



Global Health

Supply Chain Summit

Abstract 93

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18 November 2019

Malaria Access Map

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Leveraging data on access to malaria commodities en route to elimination in the Greater Mekong Subregion (GMS)

APLMA steers the implementation of the Leaders' Malaria Elimination Roadmap to eliminate malaria in Asia Pacific by 2030



Background

- An **affiliation of Asian and Pacific heads of government** formed to **accelerate progress** and eliminate malaria in Asia Pacific by 2030



Mission and Vision

- Drive **implementation of the APLMA Leaders' Malaria Elimination Roadmap** by benchmarking progress against priorities
- Coordinate **regional action and brokering policy, technical and financing solutions** to regional and national challenges
- Bolster **effective country leadership** to expedite elimination of malaria throughout the region by 2030



Role

- Facilitate and convene **high level engagement** on the building blocks for **malaria elimination**
- **APLMA Leaders' Malaria Elimination Roadmap** prioritizes innovation, policy alignment and program coordination, regulatory collaboration, as well as financing and governance of the malaria response



Tools

- **Leaders' Dashboard:** offers clear milestones for each of the Roadmap's six priority actions
- **Technical Annex:** offers a more complete picture of the malaria situation for each country based on World Malaria Report data

The Access Map will serve as an advocacy tool to highlight the importance of access as an important step in eliminating malaria

Challenges in Malaria Elimination

- The World Malaria Report 2018 reinforces that the **world is currently not on track** to reduce malaria deaths and disease by at least 40% by 2020
- **Marginal improvement of coverage of key interventions** to prevent and treat malaria (e.g. ITNs, antimalarials) since 2015
- 1 country (Sri Lanka) is malaria free in Asia-Pacific (AP), while 6 other AP countries are expected to eliminate malaria by 2020
- In the Greater Mekong Subregion (GMS);
 - Multiple artemisinin-based combination **therapy failures**
 - Outbreaks in hard to reach, border areas
 - Challenge with delivery of commodities to the **last mile and mobile populations**

Purpose of the Access Map

- 1 **The Access Map promotes data collection, encourages data sharing and improves data quality**
 - To encourage projects and activities that will help generate data, which will enable the identification of coverage gaps down to the last mile
- 2 **The Access Map is an advocacy tool**
 - To elevate discussions on access to senior leadership, including and beyond healthcare officials, in order to obtain more commitment and resources to support better access to health services and commodities



The intended outcome of the Access Map is to improve the data available to measure coverage and monitor progress to malaria elimination

Project methodology involved a combination of core data analysis and qualitative stakeholder consultations

1

Collection of malaria related indices and databases

1. Identify all malaria related indices and databases based on:
 - IQVIA internal public health expertise
 - Secondary research

2

Analysis of data sets

1. Download or extract related data set
2. Understand data methodology
 - Conduct secondary research on data collection methodology (often published)

3

Understanding of data limitations and implications

1. Compare similar datasets (if available) to understand data limitations
 - Develop data quality evaluation framework
 - Evaluate all datasets for data quality and identify gaps and limitations

4

Addressing data gaps and uncertainties

1. Publish data limitations as a part of the Access Map methodology for transparency
2. Referencing the data gaps in the map, formulate a clear request for better data quality to country stakeholders
3. Consider engaging with a malaria data expert for future iterations of the Access Map

Conceptualization of the Access Map identified 4 access determinants: Availability, Acceptability, Affordability and Accessibility



Access determinants

Availability

- Encourages the production of quality medicines at the level of pharmaceutical manufactures and facilitates the registration and distribution of these medicines to patients at the national level

Acceptability

- Supports the rational use of the appropriate quality commodities and promotes awareness of these within the community

Affordability

- Facilitates quality commodities and services that are affordable to patients

Accessibility

- Facilitates the availability of quality antimalarial commodities and services for all including hard-to-reach and mobile migrant population



Access considerations

Commodities

- Are currently available commodities meeting population needs of even the most vulnerable?

Patient journey

- What geographies and demographics face the highest access issues?
- How far are patients to point of care?

Distribution channels

- How can information from each channel (e.g., public / private sectors, healthcare facilities, village malaria workers, etc.) be combined to provide a more comprehensive view?






Leadership

- How to elevate discussions on access as part of health systems strengthening, to senior officials

Project methodology involved a combination of core data analysis and qualitative stakeholder consultations

Category	Parameter	Detailed description	Source	
Product availability and accessibility	Vector	ITN / IRS coverage	% of population at high risk potentially protected by ITN/IRS	WHO Country profile / APLMA Tech Annex
	Dx	Suspected cases diagnosed	% suspected malaria cases tested with RDT or microscopy	
		Stockouts of diagnostics	% of health facilities with no reported stock-outs lasting > 1 week of nationally recommended RDTs at any time during the past 3 months	Global Fund / RAI / UNOPS / National Malaria Program
	Treatment	Stockouts of treatments	% of health facilities with no reported stock-outs lasting > 1 week of nationally recommended first line antimalarial drugs at any time during the past 3 months	
		Confirmed malaria cases received treatment	% of patients with confirmed malaria who received first-line antimalarial treatment according to national policy	
		New treatment product registration timeline	Score based on no. of days required to register new antimalarial treatment	APLMA, TGA (self reported)
		Treatment guideline products registered	% of treatment guideline products registered	Country drug authority, WHO, MMV, APMEN
Quality monitoring	Formal mechanism for monitoring quality of malaria commodities	Formal mechanism in place to ensure quality of health commodities for the prevention, diagnosis and treatment of malaria and other priority diseases	APLMA Leaders' Dashboard	
Geographical accessibility	Population near point of care	Existence of published geo-location of health facilities	Primary interviews	
	Suspected cases treated in a timely manner	% of cases treated within 24 hours	APMEN	
General health system	Access to quality healthcare	Healthcare Access and Quality Index	Global Burden of Disease (Lancet)	
	Facilities with essential medicines	% of health facilities with 14 essential medicines available on the day of the visit	WHO	

Project methodology involved a combination of core data analysis and qualitative stakeholder consultations

Category	Detailed description	Country scores					
		 KH	 LA	 MM	 TH	 VN	
Product availability and accessibility	Vector	% of population at high risk potentially protected by ITN/IRS	100%	82%	100%	100%	84%
	Diagnostics	% suspected malaria cases tested with RDT or microscopy	100%	100%	100%	100%	100%
		% of health facilities with no reported stock-outs lasting > 1 week of nationally recommended RDTs at any time during the past 3 months					
	Treatment	% of health facilities with no reported stock-outs lasting > 1 week of nationally recommended first line antimalarial drugs at any time during the past 3 months					
		% of patients with confirmed malaria who received first-line antimalarial treatment according to national policy					
		No. of days required to register new antimalarial treatment	365	365	365	220	912
		% of treatment guideline products registered	100%	83%	100%	100%	88%
Quality monitoring	Formal mechanism in place to ensure quality of health commodities for the prevention, diagnosis and treatment of malaria and other priority diseases	Y		Y	Y	Y	
Geographical accessibility	Existence of published geo-location of health facilities	Y	N	N	Y	N	
	% of cases treated within 24 hours		N/A	46%	26%	N/A	
General health system	Healthcare Access and Quality Index	41	37	43	68	58	
	% of health facilities with 14 essential medicines available on the day of the visit						

The data fit framework helped in the evaluation of data quality and corresponding limitations

Data fit evaluation criteria

Description



Availability of data across the 5 in-scope countries

- Favors data points that cover more countries in-scope



Presence of data validation

- Favors data points that have gone through data validation and proper audit process



Consistency of data across years

- Favors data points that fluctuate less across recent years to reflect the trend in completeness of reporting



Comparability of methodology across countries

- Favors data points that are collected using the same method across in-scope countries to ensure comparability



Sub-national level coverage

- Favors data points that provide data at sub-national level due to their granularity



Timeliness of data / Frequency of update

- Favors data points that are updated frequently to ensure relevance of data

Various stakeholders in the malaria ecosystem were consulted in the iterative development of the Access Map

Stakeholder Consultation

- **Leading academics** at institutions based or active in the region
- Individuals with **senior roles in NGOs / charities** covering the GMS, especially those responsible for managing programs or tracking program KPIs
- Individuals in **government bodies** with responsibilities in managing domestic anti-malarial programs

Sample stakeholders



Going forward, we can leverage additional sources of data to further develop the Access Map and expand the current geographical reach

Current data sources

Data from current data sources tend to be manually curated. It is unstructured and sits in different platforms







Sample data sources:

-  **Routine surveillance**
-  **Health facility surveys**
-  **Demographic surveillance**
-  **Lab / biomarkers data**
-  **Review of documents**
-  **Community survey**

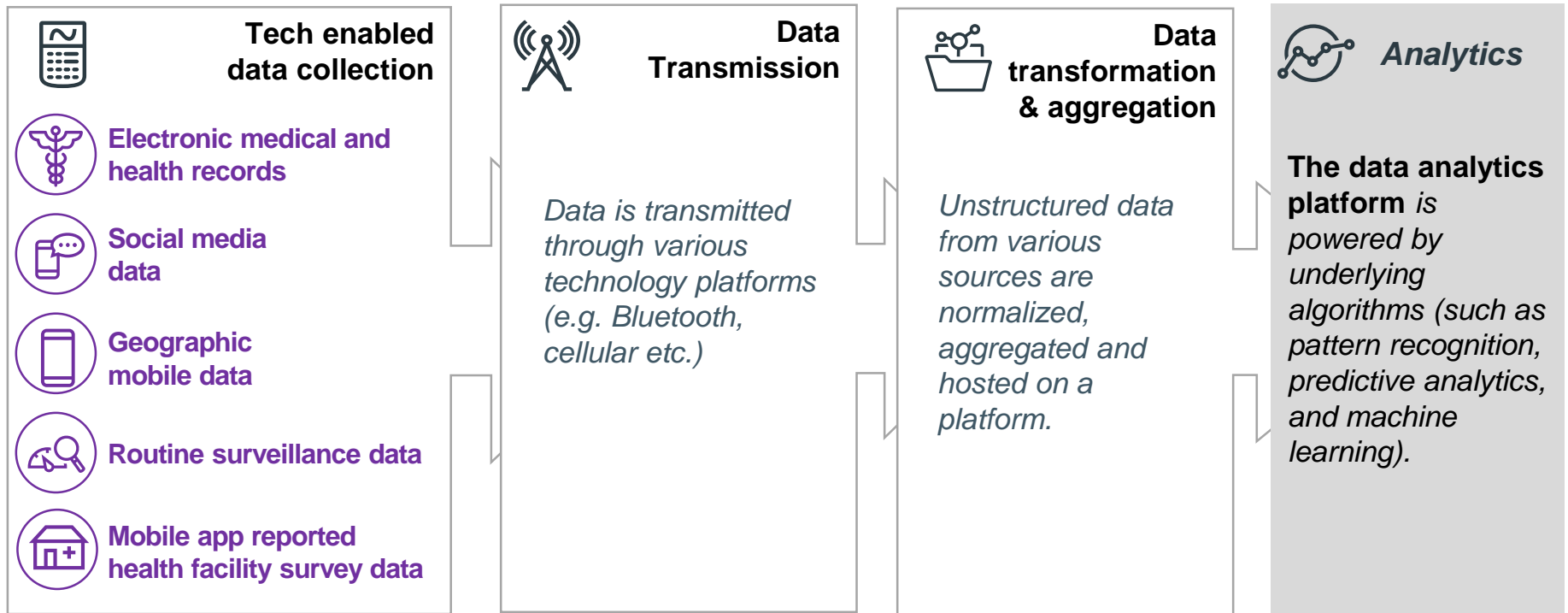
Future data sources

Data from the future will be digitally generated and automatically collected and uploaded into a platform agnostic database, allowing the user to access the data anywhere, anytime

Sample data sources:

-  **Social media data**
-  **Electronic medical and health records**
-  **Survey data (mobile)**
-  **Business intelligence data**
-  **Geographic mobile data**
-  **Drone data**

In the future, technology that enables connected health can facilitate seamless collection, integration and analysis of data



Examples of end user applications

- Reporting and scorecards for programmatic or health systems M&E
- Asset management and mobilization for routine services delivery and ad hoc campaigns
- Inventory and stockout management to optimize end-to-end supply chain visibility
- Population health analysis

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2019 Global Health Supply Chain
Summit, Johannesburg, S. Africa