

China: The Impact of the Global Fund HIV/AIDS Programmes on Coordination and Coverage of Financial Assistance Schemes for People Living with HIV/AIDS and their Families

Zhang Xiulan, Pierre Miège and Zhang Yurong¹

Abstract:

This study assesses the impact of the implementation of Global Fund financed programmes on coordination between different institutions at the local level, as well as on the distribution of social assistance schemes for people living with HIV/AIDS (PLWHA) and their families. It is based on a large household survey (involving 1120 households and 4850 people) and in-depth interviews with local public health leaders, conducted in 12 counties within four provinces (Anhui, Henan, Yunnan and Guizhou) between October 2006 and April 2007. Analysis of these qualitative data shows that Global Fund programmes contribute to improved coordination at the local level because they are implemented through the leadership of the local Centers for Disease Control (CDCs). The CDCs successfully coordinate the actions and programmes of the diversity of actors involved in HIV/AIDS prevention and treatment. Household interviews reveal that counties receiving (round 3 or 4) Global Fund monies benefit from improved access to treatment and better coverage by the different financial support programmes. Consequently, PLWHA and their families report lower economic pressure and better integration within the community. These findings therefore point to better coordination between the Public Health Bureaux, which register patients and insure access to treatment, and Civil Affairs Bureaux in charge of the distribution of social assistance to PLWHA.

Background

¹School of Social Development and Public Policy, Beijing Normal University

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The world's most populous country, China is home to 1.32 billion people and averaged a 0.6% population growth rate between 2001 and 2007 [1]. The country ranked 81st out of 177 countries on the UN Human Development Index in 2005 [2]. The richest 10% held 34.9% of the country's income in 2004 [2]. China now has the world's fastest-growing economy and is undergoing what has been described as a 'second industrial revolution.' The economy averaged a real gross domestic product (GDP) growth rate of 9.5% between 1997 and 2007. However, corresponding progress on the country's social indicators has lagged behind [1]. The economic disparity between urban China and the rural hinterlands, industrial expansion, and rising incomes, have accelerated migration from the rural areas to the country's eastern cities. Disease burden has largely shifted from communicable to non-communicable diseases and injuries [3]. This transition, in combination with decreasing birth rates and an increasingly elderly population, has created new challenges for the health system. In addition, the outbreak of severe acute respiratory syndrome (SARS) in southern China in 2003 cost an estimated US\$ 11 billion globally and challenged the Chinese government to strengthen its approach to public health [4].

Most low-income households in China face significant financial and other barriers to essential health services and medicines. In 2004, an estimated 85% of the population lacked health insurance and out-of-pocket payments constituted the majority of growing health expenditure [4]. In 2008, up to 30% of poor people in China stated that health is the single most important cause of their poverty [5]. The new Rural Cooperative Medical Scheme (RCMS) aimed to achieve 100% coverage by the end of 2008. However, benefits are limited to catastrophic illness and inpatient medical services, pre-payment is frequently required, and reimbursement is low [5]. The public sector's share of overall health expenditures has steadily gone down in terms of real GDP [4]. A large portion of the Chinese population seeks out traditional Chinese medicine (TCM), while the government has promoted the development of a modern TCM industry [5]. China is one of the few countries where doctors outnumber nurses, but many experienced health professions have moved to hospitals or clinics in the cities [5].

Official Development Assistance (ODA) to China was US\$ 1.25 billion in 2006 [6]. The country's total external debt was US\$ 322.85 billion or 12.1% of GDP [1, 6]. Since 2003, the Global Fund has approved US\$ 482.5 million in funding for China and has disbursed US\$ 313.1 million to date. Two grants, one for HIV/AIDS and one for TB, have been approved, but are still awaiting funding [7].

Table 1 *Basic Socioeconomic, Demographic and Health Indicators (*)*

(*) Full data sources for all indicators are provided in Annex 1.

Indicator	Value	Year	Source
Population (thousands)	1,304,500	2007	World Bank
Geographic Size (sq. km)	9,327,488	2007	World Bank
GDP per capita, PPP (constant 2005 international \$)	5,045.64	2007	World Bank
Gini index	46.9	2004	World Bank
Government expenditure on health (% general government expenditure)	10.3	2007	WHO NHA
Per capita government	51	2007	WHO NHA

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expenditure on health at average exchange rate (current US\$)			
Physician density (per 10,000)	14	2003	WHO SIS
Nursing and midwifery density (per 10,000)	10	2003	WHO SIS
Maternal mortality ratio (per 100,000 live births)	45	2005	WHO SIS
DTP3 coverage (%)	93	2007	WHO SIS
Estimated adult HIV (15-49) prevalence (%)	0.1 (<0.1-0.2)	2007	UNAIDS
Estimated antiretroviral therapy coverage (%)	19 (12-29)	2007	WHO/UNAIDS/UNICEF
Tuberculosis prevalence (per 100,000)	194	2007	WHO GTD
Estimated malaria deaths, all ages	24	2006	WHO WMR

Table 2 *Global Health Initiative Investments (*)*

(*) Full data sources for all indicators are provided in Annex 1.

Global Fund

Round & Disease Priority	Approved (in US\$)	Disbursed (in US\$)
Round 1, Malaria	6,406,659	6,242,698
Round 1, TB	91,118,721	66,174,166
Round 3, HIV/AIDS	302,919,984	92,033,746
Round 4, HIV/AIDS	63,742,277	56,475,863
Round 4, TB	56,140,000	51,096,518
Round 5, HIV/AIDS	28,902,073	19,934,233
Round 5, Malaria	38,522,396	26,117,213
Round 5, TB	49,453,178	28,039,132
Round 6, HIV/AIDS	5,812,876	5,164,504
Round 6, Malaria	7,047,932	6,686,758
Round 7, TB	5,313,263	1,104,382
Round 8, HIV/AIDS	19,916,552	0
Round 8, TB	28,561,014	0
TOTAL:	703,856,925	359,069,213

PEPFAR*

Year	Amount Allocated (in US\$)
2004	4,000,000
2005	7,250,000
2006	9,250,000
2007	9,750,000
2008	9,959,500
TOTAL:	40,209,500

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*Not a PEPFAR focus country; above sums represent total allocations to PEPFAR country programmes from bilateral U.S. sources including USAID, Department of Health and Human Services, Department of Labor, and Department of Defense.

GAVI

Disease Priority	Amount Approved (in US\$)
Hepatitis B vaccine	21,953,000
Vaccine introduction grant	800,000
Injection Safety	15,925,729
TOTAL:	38,678,919

Context

In 2007, the number of PLWHA was estimated by a joint mission by the Chinese Ministry of Health (MOH), UNAIDS and the WHO to be 700,000 (a range of 550,000-850,000) [8]. China is classed as having a concentrated epidemic with a low HIV prevalence, (around 0.05 to 0.08%, depending on data source) but high incidence rates among specific sub-populations. Indeed, 39% of reported HIV-positive cases have been transmitted through needle exchange by injecting drug users (IDUs), 19% through blood sales, 18% through heterosexual transmissions, and 1% through homosexual transmission. In total 70% of PLWHA are between 20-39 years old, and over 70% are male [9].

The epidemic mostly affects rural communities in the poorest provinces, especially in central China, the south-west and the east. This patterning of the HIV/AIDS epidemic in China has required the extension of social and financial assistance to these already economically vulnerable rural populations [9].

China has benefited from Global Fund support in rounds 3,4,5,6 and 8, with US\$ 421 million approved and US\$ 163 million disbursed (up to Round 6) for HIV/AIDS programmes. Most of the funding has been disbursed to rural and relatively poor counties that have been identified as needing special attention. Launched in 2003, mostly through the support of Global Fund Round 3, the China Comprehensive Aids Response (CARES) project has supported HIV/AIDS activities in a number of counties in the most affected provinces of China. Antiretroviral therapy (ART) has been extended and scale-up has been impressive: in December 2004, 8500 people were receiving ART; by October 2007, more than 31 000 people were being treated with ART including 805 children [9].

Different financial and economic support schemes have been set up, although these are not funded by the Global Fund or other GHIs. The only programme designed specifically for PLWHA is the “Four free services and one care” (*si mian yi guan hui*). This provides free treatment, free voluntary counselling and testing (VCT), free prevention of mother-

to-child transmission (PMTCT), free schooling for AIDS orphans, and social relief for HIV patients. In addition, PLWHA and their households are also eligible to join local level social assistance schemes managed by the Civil Affairs Bureaux. These include the: "Five Guarantees" scheme, which provides a collective safety-net for the rural elderly, people with disabilities, and orphans without family caregivers; the Minimum Income Guarantee Scheme (*Dibao*); the Assistance for Extremely Poor Households (*Tekun*); and the Medical Financial Assistance (MFA) [10].

Objectives and Methodology

The purpose of this study was to assess the extent to which the implementation of Global Fund financed programmes has contributed to increased coordination between different institutions at the local level, and whether this has led to improvements in access to social assistance schemes for PLWHA and their families.

The survey took place between October 2006 and April 2007 in twelve counties within four provinces: Anhui, Henan, Yunnan and Guizhou. Anhui and Henan, in central China, are two of the provinces where most HIV infections were caused by the practice of blood selling. These provinces were targeted with money from the third round Global Fund grant. In Yunnan and Guizhou, in the south of the country, the main mode of HIV transmission is sharing needles and syringes amongst IDUs. Round 4 funding was used to support HIV/AIDS activities in a number of locations within these provinces.

In Yunnan and Henan, the epidemic is concentrated in a number of specific areas, whereas in Anhui and Guizhou, PLWHA are relatively scattered, and therefore more difficult to reach. The provincial governments of Anhui and Yunnan have been more responsive towards the epidemic than Henan and Guizhou, and have integrated local groups and organizations in the design and implementation of prevention and treatment programmes.

Table 3 shows the 12 counties within these four provinces that were surveyed. Many of these counties have benefited from Global Fund monies as well as from a Pilot Programme developed by the Ministry of Health (MOH). The latter was initiated in 2003 in 51 counties (extended to 127 counties in 2004), and aims to establish comprehensive HIV/AIDS prevention and control policies. Funding is provided by the national government and is matched by funding from the three main levels of local government (provincial, municipal and county levels). At the county level decisions are taken by the local Public Health Bureaux, and the local Centre for Disease Control and Prevention (CDC) leads on the programme implementation.

To study the changes in the way programmes were coordinated and implemented at the county level, in-depth interviews were conducted with 25 local leaders in 12 counties: they included heads of the local CDC and Civil Affairs Bureau, as well as hospital and clinic directors. A household survey was also conducted: a questionnaire was distributed to 1120 households (representing a total of 4850 people), and this aimed to elicit their current economic condition, experiences of access to treatment, access to the different financial assistance schemes, and level of social support from relatives and other community members.

Table 3: Global Fund and MOH Pilot Program in the Surveyed Counties of China

Province	County	Global Fund	MOH Pilot Programme	Number of households interviewed
Henan	Shangcai	Round 3	Covered	368
Anhui	Jingjiu	Round 3	Covered	125
	Yingzhou	Round 3	Covered	29
	Funan	Round 3	Covered	100
	Linquan	Round 3	Covered	57
Yunnan	Ruili	Not covered	Not covered	142
	Longchuan	Round 4	Not covered	147
	Yingjiang	Not covered	Covered	53
Guizhou	Zhijin	Not covered	Covered	45
	Tongren	Not covered	Covered	29
	Duyun	Round 4	Not covered	19
	Nanming	Not covered	Covered	6

Results

Leadership and Governance

Since the 1990s, multiple coordination mechanisms have been formed to address the HIV/AIDS epidemic. The main state coordination mechanism is the State Council AIDS Working Committee Office (SCAWCO), composed of 23 representatives from central ministries and some key provinces. Some ministries, provinces and municipalities have also set up committees to coordinate HIV/AIDS activities. Several attempts to improve coordination resulted in the establishment of the China Country Coordination Mechanism for HIV/AIDS Prevention and Control (CCM) in 2002. This was founded in order to meet the requirement for applying for Global Fund money. In 2003, the Government decentralized the implementation of Global Fund programmes, allowing much greater leadership at the county level.

In 2003, the Chinese government selected the local CDC to coordinate and supervise all the Global Found programmes dedicated to HIV/AIDS. This study explores the effect that the change in coordination had at the local level. The interviews with local actors leading on health care policy, doctors, directors of methadone clinics and other facilities aimed at high-risk groups reported that the restructuring and reorganization of the CDC had greatly improved coordination. They indicated that meetings were regularly

organized with the main leaders of the bureaux and institutions concerned with HIV/AIDS-related programmes. These include: Civil Affairs Bureaux in charge of distributing financial aid and welfare allowances; Public Security Bureaux which oversee the work of rehabilitation centres; Public Health Bureaux that run and supervise the hospitals and clinics; local private doctors; and Education Bureaux which develop information and prevention programmes.

Given that most of the counties studied are relatively poor and transportation is difficult, the need for good cooperation between all the institutions operating in the concerned areas is increased. Interviewees reported that since the CDC had been established as the mechanism responsible for coordination, there had been better exchanges between the different activities, policies and programmes and noted that crucial information is now shared by the different organizations. For example, the meetings enable the Bureaux that register new cases of infection (Public Health and Public Security) to inform the Civil Affairs Bureaux – which distribute financial support.

Service Delivery

The only programme designed specifically for PLWHA is the “Four free services and one care” (*si mian yi guan hui*). This provides free treatment, free VCT, free PMTCT, free schooling for AIDS orphans, and social relief for HIV patients. In addition, PLWHA and their households are also eligible to join local level social assistance schemes managed by the Civil Affairs Bureaux. These include the: “Five Guarantees” scheme, which provides a collective safety-net for the rural elderly, people with disabilities, and orphans without family caregivers; the Minimum Income Guarantee Scheme (*Dibao*); the Assistance for Extremely Poor Households (*Tekun*); and the Medical Financial Assistance (MFA).

The interviews conducted with heads of households confirm the positive effect of improved coordination. Counties receiving (round 3 or 4) Global Fund monies, showed improved access to treatment, better coverage by the different financial support programmes, and, consequently, a lowering of economic pressure on the PLWHA and their families. In the survey, 63% of the PLWHA (889 persons) received ART. In the counties benefiting from both the MOH Pilot Programme and the Global Fund programmes, 80% of the PLWHA (700 persons) received treatment. In counties funded only from the MOH Pilot Programme, 25% (38 persons) received treatment, and in the counties funded only from the Global Fund, 36% of PLWHA (67 persons) received treatment. In the county that did not receive any funding from the Global Fund or the MOH, 30% of PLWHA (51) accessed ART.

Similarly, PLWHA in Global Fund and MOH Pilot Programme financed counties had a significantly higher chance of receiving financial assistance: 71% of PLWHA's families received financial assistance from at least one scheme, compared to only 11% of families in counties benefiting from the MOH Pilot Programme but not from Global Fund monies. These results illustrate a synergy between the Global Fund-supported programme and the activities financed by the MOH: the MOH Pilot Programme is expanding the availability of resources at the local level to support households in financial need, but alone, it offers poor coordination and does not lead to a better distribution of these resources.

In the counties included in Global Fund round 3 and round 4 programmes families reported higher average income and less impact on their daily lives, as well as on family relations, marital relations, and relationships with neighbours. Interestingly, and probably due to the improvement in the financial conditions of the concerned families, in such counties PLWHA reported higher levels of support from spouses and other family members.

Discussion

The results from the household questionnaires show that PLWHA living in counties that received resources from the Global Fund have a significantly higher probability of having access to antiretrovirals (ARV), as well as treatment for opportunistic diseases. PLWHA, and their families, are also better covered by the different financial and welfare programmes, reducing the economic impact of infection on those rural households. As these social assistance programmes are managed by the local Civil Affairs Bureaux, these findings confirm that in the counties that have received resources from the Global Fund, there has been improved coordination and better information sharing between the institutions. The impact of extra financial resources has been strengthened by the decentralized leadership and responsibilities given to the local CDCs, which have reduced inefficiency in programme design and implementation, and helped to distribute funds to the organizations and the households which needed them most.

These findings are similar in counties included in the MOH Pilot Programme and in those which do not benefit from it: in these two groups of counties, Global Fund programmes lead to better coordination and expanded access to treatment. More importantly, the MOH Pilot Programme allocates crucial extra funding to local governments, but in itself, does not lead to increased coverage of financial assistance or access to treatment. However, when a MOH Pilot Programme county is also benefiting from Global Fund monies, new resources are more efficiently distributed to PLWHA's families, demonstrating the impact of Global Fund programmes on CDC coordination and therefore on the overall implementation of economic and social support schemes.

Interviews with local leaders and families of PLWHA show that the Global Fund programmes have positively contributed to the delivery of the government welfare and support programmes for PLWHA. The improvements in the coverage of support programmes have a direct impact on the income of these households, helping reduce tensions and problems within families, and increasing the level of support from relatives and other members of the community.

Most interviewees reported the Global Fund grants were an indispensable supplement to government efforts in the fight against the HIV/AIDS epidemic. They are perceived to have induced changes in the way the local administrative institutions operate, and have been matched by funds dedicated to financial support and welfare. Better access to treatment on the one hand and expanded coverage of these financial aid programmes on the other, have improved the daily life of PLWHA and their families, and contributed to lowering social and psychological pressures from relatives and other members of the community.

However, some problems remain. In some counties, the meetings organized by the CDC have led to an increase in the number of HIV-related activities of various institutional actors, and therefore to a lowering in the efficiency of programmes' implementation. In other counties, better coordination has not persuaded all the local bureaux to participate in programmes, leaving most of the burden to the Public Health Bureaux, which sometimes complain about an increased workload.

Furthermore, the efforts of coordination must be extended horizontally and vertically. Interviews with local leaders suggest that experiences from other counties are not shared, and thus best practices do not serve as lessons for counties facing similar challenges. Inter-county exchanges would be a valuable experience for lesson-sharing and assessing progress. Finally, there are still some difficulties in programme implementation, revealing the necessity for improved coordination systems between different levels (central, provincial, county, and village) in order to distribute resources efficiently and to those communities most in need.

References

- [1] China at a glance. World Bank, 2005
(http://www.worldbank.org.cn/English/Content/chn_aag02.pdf; accessed 20 March 2009).
- [2] Human Development Reports: China 2008 Statistical Update. New York, United Nations Development Programme, 2008
(http://hdrstats.undp.org/en/2008/countries/country_fact_sheets/cty_fs_CHN.html ; accessed 20 March 2009).
- [3] Country Cooperation Strategy at a glance: China. Geneva, World Health Organization, 2008
(http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_china_en.pdf; accessed 20 March 2009).
- [4] World Health Statistics 2009 (<http://www.who.int/whosis/en/>).
- [5] World Development Indicators 2007. Washington DC, The World Bank, 2007
(Proprietary online database: <http://ddp-ext.worldbank.org.ezp-prod1.hul.harvard.edu/ext/DDPQQ/member.do?method=getMembers>; accessed 20 March 2009).
- [6] China National Health Account. Geneva, World Health Organization, 2009
(<http://www.who.int/nha/country/chn.pdf>; accessed 20 March 2009).
- [7] Epidemiological Fact Sheet on HIV and AIDS: Core data on epidemiology and response, China 2008 Update. Geneva, UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, 2008
(http://www.who.int/globalatlas/predefinedReports/EFS2008/full/EFS2008_CN.pdf; accessed 20 March 2009).
- [8] 2005 Update on the HIV/AIDS Epidemic and Response in China. Beijing, Ministry of Health, People's Republic of China, Joint United Nations Programme on HIV/AIDS, World Health Organization, 2006 (http://data.unaids.org/publications/External-Documents/rp_2005chinaestimation_25jan06_en.pdf; accessed 20 March 2009).
- [9] UNGASS Country Progress Report, P.R. China, January 2006-December 2007. State Council AIDS Working Committee Office, United Nations Theme Group on AIDS, 2008
(http://data.unaids.org/pub/Report/2008/china_2008_country_progress_report_en.pdf; accessed 20 March 2009).
- [10] Xu Y, Zhang X, Zhu X. Medical Finance Assistance in Rural China: Policy Design and Implementation. Studies in HSO&P, 2008, 23:295-317.