Health sector reform and tuberculosis control: The case of Zambia

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Setting: Zambia 1995-1997

Objective: To describe the process leading to the collapse of the National Tuberculosis Program

Design: A descriptive analysis of the Health Sector Reform in Zambia and its effects on the NTP during the period 1995-1997.

Results: The NTP stopped to function by the end of 1997. The main reason was that external support ended, while the National Strategic Health Plan 1995-1999 has no budget for special programs according to the policy to integrate these in the general health services. As a consequence technical support for tuberculosis control to districts ended as staff establishment was reduced to one officer responsible for national co-ordination of AIDS/HIV, STI, tuberculosis and leprosy. The most serious effect of the transition was the interruption of the supply of anti-tuberculosis drugs during 1998.

Conclusions: The experience in Zambia demonstrates the urgency of a constructive dialogue between “health reformers” and “disease controllers”. The aim of this dialogue would be to develop a model which ensures that TB patients are properly diagnosed and cured in countries which embark on reforming their health services.
1. Introduction
In September 1995 the Parliament of Zambia enacted the National Health Services Act endorsing a radical reform of the health services. Through this act the responsibility for the implementation of health services was delegated to autonomous national, district and hospital boards. The boards are financed from a national “basket” in which funds of the Government of Zambia and the collaborating partners are pooled. The National Tuberculosis Program was funded since 1988 under a bilateral agreement between the Governments of Zambia and the Netherlands. With the expiry of this agreement on 31 December 1997 the external funding of the NTP ended. Since the “basket” does not fund special programs de facto the NTP, which was established at independence in 1964, ceased to exist on 1 January 1998. Furthermore, as the Government of Zambia failed to secure the procurement of anti-TB drugs in time in 1997, the country ran out of anti-TB drugs at the end of the second half of 1998. This article describes the process which led to the collapse of structured TB control in Zambia and the catastrophe leading to the death of a non quantified number of tuberculosis patients due to the absence of anti-TB drugs in the second half of 1998. By describing the underlying factors of the process leading to this outcome the article aims at initiating a discussion between the “protagonists” of radical health sector reforms and the “guardians” of special disease control programs.

2. Background
The “Health for All”(HFA) policy and the “Primary Health Care”(PHC) strategy formulated by the World Health Organisation (WHO) in 1978 during the conference in Alma Ata1 can be considered, as the first global attempt to organise health services in low income countries in such a way, that they would provide equity of access to quality care addressing the basic health needs of all people. The PHC strategy aimed at replacing the so far mainly hospital based and curative oriented health services, as well as disease specific special programs, by preventive and promotive services as close as possible to the community, with community participation, intersectoral collaboration and implementation of cost-effective interventions using appropriate technology2.

In the process of implementing the HFA policy and PHC strategy several approaches were developed depending on different interpretations of the concept and local circumstances. Such approaches were selective PHC3 versus integral PHC, the District Health Care system, cost- recovery schemes following the Bamako Initiative4 and Community Based Health Care. Even if the approaches differed they all focussed on improving the health services at the users level rather than at reorganising the health sector in general. Evaluation of the implementation of the HFA policy by WHO5 6 showed that on a global level considerable progress was made with regard to the 12 global indicators formulated in Alma Ata.

However, in many low-income countries, in particular in sub-Saharan countries, the strategy was hampered severely by economic recession, debt crisis, structural adjustment programs7 and shrinking donor support. The overall health situation in these countries was further affected by epidemiological changes, in particular due to the HIV pandemic, demographic pressure, urbanisation and in general continuation of poverty8. As it has become clear, that the goal of “Health for All” will not be achieved by the year 2000, WHO is currently formulating a new global policy for Health for All in the 21st century9.

The WHO HFA policy and PHC strategies were defined from a health perspective. Structural adjustment programs10 11, designed in the eighties to address the problems of the economic and debt crises in the low income countries, led to the development of strategies for improving the health situation from an economic perspective. In the World Development Report 1993 “Investing in Health”12 and in “Better Health in Africa”13 published by the World Bank (WB) in 1993 and 1994 health is defined as an essential factor for economic development. Using the Disability Adjusted Life Year (DALY) method to calculate the cost-effectiveness of health interventions affordable minimum packages of care addressing the basic health needs should be formulated and provided to the population. In the agenda for action of the 1993 report and The Health Nutrition and Population Sector Strategy published in 199714 the WB emphasises the need for a reform of the health sector itself. The proposed Health Sector Reform (HSR)15 16 aims at better use of scarce resources and increased efficiency of health services by moving from centralised to decentralised planning systems, redistributing funds from tertiary to peripheral levels, introducing alternative funding mechanisms, providing integrated services by polyvalent health staff and contracting-out services to the private sector and non-governmental organisations. Since the introduction of these concepts extensive health sector reforms are underway in Africa17 18, South America, parts of Asia and the former Soviet Union. Both the traditional PHC strategy and the new HSR strategy challenge the existence of special disease control programs, which are considered expensive, vertical, i.e. not-integrated and without much impact.
In the fifties the colonial powers introduced tuberculosis control programs in their colonies using diagnostic tools and chemotherapy with streptomycin and isoniazid developed in the Western world. In the same period the epidemiology of tuberculosis in the developing world was studied extensively by WHO. In the sixties and seventies numerous trials with new anti-tuberculosis drugs like rifampicin and pyrazinamide were carried out in high prevalence countries in joint studies of Western and local research institutes leading to the development of the current short-course chemotherapy regimens. At independence most high prevalence countries had national tuberculosis control programs organised following the concepts of tuberculosis control in the Western world. By the end of the seventies tuberculosis ceased to be an important public health problem in the majority of the industrialised countries and was not considered a priority disease anymore on the international health agenda of WHO. A turning point was made at the start of the nineties when WHO declared tuberculosis a global emergency and established the Global Program on Tuberculosis (GTB). Experiences in a number of high prevalence countries had showed that well organised tuberculosis programmes using short-course chemotherapy with supervised intake of rifampicin were achieving high cure-rates of 80%-90%. It had furthermore been proven that under such circumstances tuberculosis control is among the most cost-effective health interventions evaluated so far. The GTB therefore recommended the “Framework for Essential TB control” and the “Direct Observed Treatment Short-course strategy” (DOTS) as the strategy of choice for effective tuberculosis control services. This decision was timely as due to the HIV epidemic the incidence of tuberculosis was increasing dramatically since the second half of the eighties, in particular in sub-Saharan Africa and as due to poor tuberculosis control multi drug resistance (MDR) was emerging in several countries.

The objective of this article is to contribute to the longstanding debate between the protagonists of “radical” reforms of the health sector and the “guardians” of specialised disease specific programs. For this purpose we describe the effects that the introduction of HSR in Zambia had on tuberculosis control in the country and analyse the factors and reasons leading to a collapse of tuberculosis control in 1998.

3. Methodology
A descriptive analysis of the evolution of the HSR and its components in Zambia during the period 1995-1997 and its effects on the NTP and tuberculosis control in general. The analysis is based on a study of HSR policy documents published before and during this period, discussions with key policy makers within the Ministry of Health, the Central Board of Health (CBoH) and representatives of bilateral agencies supporting the HSR. The analysis is further based on 10 missions to Zambia and visits to wide range of districts and provinces all over Zambia from 1991 through 1997. During these visits the practical implications of the HSR on the health services in general and tuberculosis control in particular were discussed with health authorities at national, provincial and district level. The findings of these missions were documented in a series of progress reports, which were used as resource material for this article.

4. Setting
Zambia is a land-locked country in Southern Africa covering an area of 752,614 square km. The country is divided into 9 provinces and 61 districts. Zambia is a low-income country with a poorly functioning economy. The per capita GNP was $350 in 1994. The external debt in 1994 was approximately US$ 6.6 billion.

The estimated population in 1998 was approximately 10 million. The annual population growth rate is 3.2%. Zambia is one of the most urbanised countries in Africa with about 42% of the population living in urban areas. The health situation in Zambia is characteristic for sub-Saharan African countries. The Zambia Demographic and Health Survey showed that the health situation is deteriorating. Currently one in five Zambian children dies before reaching age five. Under-five mortality rose by 15 percent from 152 to 191 per 1000 birth comparing 1977-1981 to 1987-1991. During the last decade adult health is seriously affected by the HIV and tuberculosis co-epidemic. HIV-seroprevalence in antenatal clinic attenders in recent years is between 20-30% without much difference between urban and rural populations. The current annual number of AIDS deaths is estimated at 100,000 and new HIV infections at 180,000 per year.

No tuberculin surveys to measure the level of transmission of M. tuberculosis have ever been held in Zambia. On the basis of tuberculosis surveys in the Copperbelt province in 1957-1958 and Livingstone district in 1968 the level of the annual risk of tuberculous infection during the sixties can be estimated to have been about 2.5%. Case-notification data from 1964 till 1996 show two distinct periods in the evolution of the trend of tuberculosis in Zambia:
(1) A more or less stable situation during the period 1964-1984. In this period the total number of notified cases,
all forms, increased from 4,572 in 1964 till 7,272 in 1984 reflecting the increase of the population with an average about 3% per year. During this period the case-notification rate remained relatively constant, fluctuating around 100 per 100,000 population.

(2) A sharp increase of cases and rate during the period 1985-1996. In this period the absolute number of notified new cases increased from 8,246 in 1985 till 38,863 in 1996. The case-notification rate increased more than threefold from 124 in 1985 till 409 per 100,000 population in 1996. The increase of tuberculosis notifications since 1985 concurred with the spread of the HIV-epidemic in Zambia. The HIV seroprevalence in tuberculosis patients in Lusaka was 60% in 1988 and 73% in 1989. It is estimated that in 1995 nation wide more than half of the tuberculosis patients were co-infected with HIV.

5. The National Tuberculosis Control Program of Zambia
After independence in 1964 the Government established the National Tuberculosis control Program (NTP). In 1980 tuberculosis and leprosy control were combined. In 1993 the National AIDS/STD, tuberculosis and leprosy control program was formed. The NTP received support from the Government of the Netherlands since 1988. The major component of this support concerned the provision of the annual need of anti-tuberculosis drugs. On request of both governments the program was reviewed in 1991. The main findings of the team were the low cure-rate and high default-rate in the program. The other findings concerned the lack of management capacity and skills for tuberculosis control at all levels. Based on the recommendations of the review team a five-year development plan was designed. In 1994 the Government of the Netherlands agreed to finance a two-year action plan for tuberculosis control support to the district level, aiming at improving the results of the program by training of staff and instituting a system of supervision at the various levels. This agreement was extended in 1996 till 31-12-1997. By the end of 1997 continuation of external funding after the expiry of the agreement was not secured by the Government of Zambia.

The tuberculosis control strategy of the NTP in the period 1995-1997, formulated in the aforementioned five-year plan, was designed according to the policy frame of the WHO-GTB. The NTP of Zambia was organised according to the model of the successful tuberculosis control programs, which were developed with assistance of the International Union against Tuberculosis and Lung Disease, the Royal Netherlands Tuberculosis Association (KNCV), WHO and WB in a number of countries in Africa, Latin America and Asia. At the national level a Central Unit in the Ministry of Health was responsible for the overall planning and co-ordination of the program. In all nine provinces provincial tuberculosis co-ordinators attached to the Provincial Medical Offices formed the link between the central level and the districts. The main function of these staff was providing technical support to the District Health Management Team (DHMT) in providing quality assured tuberculosis services at the district level. At district level the program was fully integrated. In Zambia financing of tuberculosis control activities at this level is entirely the responsibility of the district. The NTP support to the districts consisted of provision of anti-tuberculosis drugs, laboratory materials, stationary for recording and reporting and training and technical assistance by the provincial co-ordinators.

During the period 1995 through 1997 the NTP was developed according to a national plan with clear objectives, targets, activities and corresponding budget approved by Government of Zambia (GRZ). Situation analyses were performed district by district and management cycles for tuberculosis control at the district level were developed. The WHO recommended information system was implemented in all districts allowing for monitoring and evaluation of case finding and treatment. A national tuberculosis manual and tuberculosis guide for program staff and general health workers was developed and published. Throughout the period all treatment centres received uninterrupted supplies of anti-tuberculosis drugs. Half-yearly national technical review meetings were held for the purpose of national evaluation, standardisation and co-ordination of planning and implementation. These efforts resulted in a conversion rate at the end of the intensive phase of 88% in cases enrolled in 1996 and an increase of the treatment completion rate at 8 months of 70% in cases enrolled in 1995 as compared to 50% in the preceding years.

6. The Health Sector Reform
In Zambia falling copper prices and the worldwide energy crisis of the mid seventies led to a massive decline in government revenues. Due to extensive borrowing, an overvalued exchange rate and subsidies on consumer goods an external debt was created of about US$7 billion by the end of the eighties. The new government elected in 1991 was faced with a multiplicity of problems in the health sector: a run down physical health infrastructure, epidemics of cholera, tuberculosis, HIV/AIDS and endemic malaria, chronic shortage of drugs and medical supplies, demoralised health workers, uncontrolled population growth and an antiquated health management structure unresponsive to the prevailing health needs.
Goal, Aim, Vision, Principles

In 1991 the Movement for Multiparty Democracy formulated new National Health Policies and Strategies which were to address these problems. The Corporate Plan for Implementing National Health Policies and Strategies both published in 1992 provide the blueprint for the Health Sector Reform in Zambia. In the National Strategic Health Plan (Investment plan) 1995-1999, “From Vision to Reality”, published in 1994, and the Handbook for District Health Board Members, published in 1996 the goal, aim and vision of the HSR are formulated as follows:

“To achieve radical and affordable improvements in health care provision, utilisation and quality aiming at better health for all Zambians and to provide equity of access to cost-effective quality care as close to the family as possible”.

Process

The main features of the HSR process are the decentralisation of authority and responsibility from central and regional levels to the districts and strengthening of planning, budgeting and managing capacity at that level. Crucial in this process is the re-direction of funding from the centre to the district, from tertiary to primary care, from curative to preventive care and from categorical programs to integrated care. The process further aims at increasing community involvement and ownership and cost-sharing through medical fees.

Structure

In September 1995 the Parliament of Zambia enacted the National Health Services Act. The act was needed “to establish the Central Board of Health; provide for the procedures for establishing management boards for hospitals and health services; to define functions and powers of such boards and their relationship....”. The main purpose of the act was to create autonomous corporate bodies, which are responsible for developing and implementing annual health plans. In November 1995 the Health Reforms Implementation Team Secretariat issued District Guidelines, which describe the roles, functions and responsibilities of these new bodies, called health boards. In June 1997 the Government of Zambia published The National Health Services (Transfer and Secondment of Public Officers) regulations, 1997. These regulations make it possible to transfer a public officer to a management board. In this way civil servants employed by the Ministry of Health could be “de-linked” from government service and contracted by the health boards. The following bodies were created (see figure):

<table>
<thead>
<tr>
<th>Level</th>
<th>Population</th>
<th>Institution</th>
<th>Administrative responsibility</th>
<th>Technical responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village</td>
<td>500-1,000</td>
<td>Health Post</td>
<td>Neighbourhood Committee</td>
<td></td>
</tr>
<tr>
<td>Health Area</td>
<td>25,000-50,000</td>
<td>Health Centre</td>
<td>Area Health Board</td>
<td>Health Centre Committee</td>
</tr>
<tr>
<td>District</td>
<td>100,000-250,000</td>
<td>Hospital</td>
<td>District Health Board</td>
<td>District Health Management Team</td>
</tr>
<tr>
<td>Regional</td>
<td>2.5 million</td>
<td></td>
<td>District Health Management Board</td>
<td>Hospital Health Management Team</td>
</tr>
<tr>
<td>National</td>
<td>10 million</td>
<td></td>
<td>Ministry of Health</td>
<td>Central Board of Health</td>
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At the village level Neighbourhood Committees represent the population of areas covered by planned Health Posts. The Area Health Boards and Health Centre Committees are responsible for the health of the population in the catchment area of a health centre. At district level the District Health Board (DHB) is responsible for the entire district, while the Hospital Management Boards (HMB) are responsible for the operating of hospitals. The District Health and Hospital Health Management Teams respectively provide technical advice to DHB’s and HMB’s. At the national level the CBoH functions as the implementing agent of the Ministry of Health. As part of the CBoH four Regional Boards of Health (RBoH) were created replacing the 9 former (health) provinces and the former Provincial Medical Offices.

Main elements of the reformed health services

The health sector reform aims at providing cost-effective packages of care addressing the most common diseases contributing to the high disease burden. All districts need to address six health thrusts: i.e. maternal health and
family planning, child health, water and sanitation, malaria, AIDS/STD and tuberculosis. The key staff of the district health service is the polyvalent public health practitioner, capable to provide all components of the minimum package of care at health post, health centre and hospital out-patient department level. Autonomous DHB’s are responsible for planning, management and finances of annual district health plans through contracts with the CBoH, financed from one central basket funded by the Government and the donor community. The ordering of drugs and other materials is decentralised. It is the responsibility of the districts to calculate requirements and order supplies of drugs and other materials in accordance with the “Pull” instead of “Push” approach, i.e. drugs are no more routinely distributed by the national level, as districts have to take action to order them. The districts use a Health Management and Information System (HMIS), which is action oriented and geared to the need of the health staff, i.e. only information which can be used for decision making at district level is collected. The four RBoH’s are supposed to assure the quality of the district health service and audit the performance of the district health staff. Teams of the Regional Offices of the CBoH and DHMT’s are assumed to support the polyvalent public health practitioner’s through integrated supervisory visits.

Implementation of the HSR

Milestones in the development of the HSR are the publication of the Corporate Plan in 1992, the Strategic Health Plan in 1994, the endorsement of the National Health Act in 1995 and the establishment of the CBoH in 1996. From 1995 through 1996 a country wide district capacity building “campaign” was held. Districts entered into contracts with the CBoH for the first time in 1997. The Government of Zambia received financial support and advise for developing and implementing of the HSR from bilateral agencies, e.g. from Denmark (DANIDA) and USA (USAID) and from the World Bank. Regular meetings with consultants and representatives of embassies, e.g. Sweden and the Netherlands, contributing to the health sector were organised by the Health Reform Implementation Team and later the CBoH to discuss the progress of implementation. In this way the process was developed as a joint effort of the Ministry of Health and its main donors.

The actual implementation of the HSR principles faced considerable obstacles. Because of budgetary constraints the MoH and CBoH honoured only part of the district budgets for the 1997 district health plans. Districts were therefore unable to implement activities fully as planned. The transfer of health staff employed by the Ministry of Health to the autonomous boards met with considerable constraints leading to demoralisation of staff in particular at provincial and national level. In 1998 the creation of the four health regions in replacement of the nine health provinces was reconsidered. The number of staff of these boards, the size of the areas and the distances to the districts inhibited proper execution of core functions as quality assurance, performance audits and technical support visits. In the process of implementing the reforms strategic shortcomings were that the establishment and manning of the RBoHs was undertaken much later than the district capacity building and that the roles of and relations between the boards at national, regional and district level were not well enough developed. The RBoHs therefore in practice did not function as planned and the intermediate level was essentially lacking as the link between the districts and the CBoH.

7. The effects of the HSR on the NTP

With the expiry of the agreement between the governments of Zambia and the Netherlands on 31-12-1997 the NTP de facto ceased to exist by the end of 1997, as in accordance with the National Strategic Health Plan 1995-1999 the national health budget had no funds for special programs. The direct consequence was that technical support for tuberculosis control at district level came to an end, while at the same time no alternative was formulated and put in place. Furthermore with the creation of the RBoH’s the provincial medical offices were closed and therefore also the function of provincial tuberculosis and leprosy co-ordinator ceased to exist. However, the RBoH’s were by the end of 1997 still in the process of being developed, while the capacity for technical assistance for tuberculosis control at regional level remained undefined. Finally at national level in the CBoH the staff establishment for TB was reduced to one officer also responsible for national co-ordination of AIDS/HIV, STD and leprosy.

The most serious indirect effect of the expiry of the agreement was the interruption of the supply of anti-tuberculosis drugs during 1998. By mid 1997 the government of Zambia had not ordered drugs for 1998, while the lead time for an order involving international competitive bidding is at least 12 months and often more as experience shows. Based on existing stocks by mid 1997 it was estimated that anti-tuberculosis drugs would run out of stock during the first half of 1998. This indeed occurred and the Government of the Netherlands airlifted an emergency supply of anti-TB drugs after a pledge of the Minister of Health in mid 1998. However, in 1999 again shortages of anti-TB drugs occurred after these supplies were finished.
8. Discussion

Opportunities of the HSR to TB control
In the case of the HSR in Zambia opportunities exist in the priority given to tuberculosis control as one of the six health thrusts, which the DHBs and DHMTs are to address in the annual district health plan. Furthermore the diagnosis and treatment of tuberculosis are included in the minimum package of care. The involvement of the health centre and neighbourhood committees could increase case finding and improve treatment compliance. If the HSR achieves to establish health services, which are able to provide the minimum package of care as close as possible to the community, further decentralisation of DOTS to the health post and health centre level and to those communities, where community based health care exists, would greatly benefit TB control. A clear positive result of the HSR is visible in the increased capacity of districts for planning and management of district health services. Annual district health plans include tuberculosis control and the Integrated Technical Guidelines for Frontline Health Workers include a chapter on diagnosis and treatment of tuberculosis.

HSR inherent risks factors directly affecting the quality of TB control
With regard to TB control the HSR has a number of risks, which need to be addressed to ensure the quality of diagnosis and treatment of TB in the future. Both in the CBoH and the RBoHs the capacity for providing technical assistance for control of diseases of major public health importance is insufficient. The capacity of DHMTs for proper management of tuberculosis control is not yet developed in the majority of districts. When the DHMT as a team is responsible for the whole package, the risk exists that responsibilities for specific interventions are not well defined anymore. The question is who will be answerable in case of poor performance. The assumption of the reformers that districts are able to provide good quality tuberculosis care and control without considerable technical support should be considered premature in the actual situation. Training modules for the polyvalent public health practitioner were still under development in 1997. Existing staff as clinical officers and nurses still needed to be retrained as “polyvalent public health practitioners”. The capacity building at district level was mainly directed at planning and management. The development of technical capacity to provide the minimum package had by the end of 1997 largely still to start. A final risk is the newly developed quarterly “health management and information” form. The only information regarding TB control, which districts are required to report using this form, is the total number of cases of tuberculosis, all forms, registered during a quarter and the number of patients which default during that quarter. With this limited information it is not possible to assess the quality of diagnosis and to monitor trends of registration rates and outcome of treatment of quarterly cohorts of smear-positive cases. The new form can not serve as a tool for routine evaluation and surveillance in tuberculosis control since it lacks information on these three essential indicators and therefore poses a serious risk for the quality of TB control in the future.

HSR inherent risk factors to financing of TB control
Though tuberculosis is included in the minimum package and among the six thrusts, priority setting in the district health plan is the responsibility of the DHB and DHMT. As the relative share of interventions of the package is unquantified, neither in volume nor with regard to lower limits or ceilings of budget per intervention, the risk exists that tuberculosis might receive insufficient attention and funding. Even though the current rate of tuberculosis is as high as 400 per 100,000 population, this number might be perceived by the DHB and DHMT as relatively small in view of the total morbidity and mortality due to all diseases in the district. With regard to planning and budgeting 1997 district health plans usually mention tracing of defaulters as the only specific TB control activity. The plans in general lack a clear tuberculosis control strategy with well defined case finding and treatment objectives aiming at defaulter prevention by providing quality assured tuberculosis care. As districts are funded from a common basket the inherent risk exists that in case of budgetary constraints the deficit will affect all components of the package. No special instructions have been formulated to safeguard activities with high public health priority under such circumstances. Finally cost-sharing policies may have a negative effect on early reporting of suspects and diagnosis of patients of tuberculosis as well as on treatment adherence.

HSR inherent risk factors to ensuring availability of anti-TB drugs
The most serious and acute threat of the HSR to TB control regards the provision of anti-tuberculosis drugs. If the responsibility and budget for drug procurement is fully decentralised to the district level a serious risk exists that repeated drug shortages of one or more of the tuberculosis drugs will occur. One or more of the following factors would contribute to this risk: Inadequate planning and budgeting for anti-TB drugs. Low priority given by the DHB to tuberculosis control. Comparatively high costs of anti-TB drugs so anti-TB drugs might in the view of the DHB take a disproportionate share of the district drug budget. Districts receive insufficient funds
from the basket and can not purchase all drugs, which are required. Finally at national level financing of anti-
tuberculosis drugs and laboratory materials is a high burden on the MoH budget (estimated costs 1998-2000
US$ 6.7 million). The recurrent shortages of anti-TB drugs in 1998 and 1999 can partly be attributed to the tight
national budget and partly to the capacity of the Ministry of Health in bidding and procurement procedures.

Though these factors are not directly related to the HSR as formulated in the National Strategic Health Plan, it is
nevertheless questionable whether the decision to finance all activities (including purchase of anti-TB drugs)
from the common basket has been realistic in view of the available means.

Causes leading to the collapse of structured TB control

In summary the HSR concept developed in Zambia offered theoretical opportunities for TB control, though also
having a number of inherent risks. In practice, however the HSR had disastrous effects on the NTP and the
control of TB. This adverse outcome can be attributed to the following factors: The blueprint of the HSR was
developed to a great extent by as small group of policymakers and (external) technical advisers. Furthermore the
blueprint was based on a number of principles, which in practice were non-negotiable. A crucial factor, was
further that the HSR was heavily depending on external funding, while the Government of Zambia could not
commit itself sufficiently due to the adverse economic situation. From 1995 through 1997 the NTP failed to
convince the HSR team of the need to maintain a core structure for TB control. It was only in December 1997
that the CBoH adopted the Strategic Plan of Quality Assured Tuberculosis Care and Control for District and
Hospital Health Boards for 1998 to 2000, which was developed by the NTP as an alternative approach for TB
control, which could be incorporated in the HSR. The plan offered opportunities for integrated tuberculosis
control by introducing a planning and management cycle for tuberculosis control at district level incorporated in
the overall District Health Plan, by defining and delegating responsibilities for quality care and control of
tuberculosis to one or more members of boards and committees, while the overall responsibility would remain
with these bodies, and by introducing the concept of integrated communicable disease control capacities for
malaria, AIDS/HIV and tuberculosis at national, regional and district level. The plan included further a system
for guaranteed supply of anti-TB drugs through a combination of central purchase, delegated responsibility for
ordering to district level and a central monitoring system to prevent district stock outs. However, no local and/or
external resources to finance the plan were mobilised during 1997. In line with the principle of “basket funding”
no special finances were made available for TB activities in 1998 and as a consequence organised TB control
ceased to exists, while the country ran out of TB drugs due to the delays in procurement by the Government.

The moral obligation of HSR stakeholders

The experience in Zambia proves that the HSR should be redesigned to include a component for disease control,
including TB control, at district, regional and national level. The main responsibility for the collapse of
organised TB control in Zambia lies with the Ministry of Health of Zambia. However, the organisations, which
funded the reforms and the experts which advised the Ministry of Health on the contents of the HSR are as much
or even more responsible for the TB control catastrophe which resulted from their engagement in the HSR
process. Without doubt all stakeholders in the HSR in Zambia were aiming at improving the health situation of
the Zambian population. However, in choosing for the paradigm of “radical reforms” they obscured the moral
obligation to consult with the direct recipients, i.e. the people of Zambia, in this case in particular with regard to
adequate services for diagnosis and treatment of tuberculosis. As a consequence of the combination of
insufficient capacity for tuberculosis control at district level, lack of technical assistance from regional and
national level and recurrent partial or total TB drug shortage failure and default rates will raise. In this way the
HSR has created a situation which promotes the development and transmission of multi-drug resistant strains of
M.tuberculosis. The experience of Zambia demonstrates the urgency of a constructive dialogue between “health
reformers” and “disease controllers”. The aim of this dialogue would be to develop a model which ensures that
TB patients are properly diagnosed and cured in countries which embark on reforming their health services.


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