Technology Enablers in Aid Delivery – Last Mile
Last mile challenges

- Infrastructure is often poor or non-existant 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 avoids 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 outliers 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?