SC4CCM

Supply Chains 4 Community Case Management

Characteristics of Pediatric Medicines: The Supply Chain Perspective

JSI SC4CCM Project

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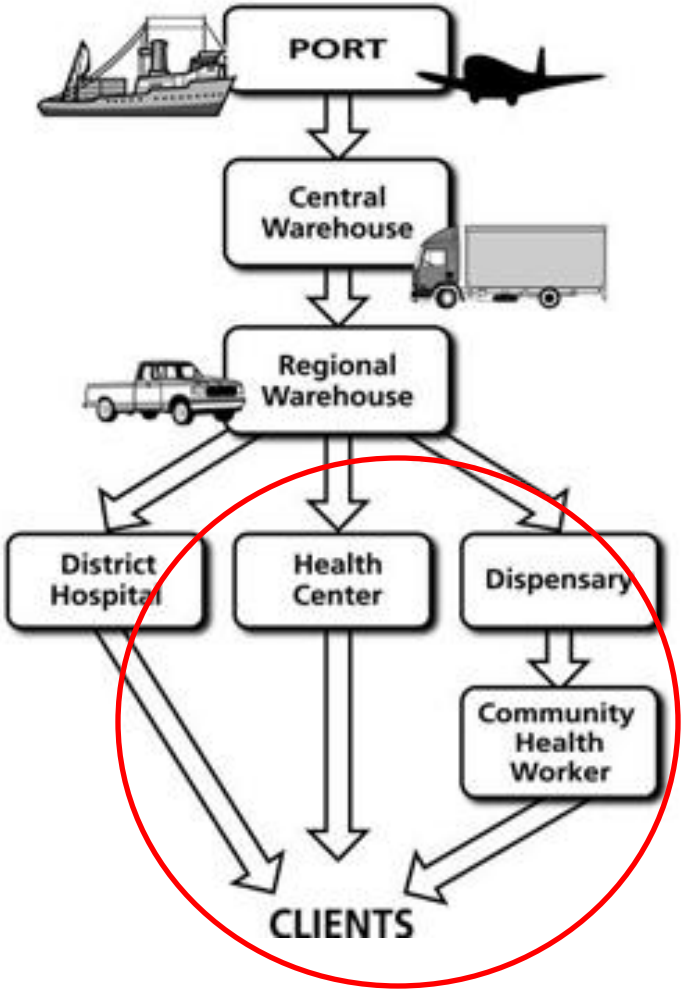
The Supply Chain: Key Messages

- Products need to be selected with the full supply chain and end user in mind
- Community based treatment adds additional layers to the supply chain – often requires different characteristics than products used at hospitals and health facilities
- Local conditions and volumes of use by CHWs need to be taken into consideration to product specifications and design



Community Case Management Context

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Community Health Workers are the last kilometer in health system distribution: moving treatment to the community level

- CHWs bring treatment to the community → improved access to treatment of common childhood illnesses and improvements in child health and survival
- Community health workers are reaching children in the most hard to reach areas in a wide variety of geographic settings and with a wide variety of products
  - Ethiopia – 30,000+ HEWs managing up to 25+ products
  - Malawi – 3,000 + HSAs managing up to 19 products
  - Rwanda – 35,000+ CHWs managing 5-8 products (~ 2/3 doing CCM)

Supply Chain Considerations

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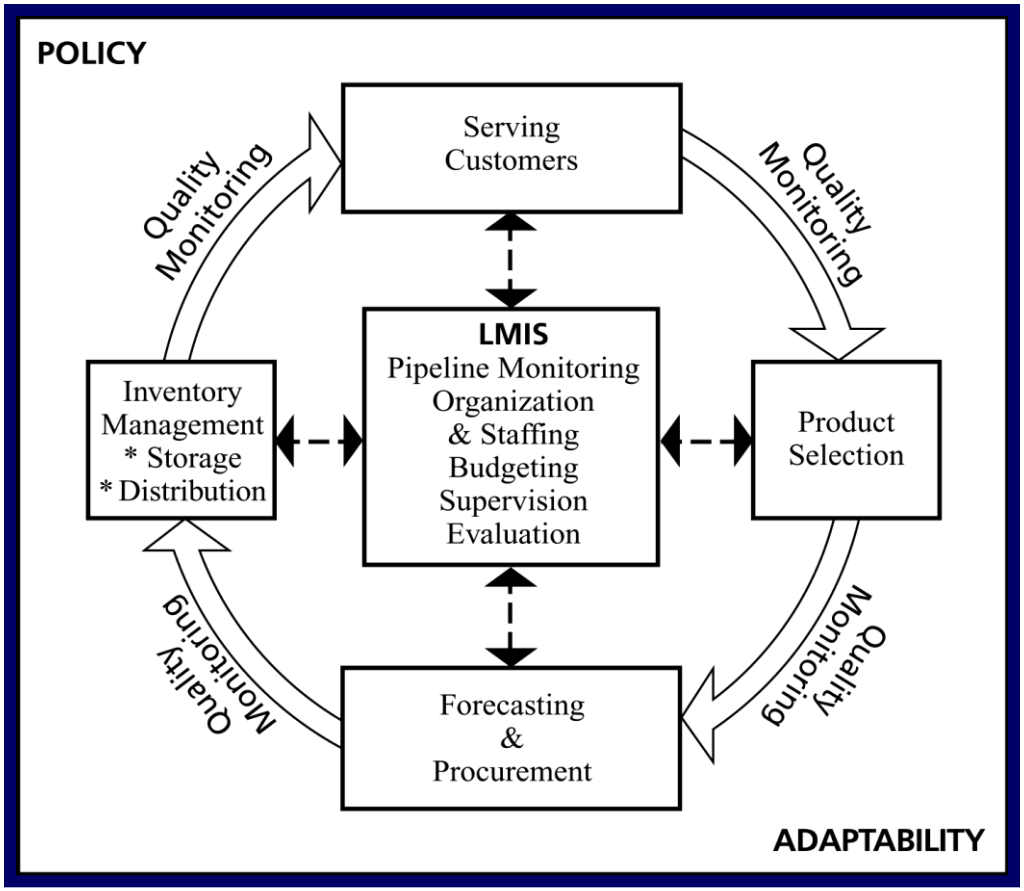
CCM creates unique considerations for products

- Remote locations:
  - transit to resupply points can be long
- Use of non-motorized means to move products from resupply point to CHW:
  - such as bikes, foot, donkeys to transport products – heat and space considerations
- Lack of infrastructure:
  - limited storage space and products exposed to sunlight, heat, rain, etc. during transport and community use
  - environment is unclean for repackaging

Products need to be pediatric- and caregiver- friendly and appropriate for both the supply chain and management by the CHW

The Logistics Cycle



Product Selection

- Children and caregivers have a preference for liquids but syrups and suspensions are bulky to transport, store, and manage
  - Select high quality (stable) dispersible products when available
- Consider pack sizes and types appropriate for the setting (storage, protection from the elements, transportation means)
- Consider monthly volume of need when selecting pack size
  - i.e. if CHW only sees 50 children per month and 20 cases of pneumonia, bottles of 1000 tablets may lead to unnecessary wastage or contamination over time

Product Distribution

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- Product size must be appropriate and acceptable throughout the supply chain
  - International (freight costs, product protection)
  - In-country to resupply point
  - Resupply point to CHW (often non-motorized)
  - Distribution from CHW to patients and caregivers (health posts, backpacks, drug boxes)
  - Patients to home (pill bags, paper, etc.)
- Packaging that minimizes bulk (less air)
- Packaging must protect products from the elements and damage – both as CHWs distribute them and as patients take them home

Product Storage and Packaging

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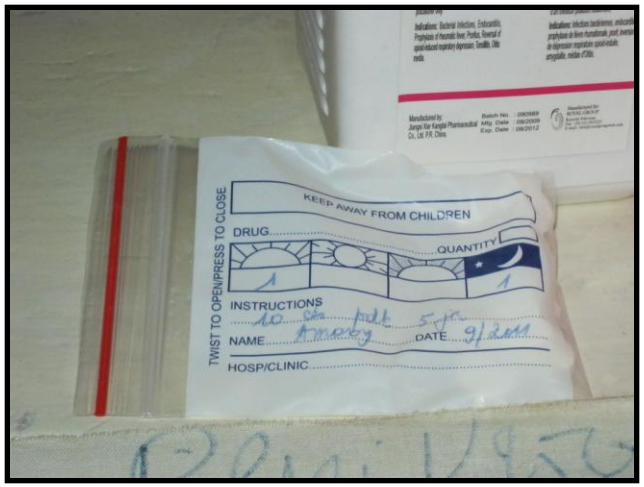

- Products must be appropriate for the types of storage facilities that CHWs have
  - Reduce the number of large bottles of tablets that, after opening, are less protected
  - Space efficient while not compromising protection and information (reducing unnecessary volume/air)
- Presentations that are easily given/explained to caregivers
- Blister packs/strips when possible
  - If CHWs have to repackage loose tablets there is a risk of:
    - contamination as CHW may handle the tablets in the process
    - important information will not be written on new packaging, e.g. expiry date, clear instructions for caregivers
    - the new packaging may not protect product from high heat and moisture (esp. dispersible)

Inventory Management

- CHWs prefer products that are easier to dispense/track (i.e. Coartem) – no counting of tablets, splitting

- Consider the balance between lower dosage tabs, more tablets vs. higher dosage and splitting tablets for smaller children
  - Can the supply chain manage additional SKUs?
  - Volumes at the CHW?
  - Acceptability of product?

- Consider the pros/cons of using substitutable vs. unique products
  - In Ethiopia: Cotrim 120mg only at the community level
  - In Rwanda: Primo only at community level / Coartem at other levels

Serve Clients - Patient Acceptability

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- Moving demand from health facilities to CHWs – demand creation via the availability of compelling, effective products at community level
- More user-friendly packaging – colorful, pictorial labels
- Improved flavor, taste, and ease of use (dispersible tablets)

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Recommendations

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- Products should be packaged appropriately for CCM settings
  - Heat and moisture stable
  - Protected from heat, sunlight, moisture, crushing
- Products must be a formulation that is both pediatric- and supply chain-friendly
  - Dispersible if possible
  - Taste-masked to make appealing to children and caregivers
- Products must come in appropriate strengths and pack sizes to meet the needs of CHWs, caregivers, and children in the community
  - Packed for easy dispensing and inventory management – course of treatment or blister strips
  - Age appropriate strengths to avoid tablet splitting
  - Packaged with information and pictures for caregivers to remember instructions for administration
- Consider strength of supply chain in decision to introduce multiple products vs. ability of one product to meet multiple age groups' needs