

## Summary of sector response model

### A quality management system that led to Liberia's success in fighting Ebola

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Liberia, where the Ebola outbreak was so large last September that epidemiologists were seeing exponential growth in cases and treatment centers filled up the day they opened, started to turn back the epidemic when it organized and empowered community-based teams to handle the response.

Essentially, the government decided to decentralize the management and operation of the Ebola response using an Incident Management System – IMS. It broke the response down into four smaller systems, known as “Sectors,” in Montserrado County. This allowed for better quality control on surveillance, case finding, contact tracing, and overall management of key response activities necessary in tackling the Ebola outbreak.

## ***Sector approach***

In late November 2014, following the height of the Ebola outbreak in Montserrado, the county with the largest population in Liberia-- more than 1 million persons-- the country's National Incident Management System began working to decentralize the Ebola response; By late December, the Montserrado IMS was created, with Sonpon Sieh as its chairperson. New teams were organized and by mid-January partners were integrated into a new "sector approach" that divided the county into four independently managed geographic areas.

This innovative management method worked by grouping smaller, localized teams for a more nimble and rapid response, and by empowering local staff for enhanced community engagement. It also contributed to a new performance-based management system, which enhanced accountability of staff members and partners involved in their respective work areas.

Instead of organizing "Sectors" around purely administrative districts, they were further divided into "zones" that reflected historical community identities and ties around known epidemiological zones. As practiced previously in immunization campaigns, communities could track Ebola cases and contacts in their own communities and facilities.

Health officials, local citizens and partners worked together in each sector and made operations more effective, taking advantage of the strong sense of community and identity.

The objective of the Montserrado Sector approach was to "hunt the Ebola virus disease" in controlled zones of sectors, using timely local responses. In two months, the "sector model" had a positive impact in bringing the Ebola outbreak under control in Montserrado.

Sector teams coordinated with localized response teams, increasing reach and handling issues locally using a 'good neighbor' approach and "door to door" engagement, involving more than 4000 community members. This resulted in proactive interventions, using local resources often naturally competing between zones and sectors to best respond and finally sharing best practices to strengthen other sectors' response.

The "sector approach" worked because it was managed by the people of Liberia in their own communities, and because those who came from outside to help respected their voices, laws and leadership, ahead of their own agenda and larger mission.

## ***Customized solutions to fight Ebola***

Agile, customized and at times competing sector solutions were encouraged, leaving sector leaders free to design their localized responses around a structured, technical "pillar" based organization. The Health Ministry, Incident Managers and partners agreed that these would cover case detection (tracing and active case finding), epidemiological surveillance, psycho-social activities and community engagement. In some instances, other activities

were added when necessary. A very similar framework was adopted at all levels of the “sectoral system” from the national level, to county, sector and zone levels.

Active daily coordination of sectors and cross cutting responsibilities reduced overlapping activities, fostered improvements and supported areas where performance was lagging. A WHO expert team from India, which had vast experience in combating polio in that country and knew the importance of good localized epidemiology and response, provided robust technical advice, helping build strong cohesive sector teams.

The trust and collaboration nurtured by daily proximity and by sectoral leadership also helped mitigate political or financial factors that could hamper operations.

### ***Enhanced management***

This decentralized approach also enhanced quality management of operations in communities by contributing to a more client based approach as a “customer service” system that would work with potential cases and contacts in each community.

This system supported quicker alert, diagnosis, care and voluntary isolation and control where needed. It also strengthened strong messaging and better mobilization of communities, and operations of sector teams in their respective “residential” zones.

The Sector model supported performance-based management, by outlining clear daily goals, objectives and targets for each sector’s teams and partners, using simple and robust indicators such as percentage of contacts seen twice daily, percentage of swabs, percentage of health care facilities with adequate triage, contacts receiving food and hygiene kits, delays in testing, and others.

Key performance indicators (KPIs) were discussed openly every morning in meetings with sector coordinators, respective pillar supervisors, and partners’ representatives using information collected on the ground to identify if objectives and targets were met for each day. All staff members and partners supporting operations were immediately informed of areas that needed improvements, complaints and other “client feedback”. Immediate, agile corrective actions were then suggested by sectors leadership and monitored until challenges were resolved

“Management review” by national incident managers to monitor sector operations took place twice weekly in small closed meetings, providing rapid and streamlined support. A weekly open meeting served also as public management review of each sector’s performance. This forum enhanced dialogue between “clients” and stakeholders in technical and non-technical areas and proved efficient in bringing partners and health authorities together, to discuss customer feedback on performance openly and publicly.

Partners and staff members fed information in a comprehensive system from the field to a centralized county based platform. Here, data quality was assessed and information

consolidated, then synchronized with other sources. Daily sector reports, monitoring dashboards and other analytics were produced systematically and shared with all parties. Data were also made available to create comprehensive data models and health intelligence reports, using business intelligence and reporting systems to monitor operations in detail.

DATA ROOM KEY VARIABLES

No of CIF Received: 18  
No of CIF Entered: 18  
No of CIF Outstanding: 0

	CURRENT (LAST 2/DAYS)												NEWLY REPORTED (AS AT 19/02/2015)										
	SUSPECTED				PROBABLE				CONFIRMED				SUSPECTED		PROBABLE			CONFIRMED					
	ALIVE		DEAD		ALIVE		DEAD		ALIVE		DEAD		ALIVE	DEAD	ALIVE		DEAD	ALIVE		DEAD			
	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS	No of CASES	No of CONTACTS			
CTOR 1	33	94	33	126	1	64	0	0	0	0	0	0	3	7	1	10	0	0	0	0	0	0	
CTOR 2	31	38	54	172	3	6	1	2	7	52	2	79	1	3	1	4	0	0	0	0	1	6	0
CTOR 3	13	51	17	58	2	8	0	0	0	0	0	0	0	1	5	1	5	0	0	0	0	0	0
CTOR 4	38	108	47	133	0	0	0	0	2	7	1	2	8	48	3	10	0	0	0	0	0	0	0
TOTAL	115	291	151	489	5	14	1	2	9	59	3	81	12	58	6	29	1	5	0	0	1	6	0
MM DEMO			97								2				2	10							

Daily sector situation reports were produced from the epidemiology teams, and for all performance indicators. They were consolidated and exchanged transparently with all parties. In case of suboptimal performance, repeated deviations or lack of corrective actions that were requested, matters were taken to senior County and National levels, which could address relevant organizations and implement preventive actions as necessary.

This transparent, client oriented approach – which may have been resisted initially by some organizations - was pivotal in building a remarkable public driven quality management system. It fostered continuous “organic” improvements, supported by high level public governance. It also enabled rapid, coordinated response and corrective actions, under the control of the Ministry of Health and other components of the Liberia Government.

With clear strategies, objectives and responsibilities in all Sectors, partners’ response was organized to maximize their impact and communication around their staff, who were embedded and worked alongside community and sector M IMS staff members.

To integrate even better with Sector governance, WHO and other organizations appointed staff from local communities. The resulting public accountability and effectiveness of sectoral performance contributed to increasing trust between partners, enriched

community engagement, and made it easier to mobilize timely responders and citizens around specific issues.

The success in controlling the Ebola outbreak in Liberia can be partially credited to this model of organization, which meets management and operational quality standards.

An in-depth study of the governance and management mechanisms successfully used by the Government of Liberia could provide insight about organizational structures, quality management instruments and performance monitoring and reporting systems. This could help identify the robust, flexible systems and tools that could be packaged and work together in other countries and outbreaks.

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Thierry Cordier-Lassalle is the WHO Coordinator for Ebola response in Montserrado County, Liberia. A quality and performance management expert, he applied quality management standards and business best practices to the successful response effort, along with 4 WHO experts from India: Dr Sonpon Sieh, Chair of the M-IMS who created the sector approach for Montserrado, and Dr Deepak Kar, Dr Shivam Shinde, Dr Devendra Singh Tomar, and Dr Ratnesh Murugan.