TECHNICAL BRIEF 4

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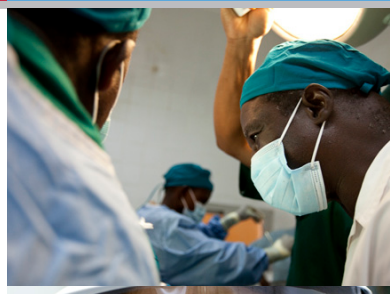

Ensuring a Positive Practice Environment: Occupational Safety and Health for Health Worker Productivity

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Saving lives should not mean you risk your own

Providing high-quality health care should not be hazardous to the health worker. Historically, the focus on improving health service delivery quality and ensuring patients' rights has superseded attention to the personal safety and health of the provider (NIOSH 2009). But if health workers are not protected, how can the wellness of their patients be assured?

Health workers are adversely affected by biological, physical, chemical, and psychosocial occupational safety and health (OSH) hazards they face in their work—the HIV infection a Tanzanian doctor contracts because there is no postexposure prophylaxis when she is accidently stuck by a patient's needle; the violence an Afghan nurse subjects himself to by treating communities in a conflict zone; the chronic headaches a Bangladeshi lab technician endures from chemical exposure; the fear and insecurity a Congolese midwife faces by traveling at night to tend to a mother in labor. In spite of global, national, regional, and local initiatives to develop a skilled health workforce to deliver better health outcomes, efforts to reduce OSH risks for health workers in developing countries are far from sufficient to protect their health. Particularly for developing countries facing a health workforce shortage, saving lives should not be accomplished by sacrificing providers' own lives. Without healthy, well-prepared, motivated workers, the Millennium Development Goals for health cannot be achieved (PPE 2012).

Effective OSH measures are universally recognized as essential contributors to national workforce health and productivity (WHO 1994; ILO 2001; Houtman, Jettinghoff, and Cedillo 2007). However, only 5%-10% of workers in developing countries have adequate occupational health services (Houtman, Jettinghoff, and Cedillo 2007), and the rate of on-the-job injuries among health workers increased in the last decade (NIOSH 2009). Sub-Saharan Africa represents the area with the highest occupational exposures (Houtman, Jettinghoff, and Cedillo 2007; Reda et al. 2010).

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Occupational Hazards Faced By Health Workers in Resource-Constrained Settings

BIOLOGICAL: *Insufficient access to clean water, lack of universal precautions for protection against blood-borne diseases, lack of sterile equipment and proper waste management, and exposure to bacteria, fungi, parasites, or blood-borne viruses such as HIV and hepatitis as well as communicable diseases such as tuberculosis, avian flu, or swine flu.* Habitually rationing water for only the most important tasks, health workers may wash their hands less frequently. The additional workload of procuring water reduces health workers' productivity by taking them away from direct patient care. Latex gloves in short supply are rinsed and hung to dry for reuse. In Ethiopia, nurses have a 29% and 31% lifetime risk of unsafe exposure to bodily fluids and needlesticks, respectively (Reda et al. 2010). In 2000, 39 Ugandan health workers died from exposure to the Ebola virus while caring for infected patients (Republic of Uganda Ministry of Health 2008).

While blood-borne disease safety has received more financial and institutional backing—notably from HIV programs—than other OSH issues in the developing world, the World Health Organization (2002) estimates that three million health workers are exposed to blood-borne viruses each year: two million to hepatitis B; 900,000 to hepatitis C; and 300,000 to HIV. Over 50% of HIV infection cases among health workers in an East Asian study were nurses, followed by laboratory staff and blood collectors (Gold et al. 2004). However, internal stigma is cited as the single most important obstacle to accessing HIV prevention and treatment services. One study suggested that nurses fear HIV disclosure more than they fear infection itself (Houtman, Jettinghoff, and Cedillo 2007).

CHEMICAL: *Bleach, lead, harsh detergents, flammables, solvents, noxious vapors, allergens, radiation, and other exposures often found in laboratories.* International chemical standards have improved in recent years, but enforcement lags in developing countries. Where task-shifting occurs, staff may not be adequately trained to handle chemicals properly. They may lack an adequate supply of masks, gloves, and eyewear, and may work in buildings with inadequate ventilation. A study revealed that 71% of Nigerian dentists surveyed were regularly exposed to dangerous levels of dental amalgam, which could result in mercurial poisoning (Fasunloro and Owotade 2004). In many developing contexts where new technologies and chemical processes are introduced to the health system, the extent of chemical exposures is not easily quantified, and additional research is needed.

PHYSICAL: *Slips, trips, falls, physical strain, heavy lifting, long hours, fatigue, and violence.* Health workers may work in buildings that do not meet safety codes. Depending on the severity of an injury, blame may be placed on the person injured. Some cultures consider pain a weakness and ergonomics an unnecessary comfort rather than a preventive measure. In Malaysia, ergonomics was the area of OSH where health workers demonstrated the least knowledge (Lugah et al. 2010). For such reasons, health workers may not report an injury or strain; therefore, they often don't receive proper treatment, and little is documented.

In conflict situations, health workers risk their lives to reach communities in need. In Afghanistan, Côte d'Ivoire, Democratic Republic of the Congo, Iraq, Libya, Pakistan, Somalia, Sri Lanka, and the West Bank, health workers, facilities, pharmacies, first-aid posts, and ambulances have been targeted by warring factions (ICRC 2011). The issue of violence against the health sector in humanitarian emergencies has grown such that it was specifically addressed at the 65th World Health Assembly (WHO 2012).

PSYCHOSOCIAL: *Stress, fear caused by violence, emotional or verbal abuse, work-related drug or alcohol consumption, depression, and intimidation in the workplace.* These psychosocial hazards can have a variety of different impacts:

- ***Physiological:*** *Hypertension, tense muscles, headaches, and migraines.* Stress was documented to increase cardiovascular disease among health workers in Colombia, Mexico, and Brazil (Houtman, Jettinghoff, and Cedillo 2007). Health workers may be more likely to engage in unhealthy behaviors, such as smoking or alcohol abuse, in an attempt to relieve stress.
- ***Emotional:*** *Nervousness or irritation, negative attitudes, and poor team morale.* In Ethiopia, health worker stress was shown to increase due to lack of universal precaution materials to protect themselves from bodily fluids (Reda et al. 2010). A negative psychosocial environment may adversely affect interactions with colleagues and patients and could increase the likelihood of physical injury. In areas heavily affected by the AIDS epidemic, caring for large numbers of extremely sick patients for whom they can do little can be stressful and take an emotional toll (Baleta 2008; Van Dyk 2007).
- ***Cognitive:*** *Forgetfulness, loss of focus, reduced attention, and aggressive or impulsive behavior.* This could result in procedural or judgment errors, which reduces productivity and service provision quality (Houtman, Jettinghoff, and Cedillo 2007).

Psychosocial occupational hazards may be veiled beneath cultural norms and perceived differently depending on the health worker's gender, age, education, social status, or perception of mental health issues; however, they are the least likely to be recognized as OSH hazards in the workplace by health workers in developing-country contexts (ibid.). In countries without contextualized mental health resources and few psychiatrists or psychologists, psychosocial health services remain highly stigmatized and access is low (WHO 2006).

GENDER-BASED VIOLENCE AND DISCRIMINATION: *Unwelcome advances, assaults, touching, verbal or emotional abuse, differential treatment, and marginalization on the basis of gender from colleagues, supervisors, or patients.* Many health workers, most of them female, face gender-based discrimination such as being assigned to lower-level or more dangerous tasks. Gender inequality, discrimination, and violence were cited as major reasons for absenteeism and diminished productivity in Rwanda among the country's largely female health workforce (Newman et al. 2011). Further, women's double role at home and work often leads to additional physical burden (WHO 2007). In Ethiopia, health worker cadres with a higher social status (also male-dominated) knew more about OSH than lower-level, majority female, administrative staff (Reda et al. 2010), indicating the gender disparities in workplace safety knowledge.

(Continued from cover page)

Why does workplace safety matter?

Unsafe and unhealthy working conditions affect service delivery quality and health worker productivity and retention. OSH issues should be an integral part of human resources management systems and not limited to the realm of quality assurance nor siloed into vertical programs such as HIV and AIDS or maternal health. From a health systems perspective, hazardous environments increase health workers' absenteeism, turnover, risk of abandoning the profession, short-term sick leave, longer-term disability, and even death (PPE 2012; Deussom et al. 2012; Baleta 2008; Gold et al. 2004; Wilburn and Eijkemans 2004). Among Malaysian nurses, musculoskeletal disorders related to poor ergonomics and physical strain was the primary cause of disability (Lugah et al. 2010). In Zambia, unacceptable working conditions and the advent of the AIDS epidemic resulted in high levels of health worker attrition, despite increased pay packages (Ngulube 2011). In rural and remote areas, occupational risk is even higher due to harsher working conditions, greater isolation and insecurity, poorer infrastructure, inadequate equipment, and work overload (Matsiko 2010), and thus rural health workers may be more likely to be sick or disabled. An already reduced and maldistributed health workforce coupled with an excess of excused (e.g., sick and disability leave) and unexcused absences (e.g., demotivated and unsatisfied health workers fail to come to work or reduce their hours) further increases the physical and psychosocial burden on those who are present. A negative or unsafe work environment does not attract a health worker to a posting in a rural or remote area nor motivate the health worker to stay, resulting in a

downward spiral of higher turnover and understaffed facilities, which negatively affects service access, quality patient outcomes, and health system performance (WHO 2007; Papp 2007; Matsiko 2010). Notwithstanding other issues that affect retention and productivity, human resources management systems should prioritize supporting health workers by assuring their occupational safety, health, and well-being on the job.

How do you make health workers' safety a higher-level policy issue?

Investments in occupational health have a positive, productive economic impact (WHO 1994). Better working conditions and a focus on health worker wellness and prevention stand out as two primary practices that influence productivity, job satisfaction, and motivation of health workers (Bradley and McAuliffe 2009). Nearly two decades ago, the World Health Organization (1994) declared that "access to occupational health services should be ensured for all workers of the world, irrespective of age, sex, nationality, occupation, type of employment, or size or location of the workplace." Further, the World Health Organization drafted a global plan of action for workers' health at the 60th World Health Assembly to further emphasize the importance of this issue (Houtman, Jettinghoff, and Cedillo 2007). While efforts have been made to achieve international safety standards, it has been a challenge to operationalize them in a resource-constrained context.

Legislation or regulatory standards for OSH provide a policy framework to enable and empower health workers to improve their operational environment. While many developed countries have effectively implemented OSH policies (ILO 2001; COA 2012), many developing countries have yet to address the connection between health worker safety and productivity and prioritize OSH as a worthy investment. However, there are examples where OSH policy has been successfully adopted by four different types of policy influencers—global alliances, national

Table 1: Selected Elements Adapted from the Positive Practice Environment Campaign's Checklist That Relate to Occupational Safety and Health

Support structures	Effective management practices
• Invest sufficiently in health and work environments • Apply regulatory frameworks for safe workplaces • Provide adequate equipment, supplies, and support staff • Engage employees in continuous assessment • Promote healthy work-life balance • Offer employment security and work predictability • Ensure practice under an overarching code of ethics • Communicate and uphold standards of practice • Review scopes of practice and competencies	• Foster a culture of mutual trust, fairness, and respect • Provide occupational health services to all staff • Adopt policies to encourage reporting of occupational hazards and injuries • Develop policies and procedures to mitigate exposure to occupational hazards including implementation and evaluation • Provide resources to ensure optimal safety within working environments • Empower and equip all employees to improve occupational health and safety • Ensure effective grievance procedures are in place
Educational opportunities	**Occupational health and safety**
• Support opportunities for regular professional development • Offer occupational health education through orientation programs and other team educational opportunities • Foster effective supervisory, mentoring, and coaching practices	• Adhere to safe staffing levels • Adopt occupational safety and wellness policies

Source: Adapted from the PPE Campaign (PPE 2012)

governments, professional councils and associations, and health professional schools—thus facilitating the implementation of priority actions at the organizational level.

Global alliances

The convening power of international organizations and professional associations, coupled with effective systems for international knowledge-sharing, is an important means for leveraging political support of OSH issues. Taking global standards to practice, the Positive Practice Environment (PPE) Campaign was initiated in 2008 as a multiyear, multistakeholder alliance with the core partners—International Council of Nurses, International Hospital Federation, International Pharmaceutical Federation, World Confederation for Physical Therapy, FDI World Dental Federation, World Medical Association, and Global Health Workforce Alliance—and other international collaborating partners, including Capacity*Plus*. The PPE Campaign aims "to improve the quality of health services by raising awareness, identifying good practice and developing tools for managers and health professionals in the field, as well as carrying out concrete national and local demonstration projects to improve practice environments" (PPE 2012).

National governments

"HIV in the workplace" and universal precaution policies have been heavily financed and spearheaded by national AIDS programs throughout Africa, but they have rarely included other OSH elements. Having broader interests in their country's multisectoral workforce, national governments have the ability to mainstream OSH policies. For example, while adversely affected by HIV and AIDS, the Government of South Africa recognized early on the effect of overall workforce health on productivity. As such, its workforce policy mainstreamed HIV policies into a broader, more comprehensive occupational health policy that focuses on worker wellness and prevention (DPSA 2010).

Professional councils, associations, and unions

Reinforcing a rights-based approach to OSH risk prevention, professional associations and councils can play a positive role as the protectors of their cadres and patients. Their involvement in policy and advocacy, leveraging resources, and providing continuing education on OSH risk prevention helps further implementation of OSH standards and safeguard workers. Most OSH programs in health and other sectors are managed by doctors and nurses. Professional councils, associations, and unions should ensure that health workers are informed and trained on OSH issues and empowered to demand workplace safety. For example, in Swaziland, the Ministry of Health partnered with the International Council of Nurses to support the Swaziland Wellness Centres, where nurses can seek health care and maintain health in a discreet and acceptable manner (Baleta 2008). Given that a majority of nurses are female, national nursing councils should also take a more predominant role in addressing gender inequities of OSH risks and exposures in the health workplace. Public Services International, the world's largest health worker union, works to prevent needlesticks among health workers through its "Sharp Sense" program and efforts to increase access to self-retracting needles.

Health professional schools and research institutions

Professional schools can and should play a greater role in ensuring awareness and training of health workers about OSH risks and their prevention. Research institutions should lead the evaluation of OSH program effectiveness so that national governments can appreciate the return on their investments. For example, when Zambian professional health councils formed a national steering committee on OSH, they also included the School of Medicine and the Centre for Health, Science and Social Research (Ngulube 2011).

Creating positive practice environments to prioritize occupational health

Given the vast scope of OSH risks that may be present in a health facility, implementers in resource-constrained environments struggle to determine which aspects of health worker safety should be prioritized, and the policy-to-practice gap persists. Challenges at the operational level may be due to limited knowledge or perception of risks and subsequent behaviour, and a limited authority to allocate resources to prevent or reduce risks. When dozens of recommendations for reducing OSH risks are made, facility managers may be overwhelmed and not know where to start. Fostering a positive practice environment can be a cost-effective, preventive approach to reducing OSH risks and increasing worker motivation and productivity (see **Table 1** for the PPE Campaign checklist elements).

Translating the PPE policy into action at the organizational level has contributed greatly to an enabling environment for health workers that places their safety, health, and well-being at the core. Starting an OSH program at a facility can begin with collecting data on what occupational injuries occur in the facility and asking health workers what their greatest occupational health concerns are. Some of the most cost-effective interventions that also receive high staff support include universal precautions (gloves, gowns, splashguards); sharps boxes; handwashing stations; and clean, adequate bathroom facilities (WHO 2007). Some country cases that demonstrate best practices at the organizational level include the following:

Unifying health workers and addressing workplace stress in Morocco

The work environment analysis from Morocco as part of the PPE Campaign highlighted the health risks associated with hazardous health workplaces and the stress resulting from work overload—especially within the emergency, maternity, and surgery wards—augmented by lack of resources, recognition, and management support. Motivating health workers and emphasizing their preparedness to better distribute the services provided within catchment areas, health facilities used strategic mapping and planning tools to revise the institutional hierarchies at health facilities. Health workers identified informational and training needs related to OSH and gradually filled the gaps. These same activities achieved both objectives for health worker safety and service quality improvement (Semlali 2010).

Prioritizing sanitation in Kenya

The Work Climate Improvement Initiative in 10 rural facilities piloted by the Ministry of Health in Kenya demonstrated marked improvements in four key areas: patient/health worker relationship; health worker/supervisor relationship; workplace environment; and worker wellness. Notably, simple measures such as regular cleaning of health facilities, handwashing practices, and proper disposal of medical waste were emphasized, and benefited not only the health workers but also their patients (Capacity Project 2009).

Empowering managers to prioritize performance in Uganda

In Uganda, poor working conditions were identified as a major reason for public health worker attrition. Uganda's health management was decentralized to empower health subdistricts to create healthy work environments, using a participatory approach and an evaluation tool to assess the probability that a hazard would result in injury and the severity of consequences if injury occurred. The evaluation tool assessed risks by location, process, job description, and gender. As a result, facility teams had a common comprehension of the risks identified, and were better positioned to implement local improvements. In addition, the facilities recognized that by reducing occupational hazards and ensuring adequate pay, health workers would no longer be motivated to charge illegal user fees (Matsiko 2010).

Instituting personal and professional accountability for safer work environments in Zambia

In Zambia prior to the PPE Campaign, high levels of health worker migration, low preservice enrollment, and economic hardship contributed to the "vicious cycle" of poor health worker safety. Occupational risks had increased as protective work clothing was removed from the health budget. Health workers were burdened with unreasonable workloads due to staff shortages, and often faced physical or psychological violence from managers and patients (Ngulube 2011). Under the PPE Campaign, health workers were empowered with standards for personal accountability (e.g., committing to excellence and honesty), professional accountability (e.g., participating in standard-setting, performance measurement, and knowledge of good safety practices), and system accountability (e.g., achieving better supply management, supervisory systems, and health worker retention schemes). The results observed at the organizational level were so compelling that the national strategic health plan for 2011-2015 prominently featured human resources for health as a central component (ibid.).

Conclusion

Occupational safety and health should not be sidelined as a service delivery issue. Health worker health and well-being is an important aspect of workers' motivation and job satisfaction, which influence productivity as well as retention. Health worker safety also affects the quality of care; caring for the caregiver should be a priority area of concern for the health system's performance. What is good for employee health is good for patient health. Multistakeholder initiatives that include global principles, national policy advocacy, and the

involvement of professional councils, schools, and health facilities can facilitate OSH risk reduction measures and fill the gaps. The PPE Campaign represents an important approach to bringing occupational safety and health policies to practice, ensuring the well-being of the health sector's most important resource and in turn that of the patients and populations they serve, thus helping to transform the health system at large.

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