The Impact of Meritocratic Promotions and Pay Progression on Health Care Workers' Productivity in Sierra Leone

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Sector(s): Political Economy and Governance

Sample: 372 Peripheral Health Units (PHUs), with 372 peer supervisors (PSs) and 2,009 community health workers (CHWs)

Target group: Civil servants Health care providers Rural population

Outcome of interest: Provider attendance Social service delivery Service provider performance

Intervention type: Incentives Information Community health workers Performance-based pay

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Governments' ability to motivate their employees is critical to ensuring that citizens receive high-quality public services, including health care. Working with the Ministry of Health and Sanitation in Sierra Leone, researchers tested the impact of a meritocratic promotion system and beliefs about pay progression on the productivity of Community Health Workers (CHWs). A combination of meritocracy and the promise of a steep salary increase after promotion led CHWs to make more health care visits, while non-meritocratic promotions with higher pay progression demotivated workers, reducing their productivity. This suggests that—in contrast to the current personnel practices of many bureaucracies—both meritocratic promotion rules and a sufficiently steep pay scale are necessary to motivate workers.

Policy issue

Public sector workers connect citizens to many crucial services, including health care and education. In Sierra Leone, for instance, community health workers (CHWs) provide women and children with access to primary care. Motivating these workers can thus be critical to the quantity and quality of services delivered. Public sector organizations are limited in their ability to dismiss poor performers or offer bonuses to productive employees, so they often rely on promotions to motivate their staff.

Different promotion rules may have different impacts on workers. Bureaucracies in many low- and middle-income countries offer steep pay progression and base promotions on relationships or seniority rather than merit. This is associated with poor government performance, according to the World Bureaucracy Indicators.[1] Meritocratic promotion systems may be more motivating to workers—and thus lead to better service delivery. But there is little empirical evidence on how frontline service providers actually respond to opportunities for advancement.

Context of the evaluation

Sierra Leoneans experience poor health outcomes—including the highest maternal mortality rate in the world—partly due to a shortage of health care facilities and workers.[2] To improve access to primary care, the Ministry of Health and Sanitation (MoHS)

created the Community Health Worker Program. The program is organized around small health centers called Peripheral Health Units (PHUs), each of which has one Peer Supervisor (PS) and several Community Health Workers (CHWs).

CHWs make visits to households with expecting mothers and those with young children to provide health education, check-ups, and referrals to health care facilities. Meanwhile, PSs train and monitor the CHWs, most of whom come from the local community and do not have health care backgrounds. When a PS position becomes available, a CHW within the PHU is promoted to fill it.

Both positions are part-time, with employees typically holding other secondary occupations. CHWs are paid a fixed monthly allowance of SLL 150,000 (US$17.5) and PSs are paid SLL 250,000 (US$29.2), meaning that CHWs earn 40 percent less than their supervisors.

District Health Management Teams (DHMTs) oversee the implementation of the program at the district level. In practice, promotion decisions are made by the head of the PHU. There is a widespread perception among CHWs that promotions are based on social connections to the "PHU in-charge," rather than on performance in their jobs.

Community health workers provide access to primary care in many low- and middle-income countries, including in Sierra Leone. Here, a CHW addresses a group in Kenya.

Photo: Thomas Chupein | J-PAL

Details of the intervention

Researchers partnered with the DHMTs to evaluate the impact of 1) introducing a meritocratic promotion system and 2) providing community health workers (CHWs) with information on salary progression.

The study took place in 372 Peripheral Health Units (PHUs) in six of the 14 districts of Sierra Leone. The study covered 372 PSs and 2,009 CHWs. PHUs were randomly assigned to receive either one or both of the following interventions:

- *Meritocratic promotion*: A total of 168 PHUs introduced a new meritocratic promotion system, in which the DHMTs agreed to promote CHWs based on measures of performance. Researchers assessed CHWs' performance by measuring the

number and lengths of their visits to households in the community. CHWs were informed that promotions would now be based on performance.

- *Salary progression:* In 168 PHUs, CHWs were informed of the salary earned by their supervisors, the PSs. Most CHWs did not know the PS salary prior to the intervention: one-third of CHWs overestimated it and the remaining one-third underestimated it. The design allowed researchers to study the effect of raising or lowering the supervisors' perceived salaries—without actually changing anyone's pay.

A fourth group of PHUs received none of the interventions above and served as a comparison group.

CHWs were interviewed shortly before and after the interventions—which took place in November-December 2018—to assess their perceptions of the promotion system and the salary scale. Researchers also collected information on CHWs' and PSs' demographics and health knowledge. Ten months after implementation, researchers surveyed three eligible households per village about the health services they received.

In addition to receiving ethical review and approvals from local and national institutional review boards, researchers made efforts to ensure that the delivery of the treatments involved no deception to participants. To do this, researchers provided timely information on workers' performance to the DHMTs every time an opening for the PS position appeared (and the PHU was assigned to the meritocratic promotion treatment).

Results and policy lessons

The combination of a meritocratic promotion system, and an increase in the perceived salary after promotion, increased the effort that CHWs dedicated to providing health care. In non-meritocratic regimes, by contrast, a steeper pay progression reduced productivity, which is consistent with a negative morale effect.

Meritocracy only. Overall, there was a positive but non-significant impact of only introducing meritocratic promotion on the performance of the average CHW (measured as number of health care visits). However, CHWs who overestimated PS pay did significantly increase their effort in response to meritocracy: over a period of six months, they made 2.0 additional health care visits per household (a 27 percent increase relative to the comparison group, in which CHWs made 7.5 visits), while those who underestimated PS pay did not make additional visits. This suggests that the expectation of a significant raise with promotion was a key factor in motivating effort.

Similarly, top-performing CHWs increased their effort, but lower-performers did not. Top performers increased the number of visits by 2.3 (a 30 percent increase relative to the comparison group). The productivity boost was also stronger among CHWs with a PS who was more likely to turn over within the next five years (based on the standard retirement age).

Pay progression with meritocracy. Prior to the intervention, about one-third of the CHWs underestimated their supervisors' pay and one-third overestimated it. When informed of the true PS salary, the former group thus learned that promotion entailed a larger raise than they thought; the latter group learned the raise was smaller. These changed perceptions induced CHWs to change their level of effort.

In a meritocratic system, CHWs who had underestimated the PS salary conducted 1.9 more health care visits (an increase of 24 percent from the comparison group) and were less likely to quit their jobs. The effect is even larger among higher-ranked workers. By contrast, CHWs who had overestimated the PS salary provided 2.1 fewer visits (a decrease of 24 percent).

Pay progression without meritocracy. In a non-meritocratic system, increasing the perceived pay for PSs had the opposite effect: CHWs made 2.0 fewer visits (a reduction of 26 percent relative to the comparison group). They did not report spending any additional time with the PHU in-charge—suggesting that they reduced their effort because they perceived the pay gap as unfair and felt demoralized, not because they spent more time lobbying for a promotion.

These findings suggest that in order to increase productivity, organizations must both implement promotion rules that reward good performance, and ensure that the salary after promotion is large enough to be enticing to workers. In practice, many organizations adopt only one of these two personnel policies, with many bureaucracies in low-income countries instituting steep salary progression without meritocratic promotion rules. These findings suggest that this policy can reduce morale among lower-tier workers.

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1. World Bank. “Worldwide Bureaucracy Indicators.” https://datacatalog.worldbank.org/search/dataset/0038132.

2. World Health Organization. 2016. Health in 2015: From MDGs, Millennium Development Goals to SDGs, Sustainable Development Goals. Geneva: WHO Press, 2016.