Inside the black box: Administration of the Tanzanian Community Health Fund and its interaction with other health financing mechanisms

Sabine Renggli[1,2], Iddy Mayumana[3], Christopher Mshana[3], Dominick Mboya[3], Flora Kessy[3], Fabrizio Tediosi[1,2], Constanze Pfeiffer[1,2], Ann Aerts[4], Christian Lengeler[1,2]

[1]Swiss Tropical and Public Health Institute, Switzerland; [2]University of Basel, Switzerland; [3]Ifakara Health Institute, Tanzania; [4]Novartis Foundation, Switzerland

Introduction

Many low- and middle-income countries have been struggling to implement sustainable health financing strategies. The basis to address these challenges lies in the in-depth understanding of the context-specific and often complex designs and processes of existing health financing systems. In Tanzania the health financing system is extremely fragmented with cost sharing strategies in place to supplement funds provided from the central level (figure 1).

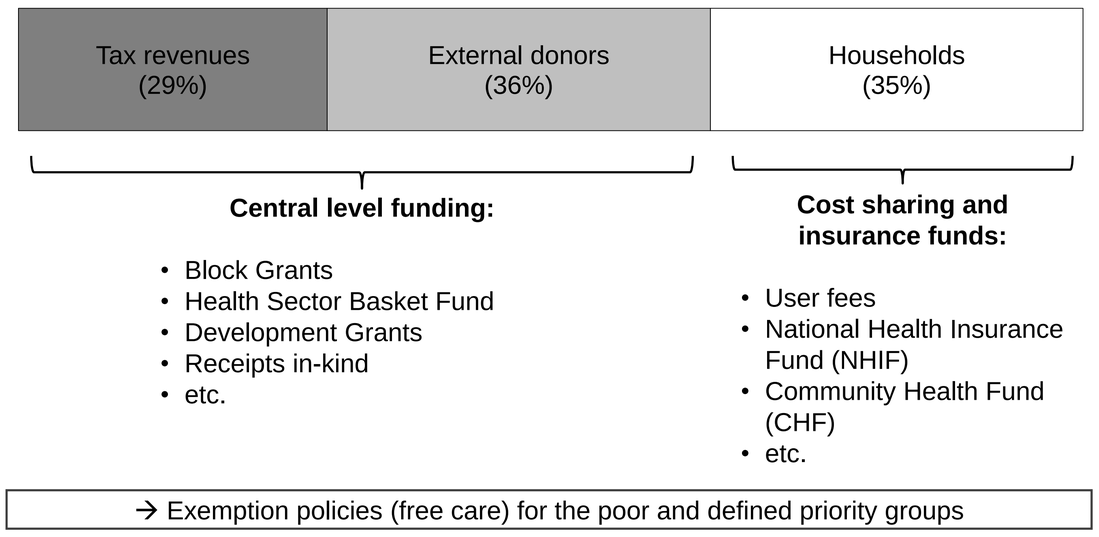

Figure 1: **Total health expenditure of Tanzania in 2014 and overview of the financing sources**

The Community Health Fund (CHF), a voluntary health insurance scheme for the informal rural sector, is one of these strategies. The CHF scheme covers a whole household. The flat rate premium per year and the benefit package are defined by the councils. CHF funds raised are doubled through matching grants from the central government via the National Health Insurance Fund (NHIF). However, the CHF's implementation has been cumbersome and thus we investigated CHF administration processes and the CHF's interactions with other health financing mechanisms and policies.

Methods

Two Tanzanian councils with different perceived administrative capacity were purposively selected for this study (table 1). Routine administrative data were collected at council and public health facility level. Additionally, an economic costing approach was used to estimate CHF administration cost and the contribution of other health financing mechanisms to these costs.

Table 1: ***Description of study councils (status 2014)***

Characteristics	Council A	Council B
Population size	~250'000	~400'000
Average household size	4.9	4.3
Number of health facilities	38	59
Number of public health facilities (hospitals/health centres/dispensaries)	27 (23/3/1)	25 (20/5/0°)
Perceived CHF administration capacity	medium	low
Year of CHF introduction	2003	2008/9
CHF premium	3.01/6.02USD[1,2]	6.02USD[2]
Number of beneficiaries per CHF card	6	5
CHF benefit package	Unlimited access to all services offered at any public health facility within the council, including the council hospital	Access limited all services offered at the health facility, where CHF registration took place
User fee[4]	0.90USD at public dispensaries or health centres including all services; 1.20USD at the public hospital for registration/ consultation and various prices for medical supplies, diagnostics or any other additional services	0.12-1.08USD for registration/ consultation and various prices for medical supplies, diagnostics or any other additional services at all public health facilities
Fund pooling	Cost Sharing and Insurance Funds pooled at council level	Cost Sharing and Insurance Funds pooled at health facility level
Role of CHF coordinator	Dental Medical Officer at council hospital	Health facility in-charge (medical officer) at main council health centre

[1]CHF premium changed from 3.01USD to 6.02USD mid-October 2014
[2]Annual average exchange rate for 2014 (1'662TSh = 1USD)
°There is a designated non-public referral hospital in council B

Results

Findings demonstrated that the CHF's interactions with other health financing mechanisms and policies affected its performance. Exemption policies and healthcare seeking behaviour influenced negatively the maximum potential enrolment rate, which could possibly be reached with a voluntary scheme (figure 2).

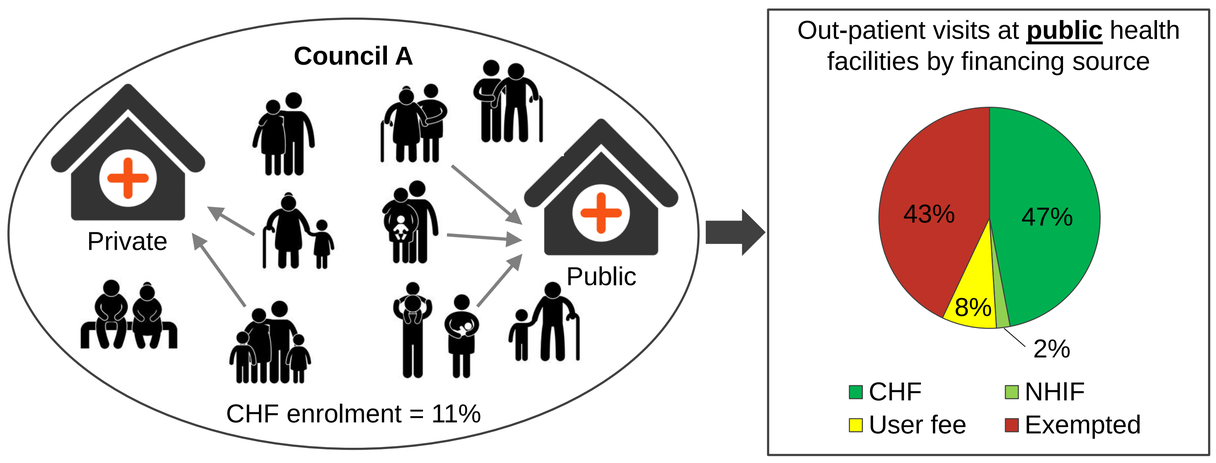

Figure 2: **Exemption policies and healthcare seeking behaviour influence CHF enrolment.** Only the 8%, who pay user fees, could be seen as a target group to increase CHF enrolment. Everyone else either seeks care in the non-public sector or not at all.

Higher revenues from user fees, user fee policies and fund pooling mechanisms seem to have set incentives for care providers to prioritize user fees over CHF revenues (figure 3).

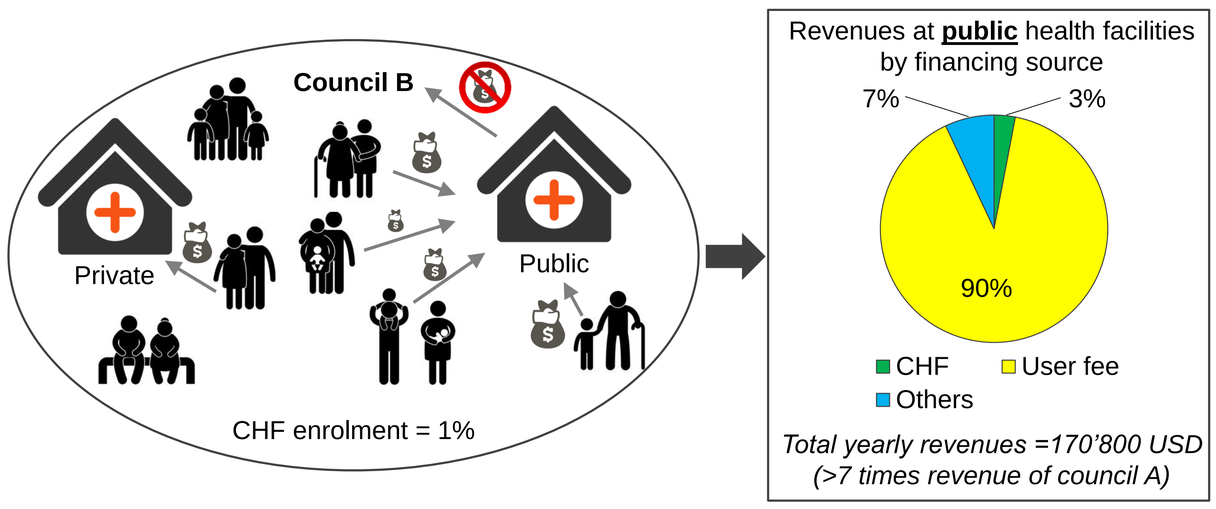

Figure 3: ***Higher revenues from user fees, user fee policies and fund pooling mechanisms influence CHF enrolment.*** Flexible and higher user fees than in council A and fund pooling at health facility level provided incentives to prioritize user fees over CHF and led to more than seven times higher total revenues in council B compared to council A.

Costing results clearly pointed out the lack of financial sustainability of the CHF. However, the financial analysis also showed that thanks to significant contributions from other health financing mechanisms, the CHF would theoretically be left with more than 70% of its revenues for financing services assuming administration processes were working (table 2).

Table 2: ***CHF enrolment figures, administration cost and cost revenue ratios for the year 2014***

	Council A	Council B
Enrolment		
Total number of households enrolled (%)	5'327 (11%)	866 (1%)
Premium paid by each household [USD]	3.46	6.02
Total revenues (including matching fund) [USD]	18'408 (36'816)	5'212 (10'423)
Administration cost [USD]		
Cost paid by CHF revenues	4'565	742
Financial cost	18'479	9'557
Economic cost	115'545	62'981
Cost revenue ratio (including matching fund)		
Cost paid by CHF/revenue	0.25 (0.12)	0.14 (0.07)
Financial cost/revenue	1.00 (0.50)	1.83 (0.92)
Economic cost/revenue	6.28 (3.14)	12.08 (6.04)

Conclusions

To make the CHF work major improvements in CHF administration and management would be needed. However, given the complex context in which the CHF is implemented and its interactions with other health financing mechanisms and policies, it is questionable if improvements in CHF administration and management are feasible and scalable. The question also certainly remains if such efforts were value-for-money. Thus, our results call for a reconsideration of approaches taken to address the challenges in health financing and emphasises the importance of looking beyond a single health financing mechanism.