

Survey of Private Sector Pharmacies and Medicine Stores in Montserrado County, Liberia

Context: The worst Ebola Virus Disease (EVD) outbreak ever recorded in West Africa¹ revealed that health systems in Liberia, weakened by decades of civil war, were not able to respond to the epidemic effectively. Furthermore, the required emergency response efforts disrupted the provision of essential health services, thereby distressing the already fragile health system². As the ongoing response continues to evolve, the Liberia Ministry of Health and Social Welfare (MOHSW) and its partners have started discussing the post-Ebola health reform priority agenda³, including a holistic health system strengthening approach to rapidly restore essential health services and as epidemic comes under control.

Through the Sustainable Drug Seller Initiatives (SDSI), Management Sciences for Health (MSH) has worked with MOHSW's Liberia Medicines and Health Products Regulatory Authority (LMHRA), The Pharmacy Board of Liberia (PBL) and other partners to roll out the Accredited Medicine Store (AMS) program in Liberia's largest county, Montserrado⁴. Adapted from Tanzania's accredited drug seller program and launched in February 2013, the AMS program aims to expand access to quality essential medicines and pharmaceutical services through the private sector. Since the start of the Ebola epidemic, the AMS and other private retail drug outlets have continued to provide access to pharmaceutical products and services at the community level⁵ as other health facilities have focused their efforts on Ebola. The current discussion on the agenda for health system strengthening must include a clearly defined role for the private sector AMS as a part of the broader primary health care system and as part of future epidemic response strategies in Liberia. As SDSI activities conclude in Liberia, SDSI will support the LMHRA and PBL in providing stakeholders with updated information about the AMS program, the role of AMS in the Liberian health system before the Ebola epidemic, the role they have played during the epidemic and recommendations including AMS in the MOHSW strategy for health system strengthening in Liberia.

Objective: Conduct a survey of Montserrado County's medicine stores and pharmacies (including accredited medicine stores) to determine current status of operations in light of the Ebola epidemic.

Activities

1. Conduct a rapid survey of all medicine stores and pharmacies in Montserrado to assess:
 - a. Availability of essential medicines
 - b. Dispensers' knowledge about EVD
 - c. Medicine stores' involvement in responding to the Ebola epidemic (both Ebola related actions and filling the void while health facilities were pre-occupied with Ebola response efforts)
 - d. Medicine stores' current needs as they continue to serve as frontline providers in the community while major hospitals focus efforts on EVD
 - e. Dispensers' envisioned role in the Liberia's strategies for health system strengthening and responding to future epidemics
2. Use the findings from the above survey to develop recommendations for including AMS in the MOHSW health system strengthening strategy.
 - a. Develop policy briefs that summarize what was achieved by AMS program prior to the EVD epidemic, their role during the epidemic, and recommendations for their future role in Liberia's health system.

¹ World Health Organization. Ebola Response Roadmap Situation Report. 29 October 2014.

² The Washington Post September 20, 2014. With Ebola crippling health system, Liberians die of routine medical problems.

³ Liberian Incidence Management Systems (IMS), Friday November 14, 2014 World Bank Group ppt on Ebola Response.

⁴ <http://www.drugsellerinitiatives.org/countries/liberia/>

⁵ Debbie Andalo. Initiative sees pharmacists offer Ebola advice in Liberian drug stores *The Pharmaceutical Journal*, 20 AUG 2014.

<http://www.pharmaceutical-journal.com/news-and-analysis/news/initiative-sees-pharmacists-offer-ebola-advice-in-liberian-drug-stores/20066225.article>

- b. Support LMHRA and PBL in disseminating policy briefs and advocating for the inclusion of AMS in the MOHSW health systems strengthening strategy.
3. Survey team (LMHRA and PBL inspectors and pharmacy students) to distribute EVD information, education, and communication (IEC) materials and EVD screening equipment to medicine store personnel.
 - a. Purchase and distribute non-contact laser beam thermometers to AMS, pharmacies and medicine stores with a trained dispenser to support their efforts in screening and referring suspected EVD cases seeking care at their shops.
 - b. Survey team to advise dispensers' about occupational safety and their role in referring potential Ebola cases to Ebola treatment centers.
 - c. Survey team to distribute IEC materials to medicine stores, which dispensers can use to educate and inform clients about Ebola prevention and protection.

Methodology

Survey will target all medicine stores and pharmacies in Montserrat. The data collection teams will comprise of senior pharmacy students and inspectors from PBL and LMHRA, who will supervise the students. Data collection will use a structured medicines and commodities price and availability survey as well as a general survey tool. During the data collection visit, inspectors will distribute non-contact laser beam thermometers, which will be used by the dispensers for Ebola case surveillance and detection at the medicine stores. Inspectors will provide on-site, one-on-one orientation to dispensers and owners on the use of thermometer and recommended temperature threshold for when clients is a suspect based on temperature screening. Appropriate recording forms will be provided for dispenser to record clients with high temperatures. Dispensers will be trained to advise such client to seek care at an Ebola treatment center immediately and to follow up by calling the 4455 Ebola hotline.

Expected Results

- Updated records about availability of essential medicines in medicine stores
- Documented role of medicine store and pharmacy dispensers during Liberia's Ebola epidemic
- Enhanced understanding among medicine store and pharmacy dispensers about their role and expected actions in referring potential Ebola cases to Ebola treatment centers.
- Data available to enhance SDSI's ability to support the LMHRA and PBL in advocating for the inclusion of the private sector AMS program in the MOHSW's national strategy for health system strengthening and EVD prevention in Liberia.

Survey Tools

The following survey tools will be utilized:

- Price and Availability Survey
- General Survey

Both tools are provided below. Survey responses will be recorded on paper at the time of the survey. Data collectors and/or data clerks will enter each survey into a customized Google Form to capture all responses electronically and facilitate data analysis.

**Pharmacy and Medicine Store Survey
December 2014**

Instructions: This survey is to be administered to private pharmacies and medicine stores. Ask to speak to the person in charge of the pharmacy or medicine store. Explain the purpose of the survey and the amount of time required to complete the questionnaire (about one hour). Respond to any questions or concerns about confidentiality and obtain permission to carry out the survey. Then administer the verbal/written consent below.

Verbal consent: Hello, My name is [Interviewer Name]. We are working with the LMHRA and PBL to improve quality of services and access to quality essential medicines in the private sector. The results of this survey will provide updated information on the status of retail pharmacies and medicine stores in Montserrat since the start of the Ebola epidemic. I will be asking a variety of questions. I want to assure you that identifying information will be kept strictly confidential. Specific information shared with me today will not be shared with anyone beyond the study team. All of the identifying information will be coded so no one outside the study team will be able to identify your pharmacy/medicine store. Because of the length of this interview, we will take pauses when you have customers to serve and will stay out of your way until they have been served. At this time, do you want to ask me anything about the survey?

- i. If you consent to the survey please sign below:

Interviewee Signature

Date

Data Collector Signature

Date

Medicine Store and Pharmacy Survey

General Information:

Use this form to collect information on stock availability and prices.

- ii. Date: _____
- iii. Name of store: _____
- iv. Contact number of store _____
- v. Shop Status (circle correct response):
- Pharmacy
 - Accredited Medicine Store (AMS)
 - Dispenser AMS trained but store not yet accredited
 - Dispenser not AMS trained and store not accredited
 - Dispenser trained from other dispenser training school
 - Other (specify): _____
- vi. District: _____
- vii. Community: _____
- Geocode, if available: *[Note, accuracy is very important, so please write clearly and double check that you have copied it correctly!]*
- viii. Longitude (x): _____
- ix. Latitude (y): _____
- x. Geocode not available
- xi. Name of person interviewed: _____
- xii. Position of person(s) interviewed (circle correct response):
- Owner
 - Dispenser
 - Other (specify) _____
- xiii. Sex of person interviewed (circle correct response):
- Male
 - Female
- xiv. Data Collector Name: _____

Price and Availability Survey

Please complete price and availability matrix below. Note: If product is sold by individual units (e.g., tablet) rather than packs, record unit price and mark "1" for number of units per pack.

	Product	Available (Y/N)	Brand name(s)	No. of units per pack (A)	Price per pack LRD (B)	Unit price LRD (B) (A)	Expired Y, N, DK
1	Amoxicillin capsule 250mg						
2	Amoxicillin suspension 125mg/5ml 100ml						
3	AS/AQ 100mg/270mg [6s]						
4	Aspirin (Acetyl Salicylic acid) tablet 300mg						
5	Chlorpheniramine tablets 4mg						
6	Condoms						
7	Co-trimoxazole suspension 240mg/5ml 60ml						
8	Co-trimoxazole tablet 480mg						
9	Doxycycline capsule/tab 100mg						
10	Erythromycin tablet 250mg						
11	Ferrous sulfate 200mg tablets						

Price and Availability Survey

	Product	Available (Y/N)	Brand name(s)	No. of units per pack (A)	Price per pack LRD (B)	Unit price LRD (B) (A)	Expired Y, N, DK
12	Folic acid 400ug tablets						
13	Mebendazole tablet 100mg						
14	Metronidazole tablet 200mg						
15	ORS						
16	Zinc tabs						
17	Paracetamol tablet 500mg						
18	Quinine tablets 300mg						
19	Sulfadoxine + Pyrimethamine tablet 525 mg						
20	Examination Gloves (various sizes)						
21	Anti-Diarrhea, Imodium tabs						
22	IV Fluids-Normal Saline or Ringer Lactate (1 Liter or 500cc bags)						
23	Antiemetic-Promethazine injectable ampoules						

Price and Availability Survey

	Product	Available (Y/N)	Brand name(s)	No. of units per pack (A)	Price per pack LRD (B)	Unit price LRD (B) (A)	Expired Y, N, DK
24	Antiemetic- Metoclopramide injectable ampoules						
25	Selenium 200mcg						
26	Cannula of various sizes						
27	Needles & syringes						
28	Pampers for adults						
29	Protective goggles						
30	Rain Boots						
31	Aprons (Disposable Plastic)						
32	Face Mask						
33	Bleach						

NOTES (optional):

General Questionnaire

Please ask the following questions to the shop attendant and record their responses, as indicated below.

No	Question	Yes	No	NA	
34.	Have you experienced stock out of the essential medicines on the price and availability survey list (above) in the past 6-months?				
	34a. If yes, what items were out of stock <i>[List up to three]</i> :				
	1.				
	2.				
	3.				
	34b. If yes, what were reasons for the stock out(s)? <i>[Tick YES next to all answers mentioned]</i>				
		a. No supplies at wholesalers			
		b. Few or no clients			
c. Clients demanding more medicines than what I could afford to stock					
d. Other (specify):					
35.	Are there particular products or supplies that have been in high demand in the past 6-months?				
	35a. If yes, list the top five products or supplies:				
	1.				
	2.				
	3.				
	4.				
	5.				
36.	In the past 6-months, have clients demanded products that are not allowed to be stocked, but are critical for Ebola prevention and care? <i>[Note: this question is for medicine stores only, for pharmacies just tick NA]</i>				
	36a. If yes, list the top 5 products or supplies:				
	1.				
	2.				
	3.				
	4.				
	5.				

General Questionnaire

No	Question	Yes	No	NA
37.	<p>On average, how many clients do you serve per day (daily sales to clients) before vs. during the Ebola epidemic? <i>[Tick appropriate box in the “before Ebola” column (37a) and in the “during Ebola epidemic” column (37b)]:</i></p> <p>a. Less than 50</p> <p>b. 50-75</p> <p>c. 76-150</p> <p>d. 151-200</p> <p>e. 201-250</p> <p>f. Over 250</p>	37a. Before Ebola	37b. During Ebola epidemic	
38.	<p>What are Ebola-like signs or symptoms? <i>[Don't read options below; Tick YES next to all answers mentioned]</i></p> <p>a. High fever</p> <p>b. Abdominal pain</p> <p>c. Joint or body pain</p> <p>d. Difficulty in swallowing</p> <p>e. Headache</p> <p>f. Nausea or vomiting (possibly bloody)</p> <p>g. Diarrhea (possibly bloody)</p> <p>h. Dehydration (no tears, dry tongue, sunken eyes)</p> <p>i. Rash</p> <p>j. Bleeding from the mouth, eyes, nose, ears, or anus</p>			
39.	<p>How can you prevent Ebola transmission? <i>[Don't read options below; Tick YES next to all answers mentioned]</i></p> <p>a. Avoid contact with blood and body fluids</p> <p>b. Avoid funeral or burial rituals that require handling the body of someone who has died from Ebola</p> <p>c. Immediately go to a health facility if suspected of having Ebola</p>			

General Questionnaire

No	Question	Yes	No	NA
40.	Do you agree or disagree with the following statements?	Agree	Disagree	
	a. Traditional healers and spiritual healers can treat Ebola successfully			
	b. Bathing with salt and hot water can prevent Ebola			
41.	How do you protect yourself from Ebola? <i>[Don't read options below; Tick YES next to all answers mentioned]</i>	Yes		
	a. Keep a distance from those who are sick with EVD			
	b. Not touch personal things, or blood, vomit, poo-poo, pee-pee, corpses, sweat or spit.			
42.	What action should you take if you are in contact with someone that has been sick with or that died from Ebola? <i>[Don't read options below; Tick YES next to all answers mentioned]</i>	Yes		
	a. Stay home and not go around other people or touch people for 21 days.			
	b. Call 4455 ⁶ for advice			
43.	Have you received training or guidelines/materials for EVD prevention or other IEC materials for public awareness campaign?	YES	NO	NA
	43a. If yes, when?	Date (Month, Year):		
	43b. From which organization?	Organization:		
44.	What did you do when clients with Ebola like symptoms presented at your shop? <i>[Tick YES next to all answers mentioned]</i>			
	a. Sold and dispensed antimalarial			
	b. Sold and dispensed a pain killer			
	c. Sold and dispensed other medicines and supplies they requested			
	d. Refused to sell the medicines and other supplies they requested because I feared that if I attended them, I would lose my clients due to fear that I may give them Ebola			
	e. Advised them to go to the Ebola Treatment Unit			
	f. Called 4455 and notified hotline about the client			
	g. Tried to help and took care of them in the shop			

⁶ This is an emergency number provided to the public where they can call when they suspect a case of Ebola

General Questionnaire

No	Question	Yes	No	NA
45.	As a medicine store or pharmacy owner or dispenser during the Ebola outbreak: Did you feel prepared to protect yourself while serving clients?			
	45a. If no, why not? <i>[Tick YES next to all answers mentioned]</i>			
	a. Received no training or guidelines to protect myself or my clients			
	b. Did not have required supplies for EVD prevention and care in stock			
	c. Ran out of EVD supplies because of the increase in the number of clients			
	d. Other (specify):			
46.	Do you know any fellow medicine store owners or dispensers who have had Ebola and survived?			
	46a. If yes, what is the name of the store where they were working?	Name of Store:		
47.	Do you know any fellow medicine store owners or dispensers who have died because of Ebola?			
	47a. If yes, what is the name of the store where they were working?	Name of Store:		
48.	What could be done to better prepare you, as a medicine store or pharmacy owner or dispenser, for future disease outbreaks? <i>[Tick YES next to all answers mentioned]</i>			
	a. Basic training in emergency response and protocols in AMS dispenser training curriculum			
	b. Training at the beginning of the outbreak			
	c. Distribution of supplies or gear for self-protection from EVD			
	d. Distribution of EVD screening and/or reporting supplies and tools			
	e. Distribution of supplies for EVD prevention to sell or provide to customers			
	f. Distribution of IEC materials for customers			
	g. Other (specify):			
49.	Did you feel you had the resources and support to continue serving clients seeking medicines or care for non-Ebola related matters?			

General Questionnaire

No	Question	Yes	No	NA
50.	What are the most pressing needs right now for the shop, given the Ebola epidemic? <i>[Tick YES next to all answers mentioned]</i>			
	a. Continuous supply of non-EVD related medicines from wholesalers			
	b. EVD protective gear for self-protection			
	c. Training			
	d. EVD screening and/or reporting supplies and tools			
	e. Supplies for EVD prevention to sell or distribute to customers			
	f. IEC materials for customers			
	g. Other (specify):			