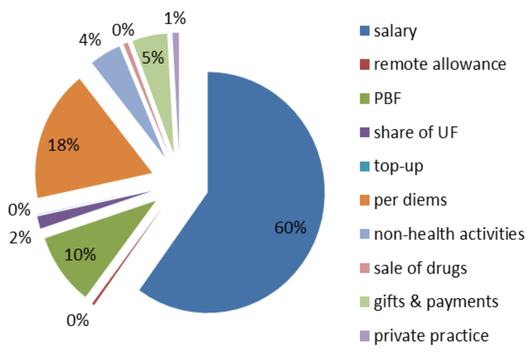
What do health workers do, and why? A study of the activities performed by primary healthcare workers in Sierra Leone

Maria Bertone, PhD candidate – Dept of Global Health and Development
maria.bertone@lshtm.ac.uk | mpbertone@yahoo.com

Background

This study is part of a broader research which focuses on the **complex remuneration** of health workers in rural Sierra Leone (carried out before the Ebola outbreak).



We found that nurses working in primary health facilities receive a variety of incomes and we estimated their amount, as shown in the figure . We also noted significant differences between districts (1).

The study adopted a **mixed-method design**. The quantitative sample included 266 primary health workers in 3 districts of Sierra Leone, and interviews were carried out with 39 of those health workers.

***Ask me** about the **innovative methods** we used for data collection and about the **limitations** of our data.*

Hypotheses

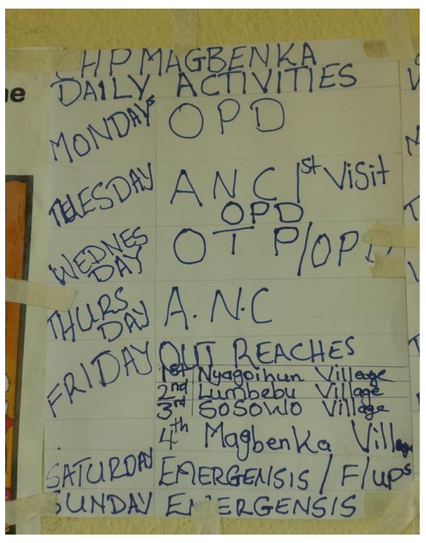
Our next objective was to explore the ***consequences*** of the complex remuneration, focusing on the tasks and activities that health workers carry out in their productive time. We asked: **could health workers choose the activities that they do, in order to maximize their incomes**? For example, could health workers give more time to activities which allow earning per diems or to services included in the Performance based financing (PBF) bonus calculation, and neglect other tasks?

This hypothesis is supported by **agency theory** which predicts that multitasking agents will aim to maximize earnings while minimizing effort. As a consequence, if tasks are substitutes, stronger incentives to perform one task drive the agent's effort away from the (less incentivized) tasks (2). This is based on the ***assumption that workers can make unconstrained labor supply choices***. This has proven a plausible hypothesis in other settings. In **Nigeria**, 56% of health workers reported to be giving priority to activities that enabled earning per diems (3). In **Malawi** and **Uganda**, health managers stated that per diems influence their allocation of time (4)

Results

Question #1 Are labor supply choices unconstrained?

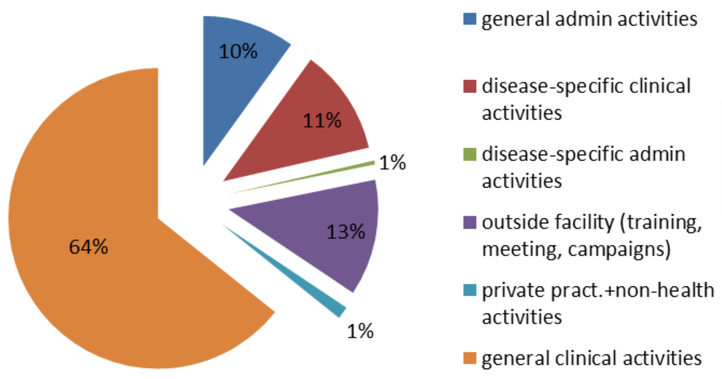
No. In Sierra Leone, we found that primary health workers have little discretion on what they do:



1. because of a **facility schedule** which defines which services to carry out each day (see photo),
2. because of the presence of a **network of actors** providing them with **material and technical support**, i.e., providing inputs (drugs, vaccines, nutritional suppl.) and regular supervision, introducing reporting requirements, offering training opportunities, being present during the delivery of (certain) services. This network does not include only the **District Management Team** to which health workers are formally accountable, but also **NGO** staff which interact almost daily with health workers → ***The provision (or not) of such support, as well as the offer available in terms of training and workshops, is key in influencing and constraining what health workers do.***

Question #2 What do health workers do?

The quantitative analysis provides a description of the activities that health workers do, given these influences and constrains.



However, this distribution of time varies between health workers. Regression analysis shows that, it is not the individual or facilities variable which mostly influence what health workers do, but rather the **district** in which the health workers is deployed. This confirms our finding that ***it is the patterns in the presence of NGOs and their provision of technical and material support for specific activities which is driving the health workers' time allocation***. For example, in Moyamba, the district where health NGOs are focused mostly on supporting nutrition, health workers carry significantly more nutrition activities (p=0.000 compared with Bo and 0.012 with Kenema).

Key messages

What health workers do, how much time they spend within or outside the facilities, or on general or disease-specific tasks is a central element in determining their performance and shaping service delivery. Our study highlights that, in this setting where service delivery largely relies on external actors:

- it is ***not*** the health workers' **remuneration** (and their income maximization strategies) that defines the time spent on activities
- although **District Medical Teams**, to whom health workers are **accountable**, can influence providers' practices (5), they are not the only actor doing so
- what health workers do is influenced by the presence of a **network of actors** providing technical and material support at facility level, who are able **to shape local health priorities** and, consequently, health workers' activities. In turn, this can explain the significant differences in health workers' income between districts.

References
(1) Bertone MP, Lagarde M. 2016. Sources, determinants and utilization of health workers' revenues: evidence from Sierra Leone. *Health Policy and Planning* (Advanced Access)
(2) Holmstrom B, Milgrom P. 1991. Multitask Principal-Agent Analyses : Incentive Contracts, Asset Ownership, and Job Design. *Journal of Law, Economics and Organizations* 7: 24–52.
(3) Akwataghibe N, et al 2013. Assessing health workers' revenues and coping strategies in Nigeria — a mixed-methods study. *BMC Health Services Research* 13: 387.
(4) Vian T, et al 2013. Perceptions of per diems in the health sector: evidence and implications. *Health Policy and Planning* 28: 237–46.
(5) Gilson L, et al 2014. Practice and power: a review and interpretive synthesis focused on the exercise of discretionary power in policy implementation by front-line providers and managers. *Health Policy and Planning* 29: iii51–69.

This study was funded by the Fondation AEDES (PhD scholarship) and the ReBUILD consortium (fieldwork and dissemination).
The views expressed in this poster do not necessarily reflect the UK government's official policies.

All research outputs are available at: https://rebuildconsortium.com