

EDI Research Link Up Research Presentation



Center for Effective Global Action

*Performance-Based Incentives in Multi-Layered
Organizations (Sierra Leone)*

*Gianmarco León (with Erika Deserranno and
Philipp Kastrau)*

ECONOMIC
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Motivation

- Pay-for-performance (P4P) has been shown to be effective in improving job performance in both private and public organizations (e.g., Gertler and Vermeersch 2013, Muralidharan et al. 2011, Duflo et al 2012)
- P4P often studied within a single tier of the organization, focusing on frontline workers and rarely on their supervisors/managers
- However, incentivizing one layer (either the lower- or upper-tier) might affect effort across both layers, either through effort complementarities or fairness concerns.
- Given a certain budget it is also unclear how to structure incentive schemes between these different layers of the organization.



Research Questions

- How do incentives given to one layer affect the organization's performance and effort in the other layer?
 - Positive spillovers: Effort complementarities
 - Negative spillovers: Fairness concerns (conditional on pay transparency)
- Policy question: How should one allocate performance incentives across the vertical layers of the organization?
 - Given a fixed amount of money, should one spend more on incentivizing upper-tier or lower-tier workers?



Background and Context

- We study these questions in the context of a large national public program: the Community Health Program in Sierra Leone
- The program has been recently created to improve health conditions in Sierra Leone (Ebola outbreak) and we collaborate with the MHoS to identify major challenges
- The program is structured around two key figures:
 1. Community health workers (CHW): frontline workers who provide basic health services and preventive care to their community → monitor hh health, treat some diseases, refer patients to health center, provide pre- and post-natal visits
 2. Peer supervisors (PS) are in charge of training, supervising and advising CHWs (~ 9 CHWs per PS)



Research Design

- Sample: 372 PSs and 2,700 CHWs in 6 districts
- Base wage: PS = SLL 150K; CHW = 100k (+ transport allowance)
- At the PS level, we randomize the vertical structure of a new piece rate incentive paid for each service provided by a CHW

Layer	Control	T1: PS Incentive	T2: CHW Incentive	T3: Shared Incentive
PS	-	2,000Le. per service provided by each of her CHWs	-	1,000Le. per service provided by each of her CHWs
CHW	-	-	2,000Le. per service provided	1,000Le. per service provided

Reporting and Monitoring

Incentive is paid monthly and is proportional to *the number of services provided by a CHW that month*

Reporting system:

1. Each time a CHW carries out a service, she reports it to us via text message (along with phone number of the patient and type of service provided)
2. A team of phone clerks calls a random sample of patients to confirm the service and assess the quality
3. A team of field monitors randomly visit CHWs (and hhs in the village)
=> check for under- and over-reporting



Main Outcome Variables

Households' health outcomes:

- We will interview a random sample of the households on health status and health knowledge

CHW effort:

- Households will be asked number of CHW visits + quality of the service
- Reports by text messages, and confirmations from our monitors and phone clerks (this also gets at quality)
- Self reported time use, motivation, etc.

PS effort:

- Reports from CHWs on the frequency and duration of visits (and calls)
- Health knowledge of the CHW
- Self reported time use, motivation, etc.



Challenges/ Next Steps: Questions for the Audience

- If PS's pay structure is **private information** (not known by the CHWs): two potential channels → (i) individual effort and/or (ii) effort complementarities.
- If PS's pay is **public information** (known by the CHWs): additional potential mechanism → fairness concerns.

Two options going forward:

1. Keep information private and shut down fairness concerns
2. Randomize pay transparency → allow us to study fairness concern, but reduces power



Additional experiment

- Do vertical pay differences provide career incentives to frontline service providers?
 - => These incentives should only be relevant in settings where agents believe that promotions are based on merit (vs. favoritism/patronage)
 - => Vertical pay differences can be demotivating if lack of meritocracy
- We could potentially exploit our setting to test this idea
- Randomize CHWs into 2 groups:
 - T1: Information about the large wage gap between PS and CHW
 - T2: Information about wage gap + information on performance is provided to gvt and be used for promotion decisions





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