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Health workers' incentives in post-conflict settings – a review of the literature and framework for research

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ReBUILD Consortium

Research for stronger health systems post conflict

Cover picture: Frontline health workers in Ikotos, South Sudan, receive training in the use of a low-cost uterine balloon device developed by Massachusetts General Hospital's Maternal, Newborn and Child Survival program.
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Research for stronger health systems post conflict

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The ReBUILD Research Programme Consortium is an international research partnership funded by the UK Department for International Development.
ReBUILD is working for improved access of the poor to effective health care and reduced health costs burdens in post-conflict and post-crisis countries. We are doing this through the production of high quality, policy-relevant research evidence on health systems financing and human resources for health, and working to promote use of this evidence in policy and practice.

ReBUILD is implemented by a partnership of research organisations from the UK and from our four core focus countries.

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List of acronyms

CHW	Community health worker
HR	Human resources
HRH	Human resources for health
MDGs	Millennium Development Goals
NGO	Non-governmental organisation
P4P	Pay for performance
PHC	Primary health care
WHO	World Health Organisation

Introduction

Health worker attraction, retention and performance are arguably the most critical factors affecting the performance of a health system. In post-conflict settings, where health systems and health worker livelihoods have been disrupted, the challenges facing the establishment of the right incentive environment are particularly important, and the contextual dynamics around them especially important to understand and incorporate sensitively into policy measures.

This paper aims to identify research gaps in relation to health worker incentives in post-conflict contexts. It was conducted as a background review for a ReBUILD research project on this topic. It starts with a discussion of key definitions. It then draws on a literature review to highlight what is known about health worker incentives in post-conflict areas. Based on this, a framework for future research is developed and discussed.

Research methods

A literature review was conducted on human resources for health, focussing on incentives and post-conflict environments. A wide range of academic bibliographic databases were searched using EBSCO Discovery and PubMed in May-August 2011. Online resources for international organizations were searched for grey literature and relevant references in sourced literature were checked. The search term was *incentives*, and was used in conjunction with human resources for health (HRH), human resource management, *health workers, attraction, retention, attrition, performance, motivation and financial.* This was combined with post-conflict and fragile-state to focus on these contexts

Background: definition of key terms

Health worker *incentives* have been variously defined; they can be broadly described as mechanisms which aim to achieve a specific change in behaviour (Hicks and Adams, 2003). This can be elaborated to include "all the rewards and punishments that providers face as a consequence of the organizations in which they work, the institutions under which they operate, and the specific interventions they provide" (WHO, 2000), and the "available means applied with the intention to influence the willingness of physicians and nurses to exert and maintain an effort towards attaining organizational goals" (Franco et al., 2002). The ensuing willingness is *motivation*, which develops as a result of the interaction between individual, organizational and cultural determinants (Franco et al., 2002, Mathauer and Imhoff, 2006). Health workers are generally guided by their professional conscience and professional ethos or 'intrinsic motivation' to do their jobs well. However, extrinsic motivation may be an important factor, particularly in certain contexts, such as where pay is low (Mathauer and Imhoff, 2006, Witter et al., 2012).

Incentives are often grouped into financial or non-financial. *Financial Incentives* are sums of money given to a worker, the amount and type or feature of which varies (Lemiere C et al., 2011). Direct financial incentives include salary, pension, allowances for housing, transport and travel, childcare, clothing and medical needs (Willis-Shattuck et al., 2008, Dambisya, 2007). When directly related to performance, a financial incentive (for example "pay for performance") is conditional on taking a measurable action or achieving a predetermined performance target (Eichler R and Levine R, 2009). Indirect financial benefits include subsidised meals, clothing, transport, child-care facilities and support for continuing education (Dambisya, 2007). *Non-financial incentives* are those which do not involve direct transfers with monetary value or equivalent to an individual or group (Hicks and Adams, 2003). They include career development (specialism or promotion); continuing education; hospital infrastructure (working environment); resource availability (equipment and supplies); management and supervision (positive working relationship); recognition or appreciation (at work or in the community); job security and safety (Willis-Shattuck et al., 2008, Mathauer and Imhoff, 2006).

What do we know? The international literature

Human resources development is an important part of rebuilding the health sector in countries after violent conflict, but has received relatively little attention in the literature and may be overlooked by decision-makers and donors (Pavignani, 2009, O'Hanlon and Budosan, 2011, Shuey et al., 2003). There are limited sources of literature specifically analysing health worker incentives in post-conflict states, although they are visible as one of the many elements in a wider literature of experiences from rebuilding health systems. Many of the issues related to human resource management in post-conflict states are similar to those in the wider human resources literature, which relate to the attraction of staff to specific job types, employers and locations, their retention in those posts and their performance in the workplace. However, issues which are particularly visible in post-conflict states are described below. Understanding the importance of human resources and the complexity of the context within which reconstruction takes place in achieving health sector redevelopment is crucial (WHO, 2005).

The impact of conflict on health workers

Conflict can have a direct impact on the health sector in multiple ways, it affects mortality and morbidity, can damage health infrastructure and cause human and capital flight (Kruk et al., 2010). Health facilities and training institutions may have been damaged, destroyed or disrupted (Newbrander et al., 2007, Morris, 2001). Displacement, 'burn-out', dispersal, attack, physical and professional isolation and outward migration of health workers results in a distorted and poorly distributed workforce in terms of skills and location (Nelson et al., 2003, Macrae et al., 1996, Varpilah et al., 2011, Sirkin et al., Pavignani, 2011, Martins et al., 2006, WHO, 2005).

Conflict may result in imbalances - for example, the workforce becoming bloated and under-skilled; or slim and under-skilled (Pavignani, 2011). In addition, conflict exacerbates pre-existing structural weaknesses in the health system and is likely to further disrupt human resources management and supervision structures. Human resources for health are therefore more likely to have become unregulated, under-skilled and unplanned (Hill, 2004, Pavignani, 2009). During conflict, the public health provision, health infrastructure and supply mechanisms, health worker motivation and capacity are likely to decline. Alternative private health services therefore tend to become more common, partly as a result of public health workers taking the opportunity to boost salaries with private practice (Macrae et al., 1996, Pavignani, 2009, WHO, 2005). In the Ugandan crisis

in the 1980s, for example, the motivation and capacity of staff to maintain the provision of health services was limited by their extremely poor levels of remuneration and the lack of basic supplies. Low salaries in the public sector encouraged staff to seek additional income sources and increased their vulnerability to corruption (Macrae et al., 1996). The capacity of civil servants to support positive policy development was also threatened by the limited knowledge base and technical skills within the service.

Rebuilding the health sector post-conflict

Institutional issues. Post-conflict strategies for the health sector can exacerbate problems inherited from the pre-conflict era and long-term effects of conflict on health and health services (Macrae, 1995, Smith, 2001). On the other hand, the post-conflict transition period can represent a window of opportunity for health systems development to improve and restructure health care, workforces and management systems in a more rational and equitable manner (High-Level Forum on the Health MDGs, 2005). This can be facilitated by donors – whose investment and expertise are important in the transition period – in conjunction with a country's Ministry of Health which has an opportunity to adapt its role and adopt new approaches to human resources (Smith and Kolehmainen-Aitken, 2006).

Aid agencies tend to play a key role in emergency periods and immediately post conflict, but tension between stakeholders can occur in the transition to rebuilding the health system and planning sustainable solutions (Vergeer et al., 2009). New governments in the post-conflict period are often politically contentious and public administrative structures very weak (Macrae et al., 1996). Doubts regarding legitimacy, competence and capacity can further weaken the public health system (United Nations, 2010). Co-ordination, collaboration and co-operation of large-numbers of donors with different development agendas and consultation with local authorities are challenging, particularly if inadequate attention is paid to the political environment. The role of context is often underestimated and it is important to address broad systemic problems before initiating health reform processes (Hill, 2004, Ssengooba et al., 2007). Willingness to take into account and adapt to local contextual factors (flexibility), awareness of existing (pre-conflict) distortions in health systems and a high level of motivation on the part of key stakeholders is important (Varpilah et al., 2011, High-Level Forum on the Health MDGs, 2005). Support for and commitment to new authorities is also important and can aid the rebuilding of their credibility and confidence (Pavignani, 2011). Recognition by donors and health authorities of the value of human resources development post-conflict is vital, and can be aided by a dedicated focal point for human resources in the health authority (Hill, 2004, WHO, 2005). However distortion of health worker supply and salaries by the aid industry is a risk with local and foreign staff. Foreign staff can fill severe gaps in the local workforce (usually at senior level). However complaints about skills, appropriateness and capacity of expatriate health workers are commonplace, as is resentment against their higher salaries, powerful positions and decision-making freedom (Pavignani, 2009).

Training. Health workers may emerge from conflict with insufficient training and skills, resulting in lack of the right mix of skilled professionals (Macrae, 1995, Pavignani, 2009). Investment in training capacity ranks among the top priorities of a recovering health sector and a priority should be to increase technical quality and capacity of training facilities (O'Hanlon and Budosan, 2011). Short-term solutions, such as accelerated training programmes, may create long-term problems, if the result is a large number of poorly trained workers with limited capacity for further career development (Pavignani, 2009). Efforts to replace lost health workers can lead to unplanned overproduction of poorly trained professionals; and educational standards may decline as emergency training inevitably produces a lower academic standard (WHO, 2005). Staff from aid agencies or NGOs may overestimate the level of training and skills of available personnel and the impact of war on education and training; they may respond to the poor performance of health workers by financing in-service training initiatives that may be inadequate to meet needs (Pavignani, 2009). Training may therefore absorb resources, enjoy support among personnel (as an important source of income), but have a negligible impact on performance.

Size and composition of the workforce. Imbalanced health workforces are likely in the post-conflict health sector, particularly in terms of urban/rural discrepancies, discrepancies between regions and between different cadres (Pavignani, 2011, Newbrander et al., 2007). Perceptions of staff shortage may not be supported by evidence and aggregate figures will help to gauge whether the workforce is truly undersized or simply unevenly and inefficiently distributed (Pavignani, 2009). Accurate figures and information systems are important to confirm or negate assumptions about the workforce and provide data on the skills mix and distribution of the workforce (including demographic and personal data – such as age) that can in turn help plan appropriate human resource management systems and incentives (Newbrander et al., 2007, United Nations, 2010, WHO, 2005). Some cadres (midwives, or sometimes doctors) tend to be under-represented, while others are over-represented (support staff) or over-produced.

The workforce from warring or different political factions may have established their own health services in the

conflict era staffed by politically affiliated or forcibly-recruited workers. Once the conflict is over, these personnel may need to be merged into the formal health sector (Pavignani, 2009). Integrating segregated workers is challenging and requires considerable preparation and sensitivity.

Health workers without formal professional qualifications may become more common in the post-conflict setting, but they are likely to have different motivations (i.e. social respect) and respond to different incentives. The lack of formal contracts can induce volunteer health workers to find alternative ways to earn a living. However, supervision of volunteers is often erratic, and attrition may be high (Newbrander et al., 2007, Pavignani, 2009, Glenton et al., 2010, Varpilah et al., 2011).

Productivity of the workforce. Poor productivity as a result of absenteeism, inappropriate recruitment, poor supervision, deteriorating skills and poor regulation or low salaries is common post-conflict (Pavignani, 2011, United Nations, 2010, Pavignani, 2009). Senior staff may leave to pursue better job opportunities, or just retreat to secure areas; junior replacements may be appointed in haste or deployed without adequate preparation; expectations relating to employment are reduced; and supervision and supply lines can deteriorate, denying staff support and feedback (Pavignani, 2009). The working environment sometimes becomes even more unfavorable: survival concerns and severe hardships affect professional commitment and encourage questionable practices (Macrae et al., 1996, Pavignani, 2009, Morris, 2001).

Use of incentives in post-conflict settings: strategies for attraction, retention and performance

Challenges. Incentives that are effective in stable health sectors can weaken and become perverse in post-conflict settings (High-Level Forum on the Health MDGs, 2005). Health workers in the public sector may remain on the payroll yet not attend their assigned posts; controls over resources can wane; poor performance may not be recognized or disciplined (Pavignani, 2009, WHO, 2006). Conflict provides an excuse for failure, financial hardships sideline other concerns, and good performance may translate into undesirable outcomes - for example, the chance for NGO employment or overseas study. Aid agencies offer powerful incentives – better salaries, increased security and career opportunities – and strongly affect the labour market. The wage differential between locally recruited and expatriate workers can be a powerful incentive to move abroad. Increased salaries are not usually sufficient to raise productivity; particularly in situations where absenteeism, poor performance, and deficient controls have prevailed for a long time, good managerial practice is required to offset such conditions.

These factors suggest that it may not be appropriate to use some of the standard strategies to improve human resources to deal with the specific challenges in post-conflict settings and it is likely to be necessary to adapt recognized approaches (supervision, incentives etc.) according to context (Varpilah et al., 2011). The use of incentives as a motivational tool can improve the quality of the workforce employed in environments not affected by conflict, but in the post conflict environment these are less likely to be effective or possible: there are likely to be fewer opportunities, for example for professional development and continuing education of healthcare workers, whose demotivation may be compounded due to meagre salaries, difficult circumstances, and large workloads (Nelson et al., 2003).

Incentives also have inherent limitations, regardless of whether there is a history of conflict - for example, an incentive may motivate staff, but cannot equip those staff with the skills required to do the job well (Pavignani, 2009). There is also evidence that where staff are reported to have remained motivated and committed despite the conflict, financial incentives may not play a significant role. For the East Timorese, for example, the Christian ethos of NGO staff appeared to be important (drawing strength in the belief that they should help those in need), as well as commitment to nation building, contributing from one's expertise, and helping one's countrymen. All of these were reported to be encouraging for workers who received little or no pay in the emergency and post-emergency phases (Martins et al., 2006).

Human resource management. A designated HR management unit in the post conflict health authority should be responsible for developing incentives to attract, motivate and retain competent health workers (WHO, 2005). Progressive donor policies accompanied by management tools can strengthen the use of incentives, but in the post conflict environment it may also be the case that HR management methodology may be in tension with traditional decision-making. For example, supportive supervision and staff motivation may not be considered a priority, particularly in the early transition period (WHO, 2005, High-Level Forum on the Health MDGs, 2005).

A successful example of an HR management unit was in post-conflict Liberia, where the establishment of an HR unit facilitated the prioritizing of attraction of health workers (Varpilah et al., 2011). The coherent package of HR measures and incentives in Liberia aimed to increase workforce numbers, improve equitable distribution of workers and enhance performance (Varpilah et al., 2011). Incentive strategies included increasing and standardizing salaries to attract workers and prevent outflow to the private sector; mobilizing donor funds to improve management capacity and fund incentive packages

(top-up salaries and ability to gain qualifications on completion of fixed terms of office) in order to retain staff in hard to reach areas; reopening training institutions and providing scholarships to increase the pool of available workers. As in other settings, bundles of incentives which are complementary and consider living and working conditions, environments and development opportunities are likely to be more effective than individual interventions (Buchan, 2004, Lehmann et al., 2008, WHO, 2010a, WHO, 2010b). Incentives may include a range of interventions, including supportive supervision, continuing education, promotion opportunities, access to housing and other amenities and/or financial incentives such as improved salaries and allowances.

Incentives and volunteer staff. In Afghanistan, the implementation of a Basic Package of Health Services relied on the principle of community-based health care. However government policy stated there should no longer be any regular payment, salary, or incentive from the government or the NGOs to community health workers (CHWs) - rather the local community should select CHW trainees, and determine what, if any, incentives the community will pay them (Newbrander et al., 2007). Many NGOs had existing incentive and payment systems and there was concern that CHWs working and receiving payments from NGOs would cease providing services if payments were stopped. However the policy of non-payment of CHWs persists and incentives provided by the CHW's community was not successful.

Similarly in Nepal, the conflict was reported to have motivated health staff to work and encouraged inclusive, transparent, humanitarian programmes at local level (Devkota and van Teijlingen, 2010). They were motivated by social respect, religious and moral duty and freedom to deliver services, although they were responsive to extrinsic incentives such as micro-credit. Explicit financial incentives, while not financially feasible, were also reported to be a threat to the volunteers' social respect (Glenton et al., 2010). Evidence from Nepal suggests that for informal providers it may not be useful to promote a generic range of incentives, such as wages, to improve community health worker programme sustainability. Instead, programmes could ensure that the context-specific expectations of community health workers, programme managers, and policy makers are in alignment if low attrition and high performance are to be achieved (Glenton et al., 2010).

Career opportunities and professional autonomy. In Bosnia-Herzegovina post-conflict primary health care (PHC) reforms centred on family medicine offered incentives – such as new career opportunities and financial rewards – as a tool to motivate health professionals to be involved in the new PHC model. The model expanded the knowledge and skill base of health professionals and increased work efficiency while boosting confidence (Atun et al., 2007).

Supportive supervision. Supportive supervision is an important factor for health worker motivation and productivity, the need for which, according to World Health Organization guidance (WHO, 2005), may be greater for post conflict health workers, particularly for those working in isolation or rural areas, but can have a high motivational impact in the post-conflict phase. Supervisory visits can raise the hopes and morale of health workers who have struggled to keep services going through conflict, but need to be followed up with action to prevent long-term lowering of morale. Follow-up is also important in building up trust among health workers, and ensures that they are kept informed of and involved in achieving change.

Performance-related incentives. There is a growing literature on paying for performance (P4P), including in post-conflict settings. Pay for performance refers to the transfer of money or material goods conditional on taking a measurable action or achieving a predetermined performance target (Eichler, 2006). While paying for performance is a relatively simple concept, it includes a wide range of interventions that vary with respect to the level at which the incentives are targeted (recipients of healthcare, individual providers of healthcare, health care facilities, private sector organizations, public sector organizations and national or sub-national levels). Paying for performance interventions also can reward a wide range of measurable actions, including health outcomes, delivery of effective interventions (for instance immunization), utilization of services (such as prenatal visits or births at an accredited facility), and quality of care (Witter et al., 2011). Paying for performance interventions typically also include ancillary components such as increasing the availability of resources to health care, education, supplies, technical support or training, monitoring and feedback, increasing salaries, construction of new facilities, improvements in planning and management or information systems etc. (Oxman and Fretheim, 2008).

To date the evidence on the impact of P4P remains weak (Witter et al., 2011). One robust study has been identified in Rwanda (Basinga et al., 2010), in which some of the indicators responded positively to P4P. However, as incentives were paid at institutional level, the effects in terms of payments to individuals were hard to isolate (staff received a share, but this share was not predetermined). A multi-country study of P4P concluded that the schemes had been more successful in post-conflict than in stable settings, although the factors behind this are speculative (and the conclusion was based on studies of three post-conflict and two 'stable' countries only) (Toonen et al., 2009).

One sub-set of P4P is performance-based contracting. This is the contracting out of service delivery to a third party, where payment of public funds is tied to the delivery of these services. It has been deployed in a number of post-conflict settings (such as Cambodia, Haiti, Afghanistan, and Rwanda) with some positive results in relation to utilization and health provider performance (Toonen et al., 2009). Where donors are involved, recipient countries need to be involved in making the decisions, determining how performance incentives fit in with their overall health financing and service delivery strategies, and how, where and for what, incentives should be paid (WHO, 2010b).

Discussion and development of research agenda

Post-conflict states are very diverse and it is debateable to what extent they are usefully grouped – not only in terms of the diverse causes and courses of conflict but also because of the non-linear emergence from conflict. The literature review illustrates some of this diversity. Some themes do however emerge which appear distinct or more pronounced than in stable contexts. First, there are examples of 'windows of opportunity' in which new forms of organisation can be introduced into the more fluid post-conflict setting. The introduction of primary care doctors in Bosnia, and the proliferation of contracting in post-conflict settings are two examples, where reduced professional barriers and the influence of external donors presumably played a part in introducing major reforms. It would be important to understand better this phenomenon of windows of opportunity in relation to HRH policies and practices.

Almost by definition, conflict means that the usual channels of pay, regulation and management have been disrupted and this has both destructive and creative effects – staff develop their own coping strategies, and in some cases rely on closer community bonds and intrinsic motivation. Again, a research agenda emerges as to how this is managed and built on as the sector 'normalises'.

Clearly, there will be phases in post-conflict health system development and distinguishing the challenges and responses of the immediate post-conflict period from those of later recovery are important. Most studies of post-conflict countries focus on the immediate period, when donors tend to be more dominant and when issues such as merging health workers from different factions may be significant policy issues. Understanding how these legacies play out over time is important.

One striking feature of all commonly used definitions of incentives is that they are very broad in potential application. 'Mechanisms which aim to achieve a specific change in behaviour' (Hicks and Adams, 2003), for example, go well beyond narrow interpretations of financial and non-financial packages to include all changes by institutions and organisations which aim to induce change for their staff. Correspondingly, study of health worker incentives will need to take a broad view of a wide range of policy levers.

A second observation is that the distinction between financial and non-financial incentives is clearly porous. Most 'non-financial incentives' such as career development, continuing education; good working environments; and job security provide either indirect or deferred financial rewards, alongside more intangible benefits to morale and motivation. Equally, financial

rewards should not just be regarded as relating to money and extrinsic motivation. Financial incentives also communicate status, recognition of good work and important information on performance, which feeds into intrinsic motivation. `In recognition of this fluidity, policy levers are presented in our conceptual framework as a spectrum, rather than being divided into two categories (Figure 1).

The post-conflict literature stresses the role of context, and, by implication, history, though this is not spelled out. Again, we have tried to build this into our research framework by looking at the links between contextual factors, individual factors, and policy levers. Although this framework could be used for non-conflict-affected areas, our hypothesis would be that some contextual issues will be particularly acute in post-conflict settings. In particular, the absence of actual or perceived security, the fragility of political settlements, the possibly fractured relationships with the community (or conversely, the strong ones developed during a period of loss of central control) and the breakdown of organisational controls are all hypothesised to call for different responses in the post-conflict setting. These will affect the design, implementation and impact of the general policy levers on the right (and hence the outcomes for HRH and the health system outlined at the bottom).

All of the factors are interconnected in a dynamic relationship, and all have a potential to impact on attraction, retention and performance. The 'policy levers' on the right represent a range of ways in which the incentive environment can be actively engineered in some way. They include financial and non-financial measures, but this is represented as a continuum, as stated, as some 'non-financial' activities such as training also have knock-on potential income effects (in the form of increased future earning potential, for example).

It is recognised that past experiences influence present expectations and behaviours. In addition, external factors will play an important part in influencing developments in relation to these various nodes. The fiscal situation and the investment strategies of donors, for example, will be an important factor enabling or constraining the different policy levers, for example.

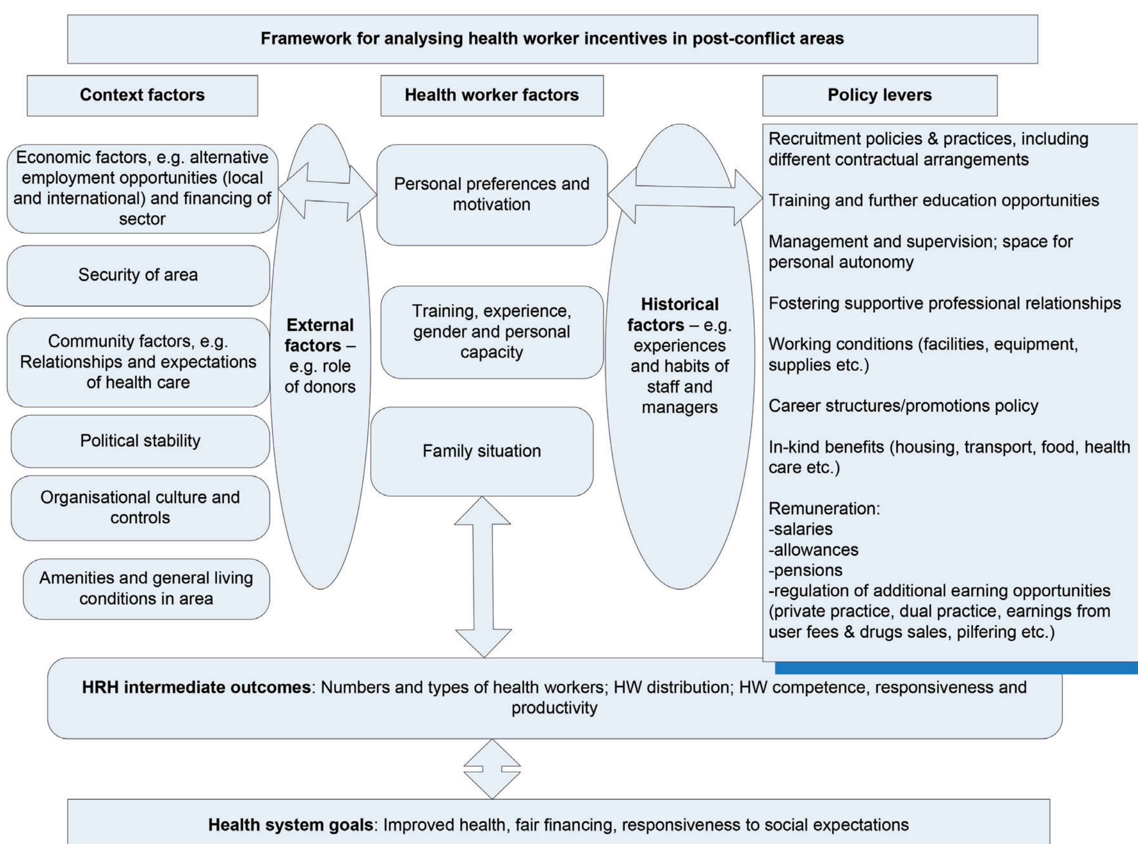

Figure 1. Conceptual Framework

Conclusion

The review has highlighted a rich though limited stock of studies on health worker incentives in post-conflict areas. Building on the literature and the conceptual framework, ReBUILD has developed research in selected post-conflict countries to understand how their incentive environments evolved in the shift away from conflict, what influenced the trajectory, what the reform objectives and mechanisms have been, and what have been their effects (intended and unintended). These aim to generate lessons on design, implementation, and suitability to context of different policy measures within and across countries.

To complement existing studies, there is a need to focus on the longer term reconstruction post-conflict and also on incorporating the experiences of health workers themselves – how they experienced the conflict, how they coped, and what legacy there is for their expectations and willingness to work post-conflict. Personal factors are understandably absent from the studies commissioned in urgent conditions in the immediate post-conflict phase, but merit more in-depth studies.

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Research for stronger health systems post conflict

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