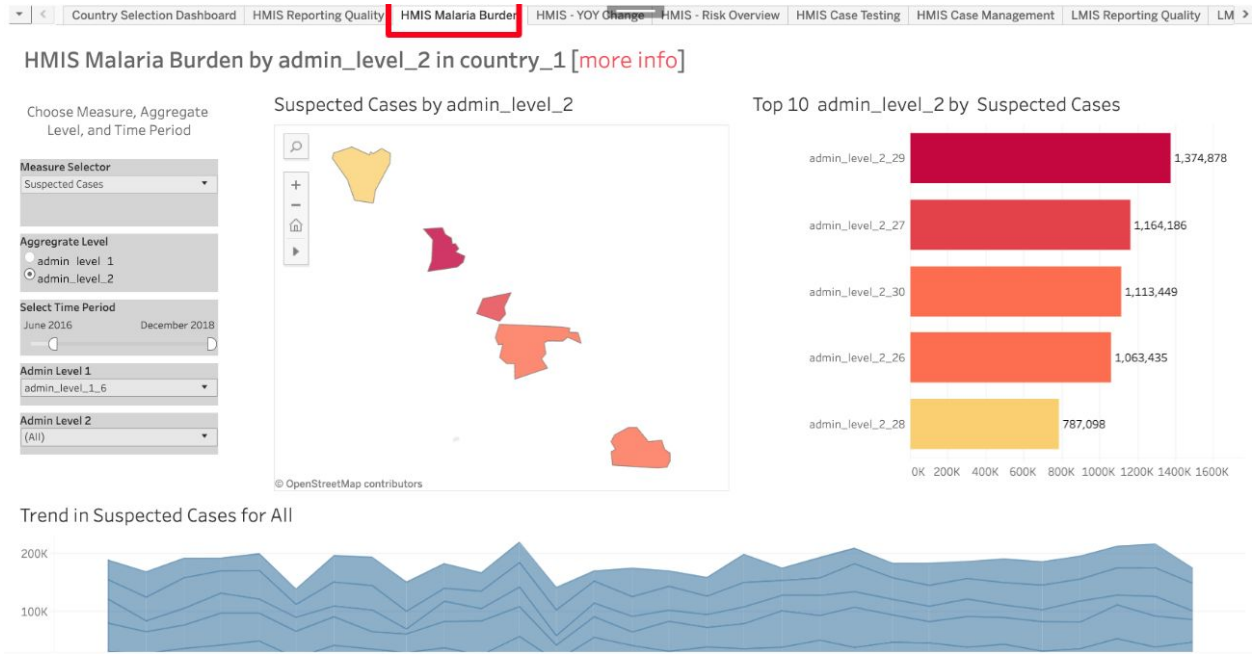
1b. Quarterly Reporting Dashboard Workflow 2: Understanding Mortality Rates

Which areas have reported the highest mortality rate overall? What time periods saw the highest spikes?

Step 1: Navigate to the Malaria Quarterly Report by clicking 'Reports' in your menu bar

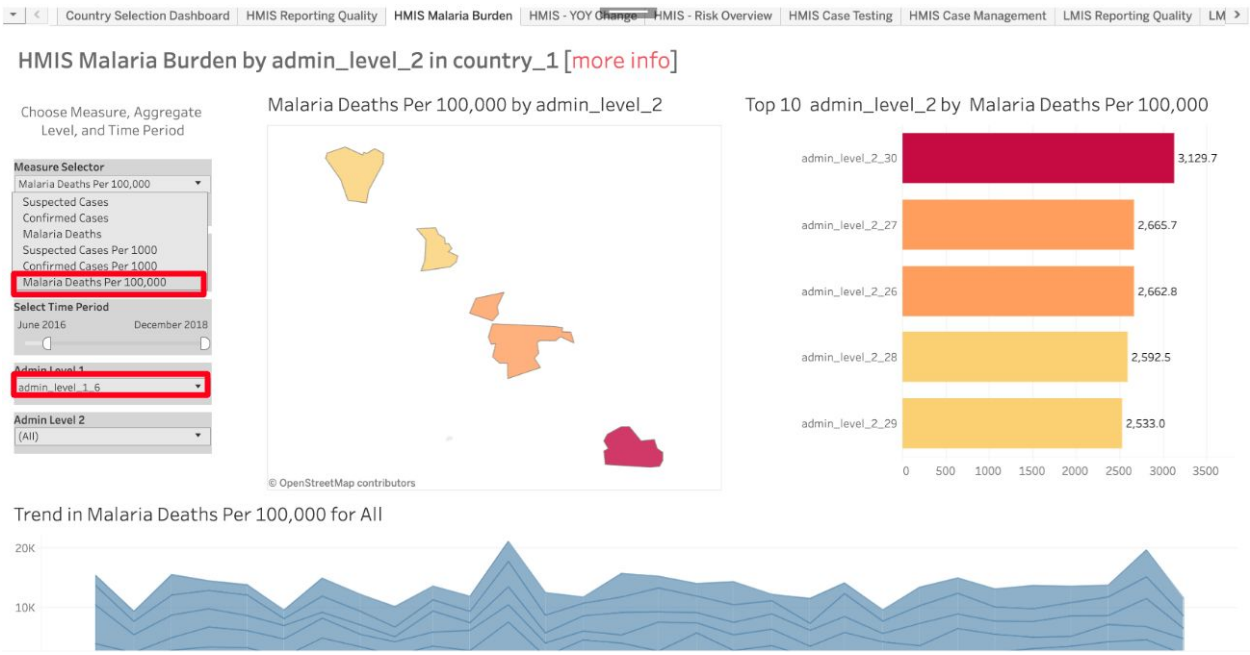
Step 2: Select your country on the 'Country Selection Dashboard' tab

Step 3: Navigate to the 'HMIS Malaria Burden' tab

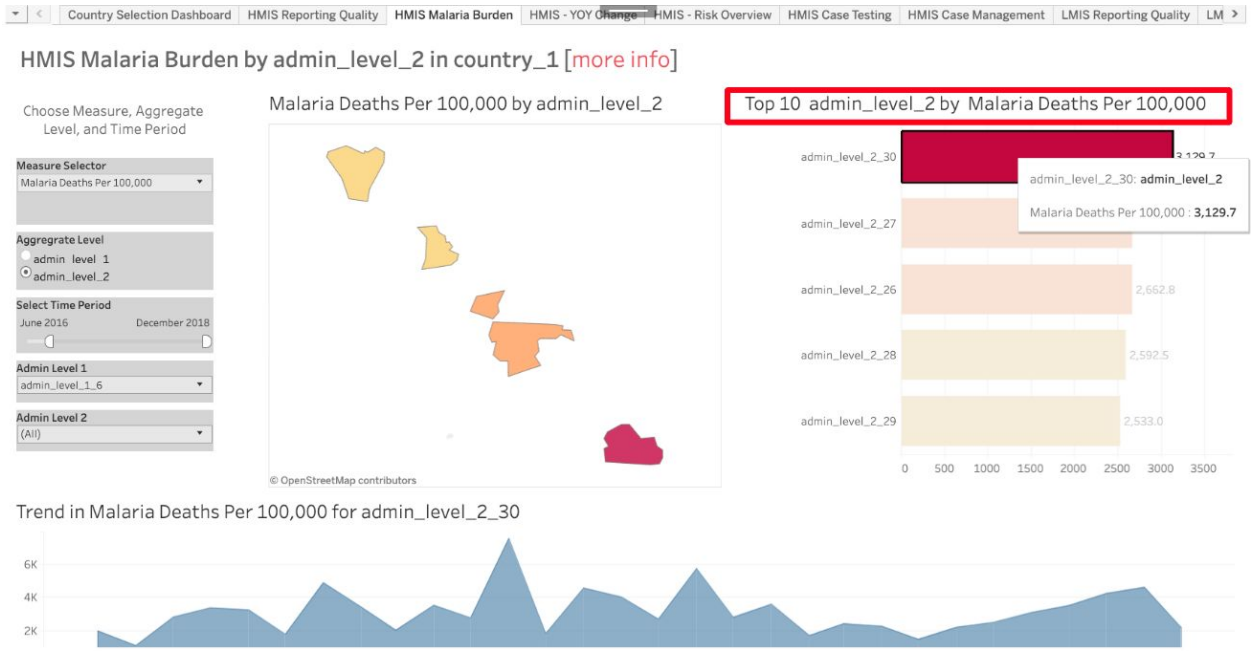


Step 4: Select the following filters

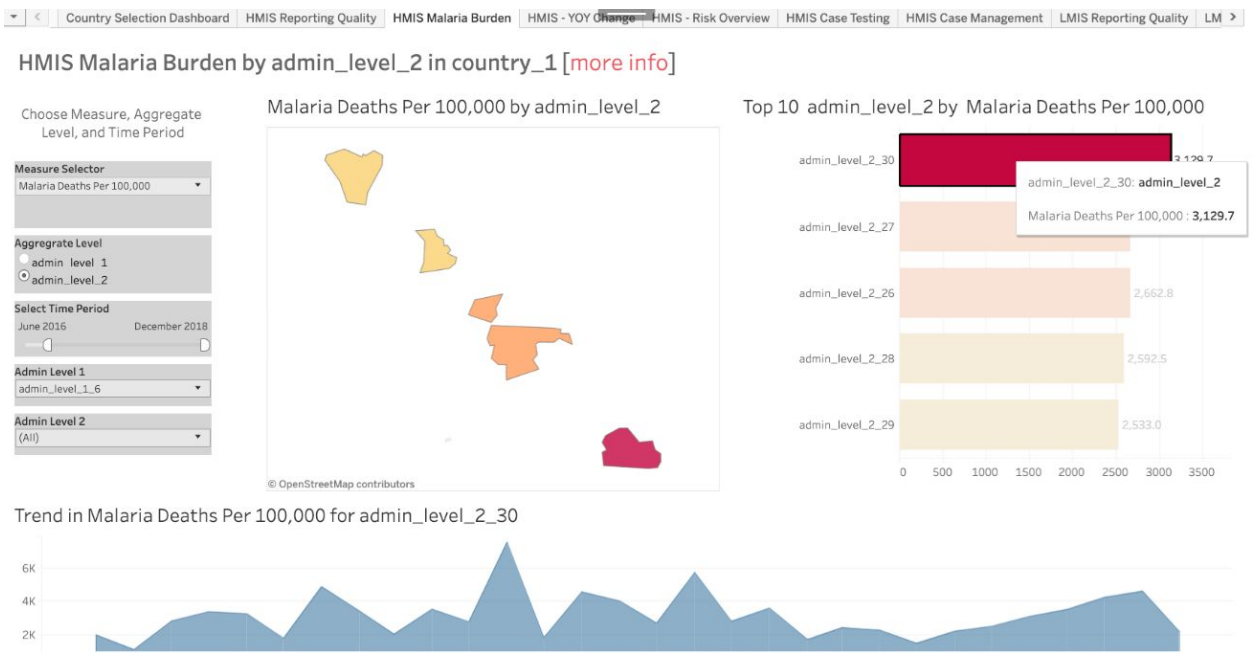
- Measure Selector: Malaria Death per 100,000
- Aggregate Level: District/Municipality/Admin Level



Step 5: Navigate to the 'Top 10 Districts by Malaria Deaths per 100,000' visualization to identify the districts with the highest reported mortality rate.



Step 6: Select any district within the Top 10 bar chart to filter the dashboard to only visualize data from that district. Scroll down to see a chart demonstrating reported mortality rate over time within the district you selected.

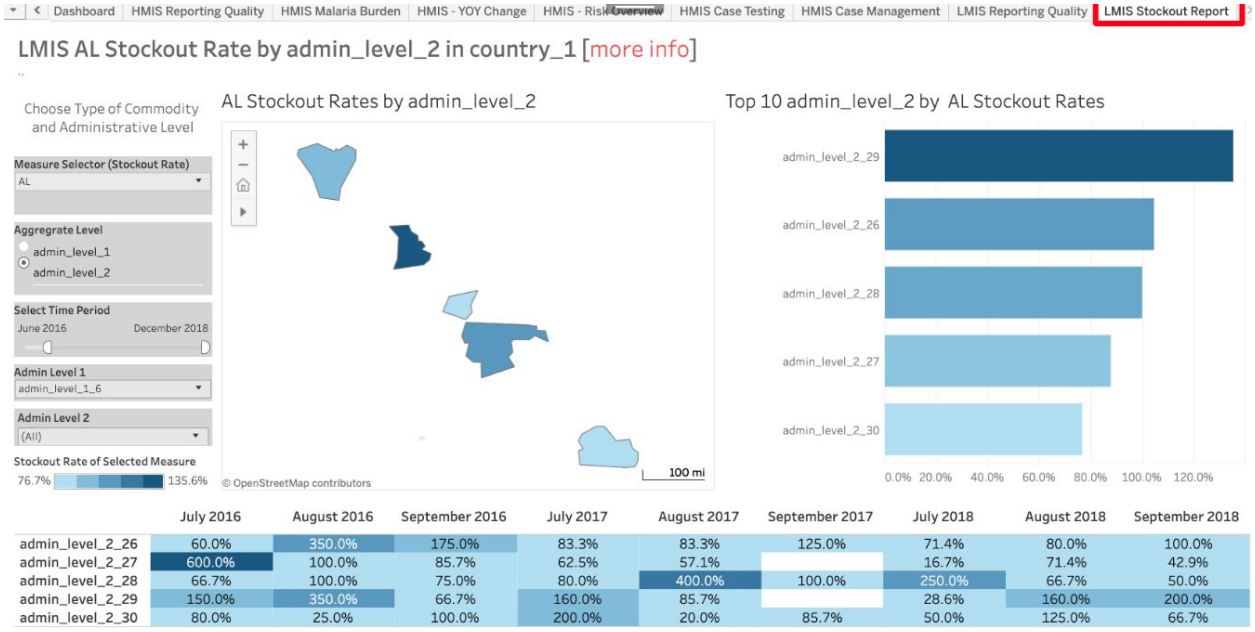


1c. Quarterly Reporting Dashboard Workflow 3: Stockouts

Which areas have the most stockouts? Which areas have the least stockouts?

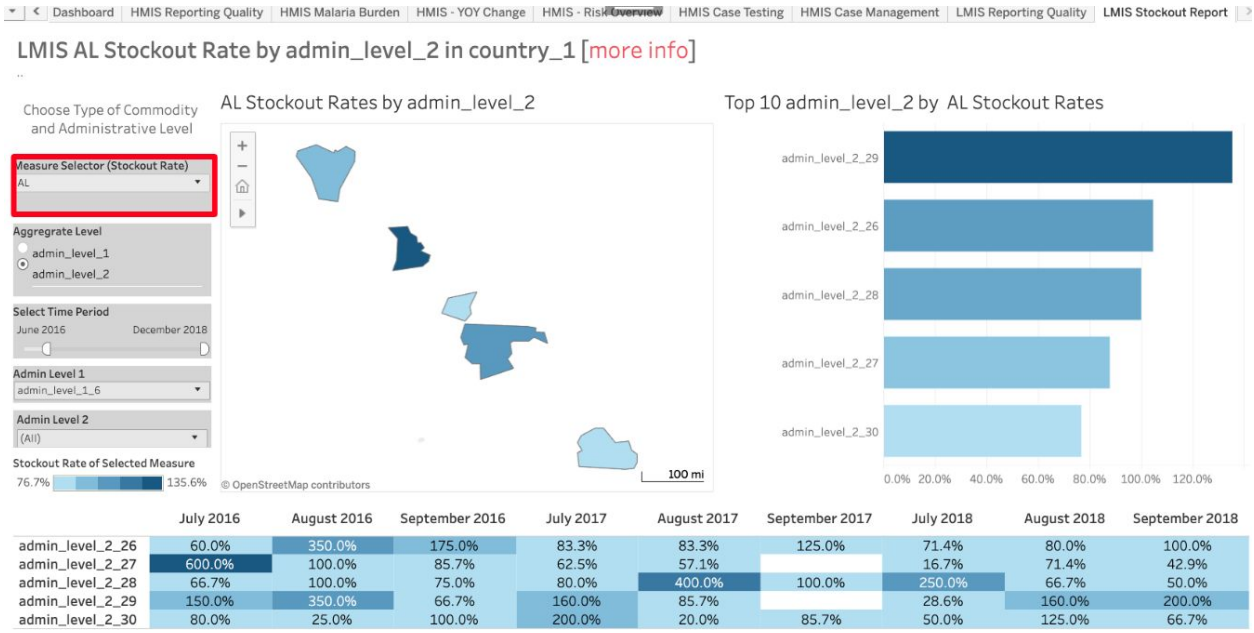
Step 1: Navigate to the Malaria Quarterly Report by clicking 'Reports' in your menu bar
Step 2: Select your country on the 'Country Selection Dashboard' tab

Step 3: Navigate to the 'LMIS Stockout Report' tab



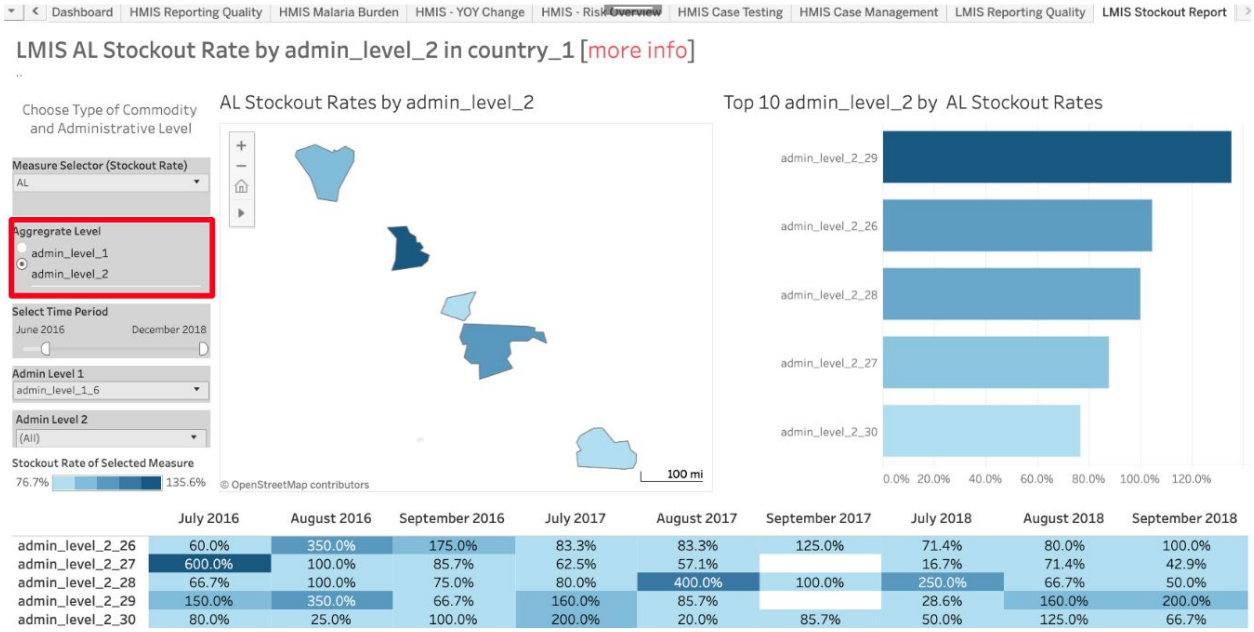
	July 2016	August 2016	September 2016	July 2017	August 2017	September 2017	July 2018	August 2018	September 2018
admin_level_2_26	60.0%	350.0%	175.0%	83.3%	83.3%	125.0%	71.4%	80.0%	100.0%
admin_level_2_27	600.0%	100.0%	85.7%	62.5%	57.1%		16.7%	71.4%	42.9%
admin_level_2_28	66.7%	100.0%	75.0%	80.0%	400.0%	100.0%	250.0%	66.7%	50.0%
admin_level_2_29	150.0%	350.0%	66.7%	160.0%	85.7%		28.6%	160.0%	200.0%
admin_level_2_30	80.0%	25.0%	100.0%	200.0%	20.0%	85.7%	50.0%	125.0%	66.7%

Step 4: Choose the measure selector you wish to visualize data for (ACT, SP, RDT, ASAQ, AL, ITN)



	July 2016	August 2016	September 2016	July 2017	August 2017	September 2017	July 2018	August 2018	September 2018
admin_level_2_26	60.0%	350.0%	175.0%	83.3%	83.3%	125.0%	71.4%	80.0%	100.0%
admin_level_2_27	600.0%	100.0%	85.7%	62.5%	57.1%		16.7%	71.4%	42.9%
admin_level_2_28	66.7%	100.0%	75.0%	80.0%	400.0%	100.0%	250.0%	66.7%	50.0%
admin_level_2_29	150.0%	350.0%	66.7%	160.0%	85.7%		28.6%	160.0%	200.0%
admin_level_2_30	80.0%	25.0%	100.0%	200.0%	20.0%	85.7%	50.0%	125.0%	66.7%

Step 5: Select the appropriate aggregate level to define the geography for which you wish to visualize data.

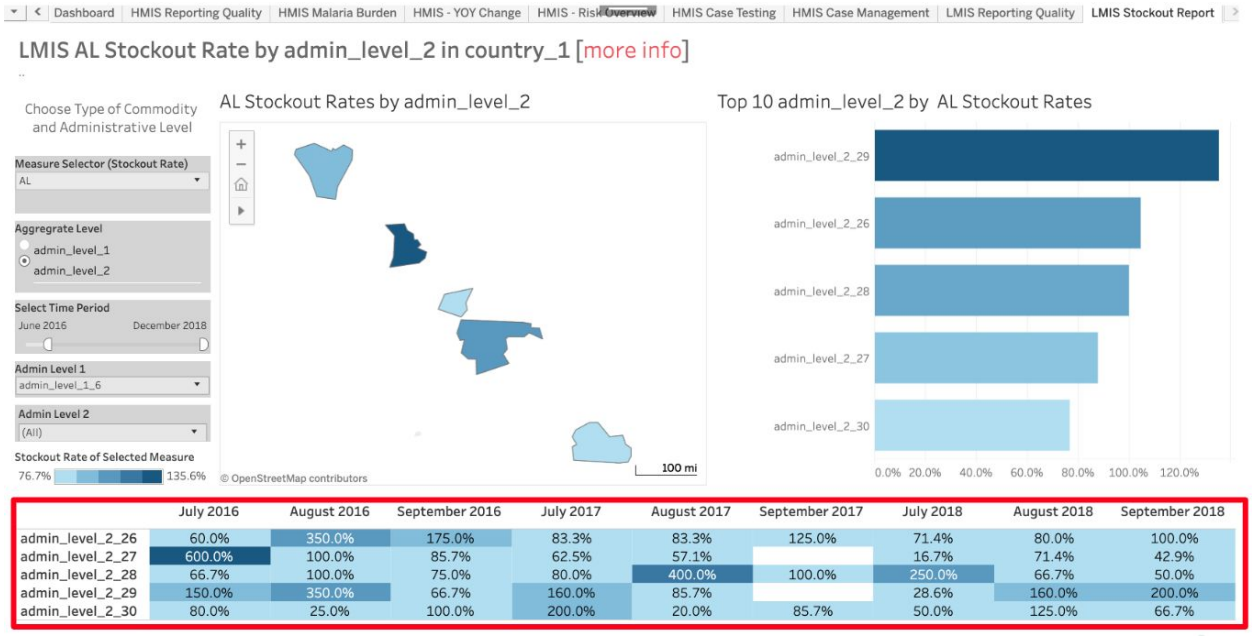


	July 2016	August 2016	September 2016	July 2017	August 2017	September 2017	July 2018	August 2018	September 2018
admin_level_2_26	60.0%	350.0%	175.0%	83.3%	83.3%	125.0%	71.4%	80.0%	100.0%
admin_level_2_27	600.0%	100.0%	85.7%	62.5%	57.1%		16.7%	71.4%	42.9%
admin_level_2_28	66.7%	100.0%	75.0%	80.0%	400.0%	100.0%	250.0%	66.7%	50.0%
admin_level_2_29	150.0%	350.0%	66.7%	160.0%	85.7%		28.6%	160.0%	200.0%
admin_level_2_30	80.0%	25.0%	100.0%	200.0%	20.0%	85.7%	50.0%	125.0%	66.7%

Step 6: View the top 10 areas where stockout rates were highest within a specific time period.

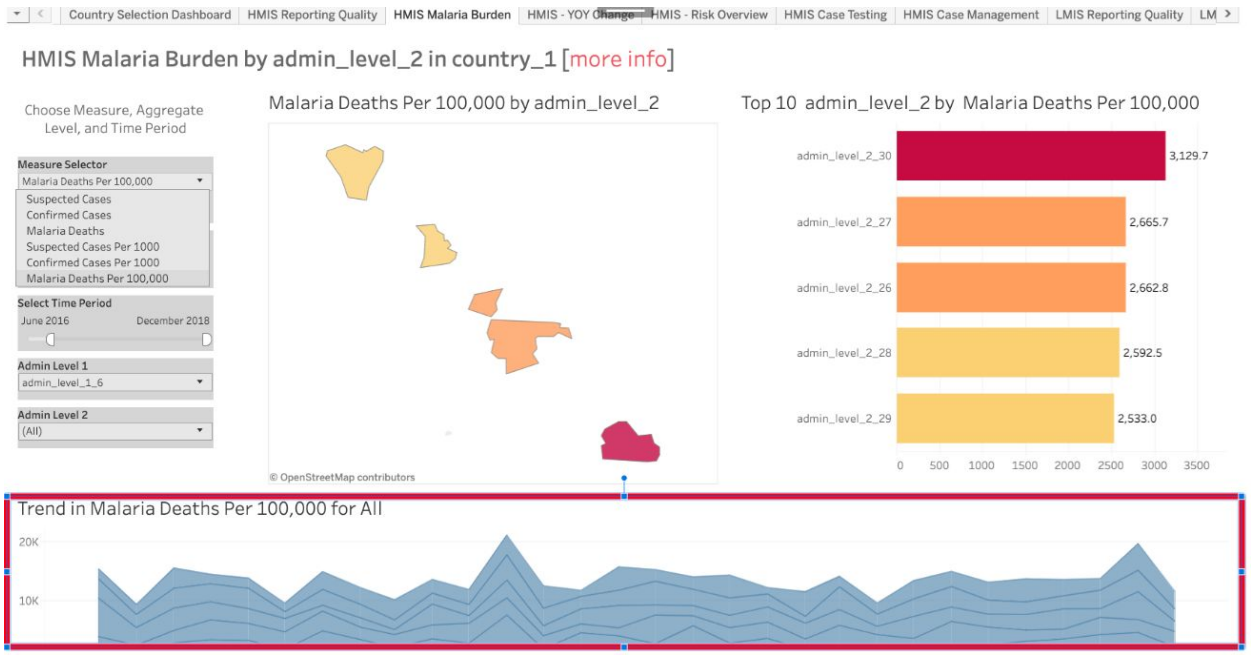
	July 2016	August 2016	September 2016	July 2017	August 2017	September 2017	July 2018	August 2018	September 2018
admin_level_2_26	60.0%	350.0%	175.0%	83.3%	83.3%	125.0%	71.4%	80.0%	100.0%
admin_level_2_27	600.0%	100.0%	85.7%	62.5%	57.1%		16.7%	71.4%	42.9%
admin_level_2_28	66.7%	100.0%	75.0%	80.0%	400.0%	100.0%	250.0%	66.7%	50.0%
admin_level_2_29	150.0%	350.0%	66.7%	160.0%	85.7%		28.6%	160.0%	200.0%
admin_level_2_30	80.0%	25.0%	100.0%	200.0%	20.0%	85.7%	50.0%	125.0%	66.7%

Step 7: Moreover, by selecting the geographic area on the barchart you can investigate temporal trends in the bottom visualization.



	July 2016	August 2016	September 2016	July 2017	August 2017	September 2017	July 2018	August 2018	September 2018
admin_level_2_26	60.0%	350.0%	175.0%	83.3%	83.3%	125.0%	71.4%	80.0%	100.0%
admin_level_2_27	600.0%	100.0%	85.7%	62.5%	57.1%		16.7%	71.4%	42.9%
admin_level_2_28	66.7%	100.0%	75.0%	80.0%	400.0%	100.0%	250.0%	66.7%	50.0%
admin_level_2_29	150.0%	350.0%	66.7%	160.0%	85.7%		28.6%	160.0%	200.0%
admin_level_2_30	80.0%	25.0%	100.0%	200.0%	20.0%	85.7%	50.0%	125.0%	66.7%

Step 8 (optional): Use the 'HMIS Malaria Burden' tab to see if stockouts contributed to or made the selected measure worse by setting up the same filters and viewing the measure over time.



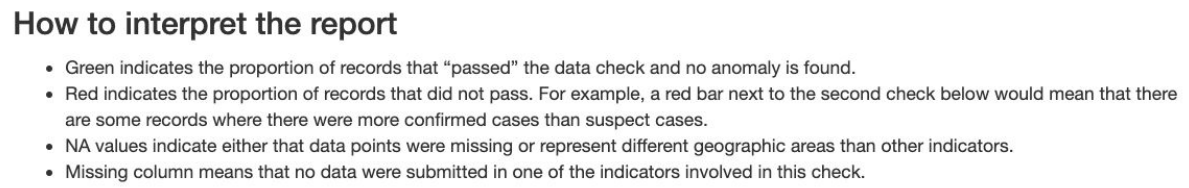
2. Quarterly Reporting Data Validation Report

Which data elements are missing? Which records failed a quality check? Which quality check did the record fail?

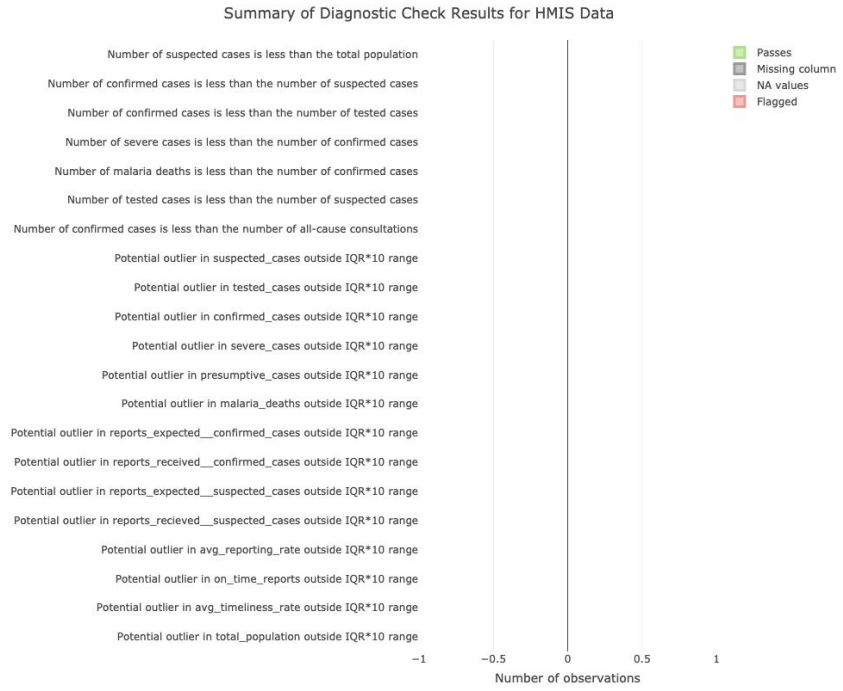
Step 1: Navigate to your country's Data Validation report through the following steps: .

- Click the 'Reports' pane in your menu bar
- The name of this report is labeled [Country Name] [Quarter:Year] In-Development Validation Report (For example, Uganda's report for Q3 of 2019 is 'Uganda Q32019 In-Development Validation Report'.

Step 2: Scroll down to 'How to interpret the report' and read what each color on the color key means.



Step 3: HMIS and LMIS summaries will indicate missing (dark grey), failed/flagged (red), passed (green), or NA (light grey) records based on color of the visualization. Each row indicates the type of quality check test conducted.



Step 4: Scroll down to 'Summary of Validation Checks' to view the more detailed description of quality checks, and how many records were flagged/failed, passed, missing, or NA.

- Download this in Excel by clicking the 'Excel' button.

Summary of Validation Checks

Description and Summary of Validation Checks Run on HMIS Data

Excel

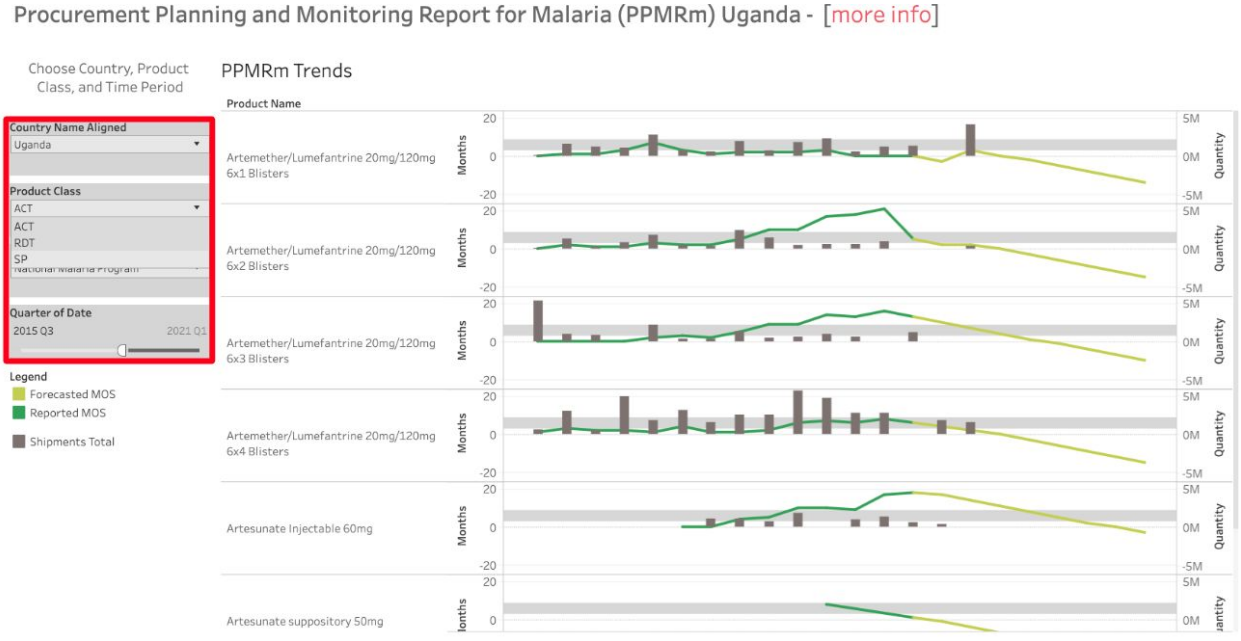
Search:

name	description	flagged	passes	nNA	m
All	All	All	All	All	All
validation_avg_reporting_rate_iqr	Potential outlier in avg_reporting_rate outside IQR*10 range	0	0	0	0	(avg_ (quar 0.25, IQR(a = TR (avg_ (quar 0.75, IQR(a = TR
validation_avg_timeliness_rate_iqr	Potential outlier in avg_timeliness_rate outside IQR*10 range	0	0	0	0	(avg_ (quar 0.25, IQR(a na.rm (avg_ (quar

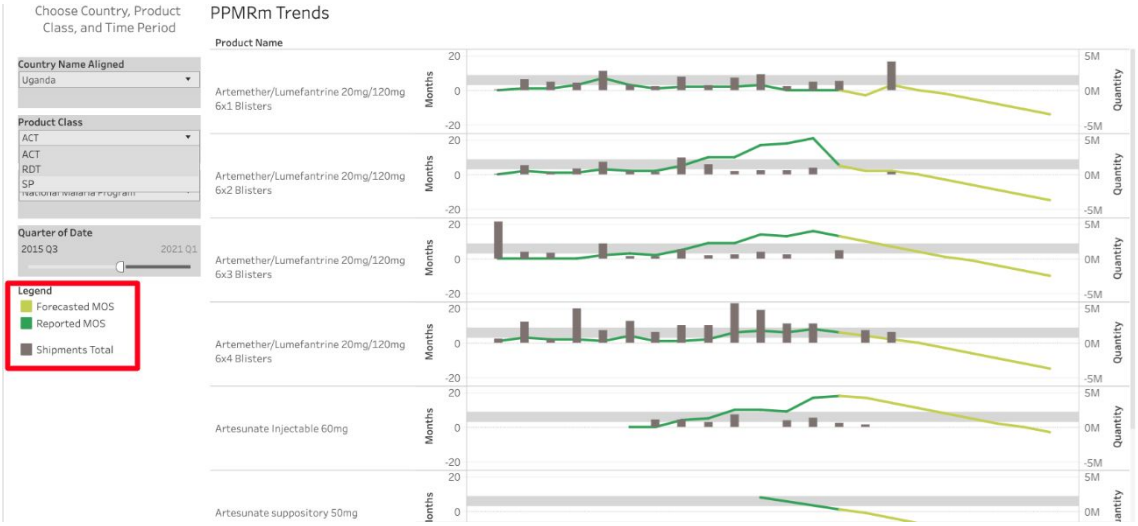
3. Supply Chain Logistics (PPMRm) Dashboard

When were orders made? When are they expected to arrive in country? How many months of supply are left? When will we need to order more?

Step 1: Navigate to the PPMRm Dashboard by clicking 'Reports' in your menu bar
Step 2: Select your country, product class, and time period on the left pane.



Step 3: Green lines show reported and forecasted months of supply (MOS). Grey vertical bars show reported and expected shipments, and grey horizontal bars show the optimal range for months of supply (3-9).

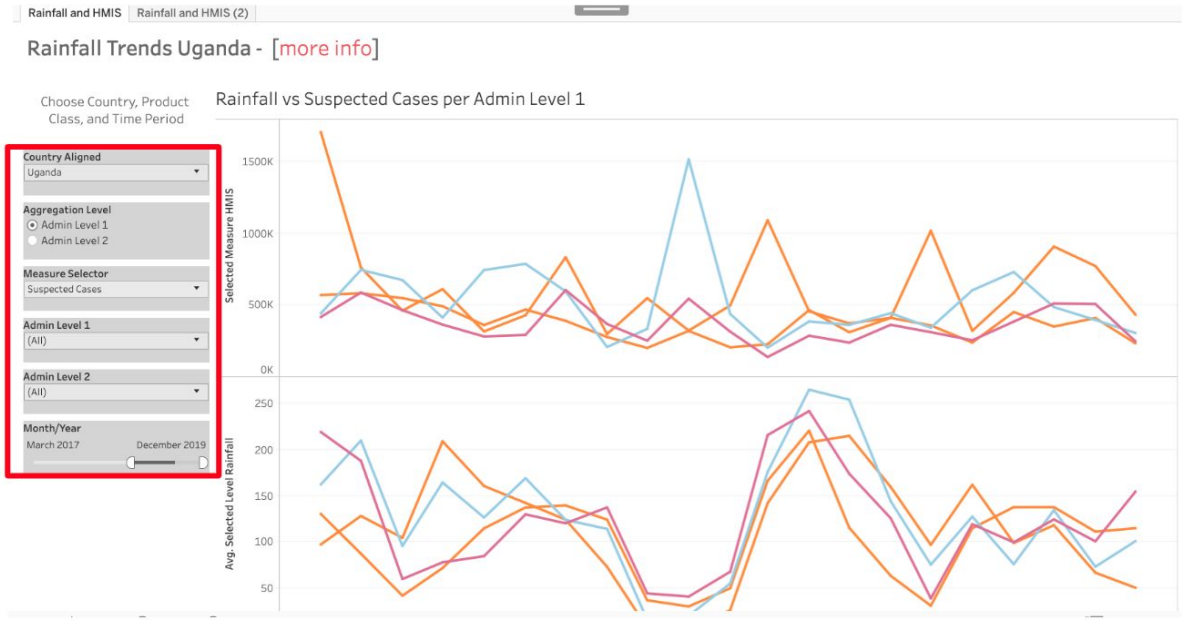


4. Rainfall Dashboard Prototype

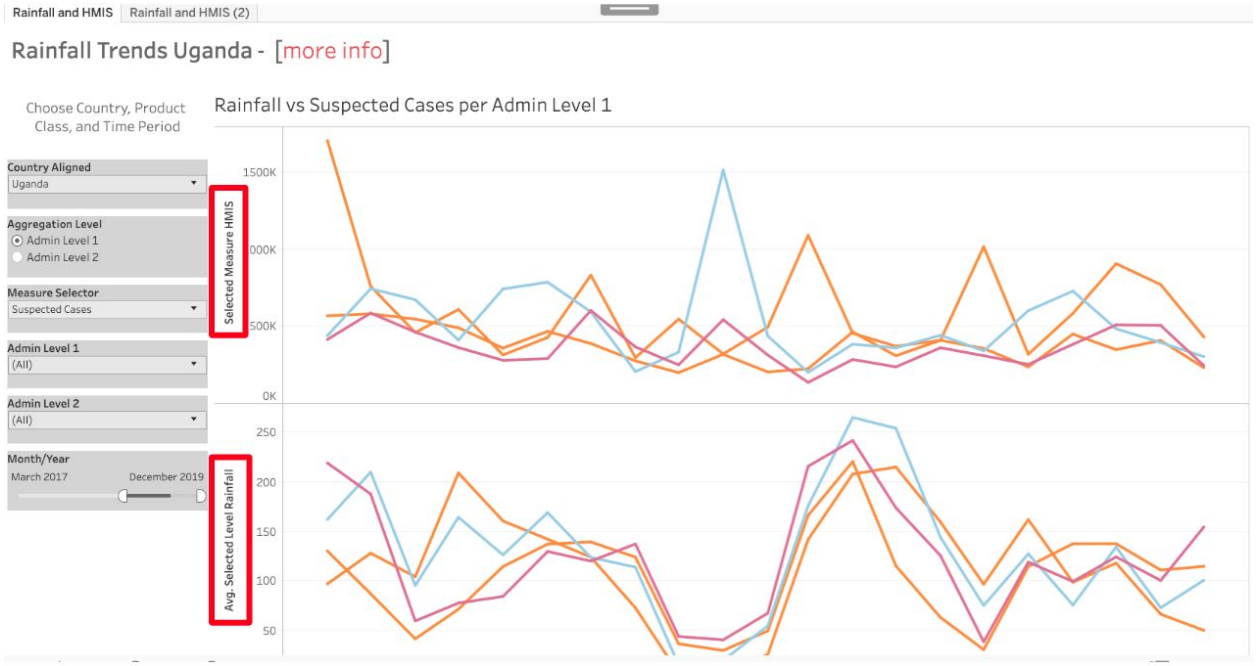
To what extent did increased rainfall contribute to increased malaria incidence? What should the timing of IRS campaigns be? Which provinces to target with an Insecticide-treated bed nets (ITN) campaign and when?

Step 1: Navigate to the Rainfall Dashboard Prototype by clicking ‘Reports’ in your menu bar

Step 2: Select your country, aggregation level, selected measure, and any admin level or time filters.



Step 3: On the 'Rainfall and HMIS' tab, you can compare the selected measure over time (top visualization) to average rainfall over time (bottom visualization). Knowing the correlation between rainfall and the selected measure can inform timing of IRS and/or ITN campaigns.



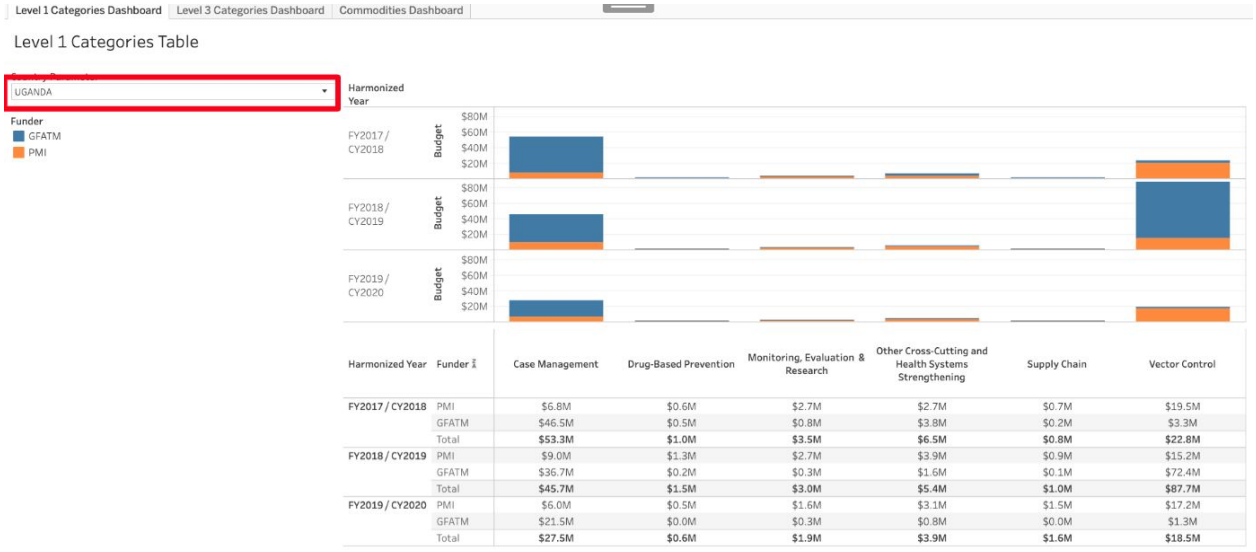
Step 4: Navigate to the 'Rainfall and HMIS (2)' tab to visualize the correlation between malaria incidence and average rainfall over time.

5. Harmonized Financial Dashboard

How has PMI prioritized spending money in country X in recent years? Where are PMI and Global Fund in agreement about spending priorities in country X? Where are there possibly overlapping efforts? Where are there gaps? Does this record reflect the most recent planning figures that have been agreed upon?

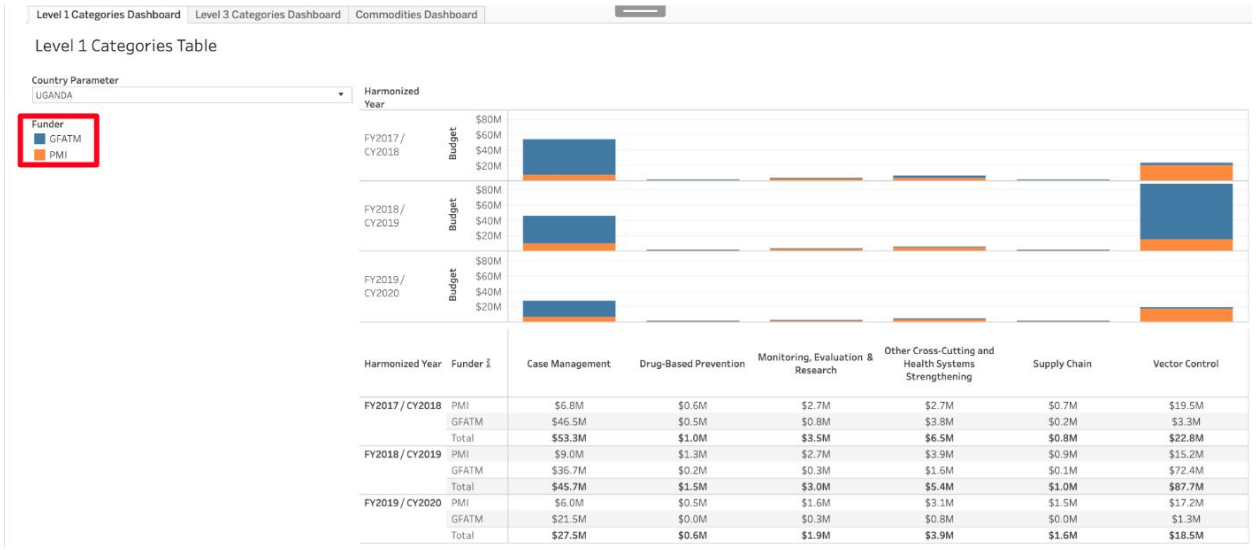
Step 1: Navigate to the Harmonized Financial Dashboard.

Step 2: Select your country on the 'country parameter' filter.



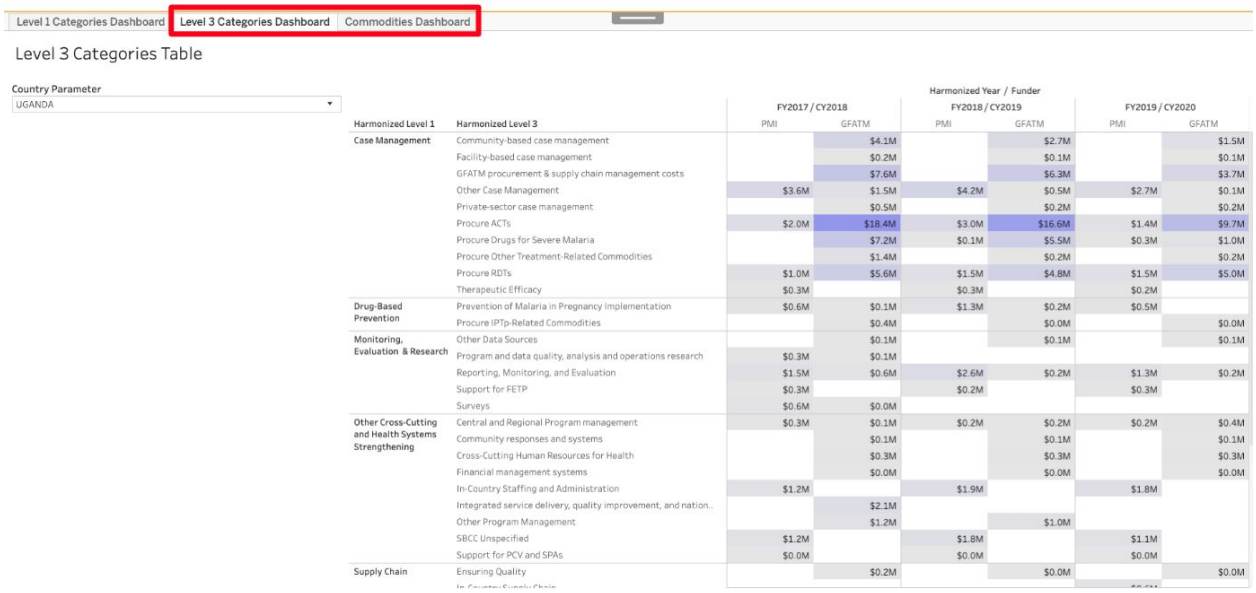
Harmonized Year	Funder	Case Management	Drug-Based Prevention	Monitoring, Evaluation & Research	Other Cross-Cutting and Health Systems Strengthening	Supply Chain	Vector Control
FY2017 / CY2018	PMI	$6.8M	$0.6M	$2.7M	$2.7M	$0.7M	$19.5M
	GFATM	$46.5M	$0.5M	$0.8M	$3.8M	$0.2M	$3.3M
	Total	**$53.3M**	**$1.0M**	**$3.5M**	**$6.5M**	**$0.8M**	**$22.8M**
FY2018 / CY2019	PMI	$9.0M	$1.3M	$2.7M	$3.9M	$0.9M	$15.2M
	GFATM	$36.7M	$0.2M	$0.3M	$1.6M	$0.1M	$72.4M
	Total	**$45.7M**	**$1.5M**	**$3.0M**	**$5.4M**	**$1.0M**	**$87.7M**
FY2019 / CY2020	PMI	$6.0M	$0.5M	$1.6M	$3.1M	$1.5M	$17.2M
	GFATM	$21.5M	$0.0M	$0.3M	$0.8M	$0.0M	$1.3M
	Total	**$27.5M**	**$0.6M**	**$1.9M**	**$3.9M**	**$1.6M**	**$18.5M**

Step 3: The 'Level 1 Categories Table' tab provides budget information for both PMI and GF broken down by year and categories to indicate overlap and/or differences.



Harmonized Year	Funder	Case Management	Drug-Based Prevention	Monitoring, Evaluation & Research	Other Cross-Cutting and Health Systems Strengthening	Supply Chain	Vector Control
FY2017 / CY2018	PMI	$6.8M	$0.6M	$2.7M	$2.7M	$0.7M	$19.5M
	GFATM	$46.5M	$0.5M	$0.8M	$3.8M	$0.2M	$3.3M
	Total	**$53.3M**	**$1.0M**	**$3.5M**	**$6.5M**	**$0.8M**	**$22.8M**
FY2018 / CY2019	PMI	$9.0M	$1.3M	$2.7M	$3.9M	$0.9M	$15.2M
	GFATM	$36.7M	$0.2M	$0.3M	$1.6M	$0.1M	$72.4M
	Total	**$45.7M**	**$1.5M**	**$3.0M**	**$5.4M**	**$1.0M**	**$87.7M**
FY2019 / CY2020	PMI	$6.0M	$0.5M	$1.6M	$3.1M	$1.5M	$17.2M
	GFATM	$21.5M	$0.0M	$0.3M	$0.8M	$0.0M	$1.3M
	Total	**$27.5M**	**$0.6M**	**$1.9M**	**$3.9M**	**$1.6M**	**$18.5M**

Step 4: The ‘Level 3 Categories Table’ tab drills down further into categorical spending and the ‘Commodities Table’ tab solely focuses on commodity spend.



Harmonized Year / Funder

Harmonized Level 1	Harmonized Level 3	FY2017 / CY2018 PMI	FY2017 / CY2018 GFATM	FY2018 / CY2019 PMI	FY2018 / CY2019 GFATM	FY2019 / CY2020 PMI	FY2019 / CY2020 GFATM
Case Management	Community-based case management		$4.1M		$2.7M		$1.5M
	Facility-based case management		$0.2M		$0.1M		$0.1M
	GFATM procurement & supply chain management costs		$7.6M		$6.3M		$3.7M
	Other Case Management	$3.6M	$1.5M	$4.2M	$0.5M	$2.7M	$0.1M
	Private-sector case management		$0.5M		$0.2M		$0.2M
	Procure ACTs	$2.0M	$18.4M	$3.0M	$16.6M	$1.4M	$9.7M
	Procure Drugs for Severe Malaria		$7.2M	$0.1M	$5.5M	$0.3M	$1.0M
	Procure Other Treatment-Related Commodities		$1.4M		$0.2M		$0.2M
	Procure RDTs	$1.0M	$5.6M	$1.5M	$4.8M	$1.5M	$5.0M
	Therapeutic Efficacy	$0.3M		$0.3M		$0.2M	
Drug-Based Prevention	Prevention of Malaria in Pregnancy Implementation	$0.6M	$0.1M	$1.3M	$0.2M	$0.5M	
	Procure IPTp-Related Commodities		$0.4M		$0.0M		$0.0M
Monitoring, Evaluation & Research	Other Data Sources		$0.1M		$0.1M		$0.1M
	Program and data quality, analysis and operations research	$0.3M	$0.1M				
	Reporting, Monitoring, and Evaluation	$1.5M	$0.6M	$2.6M	$0.2M	$1.3M	$0.2M
	Support for FETP	$0.3M		$0.2M		$0.3M	
	Surveys	$0.6M	$0.0M				
Other Cross-Cutting and Health Systems Strengthening	Central and Regional Program management	$0.3M	$0.1M	$0.2M	$0.2M	$0.2M	$0.4M
	Community responses and systems		$0.1M		$0.1M		$0.1M
	Cross-Cutting Human Resources for Health		$0.3M		$0.3M		$0.3M
	Financial management systems		$0.0M		$0.0M		$0.0M
	In-Country Staffing and Administration	$1.2M		$1.9M		$1.8M	
	Integrated service delivery, quality improvement, and nation..		$2.1M				
	Other Program Management		$1.2M		$1.0M		
	SBCC Unspecified	$1.2M		$1.8M		$1.1M	
	Support for PCV and SPAs	$0.0M		$0.0M		$0.0M	
Supply Chain	Ensuring Quality		$0.2M		$0.0M		$0.0M