



CHW PPE effort in Liberia - lessons learned about trying to get visibility and data use during a crisis

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Shaping a resilient and adaptive immunization program



Agenda

1. Arming Community Health Workers for Battle
2. Supply Chain Logistics Tools for PPE Procurement
3. Lessons Learned



ARMING COMMUNITY HEALTH WORKERS FOR BATTLE



Role of Community Health Workers

The role of Community Health Workers (CHWs) is critical in mitigating the spread and impact of COVID-19:

- At the last mile, they are often the **first point of contact** that communities have to health care
- They are particularly well-placed to build on the **foundations of trust** they have already established
- They can communicate and implement new and rapidly evolving **community-level response measures**
- They can contribute to **community sensitization** for **COVID-19 vaccine campaigns**

But to do this, they must be protected



Problem

Worldwide shortages of personal protective equipment (PPE) have led to increased COVID-19 infections amongst health workers

Why are CHWs at risk?

CHWs are more likely to bear the brunt of the shortage because they are often deprioritized to receive supplies as the allocation of scarce resources go to facility-based health workers and hospitals



SUPPLY CHAIN LOGISTICS TOOLS FOR PPE PROCUREMENT





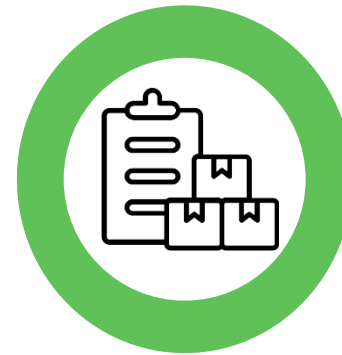
PPE Logistics Situation in Liberia

- There were efforts during the 2014 Ebola crisis to track PPE, but none of them were adopted into the national system once the crisis ended
 - ⊗ Most PPEs are not a part of the National Logistics Management Information System (LMIS)
 - ⊗ No processes or standards in place to collect PPE information
- Most of the PPE stock balances that did exist in the country were left over from the Ebola response
 - ⊗ Concern of quality due to expiry and poor storage conditions

How can we get PPE to any frontline worker who needs it in Liberia?



Forecasting Tool



Inventory Dashboard

Create data-driven procurement processes



Forecasting Tool



QUANTIFICATION AND FORECASTING OF PPEs FOR COVID-19 OUTBREAK																
S#	Items Description	Unit	Set	Purpose	Formula	PPE Conservation factor*	No. of PPE/patient served/day	Estimated events or (days of care) in 3 months (12 weeks, 84 days)** *** *****	Need (Y/N)	Qty Q1	Qty Q2	Qty Q3	25% Buffer	Quantity req. Including 25% Buffer	40% Buffer	Quantity req. Including 40% Buffer
	Disposable surgical masks	single	A	PPE for Home Isolation	No. of PPE needed to serve one patient MULTIPLIED BY number of patient-days in isolation served in 12 weeks DIVIDED BY the PPE conservation factor	7	2	630000	Y	180,000	180,000	180,000	45,000	225,000	72,000	252,000
	Disposable gloves	pair				1	1	630000	Y	630,000	630,000	630,000	157,500	787,500	252,000	882,000
	Apron	single				21	1	630000	N	30,000	7,500	37,500	12,000	42,000		
	Disposable surgical masks	single		PPE for Contact Tracing	No. of PPE needed to serve one patient MULTIPLIED BY number of patient days of contact tracing in 12 weeks DIVIDED BY the PPE conservation factor	14	1	2100000	N	150,000			37,500	187,500	60,000	210,000
	N95 vs. surgical masks (based on type c	single		PPE for testing (Sample collection)	No. of PPE needed to collect a sample from one patient MULTIPLIED BY the number of tests expected in 12 weeks DIVIDED BY the PPE conservation factor	10	1	30000	N	3,000			750	3,750	1,200	4,200
	Disposable gowns	single	10			1	30000	N	3,000	750	3,750	1,200	4,200			
	Disposable gloves	pair	1			1	30000	N	30,000	7,500	37,500	12,000	42,000			
	Eye Protection (google or faceshield)	single		PPE for Transport	No. of PPE needed to transport one patient MULTIPLIED BY the number of transports expected in 12 weeks DIVIDED BY the PPE conservation factor	10	1	30000	N	3,000			750	3,750	1,200	4,200
	Disposable surgical masks	single	1			1	6000	N	6,000	1,500	7,500	2,400	8,400			
	Disposable gowns	single	1			1	6000	N	6,000	1,500	7,500	2,400	8,400			
	Disposable gloves	pair	1	1	6000	N	6,000	1,500	7,500	2,400	8,400					
	Eye Protection (google or faceshield)	single				10	1	6000	N	600			150	750	240	840

Figure 1. PPE Quantification & Forecasting Tool



Developing a quantification process and tool for PPEs for CHWs was essential information needed by the Ministry of Health's Supply Chain Management Unit (SCMU). This tool informs their PPE procurement decisions by filling in gaps in data such as needed quantities of products and timing of shipments to ensure optimal and uninterrupted supply of PPE.





Forecasting Tool



Challenges

-  Sense of urgency can prove challenging and lead to difficulty in alignment across stakeholders.
-  Forecasting alone is not sufficient to getting the needed PPE to health workers.

Solutions

-  Crisis requires a no-regrets approach to planning and decision-making. While imperfect, the process gives valuable directional information to begin procurement.
-  An emergency quantification process must be linked to an emergency inventory and procurement system.



Inventory Dashboard



Figure 2. First inventory dashboard developed in Excel

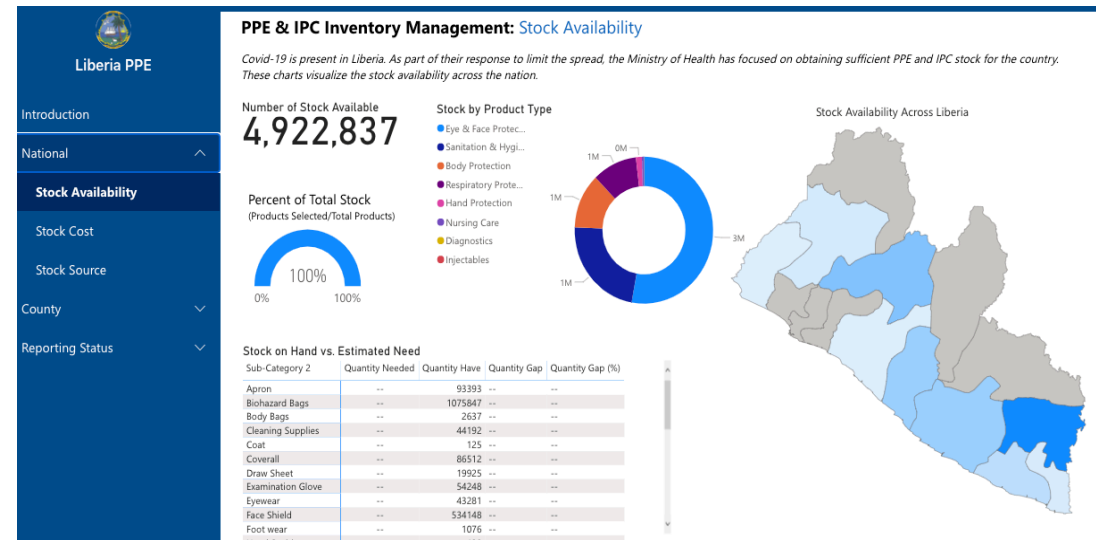


Figure 3. Improved inventory dashboard developed in PowerBI





Quantification & forecasting data needs to be supplemented with data about what PPE stock is already available across the country. The SCMU needed visibility into PPE stock availability, stock costs, and the source of the stock at the national and county level. An inventory dashboard was developed to provide PPE data visibility and encourage data use for procurement decisions.






Inventory Dashboard



Challenges

-  Lack of global standardization/constant changes to what PPE products were needed for pandemic response.
-  Inability to add PPE to current data processes due to inflexibility of National eLMIS.
-  Dual tracking needs—1) PPE already in-country and 2) influx of donations
-  Uptake of new data processes at county level is slow.

Solutions

-  Created an agreed upon, standardized product catalog that is flexible enough to be updated as the pandemic progresses.
-  Selected a new tool based on agreed upon cost, training, and adaptability criteria.
-  Developed data collection processes with the SCMU to capture both of the data needs
-  Training conducted and supervision processes are being put in place.



LESSONS LEARNED



Key Lessons Learned



Good enough is good enough.



Ministries of Health are command central.



Data is the key to making informed decisions, but implementing new processes takes time.



Respond to the present while designing for the future.

