



Inventory Management for Health Supplies in Humanitarian Settings

By adjusting safety stock and redistributing health supplies, the International Medical Corps reduced inventory imbalances in the Lebanese National Primary Healthcare Network.

When managing health supplies during crises, it is essential to have an inventory strategy in place. Ideally, this is developed during the preparedness phase of a humanitarian response, with the expectation that adaptations are likely during the acute phase. In addition to a strategy, inventory management involves planning, selecting, and monitoring inventory control systems and policies.¹ This brief focuses on inventory control practices that International Medical Corps (IMC) uses to help reduce inventory imbalances (both stock outs and excess stocks) in the Lebanese National Primary Healthcare Network.

BACKGROUND

A small country of over 6 million people, Lebanon now hosts 1.5 million Syrian refugees and an estimated 250,000 to 400,000 Palestinians. IMC started operating in Lebanon in 2006 and increased its programming in 2011 to meet the essential medical and mental health needs of Syrian refugees in this protracted crisis setting. Serving both refugees and local communities, IMC supports 55 of the country's 292 primary health care centers (PHCCs). With funding from USAID's Bureau for Humanitarian Assistance (BHA), IMC fills gaps in health services and shortfalls in donations of acute and chronic medications, medical supplies and equipment, and personal protective equipment.

PRACTICE

In Lebanon, IMC coordinates with the Ministry of Public Health (MOPH) to manage pharmaceutical inventories and store IMC donations at MOPH's central drug warehouse. To improve inventory management at PHCCs, IMC area pharmacists conduct monitoring visits to train staff on how to calculate and review commodity needs for a specific timeframe and area. An important practice for managing stock imbalances in emergency settings is adjusting the amount of safety stock. For instance, in 2021 and 2022, when the economic crisis intensified due to COVID-19, patient visits and consumption were unpredictable. IMC suggested that PHCCs protect themselves from stock outs by temporarily increasing safety stock quantities from 20 to 50 percent. With MOPH approval, the PHCCs did so and IMC helped staff monitor and redistribute overstock to nearby PHCCs, rather than returning it to the central drug warehouse. Moving products directly to where they were needed reduced transportation costs, stockouts, overstock, and waste. IMC developed a tool to help the PHCCs monitor and track overstock and transfer products to other PHCCs. Figure 1 summarizes overstock for September 2022 to May 2023,

¹ Inventory control systems help supply chain managers and storekeepers ascertain when and how many products to order and issue, and how to maintain an appropriate stock level of products to avoid shortages and oversupply in distribution centers and stores.



Photo: IMC

As manager for medical commodities at IMC in Lebanon, Jad Salame oversees IMC's support of PHCCs including inventory management.

Location: Lebanon

Organization: International Medical Corps

Setting: Refugees settled within host communities

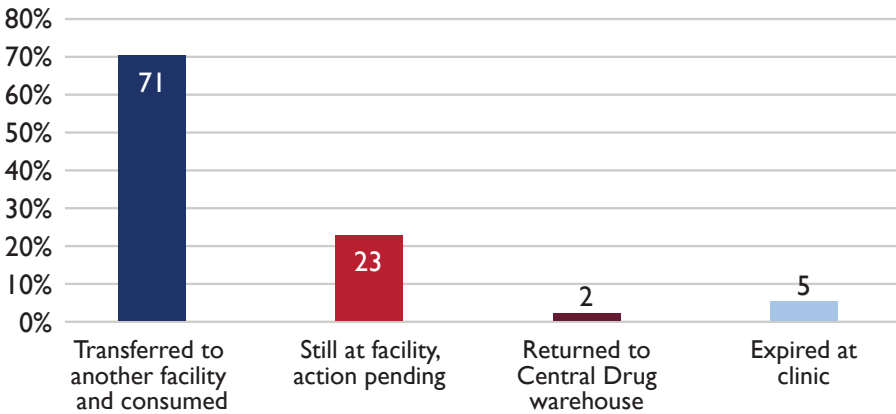
SCM area: Inventory strategy

HR cadres: Supply chain managers, pharmacy managers, warehouse managers

This series of learning briefs focuses on health supply chain practices that can be implemented by humanitarian partners to resolve common challenges and improve the delivery of pharmaceutical and medical commodities.

demonstrating that the majority of products was transferred to nearby facilities. This inventory adaptation was coordinated with the MOPH, with agreement that all product transfers outside the central drug warehouse be logged in the health information system. This allows the MOPH to track all transfer data and reinforces transparency, while enabling PHCCs to transfer excess stock quickly among themselves, saving time and transportation costs. This practice benefits all involved.

Figure 1. Status of Overstock in IMC-supported Facilities, Sept. 2022–May 2023



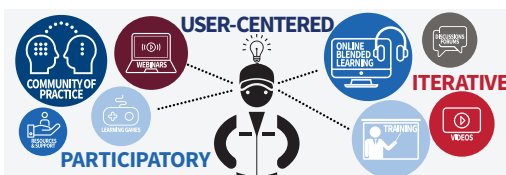
Source: IMC key performance indicators of supported facilities.

Key Lessons Learned

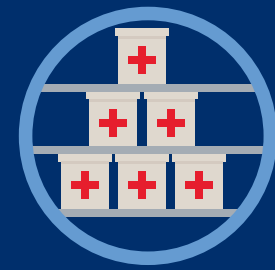
- **Coordination and frequent communication** about inventory management among PHCCs, MOPH, and IMC facilitates identification of challenges and joint solutions for managing inventory imbalances effectively.
- **Carefully monitoring and redistributing excess stock** to nearby PHCCs reduces excess stock and provides a faster route for getting supplies to those who need it.
- In times of crisis, flexibility to **adjust maximum-minimum stock levels** reduces stockouts and overstock.
- **Training supply chain staff** at all levels regularly is essential for improving skills to calculate stock and monitor stockouts and overstock.

By managing inventory in close coordination with the MOPH and the Lebanese National Primary Healthcare Network, IMC helped to reduce stockouts and excess stock in a protracted crisis setting in which refugees rely on services supported by the MOPH, nongovernmental organizations, and humanitarian actors. The training provided by IMC also contributed to system strengthening by building local supply chain management capacity. USAID's BHA contributed to this work under the project *Improving access to integrated life-saving health, mental health and psychosocial support, and protection services, and provision of COVID-19 home-based care for vulnerable Lebanese and other vulnerable populations in Lebanon*. The project included capacity building and monitoring of pharmaceuticals inventory management in supported MOPH facilities.

Building Capacity to Improve Pharmaceutical and Medical Commodity Management in Humanitarian and Disaster Settings Project



The Building Capacity to Improve Pharmaceutical and Medical Commodity Management in Humanitarian and Disaster Settings Project improves the capacity of people who manage health supply chains in humanitarian settings. It helps staff from international organizations and local NGOs to manage pharmaceutical and medical commodities by equipping them with training, guidance, resources, and follow-up support. JSI manages the project, which is funded by USAID's Bureau for Humanitarian Assistance.



PRACTICE AREA ESSENTIALS

Inventory strategy

A cohesive inventory strategy defines policies on which products to hold, how much to hold, and where to hold them. It also ensures that inventory management decisions are documented and applied consistently.

The supply chain manager needs to know:

- The purpose of holding inventory
- The relationship and trade-offs among inventory policies
- The range of inventory control systems to select from and their applicability to a particular situation
- Measures for monitoring inventory strategy effectiveness and efficiency

[Learn more about inventory management.](#)

[Access the full version of the Supply Chain Manager's Handbook.](#)