

HUMAN RESOURCES FOR HEALTH IN POST-CONFLICT SETTINGS

Olivia Tulloch, Joanna Raven and Tim Martineau¹ – Liverpool School of Tropical Medicine, UK

Introduction.

The World Health Organization states that it is crucial to understand the importance of human resources (HR) development in achieving health sector redevelopment in post-conflict settings [1]. This scoping review was carried out in the first year of the ReBUILD project² to identify the current knowledge about human resources for health (HRH) in post-conflict settings. The first section presents features commonly found in the period immediately after the end of a conflict and describes them according to the impact they have on public sector generally and more specifically on health. The second section describes how the health workforce may be affected in the post-conflict settings in terms of numbers of and distribution of health workers, their capacity and their performance. The third section on HR strategies and interventions is guided by the human resources for health action framework using illustrative examples from the post-conflict literature [2].

Methods.

A range of bibliographic databases were searched via EBSCO Discovery to identify academic resources on post-conflict settings. Online resources for international organizations were searched for grey literature and relevant references in sourced literature were checked. The initial search terms were *post-conflict*, *human resources* and *health*. The search was widened to include *fragile-state* and specific terms relating to HR were introduced. This document is not intended as a full systematic review; rather, it aims to identify the range of influences on human resources for health (HRH) in post-conflict settings, suggest strategies – based on the literature – to address challenges to HRH development, and where possible, identify some of the research gaps.

Two seminal works on HRH in post conflict states were heavily drawn upon in structuring this review and identifying important themes in this field. They are the comprehensive World Health Organization Guide to Workforce Development in Post-Conflict Environments [1] and Health Service Delivery in Post-Conflict States from the High-Level Forum on the Health MDGs [3]. In addition, the health action framework describes six components required for the planning and managing of the health workforce so that sufficient numbers of appropriately trained staff are available in the right places at the right time. These components, which comprise the sub-sections in part three of this review, are health workforce management, policy, finance, education, partnerships and leadership.

1. Features of the immediate post-conflict period

1.1. Public service provision in the immediate post-conflict period

Individual countries, as they emerge from violent conflict, will require different approaches to respond to their unique circumstances and rebuild public service provision. “Post-conflict reconstruction is a comprehensive, multidimensional and long-term undertaking to build institutions and promote good governance” [4]. This usually involves ensuring security and reconciliation, promoting unity, re-building trust and legitimacy in government institutions and re-establishing the rule of law. Creating or rebuilding an environment through which health services can be provided is therefore just one of many competing priorities that governments face following a period of conflict; health may represent a relatively minor

¹ Corresponding author: T.Martineau@liv.ac.uk

² www.rebuildconsortium.com

concern for governments, conversely it tends to be a major priority with international donors [3]. Post-conflict rebuilding of health services often takes place in a period known as a 'complex emergency', since conflict may continue to some extent even if it has *officially* ended and emerging from it is part of a slow process. During this period constitutional weaknesses and residual conditions of war will continue to have an impact on reconstruction, including that of the health sector (Zwi, cited in Waters et al [5]).

Literature from post-conflict settings document some common features affecting the health sector, many of which can be expected in the complex emergency period. A lack of resources due to reduced revenue and diversion of funds to the conflict will mean the economy is distorted or stagnated and it is probable that there will be: insufficient medical equipment and supplies; lack of information about the population's health and health service provision; poor management systems and capacity; damaged infrastructure; displacement of the workforce along with distortion of its distribution; displacement of communities; changes in (health) service delivery, such as shifts to centralized delivery, from primary to secondary care, and increased private provision [5-11]. Within this context, pressure to restore and repair public services to meet emergency needs frequently diverts attention from long-term issues such as policy development and reform [1, 6]. The key areas that have an impact on post-conflict countries and their capacity to rebuild are briefly set out here (1.2 to 1.6)

1.2. Security

In theory countries become classified as post-conflict after the complex emergency has ended and one of the defining characteristics of this period is improved security [12]. Post-conflict countries can however remain unstable, and in some countries, particularly those which have cycles of peace and war, security threat is an important concern for all, including those displaced by the war. Post-conflict has also been described as a stage on a continuum where the risk of destabilization and the impact of destruction may remain after the overt conflict has ceased, people internally displaced by the war may continue to face threats to their security, and potential for further outbreaks persist [7, 13]. In the face of continued threats to security a country's reduced ability to attract investment and a skilled workforce will have repercussions on its ability to re-establish functioning services.

1.3. Financial situation

The state of the economy in post-conflict settings is likely to be unstable with limited ability to raise income fast enough, the financial structures in which to raise local revenue are damaged and the likelihood to attract foreign investment is low. Therefore the role of donor funds become very important. The investment required to rebuild a functioning health system after a long period of instability is considerable and very often the financing of health system restructuring is effectively controlled by donors [5, 7]. The sudden influx of donors in the immediate post-conflict opportunity creates an important opportunity for countries to take advantage of potentially large financial injections to the economy. The drawback associated with these funds is that donors come with their own agendas and priorities; these may not be in line with the recipient government's, and it may be challenging for new or interim authorities to exert control over the direction of donor financing [8]. Donor funds cannot be relied upon and in some circumstances donors also may be reluctant to support a government that is not yet well-established, and as a result, services may remain severely lacking in resources [3].

The expenditure required for human resources for health (HRH) is often underestimated or neglected by policy makers in the complex emergency or post-conflict periods, yet there is a

need for substantial re-investment after the conflict has ended. Investment is needed for: training, development of HR systems and salaries and incentives [14]. Potential financial strategies and HR budgeting issues that address these demands are described in 3.4.

1.4. Functioning of systems and institutions

It should not be assumed that problems in the health sector are all a direct result of conflict. Recognising that underlying weaknesses from the pre-conflict era may remain and become exacerbated can help to identify appropriate post-conflict corrective measures [3]. The pre-existing capacity of the country and the extent of the conflict, will therefore have an impact on long-term outcomes [15]. Problems affecting the functioning of systems and institutions that *do* have their roots in the conflict include human resource constraints as a result of human flight, financial constraints and dependence on aid, damaged infrastructure, weakened policy-making structures, and diminished government capacity and management systems [5, 16].

The decline in the functioning of systems and institutions that starts during conflict often continues into the complex emergency and post-conflict period. This decline is characterized by services that are increasingly deregulated, a proliferation of private services, declining quality and growing inefficiencies. As a response, there is proliferation of fragmented humanitarian and recovery initiatives creating de facto decentralization [3, 17]. The health system may become distorted and concentrates solely on curative service provision, or physician centred services, while gaps or duplication in allocation worsen [18]. There may no longer be one unified health system, but various systems in different areas, or vertical programmes with different providers (as in Sudan). The share of health financing borne by households is likely to have increased and healthcare may have become affordable only by wealthier sectors of the population. Poor households are more likely to seek and pay for health care from informal providers, the quality of which is uncertain. In the post conflict period these problems will remain for longer and be exacerbated in countries that have not attracted strong donor support for restructuring [3]. The condition of policy processes, infrastructure and information systems during this period have an important impact on the functioning and re-establishment of health systems.

1.4.1. Policy

The formulation of health policy in post-conflict settings is a challenging process, partly because political structures are weakened by the conflict, in disarray and often impeded by corruption, mistrust or abuses, but also because there may not yet be a legitimate government or experienced senior staff available to take control of the policy processes [5, 11]. There may be pressure for authorities to formulate policy quickly to ensure rapid donor commitment, yet this process which includes agenda setting, policy design and implementation, should not be rushed as decisions taken during the early post-conflict period may have long-lasting effects [1, 16]. Policy discussions may fail to concentrate on the most pressing problems, be driven by mixed agendas or rumours, and policy formulation then tends to become fragmented or not based on evidence [3]. Good co-ordination of international organizations, donors and local agencies sometimes does occur in post-conflict policy processes and strategy (for example Rwanda [19]), but without it a patchwork of different activities, strategies and health care models is likely [11] and aid from donors gets distributed according to disparate donor priorities (as occurred in Liberia [20]). Health management systems may have become weak or even collapsed and existing institutions may be unable or unwilling to implement policies while health authorities may lack the political clout needed to ensure policy is implemented.

1.4.2. Physical infrastructure

Functioning of the health system will be diminished if the physical infrastructure is no longer intact, although to some extent the condition of the post conflict infrastructure will be dependent on what existed in the pre-conflict era [5]. Periods of conflict will have an effect on the health infrastructure: it may have been destroyed or damaged, or become neglected and under-invested if the conflict was long, impacting on the ability of the system to provide services. The effect can be devastating: 77% of health infrastructure in the East Timor conflict was damaged [21] and 50% in Mozambique [22]. The effect of violence on hospital infrastructure will be uneven, for example, referral hospitals in rural areas are likely to suffer badly from direct violence, prolonged under-funding and non-repair, while a bias towards urban hospitals increases [3]. In the post-conflict period external funding will create areas of relative privilege for example where access is easy and security conditions better, and ironically those areas previously affected by violence may be better served than other comparatively peaceful ones.

1.4.3. Information systems

Disease surveillance, collection of HR data and information about the functioning of health facilities suffer during conflicts [5]. In any disrupted health sector up-to-date information about employees is likely to be lacking, and unhealthy characteristics, such as the proliferation of ghost workers occur [14]. Ghost workers - employees included in the payroll, but who no longer work at the institution where they are recorded - may have emigrated, died, or changed employment yet pay is still designated to them as if they were actively working. Post-conflict Mozambique, for example, identified 2,000 ghost workers whilst restructuring the workforce after the war [23]; and in post-conflict Sierra Leone 750 civil service ghosts and more than 1,000 workers over the mandatory retirement age were identified [24]. The vital importance of developing human resources information systems and their role in the immediate post conflict is described in 3.1.2.

1.5. Leadership and governance

New governments or interim authorities in post-conflict states are often politically contentious and the public administrative structures very weak [25]. Lack of good governance or leadership can result in health systems remaining in disarray despite substantial donor funds even after several years of peace, transitional authorities' ability to deliver on political promises falling short of expectation and poor capacity of state institutions [3, 20]. Good governance should have six dimensions: voice and accountability; political stability and lack of violence; government effectiveness (including sound policies); regulatory quality; rule of law; and, control of corruption [26]. Post-conflict settings may lack a fully legitimate government, or be under the control of a transitional authority with limited capacity for leadership both of which will impinge on the ability to have an accountable health system. However, it may be possible to develop health policy in states with weak governance providing there is a political environment that is willing to compromise [11]. In such cases where there is no legitimate government authority, the function of stewardship can be pooled among multiple stakeholders, in these settings effective coordination is essential [16, 27]. The establishment of a legitimate government can present a new opportunity, it's capacity is likely to improve and emerge unevenly over time, as institutions are reorganized or rebuilt [3]. Good leadership capacity may also initially be prevented by knowledge gaps. For example, senior officials may have been confined to secure enclaves, and thus be ignorant of the conditions prevailing in large areas of the country; they are also likely to be unaware of the lessons learned in previous post-conflict processes [3].

Obstructions to good governance and leadership in the re-establishment of functioning health systems may occur if locally dominant political (or warring) factions retain power over provision of services and decision making processes [14]. Warring parties may have established their own health services, staffed by politically-affiliated or forcibly-recruited workers; managing human resources in this context will be political and problems may occur as health workers are re-integrated from different political factions or tribes irrespective of service needs and of the appropriateness of their skills [1, 14].

1.6. Donor driven reconstruction

Conflict creates contraction of resources as they are redirected towards security, military and logistic concerns, whilst a dependence on external sources of funding increases[3]. Post-conflict health services are therefore usually delivered by a combination of NGOs and fragmented public services in which donors tend to be the main funders. Donor aid, which can be considered either as humanitarian (emergency) or development assistance, is very unpredictable and uneven and, as such, can have severe consequences for health service delivery.

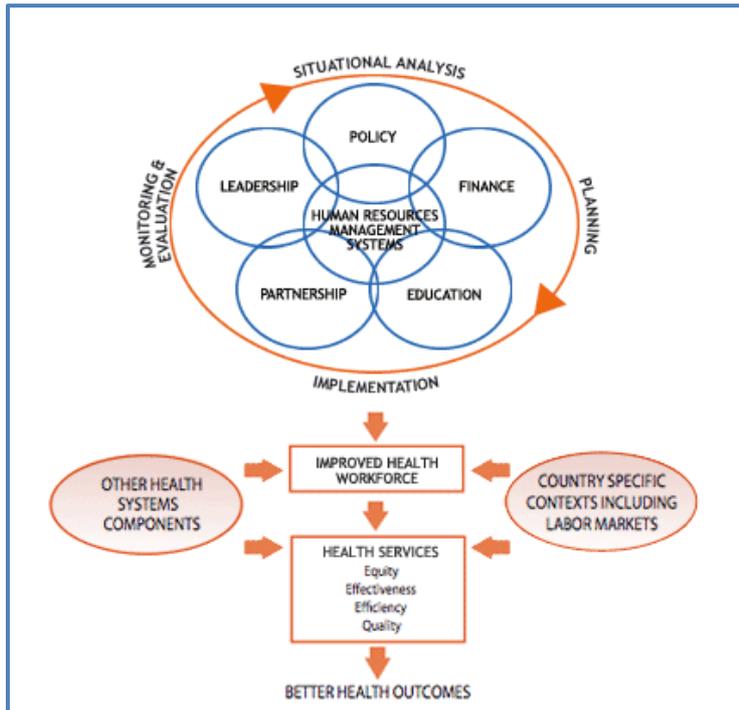
Development aid is generally more sustainable as it aims to build and strengthen the workforce, however 'special programmes' almost inevitably expand to become the major vehicles of health service delivery [3, 28]. The allocation of aid is much influenced by external factors to which the recipient country has no control, such as geopolitical concerns, aid intermediaries (NGOs and charities) media coverage or allocation through competitive tender from donors. NGOs and donors operate according to separate agendas and schedules resulting in resource flows being difficult to track and coordinate (Zwi et al. 1999 in[5]). Certain sectors (such as infrastructure and equipment as opposed to health worker salaries [29]) or geographical areas become privileged on the basis of quite abstract criteria [3]. Healthcare service delivery in such situations is often reduced to a patchwork of programmes and services offered through different donors and channels. Tensions can emerge over the allocation of donor resources, the conflicting desire to achieve quick results with the need to build sustainable systems and capacity creates disagreement between both donors and recipients on how to manage reconstruction funding [28].

Donors, without doubt, bring much needed financial investment to public services. They also bring with them an institutional philosophy. Areas of priority focus may not be in line with local priorities, services are often contracted out (see 3.4.1) and the role of the Ministry of Health becomes one of stewardship [30]. Senior staff employed by donors are often recruited abroad and so may be ignorant of the context, language, culture and history of the recipient country. For constructive development a broad range of local and international personnel will be required for example, awareness can be shared of promising initiatives developed at the local level in response to local circumstances [3].

2. The state of the workforce in the immediate post-conflict period

Human resources planning, management and development is a key area for any health sector. There is a need to produce, attract and retain a trained workforce of the appropriate skills mix, as well as assure good performance of the workforce; in post-conflict settings the challenges faced to achieve this are exacerbated [1]. This section describes typical features of the workforce in post-conflict settings. These include: staffing numbers types and distribution, health workforce and health worker performance. An analysis of this situation is part of the planning cycle of the HRH Action Framework (in Figure 1).

Figure 1. HRH Action Framework



Source: <http://www.capacityproject.org/framework/>

2.1. Impact of conflict on the workforce

The impact of conflict varies across settings but it will have often impinged on many areas of the workforce. Post-conflict HR rebuilding may need to deal with the consequences of human and capital flight, death of health workers during the conflict, a lack of senior management, a distorted skills mix of health workers, growth of informal and uncontrolled private practice, inconsistent or poor availability of some categories of workers (midwifery/physicians), distortion of health worker supply and salaries by the aid industry, poor productivity (absenteeism, poor supervision, low salaries), deteriorating skills and poor regulation [8, 31, 32]. In some conflicts health workers themselves have become targets of violence (for example Cambodia, Mozambique, Rwanda) [23, 33]. Human flight occurs both during conflict, and in some circumstances (for example East Timor and Kosovo) continues after the conflict on political grounds [14].

In the post-conflict period, difficulties can emerge in recruitment, and people's willingness to work in some locations or professions. Donors also recognize this problem and find this can lower the standards of expatriate personnel recruited, employers under pressure to recruit personnel rapidly may make compromises and lower their selection criteria [34]. All of this has an impact on the situation of the "health workforce box" in Figure 1.

2.2. Ensuring sufficient quantity and range of health workers

HR decisions, as represented by the planning cycle in Figure 1, in the immediate post-conflict period are crucial. However future planning is dependent on availability of data on the composition, skills, and deployment of the health workforce. This data is very often lacking and there is rarely recognition of its importance, or effort to assess or measure the effect of conflict on the workforce [30]. Information about the size and composition of the workforce may be entirely lacking [14]. HR problems are often poorly documented, and thus overlooked by decision-makers and donors [14]. The challenge of the *poor information base* is characterized by incomplete, flawed, contradictory or completely lacking data on HR allocation patterns. In volatile complex emergencies robust findings may be challenged or simply ignored by those anxious to promote their own agenda, with divergence between the interests of humanitarian, political, military or development actors being commonplace [3]. Effectiveness of post-conflict health services will to some extent depend on the existence of information systems both in terms of delivering effective services in the short term and planning for the long-term [5]. To get an accurate picture of the human resources profile, detailed aggregated information needs to be gathered, as described in 3.1.2

2.2.1. Skills mix

The numbers and types of health workers available post-conflict are likely to be imbalanced and different post-conflict settings have shown great variation in the 'skills-mix'. The effect of conflict on the number and types of health workers is unpredictable, it may have caused under-supply (Cambodia, East Timor, Mozambique) or over-supply (Afghanistan, Angola, Sudan) or a combination of under and over supply (Afghanistan) of different cadres with the competence and expertise within cadres being inconsistent [23]. In many cases, a perception of shortage of health workers is not supported by evidence, and when data does become available it may actually indicate oversupply of some health workers [14]. We found little in the literature about 'task-shifting' as a strategy that one would expect to be used to address the skills-mix imbalance.

2.2.1. Geographical imbalance

Geographical imbalance of health workers between urban and rural settings is a problem in many low income settings, and is especially so in post-conflict settings [10, 20]. Providing health services to underserved and rural areas may require immediate strengthening of the health care system and the workforce. This is a difficult process dependent partly on the ability to identify incentives (such as monetary or career incentives) to encourage health workers to take positions in less desirable locations; initially these, and other, health professionals may find themselves undertaking work for which they are not well trained [1] [6]. A common characteristic is that health workers become concentrated in areas which are deemed to be safe, and remote or conflict zones may be underserved [23]. Rural primary health care facilities are usually more vulnerable than hospitals and so conflict-induced redeployment to secure areas can lead to overstaffing of hospitals at the expense of rural facilities [35]. It should not, however, be automatically assumed that previous conflict zones are the most neglected areas in terms of levels of health worker staffing, donors are likely to respond with emergency plans in conflict zones and it may be other rural or remote areas that suffer the greatest lack of services.

2.2.2. The national and expatriate workforce

Expatriate workers are brought in by aid agencies, donors and NGOs, to fill gaps in the local health workforce (usually in its upper echelons) or to manage resources and activities. Resentment against their higher salaries, powerful positions and decision-making freedom

may be widespread among local staff and complaints about skills, appropriateness and capacity of expatriate health workers are commonplace [14]. The hiring of expatriates may bring a measure of neutrality in situations plagued by mistrust between hostile sides [13]. Thus, foreigners protected by special status may be allowed to provide health care where no national would be permitted to work, or would be at high personal risk if they did so.

While expatriates might sometimes be necessary, their presence is also associated with problems such as high turnover, poor knowledge of local realities, lack of cultural sensitivity and tensions resulting from expatriate lifestyles [34]. Their presence is sometimes questioned in terms of efficiency. Expatriates bring comparatively high costs compared to national staff which can be controversial, particularly if their contribution is set according to donor needs rather than national needs [29]. Expatriate staff are accused of failing to transfer skills to national staff and being concerned with short term outcomes related to donor goals rather than long term benefits [36]. The concern with short term outcomes reflect the interests and expertise of new expatriates rather than an analysis of local priorities. Limited cultural awareness and lifestyles can alienate local support [36].

Expatriate individuals, and international NGOs and contractor organisations, are often expected to build capacity, but faced with performance pressures and targets, they often focus on capacity substitution and plugging of capacity of gaps (where expatriates technical assistance is substituted for capacity development) [37]. Rapid staff turnover, in particular expatriates, is considered by some an important constraint on both staff capacity building and organisational learning [34].

2.3. Health worker performance issues

Health worker performance can be defined as productivity and quality of health services provided [38]. Health worker productivity is usually contingent on HR structures being in place to ensure adequate levels of pay, equipment and tools and a good managerial and supervisory structures, some or all of these factors will be absent post-conflict [25, 39]. The conditions required to ensure an adequate level of health worker performance are often lacking in post conflict settings and poor performance may exist unrecognized [10, 14]. An important reason for this is that human resources management systems are likely to have broken down and the basis on which these structures worked will be redundant. For example, job descriptions, against which performance can be assessed, may have become irrelevant in difficult or dangerous situations. NGOs and aid agencies working in health facilities, post-conflict, may address this by drafting new job descriptions to reflect immediate needs, but if these are not co-ordinated centrally, performance management is difficult and a large number of different types of job descriptions appear [1].

Individual motivation is also an important part of good performance in all settings. However conflict settings are likely to undermine the professional conscience and 'intrinsic' motivation to do their jobs well [40]. Poor motivation affects staff productivity and practices in all settings. In some settings governments target performance through performance-based pay initiatives, including in post-conflict settings such as Rwanda [19]. They are however dependent on having an information system in place that is sufficiently sophisticated to monitor their impact. Conflict can also have a motivating effect, when in the post-conflict period a collective spirit emerges to get systems functioning. This was observed in East Timor where despite difficult circumstances, local and expatriate staff were said to be guided by religious ethos and beliefs to help those in need [21].

Health workers may prioritize emergency needs in the workplace, but also need to ensure their own survival, including seeking alternative ways to earn a living. The return to peace will therefore require a review of health workers' roles and performance.

2.3.1. Training

Training of health personnel will have suffered during conflict; both basic and continuing education may have been either disrupted or entirely stopped. In these circumstances *ad hoc* emergency training and in-service training may have taken place, by NGOs or local providers; the standards of training under such conditions is criticized for being poor and at the expense of long-term training [14, 23, 28]. Emergency training courses being conducted by less-qualified teachers, working with few or no training resources, resulting in a reduction in training capacity and subsequent poor quality and capacity of health workers [1]. In-service training may be considered as an emergency approach to fulfilling immediate training needs, and are popular with aid agencies and NGOs however they have been criticized for being unsuited to specific contexts, inefficiently absorbing resources, but with negligible impact [14]. The standard of in-house training may be dubious, it is training that is given to health workers in the work setting and is generally informal and neither certified nor accredited [1] and if it is to be successful needs to be tightly linked to supervision [41]. Shortages of health workers can result in the need to shifting tasks from highly trained providers to available staff with less training [20].

2.3.2. Incentives

Incentives are mechanisms of reward which aim to achieve a specific change in behaviour such as financial bonuses, training, housing and schooling allowances. In the post-conflict health setting incentives that would have been effective in stable health sectors can weaken, become perverse or cease to function at all [3, 42]. Incentives are used as a motivational tool and can be employed to improve the quality of the workforce, but in the immediate post conflict environment these are unlikely to take priority [43]. There is relatively limited published literature or analysis about the function of incentives in the post-conflict setting and how these may be employed to aid the rebuilding of health systems.

Lack of supervision is recognized as having a de-motivating effect on health workers [44], and good supervision contributes to worker efficiency [40]. Providing continuous supportive supervision has a particularly high motivational impact in the post-conflict phase [1]. Assessment visits can raise the hopes and morale of health workers who have struggled through long periods of isolation and danger during conflict [1].

3. Planning and implementing human resources interventions in post-conflict settings

This section is structured around 'action fields' within the planning cycle in the HRH Action framework (see Figure 1) to describe what is currently being done (or should be) in post-conflict situations to improve the situation of the workforce. Definitions of each action field (HRM systems, leadership, partnership, finance, policy and education) are provided in the interactive web-based version of the framework³.

3.1. HRM systems

HRM (or workforce management) is the "integrated use of data, policy and practice to plan for necessary staff, recruit, hire, deploy, develop and support health workers" [2]. It

³ See www.capacityproject.org/framework

incorporates personnel and information systems, HR planning, the work environment and conditions and performance management.

3.1.1. The HR department or focal unit

HR policy may not be seen as the priority, but there can be an urgent need for HRM planning and political recognition of the importance of human resources development in the immediate post-conflict phase. One strategy for this can be through the creation of a dedicated HR focal point within the health authority [1], that is responsive to the specific distortions affecting the workforce and is responsible for HR planning [23]. Establishment of a focal unit – essentially an HR department – will require high-level backing (as was exemplified in Afghanistan), and the decision of where to place it can be difficult as it spans both administration and technical aspects of the health authority [30]. The decision should be based on the priority functions of the unit in the particular setting [30]. An HR department with well-trained staff should have the capacity to lead strategic development and ensure coordination between all actors to deal with the pertinent workforce issues such as setting minimum criteria for staff, transparent recruitment, training requirements, , employee relations, workplace safety, gender equity, job satisfaction and career development [30, 45].

The structure of the HR department should be designed to oversee the essential elements of human resources development, within the HRH framework, including policy, partnership, leadership, education and finance [2]. Linkages between the human resources department and other departments and sectors must be clearly delineated [1]. The department should also be responsible for measuring effectiveness of HR strategies, for example by using numerical measures of inputs, outputs and outcomes; qualitative approaches to assess staff attitudes; and, process analyses of HRM for example recruitment and selection [39].

3.1.2. Information systems

A health management information system is one of the key early steps in post-conflict HR planning. Human Resources issues in complex emergencies change rapidly, and it is therefore important that the health authority, or those with stewardship responsibilities in the health sector, obtain strategic information on the workforce from an early stage [6]. A detailed HR assessment that documents the number, location and condition of all health facilities, training facilities and workers, from which an information system and database can be developed is recommended by the World Health Organization [1]. Managers will need to assess what sources of workforce and demographic data are available from which they can start to identify available staff, and develop a HRH management structure that responds to the needs of the health system such as clarifying HR roles and responsibilities, establishing health worker equivalencies (the standardization of skills and qualifications of staff who have had different types of training), upgrading skills and disseminating HRH information via a HR department [30].

The workforce assessment will involve finding out how many health workers there are, where they are, and what their capacities are. The World Health Organization recommends that such an assessment should include all categories of health workers in both the public and private sector, whatever their status or qualifications, but that it should not be so ambitious that it takes too long to be useful, rather, it should be pragmatic, and a stimulus to action [6]. While this information is being recorded, planning should be taking place about how to finance health services, what skills mix is possible, what resources are available, and what the long term financial constraints are likely to be [1]. One example of this type of assessment occurred in Liberia where a census identified which cadres did not fit

the health system requirements and underpinned a workforce optimization study to review the workforce needs based on service usage rates and workload [20]. Following the war in Sierra Leone the government sought international help to strengthen civil service records across the entire public sector. This included a records management assessment from which a HRM strategy and system were developed, as well as creating a HRM office to house personnel records [24].

3.1.3. Workforce planning

Following the establishment of an HR department and an HR information system, comes a need to use these to implement measures to correct distortions in the labour market. Examples of such measures are establishing systems to assess the level of competence of health workers and to review categories of jobs, job descriptions and training programmes that have proliferated during the conflict [6]. Planning is likely to include planning for recruitment, deployment, training, appraising and supporting the workforce using the HR information system (presuming one has been set up) to ensure timely availability of accurate data required for planning [16]. Re-training needed to fill gaps can be ascertained in order to avoid mass training of poorly qualified doctors and nurses. Unregulated workforce expansion should be limited and redeployment to underserved areas prioritized. Guiding these developments should be the principle of extending services regardless of service-users ability to pay [6].

Workforce planning in the post-conflict phase will be needed for early development of a policy framework to overcome the fragmentation and vertical service provision typical of the humanitarian phase. HR managers should pay attention to key questions about the distribution, qualifications, motivation, development and performance of staff which are often not considered [46]. The type of planning approach that occurs may vary according to whether it is a 'sudden onset' post-conflict (i.e. where the end of conflict is sudden) such as Afghanistan, Mozambique, East Timor, Kosovo; or a setting where there is prolonged and uncertain transition such as Liberia and Sudan [16]. Planners will also need to consider the implications of re-integrating health workers from warring factions or members of rebel groups. This is a sensitive issue that will require substantial planning and a legal framework, as well as having considerable financial consequences if the number of health workers to be absorbed is large [47].

The Liberian Emergency HR plan is one such example that drew on the experiences of several (non-post-conflict) African countries with the objectives of (1) enhancing a coordinated approach to HR planning; (2) increasing the number of trained health workers and their equitable distribution; (3) enhancing health worker performance, productivity and retention; and (4) ensuring gender equity in employment. Four years after the plan was developed it was found to have led to a strong management framework, improved HR coordination and significantly increased the number of under-represented cadres [20].

Workforce planning should result in better staffing of health facilities. One method used which compensates for the lead time needed in training new staff is to tap into the Diaspora. Large numbers of health workers – particularly those best qualified – are likely to have left the country if the conflict was protracted. Establishing links with this Diaspora holds some potential for re-integrating former health professionals back in to the post-conflict workforce. Partnership between, for example, the Ministry of Health and the International Organization for Migration can aid the creation of database for skilled potential returnees [1]. Senior health professionals may have been trained abroad and be informed on current developments in their field, others may have useful links with research institutions [1].

These returnees may however have limitations: many long term overseas settlers are unlikely to want to give up their new lives; and some elite exiles may have dubious intentions, as was experienced in Iraq, Afghanistan, Liberia among others [48]. They have been categorized as: reformers, seeking to create a new order; preservers, looking to maintain or re-instate elements of a previous regime; and, spoilers, seeking political or economic advantage and the contribution of the Diaspora appears to be unlikely to meet high expectations [3, 48]

3.1.4. Performance management

Performance management aims to develop competent and committed individuals that work towards the achievement of shared objectives within an organization [49]. Health worker performance management should include the development of techniques to ensure adequate appraisal and supervision of workers and checks of system productivity. Effective performance management will require that national level job descriptions be developed so that performance can be measured against them. Job descriptions used in the emergency phase can be a useful basis from which to develop national job descriptions [1]. It is essential that job descriptions are communicated to every health worker. Lack of management or poor channels of communication mean that job descriptions may only be communicated to local health authorities and not disseminated further which may hamper attempts to institute future systems of performance monitoring and motivation [1]. Performance management needs to consider the fair and transparent evaluation of health workers, including provision of sanctions or rewards [50]. Supervision and assessment visits should be followed up with some tangible action, so that motivation and morale are sustained. Follow-up is also important in building up trust among health workers [1, 50]. Incentives will be required to motivate and retain competent health workers. Performance incentives may be non-financial or financial packages aimed at individual health workers, or financial mechanisms at the system level. Incentives can be part of a strategy used to improve staff productivity, however evidence from resource limited settings (not necessarily post conflict) suggest that simply increasing salaries of health workers is not usually effective at improving performance, although it can help improve health worker retention [51]. Incentives that may also improve performance include exam credits for continuing education training modules and staff appraisal counting towards promotion or salary increments [1]. More research is needed on how incentives in a post-conflict situation have influenced behaviour – especially in relation to performance.

3.2. Leadership

The establishment of a human resources department within the health ministry, as described in 3.1.1, can be a useful rallying and reference point and makes it more likely that advance plans for the rehabilitation of human resources will be considered when spending priorities and public expenditure management are reviewed [30]. Mozambique, for example, made human resources for health plans before the conflict had ended and was able to introduce corrective measures in a timely manner [3]. Effective early leadership can help to ensure: health workers are provided with sufficient protection and support; early measures are taken to avoid commercialization of the health sector (e.g. keeping inefficient user charges to a minimum); the commitment of major actors to reach a consensus on human resource planning criteria and standards for existing networks, salary scales, contracts, and essential drug guidelines [6]. The complexity of the required post-conflict decision-making coupled with lack of competent leadership may be paralysing, or alternatively cause improperly thought through bold decisions [3]. A balance between these extremes will need to be sought. Leadership can be strengthened by the appointment of officials based on competence and experience, rather than political affiliation; senior officials can then be

responsible for coordinating stakeholders (donors, NGO partners, providers) to deliver technical assistance [20]. More research is needed in the areas of leadership and governance because of their pivotal roles in the effective stewardship of human resources for health.

3.3. Partnership (coordination/collaboration)

Often post-conflict states will have insufficient resources and capacity to provide all health services, and so their role in coordinating or partnering with other organizations is vital [31]. Health authorities can seek the support and partnership of international agencies and donors, particularly to address lack of information. Such agencies working in-country can provide funds, transport and communications systems to aid the gathering of information or undertake other reconstruction activities [1]. Post-conflict health reconstruction is therefore likely to be made up of many actors working in collaboration, partnerships, or independently. These may include official funding agencies (bilateral and multilateral donors), informal funding agencies (charities, private donors), government (central and local authorities), rebels, UN agencies, transitional peacekeepers, armies, NGOs and private entrepreneurs [3]. Health policy formulation processes and the creation of health policy frameworks can be supported through aid coordination mechanisms such as sector-wide approaches, performance-based partnership agreements, and consolidated appeals processes [11]. Partnership with local institutions is sometimes perceived as an obstacle by donors, particularly in health emergencies, yet these partnerships are a vital part of long-term capacity strengthening and stability of the health sector [29].

3.3.1. Subcontracting to NGOs

NGOs can be successfully contracted to provide services, as long as health ministries are responsible for the development of policies including Basic Package of Health Services and health care financing [31]. Performance-based contracting is an increasingly popular mechanism in post-conflict states (such as Cambodia, Haiti, Afghanistan, and Rwanda). It is the contracting out of service delivery to a third party, often an NGO where payment of funds is tied to the actual delivery of these services [52]. For example, in Afghanistan, as there was an insufficient number of appropriately trained local health workers, the health ministry developed a Basic Package of Health Services, estimated the costs of delivering them and then contracted NGOs as providers [5]. NGOs became the main providers of health care to the vast majority of the population [53]. In the 'sector-wide approach' introduced in East Timor, NGOs initially provided essential services through district health plans while the interim health authority concentrated on long-term investments and strategy [54]. Performance based contracting focuses on results, and therefore requires the identification and selection of indicators, used to define and track progress made towards programme objectives, after which negotiations may take place around how providers will be held accountable for the targets around the indicators [52]. Contracting NGOs to deliver pre-determined services and achieve set goals, gives governments opportunities to focus on management, policy, and financing [10]. In countries where performance-based contracting is widespread the primary role of ministries of health changes to one of stewardship whereby they formulate policy, establish priorities, ensure quality, and coordinate monitoring and evaluation.

3.3.2. Donor driven reconstruction

Delivery of health services provides an important entry point for engagement between the government and civil society [55]. Health authorities should take early initiative in signalling to donors the importance of human resources development and the possibility of obtaining high-level technical assistance to support the new ministry of health in taking new

approaches, and particularly in overcoming local resistance to change [1]. Having taken advantage of opportunities to increasing recognition of HR among the donor community, good coordination between donors can then be focused so that they strengthen, rather than weaken health systems, and use their influence on formulation of robust policy [11, 56]. Aid coordination units can be used to develop collaborative and coherent policies, for example, by using sector-wide approaches in which pooled funds are used by governments according to agreed strategies (as occurred in East Timor)[57, 58]. Authorities can cooperate with donors so that funds are channelled into structures that are still functioning in order to keep them adequately supplied and maintained. This is preferable to hastily introducing new modes of intervention, and works better if it is done with the involvement of donors and with short-term 'planning horizons' such as the 90-day cycle used in Sudan and Liberia [6].

Little research has been carried out on the impact on the labour market of donor funding and the increase in the number of types of employers in the post-conflict period.

3.4. Finance

3.4.1. Funding mechanisms

Investing in post-conflict HR development is likely to require considerable resource allocation to implement robust corrective measures over many years. Sustainable improvements can only be expected if reliable public financing systems are in place [13, 23]. In many post-conflict states an interim authority will have access to combined donor funds in a 'trust fund' administered by a designated body (e.g. the UN) [1]. In addition other international organizations may cover a wide range of HR related costs independently.

Donors and NGOs are substantial contributors: in Rwanda more than half the health sector funding came from donors and NGOs [19]; in southern Sudan NGOs were the main health care providers [16]. It is not uncommon for a high proportion of health workers in post-conflict countries to be paid by nongovernmental organizations. While this enables health workers to continue working, the salaries paid by donors—although varying widely—are all significantly higher than government salaries. Health authorities can reduce the likelihood of pay disparities, or outflow from the public sector by requesting donors to align salaries [1, 20]. Salaries are one of many HR costs. However, the performance of a post-conflict workforce will depend on funds being made available to supervise and motivate workers, re-train an appropriate skills mix, attract workers to under-served areas and reward good performance.

Realistic financial planning will be required to implement HR plans. The desired interventions may not all be feasible or financially sustainable, and donor support may only be a key source of funds in the short term. Capacity should be built in the financial planning for human resources including the development of annual human resource budgets. This will help ensure that health workers can be employed and retained with standardized, realistic salaries, and experienced senior technical and managerial staff (including the Diaspora) are attracted and retained [1].

3.4.2. Ghost workers

In settings where ghost workers have been identified on the payroll, constant monitoring will be required to prevent the recurrence of this problem [4]. Auditing can identify mismatches between where staff are posted, and where they actually are so that ghost workers can be removed from the payroll [59]. So great was the perceived problem of ghost working and corruption in Sierra Leone, that the HR payroll verification system introduced a programme through which every civil servant was individually interviewed [24].

3.4.3. HR budget

Human resources financing can be divided into two areas: recurrent costs and capital costs. Recurrent costs, are funded through an annual recurrent budget and are to a large extent, paid out on salaries and incentives, but also on training, administrative costs and importantly on continuous supportive supervision activities, which are a low-cost—but largely underestimated—component contributing to human resources quality. The budget will need to take into account the need to develop incentives for attraction, retention and performance health workers. Capital or development costs are those used to develop training institutions, including buildings, equipment, vehicles, which in a post-conflict environment, can be prohibitively high [1]. It will be more cost-efficient for the HR improvements such as improved training and monitoring of health worker and manager performance, to take place at health system level rather than in vertical programs [11]. Some donors may be interested in assisting only with specific parts of the budget, for example in increasing access to basic services (Afghanistan [10]) while others may bypass the government entirely and go straight to NGOs (Mozambique [5]). Cooperation with the finance ministry may be helpful to ensure that budgetary planning is compatible with the requirements and the financial ceilings of the national budget [16].

3.5. Policy

Post-conflict development-planning in health (and other services) requires an analysis of the health crisis inherited in the post-conflict period, and identification of potential windows of opportunity (see 3.5.1) [25]. The future role of the Ministry of Health will need to be agreed very early on and this period should be taken as an opportunity to re-think and re-structure health service provision [30]. Policy development may be difficult and slow at first for several reasons including: the bureaucratic and legislative structures required are not functioning; there may be an absence of senior health professionals; large numbers of international or donor institutions require coordinating in a short time frame; and political instability may persist [16].

3.5.1. Opportunity to review and address long-term and short-term problems

Ideally the immediate post-conflict, or complex emergency period should be used to assess distortions or imbalances in the pre-conflict health system. In reality this may not occur [8, 30]. The post-conflict period presents an opportunity for *re-structuring* as well as rebuilding the health sector and to address underlying HR problems from before the conflict and those that have arisen as a result of the conflict. Previous mistakes can be addressed and HRM improved, and only those features and policies that are effective and relevant should be retained. For example, in Angola, 25 years of conflict created great problems in the health system, *in addition* to underlying problems in health policy. A Human Resources Development Plan was developed to address these using the key objectives of: downsizing the workforce by keeping recruits below expected attrition; and rehabilitating the workforce through an in-service training programme [41].

3.6. Education

Training strategies will vary according to the impact of the conflict on the health workforce and should work in conjunction with balancing distortions in the skills mix. Attention should be given to clarifying the minimum competences required for each category of health worker as a basis for equivalency and certification [1]. Training may also lack consistency, and co-ordination between providers. An underserved health service will need to replace losses with pre-trained and competent staff which may take years and be challenged by a disrupted education system [23]. Pavignani claims that “most, if not all, health workers

surviving a severe crisis need intensive and sustained retraining, and skill upgrading”, therefore ensuring that competent trainers are available may be crucial [23].

In-service training and ad hoc short training courses, are common and funds are sometimes inappropriately allocated before training needs are assessed, as occurred in Cambodia [60]. In the post-conflict period, assessment and equivalency of in-service training can be achieved through systematized assessment of competence [1]. Experiences of inappropriate, poorly planned short-term training are common but not universal, East Timor employed a strategy in which the health authority set the standards, guidelines, checklists and a reporting mechanism for training, which were circulated to all nongovernmental and international organizations as well as other donor agencies. This meant that information on health training could contribute to the human resources database [61].

Conclusion

Understanding the HRH situation is vital in developing the health sector in post-conflict settings. This literature review was conducted to identify both the range of influences on HRH in post-conflict settings and strategies being used to address challenges to HRH development.

There are some common features across post conflict settings which have an impact on the health sector including. Post conflict countries can remain unstable and threat to security is a major concern. There is often an unstable economy along with damaged financial structures which may lead to a reliance on donor funding. Problems affecting the functioning of systems and institutions include human resource constraints as a result of human flight, financial constraints and dependence on aid, damaged infrastructure, weakened policy-making structures, and diminished government capacity and management systems. These problems may be underlying from the pre-conflict period, and may be exacerbated as a result of the conflict.

The literature has indicated that conflict influences many areas of the health workforce, but the extent and range varies across settings. Post-conflict HR rebuilding may need to deal with the consequences of human flight, death of health workers during the conflict, lack of senior management, inconsistent or poor availability of some categories of workers, inequitable distribution of staff, growth of informal and uncontrolled private practice, distortion of health worker supply and salaries by the aid industry, poor performance including absenteeism, low productivity and deteriorating skills.

The literature points to several strategies and interventions that have been implemented with some success in post conflict countries. The human resource management system should be developed which includes the creation of a dedicated HR focal point[1], that is responsive to the specific distortions affecting the workforce and is responsible for HR planning; a detailed HR assessment that documents the number, location and condition of all health facilities, training facilities and workers, from which an information system and database can be developed; workforce planning for recruitment, deployment, training, appraising and supporting the workforce; and performance management. The role of the government in working in partnership with and coordinating different organisations in policy development, funding health services and service provision will need to be clear and strategic. Capacity to make realistic financial plans to implement any HR plans will need to be developed. Training strategies will vary according to the impact of the conflict on the health workforce and should work in conjunction with balancing distortions in the skills mix.

This review identifies several important gaps in the literature surrounding human resources in the post-conflict period. These include:

- the role of incentives in performance management
- the impact of donor funding and the introduction of new employers on the labour market in post conflict periods
- the extent and impact of task shifting
- leadership for HRH and governance of human resource management systems.

This new knowledge will help policy-makers make key decisions about the rebuilding of the health workforce in countries emerging from conflict.

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