
GLOBAL
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Immunization Supply Chain (iSC) System Design Concept Introduction as entry point for advocating for integration

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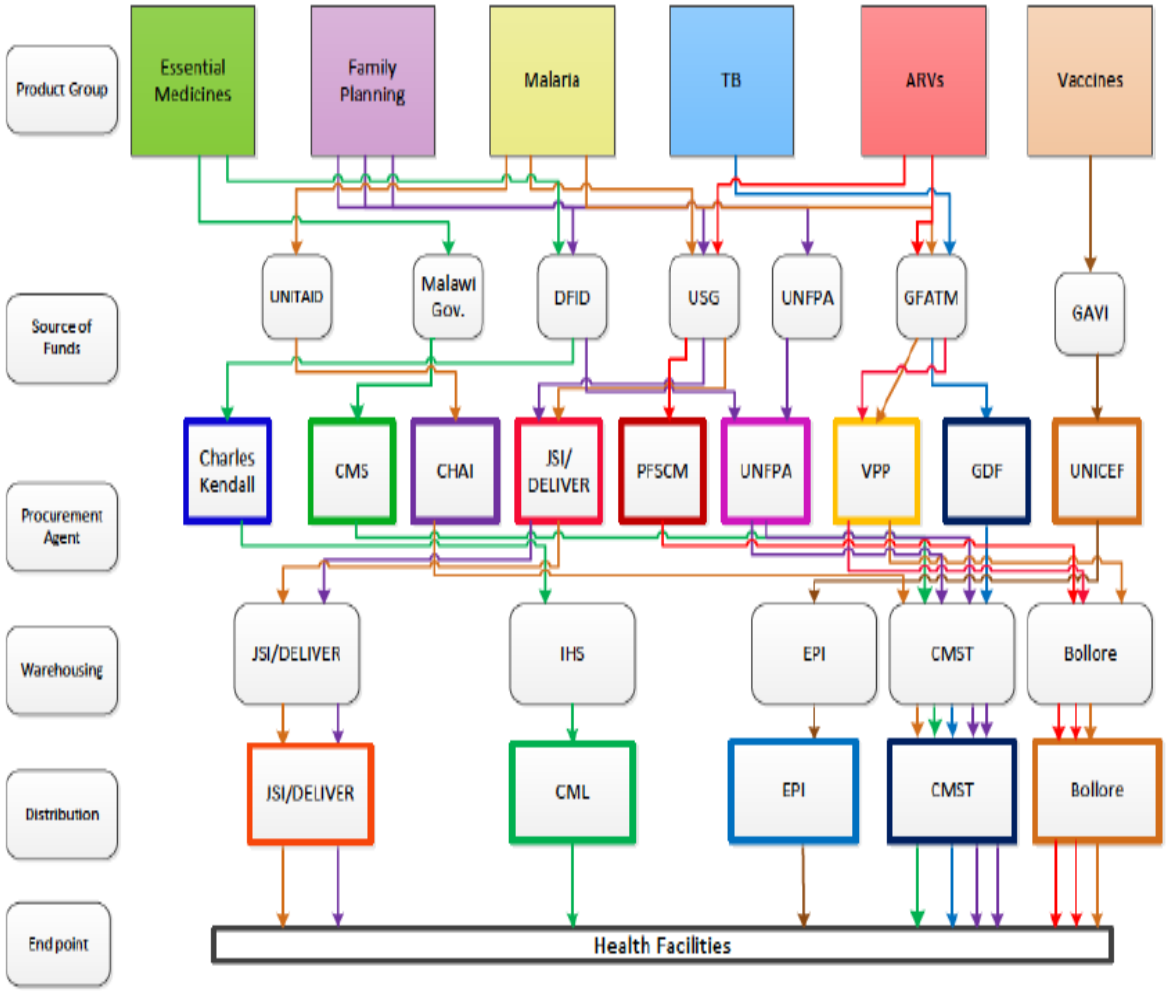
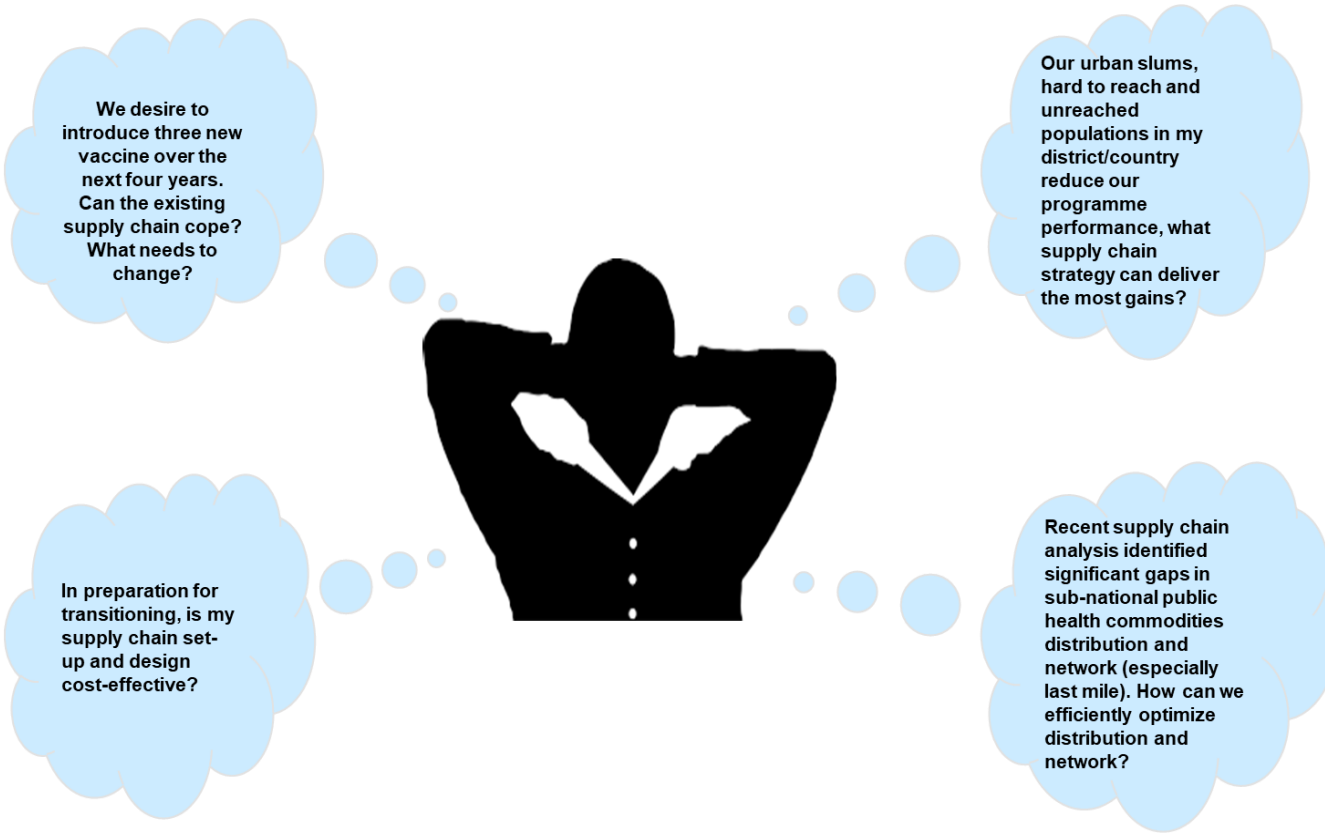
Typical In-country Supply chains: Opportunity for efficiency gains?



- **Incomprehensive**: Doesn't include all health products e.g. Nutrition
- **Duplicative**: Multiple parallel products and information systems transmission
- **Donor-dependent**: Many agendas, few inter-dependencies
- **Not sustainable**: Multiple funding, short-term fixes
- **Inefficient national systems**
- **Strained human resource capacity**
- **Inefficient:** Waste
- **Ineffective**: Sub-optimal performance

What is system design?

a process which **creates the plan, or blueprint**, for **how the public health commodities supply chain should run**, including how all of the **components of the supply chain system** (program requirements, distribution network, storage, human resources, equipment, planning, monitoring, and data) **fit together and interact**.



Often, the "System's Design" is the barrier to performance improvement…

Bottlenecks to integration of Immunisation supply chain

PRODUCTS CHARACTERISTICS

Vaccines unlike most other public health commodities are required to be kept under strict temperature conditions.

MULTIPLE ACCOUNTABILITIES

The public health commodities supply chain landscape (including immunization) is fragmented around multiple donor investments and accountabilities.

LACK OF EVIDENCE AND STRUCTURED GUIDANCE

Government stakeholders often do not possess the required evidence or structured guidance to implementing integration of EPI commodities.

LOW STAKEHOLDER INTEREST

Long years of implementation through parallel supply chains, anxieties to change and misguided evidence limits stakeholder interest.

Issue: Promote Evidence-based decision making for integration

LACK OF EVIDENCE AND STRUCTURED GUIDANCE

World Health Organization | unicef

WHO/UNICEF JOINT STATEMENT

Temperature-sensitive health products in the Expanded Programme on Immunization cold chain

WHO and UNICEF joint statement encouraging greater health commodity supply chain convergence for temperature-sensitive pharmaceuticals where appropriate.

The World Health Organization (WHO) and United Nations Children's Fund (UNICEF) reiterate the value of safe, feasible, and cost-effective integration of temperature-sensitive health products into Expanded Programme on Immunization (EPI) health supply chains. Past policies from both organizations have allowed the possibility of converging supply chains. **This statement provides further clarity by explicitly allowing convergence if feasible, cost-effective, and safe. This joint statement also supports the United Nations (UN) Commission on Life-Saving Commodities for Women and Children.** To that end, WHO and UNICEF:

1. Reiterate that safe, properly organized integration of temperature-sensitive pharmaceuticals is allowed when feasible and cost-effective.
2. Call on countries and partners to integrate temperature-sensitive pharmaceutical products into the vaccine cold chain where safe and feasible and to document integration experiences as evidence for future policies and guidance.
3. Recommend universal adoption of best storage and labeling practices as a precondition to integration to clearly distinguish non-vaccine products from vaccines and diluents.

OVERVIEW

Many pharmaceuticals must be kept in controlled temperatures to maintain potency during transport and storage. Challenges in maintaining this cold chain can damage or diminish access to lifesaving drugs. To ensure high-quality care, health systems must find ways to ensure that heat-sensitive drugs are managed within a temperature-controlled supply chain from manufacture, through procurement and internal logistic systems, to the point of use.

In fragile health care systems, such as those in developing countries, vaccine immunization programs often have the best, or only available, refrigerated cold-chain systems. Integrating other heat-sensitive health products into these systems can improve transport and storage, increasing access and saving lives. **WHO and UNICEF confirm that it is permissible to transport and store drugs in the vaccine cold chain, provided that best storage and labeling practices are adhered to at all times to clearly distinguish non-vaccine products from vaccines and diluents.**

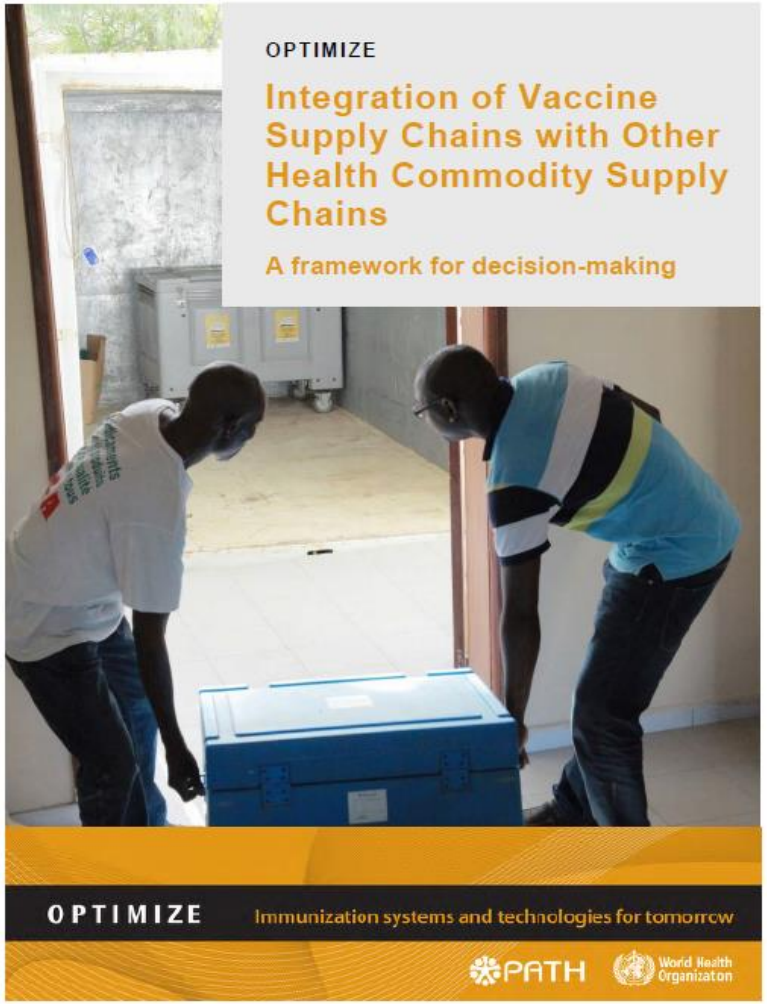
BACKGROUND

When the global Expanded Programme on Immunization was launched 40 years ago, it focused on six childhood vaccines. Some of these vaccines had to be kept cold (2°C–8°C/35°C–46°F), making them one of only a handful of essential commodities that required a specific cold supply chain. Subsequently, the Universal Child Immunization initiative, launched by UNICEF in the 1980s, initiated a sharp increase in country-level cold chain systems, which quickly became the backbone of national immunization programs. During the same decade, WHO, recognizing the importance of EPI and cold-chain best practice, disseminated early guidelines on cold-chain logistics.[1] Although not specifically focused on integration, these materials broadly supported the possibility that other temperature-sensitive health products might be stored in the vaccine cold chain.

Best practices evolved over time suggesting that vaccine cold chains managed by the EPI should be used exclusively for vaccines. This is partly because until recently, vaccines were the main essential health product that required cold chain transport in most developing countries. In addition, the EPI continues to operate largely independently from other health commodity supply chains. **Nevertheless, integration, if feasible and accomplished safely and efficiently, remains permissible.**

WHAT THE GUIDANCE SAYS

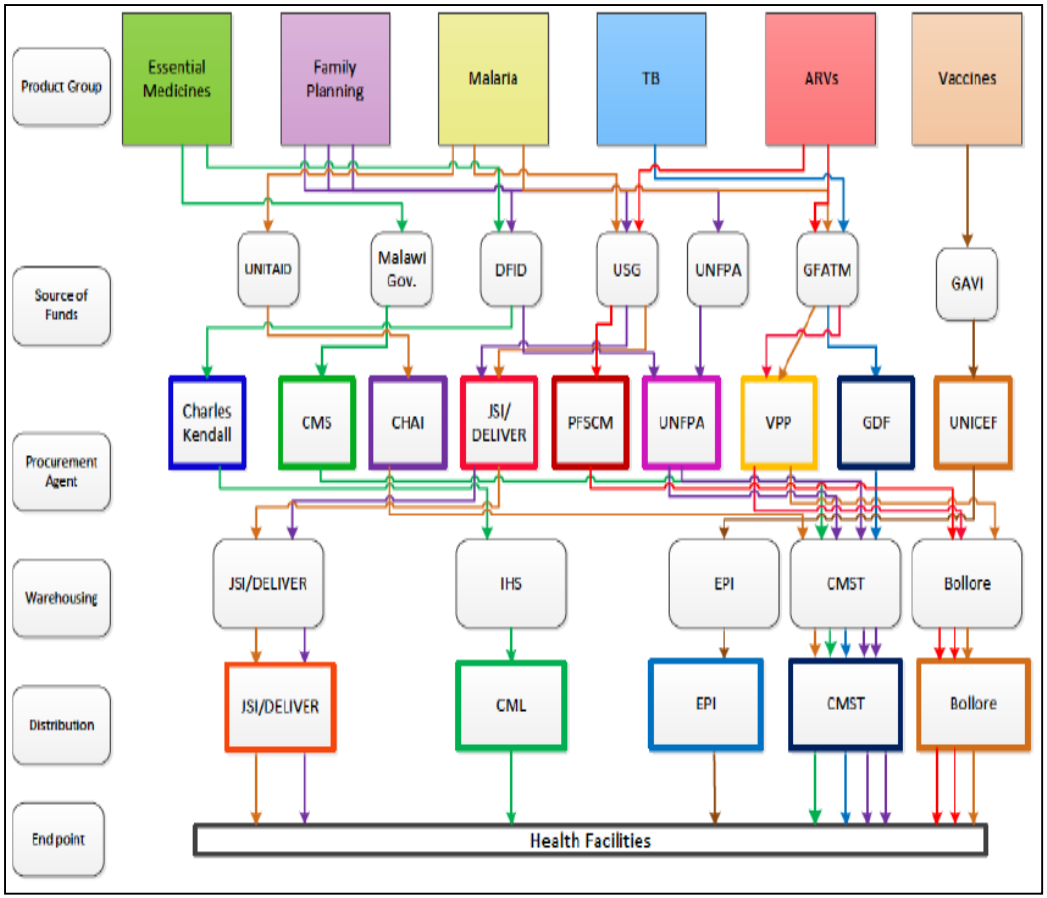
As noted, WHO and UNICEF guidance materials have included broad language suggesting that, if key provisions are met, other products may be safely stored in the vaccine cold chain. These provisions include: (1) maintaining good storage practices and (2) clear labeling and separation of non-vaccine products from vaccines and diluents at all times. For instance, the WHO 2014 Immunization in Practice manual states that "[if



Issue: Address multiple accountabilities

MULTIPLE ACCOUNTABILITIES

- From donor supply chains to **country supply chains**
- Needs-based and **contextual**
- Depends on measures of programmatic and supply chain **performance** (why integrate?)



Response: Using iSC System Design Concept Introduction as an entry point for integration advocacy

LOW STAKEHOLDER INTEREST

FACILITATION

Sessions during system design introduction meetings where country stakeholders map their supply chains and review supply chain functions by Potential for Integration or No Integration

ANALYSIS AND IMPLEMENTATION

Integration scenarios that country stakeholders define are analyzed as part of broader supply chain system design analysis

CASE STUDIES, CONCEPTS

Use of both evidence, theoretical concepts and case studies, present different aspects of public health commodities supply chain pipeline and potentials for integration

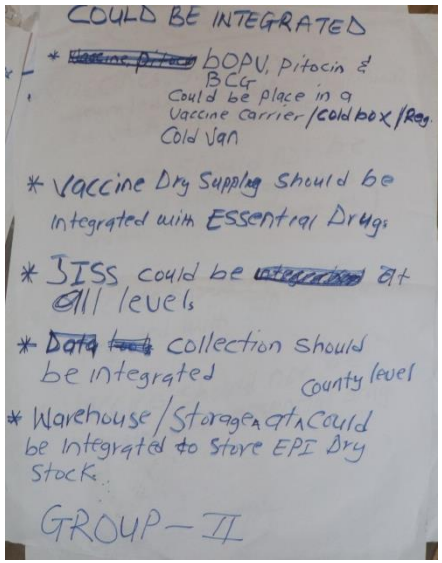
INTEGRATION SCENARIOS

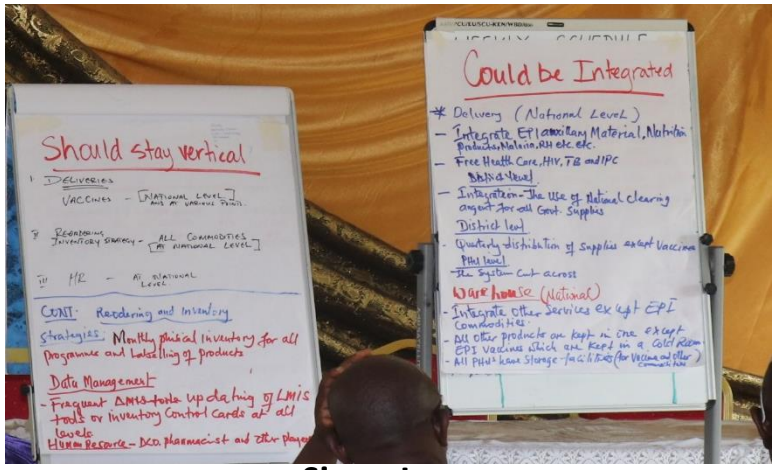
Country stakeholders define concrete potential integration scenarios to analyze

Multi-country engagements: Using evidence to advocate for Integration

LOW STAKEHOLDER INTEREST

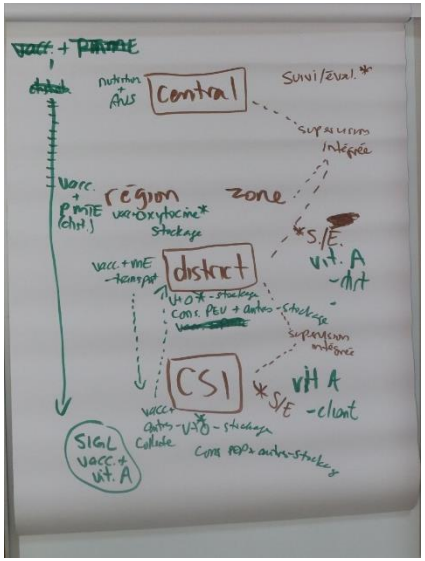
Liberia





Sierra Leone

Niger



Gambia

SC Functions that Could/Not to Be Integrated and scenarios for analysis- *Liberia*

LOW STAKEHOLDER INTEREST | **PRODUCTS CHARACTERISTICS**

COULD BE INTEGRATED

- Storage- product specific
- Data collection at lower levels
- Distribution- product specific
- Dry goods with essential drugs
- Supervision (as appropriate)
- Campaigns

NOT TO BE INTEGRATED

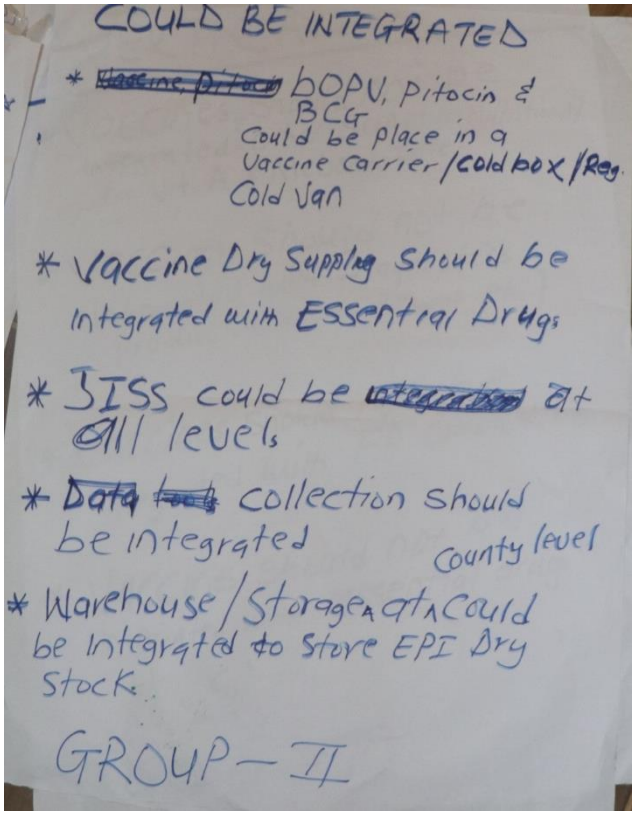
- Dissimilar products

SCENARIOS ANALYZED

- Integration (storage and distribution) of Oxytocin and Mebendazole with vaccines

NEXT STEPS (Analysis)

Q1, 2019



SC Functions that Could/Not to Be Integrated and scenarios for analysis- *Niger*

LOW STAKEHOLDER INTEREST | **PRODUCTS CHARACTERISTICS**

COULD BE INTEGRATED

- Forecasting
- Budgeting and planning
- Use by customers
- Monitoring and evaluation
- Distribution- product specific
- Storage- product specific

NOT TO BE INTEGRATED

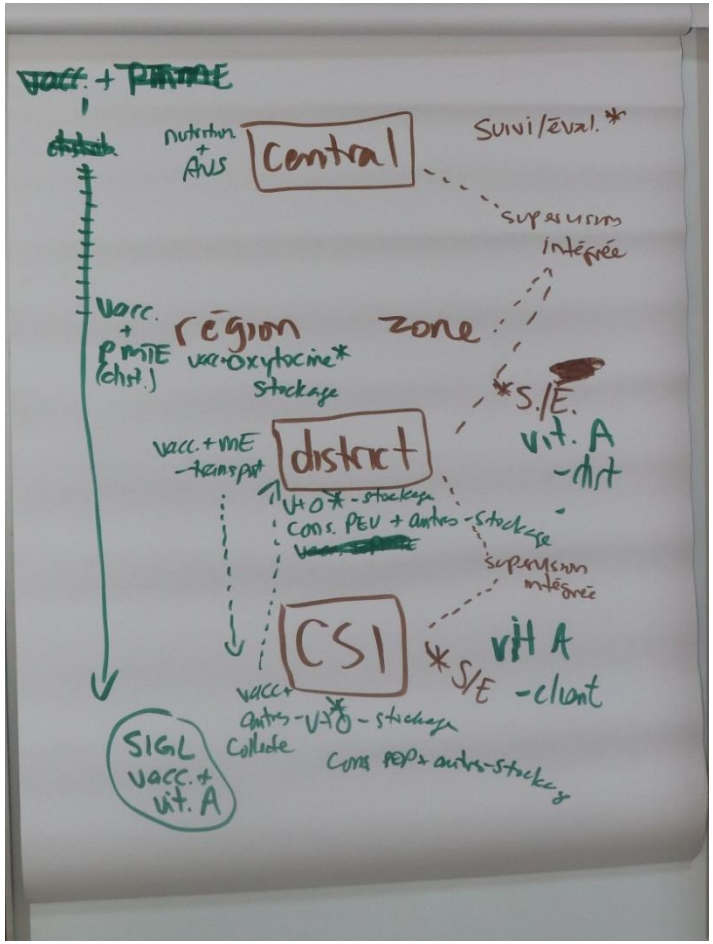
- Ordering/re-supply
- Delivery and customs clearance
- Quality control

SCENARIOS FOR ANALSIS

- Integration of Oxytocin and MCH reagents with vaccines
- Integration of other commodities with dry EPI goods

NEXT STEPS (Analysis)

Q1, 2019



SC Functions that Could/Not to Be Integrated and scenarios for analysis- *Sierra Leone*

LOW STAKEHOLDER INTEREST | **PRODUCTS CHARACTERISTICS**

COULD BE INTEGRATED

- Distribution- product specific
- Warehousing- product specific (e.g. temperature characteristics)
- Data collection and reporting
- Re-ordering and Inventory

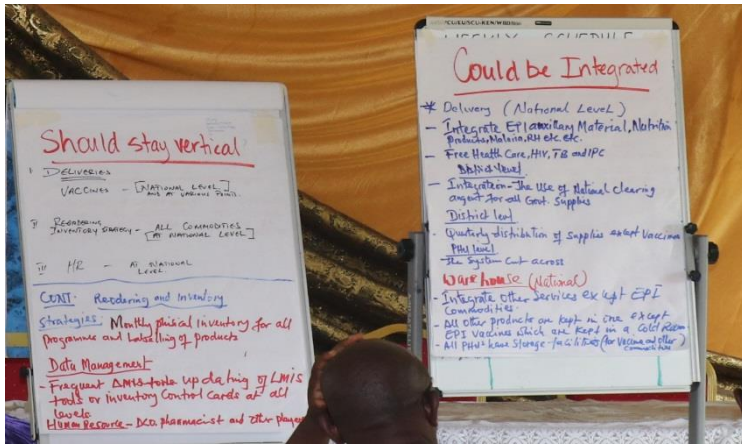
NOT TO BE INTEGRATED

- Human Resources
- Shipments from manufacturers

SCENARIOS ANALYZED

- Integration of warehouse of vaccine distribution with temperature sensitive health commodities
- Integration of storage and distribution of dry goods of immunization auxiliary products and free health care products

NEXT STEPS (Analysis)
Q1, 2019



SC Functions that Could/Not to Be Integrated and scenarios for analysis- *Gambia*

LOW STAKEHOLDER INTEREST | **PRODUCTS CHARACTERISTICS**

COULD BE INTEGRATED

- Distribution- product specific
- Warehousing- product specific (e.g. temperature characteristics)
- Data collection and reporting
- Forecasting

NOT TO BE INTEGRATED

- Customs clearance

SCENARIOS ANALYZED

- Integration of VitA and Mebendazole with iSC
- Integration of storage and distribution Oxytocin and other temperature sensitive products with vaccines
- Integration of dry EPI commodities with other public health commodities supply chain

NEXT STEPS (Post-Analysis)

Q1, 2019

Conclusions

1. System Design approach is a valuable entry point to address integration

2. Subnational input improves commitment, buy-in, and support

3. Country-driven needs, not global priorities

4. Do not fear the question of integration, but be able to define success (performance, adoption, etc.)

5. More evidence is needed!

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