Conclusion

To achieve the objective of staff motivation sound process of decentralisation should be put in place, including capacity building at peripheral levels.

If the health sector reforms integrates the concerns of health workers, it could cease to be seen by many as "a pretext for downsizing health staff". It could become a real opportunity to deal with the issues of personnel in a comprehensive manner.

To do so, the health reform process should integrate the concept of a good process and the imperative of sustainable and sustained achievement of desirable goals for health staff. Objectives to achieve the motivation of staff should be integrated to the process.

The Philippine has carried out such process with the devolution and the Magna Carta for Health Workers Act that defined series of legal benefits to health workers. The process is also being reviewed in Ghana with the recognition of the need to compensate staff working in rural and unpopular areas, the establishment of a common grade, title and career pathways which should allow all cadre to reach the highest level of remuneration.

This is the kind of process that will reassure health workers on their future. Without that health workers will always consider the new changes as temporary and will see better future only in being re-employed by the central government

The performance of medical doctors in Tunisia

Abdallah Bchir and Vincent De Brouwere

Introduction

Most developing countries are confronted with an increase of the cost of their health system. Rationalisation of health expenditures and improvement of the health care system performance become priority objectives. Health care reform implemented to achieve these objectives should nevertheless take into account the specific context of the country. In the field of human resources management this requires an analysis of the factors promoting or hindering health personnel performance. This paper proposes such a preliminary analysis for Tunisian medical doctors.

The Tunisian health services

Tunisia has a population of 8.8 million inhabitants (1994) and a population density of 56 inhabitants per square kilometre. The birth rate has dropped to 22.6‰ in 1995; this contributes to the decrease in the natural growth rate of the population (from 2.58% in 1984 to 1.7% in 1995). About 35% of its population are less than 15 years old, but the proportion of people older than 60 years is increasing (6.7% in 1984, 8.3% in 1995). Life expectancy at birth is 71.4 years.

Somewhat more than a quarter of the Tunisian population is economi-

cally active. GDP was US$1,607 per inhabitant in 1995. The average health expenditure per inhabitant was US$109[22]. The proportion of the government budget devoted to health represents 5.9% of the total budget[23]. In 1994, the private sector was responsible for 54% of the total health expenditures, while the public sector was responsible for 42% and the para-public sector for 3%[1].

Three health care delivery sectors coexist in Tunisia: public, para-public and private sectors.

PUBLIC SECTOR

The public sector is the main provider of care in Tunisia especially with regard to preventive and hospital care. It is organised in a pyramidal way according to three integrated levels. For each level the mission, the technical specifications and the geographical responsibility are well defined.

The first level consists in "gathering points" where a mobile team of health personnel periodically provides curative and preventive care, basic health centres and district hospitals (including maternity wards). The "gathering points" and the basic health centres are the interface between the population and the health care system. They respond to the basic needs of the population in terms of curative and preventive care. At the end of 1995, there were 1,777 health centres spread over the country (1 health centre for 3,954 inhabitants on average: minimum 1 HC/18,735 inhabitants in Tunis; maximum 1 HC/2,487 inhabitants in Kebili). It is important to note that only 21% of the HCs offer a daily curative consultation: 40% have only one consultation per week. District hospitals are the first referral level for the HC. Generally speaking, there is one district hospital per administrative delegation. In 1995, there were 110 district hospitals with a total bed capacity of 2,606 beds (16.4% of the public beds).

Regional hospitals are the second level of care. They admit patients referred by district hospitals and patients referred by first line health services located in their administrative territory. These hospitals are located in the regional capital towns. There are 29 regional hospitals with a total bed capacity of 5,550 beds.

Specialised institutions and university hospitals constitute the third level of care. They provide specialised care for patients referred from regional hospitals and their staff teaches at the Faculty of Medicine. There

[22] Source: Ministère de la Santé Publique, commission sectorielle de la santé, analyse de la situation actuelle et objectifs du IX° plan, August 1996.
[23] Source: Loi de Finance, exercice 1997.

are 20 university hospitals and specialised institutions (12 of which in the capital, Tunis) with a total bed capacity of 7,752 beds.

For the whole country, there are 18,672 hospital beds (2.09/1,000 inhabitants), of which 90% are managed by the public sector. Universities own about 50% of the public beds.

Besides these facilities, the public sector comprises military health services (3 hospitals of 800 beds and a few dispensaries) and health services belonging to the Ministry of Interior (one hospital of 70 beds and 65 dispensaries). They cater for their personnel and their families (military, police, security personnel).

PARA-PUBLIC SECTOR

This sector comprises six facilities (no hospitals) belonging to the Social Security Fund and the health services belonging to some national enterprises. These facilities provide primary care and specialised care for their members (insured people from private and para-public sectors).

PRIVATE SECTOR

Since the 1980s, the private sector has expanded rapidly in response to the increase in demand for health care.

The private sector comprises general practitioners (1,468 clinics) and private specialists (1,305 clinics), 49 private hospitals (with a total of 1,874 beds) and support services (50 haemodialysis centres, 141 laboratories). The private sector possesses 549 (80%) of the 681 haemodialysis machines and 20 of the 28 scanners available in the country. Private facilities are mainly located in urban areas.

Health personnel

At the end of 1995 there were 5,965 medical doctors in Tunisia (1 medical doctor per 1,500 inhabitants). General practitioners represented 54% of the total (55% in the public sector and 53% in the private sector). The Ministry of Health employs 42,825 technical and administrative workers, and among them 3,191 medical doctors (53.5% of the total number). The distribution of the technical health personnel is clearly uneven (Table 3).

Table 3. Ratio of inhabitants/personnel in Tunisia, 1995 (public and private sectors)

	Medical doctors	Pharmacists	Dentists	Nurses
District of Tunis	778	3184	704	283
North East	1879	5244	10399	427
North West	2774	9976	18260	359
Central East	1305	4270	7618	282
Central West	3283	11996	25377	542
South East	2233	6881	18805	413
South West	2400	8815	26605	314
Total Tunisia	1500	5310	8473	351

Financing

Health expenditures amount to 6.2% of the GDP in 1996, up from 4.3% in 1980. This corresponds to US$ 109/inhabitant year.

There are three sources of funds for the health sector: the government contributes 34.4%, the social security fund 14.9% and the households 50.7%. The proportion of direct financing by the households is increasing; it was 37.5% in 1980.

The MOH gets its resources from the government (81.6%), from the social security fund (10.8%) and from its own income (7.6%). The social security fund participates by a) a direct payment (a lump sum) to some public hospitals and b) by a payment to the state treasury.

There are 1,640,975 affiliated people (plus their families) to the social security fund. They have access to the public system. In counterpart, the social security fund pays the MOH, but this payment is clearly insufficient as compared to the expenditures.

The direct income for the MOH comes from the contribution of households under the form of co-payment fees (lump sum of US$1 for each consultation) for those who are insured or from the fees paid by those who have no insurance scheme and no social coverage. Free of charge social coverage is given by the government for people with low income.

The performance of medical doctors

In Tunisia the performance of medical doctors is considered 'good' when they do well what they are supposed to do (the notion of quality and of quantitative achievement of an implicit or explicit objective) at a low cost

(the notion of efficiency). In other words, improving performance means improving both the productivity and the quality of care delivered by the medical doctors.

The performance of the medical personnel is influenced by several interrelated factors: individual capacity (one knows what s/he has to do, how to do it in the best way and at the lowest cost); career structure and how it is managed; organisation of the health care system; and socio-cultural and economic context

After a short description of the medical career structure in Tunisia, we will discuss the factors influencing the productivity and the quality of the medical doctors.

Career structure

PUBLIC SECTOR

In the public sector, there are three career tracks: the university-hospital career, the "hospital-public health" career, and the hospital career.

The university-hospital career

This career comprises three grades: university-hospital assistant, "*Maître de Conférence Agrégé*" and Professor.

The recruitment of the assistants is organised through a national competitive examination. This examination is open to so-called residents, i.e. medical doctors having completed a specialist degree (4 years). The selection committee takes into account the teaching activities, the clinical work and the research activities. The access to the grade of *Maître de Conférence Agrégé* is also regulated by a national competitive examination. This examination is opened to university-hospital assistants who completed at least 4 years in the grade. Professors are nominated among the *Maîtres de Conférence Agrégés* according to the results of a national competitive examination opened to those who completed 4 years as *Maîtres de Conférence Agrégés.*

Getting a higher grade means an increase in salary: an *assistant* earns 960 US$/month; a *Maître de Conférence Agrégé* 42% more, 1364 US$/month, and a *Professeur* US$1500 per month, double the *assistant*'s salary. Some are Head of Service, and receive a bonus in kind, as car fuel (equivalent to 120 US$/month). The jump to a higher grade is a real incentive for the university staff to achieve a better performance.

If the salary in the university career is higher than in the other public

tracks, it is nevertheless lower than what can be earned in the private sector. This explains partly why many university staff leave the public for the private sector. In order to reduce this leakage MOH has allowed the professors and the *Maîtres de Conférence Agrégés* to combine their work with a private practice in the hospital – but with a significant salary cut.

The hospital-public health career

This track concerns all the general practitioners and specialists who are working in public non-university facilities (first line health services, district hospitals, regional hospitals).

The general practitioners' career structure comprises three grades: public health medical officer (US$730 per month); public health principal medical officer (US$910 per month); public health major medical officer (US$1,090). The specialists' career structure comprises only two grades: public health medical officer, specialist (966 US$) and public health medical officer, principal specialist (1200 US$).

There are no fringe benefits. The promotion to a higher grade for general practitioners is organised through a national competitive examination, organised every year, for those who have already completed 5 years in the lower grade. The selection committee consists of 5-6 members: a representative of the MOH, a representative of the university, a representative of the national medical trade union, and 2-3 public health major medical officers. The selection committee takes into account the clinical activities (mainly the level of responsibility, the seniority and the place where the candidate works, giving favour to those working in remote areas), the scientific activities (communications in scientific workshops, publications) and a written test on theoretical medical knowledge. There is however no objective criterion as far as clinical performance is concerned. The number of posts to be filled varies every year. In 1997, there were 110 posts for 240 candidates (success rate: 46%), while in 1998 there were only 85. As the number of candidates increases every year, the probability to get a post tends to decrease.

There are bridges between the hospital-public health career of general practitioners and of specialists. General practitioners who completed 5 years in the public health career can participate in a national competitive examination in order to be accepted for training as a specialist. The MOH guarantees their salaries during the training. It is also possible for those who have been working in specialised services to participate in a national examination leading to the university career.

The career of hospital medical officers

This career structure has been created for the university-hospital assistants who were not successful in the national competitive examination (and therefore have to stop their university career), for those who decided not to go further in this career or for whom no post was available. This career structure comprises two grades: hospital medical doctor and hospital principal medical doctor.

They can practice in university or regional hospitals and essentially carry out clinical duties. They are not supposed to teach in the Faculty of Medicine.

PRIVATE SECTOR

Medical doctors who chose to practice in the private sector have no career structure. If they decide to enter the public sector, the length of service as private practitioners is not acknowledged.

Income taxes are levied as a lump sum, but this lump sum is at least equivalent to what the public sector medical doctors pay. We don't know to what extent the private career is attractive, but it seems that the market base for private practice is becoming smaller. The number of private practitioners increases, the more so since only few medical doctors are nowadays recruited by MOH. Also, demand is finite. Only a small proportion of the population can afford private doctors fees, and in most case social security will not reimburse private practitioner's fees.

Productivity and performance appraisal

PRIVATE SECTOR

The private sector is responsible for about 16% of the total number of hospital admissions, 40% of consultations and 10% of preventive care but productivity in the private sector is not known. It is however obvious that private practitioners are more available than public doctors (they all work mornings and afternoons). In urban areas, specialists have on average more patients than general practitioners.

PUBLIC SECTOR

In the public sector as a whole, health personnel are subject to disciplinary measures in case of malpractice in clinical activities and for administrative reasons (late arrival, absence). Sanctions range from reprimand to striking

off the roll of civil servants. The Medical Council (association of medical doctors) is responsible for the respect of professional ethics.

University staff

Performance appraisal for university staff is organised for heads of services since 6 years through a periodic evaluation every 5 years. An *ad hoc* committee assesses their performance in the field of research, clinical and teaching activities. As a result, some heads of services have lost their post.

A productivity premium is given to the university staff depending on their performance. Every semester, university medical doctors have to produce a report about their scientific activities. This report is the basis on which performance of university staff is assessed. The career structure and the periodic evaluation are the main pressures on university staff performance.

Hospitals

There is no information on hospital productivity as such. Available statistics concern hospital utilisation indicators: average bed occupancy and number of patients in out-patient clinics. These indicators, however, are not used for institutional evaluation but serve as a basis for resources allocation. They are not very useful for assessing health personnel performance.

In university hospitals, bed-occupation rates are on average higher (75.6%) than in regional hospitals (55.4%) and in district hospitals (36.8%). Waiting time may be up to several months for a specialist consultation in university hospitals.

Recently, MOH organised a hospital reform. It is supposed to improve working environment, resources management and hopefully productivity. Specialists are encouraged to open outpatients clinics in the afternoon.

First line health services

Medical officers are expected to work full time, 36 hours a week, and are not allowed to have another job. However, those who are living in so-called underprivileged areas are allowed to undertake private activities.

Every medical officer is given an annual premium, but the amount varies according to the productivity, on the basis of a report from the hierarchical authority, but criteria used to appreciate productivity are not explicit.

In order to encourage medical officers who demonstrated an interest in public health activities, the Ministry of Health may grant them a fellowship to study abroad. Public health medical officers are supposed to provide curative care (daily clinics in health centres and periodically duties in dis-

trict hospitals), to participate in preventive activities (school medicine) and to take action in the general field of public health (epidemiological surveillance, programme evaluation). In actual fact, curative care takes up 90% of the medical doctors' time.

On average, a public health medical officer has a workload of 21.7 patients per workday. This average hides large variations between regions, and in a particular region between health facilities and/or individuals. Some medical officers have 80 patients per day while others have only 10. A study carried out in the Tunis region reported that 61% of medical officers had less than 15 patients per day, 28% had between 16 and 20 and only 11% more than 20. The distribution of medical officers contributes to the variability of the workload: some health centres have three medical doctors although the number of patients is low, while in others there is only one medical doctor for a higher number of patients. The variations in workload create dissatisfaction among the medical doctors who have a high number of patients. They feel that they are doing too much compared to their colleagues, without getting any advantage for the additional workload. They also feel that the distribution of posts is not fair, as newly appointed medical doctors may be posted in health centres with a few patients.

There is no systematic information on the real number of hours spent by medical officers in health centres. However, a survey carried out in one region reported that medical officers spent an average of 2:30 hours (± 60') in curative clinics. This means an average of 5.16' (± 4.2') per patient, for a total of 30 patients. Whatever the number of patients, curative clinics take place only in the morning. The MOH has tried to make the medical doctors working morning and afternoon, but the medical staff opposed huge resistance to this attempt.

As a whole, the productivity of medical officers in clinical activities seems remarkably low considering the lack of staff in the health centres. As a consequence of such a relatively poor productivity at first line health services, patients go consulting specialists and emergency departments of hospitals. The ratio of the number of consultations at public first-line health services on the number of consultations by specialists and emergency departments in public hospitals is 1.25. This reflects the extent of the underutilisation of health centres. Of course, other factors play a role. They are related to the motivation of medical officers, the pattern of health system organisation and the comparative (dis)advantages of the public health services (Table 4).

Table 4. Determinants of the motivation of public health medical officers

Perception from general practitioners	Pattern of health system organisation	Comparative (dis)advantages of the public health services
- No incentive for the medical doctors to increase the number of patients (they are not paid according to the workload) - No valorisation if quality of care is improved - No adequate training in general practice (doctor-patient relation is poor) - Poor working environment - No real technical support (supervision) from the health authority	- No systematic feed-back from specialist to general practitioner after referral - Direct access to specialist is tolerated, although it is formally forbidden - No compulsory continuing education for practitioners and no incentive for those who spend time on it	- Insufficient technical equipment at health centre level for the management of patients (so that patients prefer to go directly to the specialist or to the hospital) - After the increase of the fees at health centres, private practitioners became more attractive - Shortage of drugs in public health centres

To understand the relatively poor performance of the public health general practitioners in Tunisia one should take into account two components: the general practitioner's motivation, and the consumer's perception of the public health general practitioner.

CONSUMER'S PERCEPTION. The well publicised development of medical technology has spurred the demand for high-tech medicine. The increased number of specialists is ready to respond to this. This further contributes to the poor image of general practice. In cities, public general practitioners are used by poor people who cannot afford a private doctor or just as a means to obtain a referral to the specialist. Without a culture of family practice there is little hope to go beyond that role of automatic referral.

THE MOTIVATION OF THE GENERAL PRACTITIONER. At the outset the motivation of the general practitioner is conditioned by the image of the function he has and by the place he thinks he has in the health system. There is a crisis in the professional identity in Tunisia. One does not speak about "general practitioner" but of "public health doctor". This is related more to the status – the public sector pays the salary – than to the professional identity. The latter is, however, essential if one is looking for professional

performance through individual development.

Being a general practitioner does not refer to family practice but to the established fact that this particular doctor failed to become a specialist. During their studies, the general practitioners never learned the family practice model. Their role model is rooted in the hospital practice. Professional satisfaction in such a model comes from the beauty of a diagnosis or from the use of technology. In hospitals, quality of care is assessed through clinical meetings referring to accuracy of diagnosis. Norms of good practice acquired as a student has little relevance to family practice in first line health service: there is no sophisticated technology at this level and the general practitioners often work alone. That partly explains why a Tunisian general practitioner feels so frustrated to work in a health centre. The poor image of a general practitioner – someone who failed to become a specialist, who is just good enough to screen out patients who need a specialist – is implicitly and sometimes explicitly transmitted by the hospital university staff throughout the curriculum.

This feeling is re-enforced by their first experience. Technical diagnostic tools are few and the working environment is poor. They have to see patients at the curative clinic: s the more, the better. They have to show up at work and send reports to the Ministry of Health. When they refer patients, they hardly get feed-back from the referral hospital. Continuing education is organised at regional level but is not compulsory and does not play any role in the career structure.

There is no objective to be achieved. The important thing is that no patient complains about the length of waiting time or the absence of the medical doctor. Their chief is an administrator who only cares about the formal aspects (reports in time, no absence, good vaccination coverage figures), whatever the quality of the care provided.

After a few months in a post, they realise there is no incentive to work harder than the other colleagues do. If they want to take initiatives, they are confronted to the sluggishness of the system and that makes hard to implement any improvement. The simplest attitude in such a context is just to behave as the others: see the patients and that's it. And indeed, why would they try to do more? Their salary is guaranteed and the premium is roughly the same whatever the output and the basis on which it is allocated is not known. Their career structure does not take into account the quality of their outputs: the important thing is to present abstracts in conferences and to publish. Nobody asks them to define objectives or to assess the quality of care. Except if they make a big professional mistake, nobody would call them to account about their clinical performance. Finally, many doctors

do not live where they work. In order to alleviate this discomfort, they ask to be transferred in a health centre near the place where they are living, which is obviously not possible for everybody. Transfer does not depend from performance but the refusal of transfer is felt as another disincentive.

Since a few years, however, the MOH tried to remedy this situation. Indicators for following up national programmes were developed in order to help general practitioners to monitor their performance. A new programme designed to stimulate provision of quality care was set up and defined criteria to certify health centres and health districts performing well (i.e. filling the criteria). In 1998, a law concerning the health district organisation defined criteria for the nomination of medical officers as heads of health districts. These medical officers will be appointed according to their performance in clinical and public health activities. They will be periodically evaluated every five years.

The political priority seems to be to improve the performance of the general practitioners in public service. They work at the periphery of the health system, close to the population. Their influence may be crucial to better meet the needs and demand of the population and they can do it at a cost far less than hospitals.

A better performance, however, cannot be achieved without addressing several issues such as the construction of a positive professional identity, the emergence of a quality of care culture, and a performance appraisal system that clearly promotes quality of care initiatives and productivity instead of mere bureaucratic compliance.