

Technology Enablers in Aid Delivery – Last Mile

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Last mile challenges

- Infrastructure is often poor or non-existent and is impacting items availability.
- Available resources do not meet beneficiary needs and require prioritization.
- Accounting for distributed items, reconciliation of distribution records and distribution reporting is often cumbersome, time consuming and error-prone paper-based process.
- There is need for auditable end-to-end documenting and tracking of commodities status from sourcing to the end use to ensure accountability and to optimize resources.
- Internal and external coordination and information sharing among actors required to avoid gaps and duplications.
- Distribution is fraud risk prone and therefore its is a large accountability area for every humanitarian organization.
- Paramount is to set up an effective, interoperable information management and distribution tracking system.

Items availability barriers

- **Infrastructure constraints** (e.g., inadequate roads and other transport infrastructure, power availability, adequate warehousing etc.)
- **Lack of financial resources** (necessary investments to reach rural, remote communities)
- **People** (e.g., lack of necessary competencies and accountability), and
- **Lack of effective processes** (e.g., existence and implementation of appropriate Guidelines and Standard Operating Procedures)

Items quality and suitability for intended use

- **Planned items acquisition to meet specific needs of beneficiaries** including health, safety and well-being, dignity, dietary habits, cultural values, the environment, and the context.
- **Appropriate quality items selection for higher effectiveness of the assistance.**
- **Pharmaceuticals dispensing must be aligned with applicable treatment protocols.**
- **Pharmaceuticals and other health commodities must come from sources that adhere to Quality Assurance standards, including Good Manufacturing Practice, Good Storage Practice and Good Distribution Practice.**
- **Local alternatives to be considered (without dominating market), as it enables more time effective and often more cost-effective reach to population in need.**
- **Standardized items list prepared in advance prevents suitability related issues.**
- **Proper selection of commodities for distribution, maintaining product quality throughout supply chain, including last mile distribution reduces potential for harm to beneficiaries.**

Beneficiary registration

- **Proper, well managed beneficiary register helps determine item quantity required for distribution, identify duplication of services and service gaps.**
- **Eligible beneficiaries' registration is important.** People in need may not receive required assistance allocation while distribution may benefit people who are not eligible for distribution.
- **For pharmaceuticals, issuance to patient is prescription based.**
- **When no other data available, number of beneficiaries combined with other factors impacts planning of required resources for distribution and related items quantification process.**
- **How to capturing new, eligible beneficiaries?**

Items misuse prevention

Commodity distributions may cause, or be associated with, number of risks.

- Adequate prioritization and beneficiary selection coupled with distribution monitoring and control may help prevent items misuse or for items to be sold commercially.
- Reverse logistics or appropriate destruction of expired or damaged items prevent abuse.
- Accurate reporting can revile outlayers that may indicate potential irregularities and abuse to be investigated.

Loss and Waste Prevention and Reduction

- **Accurate records help to identify short shelf-life items to enable timely utilization.**
- **Improved visibility throughout supply chain allows timely corrective actions.**
- **Visibility of available balances for distribution can help realign surplus items that can't be consumed at site to locations where they are in shortage.**
- **Targeted acquisition planning can prevent overstocking and understocking.**

Accurate distribution documenting and reporting

- Enables reconciliation of received vs. distributed goods vs. remaining stock balances still available for distribution.
- Inform on consumption patterns for future distribution planning, timetable, and replenishment cycles.
- Enables rationalization and optimization.
- Provides assurance to stakeholders' distribution is carried in accountable and transparent manner.
- Demonstrates high level of compliance and transparency.
- Ensures end-to-end audit trail.

Questions to answer

1. **What is the role of technology in the last mile of supply chain, particularly in the remote locations in developing countries with power and internet availability challenges?**
2. **What consideration technology solutions should include to offer meaningful visibility into last mile activities for various stakeholders?**
3. **How can we increase collaboration, cooperation and information sharing between agencies by using technology?**



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