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Tanzania Condom Market Systems Map and Dashboard

Data Availability and Use in the Condom Market

Cooperative Agreement No:
7200AA21CA00027 (2021-2026)
November 2022

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Background, Context, and Activity Rationale

A Vision for Tanzania's Condom Market

- Ensuring widespread and sustained condom availability for all populations in need is a key part of the Government of Tanzania's HIV prevention strategy.
- Achievement of this goal requires a total market approach that can ensure a harmonious supply and distribution of free, socially marketed, and commercial brand condoms.
- Current and historic distortions in condom supply and distribution lead to inefficiencies in the market and can exacerbate sustainability and access concerns.
- Improved data collection, access, and use could help stakeholders address these concerns and cultivate the conditions for a balanced condom market.

Tanzania's Condom Market: Continually Changing, Prone to Disruptions

Stewardship and Coordination: quarterly meetings of the Condom Sub-Committee (co-chaired by the Tanzania Commission for AIDS (TACAIDS) and the National AIDS Control Program (NACP), attended by multi-sectoral stakeholders)

- **Few sub-committee discussions and decisions are supported by complete and digestible data** that comprehensively represents all aspects of the market.
- **Limits the extent to which stakeholders can proactively use data** to support and harmonize financing, procurement, distribution, and program investment (public and social marketing) decisions.

Supply: multiple commercial, five socially-marketed, and one free (government-issued) brands available in the market.

- **Population Services International's (PSI) historic and market-dominant socially marketed (SM) brand, *Salama* recently lost donor funding** and is no longer actively distributed; this potentially offers an opening for other SM brands distributed by DKT International, T-MARC, Marie Stopes Tanzania (MST), and the Tanzania Youth Alliance (TAYOA).
- **Public sector stock imbalances across regions remain a concern**; new emphasis on the installation of 40,000+ public condom dispensers across the country has prompted an additional procurement of 100 million male condoms to fill the dispensers.

Demand: unclear whether need forecasts take into consideration shifts in consumer demand, preference, and behavior patterns (especially with respect to other HIV prevention options like voluntary medical male circumcision (VMMC) and pre-exposure prophylaxis (PrEP)).

Financing: is evolving; major donors have different and conflicting emphases.

- **President's Emergency Plan for AIDS Relief (PEPFAR) funding is shifting** from brand-specific social marketing to comprehensive condom marketing
- **Global Fund request for application (RFA) will support the development of a Government of Tanzania-owned socially marketed brand** and is anticipated to cause another market disruption

Goals for Systems Mapping and Dashboard Activities

Objective: Diagnose challenges, opportunities, and pathways for condom data collection, integration, analysis/use, and design a solution to better equip market actors to make decisions that will allow them to avoid market disruptions and promote a harmonized and sustainable condom market.

Key questions:

- What **decisions** would market actors like to make?
- What **data do market actors need** to make those decisions?
    - What data do they **currently have** to make those decisions?
    - What data do they **not currently have**?
        - Does this **data exist elsewhere in the system already**?
        - Could this data be **generated or shared**?
- How could the system be changed so that it **generates new data** that they currently do not have?
- How could the system be changed to **improve the quality of the existing data** (that they currently have or could be collected from elsewhere in the system)?

2

Diagnosis Approach

Step 1: Desk Review

Key documents include:

- National Condom Distribution Guide
- National Multi-Sectoral Condom Strategy
- Tanzania Commission for AIDS (TACAIDS) Annual Report,
- 2021 Reproductive and Child Health Section (RCHS) Quantification Report
- Condom Sub-Committee meeting minutes and supporting documentation
- Other publications related to condom use in Tanzania (Bill and Melinda Gates Foundation (BMGF) condoms case study, SHOPS Plus reports)

Step 2: Key Informant Interviews (KIIs)

Gather insights from a wide variety of stakeholders to understand what condoms-related data they currently have access to, how the data is stored, what decisions stakeholders currently make with the data, and what decisions they would like to make (but may not have data to do so).

- **Government:**
  - National level: TACAIDS Monitoring & Evaluation Officer, Ministry of Health (RCHS) Family Planning Focal Point, RCHS Commodity Security Focal Point, NACP Prevention Unit (Director and Program Officer), Medical Stores Department
  - District level: District AIDS Control Coordinator (DACC), Council HIV and AIDS Coordinator (CHAC), Health Management Info Systems (HMIS) Coordinator
- **Social marketing organizations:** T-MARC, DKT, PSI, MST
- **Commercial:** JD Pharma, General De Pharmacy
- **Non-governmental organizations (NGOs)/civil society organizations (CSOs):** Tanzania Youth Alliance (TAYOA), National Council of People Living with HIV/AIDS (NACOPHA), ICAP/Columbia University, PATH (Digital Square), FHM Engage

Step 3: Build a Systems Map

Using inputs from desk review and KIIs, visualize how data on condom stocking, distribution, and availability are collected, reported, and considered by actors across the entire market system.

This visualization identifies:

1. **Existing systems and platforms for capturing and reporting data on condoms** across the public, SM, and commercial sectors, at national and sub-national levels
2. **Forums where data are shared and reported for consideration** by market actors to (potentially) make decisions about condom procurement and distribution
3. **What gaps** there are in data availability and use
4. **Identify locally-available data sources** for potential incorporation into a condom data dashboard

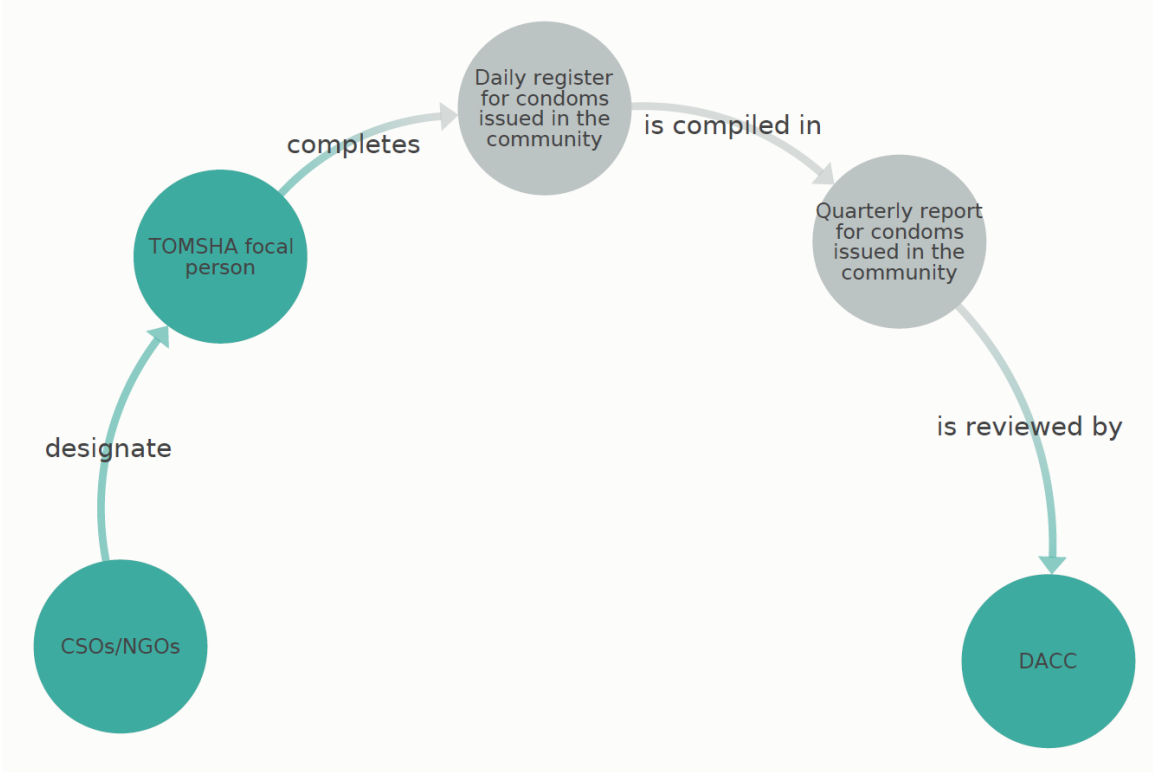
Once validated and finalized with market actors, the system map could serve as a decision-making tool to identify **opportunities to strengthen how data flows across the condom market and strengthen use of the data by market actors**

Components of a Systems Map

- Comprised of **nodes** and **linkages**.
  - Nodes represent components within the system
  - Nodes are color-coded to represent different aspects of the system (e.g., market actors, data types, data platforms, data forums)
  - Linkages represent how these components things are connected).

- Interpret systems maps by reading the node label followed by the linkage then the node to which the linkage is pointing.

- The example here reads: "*CSOs/NGOs designate a Tanzania Output Monitoring System for HIV and AIDS (TOMSHA) focal person who completes the Daily Register for Condoms Issued in the Community. The Daily Register for Condoms Issued in the Community is compiled in the Quarterly Report for Condoms Issued in the Community, which is reviewed by DACC*".



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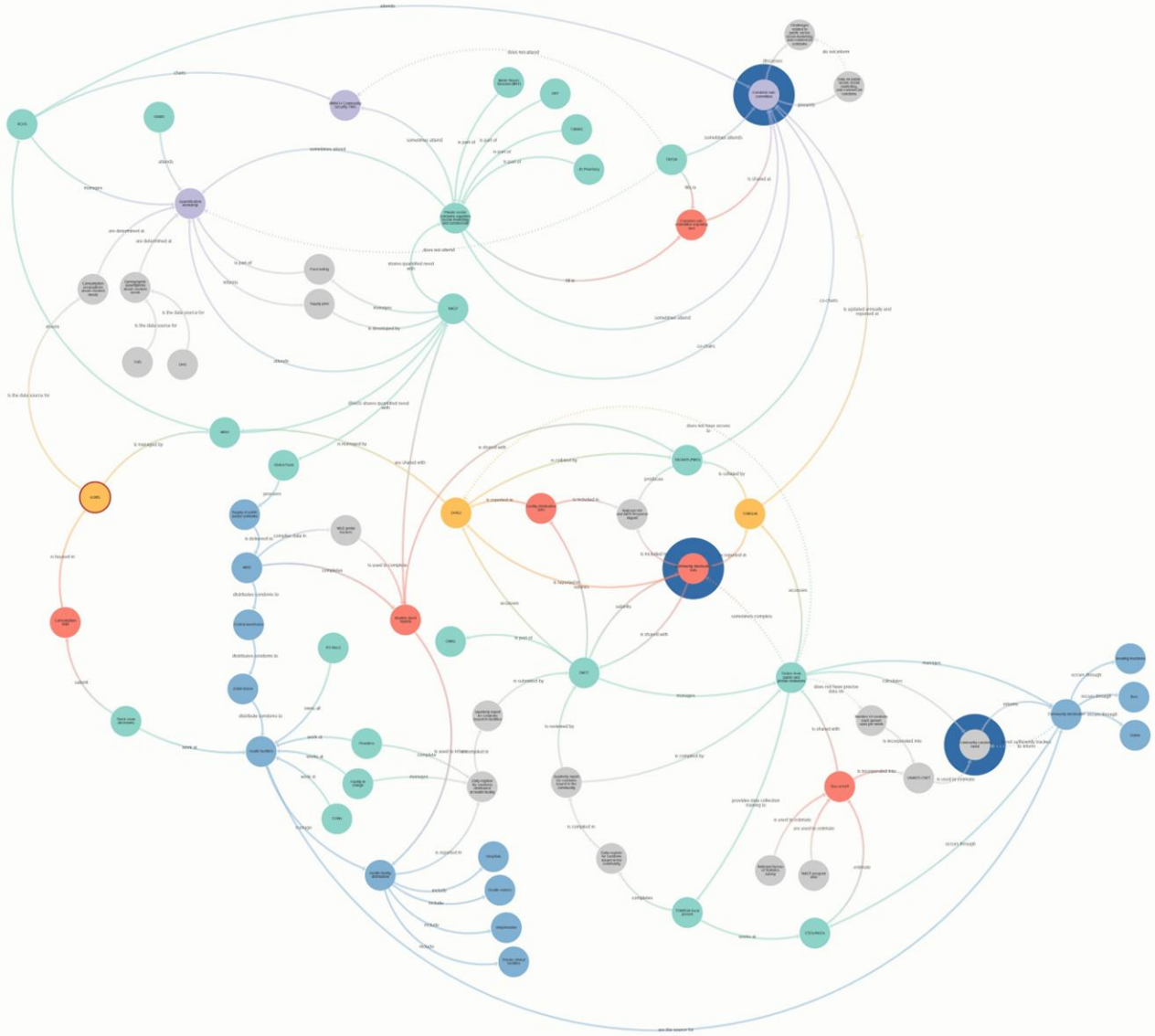
Diagnose: Systems Map Initial Findings

Draft Public Sector Condom Market Data Collection And Use Systems Map



- Here is what the **public sector condom market system** looks like when viewed all at once

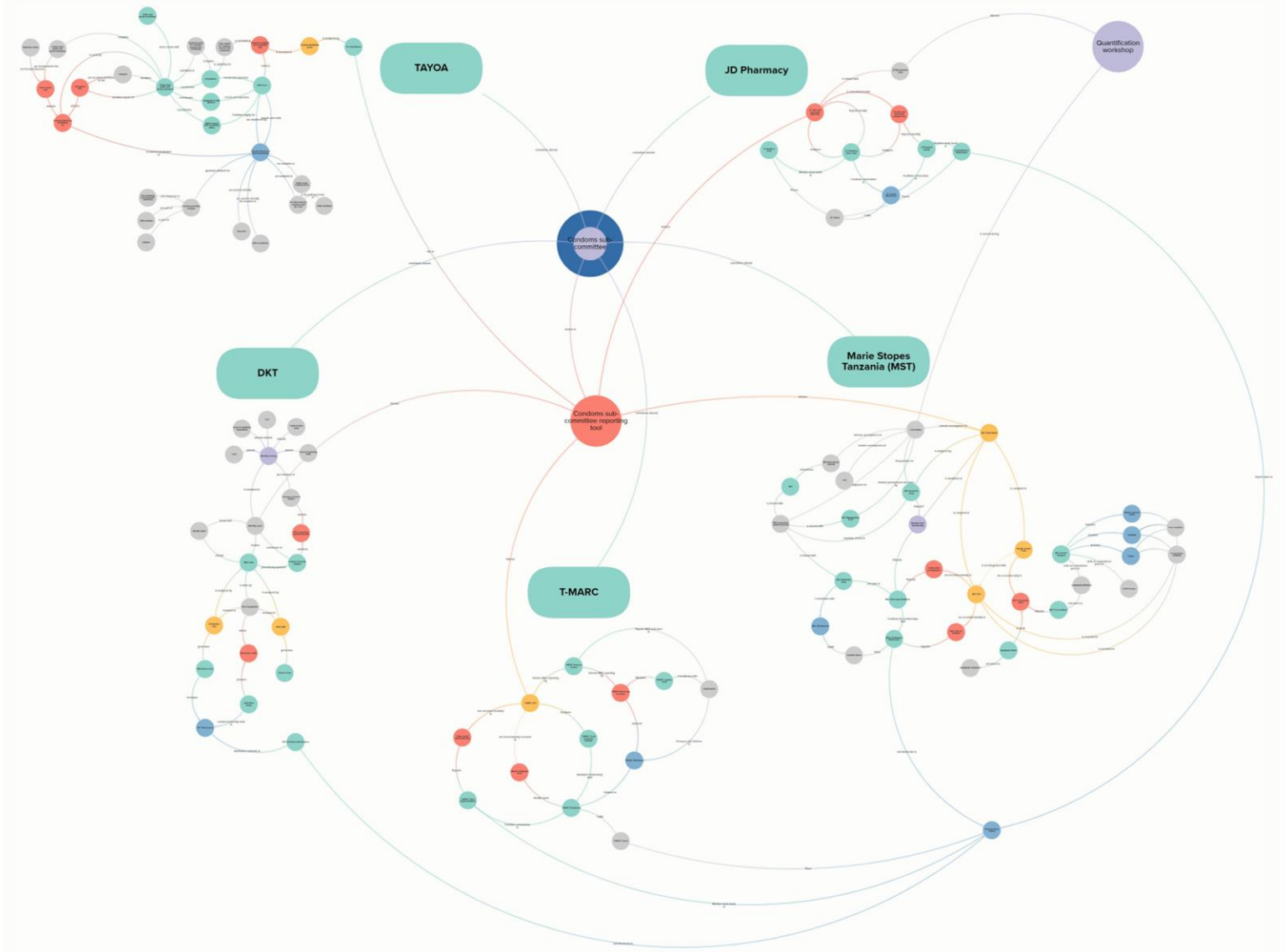
  (*The details are not important for the moment; we will zoom in on the map in subsequent slides*)

- Several features are immediately apparent:
  - The system is **highly complex**
  - Contains **many actors (light green)**
  - Relies on a **few data platforms (gold)** such as the District Health Information Software (DHIS2), the Electronic Logistics Management Information Systems (eLMIS), and TOMSHA that connect only indirectly

Draft Private Sector Condom Market Data Collection And Use Systems Map

- Here is what the **private sector condom market system** looks like when viewed all at once

  (private includes socially marketed and commercial market actors)

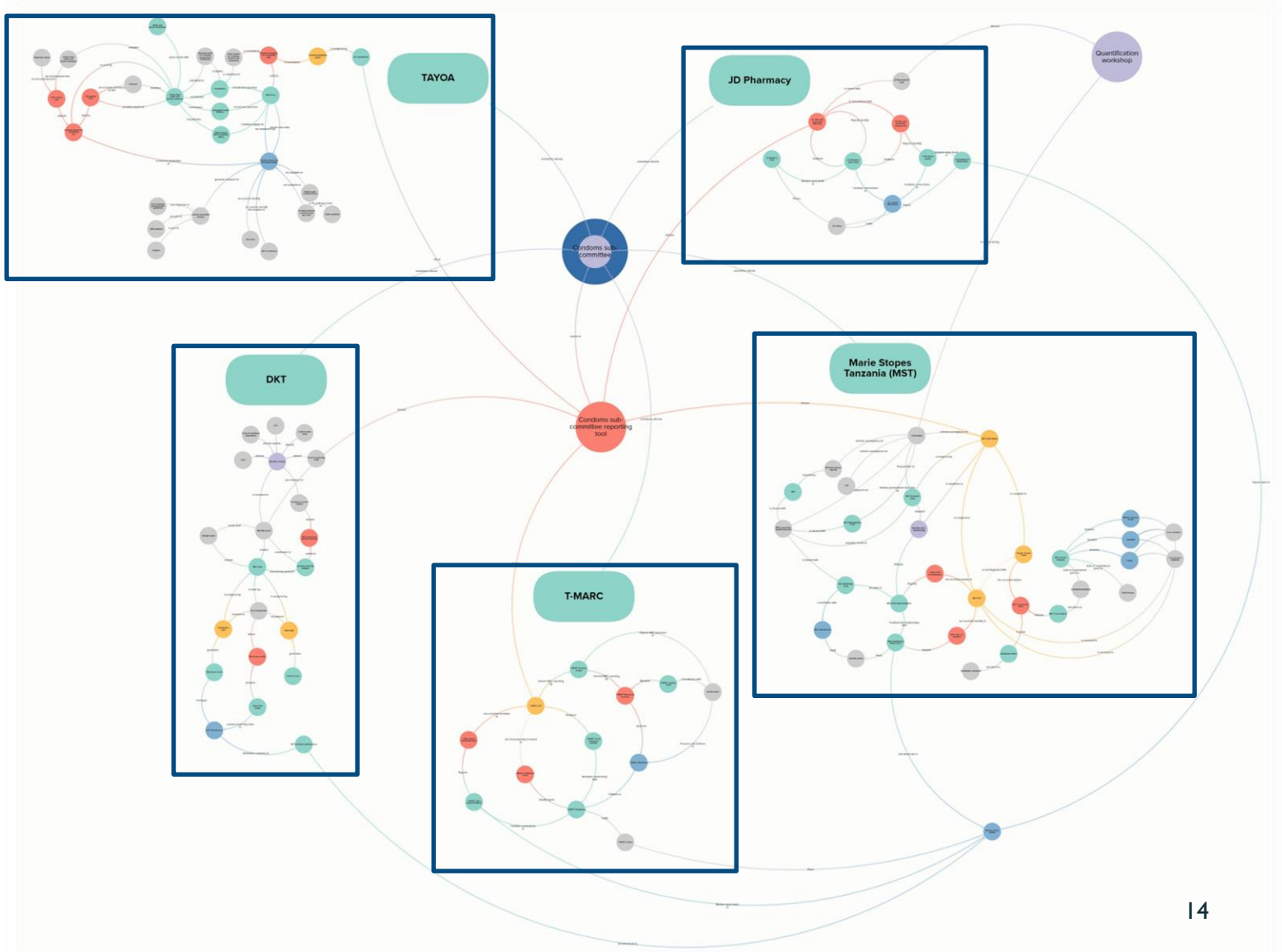


Draft Private Sector Condom Market Data Collection and Use Systems Map

- Here is what the **private sector condom market system** looks like when viewed all at once

  (private includes socially marketed and commercial market actors)

- Key features:
  - **Each market actor is its own sub-system,** which is reflected in the unique shape of each actor's system

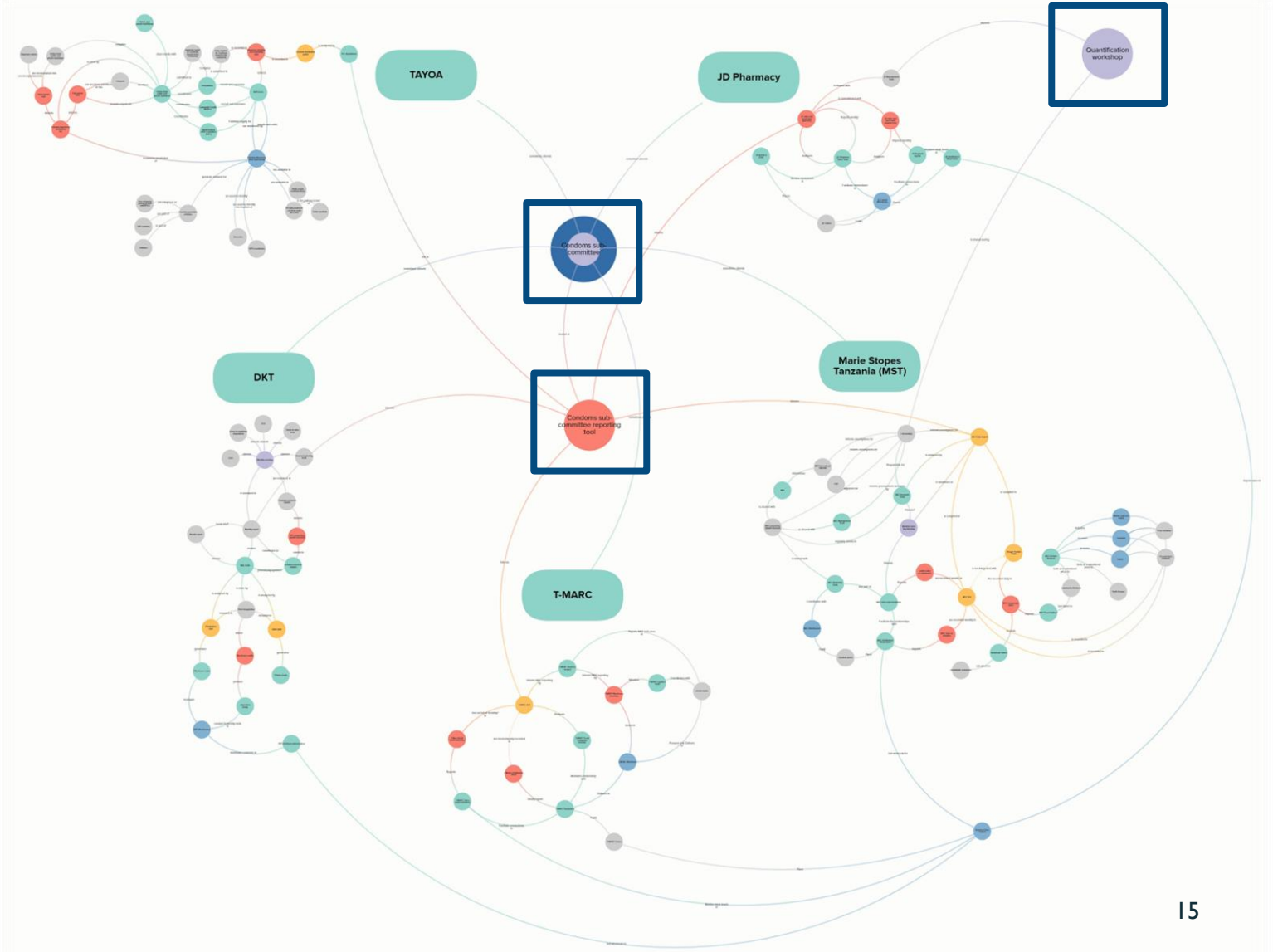


Draft Private Sector Condom Market Data Collection And Use Systems Map

- Here is what the **private sector condom market system** looks like when viewed all at once

  (private includes socially marketed and commercial market actors)

- Key features:
  - **Each market actor is its own sub-system,** which is reflected in the unique shape of each actor's system
  - **3 common interface points** between public and private sector:
    1. Condoms Sub-Committee
    2. Condoms Sub-Committee data reporting tool
    3. RCHS quantification workshop



Core and Supporting Market Function Bottlenecks and Challenges

Key market functions implicated in draft analysis of condom market data collection and use system (*to be further validated in future discussions*):

- **Market intelligence**
- **Stewardship**
- **Supply**
- **Demand**

Market Intelligence-specific Bottlenecks and Challenges: Data System Fragmentation and Variability

- **Because each market actor's system is unique, there are no immediately obvious leverage points** or opportunities for making changes that have a high likelihood of rippling through the system
- **Each system is at a different stage of maturity:**
  - T-MARC's system is nascent, with inconsistent collection of distribution data and inconsistent reporting into its data system (SFA)
  - DKT's system stands out as the clearest example of a system that encompasses both data collection and use: as shown in ***Exhibit 1,*** the system collects data, checks it for accuracy (data triangulation), conducts proprietary market research, and then passes it up to senior leadership on a monthly basis for decision-making
- **Private sector actors are typically unwilling to share proprietary data**, which limits any actor's ability to measure the total market

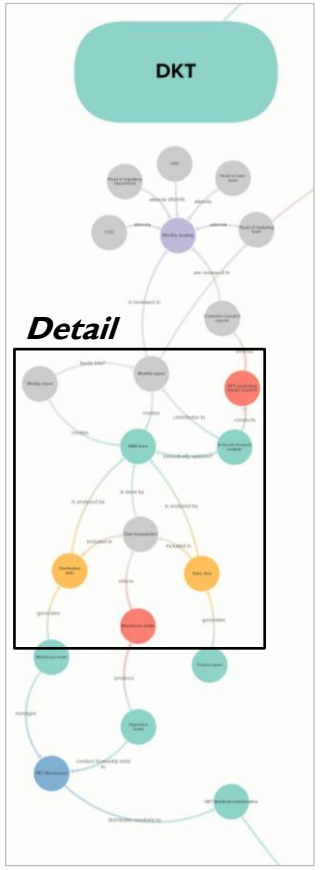
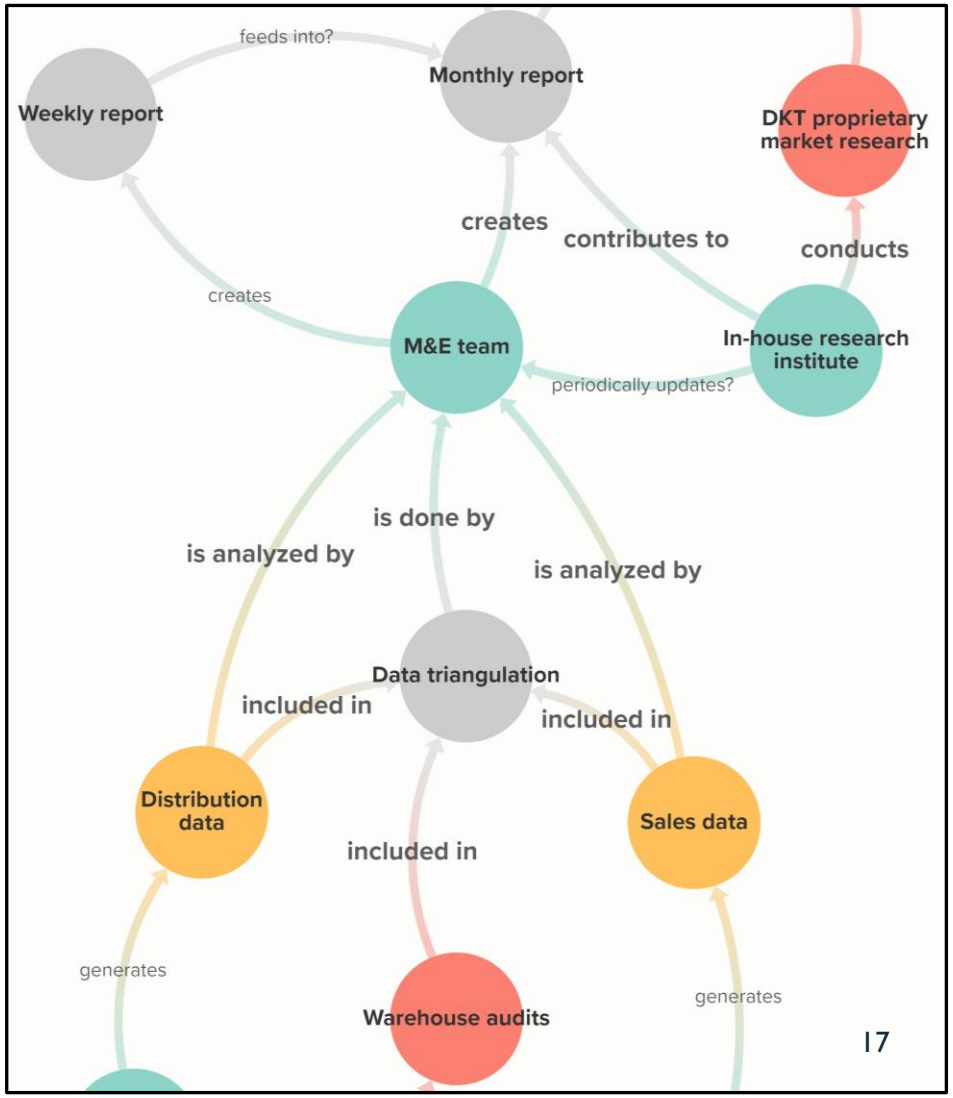
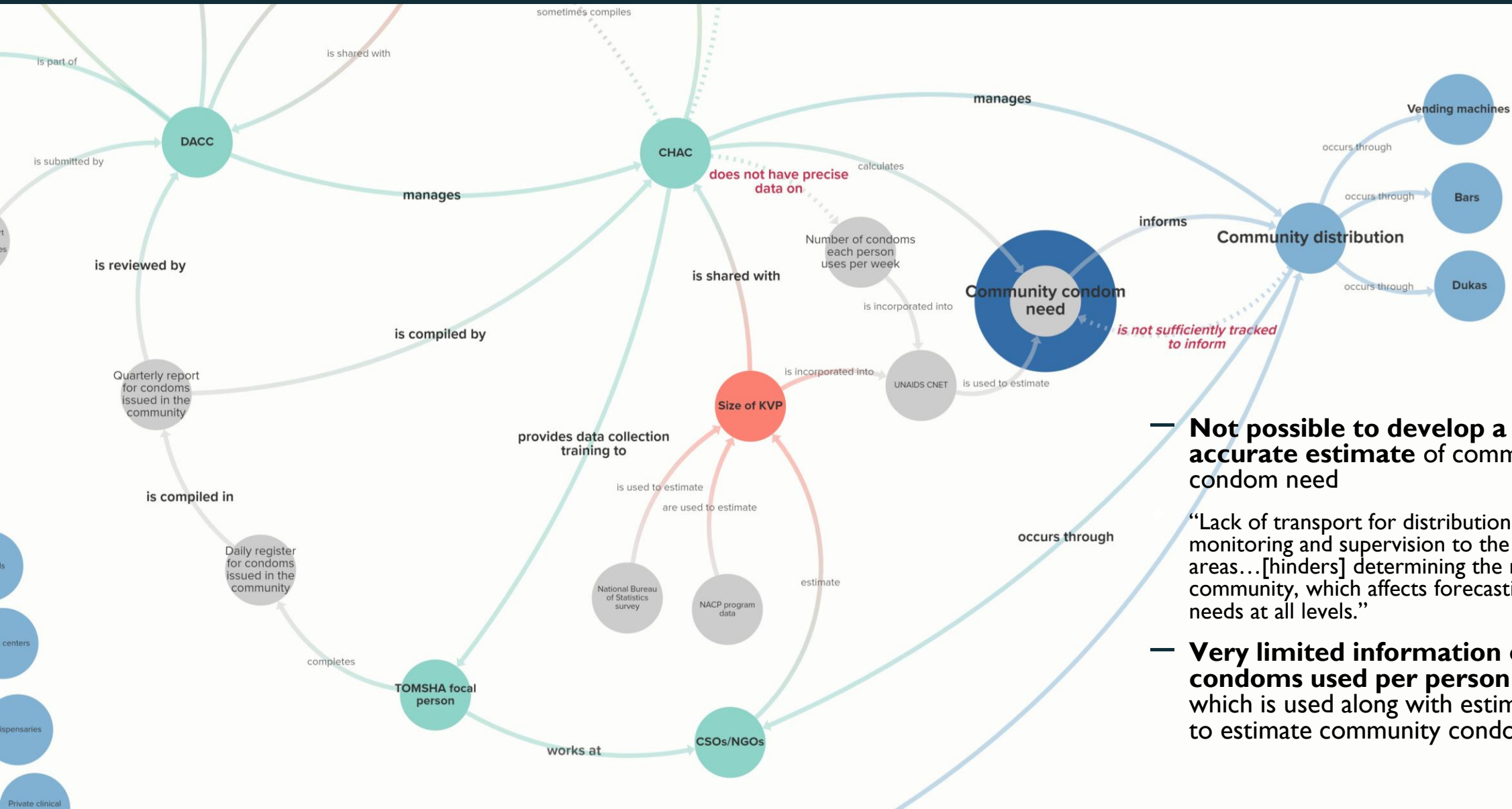


Exhibit 1: DKT sub-system detail



Demand-specific Challenges and Bottlenecks: Community-level Data and Need Estimation

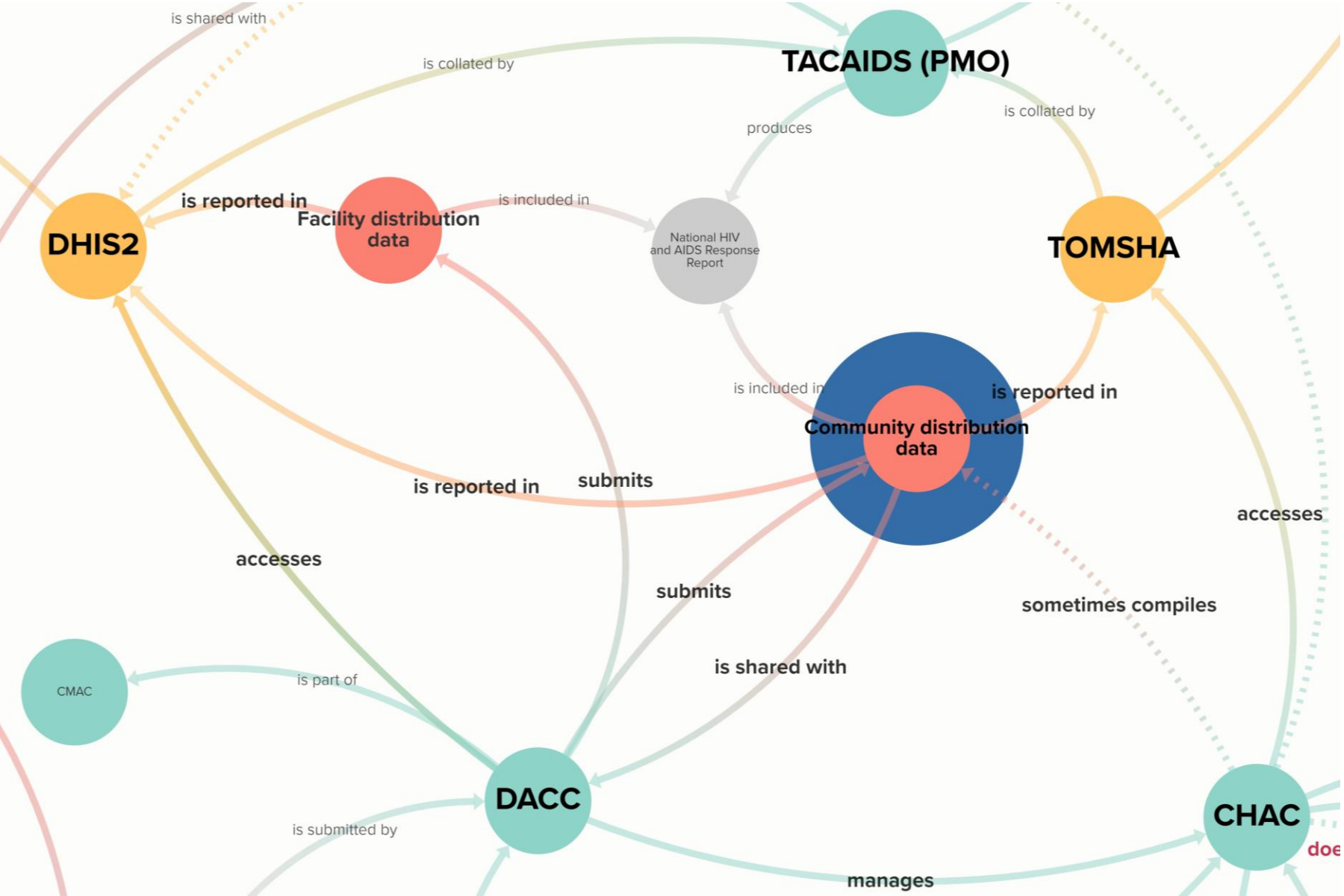


- **Not possible to develop a precise, accurate estimate** of community-level condom need

  "Lack of transport for distribution of condoms, monitoring and supervision to the far away hotspot areas…[hinders] determining the real need from the community, which affects forecasting of condom needs at all levels."

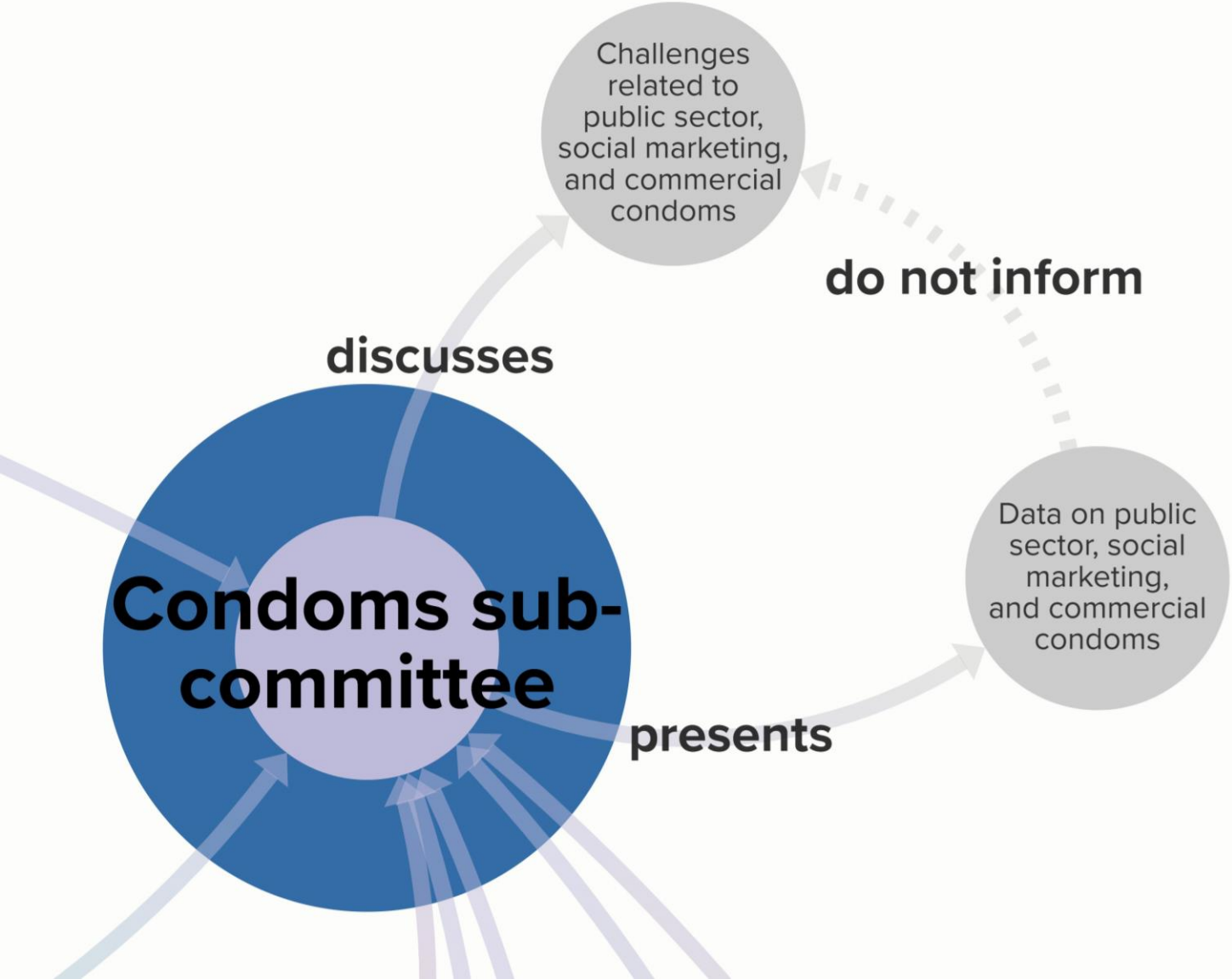
- **Very limited information on number of condoms used per person per week,** which is used along with estimated size of KVP to estimate community condom need

Supply-specific Challenges and Bottlenecks: Overlapping Community Distribution Data Systems



- **Parallel tracking of information and inefficiency** in how data are fed into the TOMSHA and DHIS2
- **CHAC** directly reports community-level data in **TOMSHA**, but must share data with ***DACC***, who reports in ***DHIS2***
- **DHIS2 does not distinguish between the facility-level and community-level distribution data**, both of which are reported into the platform
- CHACs compile community distribution data **less than 70% of the time**

Stewardship-related Challenges and Bottlenecks: Leveraging the Condoms Sub-Committee



- **Key status updates and challenges across public sector, social marketing, and commercial condoms are discussed** at the Condoms Sub-Committee Meeting – data reports from TOMSHA are sometimes presented
  - Data is sometimes outdated – e.g., TOMSHA data is only reported annually, but the meeting is quarterly
- **Discussions on the data presented are not connected to discussions on key challenges** – missing opportunity for data-informed decision-making at national-level fora
- Beyond the missing feedback loop between data and data users at the national level, there seems to be a **lack of fora for decision-making on condom distribution/use at the sub-national level**

Where are Potential Places in the System to Intervene?

Leverage points: Areas in the systems map where a **change could result in broader ripple effects across the system;** these points can serve as possible entry points for FHM Engage or other market actors to intervene as appropriate

Why is this a leverage point? Identifying more accurate methods for estimating community need will ensure **greater alignment with forecasting and need;** reducing condom wastage – without a better idea of need, it is **difficult to tell if wastage or market displacement is the bigger issue;** more efficient **market segmentation**

Why is this a leverage point? Opportunity to **reduce inefficiencies in the current parallel tracking approach;** community-level picture could be clearer if the data systems were set up to **distinguish the community-level data they already contain;** better tracking of trends would allow for **better assessment of wastage**

Why is this a leverage point? One of the primary interface points between the public and the private sectors – it includes the key actors, it is a forum where data is funneled (through the Condoms Sub-Committee data reporting tool), it is a **forum where challenges are discussed**

Condoms Sub-Committee is a Key Potential Leverage Point

- Systems map illustrates many current challenges, many of which are also discussed during Condoms Sub-Committee meetings:
  - Lack of market analytics to guide understanding and inform investment decisions
  - Lack of data insights/visibility to mitigate impacts of market disruption (e.g., unpredictable and erratic donor funding)
  - Fragmented condom data across sectors
  - Supply disruptions and mismanagement (overstock and stockouts)
  - System is currently primarily geared toward collecting one type of data (distribution)
- Condoms Sub-Committee has the potential to be a forum where evidence-informed decisions are made ***if it has the right data for the decisions it wants to make***

Potential solution

Dashboard for the condoms market, tailored to the Condoms Sub-Committee's needs, could help generate the feedback loop between discussion of challenges and use of data for decision-making

4

Design: Dashboard to Support the Condoms Sub-Committee to Make Evidence-informed Decisions

Building a Dashboard for the Condom Market

1. Draw insights from desk review, KIIs, and systems map

2. Construct "use cases" for the dashboard by identifying the following elements:

- **Users**: Which market actors will consult the dashboard to make decisions (includes relevant institutions and personnel/divisions within these institutions)?
- **Challenges**: What problems/issues do the identified users face that data could help resolve?
- **Inputs:** What data sources are available to feed into the dashboard?
- **Outputs**: What indicators will the dashboard display; what kind of analytic tools will be incorporated?
- **Decisions/Insights**: What kind of decisions could users make with the insights generated by the dashboard tools?

3. Convert the use case into specs for the developers and produce a beta version for further refinement

Condom Market Dashboard Use Case: Users

Primary: co-chairs of key multi-sectoral forums that influence policy and decision-making related to condom procurement and distribution

- Condom Sub-Committee – NACP and TACAIDs
- Reproductive, Maternal, Newborn, and Child Health (RMNCH) Commodity Security Technical Working Group – RCHS

Secondary: donors, social marketing organizations (SMOs), implementing partners, and commercial condom suppliers who attend these forums and fund, procure, distribute, and/or sell condoms in the market

Condom Market Dashboard Use Case: Challenges

Dashboard design responds to multiple challenges and issues observed during diagnosis, including:

- **Lack of market analytics to guide understanding and inform investment decisions**
- **Lack of data insights/visibility to mitigate impacts of market disruption (e.g., unpredictable and erratic donor funding)**
- **Fragmented condom data across sectors**
- **Inadequate coordination of condom interventions across market actors**
- **Supply disruptions and mismanagement (overstock and stockouts)**

Condom Market Dashboard Use Case: Inputs – Four Initial Data Sources

Source	Description	Time period
Ministry of Health/RCHS and NACP inventory of condom distribution by zone	Public sector condom distribution	January-December 2019
Tanzania Supply Side Trends Data Collection Tool developed by the SHOPS Plus Project and the Pharmaceutical Society of Tanzania (PST)	Commercial and SMO sales from General De Pharma, JD Pharma, PSI, DKT and T-MARC, and public distribution from Medical Stores Department (MSD)	October 2017-October 2020
TACAIDS Condom Status Biannual Report	Commercial and SMO sales from General De Pharma, JD Pharma, DKT and T-MARC, and public distribution from MSD	January-March 2021
DKT Contraceptive Marketing Statistics	SMO annual sales data voluntarily reported to DKT	January 1994-January 2020

Initial data sources will be updated and expanded over time

Why Start With These Data Sources for the Beta Version of the Dashboard?

- **They represent key "snippets" of the data available** that might support the Condom-Sub Committee's decision-making.
- They **demonstrate the current fragmented state of condom data.**
- **They can be triangulated** to generate insights in the absence of more complete, comprehensive dataset(s).
- They collectively serve as a **preliminary entry point for gathering feedback** from the Condom Sub-Committee about the types and formats of data that will be the most useful for decision-making.

Condom Market Dashboard Use Case: Outputs

Visualize time trends in condom sales, distribution, and supply by sector and program including:

- Condom sales and distribution (by sector)
- Condom market share (by market player)
- Public sector condoms distributed (annual)
- SM condom sales (by NGO)
- Condom sales (annually and by wholesaler)
- Condom stock: on hand and incoming (by sector, program, wholesaler, and NGO

Integrate query and analytics tools that allow users to develop custom visualizations that triangulate public and private condom sales, distribution, and stock data.

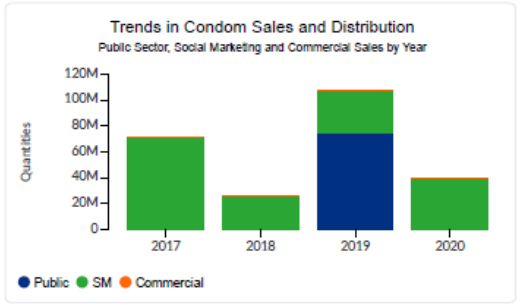
Condom Market Dashboard Use Case: Decisions/Insights

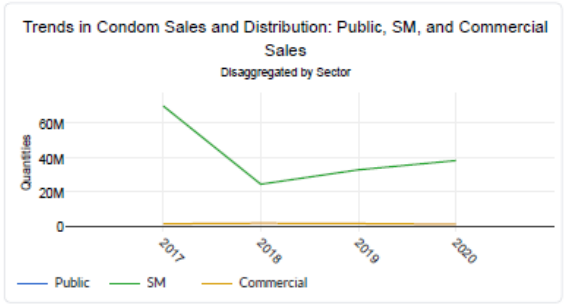
Dashboard design intends to help users:

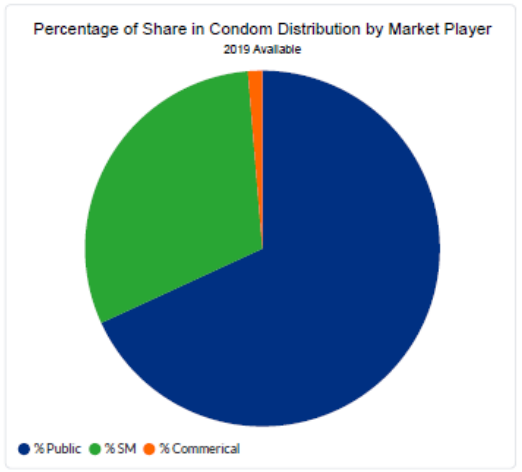
- Enhance and align understanding on total market situation
- Develop/refine metrics to assess condom market performance
- Operationalize strategies to target free and SM condoms
- Adjust demand forecast and procurement decisions

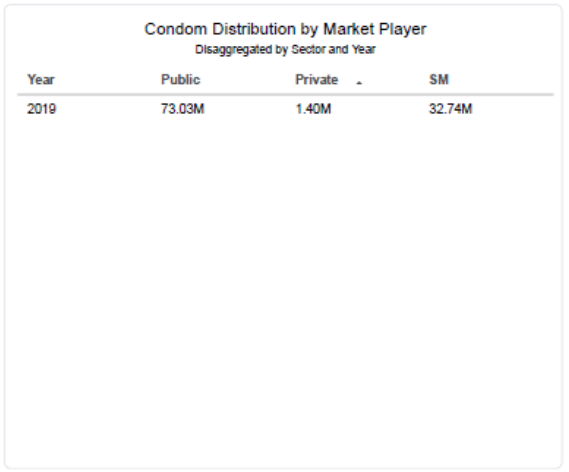
Tying it all Together: Condom Market Dashboard (Beta-version)

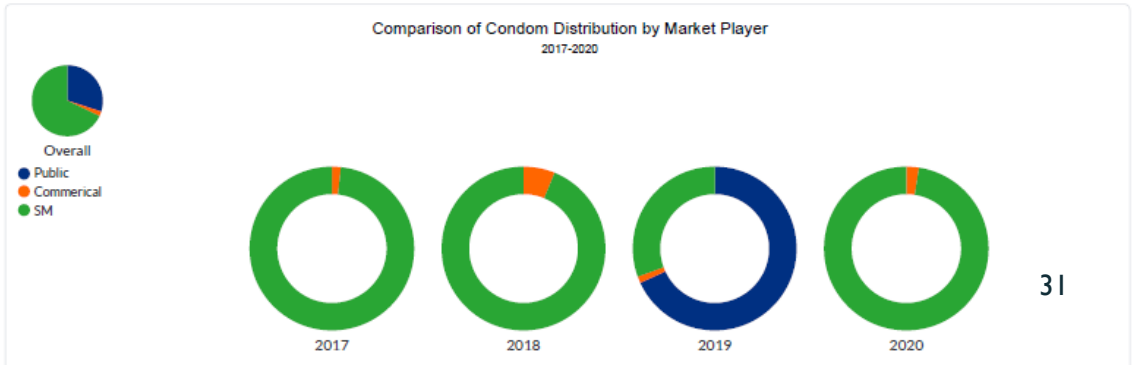
View 1:
Trends in condom sales and distribution





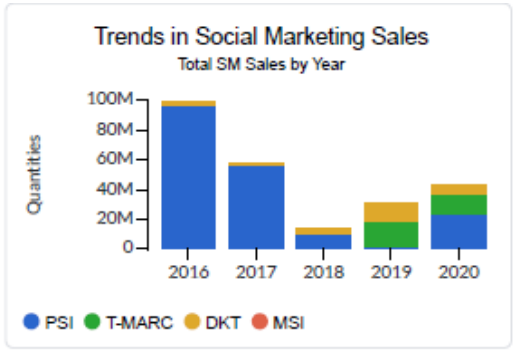


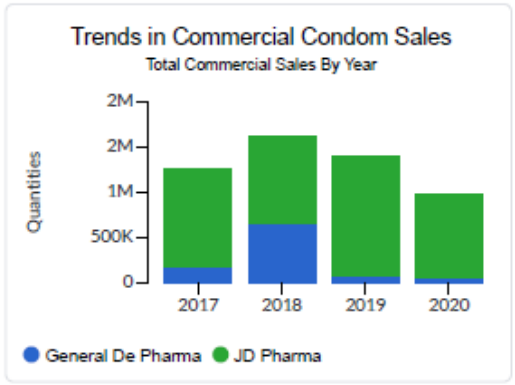


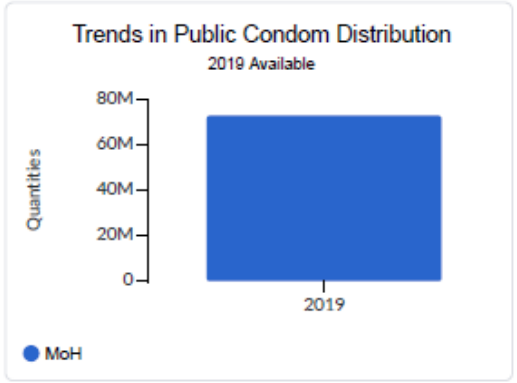


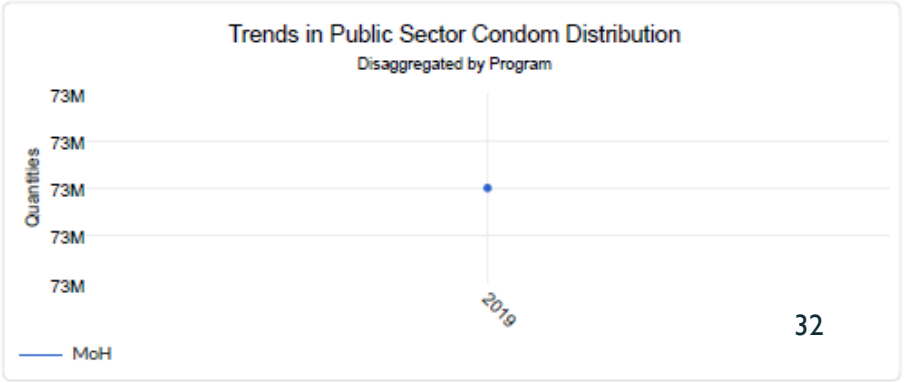
Tying it all Together: Condom Market Dashboard (Beta-version)

View 11: Trends in condom market by sector and program



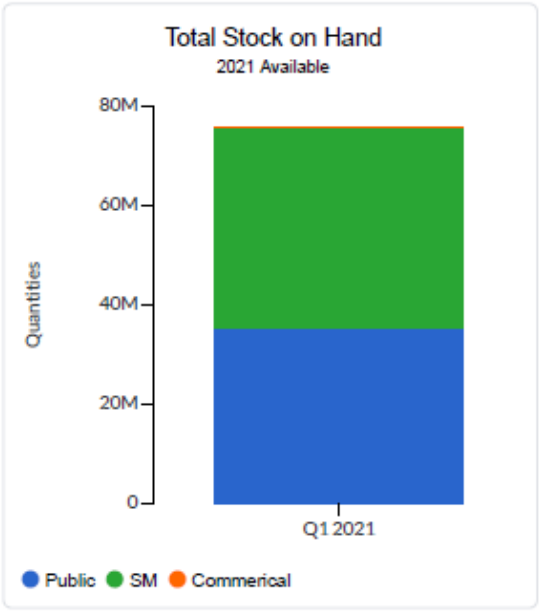


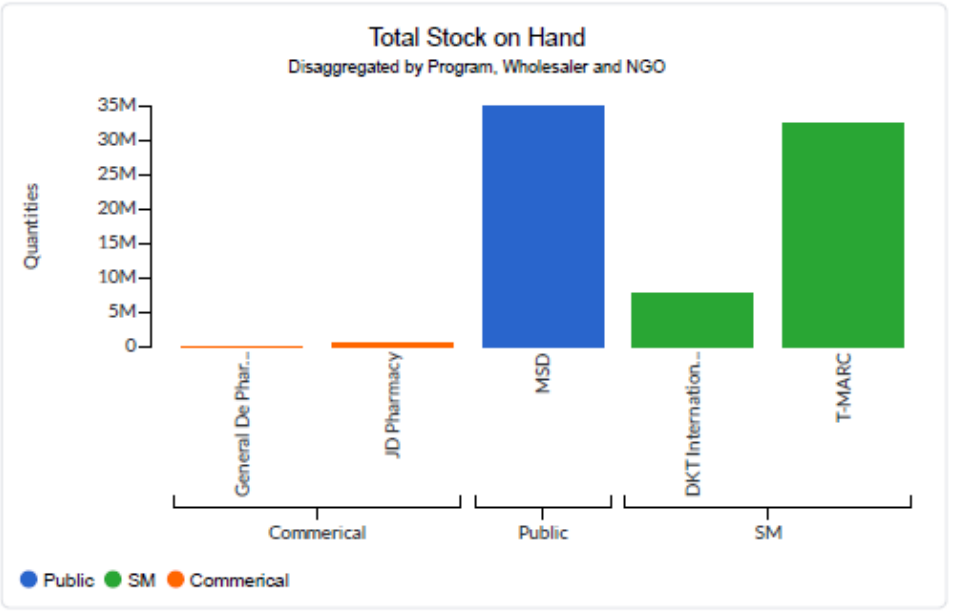




Tying it all Together: Condom Market Dashboard (Beta-version)

View III: Condom supply monitoring





Stock on Hand and Incoming (Months of Stock)

2021 Available

Importer	CondomType	On Hand (MoS)	Incoming (MoS)
MSD	Public	0	7
General De Pharma	Commerical	3	3
JD Pharmacy	Commerical	3.5	3
DKT International	SM	10	12
T-MARC	SM	30	No data

1 - 5 of 5

5

Deliver: Next Steps for Advancing Use of the Dashboard and Systems Map

Next Steps: Validate the Systems Map

1. **Validate the draft map** with a group of stakeholders, starting with members of the Condom Sub-Committee to:
   - Gather feedback on any components of the systems map that are missing or inaccurate
   - Confirm or identify additional leverage points – areas in the map where a change could result in broader ripple effects across the system.
   - Facilitate discussions on how market actors can implement activities that improve the functioning of the system; prioritize activities based on what parts of the system they might influence (particularly activities that could influence leverage points)
   - *A validation workshop is tentatively planned for November 2022*
2. **Finalize the map** by incorporating the feedback from the validation workshop and distribute the map to key stakeholders.
3. **Use the map for decision-making** by facilitating further discussions on how market actors can implement activities that improve the functioning of the system identified in the workshop.
   - Update the map over time to reflect (and monitor) changes in the system that result from actions and activities that contribute to system function.

Next Steps: Validate and Refine the Data Dashboard

1. **Share and validate the condom dashboard** with key stakeholders, starting with members of the Condom Sub-Committee
   - Gather input to understand how the dashboard will be used, for what types of decisions, by whom, etc.
2. **Refine dashboard visuals and flow with key stakeholders**
3. **Integrate additional data sources (pending availability/interest) such as:**
   - Condom supply planning data (forecasting, procurement, and distribution)
   - Condom market trend data (funding and procurement data by donor, sector, and market player)
   - Condom use data (community level consumption by condom type, market research on user preferences, frequencies, etc.)
4. **Train users on dashboard visualization and analytics tools**
   - Provide additional technical assistance on dashboard creation

Annex

Details on Diagnosis Data Sources and Consolidated Beta Dashboard Use Case

Documents Reviewed

- Clinton Health Access Initiative (CHAI) RHSC Family Planning Market Report 2021
- Minutes from the December 2021, March 2022, and June 2022 Condom Sub-Committee Meetings
- National Multi-Sectoral Condom Strategy (2019-2023)
- National Condom Distribution Guide 2019
- RCHS Quantification Report for 2021
- SHOPS Plus Year 5 Annual Report and Final Report
- SHOPS Plus Pilot on Private Sector Pharmacies Reporting into DHIS 2: Final Report
- SHOPS Plus Tanzania Condom Market Research Brief
- TACAIDS Annual Report for 2021

Stakeholder consultations to inform systems mapping

Government of Tanzania

Government – National Level:

- TACAIDS – M&E Officer
- Ministry of Health-RCHS – FP Focal Point
- Ministry of Health-RCHS – Commodity Security Focal Point
- NACP Prevention Unit – Director
- NACP Prevention Unit – Program Officer
- MSD – Director of Logistics

District level (Kinondoni and Kigamboni):

- DACC
- CHACC
- HMIS Coordinator of Council Health Management Team (CHMT)

Compiled notes are available here: Link to Google doc

Private Sector (NGOs, SMOs, Commercial, IPs)

Social Marketing Organizations:

- Marie Stopes Tanzania – Director of Clinical Services, Marketing Manager, Quantification Manager
- T-MARC – Social Enterprise Director
- DKT – Regulatory Specialist
- PSI – Program Manager

Commercial Distributors and Retailers:

- JD Pharm – Marketing Manager
- Pharmacies and Retailers in Kigamboni and Kinondoni (n=10)

NGOs/CSOs:

- TAYOA (also offers a SM brand) – Program Manager
- NACOPHA – Chief Executive Officer
- ICAP – Program Manager

IPs:

- PATH (Digital Square) –Program Manager
- FHM Engage – Chief of Party and Market Shaping Consultant

Guiding Questions for Stakeholder Consultations (1 Of 2)

MARKET SYSTEM FUNCTION	GUIDING QUESTION
Leadership & Coordination	What policies/guidance exist on condom data sharing and use? What are the barriers to implementation, if any? What are the practices/norms around condom data sharing and use? What coordination mechanisms/platforms exist to support data sharing across systems? Please describe (who's involved, how are they organized, who is responsible for convening, how often?) Who leads? Who participates? Frequency of meeting/coordinating? What's working well? What change, if any would you like to see?

Guiding Questions for Stakeholder Consultations (2 of 2)

MARKET SYSTEM FUNCTION	GUIDING QUESTION
Data Availability, Accessibility, and Use	What condom data are accessible? (public, SM, commercial sector) Are data reliable? Of high quality? What major data systems (public and private) are currently used in Tanzania for condom reporting? How do these systems compare to one another? (owners, users, similarities, differences, sharing, etc.) What are the key indicators/types of data that each of these systems track? What data are desired but not available? What types of decisions would be made if desired data were accessible? For whom? What are the potential solutions/opportunities to increase data availability, accessibility, quality, and use? What data sharing agreements are in place, if any?

Beta Version Use Case for Dashboard to Improve Performance of the Condom Market in Tanzania

Users	Challenge Areas	Inputs	Outputs		Decisions/Insights
			Digital Tools	*Sample Indicators*	
Primary: TACAIDS + NACP + RCHS Committee *Secondary*: Funders, SMOs, Implementing Partners, Commercial Condom Suppliers	Lack of market analytics to guide understanding and inform investment decisions Lack of data insights/visibility to mitigate impacts of market disruption (e.g., unpredictable and erratic donor funding) Condom data fragmented across sectors Inadequate coordination of condom interventions across actors Supply disruptions and mismanagement (overstock and stockouts)	**Data Source 1:** *Description:* Inventory of condom distribution by zone. *Source*: Ministry of Health/RCHS and NACP *Type*: Excel Spreadsheet **Data Source 2:** *Description:* Data collection tool developed by the SHOPS Plus Project and the Pharmaceutical Society of Tanzania (PST) *Source*: Multiple *Type*: Excel Spreadsheets **Data Source 3:** *Description:* Data collection tool developed by TACAIDs to bring together supply chain data from public and private partners *Source:* Multiple *Type*: Excel Spreadsheet **Data Source 4:** *Description*: Social marketing annual sales data *Source:* DKT Contraceptive Marketing Statistics *Type*: Excel Spreadsheet	Dashboard displaying trends in condom sales, distribution, and supply by sector and program (over time). Advance Query Data Analytics tool that allows key users to develop custom visualizations that triangulate public and private condom sales, distribution, and stock data.	Trends in condom sales and distribution (by sector) Trends in condom market share (by market player) Trends in public sector condom distributed (annual) Trends in SM condom sales (by NGO) Trends in commercial condom sales (annually and by wholesaler) Overview of condom supply both on hand and incoming (by sector, program, wholesaler, and NGO)	Enhance and align understanding on total market situation Develop/refine metrics to assess condom market performance Operationalize strategies for targeting free and SM condoms Adjust demand forecast and procurement decisions

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Monitoring, Evaluation, and Adaptive Learning Team (Systems map)

Market Intelligence Team (Dashboard)