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PAYMENTS PROGRAMME FOR EBOLA RESPONSE WORKERS: CASH AT THE FRONT LINES OF A HEALTH CRISIS

The outbreak of Ebola virus disease (EVD) in West Africa has claimed over 11,000 lives, out of over 26,000 total cases. It has catalyzed an international response, including from UN agencies, development partners, non-governmental organizations (NGOs), the private sector and affected communities. The epidemic struck where health systems were amongst the weakest in the world, with the three affected countries – Guinea, Liberia, and Sierra Leone – having just 10-20 percent of the internationally recommended health care workforce when the outbreak began.[1] Despite these initially low human resource capacities, Ebola response workers (ERWs), along with affected communities, proved to be the cornerstone of the response. Over 60,000 ERWs, mostly nationals of the epicentre countries, have been at the frontlines: educating communities in epidemic zones, tracing and monitoring the exposed, transporting and caring for the sick, and providing safe and dignified burials to the deceased.

At the outbreak of the epidemic in early 2014, ERWs were almost entirely public employees, government health sector workers, hospital staff, or district medical officers. But as cases mounted at the height of the crisis, many more joined the emergency response, including foreign medical teams and workers from outside of traditional health sector roles. These ERWs took on significant risk to aid in the response, and large numbers became ill or died during the epidemic; as of 10 May 2015, there were 868 confirmed EVD cases amongst health workers, 507 of which resulted in death.[2] The Centers for Disease Control and Prevention found that health care workers in Sierra Leone, for example, were at 100 times greater risk for contracting Ebola compared to the general population.[3]

Ensuring a steady supply of trained, motivated and compensated ERWs, in the face of increased risk, was critical to stem the EVD epidemic. As such, in October 2014, UNDP, with support from the UN Mission for the Ebola Emergency Response (UNMEER) and other partners, set up and coordinated a programme to ensure that ERWs were being paid on time their full salary plus certain hazard incentives. UNDP's efforts in launching and administrating the resulting Payments Programme for Ebola Response Workers (PPERW), particularly the use of innovative, digitized payment systems, were in furtherance of its Strategic Plan 2014-2017. UNDP's Strategic Plan includes building resilience to future shocks as one of three key areas of work, and lists as one of seven outcomes that countries have strengthened institutions to progressively deliver universal access to basic services. UNDP's experiences in PPERW also provide several lessons that are relevant to future health and development crisis situations. This Issue Brief chronicles the background, basic facts, results and emerging lessons from the UN's engagement in ensuring that 49,250 ERWs, or around 70 percent of the estimated total Ebola response workforce across Guinea, Liberia and Sierra Leone, were paid fully and on time during this largest ever EVD outbreak.

Background

UNMEER was endorsed by the General Assembly on 19 September 2014 to lead operations in West Africa. At this early stage of the international response, the UN Overview of Needs and Requirements document[4] mentioned cash payments to workers as an essential service, with a restricted (and Guinea-specific) projected funding need of $2.5 million. An inter-agency Coordination Group on Cash Payments and Social Protection was also established, at UNMEER headquarters, to open inter-agency communication channels and undertake costings, mapping of actors, policy reviews, technical capacity gap analyses and needs assessments. The evolving payments landscape for UNMEER and partners was outlined and updated in a Concept of Operations working document, as it became clear that the earlier estimates of resource needs for payments were insufficient. Payments to ERWs would be redefined as a significant area of concern within the overall response, as reports of health workers striking or threatening to strike, due to non-payment or discrepancy of incentives, became increasingly frequent.

A triple challenge soon emerged of (1) a fast-increasing number of health sector workers demanding (2) a higher volume of

[1] WHO, Global Health Observatory data repository, data by country. Available at: http://apps.who.int/gho/data/node.country
[2] WHO Ebola Situation Report, 13 May 2015.
[3] CDC. Ebola Virus Disease in Health Care Workers – Sierra Leone, 2014. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6349a6.htm
[4] OCHA/UN (2014) Ebola virus disease outbreak: Overview of Needs and Requirements, September 2014, Geneva.

incentive payments in a system that needed (3) strengthening in order to handle this increased financial throughput. The international community raised concerns whilst also recognizing the need to maintain sovereignty of the affected countries to pay their own workers under their own domestically negotiated policy frameworks.[5]

Soon thereafter, in early October 2014, UNMEER's Special Representative to the Secretary General requested formal commitments from UN heads of agencies on roles and responsibilities for a division of labour for UN partners within the emergency response. UNDP was requested and agreed to lead work on ERW payments. As early as August 2014, UNDP's HIV, Health and Development Team (HHD), which had technical staff temporarily deployed to the three affected countries, identified payments to health workers as an area potentially needing support. In a concept note, HHD outlined UNDP's potential work in cash payments in the health sector – potential work grounded in UNDP's experience in civil service,[6] health worker payments and systems strengthening in other countries through its role as interim Global Fund Principal Recipient.[7] At the *Operational Conference for scaling up the UN system approach to the Ebola response* in Accra (15-18 October), UNDP pledged to all partners that it would guarantee that all ERWs would be paid fully and on time from 1 December 2014 onwards.

UNMEER planning at the Accra Operational Conference was on the basis of a projected upper limit caseload of 5,000-10,000 Ebola cases per week by 1 December. Across the three countries, this translated to a projected workforce requirement of around 150,000 ERWs and a staffing structure of 7-8 defined worker cadres. The trajectory of the epidemic diverged from projections, ultimately rendering this upper staffing total too high. Nevertheless, designing and mobilizing a large-scale payment response for ERWs was still a daunting and complex challenge. In weak systems, such as those in the affected countries, ensuring payments in a transparent and accountable manner is demanding even under normal conditions. But during a crisis, and given an incomplete picture of the coverage and functioning of public payroll mechanisms and private payment modalities, the logistical scale and rapidity needed escalated the task to a complex, international and multifaceted challenge. Health sector incentives generally entailed a three- to four-fold increase of individual payments, depending on the country, paying institution and exact cadre of workers. The fear of contagion also, inevitably, extended beyond the health sector, for example to security personnel who guarded quarantined areas or borders and were thus also at risk. This 'inflationary effect' outside the health sector created the need for even more incentive payments.

UN Payments Programme for Ebola Response Workers

UNDP, in consultation with a range of partners that included UNCDF, UNMEER, UNFPA, WFP and the IFRC,[8] designed the Payments Programme for Ebola Response Workers to provide the governments in the three countries with the technical assistance and strengthened capacity needed to ensure timely delivery of incentives to ERWs. Specifically, the PPERW had three main objectives: (1) strengthening health sector human resource planning through information management systems; (2) strengthening existing payment platforms and digitizing incentive pay; and (3) establishing a UN-run contingency payment platform in Guinea and Liberia. These are discussed below.

Several considerations influenced the structure of the PPERW in relation to the objectives. Main considerations included government Ebola response structures and policies; the degree of financial sector development and its partnership structure; and sector and donor coordination structures and processes. Government structures and policies were most deterministic. For example, in Sierra Leone, the government mandated the National Ebola Response Center (NERC) to establish a separate HR management system, in parallel to the existing health sector payroll, to directly manage and track hazard payments to all workers, whether salaried or volunteer. Accordingly, in Sierra Leone, the PPERW was responsible for 78 percent of total ERWs, including not just Ministry of Health and Sanitation (MOHS) employees but also volunteer workers. In Guinea and Liberia, where the respective Ministries of Health continued to oversee hazard pay to salaried government health workers, the PPERW was limited to oversight of indemnity payments to volunteer ERWs or those not covered by existing partners (roughly 19 percent of total ERWs in those countries).

In all three countries, the PPERW collaborated closely with the Ministries of Health and Ebola Coordination Units to ensure that, through smart deployment of existing technologies and private sector partnerships, ERWs had control over their pay, that the right workers got paid the correct amount as defined by the national policy, and that, within constraints of national systems, payments were delivered on time.

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[5] This was especially pertinent in Liberia, where negotiations on pay scales between workers' unions and the government pre-dated the Ebola crisis.

[6] Such as security forces in Central African Republic in 2014. See http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2014/06/25/un-supports-the-re-establishment-of-core-public-services-in-central-african-republic.html

[7] Country examples include Mali, South Sudan, Tajikistan and Zimbabwe. *See* the United Nations Development Programme, Global Fund Programme, Country Impact, available at: http://www.undp-globalfund-capacitydevelopment.org/home/country-impact.aspx; regarding Zimbabwe, see "Global Fund Increases Support to Zimbabwe." Available at: http://www.zw.undp.org/content/dam/zimbabwe/docs/hivaids/UNDP_ZW_HIVAIDS_Global%20Fund%20Support%20Zw.pdf

[8] UNDP and UNMEER held a three-day technical consultation in Accra on 6-8 November 2014. In addition to UN agencies, staff from USAID, Mercy Corps and VISA attended and contributed.

1) Strengthening health sector human resource planning through information management systems

The exponential growth of the EVD epidemic during the emergency phase of the response challenged the traditional model of managing a workforce. EVD transmission patterns can change and flare within hours. As new transmission chains are identified and as new epicentres emerge, surge support with specific skills is required to contain the spread of the disease. 'Getting to zero' and breaking all known transmission chains depends on ERWs' ability to respond quickly within small windows of opportunity. As a result, the nature and distribution of the effective workforce – contact tracers, staff working in Ebola treatment units (ETUs), and burial teams, among others – were highly dynamic, growing 25 percent every two weeks during the height of the epidemic and experiencing 20 percent turnover over the same period. Yet none of the countries' health systems had an information management system (IMS) that could be decentralized easily to track workers in real-time and ensure delivery of correct payment based on eligibility, work profile/functional roles, differential contract types, duration of employment, hiring institutions and national policy specifications. Box 1 outlines some of the payment challenges faced in Sierra Leone, for example.

UNDP and UNMEER therefore worked with national partners[9] in the three countries to identify all institutions involved in Ebola response networks and then to ensure that these institutions had the systems to identify, track, and pay workers their correct salaries plus incentive pay. With coordination mechanisms in place, UNDP worked with national and international partners to establish and consolidate district-level lists of ERWs, and led coordination on key policy issues related to the categories, incentives and identification of ERWs. In Guinea and Liberia, where health sector employees continued to be paid by government systems, the PPERW addressed gaps in government health sector payroll. In Liberia, where approximately 80 percent of health workers employed prior to Ebola were banked and already receiving regular payments, the PPERW tracked World Bank-funded incentive pay to ERWs as well as to newly-hired response teams. In Guinea, UNDP supported the harmonization of incentives across different payment schemes, to standardize incentive payments for similar functions across employer institutions, and also worked with partners to track ERWs outside of the government payroll, such as volunteer and NGO workers.

Sierra Leone, based on an assessment that its overall payment system needed significant, immediate and widespread strengthening to successfully effect the rapid upsurge in payments required, created an alternative ERW management and payment system that decreased the likelihood of fraudulent payment claims and included the following components:

- *Core Human Resource Information System*. The primary component on which all data is managed and to which all other components are built into or connect.
- *Open Data Kit Smart-phone Application*. Allows remote-list management by authorized agents in the field via mobile phones.
- *SMS Application*. Allows interaction of selected portions of the system via SMS; for example, it enables NERC to verify a mobile phone owner's data via SMS, and sends an SMS notification to NERC after payroll has been processed.
- *Biometric facial recognition/fingerprint identification*. Helps identify duplicate registrations by mapping ERWs' biometric information against the existing ERW database.

Box 1. Payment challenges in Sierra Leone

Political environment

- Threats from workers to go on strike over hazard pay
- Incentive dependency on 'Ebola money'

Beneficiaries list management

- Rapid changes in the number and status of ERWs, over approximately 1,000 health centres across the country
- Information flow from district medical officers unreliable
- Lack of unique identifiers for the ERWs
- Any wrong entry in the database for details such as mobile numbers and bank accounts would result in wrong person getting paid

Financial sustainability

- Growing number of ERWs – from 16,600 in December 2014 to 23,500 by end March 2015

Sierra Leone's system facilitated a more streamlined list management process, including the de-duplication of records to ensure that the right workers were paid the correct amount. Table 1 reports the extent of fraud mitigation achieved.

Table 1: Hazard pay fraud reporting in Sierra Leone

Duplicate Records Removed through IMS	**3,054**
Fraudulent Ebola Response Workers Reported to the Anti-Corruption Commission	**150**
'Double Dipping' Ebola Response Workers Reported to the Anti-Corruption Commission	**78**
Medical Centres reported to the Anti-Corruption Commission	**3**

[9] Actors included the public and international non-governmental sectors, with strong engagement from national private financial and banking sector partners.

Importantly, the system in Sierra Leone went beyond processing payroll and mitigating fraud. Data generated from the system informed analysis and aided decisions during the draw-down phase of the response, including the sequencing of facility shutdown/decommissioning or re-purposing of human resources.

2) Strengthening existing payment platforms and digitizing hazard pay

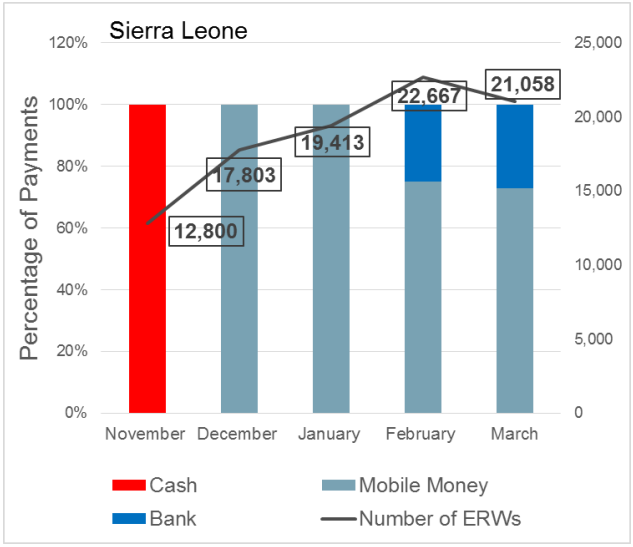
Considering the epicentres' varying contexts, the PPERW sought out flexible and adaptable solutions that were 'softer' than traditional payment programme hardware. Across the world, the private sector has built capabilities to manage disbursements using advances in technology. Leveraging these insights, UNDP, with technical assistance from UNCDF, worked with the private sector in all three countries to digitize 93 percent of total payments for the 21,058 ERWs for whom the PPERW was responsible. Table 2 demonstrates the diverse payment platforms used by the PPERW.

Table 2: ERW payment platforms as of 31 March 2015

	Sample ERWs	Direct Cash	Mobile Money	Bank Accounts	Average Monthly Hazard Outlay
Guinea	1,400	78%	0%	22%	$0.4 million
Liberia	1,393	43%	0%	58%	$1.8 million
Sierra Leone	21,058	0%	73%	27%	$4 million

For Sierra Leone, which accounted for 88 percent of the PPERW's payment portfolio, NERC was mandated in November 2014 to manage payments to ERWs. UNDP noted at the time that in order to reduce the possibility of unauthorized or incorrect payments, the private sector should be leveraged to manage payments. Sierra Leone had the technical capacity to create a robust private sector payment platform, namely through a consortium of private sector partners, including mobile financial service providers[10] and the Central Bank of Sierra Leone, which represents all commercial banks in the country. Figure 1 demonstrates that the newly created private sector payment platform proved robust enough for mobile and banking solutions to be used across the entire country. This followed a short period when UNDP, in collaboration with UNCDF and UNMEER, provided the Sierra Leone government with technical support to make payments through regular payroll and banking channels, entailing physical cash delivery and list-verification oversight.

Figure 1: Distribution of payments in Sierra Leone by platform



Digitizing 100 percent of payments to ERWs in Sierra Leone in December and January highlighted the potential to deliver payments instantly, in real-time. In Liberia and Guinea, both of which had stronger hardware capacities than did Sierra Leone, 43 and 22 percent of payments respectively were made via financially inclusive digital accounts. Bottlenecks to greater coverage of digital payments in these countries included the lack of an overall digital ecosystem supporting liquidity management, and a paucity of cash-out agents in more geographically remote locations. The majority of payments in Guinea and Liberia therefore continue to be made in cash, with support from Ecobank.[11]

3) Establishing a UN-run contingency payment platform in Guinea and Liberia

Beyond reinforcing existing systems, the PPERW identified gaps within specific sectors or geographic areas/ETUs that were not effectively covered by the existing public system. In Guinea and Liberia, upon request of the governments, the PPERW stepped in to make payments as a last resort, further expanding the PPERW's functions to meet evolving country-specific needs.

Specifically, in December 2014, the National Coordination Cell (NCC) in Conakry, Guinea, requested UNDP's assistance to make one-time payments for the month of December to the ERWs employed by NGOs in the country. Using PPERW project funds provided by the Multi-Partner Trust Fund (MPTF) for the Ebola Response, UNDP financed payments – totaling approximately $280,000 – for ERWs working in four NGO-run treatment centres in Guinea. In January 2015, upon the success of the first payment

[10] Airtell, Africell and Splash Money.

[11] Ecobank acts as the single entry point for the UNDP indemnity payments scheme and effects all payments through: (a) over-the-counter payments in branch offices; (b) financially inclusive bank accounts opened at the request of UNDP; and (c) payments through a mobile over-the-counter solution (essential in remote localities).

round, the NCC again asked UNDP to pay the NGO-employed workers, this time until June 2015 (approximately $350,000 – 400,000 per month, given an expanded base of ERWs).

In February 2015, the NCC requested UNDP, with funding from UNMEER, to also assist in managing indemnity payments for administrative personnel working in Guinea's NGO-run Ebola treatment centres. While World Bank funding covered indemnity payments for the health workers in Guinea's NGO-run Ebola treatment centres, it was recognized that administrative personnel in these centres are also at increased risk of contracting EVD, so compensation was approved for this additional cadre of workers. By March 2015, UNDP Guinea managed monthly indemnity payments totaling approximately $400,000. This consisted of 75 percent of the base salary for approximately 1,400 ERWs working in all five treatment centres in Guinea that were run by either international NGOs[12] or the NCC.

UNDP Liberia, in January 2015, was similarly requested by government to make direct payments covering arrears to a number of staff who had not been covered by existing budget allocations. Utilizing the central IMS, UNDP audited a list of 534 employees provided by the Ministry of Health and Social Welfare (MOHSW). Delayed payments were deemed to be the result of insufficient planning of resources (i.e. recruiting staff without first identifying the payment source) rather than any impropriety. UNDP made the required payments in January 2015 for nearly $400,000, covering the period of October through December 2014. A second request was made to support payments for 326 of these same 534 workers for the period of January through March 2015.[13]

Results of the Payments Programme

UNDP implemented a highly innovative programme that combined inclusive finance, public health, and governance expertise. It broke new ground on the use of mobile money services and open source information management systems to deliver scale, efficiency and transparency of payments in a health and wider development crisis. The PPERW demonstrated the ability to adapt to very different country contexts, where different governance arrangements and private sector capacities determined the available payment solutions.

The most immediate result was that PPERW supported payments to 49,250 ERWs as of 31 March 2015, effectively keeping ERWs engaged and performing life-saving functions in the Ebola response (Table 3). Payments managed by other implementing partners also benefitted from PPERW's lead on policy and coordination.

"At the very beginning [of the Ebola crisis], many health workers fled. Now due to additional pay, they're coming back. It was very effective in motivating our staff"

– Dr. Toure Salematou, Municipal Director of Health, Matam, Tonkolili District, Sierra Leone

Table 3: Average number of ERWs paid through the PPERW, per payment cycle, as of 31 March 2015

	ERWs paid through PPERW	Total ERWs in Country*	% of Total	% of Total ERWs in PPERW-managed Hazard National Payroll (IMS)
Guinea	1,225[a]	26,597	92%	N/A
	23,174[b]			
Liberia	410[a]	11,495**	33%	N/A
	3,383[b]			
Sierra Leone	0[a]	31,591	67%	100%
	21,058[b]			

[a]ERWs paid directly by PPERW; [b]ERWs paid by government, with PPERW technical support

**Payments managed by other implementing partners but benefiting from PPERW's lead on policy and coordination*

***Estimates provided by PPERW Liberia Team refer only to MOHSW workers, not workers paid by other partners*

Another major result of the innovative approach of the PPERW was the mobilization of resources from multiple sources and modalities, in pursuit of shared and clearly defined time-bound results. The Programme mobilized over $9 million, combining UNDP's own internal resources with contributions from the Ebola Response MPTF, UNMEER and the World Bank (Table 4).

[12] Alima, Médecins Sans Frontiers, and the French Red Cross.

[13] The other 208 ERWs were either no longer working or covered via alternative funding.

Table 4: Resources (source, amount) mobilized by the PPERW

Location	Source	Amount
Regional	UNDP Innovation Fund	$ 109,458
	Multi-Partner Trust Fund (MPTF)	$ 524,300
Guinea	MPTF	$ 2,204,200
	UNMEER	$ 298,296
	World Bank	$1,500,000
Sierra Leone	MPTF	$ 1,261,625
	UNDP Crisis Prevention and Recovery Thematic Trust Fund (CPR-TTF)	$ 600,000
Liberia	MPTF	$ 2,245,832
	CPR-TTF	$ 400,000
Total		**$9,143,711**

Conclusions

The Ebola crisis devastated the fragile health care systems of Guinea, Liberia and Sierra Leone. Fatalities from EVD have included health professionals within leadership, management, supervisory, and training roles. Meanwhile, non-Ebola-related morbidity and mortality in the affected countries, particularly infant and maternal mortality, also increased as scarce resources were diverted to fight Ebola and as people avoided seeking health care for fear of EVD contagion. West Africa will recover over time, and lessons from the PPERW can be harnessed to aid in that recovery and inform responses to other health and development crises.

For UNDP, the Programme provided valuable lessons on the importance of multi-disciplinary expertise application in crisis responses. Cross-bureau experience, with specialization in crisis response, governance and health, was successfully combined with both internal and external technical expertise in mobile money and payments programming. Responding to the EVD epidemic has taught all engaged institutions the value of real-

implementers alike have been actively engaging in a broader 'digitization agenda' focused on a shift from in-kind to cash-based humanitarian aid payments. This exploration is in part a reflection of the fact that, when used in crisis responses, the dominance of physical cash not only makes it harder for the poor to manage their finances but also perpetuates their marginalization from the formal economy, whereas digital cash enables support and dignity objectives to be combined. The PPERW proved that digitized payments are feasible and can be implemented reliably both at scale and in partnership with national private sector partners, *where these partners exist*. Given this large-scale confirmation that humanitarian aid can be delivered through mainstream financial sectors, it is more important than ever for crisis responses to learn from the financial inclusion sector.

Secondly, the Sierra Leone example showcases the importance of building core government functions in a crisis. Regardless of private sector inputs, it is critical that the state firstly has the capacity for convening, regulating and catalyzing a collective response; and secondly can call on international support to guarantee the effective management of public goods in a crisis, as stipulated by the International Health Regulations. The breakdown of traditional models of labour force and payroll management required governments to quickly improve human resource tracking, deployment and accountability – and, most importantly, to offer the guarantee that payments would be made, so as to maintain the overall viability of the workforce. These core government functions enabled the PPERW and full UN engagement to more easily support national government capacity with international resources and technical capacity. The result was a collaboration that not only enabled a more effective response but also allowed a heightened level of transparency, which governments could then highlight as a progressive example of increased accountability in the expenditure and reporting of international resources.[14]

Third, the PPERW offers some specific lessons pertaining to health crisis responses. One core lesson relates to the unique mandate of the UN to both act and convene in response to epidemics. Planning scenarios in the early stages of the international response assumed that at least partial system breakdown was likely in relation to ERW payments. The *unknown* was where, when and with what consequence system