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Scaling-up the medical workforce in Timor-Leste: Challenges of a great leap forward

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ABSTRACT

The health services system of Timor-Leste (T-L) will, by 2015, add 800 physicians, most of them trained in Cuba, to the 233 employed by the national health system in 2010–2011. The need for more physicians is not in discussion: poor health indicators, low coverage and utilization of services, and poor quality of services are well documented in T-L. However, the choice of this scaling-up, with a relatively narrow focus on the medical workforce, needs to be assessed for its relevance to the health profile of the country, for its comprehensiveness in terms of other complementary measures needed to make it effective. This article discusses the potential effects of the rapid scaling-up of the medical workforce, and the organizational capacity needed to monitor the process and eventually mitigate any deleterious consequences. The analysis is based on a review of documentation collected on site (T-L) and on interviews with key-informants conducted in 2011. We stress that any workforce scaling-up is not simply a matter of increasing numbers of professionals, but should combine improved training, distribution, working conditions, management and motivation, as a means towards better performing health services' systems. This is a major challenge in a context of limited organizational and managerial capacity, underdeveloped information systems, limited training and research capacity, and dependency on foreign aid and technical assistance. Potential risks are associated with funding the additional costs of recruiting more personnel, associated expenditures on infrastructure, equipment and consumables, the impact on current staff mix, and the expected increased demand for services. We conclude that failing to manage effectively the forthcoming "great leap forward" will have long term effects: formal policies and plans for the balanced development of the health workforce, as well as strengthened institutions are urgently needed.

Introduction

This paper addresses the rapid deployment ("scaling-up") of a large number of Cuban trained physicians in Timor-Leste (T-L) which began in 2010 and is planned to be concluded by 2015.

T-L is a small and fragile country which has embarked on a rapid process of developing its medical workforce in order to rebuild a health service weakened by a devastating war. From a base of 233 physicians in 2010 (including 169 expatriates) (MoH T-L, 2010) for a population of 1.07 million (2010 Census), it is envisaged to have 790 newly graduated physicians available for recruitment over a period of five years, with support from the Government of Cuba: 600 Timorese students trained in Cuba, and 190 trained by a "Cuban medical brigade" (CMB) at the Universidade Nacional de Timor-Leste (UNTL). The aim is to deploy these physicians mainly in rural areas (Supplementary data).

This fast-track program, in addition to rapidly increasing the number of physicians, will change significantly the skill-mix of the health workforce. It will have a major impact on health care services: on training and employment costs, as well as on the overall size, composition and distribution of the health workforce, and consequently on access to services.

Health care systems with limited resources, such as T-L's, are particularly sensitive to the systemic effects of interventions in any of their "building blocks" (De Savigny-WHO, 2009; GHWA, 2008; WHO, 2007). As regards the scaling-up of numbers of physicians, if the new personnel are concentrated in hospitals, or if retention

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policies are ineffective and physicians migrate, equity of access will not improve as expected. Increases in staffing payroll costs and in the utilization of services may strain the financial sustainability of the system (Van Olmen, 2010).

In addition to increasing the number of workers available in the health labor market, "scaling-up" of the workforce can be achieved through a mix of other strategies (Dussault et al., 2009, 48 pp.; GHWA, 2008) which will be considered in the paper.

Assessment strategy

We organize our paper around three research questions. First, we discuss the *relevance* of this policy choice to "train a large number of physicians": was it adapted to the health problems and corresponding human resources for health (HRH) needs in T-L, and to the capacity of absorption of the health system?

The second question concerns the *comprehensiveness and institutional capacity* needed to make the policy effective, in particular the incentives systems and management mechanisms which will keep the new physicians motivated and retain them in the public system and in the country. The discussion of this second question is time-bound to May, 2011, when the data were collected and the first large batches of physicians were about to arrive from Cuba.

A third set of questions deals with the *possible effects of the scaling-up strategy* on equity of access, efficiency and quality of services, and eventually on health needs. These questions address four of the building blocks of health systems as defined by WHO (2000): human resources (HR), governance, financing and service provision.

The main focus of this paper is the first research question, for which a more reliable set of evidence was available. The responses to the other two research questions are inevitably more speculative at this stage, as additional time for implementation will provide the evidence for testing of assumptions and assessment of impact.

The focus of this paper is on scale-up the production of physicians and its consequences, rather than the details of their training (while recognizing that this is also important, particularly due to the "community medicine" orientation of the Cuban-based training curriculum).

Data sources

The assessment is based on secondary data, supplemented by information from primary research. Secondary data on population, health status, determinants of health, resources and outputs of the public health services system, health spending, and on health policies come from national and international publically available sources.

Data to respond to the second and third research questions consist in the views and information about institutional capacity obtained from key informants in Timor-Leste, in May, 2011, during an Aid inter-agency mission – conducted primarily for operational, not for research, purposes. A policy impact analysis approach (ECHP, 1999) was used for that purpose.

Data collection from three groups of front-line managers and mid-level professional staff, and one group of eight young physicians recently returned from Cuba, was through focus groups on the following topics: i) district team composition, working conditions, management capacity and information systems; ii) experience with settling-in preparations for returning physicians and working conditions in peripheral facilities.

Additionally, individual interviews, and one group interview, were held with:

- Key informants in various National Directorates of the Ministry of Health (MoH) (Human Resources, Planning and Finances, Administration): planning and management capacity, dependency on foreign technical expertise, plans for the integration of the new physicians trained in Cuba and budgetary consequences;
- Boards of training institutions (Faculty of Medicine and Health Sciences – FMHS, National Institute of Health – NIH): teaching and infrastructure capacity, role of the CMB, enrolled and graduate numbers, dependency on foreign technical expertise;
- Representatives of the CMB, and Timorese coordinators of the Cuba-based training program: numbers and roles of Cuban experts; numbers of students enrolled in Cuba and at UNTL; origins and logistics of the program;

The selection of informants was based on their involvement with the planning, production and management of HRH, or by self-selection of the district managers and mid-level professionals (MLP) attending the discussion on health workforce issues at the three workshops.

Results

The policy context: poverty, post-conflict and scarcity

Approximately 40% of the population lives below the poverty line (World Bank, 2010). As a post-conflict country which became fully independent in 2002, T-L found itself with weak technical and managerial capacity in most sectors, including health (Dewdney, Martins, Asante, & Zwi, 2009; World Bank, 2010). More than 70% of T-L's health facilities were destroyed or badly damaged and around 80% of the country's health managers left the country, as did all but approximately 20 doctors (RDT-L, 2002; World Bank, 2005). The first formal and stable training institutions, the NIH and the FMHS with its Medical, Nursing and Midwifery Schools at the UNTL started functioning in 2005–2006. The provision of medical services, including at the Central Hospital in Dili, was maintained by a mix of physicians from emergency relief and international organizations until the arrival of the first CMB in 2004 (Asante et al., 2012). Similarly, various MoH's functions were dependent on foreign technical advisors (Rosi, 2010).

Health transition

The health profile of the Timorese population reflects the initial phase of the health transition: communicable diseases and problems linked to reproductive health still account for 70% of the burden of disease; maternal mortality rate is within the 560–660/100.000 range (WHO, 2010a). Life expectancy at birth, in 2010, was estimated at 62 years (up from 54, in 2000) and infant mortality rate at approximately 45/1000 (down from 85, in 2000) (WHO, 2010a). Despite the declining fertility rate (TFR has declined from 7.8 in 2003, to 5.7 in 2010, according to T-L DHS, 2010), the population will increase by approximately 80% by 2025 (Bulatao, 2008).

The national health services system (NHS) and the current mix of health professionals

The Timorese NHS is dominated by the public sector, with 5 hospitals, 65 community health centers (CHC) and 211 health posts (HP) (MoH T-L, 2010). The primary level delivers approximately 90% of the outpatient visits, employs 45% of doctors and 52% of other technical personnel (MoH T-L, 2011) (Supplementary data).

This network suffers from various constraints, from the lack of laboratory technology in most CHC's, to very limited imaging and oncology equipment in the central hospital in Dili (MoH, 2007b);