COMMISSION ON MACROECONOMICS AND HEALTH
A WHO commission examining the interrelations among investments in health, economic growth and poverty reduction

CMH Working Paper Series

Paper No. WG5: 17

Title

Constraints to Scaling Up Health Interventions: Country Case Study: Chad

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Date: June 2001

Commission on Macroeconomics and Health – Working Group 5

Improving health outcomes of the poor – Constraints to scaling up health intervention

Country Case Study – Chad

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Acknowledgements: This work was supported by the Swiss Agency for Development and Co-operation (SDC) through the mandate t.751-14 / VGU/SKM/REM, and by the Commission on Macroeconomics and Health.

Abstract

This country case study examines constraints to scaling up health related interventions in Chad. Chad is one of the poorest countries in the world and is currently recovering from a period of emergency and armed conflict, with progress being made towards the reconstruction of national structures and the reconstitution of civil society. Difficulties in overcoming constraints at several levels are assessed: at community level, at health service delivery level, at health policy level, at multi-sectoral level and at the governance level.

In Chad, utilisation rates of preventive and curative services are very low, especially among the most disadvantaged groups such as nomadic people or women. Community participation remains weak, leading to a situation where the approaches of planners and providers do not correspond to the cultural concepts of the population. At the level of health service provision, Chad is severely short of qualified people, and many health structures do not function even at a minimal level, due to the lack of personnel. These deficiencies lead to weak technical guidance, programme management and supervision. There is a concentration of health facilities and human resources in urban areas. At the health policy level there is an ineffective implementation of the existing national policies. This is related to weak institutional capacities, an unproductive administration, and lack of coordination in the health sector, as well as insufficient management skills at national and local level. The analysis of multi sectoral policies shows that the health sector fails to develop effective partnerships with other development sectors, the private and associative sector. Considering that many health interventions require cross-sectoral links to increase effectiveness these interactions clearly need to be strengthened. However, there is no strong political will to work along these lines even though the

process of decentralisation is modestly promoted. On the level of the governance of the country, Chad is exposed to the typical problems of low-income countries: an unstable political situation, a weak government, a weak capacity to implement regulations and laws, corruption, etc.

This case study shows that when scaling up health interventions, activities have to put special emphasis on systemic approaches, on the production of health services, and measures of performance. In the production of services the development of infrastructures must follow the development of human resources. Improvements in physical access must evolve in parallel with better quality of care. Investments in initial and continuous training and management skills as well as systems of supervision and assessment based on participatory elaboration of quality standards, may contribute to the achievement of this objective. Contracting work to the private sector may be an instrument of rationalisation and extension of services which offers an opportunity to overcome the scarcity of human resources in the public sector. However, this requires the regulation of the private sector. In addition, the study shows the importance of promoting health services which actively seek to fulfil community demands. A possible approach is the promotion of platforms of exchange and communication among the various actors involved and across different sectors. This approach should place special emphasis on disadvantaged groups.

1. Introduction

Chad is one of the poorest countries in the world. Its economy is not diversified and is based on cotton growing and cattle raising. Chad is geographically isolated, and suffers from repeated droughts and the heritage of colonisation. The situation is worsened by the destruction caused by a civil war, by falling world prices for cotton, by the exodus of qualified people and by conditions of general insecurity throughout the country. Chad is destabilised by conflicts that have scarred the country over the last four decades.

The management of such a wide territory is made more difficult by the environmental and climatic variations, by political and military interference of other countries and by the diversity and heterogeneity that shape the forms of social organisation of the different ethnic groups. In the North of the country there is a society which is Arabic speaking, Islamic, and largely involved in pastoral cattle raising, with a low level of schooling and little economic development. The South is inhabited by ethnic groups of animists and Christians, speaking a variety of languages, and living on subsistence agriculture and cultivation of cotton. In the South, people have a higher level of education and the area has higher economic potential.

The UNDP's human poverty index lists Chad in the 167th position out of the 174 countries, which were studied[1]. With few reliable data available, the socio-economic and demographic state of the country is difficult to sketch. The Gross National Product per head was estimated to be US $ 200 in 1999 [2]. Chad's economy is one of the most fragile in the African continent, with the balance of payments chronically in the red, little tax pressure, and a high degree of dependence on foreign aid.

The population is poor, their state of hygiene and nutrition is precarious, life expectancy is short, infant and maternal mortality rates are high, and access to education and social services is restricted.

Health care is funded by the government and by foreign aid, which together provide approximately 30 million US$ a year (20 billion Fcfa in 1999). Thus, health care funding in Chad amounted in 1999 to only US $ 4.2 per head per year, of which US $ 3.7 were funded by foreign aid [4].That amount does not include the resources made available through user fees paid by patients (see Table 1). According to one study, revenues form cost recovery schemes amounted in 1994 to approximately 4 billion Fcfa, of which two thirds was paid for the purchase of medical drugs [3].

Table 1. Expenditures in the Chadian health sector in 1999*

	millions of Fcfa	US$	by person by year
Ministry of Public Health	2,181,052	3,461,987	0.5
External resources (aid)			
Budgetary aid	3,637,150	5,773,254	0.8
Loans	4,533,803	7,196,513	1.0
Gifts	8,913,202	14,147,940	1.9
Total	19,265,207	30,579,694	4.2

* not taking into account financial resources generated through user fees
1999: 1 US$ = 630 Fcfa
Source: [4] [3]

This country case study, within working group 5 of the "Commission on Macroeconomics and Health" has the following objectives:

- To assess the extent and the intensity of constraints to scaling up health interventions in Chad, and their relevance to efforts to improve health outcomes of the poor and strengthen the peripheral delivery system;
- To explore the difficulties in relaxing constraints, and more specifically, to determine the level at which they operate, and the amenability to "buyout" with the injection of additional resources;

- To document experiences of projects in Chad which have attempted to relax constraints, in terms of their effectiveness, the scale on which they are applied, costs involved, the likely sustainability of improvements, and the necessary conditions for a project to be successful;

The study is organised within the conceptual framework suggested by Hanson et al. (2001)[5] The following sections discuss constraints at various levels: the community level, the health service delivery level, the health policy level, the multi-sectoral level and the level of governance. Some experience with specific projects is assessed, and emerging opportunities for scaling up health related interventions are discussed.

2. Community and household level

a. Requirement for effective services

In Chad, the health information system allows us to draw up a list of health problems, and to record the activities of health services[6]. It provides statistics that express the level of the principal activities of the public and the private non-profit making sectors. No statistics exist for the private profit making sector, but except in the capital, N'Djaména, this sector only plays a marginal role. Table 2 shows that in 1999, in a total population of 7.3 million, 2 million new cases and 3.3 million visits were recorded in the health services of the country. A "new case" is defined as a person who suffers from an episode of illness. On average, patients returned 1.6 times per episode.

Table 2. Indicators of health service utilisation in Chad*

	1999
Population*	7,282,275
Curative consultations	
new cases	2,100,'634
new cases by person by year	0.29
Total consultations	3,417,591
intensity of use of curative consultations	1.6
Vaccine coverage children 0 to 11 month	
BCG	51%
DTC 3	28%
Polio 3	29%
Yellow fever	38%
Measles	36%
"Fully vaccinated"	25%
Pre-natal consultations and deliveries	
expected deliveries	298,573
new attendance pre-natal consultation	127,209
new attendance by expected deliveries	43%
total consultations pre-natal consultation	269,596
intensity of use of pre-natal consultations	2.1
assisted deliveries	26,589
coverage deliveries	8%

* Extrapolated from the percentage of monthly reports received at the Division of the Health Information System of the Ministry of Health
* Projection from the general census 1993 (République du Tchad, 1993)
Source: [6]

The number of consultations was 0.29 per head per year, which corresponds to 290 new cases per 1,000 people per year. This means that on average less than one person in three visits once a health care provider a year. There is no reference data for curative contacts in one given year. However, on the basis of figures from other countries, a number between 1 and 2 new cases per head per year is a realistic assumption.

According to the annual statistical report of the Ministry of Public Health, it is estimated that 25% of children are completely vaccinated by the age of one year [6]. Other information points towards a lower rate around 10%[7]. For pre-natal consultations, 123,000 pregnant women were recorded and visited the service on average 2.1 times. The number of child deliveries assisted by health service providers reached 26,000 in 1999, which corresponds to a coverage of approximately 7% of all expected child births.

Within Chad, however, the variations in the use of medical services are considerable. For example a better coverage with assisted deliveries is observed in the South of the country, in the prefectures of Logone and Tandjile as well as in N'Djaména. Certain groups, especially in the rural areas, have very little access to health services. In the Sahel zone and in the pastoral nomadic communities, few children or even none at all are vaccinated; likewise few or even no pregnancies are assisted.

Generally speaking, all the available data highlight a low frequency of use of curative and preventive services and statistics drawn from the health information system show that the utilisation levels of curative and preventive services are in most cases low. In many places, health workers and services are under-utilised [10]. A structural reason for this is that geographic access is limited for most

people, in particular for those people who live in the sahelien zone. For instance, in the prefecture of Biltine the average range to access a first contact health service is 28 km, corresponding to more than one-day travel by donkey. It is obviously difficult to encourage pregnant women and children to cover such distances for preventive care.

Box 1. Strengthening of peripheral health services in the region of Biltine

In Biltine region (Sahelian region in the West of the country on the border with Sudan), a project implemented by the Swiss Red Cross is focused on the strengthening of health services [8, 9]. In the period between 1996 to 2000, a number of strategies have been implemented with the goal of improving the utilisation of the health centres. The idea was to foster in particular institutional strengthening, strengthening of outreach activities, supporting community development, and promoting the contractual approach.

Health service utilisation indicators over the five-year project period do not show a positive evolution. Despite an increase in the coverage rate through the construction of new services, assisted births actually decreased. The activities in the prefecture of Biltine were being implemented in a difficult context characterised by: a poor communication network (very rocky and dangerous roads, little access to fuel), not very motivating working conditions for health workers, and weak will of people to pay for services.

In terms of scaling up health related interventions and in terms of access to health care, the situation in the prefecture of Biltine indicates that in a context of poverty and geographic remoteness, efforts for strengthening peripheral health services did not show the expected results.

The population's economic standard is a decisive factor in the use of health services. In the prefecture of Biltine, for example, within the sedentary population, the economy is largely one of subsistence. The mentality there is rooted in one being assisted by external institutions and resources. In such a context, health services, even at a low cost, do not constitute priority expenditure. Better use of the health services can only happen if small nuclei of economic development are created. Flexible mechanisms of implementation of health policies and national strategies are also required, allowing the promotion of local solutions whilst integrating the cultural, social, geographic and economic assets, strengthening the policies on human resource development, implementing new approaches towards collaboration and communication, and creating incentives to cater with the health staff working conditions.

b. Barriers to the use of health services

The level of use of health services is determined by the constraints to that use. These constraints limit health practices and drive an individual's choice. Before deciding to visit a health service provider, an individual will weight the benefits and the inconvenience and efforts required for accessing the service. People measure the advantages in terms of medical drugs seen as symbol of cure, and inconveniences in terms of spending money, time and energy.

Cultural and social factors also prevent people from using health services. One factor is knowledge: a cross-sectional survey on Knowledge, Attitude and Practices (KAP) conducted in 1996 showed how little knowledge the population has of efficient interventions [11]. The lack of health education is a plausible explanation of the observed behaviour (Table 3).

Table 3 : Knowledge, Attitude, Practices (KAB) of mothers in Chad towards health

	Eastern Chad (prefectures of Batha, Biltine, Guéra and Ouaddaï) (n=1,343)	Southern Chad (prefectures of East Logone, Middle-Chari and Salamat) (n=1,346)
Have heard of Oral Rehydration Therapy (ORT)	27%	66%
Know how to prepare ORT (ingredients and quantities)	25%	16%
Use a (bed)net	46%	19%
Use health services as a first choice	29%	16%
Don't make use of health services due to geographical distance	41%	11%
Don't make use of health services because of costs	12%	48%
Know the pill as a contraceptive means	6%	18%
Did not visit a medical practitioner during their latest pregnancy	88%	50%
Do not visit the ANC because of geographic distance	64%	24%
Do not visit the ANC because of financial costs	8%	47%
Delivered their baby at a public or private non-profit making health service provider	3%	22%
Fed their baby on other foods in addition to mother's milk before the age of 6 months	52%	87%

Source: [11]

At this point, there are certainly gender factors that must be considered as it is well known that in Chad like elsewhere, the division of roles is largely unfavourable to women. Their duties are heavy and it takes them in rural areas on average 30 minutes a day to collect water. The traditional division of roles by gender is in particular a heavy burden for Muslim women. In addition nomadism hinders the schooling of girls. The inequalities are striking. For instance, in rural zones of the prefecture of Biltine only 2.1% of girls have been to school.

Another barrier to the utilisation of available services is the poor communication between health providers and communities. Exchanges are usually not harmonic and are characterised by mutual distrust. For example the nomadic communities suspect the state of wanting to manipulate them to achieve its own goals, and in turn the public services accuse the nomads of not wanting to collaborate with the modern state. This situation has lead to the social and economic exclusion, to the marginalisation of certain communities and to these people not being considered by the public sector for basic services such as education and health. As a result it is hardly surprising to see that in Chad, where the adult literacy rate is one of the lowest in the world at 15%, the schooling rate amongst the nomadic populations is around 0%.

The organisational concepts of the health planners and providers are rarely in tune with the population's cultural concepts. The health services do not take enough into account the patient's familiar environment which would allow for a better integration of problems of cultural and structural origins. Quite the opposite, the organisation of health care services should develop a respect for ideas and values. For example, cultural more than physical proximity acts in the determination of therapeutic recourse. It is important to promote health services that stem from social and cultural

logic, the thinking that dictates the patient's behaviour, and from the cognitive systems that people use.

Generally speaking low utilisation rates are linked with both, a weak request on the demand side and a weak offer on the supplier side. At supplier side, there is a quantitative lack of services, rude and often unqualified staff, a low quality of services in place etc. and on demand side there is a lack of knowledge of benefits of services. Thus the fundamental problem is on both side.

Box 2. Project for improving health service coverage among nomadic people

The nomadic groups in Chad are virtually excluded from public health care providers. This is why since 1998 a programme of the Swiss Tropical Institute has been paying particular attention to research on possible interventions, which could improve organisation of health care among the nomadic people [12]. The project is being carried out in zones where pastoral nomads are concentrated, namely the prefectures of Chari Baguirmi and Kanem in Chad. The project is grounded on the concept of the "one medicine" with the objective of reinforcing the interactions between the nomadic communities and both the human and veterinary health services. Its approach relies on both research and field interventions. This approach of Research - Action – Capacity Building, actively involves the nomadic populations in the process.

The first results show that working in networks of multi-sectoral dialogue can bring together the veterinary and the public health services. Thanks to meetings and regular exchanges, collaborations are being established which involve both sectors and also local groups (health committees etc.). The veterinary services are important to communities dependent on their animals and are already well known among nomadic groups. In this way the project's activities strengthen exchanges on health with the nomads and create a network of dialogue. These interactions outline priority for interventions based on the users' demands and also encourage local provider of services (health auxiliaries, traditional midwives) and the existing health facilities to take responsibility for the health care of the nomadic populations. Cross-disciplinary teams (public and veterinary health) have already been able to significantly increase the vaccination coverage rates of children and women.

3. Health service delivery level

a. Human resources

The shortage of qualified people constitutes the most important "bottleneck" limiting the return of investment in the health sector. For a population of more than 7 million and for 640 first contact facilities and 30 hospitals, Chad has 279 female and male nurses, grade I and 361 nurses, grade II (Table 4) [13]. Approximately two thirds of health workers have no qualification, so a great number of health centres are managed by non-qualified staff [14]. As a result the services offered by a health centre or a hospital are incomplete, patchy and unattractive.

Table 4 : Health staff by qualification in the public sector

	Nb	%
Unskilled workers	1,116	35%
Technical health officer	361	11%
Nurses, grade I	279	9%
Nurses, grade II	237	7%
Medical doctor	185	6%
Technical assistant in engineering	178	6%
Contracted workers	161	5%
Qualified midwife	150	5%
Nurses, grade III	54	2%
Secretary	33	1%
Technicians	33	1%
Medical officer with specialisation in gyneco-obstetrics	26	1%
Technical officer	20	1%
Office staff	18	1%
Other	329	10%
Total	3,180	100%

Source: [13]

The distribution of government employed health staff in the country is very uneven, with a concentration in city of N'Djaména and at the central level of the Ministry of Health. Consequently there is an urgent need for more qualified staff at district level (Table 5) [15]. There have been efforts to achieve a redistribution of health workers, but they all failed, mainly because of weak

implementation of the policies and the unattractive working conditions in rural areas. Even in places with a high number of workers, numbers are still below standards.

Table 5 : Comparing theoretical and current staff numbers at districts level

	Theoretical need	Actual number	Deficit in qualified health workers
Medical doctors	172	75	97
Nurses, grade I	587	194	393
Midwives	131	102	29
Nurses, grade II	670	188	482
Administrators	76	0	76
Planners	15	0	15

Source: [13]

Furthermore, a relatively high number of health workers can be considered as incompetent and unsuited to their jobs [16]. This problem stems from inadequate training and recruitment mechanisms. The following points can be observed: Students will almost certainly find work in the public sector at the end of their training and this does not encourage them to work hard during their training; there is an imbalance between the type of training given and the job descriptions, which means that young graduates are not well prepared to perform the tasks that are required from them. Once graduated there are no competitive examinations to determine access to employment in the public sector despite the fact that such examinations are in fact required by law.

The medical and paramedical diaspora is relatively important. The working conditions, duties and positions in Chad are not very attractive, what explains why few health professionals who have left the country ever return.

The number of posts available in the civil service is limited in the context of structural adjustments, and other forms of staff funding have not been sufficiently been explored. The yearly integration is fixed at 90 health workers for the whole sector. Reforms in the civil service are being drafted, but they will probably not be implemented for a while.

Box 3. Project for establishing initial training at a decentralised level

Until recently, the commitment of donors for training has been limited, but faced with such a massive shortage in human resources, most donors now see training as a high priority. Since 1998 a project called "Decentralised Initial Training" has founded 3 peripheral paramedical schools for initial training. These centres are intended to train male and female nurses, who will be assigned to the region where they were trained. The 8th European Development Fund (EDF) project of the European Union and the World Bank are financially participating in the establishment of these training nucleuses.

135 future nurses are currently studying for their degree and by 2003 the total number of nurses trained in these centres will reach 540.

The raising of funds for decentralised initial training constitutes a problem. Despite the commitment of several donors (World Bank, European Union, French Cooperation) there is no consolidated budget for the project. Also due to considerable delays in the start of the 8th EDF project, the annual commitments are not being met. This is not due to lack of funding but more to procedural problems.

What also hinders the functioning of the medical training schools is the debate over the policy on student allocations and grants. The Government's policy promotes grants for students admitted to the schools, but donors are in most cases unwilling to fund these grants. The most obvious solution would be to separate the functioning of the school from grant allocation mechanisms, but the government and donors currently cannot agree on this issue, which hinders the daily functioning of the medical schools. Furthermore, the project stumbles on the problem of the training quality and validity in relation to stated objectives and places for internships are difficult to identify.

b. Quality and intensity of technical guidance and supervision

There is no central or local planning of staff allocation in place arising to a number of factors such as a shortage of qualified staff, the lack of enforcement of regulations, and the unattractiveness of certain positions. Furthermore, the Ministry of Public Health's management of human resources does not sufficient decision power and there isn't enough communication among MoH departmental heads. Follow up on individual staff records is insufficient and there are no clear career plans in place. Owing to staff shortage, a number of positions are filled by workers who do not offer the appropriate profile for the job and cannot function effectively.

Staff performance is not effectively monitored. Assessment practices are unsatisfactory, quality standards are badly defined, and little attention is paid transparent the processes and audits. The hierarchical relations between the central, intermediary and peripheral authorities do not demand that results should be directly related to staff allocated.

The commitment of health staff is determined by a number of factors. Health workers are motivated by a feeling of having responsibilities and working in a team environment where reliance on each other and differences are dealt with in a team spirit, and by feelings of professional and financial achievement. Procedures for staff assignment also affect motivation. These elements, and many others, have a great impact on health workers performance. In Chad at present, staff generally seem to have little commitment to their assignments. The effects of this are manifold: required working hours are not really adhered to; there is no will toi carry out outreach activities, the quality of welcome and dialogue with clients is deficient, etc.

The staff in charge of health facilities at district and regional level complain that their everyday work is hindered by the high workload imposed by vertical programmes and national campaigns such as national vaccination days, or controlling of cholera and meningitis epidemics. These programmes do heavily affect daily activities. In order to ensure that the daily activities can continue undisturbed, it might be better to sub-contract vaccination campaigns to the private sector. However, this would require skills in contracting and regulating that only a few health service staff have.

In Chad there is also inadequate assessment of experiences ("capitalisation"), poor communication of information on best practices and a high level of fragmentation and segmentation of projects and activities ("balkanisation"). The coordination and communication of best practices amongst donors is also inadequate.

c. Availability of drugs and medical supply

The supply and distribution of medical drugs is provided and carried out by a non profit making private pharmaceutical sector, by a private profit-making pharmaceutical sector in the large towns and by local producers (SIPT- "Société des Industries Pharmaceutiques du Tchad").

The national pharmaceutical policy, in accordance with the Alma-Ata declaration, is aiming at putting together a system which would give priority to primary health care, particularly by guaranteeing adequate supply of quality drugs which are safe, effective and affordable (
essential drugs). A project aiming at the improvement of the pharmaceutical sector funded by the World Bank to the amount of 4.8 million US$ within the "health and maternity without risk" project

(Projet Santé et Maternité sans Risque (PSMSR)), has enabled the establishment of a Centralised Pharmaceutical Procurement Office (Centrale Pharmaceutique d'Achat (CPA)). This institution's role is to ensure the supply in essential drugs as well as to support the Division of Pharmacy of the Ministry of Public Health with the aim of fostering a rational use of drugs and improving quality assurance. Thanks to these efforts, the supply of drugs in the public sector (through the Centralised Pharmaceutical Procurement Office and through the Regional Supply Pharmacies) is reasonably regular.

In the private sector, the firm PHARMAT had the monopoly for the importation of drugs until 1995. Since then, importation has been liberalised and in 1997 Laborex, a private French company, started to import medical supplies and drugs. As a result, private pharmacies and providers benefit from a regular supply of non-generic drugs.

The Government has decided that vaccination, family planning, HIV testing, the treatment of tuberculosis and leprosy, will remain free of charge. However, this decision is not supported by budgets allowing for the purchase of the necessary products. As a result, dependence on foreign aid for the required products jeopardises the continuity of these services.

d. Equipment and infrastructure, and their maintenance

Throughout Chad, the deficiency in infrastructure and equipment is enormous. The poor coverage with health services has been clearly identified and well documented in a number of studies and proposals. The deficiencies are specifically manifested at regional and district levels. For instance, out

of 49 districts in the country, only 29 (59%) have a hospital carrying out the activities defined as necessary by national policies. Faced with such massive shortages, most donors, notably the World Bank, have placed the building of new infrastructures amongst the top priorities. And so the health service coverage rate should progressively increase in a near future.

4. Health sector policy and strategic management level

a. Sector policy

Poverty alleviation and the development of social sectors (education and health) are among the priorities of the Chadian government [17].

Chad has a well-defined health sector policy and clear strategic orientations. They outline priorities, more precisely the development of districts and the implementation of a "complementary package of activities" at district hospital level and of a "minimum package of health services" at health centre level. They also promote the integration of vertical programmes and the promotion of the private sector. In terms of fighting AIDS, co-operation between sectors is encouraged and has been achieved at least at the central level.

The formulated aim for the health sector is to "ensure that the population has access to basic quality services". There is a clear focus on essential packages of services (vaccination, mother – child health, etc.). A policy based on promotion of essential drugs has been outlined and implemented. The setting up of procedures towards a better financial participation by the population is being encouraged, and various forms of cost recovery schemes, in nearly all cases without an accompanying exemption policy, are under the way of being implemented throughout the country.

The process of health sector reform started in 1988. It resulted in the establishment of a pyramidal system based on three levels [18]: the central level comprising Ministry of Health and national institutions; the intermediate level comprising 14 regional administrations, each one having one regional hospital, and the peripheral level encompassing 49 districts. District services are in two tiers,

in the first tier are the health centres, each of which covers a zone of responsibility (646 in total), and in the second the district administration and a district hospital.

It is however important to highlight that despite the soundly developed health sector policy, the MoH does not always implement this policy in particular in the field of community health. And so donors especially the World Bank impose deadlines on the government, which in their turn affect the independence of the MoH.

A number of constraints in the health sector are of course rather related to the multi-sectoral nature of health. Some determinants of good health, such as income and wealth distribution, or climate, are outside the control of the health sector. On the other hand, the health sector can be made accountable for many avoidable deaths and illnesses, for example unnecessary risks due to childbirth, measles, malaria and the spread of HIV/AIDS.

Chad's health sector is faced with considerable problems. The biggest problems are:

- Very limited geographic, financial and cultural access, and poor quality of services. This is shown by bad health indicators in particular in the fields of mother/child health and vaccination;
- A shortage of human resources at all levels, both in quantity and quality, low health staff motivation and huge gaps in both initial and continuing professional training;
- Weak institutional capacities for the management of the health system and insufficient support structures at the central, regional and local levels;
- Poor implementation of the existing policies. Promising, effective and efficacious, long-term strategies remain to be identified and the concept of a health district is not really established yet.

Community participation, in particular financial participation of local communities is still not adequate;

- Partnership and collaboration of the public sector with the "profit" and "non profit making" private sector, including the NGOs, as well with other development sectors and donors is weak. The respective roles and functions are not well defined. They could however evolve with the promotion of a sector wide and contractual approach [19].

b. Planning and management

The MoH has established a methodology guide for planning for the three levels of the health system, which includes a situation analysis, a logical framework for planning through objectives, and detailed budgeting[20]. Yet there is no national consolidated plan, so the MoH has no comprehensive short- and medium-term vision. Such a plan would need to be based on top-down strategic directions and a bottom-up planning

The financial management of the Government budgetary supplies is cumbersome and it does not sufficiently involve the health administrators and planners at regional and district level. Moreover, the Ministry of Health has no policy for management procedures. However, it is increasingly important that departments of MoH in charge of planning and administration should start to manage finances effectively, define budgetary standards for capital and recurrent investments, measure results against budgeted plans, analyse costs, expenditures and available resources, fix plans encompassing inputs from the private sector, the public sector and other donors, and establish controls and progress indicators.

This requires the regular collection and analysis of data. The health information system has showed his capacity to do this through an annual national report and complementary regional reports [6]. However, performance monitoring systems and quality management remain rare, and do not yet guide the decisions of administrators and managers about the implementation of activities.

The largest projects in the health sector funded by the World Bank and through the European Development Fund (EDF) have adhered to a project approach, although it is question to finance activities defined within a strategic and sector-wide planning. The project approach is characterised by an independent planning phase, a phase of negotiation between the government and the involved donor, a phase for settling the contract with the executing agency, and finally the implementation phase. This procedure inevitably results in the period of actual activity being short, and is usually detrimental to the executing agency and the beneficiaries. For instance the 7th EDF project started in 1992 for a 5-year period. The feasibility study for the continuation of the project was carried out in 1998. Until late 2000, the routine activities continued with leftover funds. Only by the end of the year 2000 was tendering for the next phase started, and the actual implementation can only be expected to start at the beginning of 2002.

Box 4. The strengthening of health service delivery at a regional level

The support programme funded by the 7th EDF targeted the development of health services in eight regions both in coverage and quality of the health services [21]. Most importantly activities were tailored towards regional administrations through the strengthening of regular planning, administration and supervision mechanisms. There was complementary support to national directions and the pharmaceutical sector as well as through the supply of international long-term experts to the regional and national level.

The project's experiences highlight that the major impediment to the service improvement goals was the poor development of human resources during the execution [22]. The few young physicians and public health doctors appointed at districts level were more often that not inadequately trained, in particular for obstetric and surgical emergencies and for district management issues. As a result the activities of the project had little impact on the provision and quality of curative services and on the strengthening of the regional administration.

In terms of scaling up the interventions for the benefit of the whole of Chad, the 7th EDF projects points out that the activities should focus in particular on the production of health services and on performance. In order to achieve this, the development of infrastructure must follow the development of human resources and this through flexible approaches. An improvement of the health service coverage should first and foremost be pragmatic and be based on a consolidation of experience. Any new building should preferably be subject to the availability of human resources, and minimum recurrent financial means. Geographical access to health services should improve in parallel with quality improvements of these services. These objectives should be achieved through investments in training and management, continuing education through supervisions as well as the establishment of quality criteria for these services.

c. Drug policy and essential drugs

The supply of drugs remains an extremely sensitive area for the government, because it involves both social and economic strategic decisions. For populations that suffer from all possible ailments, a drug is the solution to everything even to the anguish of a harrowing life. A national list of essential medical drugs, which is updated on a regular basis does exist in Chad. The public and community supply system is based on an autonomous pharmaceutical procurement centre and on supply pharmacies in the regions.

The supply pharmacies in the prefectures have no independent status and no procedural policies. The national health policy foresees partial public funding of drugs at district hospital level but defines neither details of sources for this funding nor the percentage of this public funding.

d. Regulation of the private sector

Currently there exists no legal framework for private medical practice. There are also no agreements with private clinics that codify any form of mutual assistance or complementary between the public and private sector. And because the clinics are heavily taxed, a return on investments is difficult to achieve. As a result private clinics operate in a profit oriented and commercial way and do not effectively contribute to better health of the population.

The choice of the contractual approach within the national health sector policy (integration of private services, recruitment of contracted medical doctors, sub-contracting of services) as a tool for rationalisation and extension of services offers an excellent opportunity to overcome the shortage of human resources and the shortage of financial means in the public sector. This however implies that the private and associative sector is regulated and in particular that a legal framework for private practice is put in place.

In future, the private sector may play an increasingly beneficial role in the pharmaceutical sector. This provided that the public health puts in place effective control measures as well as legal, regulatory

and tax related incentive measures, to which should be added measures on finance and initial investment.

There are regulations for the establishment and inspection of private pharmacies. However, these regulations are not fully applied. There is also a pharmacists association, which contributes to the self-regulation. The pharmaceutical sector is however disturbed by the omnipresence of market shops in villages and cities selling all kind of drugs and their control and repression remains ineffective and unpopular.

e. Inter-sectoral action and partnership with civil society

Many health problems do not only concern the health sector. HIV/AIDS is probably the most striking example, as there are direct relationships between HIV infection and poverty, inequality, the status of women in a society, social disruption, illiteracy, human rights violations, and other factors defining the context for development. It is widely recognised that an effective response to health problems has to go far beyond the health sector. It needs a strong lead from the government and bring together the health sector and other sectors such as agriculture, finance, education, transport, tourism, etc. However, in Chad there is little experience of bringing together the different development sectors and promoting inter-sectoral action, and people and institutions tend to stick to their own domain of competency.

In principal, the NGOs are integrated into the district and prefecture boards in charge of supervising the general functioning of activities. Yet these boards are seldom in operation, and are solely a medium for the circulation of information. There are however links in various regions of the country - at times very formalised - between the diocese and the public services.

Every quarter the MoH organises meetings between the various actors within the health sector. Actors of the private non-profit sector have not assembled in lobbying and support organisation. This is due to the fact that the majority of these organisations are from overseas and that they provide technical assistance to the public sector on behalf of a bilateral co-operation. These organisations do not wish to profile themselves as economic operators and position themselves in the private/public debate.

5. Public policies cutting across sectors

a. Government bureaucracy

The Chadian public administration is mediocre in quality and is irresponsible. Personal interests seem to have overruled public service ideals. Subordinates do not distinguish the government's authority from their superiors' authority. The health and public services are part of the administration, and their permanent staff are civil servants. Within the civil service there is debate on reforms that would clarify the public services' scope for intervention, would readjust the public services offer to the needs and management forms of local bodies, would redefine the State's role and mission, and its relations with the local collectives, the private sector and the citizens.

Lengths of service and competency criteria are not respected in appointments to positions of responsibility. Consequently the most competent people do not always fill those positions. There are also incessant changes in job appointments because of cancellations caused by pressures from the incumbent or the population. A number of career planning principles for physicians and health workers have been established, but they are seldom respected because of the shortage of medical staff and because of a lack of formalisation of these career plans.

At an intermediary level, the regional administrations do not have any control on the appointments of health workers to their prefectures.

The management of public services is neither transparent nor effective. Administration suffers from political centralisation, great mobility of staff at all levels, poor distribution of managers, a remuneration system based on diplomas and not on tangible performance, and finally from poor circulation of information.

Bureaucratic procedures are particularly cumbersome in the area of public spending. Usually it takes four to five months for the approval of a public tender and corruption is rife in the allocation process. There are also innumerable controls of the orders to pay by the treasury and the budget direction. Consequently tenders are systematically overcharged. The advantage of centralising determined expenditures for the purpose of organising tenders, for example with non-medical equipment for health services, is basically cancelled.

Despite the European Union's budgetary support to the MoH by way of delegated credits, there are a number of problems with liquidation of these credits. One particular example is for instance that refrigerators for vaccines cannot function any longer following the non-availability of money to pay for kerosene.

b. Communication and transport infrastructure

Activities of the transport and communication sector have immediate effects on health services. Only 7 out of 14 regional administrations, and at the peripheral level only 7 out of 49 districts, have access to telephone lines. Communication by radio is available in 30 out of the 49 districts.

In an area of 1.240.000 km^2, only 500 km of roads are surfaced and the dirt roads are badly maintained. This causes delays for patients and for delivery of goods and enormous transport costs. Maintenance of vehicles is exorbitantly expensive and road accidents are common. The impact of almost complete lack of infrastructure on utilisation of health services is enormous.
Another problem with a direct effect on health is poor nutrition, which is directly affected by poor transport, which makes redistribution of grain difficult.

6. Governance and overall policy framework

It was in a context of political monolithism that Chad opened to a multi-party system in 1990. The birth of political freedom was accompanied by a new dynamic in the civil society. Today, more than 400 associations are officially acknowledged. Organisations for the protection of human rights were created. Trade unions were established. The freedom of press was followed by the emergence of independently owned newspapers. With such a multitude of political parties, of citizens associations, of trade unions, and of new newspapers, one would be inclined to say that the culture of democracy has become a custom, and that the symbiosis of citizens with leaders should be perfect. However, day to day life is far away from the claimed ideal. Violation of human rights has reached a level of great concern, and insecurity across the country is reaching dangerous levels once again. Chad is faced with some important challenges: to maintain political stability, to continue the democratic process begun with the 1993 elections, and to rekindle the economy.

The government promotes three strategic axes in its development goals: The promotion of the private sector, the strengthening of human and organisational capacities at a national level, and the fight against poverty.

Generally speaking, governance in Chad is characterised by:

- Waste of public resources, mainly due to the burden of military expenditure, and to the imbalance between the allocation principles and the proven practices of corruption;
- Predominance of the State, which is organised on strongly centralised basis and leaves only a negligible role for the private sector and civil society;

- Absence of possibilities of expression for the greater number of citizens, for want of democratic elections, free information channels, and opportunities that would allow the population to participate actively on development issues.

The best one can say about Chad today is that good governance may be a theoretical commitment but is not yet a practice. For most citizens, the State is an abstraction, with no tangible reality. For a population which 90 illiterate and where few intellectuals do exist, it is difficult to make the abstract idea of the state into reality, and this creates problems for the government.

For the people, democracy has not yet brought the expected benefits. The safety of persons and the protection of goods are not guaranteed. Indeed, the traditional leaders, and the political, administrative and military authorities, in urban as well as rural areas, are guilty of appalling abuses. There are still rebellions which are the result of people not respecting democratic ideals. The absence of peace has economic implications and is discouraging all investment in the secondary sector.

People take up positions of political responsibility are often rather with the aim of using the position for making personal benefits than that of serving the State's interests. The efficiency of the government suffers from the great mobility of its members. The practices of the government and of public administration are contrary to laws and regulations: sectarian considerations and corruption often reduce the advantages of a free market and competition. In order to counter the non-liquidity of the government, long procedures for the processing of administrative purchase orders and over-charging bills is generalised. As for taxation, most of the taxes target the private sector, a situation that asphyxiates private companies.

It is however important to note that there are some achievements towards better governance and democratising of the country. Civil society is in a much stronger position today, This is shown by the explosion in the number of citizen organisations and associations, for example for gender issues and for the protection of human rights; and by the fact that trade unions are playing an important role, and by the fact that there are clear policies for promoting health, basic education and food security. Regulations for administration have been improved, and that there has been a creation of State institutions as defined by the constitution. Since 1995, the president and the parliament are elected through universal suffrage.

7. Conclusions

This country case study examined constraints to scaling up health related interventions in Chad. First it is important to understand the country context. Chad is a country still recovering from a period of emergency and armed conflict. However, progress is now being made towards the reconstruction of national structures and the reconstitution of civil society, and though it is still classified by the World Bank among the poorest countries on the world economically, Chad does benefit these days from a relative political stability. The economy of Chad is dominated by the agricultural sector, the industrial sector being virtually absent. The population of the country is about 7.5 million people.

The examination of the situation at the community level reveals not only very limited cultural, financial and geographical access to health services but also a low quality of health services. Together with a situation of general poverty and low vaccination coverage, this translates into unfavourable health indicators, especially in the field of maternal and child health. In general, utilisation rates of preventive and curative services are very low, especially among the most disadvantaged groups such as nomadic people and women. Community participation remains weak, leading to a situation where the approaches of planners and providers do not correspond to cultural concepts of the population. Therefore it is important to promote health services based on an understanding of social and cultural norms, as well as on people's value systems.

At the health service level the study revealed that the most important constraints to interventions in the health sector are low health service coverage rates and a lack of human resources. Chad is severely short of qualified people, and many health structures do not function even at a minimal level

due to the lack of personnel. These deficiencies also lead to weak technical guidance, programme management and supervision. Health service coverage remains incomplete: only 59% of districts have an operational hospital and only 68% of the designated "responsibility zones" to be covered by first contact facilities are actually covered. Furthermore as in many countries health facilities and human resources are concentrated in urban areas, leading to large differences in health service coverage between urban and rural communities. The seriousness of the shortages has led most donors, especially the World Bank and the European Community, to place the construction of new facilities and the development of human resources at the top of their priority lists.

The study performed at the health policy level reveals an ineffective implementation of the existing national policy. This is related to weak institutional capacities, an unproductive administration, lack of coordination in the health sector, and insufficient management skills at national, regional and district levels. These problems persist despite several enabling factors that include a well established and accepted health policy, a logically organised health system arranged on three levels, a coverage design based on the health district as the functional unit, and a relatively regular supply of essential drugs to health facilities. On the other hand, efficient and sustainable strategies remain to be identified, and the health district concept is not always implemented. Approaches towards community participation and the strategic orientation of services geared towards the most vulnerable groups are not adequate. The strong current commitment of the Ministry of Health towards the contractual approach, and the political will to promote partnership and collaboration with the private sector and civil society, should be seen as positive developments.

At the level of the multisectoral analysis of public policies, it is evident that currently partnerships and collaborations with other development sectors (agriculture, education, rural development, etc.), as well as the private sector and other actors are not adequate. This is the case on national, regional and local levels. Considering that many health interventions require cross-sectoral links to increase effectiveness and taking into account the extent of health problems in Chad that must be tackled in a comprehensive and systemic way, such as those related to HIV/AIDS or hygiene behaviour, these interactions clearly need to be strengthened. However, there is no strong political will to work along these lines even though the process of decentralisation is being promoted to a small extent.
On the level of the governance of the country, Chad is exposed to the typical problems of low-income countries: an unstable political situation, weak government, weak capacities to implement regulations and laws, corruption, etc. With a multitude of political parties, associations of civil society, trade unions and new independent journals, there are efforts towards a democratic culture and partnership between the population and leaders. Despite this, the violation of human rights has reached a disturbing level and insecurity in cities and rural areas has reappeared. Thus, the progress towards democratisation does offer opportunities for improving health outcomes but has still to overcome many constraints.

The analysis of the experiences of four development projects reveals in terms of scaling up health interventions that activities have to put a special emphasis on the production of health services and on performance measures. The development of infrastructures must follow the development of human resource. Flexible approaches are needed, like the setting up of regional training schools. An improvement of the coverage needs to be based on a steady improvement in the number of facilities combined with efforts to improve access and quality of care, educational campaigns. Disadvantaged

groups should be specially considered. Investments in initial and continuous training and management skills as well as the participatory elaboration of quality standards may contribute to the achievement of this objective. The contractual approach, which forms part of the national Chadian policy, is an instrument of rationalisation and extension of services and offers an opportunity to overcome the scarcity of human resources. However, this would require the regulation of the private sector. In addition, the study shows the importance of promoting health services, which actively seek to fulfil community demands. A possible approach is the promotion of platforms of exchange and communication among all the various actors involved and across different sectors. Again, this approach should place special emphasis on the poorest and neediest. In Chad there exist many constraints and they may only be overcome if investments are based on comprehensive approaches.

Bibliography

1. UNDP, *Human Development Report 2000*. 2000, New York: Oxford University Press. 290 pages.
2. World Bank Group, *World Development Report 2000/2001: Attacking Poverty*. 2000, New York: Oxford University Press. 352 pages.
3. Rasera, J., *Mise en Priorité des Investissements en Matière de Santé Publique - programme cadre 1995-1996*. 1995, Ministère de la Santé Publique, Secrétariat Technique de Suivi de la Réunion Sectorielle Santé: N'Djaména. p. 9-12.
4. Ministère de la Santé Publique, *L'aide extérieure à la santé pour la mise en oeuvre de la politique nationale de santé 1999*. 2000, Division des Ressources Financières, Ministère de la Santé Publique: N'Djaména. p. 26 pages.
5. Hanson, K., et al., *Constraints to scaling up health interventions: a conceptual framework and empirical analysis*. 2001, Commission on Macroeconomics and Health. p. 46 pages.
6. DSIS, *Annuaire des statistiques sanitaires du Tchad*. 2000, Division du Système d'Information Sanitaire du Ministère de la Santé Publique: N'Djaména. p. 219 pages.
7. BCR, *Enquête Démographique et de Santé 1996-1997*. 1998, Bureau Central de Recensement, Ministère du Plan et de l'Aménagement du Territoire: N'Djaména. p. 2390 pages.
8. Croix Rouge Suisse, *Projet santé Biltine, Plan d'action phase 4, 1996-1998*. 1995, Croix Rouge Suisse: N'Djaména.
9. Croix Rouge Suisse, *Projet santé communautaire de la croix Rouge Suisse à Biltine, Tchad, Plan d'action 5ème phase, 1999-2001*. 1998, Croix Rouge Suisse: N'Djaména.
10. Wyss, K., S. Greuter, and A. Inoua, *Utilisation des services de santé au Tchad. Etude auprès des bénéficiaires et prestataires des services de santé. Rapport d'Etude. Bureau d'Appui Santé Environnement, N'Djaména*. 1998, Bureau Appui Santé Environnement: N'Djaména. p. 79 pages.
11. Wyss, K., et al., *Connaissances, attitudes et pratiques des mères tchadiennes vis-à-vis de la grossesse, de l'accouchement, du paludisme, de la diarrhée et des infections respiratoires aiguës affectant leurs enfants*. 1996, Institut Tropical Suisse & Bureau Appui Santé Environnement (BASE): N'Djaména. p. 111 pages.
12. Wyss, K., *Interventions possibles pour rendre plus proches les services de santé des pasteurs nomades*, in *Réflexions pour une meilleure prise en charge de la santé en milieu nomade*, K. Wyss and J. Zinsstag, Editors. 2000, Centre Suisse de la Recherche Scientifique: Abidjan. p. 115 pages.
13. EPOS, *Appui au développement des ressources humaines dans le secteur de la santé au Tchad. Etude de faisabilité*. 1998, EPOS: Bad Homburg, Germany. p. 98 pages.
14. ADE, *Etude de faisabilité pour la mise en place du projet santé 8ème FED*. 1998, ADE: Bruxelles. p. 157 pages.
15. Litt, V., *Formation initiale des agents techniques de santé, rapport de mission*. 1998, Organisation Mondiale de la Santé: N'Djaména.
16. Parent, F. and Y. Coppieters, *A process of change in first-line health services in Chad*. Health Policy and Planning, 2001. **16**(1): p. 122-123.

17. Ministère de la Santé Publique, *Table Ronde Genève IV - Réunion sectorielle "santé". Programmes d'action Tome 1*. 1999, Ministère de la Santé Publique: N'Djaména. p. 174 pages.
18. Ministère de la Santé Publique, *Politique Nationale de Santé.* 1999, Ministère de la Santé Publique: N'Djaména. p. 64 pages.
19. Perrot, J., G. Carrin, and F. Sergent, eds. *L'approche contractuelle: de nouveaux partenariats pour la santé dans les pays en développement*. WHO/CO/MESD.24. 1997, Organisation Mondiale de la Santé: Genève. 69 pages.
20. Ministère de la Santé Publique, *Guide méthodologique pour la planification, le suivi et l'évaluation des districts sanitaires au Tchad*. 1997, Ministère de la Santé Publique: N'Djaména. p. 63 pages.
21. Sani, C., *Rapport final du projet santé 7ème FED.* 2000, AEDES: Bruxelles. p. 112 pages.
22. de Lamalle, J., *Appui technique à la préparation de la mise en place du projet Santé 8ème FED au Tchad. Rapport de Mission N°1*. 2000, Délégation de la Commission Européenne au Tchad: N'Djaména. p. 185 pages.