Mission Motivation and Public Sector Performance: Experimental Evidence from Pakistan

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Abstract

Can governments in low-income countries use the organizational mission to get public workers to improve job performance? In partnership with the government in Pakistan, I randomize health workers in 710 communities into receiving mission strengthening training, performance-linked financial incentives, or both. The mission treatment improves worker performance across incentivized (home visits) *and* non-incentivized tasks, while financial incentives improve performance only on the incentivized task. The combined treatment is less effective at increasing home visits, relative to the standalone financial incentive treatment, due to the workers increasing their effort on the non-incentivized tasks. Mission treatment works by improving workers' motivation — by updating workers' beliefs about aligning the organization's mission and their preferences, and making them more altruistic toward their job. These results highlight that organizational mission is a powerful tool to improve public sector performance, especially in low-income countries.

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1 Introduction

Many low-income countries struggle to provide basic services, such as preventive healthcare, to their citizens due to a lack of effort by public workers (Chaudhury et al. 2006; Banerjee and Duflo 2006; Callen et al. 2020). While standard economics prescribes linking incentives to performance to address the lack of worker effort (Khan et al. 2016; Muralidharan and Sundararaman 2011), it is not always feasible for governments to link the two (Dixit 2002). However, managers in the public sector can use non-financial motivations of workers, such as mission motivation, to get them to perform better in their job.

Mission helps attract workers to public sector organizations, however, it remains an open question whether workers care about it *after they select to work for the government.*[1] It is possible that in the absence of any signal or communication about the role of mission in the organization, the motivation may fade in the background. Thus a mission focused initiative can strengthen existing workers' motivation, and may lead to a change in their effort exerted on the job. It is not clear how effective a policy it may be relative to the alternative of performance-based incentives, and whether it can complement or substitute for financial incentives. Further, emphasizing the mission may stimulate performance improvements on some dimensions at the expense of others—comparable to the multitasking problem of performance-linked monetary incentives (Holmstrom and Milgrom 1991). Such potentially conflicting considerations necessitate understanding whether and how emphasizing the mission affects workers' performance.

To study how mission affects worker performance, and benchmark it against financial incentives, I partner with the Government in Pakistan for an experiment with employees responsible for providing public health services to rural communities. In the experiment, workers are randomly assigned into receiving mission strengthening training, performance-linked financial incentives, or both. I track how the treatments affect their performance on the main task (home visits) and multiple other tasks using independently collected survey data.

[1] While a few studies have provided insights into the mission as a signal to match workers with employers—i.e., theoretically (Besley and Ghatak 2005; Prendergast 2008; Cassar and Armouti-Hansen 2019) and in laboratory settings (Banuri and Keefer 2016; Carpenter and Gong 2016; Cassar 2018)—none has been able to quantify the impact emphasizing an organization's mission has on workers' effort when employees have already selected to work for an organization. Further, scholars have studied how to get workers to exert effort using pay-for-performance (Lazear 1996; Prendergast 1999; Lazear 2000; Glewwe et al. 2010; Muralidharan and Sundararaman 2011; Khan et al. 2016; Holmstrom 2017; Leaver et al. 2021), nonfinancial rewards (Kolstad 2013; Delfgaauw et al. 2013; Ashraf et al. 2014a;b; Neckermann et al. 2014; Gubler et al. 2016; Ager et al. 2022), career concerns (Holmstrom 1999; Dewatripont et al. 1999; Ashraf et al. 2018), and social incentives (Brock et al. 2016; Ashraf and Bandiera 2018; Exley 2018).

This is an ideal setting to study the effect of mission strengthening intervention on government workers for several reasons. These Community Health Workers (CHWs) are full-time public employees with flat financial incentives, job security, and chronic under-performance, characteristics that are common across public sector organizations, especially in developing countries (Chaudhury et al. 2006).[2] Their job is fundamentally mission oriented, yet the department does not emphasize the mission during routine operations, which can diminish workers' intrinsic, mission-based motivations. The combination of these features makes this organization a good setting for the study.

In the experiment, I design and implement a mission-training program for existing community health workers (CHWs) in partnership with the District Health Officer (DHO) in Haripur. Under the treatment, workers watch a video of the DHO describing and emphasizing the mission and then participate in *reflection* sessions with a facilitator to discuss the mission. Workers are encouraged to share thoughts about the mission as well as their experiences relating to the mission. Notably, the discussion of the mission is not a one-off event; instead, the treatment is designed as a repeated engagement in the form of three monthly sessions.[3] The treatment's delivery is bundled with skills-refresher training for the workers, which allows the experiment design to include a placebo treatment—i.e., including only a skills refresher in the training without any discussion about the mission.

I also test the effect of a performance-linked financial incentive that can provide a benchmark to understand the performance effect of the mission treatment. Workers in the financial incentives treatment group can earn a bonus of up to 2.9% of their monthly salary based on the number of households they serve. As in many settings, this financial incentive is tied to just one dimension of what, in fact, is a multitasking job. Further, I unpack the theoretical ambiguity about how the mission and financial incentives may interact as motivators by including a group of workers who receive both treatments. As theory predicts that there can be either a crowding-in—where the two motivations are additive (Bowles and Polania-Reyes 2012)—or a crowding-out—where the financial considerations diminish intrinsic motivations for the job (Deci et al. 1999; Benabou and Tirole 2003; Gneezy et al. 2011; Cassar 2018)—

[2]These characteristics make the findings of the study generalizable to the public sector in other places. However, even if the lessons are considered to apply only to Community Health Workers (CHWs) they are still informative about health bureaucracies across 90 countries that employ Community Health Workers (WHO's Global Health Observatory)

[3]By design, the treatment is delivered over three monthly sessions following the example of organizations that frequently use their mission to motivate workers. For instance, Nike constantly emphasizes the mission to its workers by encouraging executives to "work the corporate mission statement into regular conversation" (Lashinsky 2015) and Teach for America emphasizes its mission of educational equity to motivate its staff—who have already been selected to work for them—through summer training programs (Diamond 2010).

this third treatment enables me to isolate the impact of the combined motivators. Finally, a set of workers continues to operate under the status-quo regime, which forms the pure control group for comparison.

The community health workers in Haripur district are responsible for outreach activities focused on basic and preventive health services in non-overlapping communities. Consequently, they are required to visit each household in their community, making monthly visits a key measurable metric of performance in what is essentially a multitasking setting. Activities and tasks carried out during the visits provide measures of multitasking in this setting. However, neither the visits nor the associated tasks are monitored by the managers, which potentially leads workers to shirk their responsibilities.

Using home visits and associated multiple tasks as measures, I examine the efficacy of the mission, financial incentive, and combined treatments on the performance of workers. To measure worker behavior, I conduct monthly surveys of ten random households in the community of each worker and ask whether the households were visited during the previous calendar month. In cases where households were visited, I further collect information on the activities performed during the visit, such as examination of pregnant women and children, and screening for tuberculosis. These additional data quantify treatment impact and the corresponding quality of the workers' effort toward the organization's goals.

Based on the household survey data, the treatment emphasizing the mission brings a 16.1% improvement in household visits by the community health workers over the status quo. These data show that this treatment increases the probability of a household visit by 5.7 percentage points over the baseline of 35.3%, observed in the pure control group. I am able to directly attribute this change to the mission treatment, as the placebo training treatment does not achieve any significant improvement in household visits.

Workers in the mission treatment group improve performance not only against the home-visits metric but across multiple other tasks. The mission treatment brings an improvement of 0.125 standard deviations on a multitasking index composed of other duties, including improving antenatal and child checks and imparting health literacy for disease prevention. In comparison to the mission treatment, the financial incentives improve household-visit performance by 27.3%, increasing the probability of a household visit by 9.7 percentage points above the control probability of 35.3%. However, workers receiving the financial incentive treatment do not change behavior on multiple-tasks performance—there is no discernible difference between the pure control and the financial incentive treatment groups on the multiple-tasks index.

I do not find evidence for crowding out of motivations when the mission treatment is combined with the financial incentives, but the data show financial incentives do lose their effectiveness. The workers in the combined treatment improve performance in terms of household visits compared to the pure control group, but the improvement is not as high as the group that received only the financial incentive. The combined-treatment group improves performance by 7.1 percentage points as opposed to an improvement of 9.7 percentage points achieved with the similar, but stand-alone, financial incentive. The difference between the two effects indicates that the financial incentives become less effective, as workers leave money on the table, rather than the intrinsic motivations getting crowded out, as the overall effect is not less than the effect of the mission-alone treatment .[4]

Why did financial incentives become less effective in the combined treatment? I argue that the main channel for this effect is the difference in allocation of effort to multiple tasks across treatments. Similar to the standalone mission treatment, the combined (mission plus financial incentive) treatment improves the performance of workers on multiple tasks, as reflected by an increase of 0.135 standard deviations on multiple tasks index compared to the pure control group. In comparison, the financial incentive treatment does not improve productivity on any of these tasks. Further, the workers in the combined treatment also spend more time on mother and child health-related visits, and visit households that are farther from their own residence, expanding their reach in the community. Taken together, these differences in the allocation of effort across tasks due to the mission part of the treatment results in the financial incentives becoming less effective when combined with the mission treatment in terms of increasing household visits.

To further unpack the mechanisms behind the mission treatment, I focus on two channels. First, I find that the mission treatment changes beliefs of the workers about the alignment of the organization's mission and their own preferences, which in turn drives these workers to feel more attached to their job. I interpret these beliefs as evidence of intrinsic motivation due to the alignment of the mission with workers' preferences. Second, one year after the experiment, I find that workers in the mission and combined treatments have higher "impure altruism" toward their job, which I discern using an incentivized willingness-to-work task. These two pieces of evidence confirm that the mission treatment intrinsically motivates workers to perform better by changing their beliefs and activating their altruistic preferences.

In addition to finding support for the mechanisms about beliefs and altruism of workers, I

[4]See Deci et al. (1999); Frey and Jegen (2001); Gneezy et al. (2011); Kamenica (2012); Bowles and Polania-Reyes (2012); De Wit and Bekkers (2016); Desmidt (2016) for reviews of crowding-out literature from the viewpoint of different fields.

am also able to rule out three alternative explanations for how the mission treatment works. First, in addition to being intrinsically motivated by the mission treatment, it is conceivable that workers may be influenced by their peers to perform. I randomize workers receiving the mission training into either a group setting or a private, one-on-one session with the facilitator. I find no difference in the performance of the two sub-treatments, and therefore reject the possibility that peer influence may add to the individual motivation due the mission. Second, if the mission treatment provided new information about the tasks that the workers need to perform, then we should find that the placebo group of workers would improve on performance measures related to mother and child health, which was the focus of the skills-refresher training. However, we do not find any evidence of effectiveness of the placebo treatment. Third, if the mission treatment made workers concerned about being monitored—and thereby resulted in higher effort—then their perception of being monitored would be different from other workers. However, we find the mission-emphasizing and combined treatment workers do not have different beliefs about being monitored compared to the workers in other treatments and control groups.

The mission treatment motivates workers to improve effort in terms of the number of household visits and in performing multiple tasks. However, these are inputs in the process of improving the health of the community—the ultimate mission of the organization. Therefore, I also collect data through household surveys and from administrative registers to trace the effect of the mission treatment on the health of children. Mission-emphasizing and combined treatments result in better health outcomes among children by reducing the prevalence of diarrhea and increasing the proportion of children vaccinated. The financial incentive treatment also improves health—the financial incentives treatment reduces the prevalence of diarrhea but does not influence the vaccination rates.

This paper provides, to my knowledge, the first empirical evidence via a field experiment that emphasizing the mission can motivate existing workers to perform. Theoretical literature has argued that mission motivation works on the selection margin (Besley and Ghatak 2005; Prendergast 2007; Cassar and Armouti-Hansen 2019)—i.e., organizations invest in mission to attract workers who have similar preferences—and that it helps economize on incentives (Wilson 1989). I, however, provide evidence that mission also generates an effect beyond the selection margin. When organizations emphasize their mission, they motivate workers who are already part of the organization to exert more effort. With this result, the paper also makes a contribution to the literature of organizational economics that explores the drivers of worker effort, such as financial rewards (Lazear 2000; Prendergast 1999; Gibbons 1998) and social incentives (Ashraf and Bandiera 2018; Ellingsen and Johannesonn 2008; Rotem-

berg 1994). Further, this study extends the literature that workers may get sentimental utility from their organization (Akerlof and Kranton 2005) and empirically establishes that managers can "exploit" such sentimental utility by emphasizing the mission.

The findings also contribute to, and link, existing literature regarding the problems of multitasking (Holmstrom and Milgrom 1991; Baker 1992; Hart et al. 1997; Gin et al. 2020) and crowding out (Deci et al. 1999; Frey and Jegen 2001; Gneezy et al. 2011). While the paper does not find crowding out of intrinsic motivations, it does report that financial incentives can lose effectiveness due to the addition of intrinsic motivations (Ariely et al. 2009). To the best of my knowledge, it is the first paper to provide evidence that this loss of effectiveness of financial incentives is linked to the allocation of effort across multiple tasks. The paper shows that emphasizing the mission motivates agents to be better workers overall, which helps ward against the tendency to direct effort only to the contractible tasks due to financial incentives.[5] However, this equitable allocation to multiple tasks can reduce the efficacy of performance-linked financial incentives for the incentivized task when the two are combined.

Improving public services in countries with weak institutions is another literature to which this paper makes a contribution. Existing studies of improving worker performance, in contexts where contract enforcement is weak, have focused the debate on either selecting better workers to join the public sector (Dal Bó et al. 2013; Deserranno 2019; Ashraf et al. 2018) or designing performance-contingent incentives to address underperformance.[6] This paper takes the literature beyond the debate between performance-contingent incentives and selection, and instead argues that the public sector in places with weak institutions can use the mission to activate intrinsic motivations of already contracted agents, making them perform better without changing the incentives. By focusing on full-time public sector employees, the paper makes a contribution distinct from the prior studies' using awards (Ashraf et al. 2014a; Neckermann et al. 2014), recognition (Bradler et al. 2016) and task significance (Fracchia et al. 2022) to get non governmental agents to perform better.

Last, this paper highlights clear communication from managers as an important component of managerial practice. By providing clear communication about the mission, managers set expectations about organizational values. This process in turn motivates workers to contribute more to the organization. In this sense, the paper relates to the literature on

[5]See Dewatripont et al. (2000) for a review of other ways to address the multitasking problem.

[6]Performance-contingent incentives studied in the literature are either financial (Muralidharan and Sundararaman 2011; Duflo et al. 2012; Khan et al. 2016) or non financial (Ashraf et al. 2014b; Khan et al. 2019; Dustan et al. 2023).

management practices in public organizations (Rasul and Rogger 2016; Bloom et al. 2015; Janke et al. 2019; Fenizia 2022) and firms (Bloom and Van Reenen 2010; Bloom et al. 2013) by proving a causal link between managerial communication and worker performance.

In the rest of the paper, I first describe the context and subject population of this experiment and then detail the experiment's methodologies. Thereafter, I highlight results relating to household visits, multitasking, and health outcomes. I discuss intrinsic preferences as a possible mechanism before wrapping up the discussion in the conclusion section.

2 Context

2.1 Community Health Workers

Community health workers play a key role in delivering preventive and basic health care in many countries around the world, including in developed countries, such as the United States of America. Researchers have estimated that about five million such workers operate within the global healthcare system (Perry et al. 2014). These workers' role has received special attention in low- and middle-income countries since the 1970s, which faced extreme shortages of trained health professionals to promote preventive healthcare aimed at achieving sustainable development goals (Scott et al. 2018).

In Pakistan, community health workers are considered the backbone of the preventive and primary healthcare system, especially in rural areas. These workers function as a separate division of the Department of Health that is called the Lady Health Workers (LHW) program. This division was established as a special program in 1993, with a total of 96,000 workers across the country (Jalal 2011). Since 2014, they have been considered full-time public sector employees with job protections equivalent to those afforded other members of the state bureaucracy.

Community health workers in Pakistan are all women.[7] They are hired by the Department of Health to work in specific communities in each district. They are affiliated with a health clinic for reporting purposes, but their work involves providing services outside of the facility to a clearly defined community. They do not overlap with other community health workers in their geographical sphere of responsibility. Since they work in non overlapping communities,

[7]According to the World Health Organization, 70% of workers in the health sector in 104 countries are women (Boniol et al. 2019).

they also do not have any systematic interaction with other health workers in their routine jobs. This feature of the organization helps the current study by limiting the scope for spillovers, and it also makes feasible a clean measurement of performance.

Community health workers are primarily outreach workers, which requires them to visit households every month. Their core duty is to provide preventive and basic health care to citizens at the citizens' doorstep. Thus, providing any kind of service hinges on workers making visits to the households. Such visits are important for workers to stay up-to-date on the health status of the community, and to educate household members about disease prevention. During these visits, community health workers advise women on birth control, provide antenatal checks to monitor the health of expectant mothers, and follow up after the birth to advise on disease prevention and nutrition. Performing these duties requires community health workers to visit households regularly in order to keep track of marriages, pregnancies, and births. Notably, these tasks are assigned to the workers by their division in the Department of Health, meaning that these activities are considered core duties.

Additionally, these workers perform tasks that are not considered core duties but that have been added to their roster of tasks. In this research, I focus on two of these additional tasks, as these activities have a significant impact on the health of the community. First, workers have been asked to help the department fight the spread of tuberculosis in rural communities. To support this goal, they screen people for the suspected presence of tuberculosis, and refer the potential case to visit the nearest clinic for consultation with a doctor.

Second, to support vaccinations, these health workers help organize community immunization camps. Normally, trained technicians based in health facilities provide vaccinations, and parents can take children to health clinics for routine vaccinations. However, to make access less costly for families, the technicians also visit communities to bring the service closer to households. The successful organization of these camps requires effort from the health worker within the community, who teams up with the technician. Though community health workers are not directly responsible for vaccinations, they use their interactions with families to encourage mothers to get their children vaccinated.

Workers receive a fixed monthly salary that is not dependent on their performance. The salary of a community health worker is about Rs. 17,500 per month, which is on par with the minimum wage set by the Government of Pakistan and higher than salaries in the informal sector for a person with a similar skill profile. There are limited alternative employment opportunities in the rural areas, though the skills gained from being a community health worker can be utilized to act as an informal private healthcare provider. Community health

workers do not have a direct path for career progression—theoretically, they can apply for the job of supervisor (if there is an opening), but those positions are few and open to competition from the outside.

Even though there are no prospects for moving up the career ladder, the job of a community health worker comes with the same protections afforded to any other full-time employee of the state. Anecdotally, no one leaves the job and no one gets fired from it. There is no objective system of monitoring other than a register of information the workers keep, which can be checked by a supervisor if needed. This lack of incentives and difficulty in measuring performance creates conditions for potential moral hazard.

2.2 Haripur District

Haripur lies in the Khyber Pakhtunkhwa province of Pakistan and has a population of 1.003 million people. The district is considered one of the better areas in Pakistan in terms of economic development: It is ranked 18th out of 114 districts in the country in terms of the Human Development Index, which makes it comparable to Lebanon in its overall score. According to the most recently available statistics, the female literacy rate in the district is 60% and the male literacy rate is 82%.

The Health Department in Haripur operates one district hospital and 40 rural clinics. Each rural clinic employs a doctor, a nurse, a pharmacist, and a vaccination technician. These staff work inside the facility. The department also employs 710 community health workers to serve local communities. Despite a wide public-health network, about 58% of households rely on private health care when a child gets sick.

3 Details of the Experiment

This section details the experiment that was designed in partnership with the District Health Officer (DHO) to motivate the community workers. I first describe the research activities that took place between the end of 2018 and mid-2020, including treatments and data collection. Thereafter, I describe my tests of randomization balance.

3.1 Treatments

3.1.1 Organizational Mission

This treatment entails what was pitched as a training session between worker(s) and a facilitator. Before the start of this experiment, I worked with the DHO to record a short video of the officer describing and emphasizing the organizational mission of the LHW program (the division that employs the workers). In the video, the DHO gives the following message (translated from Urdu):

Today, I want to give LHWs a message about the LHW program's mission and purpose. You are the Department of Health's vanguard for mother and child health. It is our resolve that we will extend health services to every household through this program so that no mother or child becomes a victim of any disease. The mission of this program is to ensure no mother or child is left without basic health services. And neither should a mother be left without knowledge about her own health and that of her child. I pay my tribute to your services. And I believe you will continue with your good work.

Representatives of the DHO office contacted the workers to invite them to the training sessions. In the session with a facilitator, the worker(s) were first asked to write on a piece of paper what they thought the organizational mission was. Thereafter, they watched the video. The facilitator then guided the workers through discussions of this mission statement, whether it aligned with their view, how it would influence their work, to what extent it was important, etc. The treatment was delivered in a participatory manner such that the facilitators did not "teach" but rather asked questions to direct the discussions and to invite workers to participate by sharing their views.

I randomized how the treatment was delivered to the workers to decipher whether the peers-influence channel for the mission treatment affected behavior: In the Mission Private treatment, the worker and facilitator met one-on-one in a private setting, whereas in the Mission Public treatment, they met in a group setting with other workers. The group sizes were between 20 and 30 workers, depending on the logistics of the area. The facilitators maintained similar lines of questions in the private and public sessions. They made sure that every worker had the opportunity to voice their opinion and participate in the discussion. Such efforts were intended to help the workers internalize the mission statement and feel as though they had a stake in the process.

This discussion was followed by refresher training on the basic skills required for preventive and basic healthcare provisions. It used case studies on care for pregnant women and for

children. The inclusion of the skills-refresher materials helped make the discussion about the mission appear more organic to the session and also provided a baseline for the placebo treatment in order to rule out some alternative explanations for the mission-driven motivation. Each session lasted from two to four hours and was repeated monthly for a period of three months. In the subsequent sessions, the mission discussion focused more on sharing experiences from the field and how the workers connected with the organizational mission.

In the original randomization, the public treatment group was split into two sub-treatments. In the Mission Public, Not Observable treatment, the workers were told the purpose of these sessions was not to discuss their performance; inversely, in the Mission Public, Observable treatment, the workers were told that the group would discuss the performance of workers in the third session. I introduced this variation to mediate any workplace-norms mechanisms that may have been driven by concerns for social image among peers. For the analysis in this paper, I pool these variations into one main mission treatment.

3.1.2 Performance-based Financial Incentives

Workers in this group were informed by the Health Department at the start of the project that they had been selected for a program where they could earn a financial reward based on the number of households they visited every month. The decision to keep the incentive scheme simple by linking it only to house visits was taken in consultation with the department. There were two main arguments for keeping it simple. First, the senior managers believed that getting workers to the doorstep is the most important task. Once they visit the house, they will perform other activities. Second, they were concerned that workers may find complex schemes hard to follow and, hence, the scheme may not be effective at all (see Khan et al. (2016) for an example of when complex incentive financial schemes do not work well).

The workers could earn Rs. 25 for every additional household visited over and above their routine (baseline) visits—for up to 20 additional households. I used the month of November 2018 as a baseline. Through this incentive, workers could earn a maximum incentive of Rs. 500 ($3.5) if they visited all 20 additional households in the month or visited all households assigned to them (i.e., if they ran out of additional households in their assigned area). The maximum incentive therefore totaled 2.9% of their monthly salary. This incentive was provided for three months, though the workers did not know the term limit before the end of the third month.

Mathematically, this treatment can be written as

$$w_{ij} = \begin{cases} 25 * x_{ij} & x_{ij} < 20 \\ 500 & x_{ij} \geq 20 \\ 500 & x_{ij} + h_i = H_i \end{cases}$$

where w_{ij} is the amount earned by worker i in month j when she visits x_{ij} households over and above the number of households visited in baseline h_i or when she runs out of total assigned households H_i.

The baseline benchmark and the subsequent incentive payment were based on the data collected in the independent survey, described in section 3.4. The first incentive payment was made during the second month of the experiment, after the first round of surveys collecting information about visits during the previous calendar month was completed.

3.1.3 Combined Treatment of Financial Incentive and Mission

For this treatment, I paired the Mission Public sessions with the financial incentive offered to the workers. Workers were informed they had been selected for a financial incentive program through a phone call, and they were invited to the Mission Public sessions, described above. The reward amount earned by each worker was privately disclosed, and the training sessions did not include any discussion of the financial incentive, which kept the financial rewards portion of the treatment comparable to the standalone financial incentive treatment.

3.1.4 Placebos and Control

In order to rule out alternative explanations for any results found during this experiment, I included placebo treatments as well as a pure control group in the experiment.

Placebo: During the placebo, a group of community health workers met in a public setting to receive a refresher training on the basic services the workers were expected to provide to their communities. The refresher training contents were the same as those delivered during the latter half of the mission-treatments sessions. I also divided this treatment into subgroups based on whether an announcement about performance would be made—following the methods of the mission-emphasizing treatments, in one group, I explicitly announced that there would be no discussion of workers' performance related to the refresher training, and in a second group, I informed workers that the group would discuss their performance in the

third session. For the analysis in this paper, I pool these sub-treatments into one placebo group.

Control: The pure control workers neither participated in training sessions nor received any financial incentives. In this way, this group continued under the status-quo condition.

3.2 Sample and Design

I randomized the 710 Lady Health Workers into treatment groups, as shown in Figure A1. The randomization was done at the individual level but block-stratified at the clinic level. Each treatment condition had 89 workers except the Placebo Training, Observable treatment group, which had 88 workers. For the main analysis, I combine all the subgroups of the mission and placebo treatments into their respective groups.

3.3 Timeline

As shown in Figure A2, the project began in December 2018 with a baseline survey of households, followed by a worker survey in January 2019. The Department of Health sent invitations for their first respective training treatments to the selected workers during the last week of January. At the same time, workers undergoing the financial incentive treatment were informed about the opportunity to earn a "bonus" based on performance. The first training sessions were held at the beginning of February, repeating monthly until April 2019. Post-surveys of the households were launched on March 1, 2019 and continued until June. I collected administrative data and conducted individual phone interviews with each of the workers in April 2020.

3.4 Data Sources

I use data from household surveys, worker surveys, and administrative reports to trace the effects of treatments on performance.

Household Surveys: I surveyed ten randomly selected households in the target community of each worker during five rounds of surveys—one baseline survey, three post treatment session surveys (administered during the month following the training sessions), and one

post-experiment survey administered a month after the completion of the experiment. The households were selected through randomization carried out in the field, and the surveys were administered to female respondents by female enumerators to account for any cultural sensitivities that respondents may have.

The baseline survey was conducted in December 2018, at which time each responding household was asked if the health worker had visited in the previous calendar month (i.e., November 2018). The post treatment surveys were administered every month from March to June 2019, beginning at the first of every month. In each survey, the households were asked information about the previous completed calendar month—for example, the survey starting March 1 collected information from households about worker activities in February. Households were then re-sampled after the first post treatment survey. The experiment ended by the end of April 2019, so the survey in May was the last round to collect information relevant to the duration of the experiment.

In addition to asking about whether health workers had visited a home, I also collected information on the health of children, their vaccination status, and other activities performed by the workers. However, due to financial constraints and the need to complete a large number of surveys in a limited amount of time, I did not include all questions in all rounds of surveys.

Worker Surveys: I administered a baseline survey to the workers in January 2019. This survey collected information on worker tenure; motivation for public service, using Perry (1996); and IQ, using Raven's matrices. An end-line survey of workers was later administered in June 2019. This survey collected information on the beliefs of workers regarding the mission, its importance, and their identification with the organization. Finally, a post–end-line survey was administered a year after completion of the project. This survey collected further information on the beliefs of workers and also allowed me to administer a lab in the field experiment for studying the persistence of the treatment effects.

Administrative Reports: To trace the effect of treatments on the health outcomes of the communities, I collected data on the mortality rates of mothers and children within the assigned communities of each worker. For each worker, I also collected body-weight data from the administrative reports—generated by the health workers—for five random children. I collected this information one year after the treatments were administered.

3.5 Randomization Balance

Table A1 uses the baseline household data to test for randomization across the workers assigned to the different treatments. The table reports a joint orthogonality test between the treatments and confirms treatment assignment does not predict performance or community characteristics at the baseline. I also test for differences between each treatment condition and the pure control condition and report the p-value from the Wald test of the null hypothesis—i.e., that there is no difference between the treatment and the control. In this table, I pool the mission and placebo sub-treatments into their respective groups. I also report the balance of the original randomization in table A2. Both tables show the treatments are orthogonal to the distribution of community characteristics.

Table A3 provides summary statistics about the community workers and households in the experiment. The average worker is responsible for serving 156 households, and on average, they have been working in the same position within the department for 15 years. Additionally, on average, these workers have completed 10 years of schooling, which is higher than the average 3.8 years of schooling for women in Pakistan. About 38% of them also have a healthcare-related certification. Table A4 reports the balance between the treatments on individual characteristics of workers. Data on these characteristics were collected before the start of the experiment but only became available after randomization was complete. The treatments are balanced on all variables except for the tenure of workers.

4 Main Results

In this section I report my analysis of the data, with a focus on questions of whether emphasizing the organizational mission improves performance. I first describe my estimation strategy for studying these questions and then move to the results section.

The data were collected through a survey of households in the respective communities of the 710 community health workers, as described in 3.4. I run the following regression to estimate the effects:

$$\begin{aligned} V_{ijmb} = \beta_0 + \beta_1 * Mission_{jb} + \\ \beta_2 * FinancialIncentive_{jb} + \beta_3 * Mission\&FinancialIncentive_{jb} + \\ \beta_4 * Placebo_{jb} + B_b + M_m + z_{jb} + \epsilon_{ijmb} \end{aligned} \tag{1}$$

Equation 1 presents the main estimation used to analyze household-level data. V_{ijmb} is the outcome reported by household i from the community of worker j in survey round m. $Mission_{jb}$, $FinancialIncentive_{jb}$, and $Mission\&FinancialIncentive_{jb}$ represent treatment dummies for each worker indicated by j in block b. $Placebo_{jb}$ takes a value of one for the placebo treatments and zero otherwise. z_{jb} controls for the baseline performance of worker j; however, this term is only included when the outcome variable is a visit. To absorb block- and survey-month specific variation in the data, B_b is a vector of the randomization-block controls, and M_m captures survey-month. ϵ_{ijmb} is an idiosyncratic error term. When a variable is reported in only one round of surveys, I omit the vector of month dummies. In this estimation, I pool all sub-treatments of the mission into one treatment and also pool the two placebo sub-treatments into one.

For analyses using worker-level data, I estimate equation 2. V_{jb} is the dependent variable in the worker-level estimates reported by (or for) the worker j. B is a vector of the randomization-block controls and ϵ_{jb} is an idiosyncratic error term.

$$\begin{aligned} V_{jb} = {} & \beta_0 + \beta_1 * Mission_{jb} + \\ & \beta_2 * FinancialIncentive_{jb} + \beta_3 * Mission\&FinancialIncentive_{jb} + \\ & \beta_4 * Placebo_{jb} + B_b + \epsilon_{jb} \end{aligned} \tag{2}$$

4.1 The Effect of Mission on Visits

I study whether emphasizing the mission gets workers to improve their performance in terms of visiting more households. I also study how it interacts with performance-linked payments in this same environment.

Table 1 presents the main results of equation 1. Each column in the first panel presents results from regressions using household data pooled across the three waves of household surveys conducted during the experiment. Each regression uses randomization-block and survey-wave fixed effects and clusters standard errors at the worker level. I have data on ten households per community in each wave of the post treatment session survey, but as the communities are different sizes, I weight each point with the inverse probability of being selected for the survey in order to make the data representative. Further, to achieve higher precision, I include the baseline performance level of workers in the regression, reported in column 2—here, the baseline performance is defined as the probability that a household was visited by the worker before the start of the experiment. Column 1 reports the results of

equation 1 without controlling for the baseline performance of workers.

As shown in the first row of column 1, if I do not control for the baseline performance, the mission treatment improves the probability of a household visit by 5.1 percentage points. This effect changes only marginally when I add the baseline controls to the regression, as shown in column 2. When I include these baseline controls, workers improve visits by 5.7 percentage points over a control mean of 35.3%. This change is a 16.14% increase in the performance of workers achieved via the mission treatment, suggesting that emphasizing the organization's mission does work as an incentive to existing workers. The observed extra effort translates into eight additional visits in a given month, on average. The fourth row of the table shows that the placebo treatment does not achieve a significant improvement in performance. This helps rule out alternative explanations, such as the act of socialization in meetings as the main driver of the effect (see appendix section A.1 for more discussion).

I also study how traditional financial incentives perform in this same environment. The second row of table 1 reports the effect of performance-based financial incentives on the probability of household visits. The probability of a household visit increases by 10.1 percentage points for this group when not controlling for baseline performance (column 1) and by 9.7 percentage points when controlling for the baseline performance (column 2), compared to the status-quo condition. Such results indicate that financial incentives improve the performance of community health workers by 27.4%. This improvement translates into 15.1 additional household visits by the workers in a month.

4.2 The Combined Effect of Mission and Financial Incentive

In this section, I study how the mission treatment interacts with financial incentives. Many organizations use the mission alongside financial incentives, expecting the two to additively complement each other. Theoretically, the literature argues that the two can complement each other if they provide some "good news" about the intentions of the principal (Bowles and Polania-Reyes 2012). However, if the mission treatment and financial incentives send opposing signals, then the two treatments may cancel the effect of each other (Benabou and Tirole 2006) or result in crowding out of intrinsic motivations (Frey and Jegen 2001). [8]

To study the combined effect, I include a group of workers in the experiment who receive both the mission-emphasizing and financial incentive treatments. The third row in table 1 shows

[8]Crowding out of motivations means that any effort due to the intrinsic motivation of workers will be eliminated, resulting in an effect that will at the very least be less than the effect of the mission treatment.

Table 1: **Effects on the Probability of Household Visit**

	Dep Var: Household Visit = 1	
	(1)	(2)
Mission	0.051***	0.057***
	(0.012)	(0.011)
Financial Incentive	0.101***	0.097***
	(0.015)	(0.014)
Mission and Financial Incentive	0.071***	0.071***
	(0.014)	(0.013)
Placebo	0.013	0.013
	(0.012)	(0.012)
Control Mean	0.353	0.353
# of Observations	21299	21299
# of Workers	710	710
Block & Wave Fixed Effects	✓	✓
Baseline Controls	-	✓
	Linear Combinations of Coefficients	
Mission − Financial Incentive	-0.050***	-0.040***
	[0.000]	[0.000]
Mission − Mission and Financial	-0.020*	-0.014
	[0.084]	[0.160]
Financial Incentive − Mission and Financial	0.030**	0.026**
	[0.045]	[0.041]

Notes: This table reports the effects of treatments on the probability of household visits using a linear probability model. It uses household-level data collected from three rounds of surveys. The first part of the table reports the coefficients on each treatment dummy. Standard errors clustered at the worker level are reported in parentheses. Results in column 1 do not control for the baseline performance, whereas column 2 does include baseline performance as a control. Each regression uses randomization-block and survey-wave fixed effects. The second part of the table reports linear combinations of coefficients and tests them against a null of zero difference. $p - values$ of the tests are reported in square brackets. The analysis uses responses from 21,299 surveys instead of 21,300, because of one refusal which was not replaced by the field team.

the effect of this combined treatment on the probability of a household visit. The effect of combining the two treatments is large and statistically different from the pure control group. These workers improve by 7.1 percentage points above the control condition (column 2), which is an improvement of 20.1% in performance. However, despite this treatment motivating workers to work harder, the effect is not additive because combining the mission and financial incentives does not lead to an even higher improvement in performance. On the contrary, the effect of the combined treatment is smaller than the group that received just the financial incentive treatment but slightly higher than the group that received the mission treatment.

I test the differences between coefficients on the treatment dummies in the second part of table 1 in order to see if the effects are indeed different from each other. This part of the table reports the linear combinations of coefficients and tests them against the null hypothesis that the difference between them is zero. I report the $p-values$ of these tests in square brackets. In the second row of the second half of table 1, I find that the effect of the mission is smaller in magnitude than the effect of the combined treatment (mission and financial incentive). This result suggests that the intrinsic motivation does not get crowded out when the two treatments are combined, since the combined effect is still larger than the mission treatment alone.

The third row of the second half of table 1 reports the combined treatment is smaller than that of the financial incentive treatment. Receiving the two treatments together diminishes the effect of financial incentives by almost 3 percentage points. This difference is also statistically different from zero. While combining the two treatments does not crowd out the mission-driven motivations, the combination does appear to reduce the effectiveness of the financial incentives substantially.

While I will discuss possible channels for this effect in the next section, the current evidence indicates that it is at least not driven by a ceiling effect in the financial incentives treatment. If the ceiling effect were in play, workers in the group receiving both the mission-emphasizing and financial incentives would have at least improved by as much as the financial incentive–only group. Instead, their performance is lower than the financial incentive–only group, rejecting the possibility of a ceiling effect.

The preceding analysis shows that organizations can use their mission to get workers to exert effort on the job. Further, not surprisingly, offering financial rewards has the bigger effect on the effort of workers. However, a puzzle emerges: When the two treatments are combined, the financial incentives appear to be less effective in motivating effort—workers

in the combined treatment leave money on the table even though intrinsic motivation does not get crowded out. I explore a possible reason behind this puzzling phenomenon in the next section.

5 Multitasking, Time Use, and the Puzzle of Financial Incentives Losing Effectiveness

In this section, I explore workers' performance on multiple tasks, including core and non core duties, and their time use. First, I document that mission and combined treatments improve performance on multiple tasks associated with the job of a community health worker but financial incentives treatment does not. Second, all treated workers spend more time working in a day but only mission-treated workers use the additional time to make more visits focused on mother and child health, and also visit households on the periphery of the community. I argue that these differences in effort across the multiple tasks between the financial incentives and mission treatments explain the puzzle of diminishing effectiveness of the incentives to increase home visits in the combined treatment.

5.1 Multitasking

As the financial incentives treatment increases the workers' monetary utility only if they improve performance on the incentivized task, theory suggests workers will exert effort for that task at the expense of non-contractable tasks (Holmstrom and Milgrom 1991). In contrast, I hypothesize that the mission treatment motivates workers to improve performance without directing effort to any one task, resulting in better performance overall. If it is indeed the case that allocation of effort to tasks is different between the treatment conditions, it will help resolve the puzzle of financial incentives becoming less effective for the incentivized task when they are combined with the mission treatment. To this end, I examine the breakdown in workers' multitasking activities and show that the financial incentives, indeed, do not improve effort on non-incentivized tasks, suggesting that improvement in home visits came at the cost of multitasking.

Workers perform multiple tasks that can be largely divided into core and non core tasks. Core tasks are the activities they are expected to perform during a visit—such as antenatal checks and child health exams. Non core tasks include activities outside the direct responsibilities of workers, that is, activities that are not in the job description of the workers but have been

assigned to them. I track two such non core tasks—screening for tuberculosis and helping the department's immunization technicians organize immunization camps in their communities. Table 2 presents the analysis of these core and non core tasks. The first three columns of the table use data from the household surveys and the fourth column relies on data from worker surveys. The analysis reporting performance on tasks within the households are conditional on the worker visits.

Table 2 column 1 shows the effect of treatments on whether the workers perform antenatal checks on pregnant women during their visits. The mission and combined treatments increase the probability of an antenatal check by 6 and 5.6 percentage points conditional on a home visit, respectively, over the control mean of 35.9%. The financial incentive treatment does not have any effect on the performance of workers on this task. Column 2 reports the effects on whether the workers examined children during their visit. Workers in the mission and combined treatments are 3.3 and 3.3 percentage points more likely to examine children conditional on a home visit, respectively. However, only the effect of the mission treatment is significant. Workers in the financial incentive treatment improve on this task by 2.5 percentage points, but the effect is not significant. These results point to overall improvement of services offered by the workers as a result of participating in the mission training.

While the mission treatments result in workers allocating their time across multiple core tasks, it is possible that this allocation of effort comes at the cost of non core tasks since they may not appear to be directly linked to the mission. To explore this possibility, I now focus on what happens to workers' performance on the non core tasks of tuberculosis screening and vaccination camps.

As a non core activity for the home visits, workers have been asked to screen households for symptoms of TB and refer suspected patients to doctors for diagnosis.[9] Column 3 of the table reports the effect of this study's treatments on the probability of a household being screened for TB, based on data collected in two rounds of surveys. The mission treatment appears to motivate workers to improve their performance on this task: Workers in the mission and combined treatments are 5 and 4.5 percentage points, respectively, more likely to screen households for TB conditional on a home visit. However, workers in the financial incentives group do not improve their performance on this task at all.

The last task I analyze is workers' participation in co-organizing immunization camps, a

[9]There is a separate division within the Health Department that is focused exclusively on addressing the spread of tuberculosis. This division has its own staff and is integrated into the health facilities. However, the department has asked community health workers to help refer suspected cases of tuberculosis to doctors for proper diagnosis. From there, these patients are then traced by the separate division.

non core activity. As discussed earlier, community health workers encourage parents to get their children vaccinated as part of their core duties, but these workers are not directly responsible for providing vaccination services. Instead, children are taken to a health facility, where trained technicians vaccinate them. To improve coverage rates, technicians may also organize community camps to bring their services closer to families, making it less costly for families to have their children vaccinated. In organizing these camps, the community health workers help manage logistics, advertise the camp, and help mothers bring children to the location. Workers do not get paid extra for this activity and can easily shirk some of their responsibilities unless they are motivated by the mission to help improve the health of mothers and children in their communities.

In the end-line survey, I collect information on the number of immunization camps the workers help organize during the three-month period. Column 4 reports the effects of treatments on their responses. Workers, on average, organize 5.7 camps over three months in the control group. Workers in the mission and combined treatments, on average, organized nearly an additional half camp during this same period. In comparison, workers in the financial incentive treatment increased their effort by 0.17 extra camps.

I combine the information on these tasks into a multitasking index to get a holistic picture of performance. Since the data is reported at different levels (household and worker), first, I collapse the household data into a worker-level data set by calculating the mean performance for each worker on each task. If the performance was measured in multiple waves of surveys, I collapse the data at the worker–survey-wave level. This step confirms that all the data are at the same level of aggregation. The collapsed data for each variable at the worker–survey-wave level is standardized using the mean and standard deviation of the pure control. I weight each component by the inverse of the variance-covariance matrix before combining it in one mean index, as prescribed by Anderson (2008). This method requires the data is not missing from any component of the index; therefore, I impute the missing data with the mean of the respective treatment groups. For robustness, appendix table A8 reports analysis using an index constructed without weighting the data with the variance-covariance matrix, wherein each component of the index is assigned equal weight, and without imputing the missing data, similar to Kling et al. (2007). The results of the robustness exercise are similar to the main exercise; however, I prefer to use Anderson (2008)'s method as it assigns bigger weights to those components of the index that have a lower covariance with other components of the index.

The analysis using the multiple tasks index is reported in column 5 of table 2. It presents a clear picture that the mission treatment improves the performance of workers on multiple

tasks by 0.125 standard deviation. Similarly, the combined treatment has an effect of 0.135 standard deviation. Both effects are statistically different from zero. In contrast, financial incentives alone have no statistically significant effect on the multitasking index (0.046 st. dev). In the second half of the table, I test whether the coefficients on the treatment dummies are similar to each other. For this, I focus attention on the multiple tasks index—column 5. On this index, the effect of the financial incentive treatment is 0.079 and 0.089 standard deviations smaller than the mission and the combined treatments, respectively.

These results show the allocation of effort to tasks is different between the financial, mission, and combined treatments. The mission sessions not only get workers to improve performance in terms of visiting more households but also motivates them to improve holistically at their job by allocating effort to multiple core and non core tasks. Workers in the combined treatment perform higher on multiple tasks compared to financial incentives only treatment –suggesting that the allocation of effort to the multiple tasks is the reason incentives appear to be less effective at increasing home visits when they are combined with the mission treatment.

Table 2: **Effects on Multitasking**

	Antenatal Check = 1	*Children Examined = 1*	*Tuberculosis Index Check = 1*	*# Vaccination Camps*	*Multiple Tasks Index*
	(1)	(2)	(3)	(4)	(5)
Mission	0.060***	0.034**	0.050**	0.468*	0.125***
	(0.022)	(0.014)	(0.020)	(0.269)	(0.040)
Financial Incentive	0.007	0.025	-0.000	0.167	0.046
	(0.027)	(0.016)	(0.023)	(0.326)	(0.047)
Mission and Financial Incentive	0.056**	0.033**	0.045**	0.476	0.135***
	(0.024)	(0.016)	(0.022)	(0.345)	(0.050)
Placebo	-0.035	0.012	0.011	-0.290	0.050
	(0.026)	(0.015)	(0.023)	(0.292)	(0.043)
Control Mean	0.359	0.455	0.360	5.716	-0.000
# of Observations	1920	3352	8605	702	710
# of Workers	646	689	710	702	710
Condition	Visit & Pregnant	Visit & Children	Visit	-	-
Data Source	HH Survey	HH Survey	HH Survey	Worker Survey	-
	Linear Combinations of Coefficients				
Mission − Financial Incentive	0.053***	0.009	0.050***	0.301	0.079**
	[0.003]	[0.398]	[0.001]	[0.244]	[0.033]
Mission − Mission and Financial	0.004	0.001	0.004	-0.008	-0.010
	[0.752]	[0.934]	[0.732]	[0.979]	[0.803]
Financial Incentive − Mission and Financial	-0.049**	-0.008	-0.046***	-0.309	-0.089*
	[0.011]	[0.524]	[0.006]	[0.357]	[0.065]

Notes: This table reports the effects of treatments on multitasking. The first three columns report the effects of treatments on the probability of workers performing the tasks using household-level data collected through surveys, and column 4 reports the effects of treatments using worker surveys. Column 5 presents effects on an index of multiple tasks. The analysis in columns 1, 2, and 3 is conditional on a visit, and additionally, on the existence of pregnant women (column 1) and children (column 2). Analysis using data from multiple rounds of surveys (columns 1, 2, and 3) also controls for survey-wave fixed effects. Each regression controls for randomization-block fixed effects. The sample sizes change between columns due to implementation of the relevant conditions on the regression. Standard errors are clustered at the worker level and reported in parentheses. The second half of the table reports linear combinations of coefficients on the treatments and tests them against a null of zero difference. $p - values$ of the tests are reported in square brackets.

5.2 Time Use

I further explore how the treatments differ in getting workers to allocate effort by examining their use of time using data collected during the worker end-line survey and the household monthly surveys. Analysis of this data, reported in table 3, further strengthens the argument that the mission treatment changes the way workers allocate effort to tasks.

Table 3 column 1 reports that the treated workers increase the amount of time they spend on their job in a day relative to the pure control workers but there are no differences between the mission, combined, and financial incentives treatments. However, a difference between workers emerges when we look at how this additional time is used on different activities. Column 2 shows that the mission-treated workers spend 11.6 additional minutes on mother and child health (MCH) related visits in a day. The combined treatment also increases the time spent on MCH visits by about 12.442 additional minutes (p-value 0.102). Importantly, these improvements do not come at the cost of non-MCH visits (column 3) or non-visit activities (column 4). In comparison, financial incentives treatment does not make workers allocate the additional time to mother and child visits; instead, these workers appear to use the additional time on non-MCH visits (11.418 mins) and non-visit activities (10.74 mins). Though large and positive, these coefficients are not statistically distinguishable from zero. Last, the increase in allocation of time to visit related activities does not come at the cost of the private practice of workers (column 5).[10]

While the workers spend more time working on a given day, it is still possible that they reduce the duration of each visit. To ascertain this, I use household surveys where the respondents reported in survey rounds 2 and 3 the length of time a worker spent on visiting inside the household. Column 6 in table 3 reports that the amount of time spent on an average home visit does not change across the treatment conditions. This result is reassuring, since workers do not appear to be reducing the length of their visits to perform more home visits. However, how do we account for the increased length of the work day when the length of home visits has not changed? One possibility is that the workers expand their reach and use the extra time by visiting households that are farther from their home.

[10]Only 83 workers report spending any time on private practice.

Table 3: **Time Use Analysis (minutes)**

	Length of Work Day	*Mother & Child Visits*	*Other Visits*	*Non-Visit Activities*	*Private Practice*	*Length of a Visit*	*Avg. Distance Traveled*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mission	16.857***	11.617*	0.856	8.201	-2.693	0.231	2.025***
	(5.870)	(5.993)	(5.802)	(6.598)	(3.274)	(0.549)	(0.633)
Financial Incentive	15.241*	-3.277	11.386	10.902	-2.943	0.659	-0.129
	(8.000)	(7.349)	(7.851)	(8.331)	(4.124)	(0.657)	(0.659)
Mission and Financial Incentive	15.097**	12.442	-1.086	7.513	-0.538	0.351	1.474*
	(7.526)	(7.601)	(8.084)	(7.856)	(4.147)	(0.663)	(0.773)
Placebo	4.145	-5.288	3.215	9.985	-5.133	0.646	0.406
	(6.276)	(6.512)	(6.581)	(7.450)	(3.305)	(0.589)	(0.629)
Control Mean	318.409	154.773	139.432	20.455	10.386	18.542	15.935
# of Observations	705	705	705	705	705	5626	2978
# of Workers	705	705	705	705	705	704	699
Survey Source	Worker	Worker	Worker	Worker	Worker	HH 2 & 3	HH 1
Linear Combinations of Coefficients							
Mission − Financial Incentive	1.616	14.893**	-10.530	-2.701	0.249	-0.428	2.154***
	[0.824]	[0.015]	[0.113]	[0.681]	[0.940]	[0.410]	[0.000]
Mission − Mission and Financial	1.760	-0.826	1.942	0.688	-2.155	-0.120	0.551
	[0.793]	[0.897]	[0.778]	[0.907]	[0.524]	[0.821]	[0.441]
Financial Incentive − Mission and Financial	0.144	-15.719**	12.472	3.389	-2.404	0.308	-1.603**
	[0.987]	[0.041]	[0.152]	[0.669]	[0.563]	[0.629]	[0.032]

Notes: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. This table reports effects of treatments on time (in minutes) allocated by the workers in a typical day to different activities reported in column headers. Analysis in columns 1 to 5 use data from workers' time-use survey, and columns 6 and 7 use data from household surveys. Each regression controls for randomization-block fixed effects. Standard errors are reported in parentheses. Standard errors are clustered at the worker level and reported in parentheses. The second half of the table reports linear combinations of coefficients on the treatments and tests them against a null of zero difference. $p - values$ of the tests are reported in square brackets.

In the first round of the household survey, I asked the respondents how long it takes to walk to the worker's house from their house. Using this information, I study how far the worker travels on average in the community to perform the visits. The effects of treatments on the average distance traveled for home visits are reported in column 7 of table 3. In status quo, workers visit homes that are, on average, 15.9 minutes' walk from their place of residence. However, mission-treated workers expand their average reach by an additional two minutes, suggesting that they visit farther than the control workers. Similarly, workers in the combined treatment travel by about one and a half additional minutes to reach the average house for a visit, while financial incentives treatment does not affect how far the workers travel for their visits. These results suggest that the mission-treated workers use the extra time, available as a result of a longer work day, to expand their reach by visiting more households in the periphery of their community. This provides additional evidence that mission and financial treatments affect the allocation of effort by workers in different ways. Financial incentives get workers to focus on doing more visits, whereas mission makes them increase their reach by traveling farther from their homes.

5.3 Discussion

Overall, the analysis in this section suggests that the loss of effectiveness of financial incentives, when combined with the mission treatment, is due to differences in how the mission treatment and financial incentives treatment make workers allocate effort to tasks. Financial incentives direct worker effort to contractible tasks that get them the most financial reward. In contrast, workers receiving mission treatment, either alone or combined with the financial incentives, allocate effort to all tasks irrespective of whether they are contractible or not. These workers also spend more time on mother and child related activities, and visit households that are on the periphery of their community. Given that all groups of workers exert similar levels of overall effort, as proxied by the length of the work day, it follows that workers' differences in the allocation of effort explain why the financial incentive becomes relatively less effective in the combined treatment on the incentivized task of home visits.

6 How Does the Mission Treatment Work?

In this section, I argue that the mission-emphasizing treatment motivates workers to perform well at their job by changing their beliefs about the organization and activating their preferences for impure altruism. I use two pieces of evidence to make this argument. First, in

the end-line survey, the mission-treated workers are more likely to believe that the organizational mission aligns with their thinking and they feel motivated to work for their employer because of this alignment. Second, the treatment stimulates altruistic preferences related to the job, making the workers willing to exert effort without additional financial incentives in a lab-in-the-field setting.

6.1 Alignment of Preferences

Workers may have a taste for organizations where the leaders also believe in the mission, and signal it to the employees (Rosen 1986). The mission treatment, therefore, may act as such a signal from the organizational leaders to the workers. If that is the case, then workers in the mission treatments should change their beliefs about the organization, and believe a higher alignment between their preferences and that of the organization.

In the end-line survey, I ask workers whether they agree with statements acknowledging the mission to be central to the operations of their organization. I specifically ask them to rate on a scale of 1 to 7 (with 7 communicating "Very Strongly Agree") how much they agree with the following statements:

1. Mission Importance: I like the LHW program more than other departments because of the importance it places on the mission.
2. Mission Alignment: I believe the LHW program's mission is very similar to my thinking since the beginning of 2019.
3. Mission Dependent Attachment: If the LHW program's mission was something else, I would not have been as attached to the program.

Workers' responses to these statements help me to assess whether they believe that their preferences align with the organization's mission. I combine the responses into an index of motivation using Anderson (2008).

Column 1 in table 4 reports effects of the treatments on the index of mission motivation. Workers in the mission-emphasizing and the combined-treatment groups score 0.201 and 0.238 standard deviations higher on the index of mission motivation compared to the control condition. In contrast, the financial incentives treatment has no statistically significant effect on the beliefs of the workers as reflected by this index. The second part of the table compares the coefficients on treatments. The effects on workers' beliefs of the mission-emphasizing treatment and the combined treatment are different from the effect of the financial incentive

treatment by 0.23 and 0.26 standard deviations, respectively. Importantly, emphasizing the mission has a similar effect on beliefs in the mission alone and combined treatments, with a difference of 0.036 standard deviation. Appendix table A11 reports the components of this index. The mission and combined treatments have positive and large effects on all beliefs. Workers in these groups are more likely to believe their organization considers the mission to be important, to believe the mission is aligned with their own thinking, and to feel more attached to their work because of the mission. These effects do not exist for the financial incentive treatment and placebo groups.

6.2 Altruistic Preferences

Scholars have argued that mission motivation can also stimulate pro-social preferences, such as warm-glow or impure altruistic preferences (Andreoni 1990) related to the job among the workers that let organizations economize on incentives paid to workers (Besley and Ghatak 2005; 2017). I explore if this channel, theorized in the literature, is present in the experiment via a lab-in-the-field activity. The analysis, discussed below, indeed finds that mission-emphasizing and combined treatments activate such pro-social preferences in their behavior toward their job relative to the pure control.

In April 2020, one year after the experiment, I administered an incentivized activity to elicit the willingness of workers to perform an activity against a menu of possible compensations, following the Becker-DeGroot-Marschak mechanism. Though the activity was designed to be performed in person, I had to modify the experiment to a phone-based activity due to the Covid-19 pandemic.

During this follow-on, my team called workers on the phone and introduced themselves as part of the respective training and/or financial incentives program—or the survey program (for the pure control group)—that the workers had participated in a year ago. The workers were asked whether they would be willing to make a list of households with pregnant women and/or children in return for some to-be-determined remuneration. Then, after confirming that the workers' responses would be kept confidential and not shared with the Department of Health, the enumerators read out the list of incentive rates one by one and asked the workers to inform the research team about whether they would accept such an offer or not. To make their answers incentive-compatible, the enumerator made clear that the actual offer would be selected randomly from their decisions.[11] In the menu of compensation offers, we

[11]Unfortunately, the pandemic prevented the final implementation, but at the time of elicitation there was a

Table 4: **Intrinsic Motivation of Mission-Treated Workers**

	Index of Mission Motivation	*Willingness to Work for Rs. 0=1*
	(1)	(2)
Mission	0.201***	0.105*
	(0.071)	(0.059)
Financial Incentive	-0.031	-0.058
	(0.090)	(0.076)
Mission and Financial Incentive	0.238***	0.135*
	(0.079)	(0.070)
Placebo	-0.146*	0.012
	(0.081)	(0.065)
Control Mean	0.000	0.614
# of Observations	705	707
# of Workers	705	707
	Linear Combinations of Coefficients	
Mission − Financial Incentive	0.232***	0.163***
	[0.001]	[0.007]
Mission − Mission and Financial	-0.036	-0.029
	[0.515]	[0.578]
Financial Incentive − Mission and Financial	-0.269***	-0.193***
	[0.001]	[0.007]

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports the effect of treatments on two measures of motivations. Column 1 reports the effect of treatment on a mission-motivation index that combines workers' responses to three statements: (1) Importance: "I like the LHW program more than other departments because of the importance it places on the mission"; (2) Alignment: "I believe the LHW program's mission is very similar to my thinking since the beginning of 2019"; (3) Attachment: "If the LHW program's mission was something else, I would not have been as attached to the program." Column 2 depicts workers' willingness to work for Rs. 0, using the BDM method in a lab-in-the-field activity. All regressions control for randomization-block fixed effects, and standard errors are clustered at the worker level. The sample sizes are different because the analysis use data collected in different time periods where we were not able to reach all workers. The second panel reports differences between coefficients and tests them against a null hypothesis of zero. $p - values$ of the tests are reported in square brackets.

included Rs. 0—asking them if they would do the work for free. Responses to this offer helped us understand if the treated workers were motivated to perform the job without any monetary compensation, hence, for the warm-glow or impure altruism.

Column 2 of table 4 reports the effects of the treatments on workers' willingness to work without payment. Workers who received the mission treatment are 10.5 percentage points more willing than the control group to perform the extra work without being paid. Compared to this, the workers who received exclusively the financial incentive treatment are 5.8 percentage points *less likely* than the control group to accept the job without a compensating payment, though the effect is statistically not different from the control group. The second part of the table reports that the effects of the mission and combined treatments are different from the financial incentive treatment, though they are similar to each other. These results reveal that the mission treatment makes the workers more pro-social about their job by cultivating impure altruism or warm-glow from the job.[12]

7 Alternative Explanations for How the Mission Treatment Works

In this section, I study three alternative mechanisms for the effect of the mission treatment on worker performance that are not supported by data. First, I explore if peer influence adds to the individual motivation of workers to perform. Second, I examine if the mission treatment works purely through conveying information about the type of tasks a worker should perform. Third, I evaluate whether it is possible that the mission provides workers with information about being monitored, thereby prompting them to work harder.

7.1 The Role of Peers

I explore whether the mission treatment influences the behavior of workers through their peers, in addition to individually motivating them. Such a channel can work in two ways. First, workers' beliefs may change regarding what their peers care about, which in turn may change workers' expectations about their own effort. If workers do not want to appear to

positive expectation that the activity would be undertaken.

[12]There is no evidence that the treatments changed generalized pro-sociality or impure altruism of the workers. I do not find any effect on the amount of money given in a dictator game. Those results are available upon request.

be behaving any differently from their peers, they may change their own behavior (Kandel and Lazear 1992). Second, workers may not care about deviating from the expected effort level per se, but they may learn from their peers what is important during the performance of their job. This learning may also stimulate effort.

Table 5: **Peer Influence**

	Mission Importance:		*Household*
	Self	*Others*	*Visit = 1*
	(1)	(2)	(3)
Individual Treatment	0.324**	0.144	0.054***
	(0.130)	(0.131)	(0.013)
Group Treatment	0.258**	0.215*	0.058***
	(0.120)	(0.125)	(0.011)
Control Mean	0.000	-0.000	0.353
# of Households	701	700	21299
# of Clusters	701	700	710
Data Source	Worker Survey	Worker Survey	HH Survey
Baseline Control	-	-	✓
		Linear Combination of Coefficients	
Group - Individual Treatment	-0.065	0.071	0.004
	[0.469]	[0.497]	[0.684]

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports the effects of mission treatment's sub-treatments. Columns 1 and 2 use data from the end-line survey of workers to test whether workers' stated beliefs about the importance of the mission to themselves and their beliefs about their co-workers are affected by the treatment's mode of delivery. *Mission Importance, Self* is captured by whether the workers agree with the statement "Mission-driven motivation is important to me." *Mission Importance, Others* is captured by whether workers agree with the statement "Mission-driven motivation is important to my co-workers." Column 3 uses household-survey data to test whether public delivery of the mission training had any positive effect on worker performance beyond the effect of the workers' intrinsic preferences, captured by the privately delivered treatment. The first half of the table reports selected coefficients from a full regression, as per equation 3. The regressions control for randomization-block fixed effects. Column 3 also controls for the survey-wave fixed effects and baseline performance. Standard errors clustered at the worker level are reported in parentheses. The second half of the table reports the linear combination of the coefficients and tests them against a null hypothesis of zero difference. The $p - value$ of the tests are reported in square brackets.

The design of the experiment helps us untangle the additional effect of mission treatment on workers through their peers. As discussed in section 3.1, the mission treatment was delivered in two different ways. In the first, workers received the treatment individually through one-on-one interactions with a facilitator. Under this individual treatment, I restricted the worker's knowledge about others receiving the same treatment.

Under the second treatment, workers received the treatment in a group setting, where the

treatment sessions implied that the organizational mission is common knowledge. Thus, I assumed the effect of the treatment on this group would be through a combination of intrinsic preferences and of the additional effect due to peers. Differencing the effect of individual treatment from public treatment would thus reveal any additional behavioral changes due to changes in expectations about peers' effort. I estimate the effect of the two modes of treatment by estimating the following equation on the full sample.

$$\begin{aligned} V_{ijmb} = {} & \beta_0 + \beta_1 * MissionPublic_{jb} + \beta_2 * MissionPrivate_{jb} \\ & + \beta_3 * FinancialIncentive_{jb} + \beta_4 * Mission + FinancialIncentive_{jb} + \beta_5 * Placebo_{jb} \\ & + B_{jb} + z_{jb} + M_m + \epsilon_{ijmb} \end{aligned} \tag{3}$$

In column 1 of table 5, I show that the workers in the public and private groups have higher reported motivation for the mission, indicating that their intrinsic preferences are activated in both groups. However, column 2 shows workers in the private group do not believe their co-workers to be additionally motivated by the mission relative to the control.[13] Though the difference between the private and public groups in column 2 is not statistically different, the magnitude is large. This outcome suggests that, with a bigger sample, the difference could have been statistically significant. Column 3 of table 5 reports that both the public and private treatments lead to very similar effects on the performance of workers.

The second part of the table reports the result of testing $\beta_1 - \beta_2 = 0$. I cannot reject the null hypothesis that the coefficients of private treatment (pure preference channel) and public treatment (a combination of preference and norms channels) are the same. This result suggests the mission treatment may not stimulate an additional effect via expectations about peers. While preferences can be endogenous, the assignment to public treatments was random so I can confidently rule out peer influence as a mechanism of mission treatment.

7.2 Mission as Information

The second alternative explanation I test is whether the mission treatment acts as an instrument of learning and information transmission for the workers. It is possible that the workers

[13] I measure intrinsic preferences and beliefs about others through survey statements. *Mission Importance, Self* is captured by the agreement of workers with the statement "Mission-driven motivation is important for me." *Mission Importance, Others* is captured by the agreement of workers with the statement "Mission-driven motivation is important for my co-workers."

optimize their efforts on certain tasks in the status quo based on the information they have. However, conceivably, the mission treatment alters the set of available information to the worker by highlighting duties such antenatal care and child health. Workers following this new information may re-optimize from other tasks to the performance metrics they received via the treatment.

I test for this mechanism by including a placebo treatment within the experiment. The placebo group receives the refresher training about skills required for performing basic duties, just like the public mission treatment, but does not discuss the mission during the training. If the mission treatment works by channeling information to workers, I should see the placebo treatment also improve their effort. Additionally, if the mission works through conveying specific topics to the workers, then the workers undergoing the placebo treatment should exert more effort on tasks related to the topics discussed in their refresher training.

I do not find evidence to support this explanation. The placebo treatment does not increase household visits, as reported in table A6, and also has no effect on the specific tasks related to mother and child health, as reported in table 2. These results suggest that providing information is not the main channel through which the mission treatment works.

7.3 Monitoring

The third potential channel explaining the mission treatment's changes in worker behavior relates to activated concerns about being monitored. Emphasizing the mission may make workers realize the manager considers their job to be important for the mission and will thus be monitoring them more to make sure everyone is performing well. If this channel is activated, workers in the mission-treatment group should believe they are being monitored more than the control group. During the end-line survey, I ask all workers to communicate their perception of being monitored during the last few months. I plot the mean response and confidence intervals of the responses for all treatment groups in appendix figure A5. There is no visible difference in the perception of workers about being monitored across treatments. Thus, I can rule out monitoring as the main channel for influencing workers undergoing the mission treatment.

8 Health Outcomes

While community health workers are considered a key link in improving maternal and child health in developing countries, the improvements in task performance that I have discussed thus far do not inherently equate to changes in health outcomes within the communities these workers serve. I study whether the treatments help translate into improved health of mothers and children.

To trace the effects of treatments on health outcomes, I use two sources of data. First, I rely on reports from households, as recorded in their surveys. Within these surveys, I collect information about the prevalence of diarrhea and the vaccination status of the household's children under the age of two years. Second, I use administrative reports, prepared by the workers as part of their routine job, to collect information on child and maternal mortality.[14] I also collect child-weight data from administrative registers to supplement the analysis. The analysis reported in this section follows the regression equation 1; however, I do not use the inverse probability weights as the data is not representative of the population of children or mothers.

Diarrhea is the most basic preventable disease whose prevalence the community health workers can influence via teaching about both prevention—e.g., the importance of sanitation and clean drinking water—and treatment—e.g., how to make and use rehydration solutions. Diarrhea is also the second most common reason for childhood deaths globally.[15] In the post-experiment survey, I asked households if any child had diarrhea during the previous four months. I use this information to construct a dichotomous variable of diarrhea prevalence.

Column 1 in table 6 reports the effects of this study's treatments on the prevalence of diarrhea in households that have at least one child. Nearly 29% of the households in the control group report children getting diarrhea in the four-month time period being studied. However, my three treatments—mission, financial incentive, and combined treatments—lead to a substantial reduction in diarrhea, indicating that workers' performance improved on this basic dimension through all treatments. Interestingly, as discussed later, the placebo group—who received training about health concerns but not the mission—did not see a change in health outcomes. Importantly, the effects of the treatments are comparable to results

[14] I had planned to collect anthropometric, vaccination, and mortality information through an independent survey of households designed to be representative of child and mother population; however, that activity did not materialize due to the emergence of Covid-19 and the resulting restrictions on social interactions.

[15] According to the CDC fact sheet on diarrhea: https://www.cdc.gov/healthywater/pdf/global/programs/ globaldiarrhea508c.pdf, accessed on 09/03/2020.

achieved by public health interventions exclusively focused on diarrhea. Figure A.4 in the appendix plots the relative risk ratios of diarrhea in the treatment groups and results from a meta-analysis of public health interventions reported in Fewtrell et al. (2005), showing a similar range of improvement. These effects on the prevalence of diarrhea should be considered suggestive despite being comparable with other public health interventions. This is for two reasons. First, the household survey was not designed to report on health status of children in the community in a representative manner. Second, the definition of diarrhea used in the survey was different from the one recommended by the World Health Organization.[16] Despite these limitations, the analysis is informative of the reduction in incidence of sickness in children due to the experimental intervention.

Next, I track if the workers' efforts translate into increased vaccination rates of children. I collected information about vaccination in the last household survey. The enumerators asked respondents about the vaccination status of each child along with their age and used this information to calculate whether the child had received timely vaccinations. The enumerators noted the number of children who were indeed fully vaccinated as per the prescribed schedule.

I use the proportion of children vaccinated in each household (for households with at least one child) as the main outcome in the analysis reported in column 2 of table 6. It appears that only the mission-emphasizing and combined treatments have a substantial effect on the proportion of children vaccinated in a timely manner. Children in these treatment groups were 3.8 and 5.6 percentage points more likely to be vaccinated, whereas workers receiving just the financial incentives have a smaller effect—namely, 2.2 percentage points. These treatment effects are directly linked to workers' multitasking performance, discussed in section 5.

From the administrative registers, I extract the number of children born alive in 2019 and how many of them did not survive during the year. I also extract the number of mothers who died while giving birth or due to birth-related complications during the year. The effects of treatments on child mortality appear in column 3 of table 6, and on maternal mortality appear in column 4. Given that both events are rare, I do not have enough statistical power to make conclusive claims about the effects. However, the coefficients have signs indicating a decrease in the mortality rates over the year.

Though the body weight of children (collected from administrative registers) represents another valuable metric of the treatments' effects on health outcomes, I omitted these data

[16]The World Health Organization recommends that a child may be considered sick with diarrhea if she has "3 or more loose or liquid stools per day." However, my survey directly asks the households if the child had diarrhea instead of asking about three or more loose bowel movements.

Table 6: **Effects of Treatments on Health Outcomes**

	Prevalence of Diarrhea	*Proportion Timely Vaccinated*	*Mortality Rate: Children*	*Mortality Rate: Mother*
	(1)	(2)	(3)	(4)
Mission	-0.073**	0.038*	-0.003	-0.001
	(0.035)	(0.022)	(0.002)	(0.001)
Financial Incentive	-0.097**	0.022	-0.001	0.000
	(0.039)	(0.024)	(0.003)	(0.002)
Mission and Financial Incentive	-0.076*	0.056**	-0.001	-0.000
	(0.039)	(0.023)	(0.003)	(0.001)
Placebo	-0.002	0.025	-0.001	-0.001
	(0.036)	(0.023)	(0.002)	(0.001)
Control Mean	0.287	0.888	0.008	0.002
# of Observations	2292	2292	703	703
# of Workers	686	686	703	703
Data Source	HH Survey	HH Survey	Admin	Admin
	Linear Combinations of Coefficients			
Mission − Financial Incentive	0.024	0.016*	-0.002	-0.001
	[0.410]	[0.097]	[0.508]	[0.343]
Mission − Mission and Financial	0.003	-0.018	-0.002	-0.001
	[0.922]	[0.221]	[0.416]	[0.503]
Financial Incentive − Mission and Financial	-0.021	-0.034*	0.000	0.001
	[0.527]	[0.068]	[0.989]	[0.699]

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports effects of treatments on health outcomes mentioned in the column headers, using household and administrative data. Columns 1 and 2 use survey data collected during the experiment to study the effects on households reporting diarrhea and the proportion of children vaccinated, respectively. Columns 3 and 4 use administrative data collected one year after the experiment to report the effects of treatments on child and mother mortality. Each regression controls for randomization-block fixed effects. Standard errors are clustered at the worker level and reported in parentheses. The second half of the table reports linear combinations of coefficients on the treatments and tests them against a null hypothesis of zero difference. $p-values$ of the tests are reported in square brackets.

from the above analysis because this information was available for only 543 workers—the remaining workers did not have functional scales to measure children's weight. Though availability of these data are balanced across treatments, the data show some differences in terms of gender and age across the groups (see table A.4). Therefore, I do not include these data in the main analysis but present my findings as additional supporting evidence in the appendix table A10. The important takeaway from this analysis is that the coefficients on the three treatments are all positive, though only the combined treatment has a statistically significant effect on children's weight.

9 Conclusion

9.1 Cost-Effectiveness

The mission treatment is not cost free, so it could be that the costs of mission are much higher than those of financial incentives. Using only direct expenditures incurred by the research team (for example, not including the cost of time and facility usage, etc.), the mission treatment in this experiment cost Rs. 349 per worker to get an improvement of about nine additional house visits. In comparison, the financial incentives treatment requires that Rs. 500 per worker is set aside. This incentive gets the workers to improve performance by about 16 additional house visits. But, in order to provide this incentive, the department also needs an independently verified measurement of information, costing Rs. 676 per worker. Thus, in per-visit terms, the mission treatment cost Rs. 38.78 per visit and the financial treatment cost Rs. 73.5.

This back-of-the-envelope calculation, focusing only on one outcome, shows the cost-effectiveness of the mission treatment. A more thorough welfare analysis that incorporates the multidimensional improvements achieved by the mission treatment will further show its cost-effectiveness.

9.2 Discussion

Many organizations use the mission to motivate their workers. However, despite the ubiquitousness of such mission statements and the substantial theoretical interest in this question, no known empirical literature has demonstrated whether organizational missions motivate workers and if this translates into better performance. This paper provides empirical evi-

dence from the field that communication about an organizational mission indeed motivates workers. Such improved motivation yields increased productivity not only within core duties but also across multiple tasks and translates into better health outcomes for children. This finding is especially relevant to settings where performance is not easily observable—such as within public health settings—and/or is not easily enforced through contracts.

The paper also highlights the tension between using a mission to intrinsically motivate versus using financial incentives. Based on the evidence, if policy goals are measurable and do not require multitasking, managers may opt for high-powered financial incentives. However, if the goals require workers to perform multiple tasks that cannot be contracted, as is the case with many public services, emphasizing the mission to motivate workers is a powerful tool in getting them to perform better.

A significant number of people living in developing countries rely on the state to provide such basic services as health, education, and sanitation. This reality makes these service providers one of the most important links in the development chain; yet, countries have been spending significant resources on improving outcomes without similar returns on investment. Especially in the context of health service delivery in Pakistan—where this project was implemented—improvements have been slow. Based on the results in this paper, policymakers should consider investing in motivating workers through better organizational designs that keep the mission central to the operational strategy.

While the experiment benefits from the unique organizational features of community health workers who experience non overlapping areas of responsibility, the findings here are generalizable to many settings. First, many countries employ community health workers to provide outreach services. Consequently, the findings are relevant to many countries even if I limit the generalizability to only those organizations performing the same tasks as those in my setting. Second, these results also speak to the broader question of getting bureaucracies to perform better. Foundations of modern bureaucratic organizations, as outlined by Weber (1922), have no space for emotions, with clearly laid-out rules governing the behavior of service providers. However, the nature of public service still holds more appeal for people who care about serving others. This study provides an example of how bureaucratic organizations can harness the intrinsic motivations of people in order to improve service. However, this requires the job to have a natural orientation toward a mission. How employees will respond if the organization does not have a natural mission to serve a larger purpose is a question for future research to explore.

The study also opens pathways for future empirical research on the intrinsic motivations of

public sector workers. One immediate question to explore is how motivated agents work in teams. While incentives in teamwork have received considerable attention in the literature, one area that has eluded researchers is the area of teamwork in the public sector. With the evidence that mission-motivated workers improve performance holistically in their jobs, the next question to examine is whether such motivations also translate to working in teams with colleagues who may or may not be as motivated.

The mission treatment meaningfully changes the behavior of the workers and even impacts health outcomes. An important question, therefore, is why the Health Department is not already taking advantage of this clear opportunity to achieve improvement. While we lack the data to answer this question comprehensively, discussions with policy partners reveal that managers in the department do informally adopt the strategy. However, there are several potential explanations for why this is not institutionalized in public sector organizations. For example, the incentives of managers are not aligned with the mission emphasizing events becoming the norm in the organization. It requires costly arrangements that do not directly benefit the managers, as their performance is not evaluated based on how workers perform. Understanding why this easy-to-address inefficiency persists represents an important avenue for future work, because it is practically relevant, and possibly because it may reveal deeper causes of institutional failure.

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Figure A1: **Design of the Experiment**

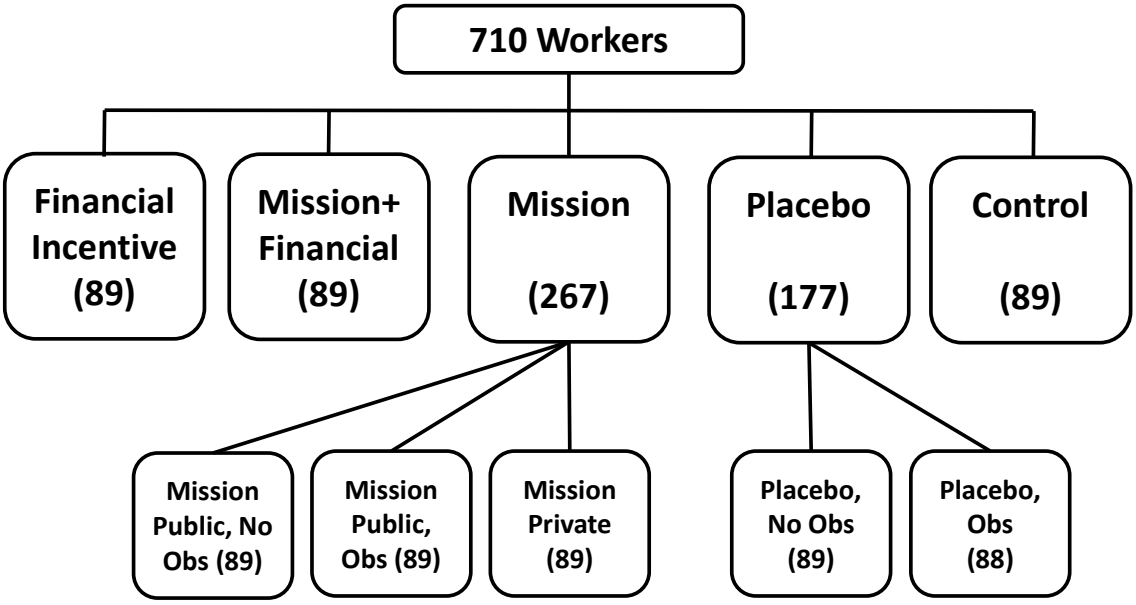


Figure A2: **Timeline**

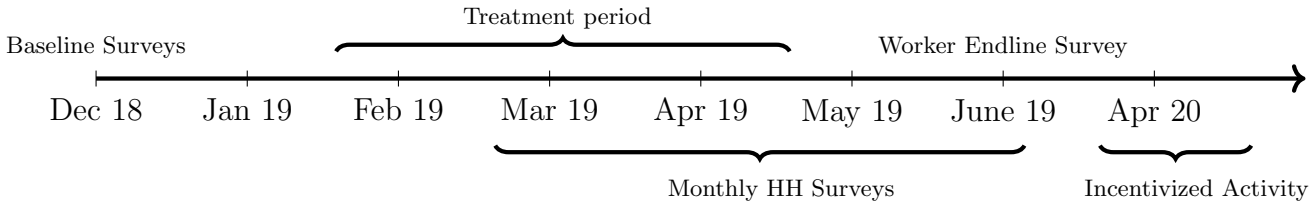


Table A1: **Balance Table: Pooled Treatments**

	Total HH Assigned	*No. of Preg. Women per HH*	*No. of Child. Under two per HH*	*LHW Visit*	*Distance in mins*
A. Control	155.625	0.276	0.516	0.385	15.963
	(3.833)	(0.020)	(0.031)	(0.023)	(0.611)
B. Mission	156.936	0.275	0.484	0.353	16.306
	(2.097)	(0.011)	(0.019)	(0.013)	(0.400)
C. Financial Incentive	156.213	0.284	0.565	0.391	16.691
	(3.716)	(0.020)	(0.039)	(0.022)	(0.599)
D. Mission+Financial Incentive	155.438	0.299	0.508	0.382	16.000
	(3.832)	(0.019)	(0.035)	(0.024)	(0.543)
E. Placebo	154.819	0.288	0.513	0.374	16.268
	(2.605)	(0.015)	(0.024)	(0.015)	(0.411)
Hypothesis tests Joint orthogonality p-value	0.98	0.84	0.44	0.48	0.91
A-B =0	0.76	0.96	0.38	0.22	0.64
A-C=0	0.91	0.77	0.32	0.86	0.39
A-D=0	0.97	0.41	0.87	0.93	0.96
A-E=0	0.86	0.63	0.94	0.69	0.68
# of Households	7099	7099	7099	7099	7099
# of Workers	710	710	710	710	710

Notes: Standard Errors clustered at the worker level.

Table A2: **Balance Table: Disaggregated Treatments**

	Total HH Assigned	*No. of Preg. Women per HH*	*No. of Child. Under two per HH*	*LHW Visit*	*Distance in mins*
A. Control	155.625	0.276	0.516	0.385	15.963
	(3.833)	(0.020)	(0.031)	(0.023)	(0.611)
B. Group Mission	154.326	0.281	0.493	0.361	16.275
	(3.559)	(0.018)	(0.032)	(0.022)	(0.459)
C. Group Mission + Observability	157.966	0.280	0.484	0.354	16.269
	(3.697)	(0.022)	(0.032)	(0.021)	(0.828)
D. Private Mission	158.517	0.264	0.474	0.344	16.373
	(3.624)	(0.019)	(0.036)	(0.023)	(0.740)
E. Group Mission + Financial Incentive	155.438	0.299	0.508	0.382	16.000
	(3.833)	(0.019)	(0.035)	(0.024)	(0.543)
F. Financial Incentive	156.213	0.284	0.565	0.391	16.691
	(3.716)	(0.020)	(0.039)	(0.022)	(0.599)
G. Socialization	153.303	0.298	0.492	0.394	16.416
	(3.707)	(0.021)	(0.032)	(0.023)	(0.616)
H. Socialization + Observability	156.352	0.278	0.534	0.353	16.119
	(3.656)	(0.020)	(0.036)	(0.018)	(0.544)
Hypothesis tests Joint orthogonality p-value	0.98	0.94	0.71	0.59	0.99
A-B =0	0.80	0.86	0.61	0.45	0.68
A-C=0	0.66	0.90	0.48	0.32	0.77
A-D=0	0.58	0.66	0.37	0.21	0.67
A-E=0	0.97	0.41	0.87	0.93	0.96
A-F=0	0.91	0.77	0.32	0.86	0.39
A-G=0	0.66	0.46	0.59	0.78	0.60
A-H=0	0.89	0.94	0.70	0.29	0.85
# of Households	7099	7099	7099	7099	7099
# of Workers	710	710	710	710	710

Notes: Standard Errors clustered at the worker level.

Table A3: **Summary Statistics**

Variable	**Mean**	**Std. Dev.**	**Min.**	**Max.**	**N**
# of Households in Community	155.97	34.913	68	232	710
Years of Schooling	10.034	2.405	5	18	707
Healthcare Certificate	0.38	0.486	0	1	707
Tenure in Years	15.299	5.458	1	27	575
Proportion of HHs visited	0.371	0.21	0	1	710
Proportion of HHs with Pregnant Women	0.26	0.17	0	0.9	710
Proportion of HHs with Children	0.397	0.221	0	0.9	710

Table A4: **Balance Table: Individual Characteristics**

	Years of Schooling	*Health Diploma*	*Tenure in Years*	*PSM Score*	*IQ Score*
A. Control	10.253	0.352	16.000	3.664	0.602
	(0.246)	(0.051)	(0.664)	(0.068)	(0.021)
B. Mission	10.007	0.376	15.624	3.659	0.575
	(0.146)	(0.030)	(0.359)	(0.036)	(0.014)
C. Financial Incentive	10.273	0.466	13.746	3.595	0.579
	(0.267)	(0.053)	(0.689)	(0.068)	(0.021)
D. Mission+Financial Incentive	9.795	0.398	15.870	3.631	0.546
	(0.222)	(0.052)	(0.639)	(0.067)	(0.024)
E. Placebo	9.966	0.350	14.966	3.563	0.548
	(0.194)	(0.036)	(0.449)	(0.049)	(0.016)
Hypothesis tests					
Joint orthogonality p-value	0.58	0.45	0.08	0.56	0.25
A-B =0	0.39	0.69	0.62	0.94	0.29
A-C=0	0.96	0.12	0.02	0.47	0.46
A-D=0	0.17	0.53	0.89	0.73	0.08
A-E=0	0.36	0.97	0.20	0.23	0.04
# of Households	707	707	575	709	710
# of Workers	707	707	575	709	710

Notes: Standard Errors clustered at the worker level.

Figure A3: **Training Activities**

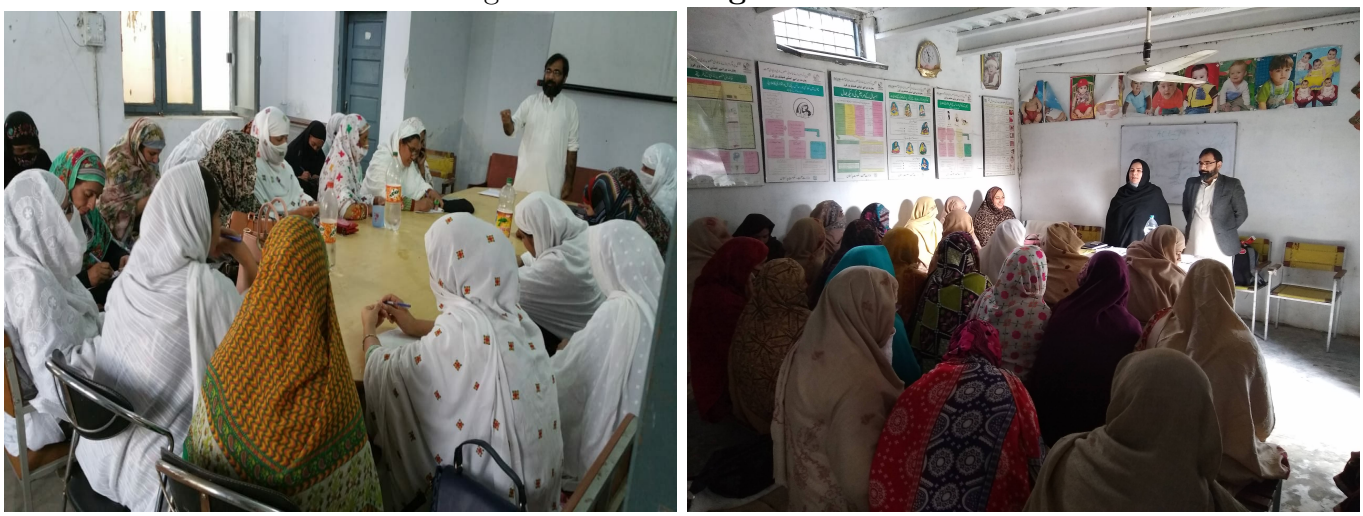


Figure A4: **Survey Activities**

A Additional Results and Tables

Table A5: **Effects on Visits, Full Design**

	Dep Var: Household Visit = 1	
	(1)	(2)
Mission, Group	0.057***	0.057***
	(0.014)	(0.014)
Mission, Group + Observability	0.048***	0.048***
	(0.014)	(0.014)
Mission Individual	0.047***	0.047***
	(0.015)	(0.015)
Mission + Financial Incentives	0.071***	0.071***
	(0.014)	(0.014)
Financial Incentives	0.101***	0.101***
	(0.015)	(0.015)
Placebo	0.005	0.005
	(0.013)	(0.013)
Placebo + Observability	0.022	0.022
	(0.015)	(0.015)
Control Mean	0.353	0.353
# of Observations	21299	21299
# of Workers	710	710
Block & Wave Fixed Effects	✓	✓
Baseline Controls	-	✓

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports the effects of all treatment conditions on the probability of house visits 2. The analysis uses household level data from three waves of survey. Each regression controls for survey wave and block fixed effects. Standard errors are clustered at the worker level and reported in parenthesis.

A.1 Alternative Explanations for the Effect of Mission Treatment

It is possible that the reason for improved performance of workers treated with the mission is not the mission itself but something else that also changed for the workers. The main alternative explanation may relate to the way the mission treatment was delivered. The treatment brings workers together in groups, and the workers also interact consistently over three months with a facilitator. The group setting may result in more social interaction between workers (Feigenberg et al. 2013) and interaction with a facilitator may create goodwill towards the organization. Thus workers can become more inclined towards their duties by

virtue of having more goodwill towards the organization and its people. Further, brining them together, may also get them to learn from each other.

Table A6: **Alternative Explanations for Mission**

	Dep Var: Household Visit = 1	
	(1)	(2)
Mission	0.038***	0.044***
	(0.009)	(0.008)
Financial Incentive	0.087***	0.084***
	(0.013)	(0.012)
Mission and Financial Incentive	0.057***	0.058***
	(0.012)	(0.011)
Pure Control	-0.013	-0.013
	(0.012)	(0.012)
Placebo Mean	0.361	0.361
# of Observations	21299	21299
# of Workers	710	710
Block & Wave Fixed Effects	✓	✓
Baseline Controls	-	✓

Notes: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. This table reports the effects of treatments on the probability of house visits by using placebo treatment as the control condition using equation 2. The analysis uses household level data from three waves of survey. Each regression controls for survey wave and block fixed effects. Standard errors are clustered at the worker level and reported in parenthesis.

I test for these alternative explanations by including in the design of the experiment a placebo treatment. As discussed in section 3.1, the study includes a treatment group that receives the refresher training just like the public mission treatment but does not discuss the mission or shows the video of DHO. This treatment group is similar to the public mission group in terms of receiving refresher training and socializing with other workers. If these alternate reasons were behind the change in performance of workers I should see no difference between the placebo treatment and the mission treatment.

Table A6 reports analysis from a regression that uses placebo treatment as contorl condition. It is clear that the observed effects of the mission are not driven by these alternate explanations, otherwise I would have seen similar magnitudes between the mission and the placebo treatments. Coefficients on the mission and the combined treatment are statistically different from zero, allowing me to rule out alternative explanations that are related to socialization, training and learning from other workers.

A.2 Robustness to Sample Trimming

Table A7: **Robustness of Results by Sample Trimming**

Dep Var: Household Visit = 1	Exclude Sample by			
	Size of the Community		Size of the Strata	
	(1)	(2)	(3)	(4)
Mission	0.054***	0.057***	0.057***	0.053***
	(0.011)	(0.011)	(0.011)	(0.011)
Financial Incentive	0.093***	0.096***	0.098***	0.093***
	(0.014)	(0.014)	(0.014)	(0.014)
Mission and Financial Incentive	0.071***	0.071***	0.071***	0.068***
	(0.013)	(0.013)	(0.013)	(0.013)
Placebo	0.012	0.012	0.012	0.011
	(0.012)	(0.012)	(0.012)	(0.012)
Control Mean	0.353	0.353	0.353	0.353
# of Observations	20279	20249	20279	20759
# of Workers	676	675	676	692
Block & Wave Fixed Effects	✓	✓	✓	✓
Baseline Controls	✓	✓	✓	✓
Excluded Percentile	Above 95th	Below 5th	Above 95th	Below 5th

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports robustness of the results to trimming the sample by excluding workers that are above the 95th or below the 5th percentile by the size of the community and the size of randomization block/strata. Columns 1 and 2 report results after excluding the LHWs that serve communities bigger than the 95th percentile and those below 5th percentile respectively. Similarly, columns 3 and 4 trim the sample by the size of the randomization block. The regressions use exact same specification as in the main analysis reported in Table 1. Each regression uses block fixed effects and standard errors are clustered at the worker level.

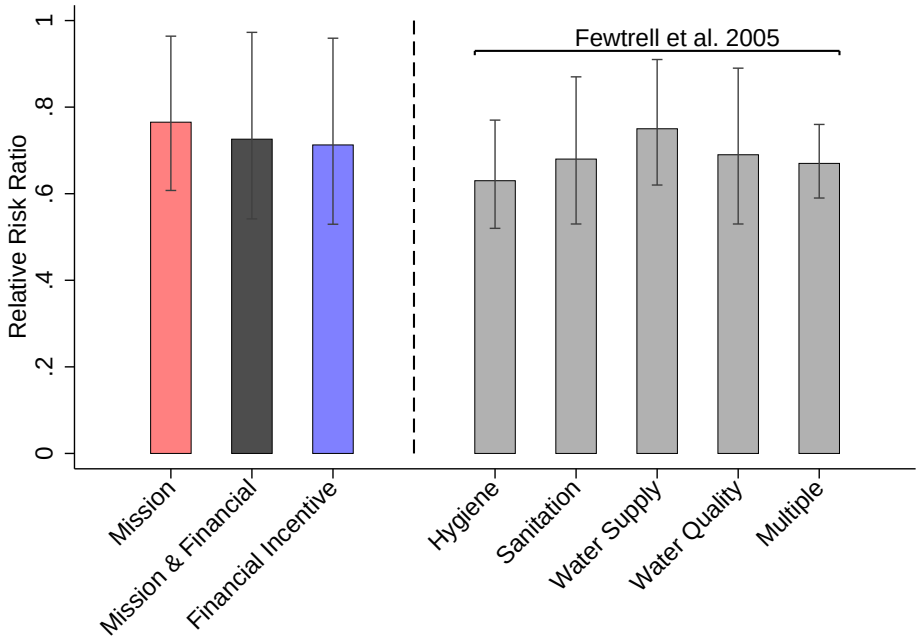
A.3 Additional Tables Multitasking

Table A8: **Multitasking Indices Using Equal Weights**

	Multiple Tasks Index (1)
Mission	0.160***
	(0.059)
Financial Incentive	0.071
	(0.070)
Mission and Financial Incentive	0.194***
	(0.072)
Placebo	0.031
	(0.063)
Control Mean	0.000
# of Observations	710
# of Workers	710
Condition	-
Data Source	-
	Linear Combinations of Coefficients
Mission − Financial Incentive	0.089*
	[0.100]
Mission − Mission and Financial	-0.034
	[0.551]
Financial Incentive − Mission and Financial	-0.123*
	[0.072]

Notes:*$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. The table reports the effect on Multiple Task Index using Average Standardized Effect following Kling et al. (2007). All regressions control for randomization block fixed effects and standard errors are clustered at the worker level. Second half of the table reports differences between coefficients and tests them against a null hypothesis of no difference. $p - values$ of the tests are reported in square brackets.

A.4 Additional Analysis on Health Outcomes



Notes: This figure reports the effects of treatments on Relative Risk Ratio of diarrhea and compares them with the effects of public health interventions using a meta-analysis of literature by Fewtrell et al. (2005).

Table A9: Balance of Children Weight Data

	Weight Data Not Available = 1 (1)	Gender Boy = 1 (2)	Age in Months (3)
Mission	0.228	0.451	16.093
	(0.026)	(0.015)	(0.396)
Financial Incentive	0.236	0.475	15.000
	(0.045)	(0.025)	(0.644)
Mission and Financial Incentive	0.270	0.438	15.414
	(0.047)	(0.026)	(0.574)
Placebo	0.209	0.400	15.329
	(0.031)	(0.018)	(0.422)
Pure Control	0.239	0.439	15.776
	(0.046)	(0.023)	(0.513)
	p-value of hypotheses		
Joint orthogonality p-value	0.873	0.120	0.551
Mission − Control = 0	0.846	0.673	0.625
Financial − Control = 0	0.967	0.302	0.347
Mission and Financial − Control = 0	0.637	0.974	0.638
Placebo − Control = 0	0.590	0.175	0.502
# of Observations	710	2708	2708
# of Workers	710	542	542

Notes: This table reports the balance on availability, age and gender of the child weight data.

Table A10: **Effects of Treatments on Health Outcomes**

	Prevalence of Diarrhea	*Proportion Timely Vaccinated*	*Mortality Rate: Children*	*Mortality Rate: Mother*	*Weight of Children (Kg)*
	(1)	(2)	(3)	(4)	(5)
Mission	-0.073**	0.038*	-0.003	-0.001	0.116
	(0.035)	(0.022)	(0.002)	(0.001)	(0.136)
Financial Incentive	-0.097**	0.022	-0.001	0.000	0.188
	(0.039)	(0.024)	(0.003)	(0.002)	(0.151)
Mission and Financial Incentive	-0.076*	0.056**	-0.001	-0.000	0.306*
	(0.039)	(0.023)	(0.003)	(0.001)	(0.164)
Placebo	-0.002	0.025	-0.001	-0.001	-0.026
	(0.036)	(0.023)	(0.002)	(0.001)	(0.144)
Control Mean	0.287	0.888	0.008	0.002	10.648
# of Observations	2292	2292	703	703	2711
# of Workers	686	686	703	703	543
Data Source	HH Survey	HH Survey	Admin	Admin	Admin
	Linear Combinations of Coefficients				
Mission − Financial Incentive	0.024	0.016*	-0.002	-0.001	-0.073
	[0.410]	[0.097]	[0.508]	[0.343]	[0.529]
Mission − Mission and Financial	0.003	-0.018	-0.002	-0.001	-0.190
	[0.922]	[0.221]	[0.416]	[0.503]	[0.152]
Financial Incentive − Mission and Financial	-0.021	-0.034*	0.000	0.001	-0.117
	[0.527]	[0.068]	[0.989]	[0.699]	[0.431]

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports the effects of treatments on health outcomes mention in the column headers with addition of the analysis on child weight, using household and administrative data. Columns 1 and 2 use survey data collected during the experiment. Columns 3, 4 and 5 use administrative data collected one year after the experiment. Each regression controls for randomization block fixed effects and column 2 also uses survey round fixed effects as the information was collected in multiple rounds. The analysis data also controls for age and gender of the children for whom the weight data is reported. Standard errors are clustered at the worker level and reported in parentheses. The second half of the table reports linear combinations of coefficients on the treatments and tests them against a null of zero difference. $p - values$ of the tests are reported in square brackets.

B Additional Tables on Mechanisms

Table A11: **Beliefs About the Role of Mission in the Organization**

	Index of Beliefs	Mission Importance	Mission Alignment	Mission Attachment
	(1)	(2)	(3)	(4)
Mission	0.201***	0.216*	0.174*	0.215*
	(0.071)	(0.115)	(0.104)	(0.110)
Financial Incentive	-0.031	0.045	-0.160	0.024
	(0.090)	(0.139)	(0.143)	(0.141)
Mission and Financial Incentive	0.238***	0.252**	0.218*	0.244**
	(0.079)	(0.127)	(0.119)	(0.118)
Placebo	-0.146*	-0.092	-0.302**	-0.043
	(0.081)	(0.129)	(0.126)	(0.123)
Control Mean	0.000	0.000	0.000	0.000
# of Observations	705	705	705	705
# of Workers	705	705	705	705
	Linear Combinations of Coefficients			
Mission − Financial Incentive	0.232***	0.170*	0.334***	0.191*
	[0.001]	[0.099]	[0.004]	[0.083]
Mission − Mission and Financial	-0.036	-0.036	-0.044	-0.028
	[0.515]	[0.674]	[0.584]	[0.714]
Financial Incentive − Mission and Financial	-0.269***	-0.207*	-0.378***	-0.220*
	[0.001]	[0.078]	[0.003]	[0.063]

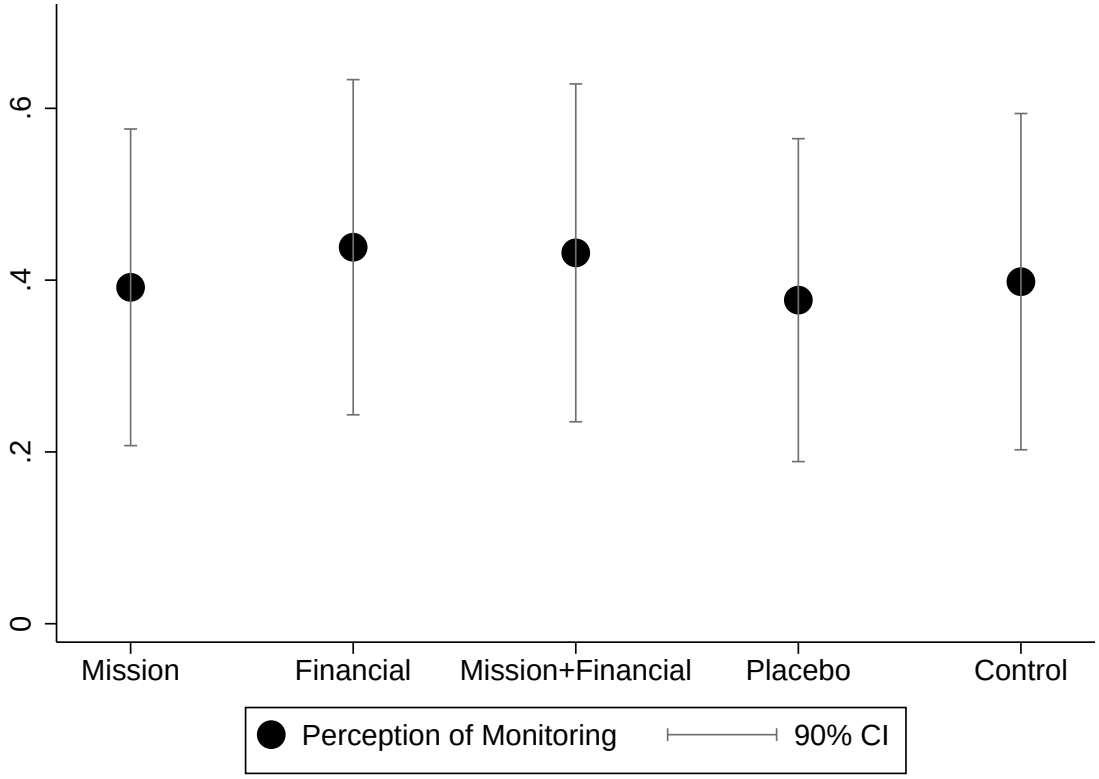
Notes: $^*p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. This table reports the effects of treatments on standardized stated beliefs regarding organizational mission. Index of beliefs is a composite index of workers' agreement with three statements on a scale of 1 to 7. (1) Importance: I like the LHW program more than other departments because of the importance it places on the mission. (2) Alignment: I believe the LHW program mission is very similar to my thinking since the beginning of 2019. (3) Attachment: If the LHW program mission was something else, I would not have been as attached to the program. Regressions controls for randomization blocks. First half the table reports the coefficients on each treatment. The regressions control for randomization block fixed effects. Standard errors clustered at the worker level are reported in parentheses. Second part of the table reports linear combinations of coefficients and test them against a null of zero difference. $p - values$ of the tests are reported in square brackets.

Table A12: **Effects of Treatment on Acceptance of Offers**

	Accept to Work = 1			
	Rs. 0	*Rs. 50*	*Rs. 100*	*Rs. 200*
	(1)	(2)	(3)	(4)
Mission	0.105*	0.008	0.007	-0.001
	(0.059)	(0.061)	(0.062)	(0.063)
Financial Incentive	-0.058	-0.018	0.020	0.010
	(0.076)	(0.075)	(0.076)	(0.076)
Mission and Financial Incentive	0.135*	0.001	0.010	0.019
	(0.070)	(0.074)	(0.076)	(0.077)
Placebo	0.012	-0.015	0.010	0.028
	(0.065)	(0.066)	(0.067)	(0.067)
Control Mean	0.614	0.466	0.545	0.557
# of Observations	707	707	707	707
# of Workers	707	707	707	707
Block Fixed Effects	✓	✓	✓	✓
	Linear Combinations of Coefficients			
Mission − Financial Incentive	0.163***	0.026	-0.013	-0.011
	[0.007]	[0.678]	[0.834]	[0.856]
Mission − Mission and Financial	-0.029	0.007	-0.003	-0.020
	[0.578]	[0.911]	[0.959]	[0.741]
Financial Incentive − Mission and Financial	-0.193***	-0.019	0.010	-0.009
	[0.007]	[0.799]	[0.898]	[0.901]

Notes: *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. This table reports the effects of treatments on accepting to work for various offers on an activity one year after the experiment. The dependent variable in each regression takes the value 1 if the worker accepts the offer mentioned in the column heading. Each regression uses block fixed effects and standard errors are reported in parentheses. Second part of the table reports linear combinations of coefficients and test them against a null of zero difference. $p - values$ of the tests are reported in brackets.

Figure A5: **Perception of Workers About Being Monitored**



Notes: This figure plots the mean perception of being monitored reported by workers in different treatment groups using data from worker survey.

Manual for Sessions

Assalama o Alaikum,

This manual is written with the aim of helping you prepare to facilitate upcoming sessions with the Lady Health Workers. This document provides directions on how to conduct the sessions and where needed gives exact language that needs to be used. However, overall we want to make these sessions are conducted as organically as possible, so we request that you do not read the manual like a script at the sessions.

Invitation, Attendance and Location:

The sessions are being organized in partnership with the Department of Health Haripur district. The DHO office will help organize the logistics of the session. Each LHW who is supposed to attend will be invited by the DHO office to a central location. This location in almost all cases is going to be a health facility such as BHU, RHC, dispensary etc. In each of these locations, the LHWs usually have a room reserved for them that is used for periodic meetings and training. You will be meeting the LHWs in these locations every three to four weeks.

The purpose of these trainings is to convey the organizational mission to the LHW and to help them understand this mission. The purpose is also to listen to them share their thoughts and experiences. Your goal as a facilitator is to always steer the discussion in the direction of organizational mission and to help the LHWs critically think about it, to help them synthesize their experiences with the mission and to help them vocalize those experiences.

It is important that we do not give them any impression that they are being monitored or that we will hold them accountable for their performance of a lack thereof. Your role is not of a monitor or someone who scares the workers into working harder. Your role is to help deliver the message about organizational mission.

In the training you have to make sure to follow the following steps:

1- You will receive a list of the LHWs that supposed to be part of the training (group) or that you are supposed to meet. Make sure you have that list before you go the center location.

2- As the LHWs arrive, ask them to confirm their name and take their attendance. It is important that this is done as the LHWs arrive because we only want those LHWs to be in the session that are supposed to be there. If there is someone who is not listed to be part of the session, ask them to leave the training. If they are accompanying an LHW, ask them to wait outside or in the patient waiting area of the facility.
3- Make sure you have video of the DHO with you.
4- Following is the summary of how the training will proceed on Day 1 of the mission sessions.
    i- Attendance
    ii- Introduction of the facilitator and the participants
    iii- Introduction of the video and the video itself
    iv- Facilitator led Participant discussion
    v- Refreshments
    vi- Wrap up of the session

Session 1

1- First of all take attendance of all the LHWs as they arrive for the session.
2- Welcome the LHWs at the start of the session, give them an introduction on the goals of the session set by the Department of Health and an overview of what they are going to do in the session. Below is a suggested introductory script. Do not read from this paper but make sure to cover all points and do not add any additional point, especially about their performance or incentives.

    "Assalam o alaikum, my name is _____. I am affiliated with Sangum Development Organization. I am here to lead this skills refresher session on the direction of District Officer Health (DHO). In today's session, we will first try to orient ourselves with what the department considers its mission. This will be done through first seeing a video message from the DHO about the mission and then a discussion on what the message in the video means to you, whether you have heard this message before, whether you have thought about the contents of this message before, whether you have acted on the message before. In all these discussions, I will serve as your facilitator. My role is not

to tell you what to say or not to say about the message. Instead, I am hear to listen and learn from you about what the message about organizational mission means and how to fulfil that mission.

These refresher sessions have been organized by the department of health to help you understand your role, help you refresh the skills you need to perform your role and to help us understand how you work. I am not going to be your teacher, rather I am going to be your helper in understanding and thinking about the contents of today's session.

One thing to note about my interactions and sessions with you is that these are our safe spaces. I am not an employee of the department so you can say things to me without the fear of retribution as I have no power over anything. I am also not going to communicate the contents of these discussions to anyone. The department hasn't asked me to keep any notes because we want the focus of the sessions to be on learning and sharing. Also, as you will notice we will keep this mostly all women sessions. Sometimes we may have a visitor from the department but those will be short visits. For majority of the session we will be not interrupted by an outside men. We care about your "pardha" and will make sure there is no man present for the entirety of the session.

This is not going to be a one off session. After today's session we will meet again in about 4 weeks in this same place. The exact date and time of that will be communicated to you by the DHO office. And in those subsequent meetings we will continue our discussions on various topics.

Now that I have given you the introduction of the session, let us all formally introduce ourselves.

I will go first .. (explain your qualification and experience. Highlight the health related trainings you have led).

Now, I would like to know your names and where you come from. One by one please introduce yourself. "

3- (After the introduction) "Thank you everyone for the introduction. We will now move to the next part of the session. In this next part, we will discuss the organizational mission. Can you each please take a piece of paper and on it write down what you think or know is the organizational mission. I only want you to write the statement and nothing else. Do

not write your name as I want you to be comfortable share what you think is the mission without any judgement"

4- After everyone is done writing select a few random pieces and read them out one by one. For each statement that you read, as the participants to share their thoughts on it.
5- Next announce, "All these statement have some part that may or may not be the actual organizational mission. To clarify we requested the DHO to kindly share with us the correct organizational mission. I'll now show you a short video. This video has a message from the District Health Officer. Please play close attention to his message. After the video, we will discuss what we heard in the video and share our feelings about it."
6- After watching the video, ask the attendants to explain what they heard in the message. Try to make sure that everyone gets to repeat what they heard but don't make it mechanical. For example, after each person or two you can rehash what they said in your own words and highlight that the DHO said this is the organizational mission. Also interject the discussion by asking others what they think of the recount of the statement by their colleague. Try to get a conversation going through this method.
7- Next, ask the LHWs based on the video, why do they think it is important to know this mission? Again try to make sure that everyone participates. After one person's participation ask others to share thoughts on that person's point.
8- Once you are satisfied that everyone has said something about the mission and why it is important, then ask them what is their role in that mission. The department has many people at many levels of seniority and many different types of specialties. What do they see the as the role of LHWs in that mission. Again try to get everyone to participate in the discussion and ask questions by rephrasing the points of the LHWs.
9- Again repeat the mission statement from the video of the DHO. Now ask the LHWs before watching the video what did they think was the organizational mission statement. Ask them:
    a. If they think what they heard from the DHO and what they thought was the mission are linked or not.
    b. How would they link the two.

c. If they did not think there is any link, is it possible for them to contemplate over what they heard from the DHO.
d. How does the mission statement of the DHO that you just heard relate to your work?

10- Now move to the next part of the session, announce that in this part you gave them the message about organizational mission and now you are moving to provide them a skills refresher training. But before you talk about skills, inform them that we will meet again in about 4 weeks in this same place. In that session, you will request the participants to share whether they thought about mission message, and if you experience any connection with the mission while performing the duties. Tell them that you will again want to listen from them and that you will give everyone a chance to speak their mind about the mission and their experiences with it.

11- Note: that as you describe the mission and the role of lady health workers in achieving the organizational mission, the participants may try to start discussion on the problems they face. Listen to their problems, concerns and issues carefully and emphatically. But be truthful with them that we do not have the resources to solve these problems nor is this a mandate given to use by the DHO office. If the DHO office asks us for information on the problems the LHWs are facing we will definitely pass on the information the LHWs have shared with you. And it is also highly likely that the department is aware of their problems. There is a broader reform initiative on going in the department that may address some of these issues and concerns.

Skills Refresher:

12- Announce that now you will move to the next part of the session.

In this part, you will discuss with the LHWs the basic skills needed for their job. Make sure to announce that your job is not to teach them but rather help them learn from each other. These are skills are critical for any LHW. You will discuss these basic skills in a case study manner. This means that instead of teaching the participants these skills you will lay out a scenario and ask them questions and let them ask you questions to explore the details. In this process, the some LHWs will share the correct skills with other participants. Do mention that the reason you are not teaching is because the LHWs

already know and practice these skills , and that the purpose is to facilitate learning from each other by sharing with others how they operationalize these skills.

13- Announce that "Today, we will talk about care for expecting mothers. We will discuss various aspects of care that you as a lady health worker provide to pregnant women in your communities and villages. Again the purpose is to share with each other our best practices.

14- There is a village in district Haripur where a woman named Majeeda, aged 26. She was married at the age of 18 and now she has 3 children. Majeeda is pregnant again. You as an LHW are responsible for the area where Majeeda lives.

   a. Do you think her history that I just described matters for her current pregnancy? (yes)
   b. In what ways does her history matter? (Early marriage can cause risk to physical and mental health of mothers. In Majeeda's case it isn't just that she married very young, she also become a mother at a very young age and didn't space the subsequent pregnancies either. This all means she is at great risk.
   c. Is her age at marriage likely raise a concern in your mind? (Yes, getting married at the age of 18 means, she married at a very young age)
   d. What about her 3 children since then? (yes, she had her first child at the very young age and also didn't space the pregnancies.)
   e. What kind of risks does she face in her fourth pregnancy? (she is at the physical risk due to pregnancy complications, it is possible she is anemic and doesn't have enough nutrition for her self and her baby).

Now that we have discussed and established that Majeeda's age at marriage raises a concern about her physical wellbeing and this concern is compounded by the fact that she has had 3 children since then, we would like to move to the next step and figure out how can we help her in reducing risks to her pregnancy and her health.

   a. As an LHW what do you think will be the first thing you do when you meet Majeeda and find out she is pregnant. (Note: They should say something along the lines to get her checked by a doctor. The LHWs should also be checking her for anemia, counselling her on nutrition and on getting vaccine)

b. How should you check if Majeeda may be anemic? Is there a non-laboratory test that can be used by a community health worker to see if there is a serious case of anemia? (yes, the workers can check her eyes for yellowish color, also can check the palms and skin for yellowish color).
c. Is there any vaccine that you would recommend Majeeda to get? (Yes, TT vaccine given to pregnant women)
d. At what stage in the pregnancy should she plan to receive the vaccine? (She should plan to get the vaccine in third trimester)
e. Majeeda received a vaccine, most likely TT Vaccine, during her first pregnancy. Since vaccines work to protect people for a long period of time and it has been only six years since her first vaccine, would you advise her to not get the vaccine? (No, because TT vaccine is recommended to be given during each pregnancy).
f. To reduce the risk to mother and child, where do you recommend Majeeda to give birth? (At a health clinic or at minimum in the presence of a trained birth attendant at home).

15- Make sure these questions are answered by multiple LHWs. Always, repeat what they say (if correct) in your own words to emphasize it to the attendees.
16- After the discussion is over, thank them for their attention and inform them that you will meet again in about 4 weeks time. During the next meeting you would like to hear their thoughts on organizational mission and how it relates to their work. You will also discuss another case study with them.
17- Lastly, invite them to have refreshments right after the training.

Second Session

1- You will receive a list of the LHWs that supposed to be part of the training (group) or that you are supposed to meet. Make sure you have that list before you go the center location.

2- As the LHWs arrive, ask them to confirm their name and take their attendance. It is important that this is done as the LHWs arrive because we only want those LHWs to be in the session that are supposed to be there. If there is someone who is not listed to be part of the session, ask them to leave the training. If they are accompanying an LHW, ask them to wait outside or in the patient waiting area of the facility.

3- Welcome the LHWs at the start of the session, give them an introduction on the goals of the session set by the Department of Health and an overview of what they are going to do in the session. Below is a suggested introductory script. Do not read from this paper but make sure to cover all points and do not add any additional point, especially about their performance or incentives.

"Assalam o alaikum, my name is _____. I am affiliated with Sangum Development Organization. I am here to lead this skills refresher session on the direction of District Officer Health (DHO). This is our second session. We were here about one month ago and during that session we discussed a number of things. Can any one provide me a summary of what we did in the last session?

(After you get two or three LHWs to summarize the previous session) In today's session, we will first revisit the discussion on organizational mission which was conveyed to you through a video message from the DHO about the mission. Today we will continue that discussion by sharing with each other experiences of the mission. Whether we thought about it during the last four weeks, did we see a link between the mission and our job, did we practice our mission or not. As before, in all these discussions, I will serve as your facilitator. My role is not to tell you what to say or not to say about the message. Instead, I am here to listen and learn from you about what the message about organizational mission means and how to fulfil that mission.

These refresher sessions have been organized by the department of health to help you understand your role, help you refresh the skills you need to perform your role and to help us understand how you work. I am not going to be your teacher, rather I am going to be your helper in understanding and thinking about the contents of today's session.

One thing to note about my interactions and sessions with you is that these are our safe spaces. I am not an employee of the department so you can say things to me without the fear of retribution as I have no power over anything. I am also not going to communicate

the contents of these discussions to anyone. The department hasn't asked me to keep any notes because we want the focus of the sessions to be on learning and sharing. Also, as you will notice we will keep this mostly all women sessions. Sometimes we may have a visitor from the department but those will be short visits. For majority of the session we will be not interrupted by an outside men. We care about your "pardha" and will make sure there is no man present for the entirety of the session.

4- Now ask the participants
    a. What did we discuss the last when we met?
    b. Can anyone recall the mission message given by the DHO in the video (Make sure they cover all aspects of the message)
    c. What do you think is the importance of this message?
    d. After everyone recalls the message, remind them that the mission message from the DHO was "You are the Department of Health's vanguard for mother and child health. It is our resolve that we will extend health services to every household through this program so that no mother or child becomes a victim of any disease. The mission of this program is to ensure no mother or child is left without basic health services. And neither should a mother be left without knowledge about her own health and that of her child. I pay my tribute to your services. And I believe you will continue with your good work."

5- "I would now like to understand whether you thought about the mission message and how it may or may not have influenced your mood, behavior, work etc. I would like to know from each of you the follow things one by one.
    a. First, let us talk about your experience of thinking about the mission. I would like to hear from each of you whether you spent any time thinking about the message we discussed in the last meeting. This could be a thought say while you were trying to sleep, so a passive thought, or you actively thought about the message.

Please note it is totally fine if you did not think about the message after we left the meeting. But if you have please do share.

b. Now I would like to know if you thought about the mission of your job in general while you were performing your duties. Was there an instance where you connected the routine part of your job to the bigger mission. And if you did, what was your thought. Did it make sense to you or did you think your mission and job are incongruent.
c. If you think the mission and the job are congruent, did you always thought this way or did your thinking change after our last meeting?
d. If you don't think they are congruent, what do you think need to change to make them congruent. Are there aspects of the job you would like to change that you think need to be changed to make it congruent with the mission.
e. For people who didn't think about the mission. Will you spend some time in the coming days to think about the mission message?
    i. Also, contemplate over the linkages between the mission and the routine activities of your job
    ii. Explore why this mission may me important
    iii. Think over the congruency of the mission message and your job

6- Now that we have discussed the mission message given by the DHO and how it may or may not link to your routine activities, let us move to some case studies that discuss some of the skills needed for your core duties related to mother and child health. Like before the purpose is to learn from each other through discussions. It is not a test and I am not a teacher. My role is to facilitate the flow of knowledge between you. You have been working in this job for a while so you already have the skills necessary for it. The purpose is to discuss and refresh some guiding principles related to the skills for everyone. I'll give everyone a piece of paper and pencil. In this session we will read two stories. Once we read the stories, everyone will use the paper to write on it what was done correct in the story or what was done wrong. I do not want you to write your name on the piece of paper. Once everyone writes their views, we'll collect the papers and then randomly pick a few to read the answers. I'll invite all of you to discuss the answer

written on the paper. Again, the purpose is to learn from each other rather than call out people giving incorrect answers, that is why we are not including names on the papers.

7- In this session we will discuss a few lessons that are important for the health of children. To discuss these lessons, I will first ask you a question and then we will discuss the potential answer.
    a. At what age should infants be given non-mother-milk food? Generally 6 months. Please highlight that only such food items can be given that are mashed and soft like mashed potato, fruit puree etc.
    b. When infants are started on this diet should mothers stop feeding them milk? No, both diets should be continued simultaneously. Mothers milk is complete food and has all the nutrients needed for a child's health. Mothers milk should be ideally given to a child up to 2 years of age. Infants at 6 months can be started with supplemental non dairy diet. This can include boiled and mashed potatoes, banana, rice etc.
    c. Mothers milk is the best food for a sick child. It helps keep the child hydrated and provide basic nutrition.
8- Why is diarrhea a dangerous diseases for children? Diarrhea is dangerous for children because not only it can cause mortality, it is one of the leading causes of death, but also it takes away nutrients from the body and affects the body's ability to retain nutrients from the food.
9- What are the symptoms that can help you understand whether a child is suffering from Diarrhea or not.
    a. Upset stomach
    b. Child is weak, listless and not very responsive. Some children cry a lot.
    c. Check eyes of the child. Sunken eyes may reflect severe case of diarrhea.
    d. Skin test: Pinch the skin of child and observe if the skin goes back to original form slowly. It is an indication of severe case.
10- How do you decide if the Diarrhea case in a child requires immediate medical attention and what do you do in that case?
    a. If the child appears unconscious, unable to feed and his skin goes back slowly in the pinch test (2 second or more) that is an indication that the child is severely

dehydrated. First, try to rehydrate the child and refer immediately to a health clinic or hospital for further treatment.

b. If the child is crying and able to drink liquid but eyes are sunken that is also an indication of severe diarrhea. Rehydrate the child and immediately refer to a hospital.
c. If there is blood in stool then the child has dysentery. Refer to a clinic.

11- IF the diarrhea is in the early stages or if there is no health facility near by then how would you try to rehydrate the child?

a. First make an oral rehydration solution using salt, sugar and water. Make sure that the water is boiled and cooled before mixing salt and sugar. It is important to keep the water safe from any contamination. [6 teaspoon sugar, ½ teaspoon salt, 1 liter clean water (5 cups)].
b. Most importantly try to feed the child mother's milk. Counsel the mother to frequently try to feed the child.

12- Can an infant, that only takes mothers milk, be given the Oral Rehydration Solution?

a. Yes, an infant can be given the ORS solution. It is important to make sure the water is clean. One way to ensure that is to boil the water.
b. If the child has been fed non dairy diet or is older than 2 years old then along with the ORS make sure to give soft and mostly liquid diet to the child. For example, boiled soft rice, soup, yogurt and pureed fruits.

13- What is the recommended dose of ORS?

a. If younger than 4 months: 200-450 ml
b. If 4 to 12 months old: 450- 800 ml
c. If 12 to 24 months: 800 – 960 ml
d. If 24 months to 5 years: 960-1600 ml
e. It is important for mother feed in small sips
f. If the baby vomits then feed again after 10 mins

14- How often should the child be given ORS?

a. It is determined according to the weight of the child. But the does should be repeated every 4 hours.

15- Can the child be given any medicine? Yes, if the child is older than 2 months. They can be given Zinc.

16- Now, can anyone help me to summarize what we discussed today?

   a. Thoughts on the mission message
   b. How does it relate to the routine job
   c. What are the key interventions that need to happen if a child is suffering from Diarrhea

Session 3:

1- You will receive a list of the LHWs that supposed to be part of the training (group) or that you are supposed to meet. Make sure you have that list before you go the center location.

2- As the LHWs arrive, ask them to confirm their name and take their attendance. It is important that this is done as the LHWs arrive because we only want those LHWs to be in the session that are supposed to be there. If there is someone who is not listed to be part of the session, ask them to leave the training. If they are accompanying an LHW, ask them to wait outside or in the patient waiting area of the facility.

3- Welcome the LHWs at the start of the session, give them an introduction on the goals of the session set by the Department of Health and an overview of what they are going to do in the session. Below is a suggested introductory script. Do not read from this paper but make sure to cover all points and do not add any additional point, especially about their performance or incentives.

   "Assalam o alaikum, my name is _____. I am affiliated with Sangum Development Organization. I am here to lead this skills refresher session on the direction of District Officer Health (DHO). This is our third session. We were here about one month ago and the month before that. During those sessions we discussed a number of things. Can anyone provide me a summary of what we did in the last session?

   (After you get two or three LHWs to summarize the previous two sessions) In today's session, we will first revisit the discussion on organizational mission which was

conveyed to you through a video message from the DHO about the mission. Today we will continue the discussion from last time by sharing with each other experiences of the mission. Whether we thought about it during the last four weeks, did we see a link between the mission and our job, did we practice our mission or not. As before, in all these discussions, I will serve as your facilitator. My role is not to tell you what to say or not to say about the message. Instead, I am here to listen and learn from you about what the message about organizational mission means and how to fulfil that mission.

These refresher sessions have been organized by the department of health to help you understand your role, help you refresh the skills you need to perform your role and to help us understand how you work. I am not going to be your teacher, rather I am going to be your helper in understanding and thinking about the contents of today's session.

One thing to note about my interactions and sessions with you is that these are our safe spaces. I am not an employee of the department so you can say things to me without the fear of retribution as I have no power over anything. I am also not going to communicate the contents of these discussions to anyone. The department hasn't asked me to keep any notes because we want the focus of the sessions to be on learning and sharing. Also, as you will notice we will keep this mostly all women sessions. Sometimes we may have a visitor from the department but those will be short visits. For majority of the session we will be not interrupted by an outside men. We care about your "pardha" and will make sure there is no man present for the entirety of the session.

4- Now ask the participants

   a. What did we discuss the last when we met?

   b. Can anyone recall the mission message given by the DHO in the video (Make sure they cover all aspects of the message)

   c. What do you think is the importance of this message?

   d. After everyone recalls the message, remind them that the mission message from the DHO was "You are the Department of Health's vanguard for mother and child health. It is our resolve that we will extend health services to every household through this program so that no mother or child becomes a victim of any disease.

The mission of this program is to ensure no mother or child is left without basic health services. And neither should a mother be left without knowledge about her own health and that of her child. I pay my tribute to your services. And I believe you will continue with your good work."

5- "I would now like to understand whether you thought about the mission message and how it may or may not have influenced your mood, behavior, work etc. I would like to know from each of you the follow things one by one.
    a. First, let us talk about your experience of thinking about the mission. I would like to hear from each of you whether you spent any time thinking about the message we discussed in the last meeting. This could be a thought say while you were trying to sleep, so a passive thought, or you actively thought about the message. Please note it is totally fine if you did not think about the message after we left the meeting. But if you have please do share.
    b. Now I would like to know if you thought about the mission of your job in general while you were performing your duties. Was there an instance where you connected the routine part of your job to the bigger mission. And if you did, what was your thought. Did it make sense to you or did you think your mission and job are incongruent.
    c. If you think the mission and the job are congruent, did you always thought this way or did your thinking change after our last meeting?
    d. If you don't think they are congruent, what do you think need to change to make them congruent. Are there aspects of the job you would like to change that you think need to be changed to make it congruent with the mission.
    e. For people who didn't think about the mission. Will you spend some time in the coming days to think about the mission message?
        i. Also, contemplate over the linkages between the mission and the routine activities of your job
        ii. Explore why this mission may me important

iii. Think over the congruency of the mission message and your job

6- Now that we have discussed the mission message given by the DHO and how it may or may not link to your routine activities, let us move to some case studies that discuss some of the skills needed for your core duties related to mother and child health. Like before the purpose is to learn from each other through discussions. It is not a test and I am not a teacher. My role is to facilitate the flow of knowledge between you. You have been working in this job for a while so you already have the skills necessary for it. The purpose is to discuss and refresh some guiding principles related to the skills for everyone. I'll give everyone a piece of paper and pencil.

7- Before I start, I would like to mention that the stories are fictitious but such scenarios are common across the country. The first story is " In an area of Haripur there was a pregnant mother, her name is Jameela. She belongs to a very poor family. She also didn't been to a clinic or consulted any trained health professional during her pregnancy. Jameela's child was born with a low birth weight. Jameela tried to feed the child but didn't succeed. The child was very weak and had problem latching to her to feed. Seeing the weak child, her mother in law tried to feed goat milk to the child but that didn't help either. The child passed away in a couple of days.

8- Now take a few minutes to write on your paper where did things go wrong for Jameela and her child. What could have been done differently that may have resulted in a different outcome for the child.

9- The second story is "There is a mother named Tanzeela in Haripur. She belongs to a very poor family. Tanzeela got pregnant and was very weak. The LHW responsible for her community visited her regularly and also counselled her to seek care from trained medical professionals in clinics/hospitals. As a result Tanzeela went to the nearest public hospital that had a lady doctor to get examined 4 times during the pregnancy. The doctor advised her to get the birth handled by a skilled attendant. Right after the birth, the attendant helped Tanzeela to hold the child on her chest and also helped her in getting the child fed. The child was very weak in the beginning but with the help of skilled birth attendant Tanzeela managed to feed him. The LHW also kept a constant check on Tanzeela and visited her regularly in the first few weeks. She advised Tanzeela on

feeding the child and the importance of feeding only mother's milk. After a few weeks the child gained weight and appeared to be on the path of growth."

10- Now take paper, and write down on it what was done write in this story that helped Tanzeela and her baby avoid the fate of jameela and her baby.

11- Now discuss the two stories and ask the following

a. In the first case, which problems were pointed out ? (Mother did not do a prenatal examination from a health professional. It also doesn't mention that the LHW visited her or counselled her. Post birth mother should have only given her own milk aur a close substitute instead of goat milk. If the child is weak and mother has milk the best remedy for the child is mother's milk)

b. What could have been done to save Jameela's child (Every effort to feed mothers milk should have been undertaken, the family should have gone to a public hospital or consulted a skilled professional to get the child to feed on mother)

c. What are the key points in both stories where they differ from each other (LHW's role is missing in the first story, prenatal and post natal consultation with a skilled professional is also missing. Feeding the child goat milk instead of mother milk is a key difference too).

d. Why is it important that the mother feeds the child her milk soon after birth? (Because mother's milk is the most nutritious food for the child. Feeding the child soon after birth makes it easy for the child to latch. Children lose weight naturally right after birth so feeding them the most nutritious milk, i.e. mothers' millk, can help them recover faster.

e. Why is it important to feed only mothers milk? (because mothers milk has all the nutrition that is needed for the child. Feeding something else also creates the possibilities of child getting germs from the environment.)

f. Can the child be given packaged milk? (No, because it is UHT treated and mother's milk has all the nutrients needed)

g. Can the child be given baby formula? (If mom doesn't have enough milk only then should a child be given baby formula)

h. If a child has to be given baby formula what is the one thing that needs to be taken care of? (Special attention should be paid to the water used in making the baby formula milk.)

12- Now, can anyone help me to summarize what we discussed today?

a. Thoughts on the mission message
b. How does it relate to the routine job
c. What are the key interventions that need to happen during pregnancy and after birth
d. The importance of mother's milk and its substitutes