

Addressing Human Resources in Health Supply Chains: **HR as a barrier to effective health supply chains**

The human resources (HR) required to run health logistics and supply chains have come under increased focus within The People that Deliver Initiative formed in 2011.

The literature reports that immunization supply chain functions are frequently performed by untrained health workers for the supply chain function, such as pharmacists, clinicians and drivers in developing countries. Many authors allude to this point (Levine et al., 2008; RBM/WG/2012/REP1 2013; Brossette et al. n.d.). Additionally, it is stated that there are few specific SCM roles (Sabot et al., 2011; Yadav et al., 2011; Dowling 2011), and that it is difficult to fill even these due to the high demand relative to the supply of suitably skilled individuals (USAID 2010; Optimize 2011b). This can result in high vacancy levels in SCM positions, leading to underqualified staff performing these roles on an ad hoc basis (Wuliji et al. 2011; Brown et al. 2012).

Authors allude to lack of supply chain training as a central human resource for health (HRH) as an issue in developing countries (Matowe et al., 2008; Sabot et al. 2011; Yadav et al. 2011 ;). It is suggested that the lack of professional status for SCM in many developing countries leads to lack of inclusion of a devoted SCM curriculum within the healthcare curricula which obscures the importance of SCM in healthcare delivery (USAID 2010a). The Global Survey for Public Health Logisticians found that 57% cited lack of training as a major problem and that only four of the eight developing countries researched offer pre- and in-service SCM training of staff (People that Deliver 2011a; People that Deliver 2011b). The quality of the few training programs that do exist, though, is also considered questionable (Mutie 2011). Materials are often inadequate, class sizes too large, materials are not adapted to local contexts and the skills that are learned are not consolidated formally following each session (Brossette et al. n.d.). The training that is received is also highly differentiated in terms of quality and geographical evenness (Brown et al. 2013).

Although in its SCM country assessments People that Deliver (2011b) writes that seven out of eight countries surveyed have dedicated SCM roles, it also notes that only half said that they believed policymakers understood the relationship between commodity security and human resource strengthening; and that as one moves further down the supply chain, the SCM responsibilities of staff become more confused. Having dedicated SCM roles can increase the capacity for empowered decisions to be made. However, in Malawi, for example, the procurement and supply management (PSM) system for anti-retrovirals (ARVs) is controlled by only a few central MoH staff who devote only part of their time to SCM (Schouten et al. 2011).

The relationship between performance monitoring, accountability and recognition is drawn out by the authors (Optimize 2011b; Levine et al. 2008; Pasquet et al. 2010; Sabot et al. 2011). If performance is not monitored, then the incentive to work to the best of one's ability is partially removed. The authors suggest that SCM should be recognized as a profession with clear functions, so that performance can be monitored so as to improve it. The need for adequate financial and non-financial requirements to be met in order to encourage staff satisfaction and satisfactory work is stated (Dowling 2011; Seifman & Bailey 2013). Although adequate remuneration is a key factor in retaining staff and improving performance, so are non-financial factors such as 'living and working conditions, training, feedback and advancement opportunities.' (Brossette et al. n.d., p.8).

It is clear from the author's research regarding supply chain practices that there are a number of constraints on developing country supply chains that lead to high levels of stock wastage and stock-outs. Empirical data is also deployed to illustrate this. It is estimated that up to '50% of vaccine doses are wasted by not being administered, and many more doses are exposed to freezing temperatures that can reduce their potency,' (Sabot et al. 2011, p.2).

Further reading

Brossette, V. et al., Workforce Excellence in Health Supply Chain Management : Literature Review.

<http://peoplethatdeliver.org/sites/peoplethatdeliver.org/files/People%20that%20Deliver/files/Literature%20Review%20EN.pdf>

Brown, A.N. et al., 2012. Developing medicines supply competency in Pacific Island Countries: A needs-based approach to education. Pharmacy Education, 12(1), pp.49–52.

<http://www98.griffith.edu.au/dspace/handle/10072/51881>

Dowling, P., 2011. Healthcare Supply Chains in Developing Countries: Situation Analysis.

<http://peoplethatdeliver.org/sites/peoplethatdeliver.org/files/dominique/files/Healthcare%20Supply%20Chains%20-%20Situation%20Analysis%20EN.pdf>

Kaufmann, J.R., Miller, R. & Cheyne, J., 2011. Vaccine supply chains need to be better funded and strengthened, or lives will be at risk. Health affairs (Project Hope), 30(6), pp.1113–21.

<http://www.ncbi.nlm.nih.gov/pubmed/21653965>.

Levine, R. et al., 2008. Demand Forecasting For Essential Medical Technologies. American Journal of Law & Medicine, 34, pp.269–297.

<http://wdi.umich.edu/research/healthcare/resources/demandforecasting%202008.pdf>

Matowe, L. et al., 2008. A strategy to improve skills in pharmaceutical supply management in East Africa: the regional technical resource collaboration for pharmaceutical management. Human resources for health, 6, p.30.

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2630320&tool=pmcentrez&rendertype=abstract>

Mutie, M.K., 2011. A systematic review of the training of health care workers within essential medicines supply programs in developing countries. University of

Canberra.http://www.canberra.edu.au/researchrepository/file/c9c8595c-fe27-0228-ed23-1efa8cc0d344/1/introductory_pages.pdf

Pasquet, A. et al., 2010. Impact of Drug Stock-Outs on Death and Retention to Care among HIV-Infected Patients on Combination Antiretroviral Therapy in Abidjan, Côte d'Ivoire. PloS one, 5(10), pp.1–9.

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2955519&tool=pmcentrez&rendertype=abstract>

People that Deliver, 2011a. Highlights from the April-May 2011 People that Deliver “Global Survey” for Public Health Logisticians.

<http://peoplethatdeliver.org/sites/peoplethatdeliver.org/files/dominique/files/Global%20Survey%20EN.pdf>

People that Deliver, 2011b. Key Points from the “Human Resource Capacity in Public Health Supply Chain Management” Country Assessments.

<http://peoplethatdeliver.org/sites/peoplethatdeliver.org/files/dominique/files/Country%20Assessments%20EN.pdf>

Sabot, O., Yadav, P. & Zaffran, M., 2011. Maximizing Every Dose and Dollar : The Imperative of Efficiency in Vaccine Delivery, Seattle.

http://www.nbr.org/downloads/pdfs/CHA/CHA_MazimizingEveryDoseandDollar.PDF

Schouten, E.J. et al., 2011. Antiretroviral drug supply challenges in the era of scaling up ART in Malawi. Journal of the International AIDS Society, 14 Suppl 1(December 2010), p.S4.

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3194149&tool=pmcentrez&rendertype=abstract>.