The integration of multiple HIV/AIDS projects into a coordinated national programme in China

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Abstract External financial support from developed countries is a major resource for any developing country’s national AIDS programme. The influence of donors on the content and implementation of these programmes is thus inevitable. China is a large developing country that has received considerable international support for its HIV/AIDS programme. In the early stage of the response, each large HIV/AIDS project independently implemented their activities according to their project framework. When internationally funded projects were few and the quantity of domestic support was minimal, their independent implementation did not pose a problem. When many HIV/AIDS projects were simultaneously implemented in the same locations, problems emerged such as inconsistency and overlap in data collection. China has thus coordinated and integrated all large international and domestic HIV/AIDS projects into one national programme. The process of integration began slowly and initially consisted of unified data collection. Integration is now complete and encompasses the processes of project planning, budgeting, implementation, monitoring and evaluation. The process was facilitated by having a single coordinating body, cooperation from international agencies and financial commitment from the government. Some problems were encountered during this process, such as initial reluctance from health-care staff to allocate additional time to coordinate projects. This paper describes that process of integrating domestic and foreign HIV/AIDS projects and may serve as a useful example for other developing countries for management of scarce resources.

Introduction

The HIV/AIDS epidemic continues to spread and disproportionately affects people in developing countries where resources are most limited. Although recipient countries are consulted, the focus of external foreign HIV/AIDS projects is mainly determined by donors. When there are multiple donors, coordination and integration become crucial to ensure resources are used effectively and efficiently.

China, a large developing country, has experienced a rapid increase in HIV/AIDS prevalence. HIV was first reported in China in 1985 and by 1998 the virus had spread to all 31 provinces of the mainland. By the end of 2008, 87% of China’s 2868 counties had reported HIV/AIDS cases, including 43 which reported more than 1000 cases and five which reported more than 5000 cases. However, the overall HIV prevalence in China remains low.

The epidemic was first reported among injecting drug users and was initially limited to this group. Later, an outbreak was reported among former plasma donors, then in other high-risk groups. Generalized epidemics - as indicated by an HIV prevalence of >1% among women attending antenatal clinics - now exist in Henan, Sichuan, Xinjiang and Yunnan. Thus, the response has had to adapt and respond to the evolving epidemic, a process which has been facilitated by the many generous grants from external donors.

Until 2003, China’s HIV/AIDS programmes were mainly supported by international donors. Programmes included bilateral support from countries such as Australia, the United Kingdom of Great Britain and Northern Ireland and the United States of America, various United Nations agencies and multilateral agencies, especially the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), which has contributed more than US$ 400 million, making it the single largest donor for HIV/AIDS-related programmes in China. Support has also been forthcoming from private foundations, such as the William J Clinton Foundation, the Merck Co. Foundation and the Bill & Melinda Gates Foundation (Gates Foundation). These bilateral, multilateral and private partnerships have had a major impact on the direction and success of the HIV/AIDS response in China. For example, one of the earliest projects, funded by the World Health Organization (WHO), set the ground work for establishing HIV surveillance in China. Funding from the World Bank has promoted the roles of policy advocacy, capacity building, surveillance, primary prevention and mobilization of nongovernmental organizations to participate in HIV/AIDS programmes; programmes funded by the United Kingdom Department for International Development (DFID) and the Australian Agency for International Development (AusAID) contributed to increasing the government’s capacity to work with HIV high-risk groups and promoted harm reduction for drug users; funding from the United States Global AIDS Program (GAP) has played a significant role in improving the effectiveness of national and provincial programmes and in piloting innovative technical approaches; and funding from the United States National Institutes of Health has strengthened the scientific capacity of the AIDS response.

Observing these significant foreign investments in the HIV/AIDS response, and with pressure from the international...
community, the Chinese government increased its contribution from 100 million yuan (approximately US$ 15 million) in 2001, to 810 million yuan (US$ 100 million) in 2004, and to 1.6 billion (US$ 239 million) in 2010.24,25,26 In 2003, the government launched the China Comprehensive AIDS Response (China CARES) programme to improve treatment and care for people with HIV/AIDS.24,26 A significant catalyst in this process was the outbreak of severe acute respiratory syndrome (SARS) in 2003 which prompted China to change its public health strategy,27 making HIV/AIDS a priority infectious disease. In addition, China’s economic growth in recent years meant that the government had the financial means to support budget increases for the HIV/AIDS programme. To respond more effectively to the epidemic, a second five-year action plan was issued with quantitatively-measurable targets and increased funding.28 China now funds more than 80% of its HIV/AIDS programme.29

**Lack of coordination**

Given the involvement of so many different organizations, coordination has become a major challenge. Efforts were made by each large HIV/AIDS project during the planning stages to avoid overlap in the selection of project sites and target groups. For example, Rounds 3, 4 and 5 of the Global Fund were carefully designed to avoid geographic and programmatic overlap. However, problems began to emerge during the implementation of various programmes. Funding was typically allocated to locations reporting the most severe epidemics, which led to project overlap. For example, in 2005, the Tianshan District in Urumqi City had five HIV/AIDS projects separately funded by China CARES, The World Bank, AusAID, DFID and GAP. Local AIDS authorities became inundated with project-related work, especially report writing. Staff coordinating multiple projects or projects which required separate reports for every activity funded were left with limited time to actually carry out the project activities. Moreover, the quality of delivery of project activities was compromised because they relied on these overstretched staff.

Another issue that began to emerge was the problem of unspent or misused funds when several projects were concentrated in one location. Capacity to adequately use funds was limited due to a shortage of capable personnel. At the same time, funds went to high-incidence areas, resulting in insufficient funding for low-incidence areas to carry out basic HIV/AIDS activities, such as establishing HIV testing facilities and laboratory support. Not only was this counter-productive, it may have contributed to the silent rise of HIV infections in areas which unwittingly transitioned from low- to medium- or high-prevalence areas.

**Inconsistency in data collection**

Inconsistency in data collection, measurement and reliability was another concern. Some projects collected similar information from patients, such as sociodemographic information, risk behaviour history and treatment follow-up, but this information could not be shared or compared because of variations in data elements, coding schemes and definitions among projects. In addition, projects only had data pertaining to their own project and lacked a comprehensive picture of the overall situation, limiting their use for government-led planning. For example, in 2005, data compiled by the Global Fund Round 3 AIDS Project included far fewer HIV/AIDS cases and patients on antiretroviral treatment than were known to the national HIV/AIDS information system.

The urgency of integrating all HIV/AIDS projects into one national programme became increasingly obvious for an effective response to the epidemic in China.

**Unifying data collection**

The first step of integration was to standardize and unify HIV/AIDS data collection and specify common key indicators to measure implementation and effectiveness. The second five-year action plan was used to guide this process.29 Worldwide there were many different monitoring and evaluation indicators sets, including United Nations General Assembly Special Session (UNGASS) report indicators,30 the Global Fund’s AIDS indicators31 and the World Health Organization’s HIV/AIDS indicators.32 All possible indicators were assembled, reviewed and analysed. Indicators commonly used across all systems were selected and specified for the Chinese national monitoring and evaluation system, which now contains just 19 key indicators.33

Before unification and standardization, there were 56 forms with 225 variables in use for data collection. These forms were used by multiple programmes including HIV/AIDS case reporting,
HIV sentinel surveillance and behavioural surveillance, voluntary counselling and testing, outreach for condom promotion, needle exchange, methadone maintenance treatment, antiretroviral therapy (ART), China CARES and the Global Fund’s AIDS Projects. All data collection forms were assembled, reviewed and revised against the key indicators developed in the national monitoring and evaluation system, and then comprehensively pilot tested. After unification and standardization, this was reduced to 25 forms and 19 indicators.34,35

An online comprehensive HIV/AIDS data system was developed and became operational on 1 January 2008. The system provides data on newly identified HIV infections, drug users in the methadone programme and HIV/AIDS patients in the free ART programme. Data are entered into this system from all HIV/AIDS projects operating in China and are provided as needed to those programmes for monitoring of implementation and assessment of project impact.33

This process has significantly reduced the workload of project staff in project sites, as well as permitted a much clearer picture of the country’s progress in its HIV/AIDS response. Since 1 January 2008, monthly, seasonal and annual statistical reports on the implementation of the national HIV/AIDS programme have been generated based on this system.

Platforms for integration

Six major national HIV/AIDS programmes have been developed, and these allow for easy integration of major foreign HIV/AIDS projects into the national programme.31 The Chinese government is the major funder of all these programmes; however, all international and domestic HIV/AIDS projects containing relevant components to strengthen these programmes have been integrated.

HIV/AIDS surveillance

This programme monitors changes and trends in the HIV/AIDS epidemic.32,34,36

In 2009 there were 1318 surveillance sites. The sentinel surveillance was reviewed and expanded to 1888 sites in 2010.37 Foreign assistance (e.g. from GAP) has helped strengthen the capacity of implementation of surveillance at both national and local levels, by providing training, assistance in supervision and drafting reports.

Laboratory network

There are now more than 8000 laboratories able to provide HIV antibody screening testing. 370 laboratories able to provide HIV Western blot confirmatory testing and CD4+ T-cell counts, and approximately 30 laboratories able to provide HIV viral load testing.38 International assistance for the laboratory network (e.g. from GAP) has mainly focused on personnel training, quality assurance for CD4 counts and viral load, and supporting operational research on new technology applications such as the immunoglobin G-capture BED enzyme immunoassay,39,40 early infant diagnosis41 and HIV drug-resistance testing.42

Primary prevention

These include the prevention programmes for sex workers and men who have sex with men, methadone and needle exchange programmes for drug users, and the programme for the prevention of mother-to-child transmission.34,43,44 Foreign aid focuses on high-risk groups, e.g. the Gates Foundation project focuses on out-reach HIV testing among men who have sex with men; AusAID projects focus on needle exchange in Guangxi, Yunnan and Xinjiang.

Free ART programme

Free ART was initiated in 2003 and now provides treatment for more than 80 000 AIDS patients.45 Major external projects supporting treatment include the Global Fund Round 3, which provided funding for the purchase of antiretroviral drugs and for training health workers; the Clinton Foundation AIDS Project, which supported paediatric treatment;46 and GAP, which provided training for rural health-care providers and technical support.

Testing and counselling

Initially established as a voluntary counselling and testing programme in 2003, this programme was expanded to provider-initiated testing and counselling in 2005 to encourage routine HIV testing of high-risk groups.3 Most international AIDS projects have components of HIV testing and these have been integrated into the national programme.

Case management

The major objective is to prevent transmission from people living with HIV to their sexual and drug-using partners, and to provide good medical care and social support to those already infected.34 This has been a major goal of the China CARES programme and the Global Fund Round 3. Support from GAP and the Gates Foundation have played a role in improving available services.

Planning and budgeting

Adequate project planning is crucial for the successful integration of foreign projects into one national programme. The second five-year action plan is used as a framework for planning foreign-funded HIV/AIDS projects. Understanding the coverage of all existing HIV/AIDS projects is important to identify gaps in the national response and to direct the planning of new projects so that they can be well integrated with existing projects.

Ensuring budget integration of funding sources is also crucial to ensure adequate funding so planned activities can be fully implemented and are complementary to the national programme. A typical example for budget integration is the China national harm reduction programme with the use of government funds for the purchase of equipment, methadone and personnel training, and Global Fund Round 4 monies for methadone treatment and needle exchange programmes.

Monitoring and evaluation

Reports derived from project-specific monitoring, supervision and evaluation activities are relevant to the project implementation team and the funding organizations. However, they only present one aspect of the HIV/AIDS epidemic and response and can sometimes create confusion. Since 2007 China has conducted these activities according to location rather than project. Specifically, three levels of monitoring, supervision and evaluation are used, namely the policy-level, comprehensive technical-level, and specialized technical- and project-level.

Policy-level monitoring, supervision and evaluation is done by a group of high-level government officials led by a vice minister from the State Council AIDS Working Committee and several AIDS experts as consultants. They focus on policy implementation and promote multisectoral responses and solve political and policy issues. Usually, a leader from
each major HIV/AIDS project is invited to participate.

The comprehensive technical level involves a group of HIV/AIDS experts from the fields of epidemiology, laboratory, prevention and treatment, accompanied by HIV/AIDS project officers. The experts are usually selected from the Chinese Ministry of Health HIV/AIDS Expert Panel and from technical divisions of the National Center for AIDS/STD Control and Prevention. This team assesses the epidemic situation, prevention, treatment and care programme implementation funded by both domestic and foreign sources.

The specialized technical- and project-level includes epidemiology, prevention, and treatment and care services. Examples of activities included at this level are supervision of sentinel surveillance data quality, problem solving in reaching greater numbers of drug users by extending services from methadone clinics to community health clinics, and understanding issues with compliance to ART and management of opportunistic infections.

The integration of monitoring, supervision and evaluation has greatly reduced the workload for both central and local levels. For example, the average number of person-visits to one province in a year had reduced from 20–25 visits to 11–14 visits after integration.

Impact of integration

The reactions to the integration have been positive from donors. First, the country offices in China for the Joint United Nations Programme on HIV/AIDS (UNAIDS) and the World Health Organization have actively supported and participated in the integration process. The Global Fund, the largest donor, is also a great supporter. When its Round 3 AIDS project ended in 2008, the Global Fund agreed to merge its ongoing Round 4, 5 and 6 projects and the recently approved Round 8 project into a single project that is fully integrated into China’s national AIDS programme. Bilateral HIV/AIDS projects, including GAP and DFID, were already integrated into the national programmes and there was support from private foundations, such as the Gates Foundation and the William J Clinton Foundation. Integration has greatly facilitated implementation of the national HIV/AIDS programme.44–46 For example, the number of identified and reported HIV-infected men who have sex with men increased by 83% between 2007 and 2009 in the 15 provincial capitals supported by the Gates Foundation project, but only increased by 42% in other provincial capitals.47

The integration has brought great benefits for the Chinese health system. First, it has reduced the workload for local health agencies implementing HIV/AIDS activities. Previously health staff working at project sites had to complete up to 123 different forms for multiple projects. This has been reduced to 25 electronic forms. Second, the integration has been able to leverage resources for overall health care in local communities. For example, blood specimens collected for HIV testing at surveillance sites and methadone clinics are also used for testing syphilis and hepatitis C; prevention of mother-to-child transmission of HIV has been extended to prevention of congenital syphilis and hepatitis B. Ensuring an efficient and economically accessible rural health system is one of China’s most pressing challenges.48

Limitations of integration

Several challenges were encountered during the integration of programmes. First, additional time and effort is required for coordinating planning, budgeting, implementation and evaluation of multiple projects. Although some staff reported the extra work, their complaints dissipated when they were able to see that time and effort was saved at later stages of project management.

Second, integration may make the impact of a single project “invisible” if it does not have specific features. For example, GAP has almost completely integrated its work into the national AIDS programme so its impacts are difficult to disentangle from the overall AIDS programme. Conversely, the Gates Foundation has focused on projects for men who have sex with men over and above those routinely performed by government agencies; significant improvements in HIV testing and follow-up services for this marginalized group can be attributed to this project.

Conclusion

The process of integrating all HIV/AIDS projects into one national AIDS programme in China is a prime example of the “Three Ones” principles advocated by UNAIDS.49 Integration started with creating unified and standardized data collection forms and resulted in the establishment of a national comprehensive online HIV/AIDS data system. Six national programmes serve as platforms for integration of foreign projects. The integration has brought many benefits for both the Chinese government and for external project funders. The model of integration recounted here may serve as a useful model for other countries.

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Intégration de plusieurs projets de lutte contre le VIH/SIDA en un programme national coordonné en Chine

Le soutien financier externe des pays développés est une ressource majeure pour le programme de lutte contre le VIH/SIDA de tous les pays en voie de développement. L'importance des dons sur le contenu et la mise en œuvre de ces programmes est donc indispensable. La Chine est un immense pays en voie de développement qui a reçu un soutien international considérable dans son programme de lutte contre le VIH/SIDA. Au début de la réponse, chaque projet de lutte contre le VIH/SIDA de grande envergure a géré ses activités de façon indépendante, conformément au cadre de son projet. Lorsque les projets financés à l'échelle internationale étaient peu nombreux et que le volume du soutien national était minime, une mise en œuvre indépendante ne posait aucun problème. Mais lorsque de nombreux projets de lutte contre le VIH/SIDA étaient exécutés simultanément aux mêmes endroits, des problèmes apparaissaient, comme l'incohérence et le chevauchement de la collecte des données.
Integración de diversos proyectos contra el VIH/SIDA en un único programa nacional coordinado en China

El apoyo financiero externo procedente de los países desarrollados se erige como un recurso fundamental para el programa nacional contra el SIDA de cualquier país en vías de desarrollo. La influencia de los donantes sobre el contenido y la aplicación de dichos programas es, por tanto, inevitable. China es un país extenso en vías de desarrollo que ha recibido un apoyo internacional considerable para su programa contra el VIH/SIDA. En la fase inicial de reacción, cada uno de los grandes proyectos contra el VIH/SIDA puso en marcha sus actividades de manera independiente y de acuerdo con el plan de trabajo de su proyecto. Cuando había pocos proyectos que contaban con financiación internacional y en los que el apoyo nacional era mínimo, su aplicación independiente no suponía problema alguno. Sin embargo, cuando se pusieron en marcha numerosos proyectos contra el VIH/SIDA de manera simultánea y en las mismas ubicaciones, comenzaron a surgir problemas como contradicciones y el solapamiento en la recopilación de datos. Por ello, China ha coordinado e integrado todos los proyectos nacionales e internacionales más importantes contra el VIH/SIDA en un solo programa nacional. El proceso de integración se inició de manera lenta y, en un principio, constó en la recopilación de datos unificada. La integración ya se ha completado y abarca los procesos de planificación, presupuesto, puesta en marcha, supervisión y evaluación del proyecto. El proceso se agilizó al contar con un único organismo de coordinación, con la cooperación de las agencias internacionales y con el compromiso financiero por parte del Gobierno. Durante el proceso se pudieron observar algunos problemas, como la reticencia inicial del personal sanitario a dedicar un periodo de tiempo adicional a coordinar proyectos. Este artículo describe este proceso de integración de los proyectos nacionales e internacionales contra el VIH/SIDA y puede servir de ejemplo útil para que otros países en vías de desarrollo gestionen adecuadamente sus escasos recursos.

Resumen

Integración de diversos proyectos contra el VIH/SIDA en un único programa nacional coordinado en China

El apoyo financiero externo procedente de los países desarrollados se erige como un recurso fundamental para el programa nacional contra el SIDA de cualquier país en vías de desarrollo. La influencia de los donantes sobre el contenido y la aplicación de dichos programas es, por tanto, inevitable. China es un país extenso en vías de desarrollo que ha recibido un apoyo internacional considerable para su programa contra el VIH/SIDA. En la fase inicial de reacción, cada uno de los grandes proyectos contra el VIH/SIDA puso en marcha sus actividades de manera independiente y de acuerdo con el plan de trabajo de su proyecto. Cuando había pocos proyectos que contaban con financiación internacional y en los que el apoyo nacional era mínimo, su aplicación independiente no suponía problema alguno. Sin embargo, cuando se pusieron en marcha numerosos proyectos contra el VIH/SIDA de manera simultánea y en las mismas ubicaciones, comenzaron a surgir problemas como contradicciones y el solapamiento en la recopilación de datos. Por ello, China ha coordinado e integrado todos los proyectos nacionales e internacionales más importantes contra el VIH/SIDA en un solo programa nacional. El proceso de integración se inició de manera lenta y, en un principio, constó en la recopilación de datos unificada. La integración ya se ha completado y abarca los procesos de planificación, presupuesto, puesta en marcha, supervisión y evaluación del proyecto. El proceso se agilizó al contar con un único organismo de coordinación, con la cooperación de las agencias internacionales y con el compromiso financiero por parte del Gobierno. Durante el proceso se pudieron observar algunos problemas, como la reticencia inicial del personal sanitario a dedicar un periodo de tiempo adicional a coordinar proyectos. Este artículo describe este proceso de integración de los proyectos nacionales e internacionales contra el VIH/SIDA y puede servir de ejemplo útil para que otros países en vías de desarrollo gestionen adecuadamente sus escasos recursos.

Referencias

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