Health systems are made up of a “horizontal system” of general services, providing prevention and care for prevailing health problems, and of “vertical programmes” for specific health conditions. Not surprisingly, vertical programmes are found more frequently where poverty prevails and epidemics flourish; general health services are weakly developed under such conditions. This theme issue deals with health workforce limitations in developing countries (1) that hinder vertical programmes in reaching their targets.

Vertical programmes have three components: intervention strategy, monitoring and evaluation, and intervention delivery. The first two are inherently vertical in nature. The intervention strategy sets out in detail how best to handle the health problem at hand. The monitoring and evaluation component follows the impact of the intervention strategy at population level and is essential to improve it continuously. In contrast, intervention delivery does not usually occur in a vertical manner. Depending on the health system of a country and the disease or condition targeted, this component is more or less integrated in the horizontal system. When less integrated, as with polio eradication (268–273), health workers may, depending on incentives, move across from the general services. When more integrated, adding new initiatives such as “3 by 5” for the extended delivery of antiretrovirals (2) may increase health workers’ motivation and pride in their work, but may also overburden them and thus weaken the general services.

Intervention delivery therefore constitutes the vertical–horizontal interface linking the health workforce constraints of system and programmes. A constructive collaboration between responsible officers of both is urgent, because the delivery of interventions requires by far the largest portion of the health workforce that programmes require to reach their targets, and is the most difficult to resolve.

Vertical programmes possess two strategies to enhance vertical–horizontal collaboration: making better use of the workforce that is potentially available, and promoting workforce growth in quantity and quality. Private sector providers can also contribute more. In sub-Saharan Africa, private providers deliver at least 50% of the services and are an inherent part of the health system operating under full governmental stewardship of their markets and services. Governments must put incentives in place to engage private sector providers in the delivery of interventions for public good. Standardization in quality and procedures of services, as achieved by franchising (274–279), is a powerful tool to increase the involvement of private providers.

The second option to increase vertical–horizontal collaboration, promoting substantial workforce growth in quantity and quality, can usually only be achieved through the regular policy, planning and implementation mechanisms. A focus on task analysis, estimations of the time needed per intervention component, skill sets and support functions is useful, but more is needed to connect effectively with health system and workforce planning mechanisms in countries.

Workforce growth requires that programmes quantify their needs in variables that can guide planning, supply and deployment of personnel within the general services. These variables should capture, from the perspective of the user, the availability of the required cadres of health worker, their accessibility, and the affordability of their services.

Planning for personnel and their supply and deployment within the general services cannot be based on the needs of a single programme, nor by simply adding up the needs of all the programmes. Approaching health workforce strengthening jointly, combining the requirements of programmes that use similar cadres of health worker for the delivery of their interventions, optimizes the chances that programme limitations will be overcome while simultaneously strengthening general health services. This dual goal can be reached because combining the needs of various programmes will significantly broaden the skill sets of the health workers delivering the interventions.

It will be difficult for national programmes to move rapidly towards collaboration in intervention delivery if global views do not move accordingly. International agencies and donors have to rethink their health workforce strategies in view of the reality that this most costly component of a priority programme can only be solved in vertical–horizontal synergy.


1 Deputy Director-General, National Institute of Public Health and the Environment, PO Box 1, 3720 BA Bilthoven, the Netherlands (email: gijs.elzinga@rivm.nl). Ref. No. 05-020867