



Understanding Liberian Healthcare Worker Interactions with Payment Systems, Mobile Phones, and Financial Behavior: An Ethnographic Study

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Acronyms

CSA	Civil Service Agency
LRD	Liberian Dollar
МОН	Ministry of Health
mSTAR	Mobile Solutions, Technical Assistance, and Research
SMS	Short Message Service
USAID	United States Agency for International Development
USD	US Dollar

Introduction

BACKGROUND AND SIGNIFICANCE

Mobile Solutions Technical Assistance and Research (mSTAR) is a strategic investment by USAID to advance mobile solutions and close the gaps that hold constrain access and uptake of mobile technology. The project supports broad-based coordinated action by a range of market stakeholders including governments, donors, mobile service providers, and their customers. mSTAR is designed to initiate and support game-changing interventions to support mobile money, mobile access, and mobile data collection and dissemination.

Specifically, mSTAR is working with the Liberian Ministry of Health (MOH) to implement a system of electronic payments as a means of disbursing salary and other remittances to government healthcare workers. This activity is of great importance given challenges with the current payment system that often result in late payments to healthcare workers and recurring mistakes with payment amounts. The current payment system also produces large amounts of inefficiency, wasting both Government of Liberia and healthcare worker time and money. Although many of these issues with the payment system have existed for years, the recent Ebola epidemic brought new attention to these challenges as many healthcare workers were promised hazard payments for working during the outbreak. The current payment system was not able to accommodate these ad hoc payments, prompting a large number of healthcare workers to go on strike in the midst of the outbreak.

Since these events, the MOH has worked with mSTAR to conduct formative research to develop an approach for implementing a mobile money system of paying its healthcare workers. Given the complexity of the Liberian payment system, a sound understanding of current attitudes and norms regarding mobile phone use, financial habits, and the current payment system is critical to the development and successful implementation of a new payment system. This report describes findings from an ethnographic study conducted to contribute to that understanding, as well as recommendations for next steps in improving the payment system for healthcare workers.

RESEARCH OBJECTIVE

As introduced above, the primary objective of this study was to describe the experiences and attitudes of healthcare workers in Liberia with regard to mobile phone usage and salary disbursement, in order to inform implementation of an electronic payment system for government healthcare workers.

The planned outcomes of this study are a holistic and contextualized understanding of healthcare workers' interactions with the salary payment system including a:

- a. Description of the process of collecting salary payments among healthcare workers using the current payment system.
- b. Description of the process of collecting salary payments among government-employed teachers using a mobile phone-based payment system (for comparison).
- c. Description of healthcare workers' attitudes towards and trust of the Government of Liberia for salary payments.
- d. Description of the daily and weekly patterns of mobile phone use among healthcare workers.
- e. Description of the financial spending, saving, and borrowing habits of healthcare workers.

Methods

STUDY POPULATION AND SETTING

The population of interest for this study was government-paid healthcare workers employed at public health facilities in Liberia. The study included a diversity of healthcare workers -- including both clinical and nonclinical, male and female, and urban- and rural-located health workers -- in order to understand the range of HCW experiences with the payment system and mobile phones. Clinical healthcare workers are those who interact directly with patients and have expertise in a particular health or technical area. Nonclinical healthcare workers include staff who work in administrative, support, or operational roles within or in support of a healthcare setting, but that do not require specific health knowledge or skills.

Study participants were selected from five counties: Bong, Gbarpolu, Lofa, Nimba, and Montserrado. Montserrado County contains the capital city of Monrovia and was used to represent urban healthcare workers; the four other counties are primarily rural. The selected counties were chosen to reflect a variety of interactions with the government payment system, as reflected through distance to the MOH office in Monrovia and distance to the nearest bank.

<u>Clinical Healthcare Workers</u>: Nurse, doctor, surgeon, midwife, pharmacist, laboratory technician, nurse aide, dentist, x-ray technician, social worker, and dispenser.

<u>Nonclinical Healthcare Workers</u>: Cleaner, cook, driver, security guard, accountant, and registrar.

SAMPLING STRATEGY AND RECRUITMENT

Information on government-paid healthcare workers, including name, cadre, sex, health facility, and county was provided by the MOH. Within each county, the healthcare worker information was disaggregated by sex to provide a sampling frame for a simple random sample. Each county/sex-disaggregated list was numbered; the numbers were entered into a random number generator and the healthcare workers corresponding to the numbers at the top of the randomly-generated list were invited to participate in direct observation and walk-along activities. The healthcare worker information was further divided by clinical and nonclinical health workers and used random sampling, as described above, to determine the healthcare workers who were invited to participate in the focus group discussions. Each county had between 2 and 4 direct observations and walk-alongs, with an equal number of male and female participants in each county. Each county also had three focus group

County	Focus Group Discussions*	Direct Observations	Walk-Alongs
Bong	3	4	4
Gbarpolu	3	4	2
Lofa	3	2	2
Nimba	3	4	4
Montserrado	3	4	2
Total	15	18	14

discussions: one with male clinical healthcare workers, one with female clinical healthcare workers, and one with both male and female nonclinical workers. Efforts were made to have an equal mix of male and female participants in the nonclinical focus groups. In addition, if it was

*Includes one focus group discussion with: male clinical healthcare workers, female clinical healthcare workers, and nonclinical healthcare workers in each county.

determined that there were supervisory relationships between any focus group discussion participants, then the supervisor was removed from the focus group and resampling conducted to find a replacement participant.

The information on healthcare workers that was provided by the MOH included a large amount of outof-date information regarding healthcare workers' current facility assignments, resulting in the research team being unable to locate many of the healthcare workers who were selected at random to participate in the study. As such, a large amount of replacement was required in order to provide a sufficient number of healthcare workers who could be located within the specific study counties.

Recruitment was conducted either by the phone or at the health facility where the healthcare worker works. Prospective participants were given a brief overview of the study. Individuals who expressed interest in participating in the study were given more information about the study's objectives, as well as potential risks and benefits, as delineated in the study's informed consent procedures.¹

DATA COLLECTION

All data were collected by a team of ten research assistants, who were selected through a competitive recruitment process and trained in study procedures and research ethics. A team of two research assistants – one male and one female – were deployed to each of the study's five counties for a period of approximately four weeks.

Focus group discussions. Each focus group consisted of 8 to 12 healthcare worker participants. All focus group discussions were conducted in English, audio recorded, and transcribed by the research assistants.

Direct observations. Direct observations were conducted with 18 healthcare workers for a period of one day. Starting from the time the healthcare worker arrived at work until the time he/she left work, research staff observed the healthcare worker and documented types and frequency of mobile phone use and financial transactions. Research staff followed an observation template to assist in collection of meaningful and standardized descriptions of mobile phone use and financial transactions. The period of direct observation was also used to build rapport between the healthcare worker and research staff, prior to the healthcare worker participating in the walk-along research activity. Direct observations for each county consisted of an equal number of male and female healthcare workers. Nearly all direct observations were among clinical healthcare workers. Immediately following each DO event, the research staff reviewed and completed a direct observation template, which then served as the record of the event.

Walk-alongs. All healthcare workers who participated in the direct observations also participated in the walk-along research activity, with the exception of 4 healthcare workers who had already collected their monthly salary payment and thus could not participate in the walk-along activity. The walk-alongs consisted of a research assistant accompanying the healthcare worker as he or she went to collect their monthly salary payment. All but one walk-along participants were clinical healthcare workers. The activity began at the time that the healthcare worker left home or the health facility for the bank and ended when the healthcare worker returned to his or her home. During this period, the research

¹ The study research protocol, consent forms, and discussion guides were approved by both FHI 360 and local Liberian IRB committees, prior to data collection.

assistant engaged the healthcare worker in conversation to understand his or her personal experience with the payment system, financial habits, mobile phone use, and mobile money use. This period of unstructured, casual conversation offered deeper insight into healthcare workers' attitudes and beliefs, as well as their observable behavior. At the conclusion of the activity, the research assistants provided a written summary of the process that the healthcare worker went through to collect his or her salary payment, as well as the amount of time that each step of the process took and any costs incurred during the process.

ANALYSIS

All data, including summaries of walk-alongs, completed direct observation forms, and focus group discussion transcripts were uploaded into NVivo 11 software for analysis. All data were read closely in order to identify recurrent themes – emergent ideas or concepts that described, explained, or represented different elements of mobile phone usage and the payment process. These themes were further delineated through the development of a codebook, where each theme was codified and defined. Structural codes – labels for data according to the pre-existing structure in the data - were also developed, based on the questions asked in the focus group discussion guide and the overall research objectives. All data were then coded in NVivo using these structural and emergent codes. The data compiled under each code were then examined in order to gain a better understanding of nuances in the thematic content, as well as any differences by sex, location, or cadre of healthcare worker. Most of the data in this report was generated from the focus group discussions. Therefore, unless stated otherwise, quotes and references to discussions with healthcare workers are from the focus group discussions.

Findings: Mobile Phone Ownership and Use

HEALTHCARE WORKERS' PERCEPTIONS REGARDING MOBILE PHONE OWNERSHIP

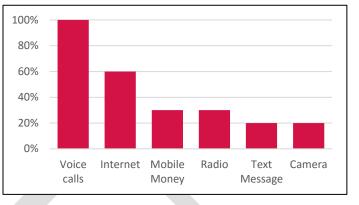
Focus group discussions, direct observations, and unstructured conversations with healthcare workers consistently indicated that nearly all healthcare workers in Liberia own mobile phones, although the frequency and type of use of mobile phone vary. When healthcare workers participating in a focus group discussion were asked about who owns a mobile phone, they responded with their belief that mobile phones are widely accessible and mobile phone ownership nearly universal among all healthcare workers in Liberia. In addition, many healthcare workers described how important it is for healthcare workers to own mobile phones, both for work purposes and because many of them are living away from their families while stationed at their health facility.

"In Liberia everybody uses mobile phones; down to the market women and children, everybody uses mobile phones." – Male, Clinical Worker, Montserrado County

"Cleaners got phones, administrators, the people that are there got phones, the midwives got phones, nurses, everybody in [this] hospital as staff got phone. Those old ladies that are cleaning the floor, when you see them they got their phone in their clothes and working." – Female, Clinical Worker, Montserrado County

HEALTHCARE WORKERS' USE OF MOBILE PHONES

When 10 of the 15 focus groups of healthcare workers were asked to list the top 3 ways that they use their mobile phones, every group listed making and receiving phone calls as the primary use. Sixty percent of groups listed internet (either for entertainment, social media, or online research) as one of the top three uses of mobile phones and 30 percent listed mobile money. Other top uses of mobile phones included radio, text message/SMS, and camera, as seen in Figure 1. Figure 1. Percent of Healthcare Worker Focus Groups Listing Specific Type of Mobile Phone Activity in Top Three Uses (n=10).



Healthcare workers consistently reported the use of mobile phones for work purposes, including making/receiving phone calls, receiving text messages from the MOH, calculating drug doses, and doing mobile internet research on work-related topics, as described in more detail below.

Voice calls. The most dominant form of mobile phone use reported by healthcare workers was for making and receiving voice calls. Healthcare workers reported using phone calls for both personal and professional purposes. For personal calls, healthcare workers in all counties described placing calls to family and friends, both near and far. This included making phone calls, while at work at the health facility, to their home to check on their children. Many healthcare workers reported living in a separate county from their spouses and/or children and using phone calls to keep in touch with their family.

"Communication is very important because you here, our own husband them in town... and I get my son way in Nimba County, so I have to be calling there, to find out how he coming on, the person who taking care of him, how is the person. So the communication is important on the phone." – Female, Clinical Worker, Gbarpolu

Healthcare workers described, in great detail, the many different ways that they use phone calls for work-related purposes. Healthcare workers reported using their mobile phones to call other healthcare workers, supervisors, patients, patient families, and ambulance drivers as part of their jobs. Individuals described placing calls to their colleagues at the health facility in order to relay information about a patient's condition and to learn the whereabouts and work schedule of their colleagues if they weren't at the health facility as expected. Workers also reported using phone calls to discuss patient cases and schedules with their supervisors, as well as using internet on their mobile phones to submit work-related reports. Some clinicians specifically mentioned calling colleagues for advice if they were uncertain about a particular patient's diagnosis or treatment plan. Many healthcare workers described the use of mobile phones as critical to their work, as their role necessitated them to make regular calls to patients for follow-up or tracing purposes. Both clinical and nonclinical workers also described the importance of mobile phones in enabling them to call an ambulance to pick-up critically ill patients.

"I need to make a communication, so that the ambulance can quickly go for my patient. I need to call through mobile phone." – Nonclinical Worker, Lofa County

"We also help in confirming diagnosis or treatment; that is through the information sharing. Like I've got a patient and I did some assessment but I am a little bit confused about what really to diagnose so I got to call my colleague and say that I receive a patient and the condition is like this and the person will tell me "ok do xyz," then I can find solution." – Male, Clinical Worker, Montserrado County

Internet. During focus group discussions with healthcare workers, many clinical workers described using the internet on their mobile phones to conduct research or to learn more about a topic. Such activities were described consistently across both sexes and in all five counties. Workers described general research on a topic of interest and, at times, gave specific examples of needing to research a topic for work purposes, such as a midwife looking online to find guidance on frequency of vaginal exams or a laboratory technician researching a procedure. Other workers described doing online research on their phones for a specific assignment or to prepare presentations on particular topics. Healthcare workers did not specify where on the internet they got this information – it is unclear if they primarily used a search engine (e.g. Google or Yahoo) or a medical reference site for this information.

"I actually use my mobile phone to make research about laboratory department. Where there are some issues I didn't know about, I read on it on the internet." – Male, Clinical Worker, Nimba County

"We also use the mobile phone to get information that if a doctor orders medicine to the patient that you are not familiar with some time you have to go on the net to know whether that medicine will really be good for the patient." – Female, Clinical Worker, Bong County

Mobile money. Many healthcare workers reported having used mobile money before. In rural areas, mobile money was most commonly used to send and receive money among family members. In particular, many healthcare workers were currently working at a health facility that they have been transferred to, but their family members, and often children, are living elsewhere. Mobile money is used by healthcare workers to remit part of their income to a family member or spouse who is taking care of the children, in order to pay for living expenses and school fees. Or, if a healthcare worker has adult children, then mobile money is sent directly to the child to help cover university fees and assist with living expenses. Healthcare workers also mentioned that mobile money was useful in helping to send money for unexpected expenses, such as if a family member fell ill or if there was a funeral in the family. Additionally, mobile money provided a way to receive loans from family members for some HCWs. Finally, and only in Monrovia, healthcare workers reported using mobile money to pay some of their bills, such as utilities and satellite television, via mobile money.

"If am away and my family need money, I will have to send money through the mobile phone, by mobile money, and they use this money to purchase food, they use it to buy medication and they use it to buy clothing and sometime collect it to go pay school fee." – Female, Clinical Worker, Bong County

"I got my nephew... I can just use my mobile money and I send him at least something for lunch or something." – Female, Clinical Worker, Bong County

"Even like Monrovia they use mobile phone to pay their electricity bill, water bill, all this and that." – Male, Clinical Worker, Gbarpolu County

"Like you get your child living Monrovia and you work here Bong County so to send your child support or school fees you have to send it through mobile money." – Nonclinical Worker, Bong County

"I can use my phone for my children... I sent school fees... through my phone through mobile money." – Female, Clinical Worker, Gbarpolu County

Of the 14 healthcare workers who were accompanied as they went to collect their monthly salary payment, 5 conducted a mobile money transaction at some point in the process of going to collect their pay. Four of these transactions involved healthcare workers sending money to family members immediately after collecting their pay while the other was receipt of money from a relative, in order to cover the travel costs of getting to the salary collection location.

Calculator. Nearly all focus group discussions included mention of mobile phones as calculators. Specifically, healthcare workers across all counties and sexes described using the calculator on their phones for conducting drug calculations when preparing treatment regimens.

"Health workers use the mobile phone when it comes to drug calculations, they use the calculator in the phone too to calculate the drugs too." – Female, Clinical Worker, Nimba County

"You want to do your report you need it to total your number of patients and the number of test done for them. Like for me if I want to serve my drugs, I use my calculator." – Female, Clinical Worker, Montserrado County

Facebook. In terms of social media, many healthcare workers mentioned Facebook as a way that they use their mobile phones. Use of Facebook was mentioned separately from general internet use. In addition, Facebook was the only social media outlet that was specifically named by healthcare workers. Female clinical workers were more likely to mention using Facebook than male clinical workers. Some nonclinical workers also mentioned Facebook. Healthcare workers did not go into detail as to what they did on Facebook, therefore it is unclear if healthcare workers are using the social media platform for posting content, reading the news, or keeping in contact with friends. In Liberia, Facebook is zero-rated, meaning there are not data charges for use.

Entertainment. Healthcare workers described using their phones to access radio, music, games, and videos as a means of entertainment. Eighty percent of focus groups included specific mention of one of these uses; the remaining 20 percent of groups did mention Facebook, which might include entertainment through videos or games. Of these different forms of entertainment, it was not clear which required the use of a mobile internet connection or which could be operated offline.

"Sometimes after work when you are stressed, you use the phone to play your game, to witness your video to ease the stress." – Female, Clinical Worker, Lofa County

HEALTHCARE WORKERS' USE OF TEXTING

Most mentions of text messaging centered on receiving mass messages from mobile network operators, the MOH, and—for some—their bank. All healthcare workers receive regular mass text messages from their mobile network providers advertising discounted plans. The MOH began sending mass text messages to healthcare workers during Ebola, mostly regarding health communication or data

collection. Some healthcare workers also receive text message notifications from their bank when their account balance changed.

"I haven't communicated with MOH, but I receive text message from them the last time saying that all health workers should sit at their facilities, that they will be a sending a team to come and carry on research, due to that message we were seated at out working places, they came and met us and they carry on that survey." – Female, Clinical Worker, Nimba County

"The phones are most often use to give information across... like from Ministry of Health, Eco Bank, the Lone Star Cell, the Cellcom most often." – Female, Clinical Worker, Lofa County

"Like what I was saying to link with the bank. Because whenever they have something there for me, they tell me." – Male, Clinical Worker, Montserrado County

Very few healthcare workers mentioned the use of text messages to send or receive messages with friends or family. Those who did mention sending text messages often described this in the context of using text to communicate when it was not possible to make a phone call, either because of inconvenient timing or lack of credit on the phone. Use of mobile phones for sending or receiving personal text messages was also not observed in any of the direct observations conducted among healthcare workers. Text messaging for the purpose of having a personal conversation was not described by healthcare workers. Moreover, healthcare workers from Montserrado County even joked about how they do not have time to have personal conversations via text message:

"What's the time you've got to send text message? When you come to work by the time you get home is late. We got one bus that is going around; by the time you get to your intersection to go home its round 9 to 10:00. What's the time you get to text; who you texting? Ministry of Health? [Laughter]" – Female, Clinical Worker, Montserrado County

BEHAVIORS IN CHARGING MOBILE PHONES

Many healthcare workers indicated or were observed using electricity at the health facility where they work to charge their mobile phones. Healthcare workers in Montserrado County also indicated that they avoid using their phones in ways that can run down the battery quickly, such as using the phone as a flashlight or radio.

"...for the charging aspect... the hospital gives current [electricity] to health workers here... If you can't get it at home, you carry [the phone] to the working area and charge it." – Female, Clinical Worker, Gbarpolu County

"As for me, if my phone turns off, when I come to work I charge it, but when I go home there is no current [electricity]." – Female, Clinical Worker, Lofa County

"These things [radio and flashlight] can carry the phone battery down quickly so we don't like to use them." – Female, Clinical Worker, Montserrado County

PERCEPTIONS OF NETWORK COVERAGE

When focus groups were asked about network coverage, healthcare workers' responses differed depending on their location. For example, no respondents from Montserrado County described any issues with network coverage. In addition, network coverage was mentioned only briefly during data collection

in Bong County. In contrast, participants from Nimba, Lofa, and Gbarpolu Counties described how difficult it can be to use mobile phones and/or mobile money due to inconsistencies in the mobile network coverage, yet specific experiences varied greatly by county. Workers in Lofa County described the mobile network as somewhat stable but that the network went down more frequently during the rainy season. In Nimba County, healthcare workers described how some parts of the county had no network coverage at all. Healthcare workers in Gbarpolu County seemed to have the greatest difficulties with network coverage; they detailed how the mobile network can go down for three to five days at a time. In addition, workers in Gbarpolu County stated their belief that the poor network coverage was, in part, due to the fact that Lonestar was the only mobile network operator in the county.

"There are some workers in the rural area and where they live, there is no network coverage and it will be very difficult to get the message on time." – Male, Clinical Worker, Nimba County

"Like most often during the dry season, we don't face problems with network. But in rainy season, once the weather is cloudy, you get poor network here." – Female, Clinical Worker, Lofa County

"Network issue here within Bopolu [Gbarpolu County] is not stable and, secondly, network not strong... there certain distance you can take you expecting network to be there when you go there sometime you want make an urgent call, you will not get network, so the network system here, I think for me it is very poor." – Nonclinical Worker, Gbarpolu County

DIFFERENCES IN MOBILE PHONE USE, BY CADRE

Types of use of mobile phones differed greatly by cadre of healthcare worker (clinical versus nonclinical). Nonclinical workers such as housekeepers, cooks, drivers, etc. are generally expected to have lower education, literacy, and digital literacy levels than clinical healthcare workers. During focus

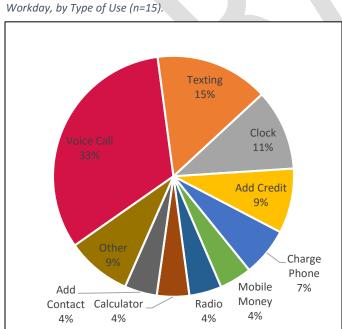


Figure 2. Percent of Healthcare Workers Using Mobile Phone During Workday, by Type of Use (n=15).

groups, some nonclinical workers specifically mentioned that they were unable to read and would hand their mobile phone to someone else to read any messages aloud to them.

All of the focus groups of clinical healthcare workers listed internet as one of the top three ways they use their mobile phone, compared to none of the nonclinical healthcare workers' focus groups. Conversely, two-thirds of nonclinical focus groups listed text messages as a top means of mobile phone use, while none of the focus groups with clinical workers rated this as a top use of their phones. Figure 2 represents the ways that mobile phones were used by healthcare workers during a typical workday, as found through direct observation of healthcare workers.

DIFFERENCES IN MOBILE PHONE USE, BY SEX

Comparison of mobile phone use by sex was limited to the focus group discussions with clinical workers, as focus groups with nonclinical workers were not separated by sex. Among clinical workers, all male and female focus groups included both voice calls and internet in the top ways that they use their mobile phones.

Two-thirds of male clinical healthcare worker focus groups listed radio as a top use, compared to none of the female clinical worker focus groups. Conversely, half of the female clinical healthcare worker focus groups included use of a phone's camera as one of the top ways they use their mobile phone, compared to none of the male clinical focus groups.

During periods of direct observation of healthcare workers in their work setting, researchers observed that the frequency with which healthcare workers use mobile phones throughout the work day is quite variable. Observations of 15 healthcare workers revealed that these individuals interacted with their mobile phones between 3 and 21 times throughout the course of the work day. Male healthcare workers seemed to interact with their mobile phones more frequently throughout the work day (median of 9 interactions per day) than their female counterparts (median of 7 interactions per day). As seen in Figure 2, an estimated 70 percent of interactions with mobile phones consisted of making or receiving voice calls. Other uses included text messaging (reading texts received from mobile network operators, the MOH, bank, or mobile money), checking the time on the phone's clock, using the calculator, and using mobile money.

Findings: Healthcare Worker Perceptions of and Experiences with Payment System

EXPERIENCES OF BEING ADDED TO PAYROLL

Healthcare workers begin working for the Government of Liberia as a contract employee and receive remunerations at the health facility where they work, via check and cash, as incentive pay. In conversations with healthcare workers, the period of time between when an employee begins on contract and is added to the government payroll spanned from 2 months to 9 years, although the reasons why some healthcare workers remained in the contract period for longer than others is not apparent.

When asked what it's like to be added to the government payroll, healthcare workers had a mix of responses. They explained that it is widely preferred to be on government payroll, rather than contract, and this status makes one eligible for more benefits. In addition, being a contract employee was associated with feelings of instability, with healthcare workers explaining that contract workers do not have the same assurance that they will receive their pay.

"If you are on... contract anytime they can kick you out. Or sometime they can come and hold your money and say we are not giving it to you, but when you on government salary it will be fine." – Male, Clinical Worker, Gbarpolu County "When you are... a new employee on the government payroll they send your name from civil service to your county, through the HR [Human Resources Officer]. The HR will post the name up if you see your name on the bulletin board you have to go to him to explain the process to you, but before you can see that name it has already past two-three months. And you will not be receiving money from the institution [health facility] you working for." – Female, Clinical Worker, Bong County

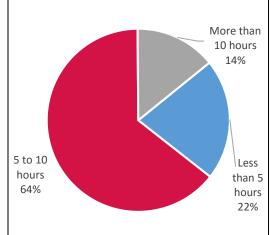
The actual process of being added to the government payroll and collecting the first salary payment was described as confusing and highly stressful. As described in focus group discussions, this process begins when the healthcare worker learns, often via a notice on a bulletin board at their health facility, that their name has been added to the payroll. This notification seems to happen approximately two months after this switch to payroll is actually made by the MOH in Monrovia. The healthcare worker is then in touch with his/her Human Resources Officer to learn what he/she should do next. The officer instructs the healthcare worker to travel to the MOH in Monrovia for more information. Travel from rural areas of Liberia to Monrovia can be both expensive and time-consuming, especially for those who have not spent much time in the nation's capital before. Upon arriving in Monrovia, the healthcare worker will receive a payroll account number from the MOH, instructed to get a biometric identification card, and told to open a bank account in order to receive payments. From here, the process can vary but typically involves the healthcare worker traveling to the bank, Civil Service Agency, and sometimes MOH and Ministry of Finance in order to confirm that they are set up to receive salary payments and to collect their initial payment. Healthcare workers report that they often miss receiving two or three months' worth of salary that was sent before the healthcare worker was notified that they had been added to the payroll. It is not clear if the healthcare workers fail to receive these payments because the funds could not be transferred since there wasn't a bank account or for a different reason.

"The very first thing there is no proper orientation that is the very first difficulty you will have in receiving your first payment. They will send you to the bank, your HR will only tell you go and open an account and money will go there. How the money will go there, the processes in which getting you to make your own way and when you shall have gotten to the bank, you have to go the customer service and then you make your own way and I think it very bad, it difficult for even the older ones before the new ones..." –Male, Clinical Worker, Bong County

TIME SPENT COLLECTING PAY

Healthcare workers spend a large amount of time attempting to collect their salary payments from the bank. In the walk-along research activity, researchers documented the amount of time spent traveling to the bank, time waiting at the bank, and travel time back home. The median number of hours spent collecting pay was 6.25 hours. Nearly two-thirds of participating healthcare workers spent between 5 and 10 hours collecting their pay (Figure 3). Of the 11 healthcare workers who lived outside of Montserrado County, four of them had to travel to Monrovia to reach the closest bank.





The remaining seven were able to travel to a bank within their county to collect their pay.

Travel. Important to note, is that these observations were conducted in August 2016, during the rainy season. Travel during the rainy season is typically much more time-consuming than during the dry season, as very few roads are paved and vehicles must move slowly to avoid getting stuck in the mud. It is reasonable to assume that the amount of time traveling to and from the bank would be shorter during the dry season.

Waiting at bank. In addition to time spent traveling to and from the bank, it is common for healthcare workers to spend 2 to 4 hours at the bank before they receive their payment. In focus group discussions with healthcare workers, most described waiting in long lines at the bank before being seen by a bank agent to withdraw their money. Many healthcare workers also described how they would leave their homes early in the morning, in order to arrive at the bank a couple of hours before it opened so that they could be seen first when the bank opened.

"The bank can be very pack so when we go there sometime we spend the whole day why waiting for our owner time to reach." – Female, Clinical Worker, Bong County

"Go across the road photo copy with your ID card come back in and sit in the line. If you want to know your amount, you will stand in another line to know the amount you get in your account before filling in the form to go stand in the line, through that process before we can go to the teller, and the teller will give your money, at times we spend two, three, four hours, standing in the line." – Female, Clinical Worker, Lofa County

Bank system down. Healthcare workers noted that it was very common for a bank visit to require additional time if bank agents reported that the bank "system was down" – meaning they had to halt transactions due to either poor internet connection or low liquidity. Healthcare workers reported that, in such cases, customers will either continue waiting at the bank to see if the system will become functional again or will have to return to the bank the following day to complete their transactions. For healthcare workers who have traveled out of town to reach the bank, having to return the next day can involve extra cost for travel and/or lodging for the night. Healthcare workers noted that issues with the bank system being down seemed to be more common during periods of high traffic at the bank, such as when many civil servants are going to collect their pay.

"We really feeling bad about it because when you get (leave) from here now you go Voinjama they say system down and you na get nobody there, for you to sleep there, you to come back again." – Female, Clinical Worker, Lofa County

Resolving issues. Some healthcare workers gave examples of when the process of collecting pay unexpectedly took multiple days. Often the examples were from cases where it was the healthcare worker's first time being added to the payroll or if the healthcare worker's name was mistakenly removed from the payroll list and so the bank did not receive the salary. The latter case happened in of the 14 walk-alongs whereby the healthcare worker, a male clinical worker who had traveled from Gbarpolu to Monrovia—a 3 hour ride by motorbike—to collect his pay, arrived at the bank to find that his name was not on the payroll. He was forced to stay in Monrovia four days while he traveled back and forth between the Civil Service Agency (CSA) and bank in order to remedy the issue and collect his pay. Healthcare workers reported other similar cases during the focus group discussions. "The Ministry will sometimes check and say that's mistake. Then they'll give you letter, go to [Ministry of] Finance, go here, go there.... Till sometimes it will take you a week plus running after that particular money. Like once it happened to me and it went about three months and we ran after it but I was only able to get two months of money." – Male, Clinical Worker, Montserrado County

COST OF COLLECTING PAY

The study found that the amount of money spent to collect pay, including cost of travel, meals, lodging, and unofficial "fees," varied by county. According to data from the walk-along activities, healthcare workers from Gbarpolu, Bong, and Nimba Counties spend an average of between \$16 and \$32 per healthcare worker. Costs were markedly less for healthcare workers in Montserrado and Lofa Counties, where healthcare workers averaged less than \$5 in costs to collect pay (Figure 4). The healthcare workers from Lofa County who participated in this

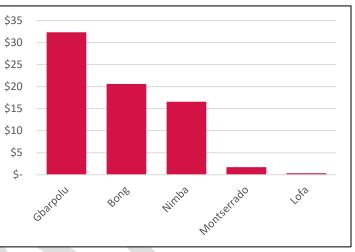


Figure 4. Average Cost (USD) Spent Collecting Pay, by County (n=14).

research activity happened to live in the capital of the county, where the closest bank is. Many clinical healthcare workers mentioned that they typically receive between USD \$190 and \$220 in salary in per month, meaning that healthcare workers in this study spent between 2 percent and 17 percent of their salary on travel costs to collect that salary. These proportions were greater for nonclinical workers as their salary payments are lower than clinical workers.

Transportation. Transportation, via rented motorbike or car, tended to be the greatest cost for healthcare workers in most counties. A handful of healthcare workers reported owning or borrowing a motorbike or vehicle to travel to the bank, in which case they reported the cost of fuel needed for the trip. Again, the cost of transportation would be expected to be lower during the dry season of December through February.

"Health workers who are in the hinterland where you don't have the banking system and... rainy season, our roads are deplorable right now. We will have to get on motorbikes and... you pay double times what you pay during the dry season." – Male, Clinical Worker, Nimba County

"We take motorbike... from here to go now is 500 LRD (Liberian Dollar) [5 USD]." – Nonclinical Worker, Lofa County

Stay in Monrovia. Costs for healthcare workers needing to travel to Monrovia to reach the bank tended to include lodging and meals at a guest house. These costs would multiply if the healthcare worker was forced to stay in Monrovia for multiple days in order to address any issues with his or her pay. In focus group discussions, healthcare workers described the stress of buying meals and lodging in Monrovia, where the cost of living is greater than other parts of the country, in order to collect pay.

"And system down, you will be there using ordinary money that you not even expect to use. Sometime you will be in the town buying food, crediting, doing this that until system can come back." – Male, Clinical Worker, Nimba County

Unofficial fees. During the focus group discussions, some healthcare workers mentioned times that they had paid unofficial "fees" in order to expedite the process of collecting their pay. The most consistent type of "fee payment" reported was to bank security guards or—less commonly—to bank tellers, in order for a healthcare worker to withdraw his money without having to wait in line. The amounts given to bank security guards or tellers ranged from \$1 to \$10 USD but most were around \$5 USD. Healthcare workers seemed to have different perspectives on this "fee" with some regarding it as more of tip in order to create goodwill with the bank employee. Other healthcare workers seemed to view the "fee" as closer to extortion, explaining that bank security agents will not let them into the bank to see a teller until the "fee" is paid. Still, some healthcare workers said that they never paid any fees in order to collect their pay from the bank. It is unclear how common of a practice paying these "fees" was also observed in some of the walk-alongs.

"The security men... they say we should give them something before we can get in and sometimes you coming outside you don't give them money, the next time when you come they will not allow you to get inside [the bank]." – Male, Clinical Worker, Bong County

There were at least two instances where healthcare workers described paying MOH, Ministry of Finance, and CSA employees a "fee" in order for them to correct an issue with the payroll process. Both of these instances were from female healthcare workers in Montserrado County and, in both cases, the women explicitly referred to these payments as "bribes."

"You have to go to the Ministry [of Health] where your document will be and bribe people; they take your document to Civil Service Agency; you go to Civil Service you bribe people; when they tell you that your document is at the Finance Ministry, you will go to the Finance Ministry and bribe there before your name can enter the payroll." – Female, Clinical Worker, Montserrado County

ISSUES WITH PAYMENTS, MAY - AUGUST 2016

The data for the *mSTAR Ethnographic Study* were collected in August 2016 during a period that followed two major changes to the payment process that resulted in healthcare workers receiving lower payments than they expected. First, due to a clerical error within the Government of Liberia, tax deductions for the entire year of 2016 were mistaken deducted from the monthly July salary payments for all civil servants. This resulted in all civil servants, including healthcare workers, receiving a much smaller amount than usual. In addition, the Government of Liberia began gradually shifting the currency of civil servant incentive payments from USD to LRD. The Government planned to begin this process in May by paying incentives with 50 percent of each currency, then paying them in 30 percent USD and 70 percent LRD in June, and 20 percent USD and 80 percent LRD in July. The decision to shift incentive payments from USD to LRD portion of these incentive payments (50 percent of continue paying incentives in USD currency. The LRD portion of these incentive payments (50 percent of incentives in May, 70 percent in June, and 80 percent in July) have not, as of October 2016, been paid yet.

Healthcare workers consistently expressed great concern and distress regarding these deductions and the lack of communication associated with them.

"I feel very frustrated because for the past four to five months now, that's when they started deducting, when you go to the bank the salary that you are expecting you will see different one [amounts]... for the past three months they have been cutting the salary." – Female, Clinical Worker, Bong County

"Any deduction made we don't know anything about at all. So it's really playing on our minds." – Male, Clinical Worker, Montserrado County

"Instead of Government increasing [salaries] they are cutting our money... is it a crime to become a health worker, does it mean that my children must not develop?" – Male, Clinical Worker, Gbarpolu County

"One month they give that \$85 they cut it down to \$50 and now they cut it down to \$16... how they expecting us to live?" – Nonclinical Worker, Montserrado County

Some healthcare workers ascribed motives to the MOH, regarding the deductions. Several healthcare workers stated their belief that the MOH doesn't *want* to pay them. Others simply suggested that decision-makers at the MOH are oblivious to the challenges that healthcare workers face and that salary decisions are made arbitrarily.

"Somebody who is not a technician or somebody who is not a doctor sits behind an air conditioner and decide this man salary. Now if he will have to be employed with the government, the people that sit down and decide your salary, you don't know them. Because you took an oath, "I am taking this oath to help my people". They determine your salary so anything they want to give you that are the one they'll give you. Even as an employee or as a tax payer, when they're cutting money from you, they don't tell you; you don't know anything about it." – Male, Clinical Worker, Montserrado County

"When you get to the Ministry the people they will not want to honor you. They will play the delay tactics on you till you..." – Female, Clinical Worker, Bong County

"The worst thing is the government fool me and they incarcerated me by saying they were giving housing unit to help workers and then that MOU was between LBDI and I, I have to pay. All my salary need to go through LBDI to be deducted and at the end government started deducting the money they promise to pay so it like they only fool me to take a house and at the end they going to take it from me." – Male, Clinical Worker, Bong County

"People arbitrarily sit in the office and make decisions. They do not value the job that you're doing." – Male, Clinical, Montserrado County

"That's corruption, that's overlooking people. You know the man is entitled to this [salary]; you arbitrarily disable the man to get what you supposed to earn. This is very rampant." – Male, Clinical Worker, Montserrado County

FREQUENCY OF GOING TO COLLECT PAY

Healthcare workers described strategies for avoiding the cost and time of traveling to the bank to collect their salary payments. Specifically, many healthcare workers described that they only go to the bank to collect their remunerations once every two to three months. In this way, the healthcare worker waits for a few months of pay to amass before investing time and money into traveling to the bank to retrieve their pay. This practice seems particularly common in Gbarpolu as all three focus group discussions and one walk-along participant in this county described this as their usual method for collecting payments.

"You decide to wait for at least three months because the money you paying from here [Gbarpolu] if you add it together that 1000 (LRD) plus I na talking about your food, transportation in Monrovia but that 1000 plus that you paying to go then to go and come." – Male, Clinical Worker, Gbarpolu County

"For me because maybe at the end of the month I don't want to take my money I want to wait until two, three months before I can go there to take my money." – Female, Clinical Worker, Bong County

HEALTHCARE WORKERS' FEELINGS REGARDING PAYMENT SYSTEM

Negative. When focus groups were asked how they feel about the current payment system, healthcare workers offered a variety of responses, describing negative emotions. Many healthcare workers described feelings related to discouragement, frustration, and feeling downhearted. These self-described emotions seemed to center around a feeling of helplessness – healthcare workers are dissatisfied with the current payment system, especially with recent deductions, but also do not have a way to improve their situation. Thus, many healthcare workers feel trapped, even describing themselves as slaves, because they do not have a means of appeal to the MOH and cannot seek employment elsewhere. In talking with healthcare workers, the issues regarding salary payments and deductions seemed to weigh heavily on them and affected many parts of their lives.

"We feel very very, very bad, because of the system, the way in which the money can come. At times, you will want your money urgently to do something, but because of the banking system, it will take you one-two weeks." – Female, Clinical Worker, Lofa County

"Our salary is very discouraging. For me right now in my family, I can tell anyone in my family right now that I don't want you do nursing; I don't want you go near the health sector. Because the place we've found ourselves we're like slaves." – Female, Clinical Worker, Montserrado County

"For me, let me be frank with the government, they are not even treating us fairly when it comes to the process, so I am very, very down hearted with the process." – Female, Clinical Worker, Nimba County

Positive. Focus group discussion participants were specifically asked to name any positive aspects of the current payment system. In general, many participants responded by pivoting on the question, stating that the payment system would be positive if specific improvements, such as eliminating deductions or arriving on time, were made. Other healthcare workers commented that, although the payments might come late or in the wrong amount, they knew that the payments would eventually come and would be

safe at the bank. A few respondents also commented that the current system of payments being directly deposited at the bank was preferable to the old system of a "pay team" delivering cash to the health facilities, as the new system necessitates fewer bribes.

"But for the bank once your money go there it will take time for you to get it. But you are secure, you are sure that the money is there it for you. And then, anytime you go there, when y'all meet the system okay, you can get it out." – Female, Clinical Worker, Lofa County

HEALTHCARE WORKERS' ATTITUDES TOWARDS BANKS

Healthcare workers expressed mixed opinions regarding banks and bank staff. Apart from encountering long lines at the bank, study participants described various negative experiences when collecting their payments, such as being intentionally given torn currency and bank staff giving preferential treatment to other professionals. In addition, healthcare workers described how, upon experiencing deductions to their pay, the healthcare workers' first reaction is to question the bank agents as to what has happened to their pay, however this rarely gives them new information.

Torn currency. With regards to being given torn currency, healthcare workers reported that, when the time comes for civil servants to withdraw their salaries, bank agents will intentionally bring out their oldest, dirtiest, and most worn bills to use for the disbursements. In this way, the bank is able to get rid of their dirtiest currency to the civil servants who do not have the authority to insist on being given better bills. Healthcare workers reported that merchants and others in the community will sometimes refuse to accept these bills when healthcare workers try to use them in transactions.

"And when they giving you the money from the bank... if you not sit to check that money piece by piece, if you bring that money again, other people will reject [it] from you in the community when you go to go buy they'll say: 'that money is tear we don't want it...'" – Male, Clinical Worker, Nimba County

Selective treatment. Healthcare workers across all counties reported instances where other patrons were served before them at the bank. For example, military personnel, police officers, local officials, and business people were all named as people who would be served immediately upon arrival at the bank. These individuals did not have to wait in a line, like healthcare workers and other civil servants. This experience was also observed during the walk-alongs, where healthcare workers would be waiting in line while businessmen and others would be escorted into the bank and served immediately.

"The big big people that we talking about. They get certain people like in Bong County here some official here will just come they pack their car they pass they go inside security will open door for them they pass they go inside." – Nonclinical Worker, Bong County

"From my experienced if am a nurse am in my uniform and get to the bank I will stand on line, but if a military person get there in their uniform they will always serve them why I in my uniform on the line." – Female, Clinical Worker, Bong County

First means of inquiry. Healthcare workers reported that, when they have questions about the amount of pay they received, often their first act is to ask the bank agent or manager for explanation. The bank staff then tells the healthcare worker that they do not have information about the payment amounts and that the healthcare worker should follow-up with the MOH with any inquiries. Healthcare workers

did not indicate that these interactions affect their view or attitudes of banks, however one clinical healthcare worker from Bong County described a negative encounter with a bank agent when he inquired about the deduction to his salary, as described below.

"You go there sometime there tell you no money in your account, when you ask the bank manager he or she can say no idea on it until you come back to the HR or go back to our heads or the ministry." – Female, Clinical Worker, Bong County

"And when you ask at the bank, they'll say go to your ministry. And when you get to the ministry you can't get any redress." – Male, Clinical Worker, Montserrado County

"They deducted 4,000 LRD. You go to (Ministry of) Finance, they say it is from the Ministry of Health, the Ministry of Health go over air say they are not aware if there is any deduction. When you go to the bank they say they are not aware. In fact, they cheek you out. Especially this time, you go there [to the bank], you show your incentive bank book they just chuck it back to you." – Male, Clinical Worker, Bong County

Positive attitudes. As mentioned above, a few healthcare workers did express positive attitudes towards the bank, namely that they felt their money was stored securely while it was in their account at the bank.

"if your money is in the bank, it can be safe." – Female, Clinical Worker, Gbarpolu County

HEALTHCARE WORKER CONFIDENCE IN MINISTRY OF HEALTH

Lack of confidence. When asked to explain their level of confidence in the MOH, nearly all clinical workers and Montserrado nonclinical workers referenced the recent deductions to their pay, with many specifically mentioning the lack of explanation provided by the MOH. Many healthcare workers also expressed the idea that these deductions were intentional and were implemented by the MOH.

"You know I don't have confidence in them for that because our money from June they just cutting our incentives." – Male, Clinical Worker, Bong County

"I don't have confidence in the Ministry of Health because they are not there for us. Salary payment, forget; they don't want see us making money." – Female, Clinical Worker, Montserrado County

"The confidence I lose in Ministry of Health was, they deducted money from me without telling me." – Male, Clinical Worker, Nimba County

"They [MOH] know, they are the one I reporting to, they know what I'm doing. It is their responsibility whether somebody is delaying or not we should say 'oh; do it like this or don't do it like this'. If anything is happening nobody can take the blame and put it on different agency because we are not under them; we take the blame directly to them (Ministry Health) so that they will be able to, you know push forward to those people who are responsible so that these things we're talking about will not be repeated. Who can you shift that blame to; that's only them, the Ministry." – Male, Clinical Worker, Lofa County

Confidence. In contrast, nonclinical workers who were not from Montserrado County tended to voice support for the MOH. These groups described the issues with the current payment system and recent

deductions, however they went on to say that they still had confidence in the MOH. They reported that, despite these issues, they felt confident that they would eventually receive some kind of pay from the MOH. Many nonclinical workers also went on to express gratitude and thankfulness for being employed by the MOH.

"I still have confidence in the government when I work I am sure of something whether it improving or not improving, but I am sure of something at least to eat." – Nonclinical Worker, Bong County

"I have that trust that I am working and at the end of the day the Government have to pay me." – Gbarpolu, Nonclinical

"I have the confidence in them that, they doing well for me, yes, I want to be grateful to God and grateful to them also." – Nonclinical Worker, Lofa County

"I have 100 percent [confidence] in them to give me the little one they are giving me." – Nonclinical Worker, Nimba County

In addition, all healthcare workers at Jackson F. Doe Hospital in Tappita receive remunerations directly at the health facility. The facility is located in Nimba County, however the roads between Tappita and Ganta, where the bank is located, are notoriously poor. Therefore, representatives from the bank come directly to the facility once a month to dole out payments to healthcare workers. One healthcare worker from this facility participated in a direct observation and expressed satisfaction with the payment system.

TIMING OF PAYMENTS

One of the most consist frustrations that healthcare workers expressed regarding the payment system was the inconsistency of when payments would arrive. Healthcare workers described the payments as, almost always, arriving a month or more late. Payments arrived on different dates each month, making planning for travel to the bank complicated. Some healthcare workers described how one person would serve as a scout by traveling to the bank to check if the salaries had arrived. Once the scout learned that the salaries had arrived in the accounts, he would notify his colleagues so that they could all go to collect their payments.

"When the Government came to power at the time they were bringing the check here for us to receive [our salary] it was 15 days, every 15 days you received your salary. But after 2014, immediately after the Ebola, it become difficult; that is after the month end, like this August month we're in now, that before everybody will be expecting from now to the 15th you will receive your salary, but this time naa... you have to wait August ends maybe September 15 before you received August money." – Male, Clinical Worker, Gbarpolu County

"That's some of the difficult we can face: our money can't come on time." – Female, Clinical Worker, Lofa County

"For me I feel that the payment is not on time, because if you work like American people will say they work for 2 weeks, they will get their pay. So if you say we're working form the 1st to the 15th we should be able to at least to get our money the 16th or the 17th, because Government says if you work, even if they are employing you..., if you work from the 1st to the 15th, they should give your money. But then carrying us way to the 28th or 29th and some of us that're here we're working, if you pay me I receive my message like the 28th I am not going in town the same 28th, so it means by maybe September 1st week or 2nd week I will go to get money." – Female, Clinical Worker, Gbarpolu County

DIFFICULTY RESOLVING PAYMENT ISSUES

Many healthcare workers reported not having a means of recourse when they encountered issues with their payments. Others reported having gone to the MOH office in Monrovia in an attempt to rectify issues with payments or inquire about deductions to their pay. Healthcare workers described that, upon arriving at the MOH, they had difficulty finding someone who could meet with them to discuss their payment issues. Some healthcare workers described that they felt MOH staff were dodging them, did not have time to talk to them, and/or were not interested in talking with them. Many also reported that, even after visiting the MOH office, their payment issues would not be resolved.

"The one they are paying me is not what they supposed to pay me. I went there and because I don't know anybody there so nobody could pay attention to me. So that's why I said it's discouraging because you don't know where to go and you don't know what to do. You force to come to work to get your daily bread." – Female, Clinical Worker, Montserrado County

"...But we never get our January, when our brother go there [to MOH] they just jar-jar [dodge] him. So, let the Government help us and sent that January money because we working now we can't move from here to go anywhere." – Nonclinical Worker, Lofa County

"Sometimes you will go one, two months you will not get your salary and at the end of the day if it adds up to four months or three months... people used to leave they go Monrovia when they go to the Ministry to run after their money at the end of the day they will not get all that money... at the end of the day it will be for nothing." – Male, Clinical Worker, Lofa County

"I got no confidence all this thing; we blame the Ministry... the Ministry don't got no heart for the health workers. When you get problem, you go there [to MOH], you will be walking up and down you will not even get time. So I discourage they [MOH] don't have interest they talking to them they don't have time so your work here you just come and do your work." – Nonclinical Worker, Montserrado County

POOR COMMUNICATION BETWEEN MINISTRY OF HEALTH AND HEALTHCARE WORKERS

Related to the issue of difficulty in resolving payments, healthcare workers consistently reported a lack of communication between MOH and healthcare workers. Healthcare workers commented that the MOH did not inform them of changes to their payments, such as the recent salary deductions. In addition, when the issue of the deductions was raised with the MOH, the MOH deflected the issue by saying that they were not responsible for pay cuts and that the issue was with the Ministry of Finance. This lack of communication from the MOH resulted in an environment of confusion. When healthcare workers received conflicting information as to who was responsible for payment issues and a general lack of communication from MOH, the result seemed to be uncertainty as to who the healthcare workers could trust. *"It's coming to this time again, the money what they cut... they ain't inform us... we just go they say oh.. they cut the money." –* Nonclinical Worker, Montserrado County

"Then they were doing the salary deduction, they [didn't] text us to tell us anything neither put it over air [radio]." – Female, Clinical Worker, Gbarpolu County

"There is no information dissemination when it comes to our salary, we will go to the bank expecting to get one hundred and twenty, because we were pay one hundred and seventy-five. But we only get one hundred and twenty dollars, they will cut fifty-five dollars, no one telling us why there are cutting our money for." – Female, Clinical Worker, Bong County

HEALTHCARE WORKERS' PERCEPTIONS REGARDING PAY AMOUNTS

Many clinical healthcare workers expressed their concerns with the current levels of pay that are given by the MOH, including inconsistencies in what each role is paid. Clinical healthcare workers commented that their pay was not commensurate with their experience or educational attainment. In addition, healthcare workers cited examples of colleagues who were in the same role but were being paid different salary amounts, or coworkers with less education and experience who were being paid more than they were. Some clinical healthcare workers mentioned their belief that clinical and nonclinical workers were sometimes being paid the same amount, despite having very different jobs and skill levels.

"They are not paying us according to qualification some of us they pay us very low, for example if you have BSC they will give you seventeen thousand (Liberian) dollars, if you RN they will pay you that same money. Some RN will come, so the salary structure is not really fixed; we don't know how government really doing that salary structure." – Female, Clinical Worker, Bong County

"These people have been pay based on their qualifications, but I don't know what types of yard stick government is using when it comes to the payment structures. We've observed over the past time, that when it comes to payment those who we call yard boy, those who we call cleaners, they and the nurse aide and that of the aide and dispenser they have been pay the same salary structure." – Male, Clinical Worker, Gbarpolu County

HEALTHCARE WORKERS' PERCEPTIONS OF HOW PAYMENT SYSTEM AFFECTS QUALITY OF THEIR WORK

Some healthcare workers expressed concern that their frustration or discontent with the pay system could affect the quality of healthcare services offered at facilities. Clinical healthcare workers described instances of how they will feel unmotivated to work hard to provide care for patients when they feel they are being unfairly treated by the MOH. Others reported that the low salaries they are paid increased the temptation to charge unofficial fees to patients, who are supposed to be receiving care for free.

"What the patient supposed to receive from me they will not get it because I will be frustrated, when you go to the bank you are frustrated when you come back to work you will be frustrated even if you see the patient you will not be happy. And your conscience can't let you to be happy." – Female, Clinical Worker, Bong County

"Our salary is very discouraging. For me right now in my family, I can tell anyone in my family right now that I don't want you do nursing; I don't want you go near the health sector. Because

the place we've found ourselves we're like slaves." – Female, Clinical Worker, Montserrado County

"That little pocket change for others is our own salary. It doesn't come on time. The sector we've found ourselves, they're saying we should not take a cent from a patient. But when you don't have that kind of strong heart, like you hungry, you want salary and you can't get it on time. You can be tempted sometimes to even hold bribery from a patient." – Female, Clinical Worker, Montserrado County

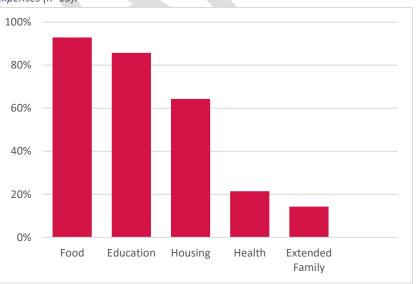
Findings: Healthcare Workers' Financial Behavior

SPENDING HABITS

Top spending categories. During the focus group discussions, healthcare workers were asked to list all of the things that they spend money on. Then, each participant was given three stickers that they could place on the three items that they spend the most money on. As seen in Figure 5, 13 of the 14 focus group discussions included food in the top three spending categories, compared to 12 of 14 that included school fees for children among the top categories. Seven of these groups listed children's school fees as the first priority spending category. In addition, 9 out of 14 groups listed housing (either

construction of a home or rent) among the top categories. Some healthcare workers also described how they pay for housing in both Monrovia, where their family is, as well as the county where they are currently working. Three groups listed health in the top categories and two groups included financial support of extended family in the top categories. No major differences in spending were observed by either sex or cadre across the three top spending categories.





"Yes basically I spend much of my money on feeding, then next to that is education, then another one is I trying to prepare a home for myself which is building house." – Male, Clinical Worker, Bong County

"I have family in town, in Monrovia, I'm paying rent in town and I am paying rent here [in Gbarpolu]." – Male, Clinical Worker, Gbarpolu County

"Your own family you taking care of... extended family coming to you for assistance so you got to have strong hand." – Male, Clinical Worker, Gbarpolu County

Child-centered spending. One clear theme that emerged from healthcare workers' descriptions of spending habits was how many spending priorities are based on the wellbeing of children. As mentioned above, nearly all healthcare workers described school fees for their children as a top area of spending, and it was also an expenditure that required saving or borrowing money. In addition, respondents also talked about the purchase of food and medicine as being important in order to keep their children fed and healthy. Housing was also discussed as being for the purpose of providing safe shelter for children. Spending money on children was, at times, described as an investment in the future: ensuring that their children were well now would help provide for both the children and themselves in the future.

"I spend my finances on education for my children, feeding and shelter where they lay their heads that we should not be renting, we built shelter for them." – Male, Clinical Worker, Bong County

"I spent my money to educate my children and I build good houses to keep them in." – Nonclinical Worker, Lofa County

"We get money to pay our children school fees... so the children are our future. In the future they will stay here, anything you want... they will give it to you." – Nonclinical Worker, Montserrado County

"As for me the only saving is the children, is the children education. If you educate the children, tomorrow they will be somebody to help you because the money will make you, you can't even able to help us in the future unless it help us to educate our children." – Female, Clinical Worker, Bong County

Other spending. Healthcare workers described spending money on several other items that were not listed as priorities. Respondents sometimes mentioned spending money on clothing, especially uniforms for work. Transportation, specifically to and from work, was mentioned. Scratch cards to add minutes and data to mobile phones were also described as an expenditure. Some healthcare workers discussed spending on land and materials for farming. Two male focus groups mentioned tithing their incomes to their churches. Two male focus groups also mentioned spending money on alcohol. Three female focus groups mentioned hair dressing as an expenditure. Focus groups in Montserrado County mentioned spending money on electricity in their homes.

"...because I am a nurse, I got to buy cloths that will make me to represent... my uniform... I can buy uniform." – Female, Clinical Worker, Gbarpolu County

"The first thing I can do is pay my tithe." – Male, Clinical Worker, Montserrado County

SAVING HABITS

Difficulty saving. When asked about practices in saving money, many healthcare workers' initial response was that they do not have enough money to save. Healthcare workers attributed this to their salaries being too small, especially given deductions, for them to have any money left over for savings

after spending on their basic needs. Some healthcare workers also explained that it is difficult to budget or plan for use of finances, given that the timing and amount of their salary payments are inconsistent.

"We educating our children with the money we take so that they can be our life but we can't really have enough to save." – Female, Clinical Worker, Bong County

"It is very difficult for health care worker to save money. Because your salary is not balance. If you say you will be saving twenty dollars every month, if you go you can't get the twenty dollar then no saving. As for me I started, I started saving I have to go back because of the deduction they started making. I have to go back and closed the account because the account be open I be in deficit." – Male, Clinical Worker, Bong County

"As I'm telling you, up to now, our incentives had not yet come, today is the 12th of August. How can you budget?" – Male, Clinical Worker, Gbarpolu County

Savings techniques. In addition to commenting that it is difficult to save money, many healthcare workers went on to say that they participate in a local susu as a means of saving. Susu's are informal groups, often within a workplace or community, where each person contributes a small amount of money on a weekly or monthly basis to the group. The sum of each member's contributions is then given to a single member for that time period. The susu has a schedule of when payments are due, as well as a schedule of when each member is slated to receive the contributions for a particular month. For example, if a susu has 10 members and is on a monthly schedule, then each member can expect to receive a payout once every ten months. These susus enable individuals to set aside money that accrues over time and can be used to plan for large expenses, such as school fees or home construction. In addition to susus, a few healthcare workers also said that they leave part of their salary in their bank account as savings, rather than withdrawing the full amount each pay period.

"Sometimes you do it by this thing they called Susu... When they get it they put their susu with it sometimes some do 5,000 [LRD]. So if you making 10,000 [LRD] you take out 5,000 from there you save it which is putting it in a susu and at the end of the month you be able to collect it if your own of time reach." – Nonclincial Worker, Bong County

"Ask 98 percent of health workers, they will tell you they in susu, because the money is small, so when you get it... put it there quick quick, because the next minute, the problem can't end, then the money small. Susu, health worker save their money through it. Bank also—sometimes you go you just withdraw certain amount or when you withdraw it... so when you collect all your money like that, you leave right in that bank you put some more back." – Female, Clinical Worker, Gbarpolu County

"I save money for emergency. Normally when I go in town, I get account with the bank that here, Afri Land Bank, for emergency, for any good thing, I take my money... I don't put susu" – Nonclinical Worker, Gbaprolu County

"You form a club. When you have club you can save because when you pay for somebody, the next time they will pay for you too. So with that you can save hoping that there's money for you somewhere." – Male, Clinical Worker, Montserrado County

BORROWING HABITS

Sources of loans. Healthcare workers consistently described borrowing or "crediting" money from others in order to meet their needs. The vast majority of respondents described borrowing money from susus or in their communities, however several others described borrowing money from family members or friends. A handful of healthcare workers also described taking out loans from the bank.

"I have friends you know they are lawyers when I go to them I tell them and say ok you give me this money... They are business people." – Male, Clinical Worker, Bong County

"At times I get around my community friends; those I have been acquainted with, because they know my personality, maybe they'll consider me and credit." – Male, Clinical Worker, Montserrado County

"For me, when I need money, I ask my mother and she can give it to me without interest, once she has it, and I can give it to her when I take pay." – Nonclinical Worker, Montserrado County

"That is why I refer to the bank for, when such a condition is ahead of me, I will go to the bank and borrow money from the bank, and they will offer me a loan and I will be able to come and solve my problem." – Nonclinical Worker, Nimba County

Ease or difficulty of borrowing money. Most healthcare workers said it is difficult for them to borrow money, however individuals gave a variety of different reasons for this. Some healthcare workers described that there is a perception that healthcare workers are making a lot of money, therefore people are surprised or do not believe them when they go to ask for a loan. Other healthcare workers described how community members know that healthcare worker payments are not consistent and would believe that the healthcare worker might have a difficult time repaying the loan, thus making it harder to find someone who might offer a loan to a healthcare worker. In contrast, at least one healthcare worker, a woman from Lofa county, said that it is easy for her to get loans because her role as a healthcare worker means that potential creditors know that she has a steady income. These conflicting perceptions suggest that different communities have different beliefs and attitudes towards healthcare workers' salaries and the ability of healthcare workers to repay loans.

"It is hard to borrow, because if you borrow the first time no way to pay it the people will mean you they will not want to give it to you for the second time because no money so you will just be in that pipe there and you don't know how to get hour self out. Is hard to borrow now because the people can see us coming to work, they say the woman working when you go in front of someone to borrow they say the woman come laugh at us." – Female, Clinical Worker, Bong County

"Because the people feel that the health worker get money... So, when you go to somebody say please borrow me money, they will be laughing. They will say you came to make fun out of me, whole doctor like you? So it difficult for us to, that's what make it difficult for us to out to borrow money from somebody. So we got to we got to save carefully, so that we can't do it." – Male, Clinical Worker, Gbarpolu County

"It is very difficult for healthcare worker to save and also difficult for healthcare worker to borrow money. The fact that people see us in this kind of setting and then wearing white every

day... they feel that we are making all of the millions so, sometimes you go broke you go in the community you say oh.. my-man help me I am stranded, please borrow me so...so...so amount. They will say my man but... I surprise of you coming for me to borrow you I expect you to have more you see know and that's the perception." – Male, Clinical Worker, Lofa County

"It is not easy [to borrow money] because everybody seems to know that the wages for government workers is not really much." – Male, Clinical Worker, Montserrado County

"Yes, it's easy to borrow money especially the Health worker, because... you have that big... name the person working." – Female, Clinical Worker, Lofa County

Interest. Susus and clubs have varied interest rates and terms of agreement for the loans they provide. These variables can be affected by a person's relationship to a particular club, with more generous loan repayment periods and lower interest rates being offered to club members. Interest rates can range from 10 to 25 percent. Repayment periods are generally negotiated but are often 1 to 3 months, with payments being made in installments. Individuals requesting loans from a susu or club of which they are not a member must have a member vouch for them in order to receive a loan. The terms of the loan agreements are written and signed by both parties. For loans from banks, as described by healthcare workers in Nimba County, the individual will leave his bank book and account number at the bank. The bank will then deduct the loan payment amounts directly from the salary when it is deposited in the bank account each month.

"Depending where you going to borrow the money from, if you going to a club you have to carry collateral you either carry your man name or you either carry someone who is in that club that have huge saving there to stand for you if you don't have they won't borrow you." – Female, Clinical Worker, Bong County

"Most of the time I borrow from my community saving and that ten percent interest any amount you take ten percent." – Female, Clinical Worker, Bong County

"Sometime they say one month or two months with 25 percent interest you add to it." – Male, Clinical Worker, Gbarpolu County

"When you are borrowing money you go to club or to the institution they will tell you we will add 15 percent [interest]." – Male, Clinical Worker, Lofa County

"At the bank, when you go there and you want to borrow huge amount of money, you have to reach certain percentage of the money, some 25 percent, some 30 percent. If you agree to that, they will do the calculation and take the money. Before they will take the money, they will ask you for your bank book and your account number, you will offer them your bank book and your account, where these two items will be in their possessions. At the end of every month, instead of you going for your pay, they will go there and withdraw your pay, and how much you agreed for it to be deducted and the little change, they will give it to you." – Nonclinical Worker, Nimba County

Collateral. Many healthcare workers described the use of collateral for loans taken from clubs or credit unions. Collateral can take the form of valuable possessions, such as home deeds, vehicles, or

electronics. Individuals who do not abide by the terms of agreement in their loans can have these possessions seized and can face legal action or jail time.

"For instance if you go to a credit union or you go to a club if you are not member of that club somebody has to carry you to stand for you, and it will be at a percent rate. Some clubs if you are in it and you and you credit, you not pay they will take all your belongings from your house according to the procedure. So when the people know you it easy, but if they don't know you, you have to send collateral." – Nonclinical Worker, Bong County

"If you don't pay, they take your item... maybe you got TV and maybe you tell the people then you must take my deed... if you don't pay that time, they take it." – Female, Clinical Worker, Gbarpolu County

"For Access bank, those who always crediting from there, they say if you don't pay their money, Access bank will seize all your properties and carry you to jail. So is very difficult crediting money." – Female, Clinical Worker, Montserrado County

"So sometime I can be afraid in borrowing money, because when you borrow the money they will say for one month, one month come, pass government na [does not] give you your money or your incentive, or two months pass, they say but this boy lying, we will jail him." – Male, Clinical Worker, Gbarpolu County

Findings: Healthcare Workers Attitudes Towards Mobile Money for Salary Payments

HEALTHCARE WORKERS' PERCEPTIONS OF ADVANTAGES TO USING MOBILE MONEY FOR SALARY PAYMENTS

When focus groups of healthcare workers were asked about their thoughts on the use of mobile money for remuneration of salary and incentives from the MOH, the responses were mixed. While many healthcare workers expressed interest in the idea, support was often conditional upon the resolution of issues regarding liquidity among mobile money agents and reimbursement for cash out fees.

Convenience and cost-savings. Many healthcare workers commented that using mobile money to receive salary payments would be easier and more convenient than the current system of traveling to the nearest bank. Some healthcare workers also reported that using mobile money would help them to save money as they would not have to pay for transportation to the bank.

"It will ease all of the tension and the stress that we go through in getting our money. It will also cut down expenses that we sometimes go through in getting to Monrovia to get our salary." – Male, Clinical Worker, Gbarpolu County

"[Mobile money] will be easier for everybody to get their money... Whenever you get your message money, will be ready for you to go... I embrace the mobile money sector; it will be fine for the employees." – Nonclinical Worker, Bong County "And you, you will also be using it as you bank because if at all you stored certain number of money in your mobile phone, you will be using it as your bank. It will be with you anywhere you go you know your bank is with you; if you want to transact you will just transact the amount you want to transact and it will be very easy for you." – Male, Clinical Worker, Lofa County

Security. Some healthcare workers reported that using mobile money to collect salary payments might be safer than the current payment system, in terms of security. Respondents described how, after withdrawing their salary payments from the bank, they could be robbed while traveling home. Healthcare workers seemed to feel this risk was reduced with mobile money.

"The advantages there is, if I got money on my phone, I don't have to worry about like rogue coming steal my money already, like when you get money on you in the bag this that. And also you don't have to go stand in long queue fill in form, this that rain come beat you, sun come it see you, all those things." – Female, Clinical Worker, Lofa County

"...The criminal activities in the city is high. So sometimes you come from in the bank, you will come across some hijacker men." – Male, Clinical Worker, Gbarpolu County

"The advantage [of mobile money] is that you will not be toting huge amount of money on you, your security will be protected from rouges, and the transaction will be very much easy." – Male, Clinical Worker, Lofa County

PERCEIVED DISADVANTAGES OR CONCERNS REGARDING MOBILE MONEY FOR SALARY PAYMENTS

Liquidity. Of the concerns regarding use of mobile money, issues around the liquidity of mobile money agents was mentioned the most. Those healthcare workers who had used mobile money previously cited times that they, or the person they were attempting to send money to, were unable to cash out the mobile money due to the mobile money agent lacking the necessary funds. Healthcare workers were concerned that mobile money agents would not be able to keep enough cash on hand to pay out salaries and incentives to participating healthcare workers. In such a situation, healthcare workers feared that their money might become trapped in their digital wallet and they would be unable to withdraw it.

"For this county we are in, many people are having problems with the mobile money system, for instance if they send this huge amount of money, when they go to receive the money, because the money is huge, they will tell you say no money, that money will be in your phone for like 2, 3 days even more than that, so I got serious problem with that." – Female, Clinical Worker, Nimba County

Poor network coverage. Some healthcare workers also expressed concerns that money will become "trapped on their phones" because it can't be accessed when the network is down. For example, workers from Gbarpolu County reported that the network there can be down for three to five days at a time. Others in Lofa described how poor network can prevent them from accessing mobile money for up to two weeks, during which time they will not have money to buy food.

"Let the network be stable. Because at times, when you get your money in your phone, sometimes you can be hungry... sometimes [for] two weeks, mobile money will say no network, no transaction, so, let the network be stable." – Female, Clinical Worker, Lofa County

"Lonestar network can drop two, three days it will not come on. If you go to mobile money center they will say oh the network on but no money; my money finished, my money like this so for me I will prefer to remain where I am [with Ecobank] then going under mobile money. So since I have already started with Government, getting salary through the account of Ecobank or the bank system, I loved the bank system." – Male, Clinical Worker, Lofa County

Cash out fees. Healthcare workers consistently mentioned concerns over who would be responsible for paying the cash out fees associated with withdrawing money from their digital wallet account. Other healthcare workers suggested that the cash out fee rates be posted at each mobile money booth, to prevent mobile money agents from inflating the fees. Those who were experienced with mobile money seemed to have a firm understanding of the fees and how they are proportional to the amount of money being withdrawn.

"Who will be responsible for the deduction, if they have decided to be paying us through Mobile Money." – Female, Clinical Worker, Lofa County

"All the stations [mobile money booths] should be having a sticker or fixed price [of cash out fee]." – Female, Clinical Worker, Lofa County

Comparisons to current payment system. A few healthcare workers expressed concern that the same issues that plague the current direct deposit payment system would also persist with a mobile money payment system. For example, issues around lack of adequate liquidity, long lines to withdraw money, and the levying of unofficial "fees," all of which are major complaints with the current direct deposit payment system, would also be issues with the mobile money payment system.

"My concern is the same way we are suffering from the bank that there are some deductions that can be made we are not aware." – Male, Clinical Worker, Bong County

"So if they send the money to me and they say everybody receive salary now, you will go to the mobile money man. Maybe he will start bringing his own rate, but because you need the money, you got to just accept it. So that's the negative part there." – Male, Clinical Worker, Gbarpolu County

Security. Some healthcare workers mentioned concerns regarding security of using mobile money to receive payments. These security concerns took two forms: concerns about being able to retrieve money if their mobile phone was stolen and concerns regarding criminals targeting healthcare workers who are withdrawing cash from a digital wallet.

"When it comes to security wise, if I using my mobile money personally the security of that is different from my salary, using for salary purpose because salary is something that on a monthly basis and that's huge money going there all the time, so somebody will start to monitor me and trace some information about my mobile money which of course it will not be save for me. So my recommendation here is, we can transaction mobile money with our own you know personal account but not for salary purpose." – Male, Clinical Worker, Lofa County "I have gone to withdraw from my [mobile money] account but every time I go they want me to read my password word or my PIN code out loud where other people can be there transacting... that information is confidential and then you asking me to read it out so that other people can capture it." – Male, Clinical Worker, Lofa County

"For example, I am saving money taking pay on my phone, then my phone get missing, and somebody who took my phone break my sim card and I do not have access to my SIM card any more unless I retrieve, whether I will get back that money." – Female, Clinical Worker, Nimba County

Key Points

MOBILE PHONE USE

Findings on the ownership and use of mobile phones among healthcare workers revealed differences in how healthcare workers of different cadres use their mobile phones. Notably, nonclinical healthcare workers reported less use of the internet on mobile phones, a proxy measure for digital literacy, than their clinical counter parts. Differences in mobile phone use across sex were less pronounced. While women's use of mobile phones to access and browse the internet tends to lag behind that of men in many developing settings, this research found that male and female healthcare workers were consistent in the use of mobile phones to access the internet. It is plausible that both the differences in digital literacy between clinical and nonclinical workers, as well as the lack of differences between male and female clinical workers, can be attributed to socioeconomic status and education. That is, there are likely differences in the socioeconomic status and educational levels of clinical and nonclinical workers and this can be expected to influence their digital literacy. Conversely, the fact that all male and female clinical workers would have some relatively high level of educational attainment and are of the same socioeconomic status likely controlled for any differences in digital literacy that usually exist between different genders.

In contrast to other nonclinical groups, the nonclinical healthcare worker focus group in Monrovia discussed how they use their phones for Facebook and mobile money. In this way, the group of nonclinical workers from Monrovia seems to be different than the other nonclinical focus groups that are from the rural counties. This difference is likely due to the fact that nonclinical workers in the capital city of Monrovia might have greater education and digital literacy, as both variables are higher in urban areas. As such, nonclinical workers in Monrovia might more closely resemble clinical healthcare workers in terms of their behavior regarding mobile phone use. Mobile phone use in Monrovia might also be affected by better network coverage in the city.

Regarding internet use, when healthcare workers discussed using the "internet" it was unclear if this meant using search engines, specific medical sites, or apps that they have downloaded. Use of apps was specifically mentioned once.

"There are applications on the net; there are websites that you can go on and download applications that have medical related information that you use to.....because once you have downloaded it already, it can be use offline; so you go there as...to make research, when you have a case you go there to see disease condition, the symptom, the sign, the treatment, you know all this information will be provided and the necessary drugs can use to treat. You can do that through downloading." – Male, Clinical Worker, Lofa County

Healthcare workers reported many different ways that they use their mobile phones to make purchases, though this was not necessarily though mobile money. Healthcare workers described how they call friends and colleagues in other areas and ask them to purchase various goods for them. This finding provides insight into the lives of healthcare workers who are accustomed to using mobile phones for conducting transactions, even if they are not yet using mobile money.

MOBILE MONEY USE

Mobile money was listed as a way to use mobile phones by all focus groups with clinical workers and more than half of focus groups with nonclinical workers. This finding can likely be attributed to several convergent factors, as healthcare workers have familiarity with, access to, and need for mobile money. Mobile phone ownership and use is nearly universal among healthcare workers. Mobile internet use among clinical healthcare workers suggests a somewhat high level of digital literacy among this group. In addition, many healthcare workers described that they live in counties away from many of their relatives and children. During discussions of finances, healthcare workers also commented on how they are expected to financially support family members. When taken together, these factors suggest that healthcare workers would be an ideal user group for mobile money, thus it is logical that much of this population would have already adopted mobile money services.

PAYMENT SYSTEM

Given the regular and recurring issues with remunerations to healthcare workers, it is unsurprising that many participating in the mSTAR Ethnographic Study expressed a lack of confidence in the MOH. This sentiment was consistent across clinical healthcare workers from all counties and all sexes, as well as among nonclinical workers from Montserrado County.

The issues with the incentive payments in May through July serve as just one recent example of the type of recurring issues that healthcare workers experience with unexplained deductions to their remunerations. In addition, the lack of communication between the MOH and healthcare workers, in combination with the MOH's inability to explain the deductions, appears to have created an atmosphere of distrust.

The difference in attitudes towards the MOH between clinical and nonclinical workers is not clearly understood, however it might reflect how each group views their position and pay in general. For example, many clinical healthcare workers expressed dissatisfaction with their pay, viewing it as out of alignment with their years of education and experience, often referencing colleagues who were less qualified but making the same salary. Conversely, many of the nonclinical healthcare workers who were serving as facility housekeepers or drivers likely have less education than their clinical counterparts and fewer job opportunities. Therefore, the stability in benefits and income that their work for the MOH offers is more highly prized and they are more tolerant of issues with the payment system.

LIMITATIONS

Timing of data collection. Data collection occurred in July and August 2016, which covered an acute period of unexplained deductions to salary. This might have contributed to healthcare workers' views of

the payment system and the MOH. This timing was coincidental, as the study was planned prior to any knowledge of the salary deductions. In addition, children's school fees, a major expense for most healthcare workers, are due in August. This might have caused healthcare workers to be more stressed about finances and spending, as they prepared to pay school fees.

Low responses to SMS (short message service) survey. As part of this study, an SMS-based mobile phone survey was sent to healthcare workers, regarding their use and perspectives of mobile money. The survey, despite being deployed to thousands of healthcare workers across Liberia, only received a handful of responses. The number of responses was too small to analyze. It is believed that, because the survey was sent through the MOH's mHero SMS platform, the general frustration of healthcare workers with the MOH affected the participation refusal rate.

Conclusion

The purpose of this study was to gain greater insight into the experiences and attitudes of Liberian healthcare workers with regards to mobile phone use, mobile money use, financial habits, and the current payment system. This study report can be used to inform the planning and implementation of interventions to use mobile money for disbursement of salary payments to public sector healthcare workers. As discussed above, healthcare workers in Liberia represent a unique population that possesses mobile phones, digital literacy, education, and some exposure to mobile money use. This, together with dissatisfaction with the current payment system, has generated interest in using mobile money to receive salary payments, however care must be taken to address the many infrastructural and planning challenges that could prevent mobile money from being a reliable and improved alternative approach to disbursing these payments.