Tropical Medicine and International Health doi:10.1111/j.1365-3156.2008.02174.x

VOLUME 13 NO 12 PP 1430–1432 DECEMBER 2008

Viewpoint

Programme activities: a major burden for district health systems?

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keywords vertical programmes, health systems

The dual nature of dealing with health problems has been recognized since antiquity. Asklepios, the god of medicine in ancient Greece, had two daughters: Panacea – the goddess of healing and cures, and Hygeia – the goddess of welfare and hygiene, symbolizing curative and preventive medicine respectively. It is well understood nowadays that these two approaches blend: the range from primary and secondary prevention over curative to rehabilitative and promotive action is a continuum rather than a series of neatly separated concepts and activities. Nevertheless, there is a fundamental difference in the people the two approaches are dealing with: curative medicine deals with people who are ill, often acutely so, whereas preventive activities are largely directed at people who are not (yet) ill or only slightly so. Therefore, preventive activities can be organized in a periodic fashion, but curative activities are timely only when carried out at the moment people are ill and thus need to be permanently available – ideally.

In present day health services, certainly in developing countries, both approaches are combined, most often in the same health structure and by the same health personnel (WHO 2006). Over the last decades an increasing number of health problems have been identified as priorities, based on their estimated contribution to the overall burden of disease and the availability of cost-effective measures, many of which are related to secondary prevention (Hotez *et al.* 2007, Johns & Tan Torres Edejer 2003). In a typical West-African country, a list of such problems and measures may (and often does) include Guinea worm, tuberculosis, vitamin A supplementation, schistosomiasis, soil transmitted helminthiasis, trachoma, vaccine preventable child illnesses, reproductive health and malaria, with variable importance given to HIV. All these health priorities are implemented at regional and district level through various strategies such as punctuated mass campaigns or regular outreach activities, each of which requires specific training and temporary mobilization of health workers, and thus valuable time and attention.

In Douentza, a rural health district in Mali, we determined the relative importance of the time spent by qualified staff in charge of first line health services on activities requiring their absence from the health centre. We distinguished activities related to their general duties, and specific programme activities, including district mass campaigns. Data for the year 2006 were collected from district reports and administrative district and regional documents. The information concerned first line health care structures (a total of 15 health centres, with 14 situated in rural areas and one in the district's central town) and their nurses in charge. Table 1 shows that in 2006 the nurse in charge of the health centre was absent during 81 working days in the case of the district central town health centre, and during 118 working days in the case of rural centres. This difference in days of absence is related to the time needed for the nurses in rural areas to reach the district's central town, where training activities generally take place.

In the 'worst case' scenario, which applies to the majority of health centres situated outside the district's central town, the total annual nurse's absence (118 working days) represents more than half (52%) of the annual total number of working days (225 days per year). Of these 118 days, 69 (58%) were directly attributable to specific programme activities, with mass campaigns being the principal component (Table 1). Mass drug distributions to control and eliminate trachoma, schistosomiasis and soil-transmitted helminthiasis as well as vitamin A distribution campaigns were carried out in the district in 2006. The nurses in charge were instructed to participate in

Table 1 Activities requiring the absence of health centre's nurse in charge, Douentza district 2006

	No. of days central health centre	No. of days rural health centre	Rural HC nurse in charge's financial benefit (FCFA)
General activities			
District monthly meeting	12	36	0
Training hygiene practices	3	5	15 000
Training information system	5	6	30 000
Meeting health committees and municipalities	2	2	0
Subtotal	22	49	45 000
Programme related trainings			
Tuberculosis monitoring	1	3	7 500
Training on DOTS	4	6	22 500
Training guinea worm	4	6	15 000
Training cold chain (EPI)	5	7	20 000
Subtotal	14	22	65 000
Mass campaign activities			
Vitamin A distribution	26	26	29 000
Schistosomiasis & geohelminthiases (Praziquantel + albendazole)	11	13	10 000
Trachoma (azitromicine)	8	8	24 000
Subtotal	45	47	63 000
Total	81	118	173 000

Source: Rapport hebdomadaire MCD, 2006, Rapport activités Cercle de Douentza 2006, Budget Régional Campagnes 2006.

the campaign-related activities consisting in training for trainers, training of community health workers, supervision, community mobilization and evaluation, all of which required their absence from the health centre for a total of 45–47 working days, depending on the health centres' geographical position.

We also calculated the financial benefits accompanying these activities using data collected from the official 2006 district budgets. Participants to training and supervision activities received a fixed daily allowance. For distant health centre nurses these benefits added up to a total of 173 000 FCFA (Table 1) corresponding to a EUR 263 (US$ 374) bonus over 1 year, or close to 14% of a basic annual pay of EUR 1830 (US$ 2600). Of this total financial benefit, 74% (128.000 FCFA) corresponding to 195 EUR, is the benefit linked to programme activities implementation.

The main reasons for curative consultations in Douentza district in 2006 were reported to be malaria (30%), acute diarrhoea (18%), and acute respiratory infections (15%) (Rapport Activités Cercle de Douentza 2006). These health problems, which form an important part of local basic health centre activities, did not receive any support from donors (i.e. no training or supervision financed in 2006). Immunization is another important basic health activity, in Douentza carried out at health centre level as well as through periodical outreach activities (village vaccination). Other than training in cold chain for expanded programme on immunization however, related costs were not covered by external funds but usually by the cost recovery system.

Schistosomiasis, Trachoma and Guinea worm were not among the first 20 reasons for curative consultations, and the district doctors stated not to have diagnosed and/or treated any of such cases in the past years Nevertheless, programme activities were carried out to control these diseases, funded by USAID and Carter's foundation respectively, with Guinea worm receiving the largest financial support of all programmes in the district in 2006 (Rapport Activités Cercle de Douentza 2006). The latter may be justified by the eradication phase that Guinea worm is currently going through in Douentza. Still, it is evident that priority was given to specific (sponsored) programmes, not to basic health activities.

For information on the activities in first line health services in Douentza, we had to rely on official district reports and administrative district and regional documents. We are aware of the limitations of such sources. Nevertheless, we think that our results give a reliable indication of the relative importance of time and financial incentives spent on specific programme activities in Douentza district in 2006. Moreover, the year 2006 can be considered a representative year; according to district management team members, no unusual training or other activities happened as compared to other years.

Although it is not to be denied that (some of) these specific programme activities in Douentza can yield real and important health benefits, it is clear that their multiplication at peripheral level also has a cost (Unger *et al.* 2003). The implications of the repeated and sometimes prolonged absences of qualified health personnel in health centres in terms of curative service interruptions can be significant (Banteyerga *et al.* 2006). This is not necessarily bad, but the health centre nurse is often the only staff at health centre level qualified to offer curative care consultations, and is at the same time responsible for health centre management. His/her absence is not easily covered by the rest of the team, consisting mostly of community workers or less qualified staff (traditional birth attendants, vaccinators, and administrative staff). In case of training activities, some minimal form of service permanence may be assured by this non-qualified personnel; in the case of mass campaign activities, however, the entire staff participates in the mobile activities, and health centres are often found closed. Moreover, the financial incentives linked to these programme activities are highly welcomed by generally underpaid health centre staff and compete for their motivation to carry out other – routine – tasks (Caines 2005). Repeated absences and a 'distorted' motivation (Travis *et al.* 2004) can eventually have an important impact on the social dynamics that govern the perceptions and the relationships between first line health workers and the local communities. Indeed, if first line health services become less responsive to population demand, which is essentially a demand for curative care (Segall 2003), the trust relationship between population and health staff will progressively decline and be accompanied by shifts in health care seeking behaviour in an already highly pluralistic health care supply landscape.

Multiplying disease oriented strategies to target priority health problems may thus have important detrimental consequences for the overall functioning of the health system. Hygeia and Panacea may need to sit together and find a better compromise.

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