



Transitioning to a Client-Centered HIV Service Delivery Model for Men who have Sex with Men in Wuhan, China



China-Gates Foundation HIV Prevention Cooperation Program

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
BoCA	Bureau of Civil Affairs
BoH	Bureau of Health
CBO	Community-Based Organization
CDC	The Chinese Center for Disease Control and Prevention
FSW	Female Sex Worker
GONGO	Government Organized Non-Governmental Organization
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
MoH	Ministry of Health
MSM	Men who have Sex with Men
NCAIDS	National Center for AIDS/STD Control and Prevention
NHFPC	National Health and Family Planning Commission of China
OI	Opportunistic Infection
P-ACC	Pangaea Global Aids Program – AIDS Care China
PITC	Provider Initiated Testing and Counseling
PLHA	People Living with HIV and AIDS
PMA	Preventive Medicine Association
SOP	Standard Operating Procedure
STD	Sexually Transmitted Disease
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
VCT	Voluntary Counseling and Testing
WACC	Wuhan AIDS Care Center
WHO	World Health Organization



Executive Summary

Faced with the challenge to increase HIV case finding among men who have sex with men (MSM) and to improve uptake of antiretroviral therapy (ART) upon diagnosis of HIV infection, Wuhan city health authorities began transitioning the city's HIV service-delivery program from a traditional disease-centered model to an innovative client-centered one in 2011¹¹.

The traditional disease-centered model of HIV programs focused mostly on HIV diagnosis and provision of Antiretroviral Therapy (ART), and did not address the clinical and psychosocial issues experienced by persons with HIV infection. This narrow focus resulted in a high rate of loss to follow-up after being screened positive, low rate of ART initiation despite provision of free ART, poor adherence to ART when side effects and opportunistic infections occur, inadequate uptake of HIV prevention services among both HIV positive and negative individuals, and CDC staff work overload.

The novel client-centered model developed in Wuhan enhanced the disease-centered model by adding clinical and psychosocial services to deliver an integrated and comprehensive HIV service to MSM. This client-centered model included two innovative and complementary approaches:

- Expanding the role of community-based organizations (CBOs) to support testing, follow-up and treatment services which were friendly to MSM and PLHA.
- Establishing a one-stop clinic with CBO psychosocial support services fully integrated into clinical care and services

While both approaches utilized CBOs to address the psychosocial dimensions of HIV, the one-stop clinic approach had the added advantage of integrating both clinical and psychosocial

¹¹ Wuhan Bureau of Health led the multi-stakeholder transition from a disease-centered to a client-centered HIV service-delivery model for MSM. In addition to the programmatic and financial support it received through its participation in the China-Gates HIV Prevention Cooperation Program, Wuhan also received support from other organizations including NCAIDS, UNAIDS and WHO.



aspects into the public health dimension of HIV – creating a comprehensive service integrating the work of CDC, hospitals, clinicians and CBOs throughout the entire HIV service delivery chain.

This new model directly addressed some key limitations of services delivered by the traditional disease-centered model. These include improving testing (confirmatory, CD4) follow-up by CDC, improving HIV related treatment outcomes and client experience with medical facilities, and providing earlier treatment and more timely prevention for both negative and positive MSM. While the long-term public health impact of the client-centered model cannot yet be quantified (the transition began in June 2011), this paper describes the key elements of the two approaches of this client-centered model and documents demonstrated strengths and challenges faced thus far. In addition, lessons learned by key stakeholders are highlighted, particularly the specific roles and responsibilities found to be critical for the implementation of the model.

Although preliminary, the data are compelling and suggest the National Health and Family Planning Commission of China (NHFPC), national CDC, National Center for AIDS/STD Control and Prevention (NCAIDS) and provincial and city Bureaus of Health and CDCs across the country should be encouraged to transition the current disease-centered HIV service model to a client-centered one that binds CDCs, hospitals, clinicians and CBOs together to deliver a comprehensive and integrated service that maximizes the public health benefits of the government's response to HIV. Two specific policy recommendations for the relevant government departments to consider are as follows:

- At the national level, both the endorsement and promotion of the client-centered HIV service model by the National Health and Family Planning Commission of China, national CDC and NCAIDS are recommended, particularly for provision of HIV services to MSM, to provide the political support for this service model. Technical support from NCAIDS will be required in the form of staff to help cities develop and adopt the client-centered model.
- In Wuhan, the client-centered model needs to continue to develop and expand. This will take increased political and financial support at both national and city levels in order to demonstrate its public health impact and deepen operational knowledge. In this manner, Wuhan's client-centered model will continue to serve as a learning model and source of experience for other cities.



Background



1.1 HIV Epidemic

Wuhan,¹² the capital city of Hubei province in central China, reported its first case of HIV infection among its registered residents in 1994 (Wuhan CDC, 2012). By the end of 2011, the cumulative number of cases among registered residents reached 967 (a prevalence rate of 0.02% among the adult population of 5.1 million), and 398 had developed AIDS (Figure 1). Of these 967 HIV cases, 409 were reported by the Wuhan Center for Disease Control and Prevention

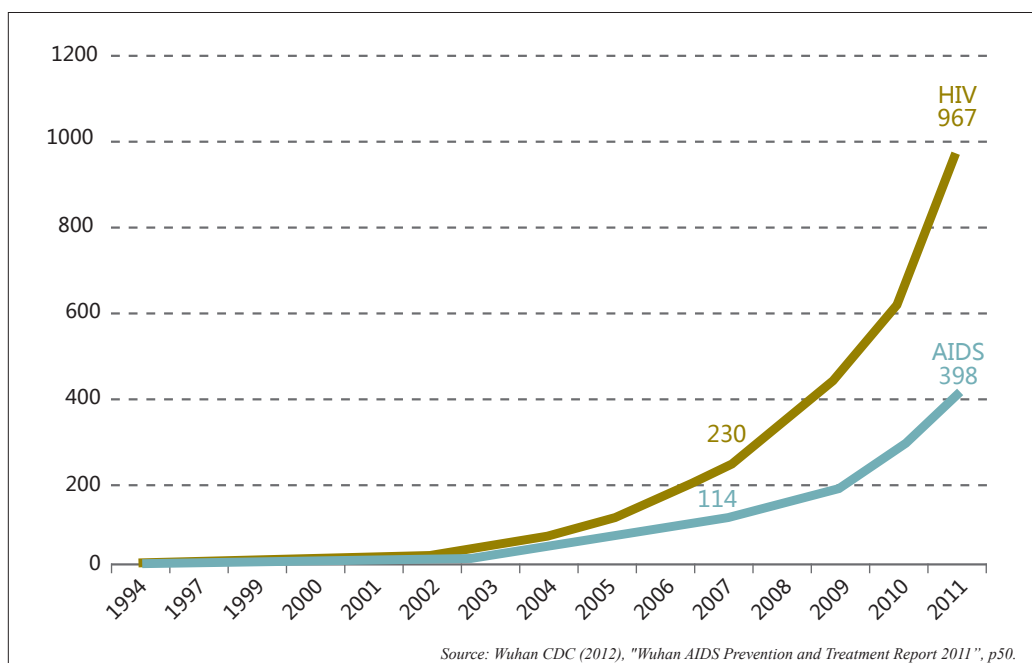


Figure 1 Cumulative Number of Registered Residents with HIV and AIDS, Wuhan, 1994-2011

¹² Wuhan had a total population of 10 million in 2011 comprising 8.3 million registered residents and 1.7 million migrant workers (China Statistical Information Network, http://www.tjcn.org/tjgb/201202/23628_4.html, accessed 11 Oct 2012).



(CDC) to be men who have sex with men (MSM), a key population most affected by HIV.

However, a substantial number of infected individuals remain unaware of their positive HIV status, thereby posing a public health risk of secondary transmission. Wuhan CDC estimated that there were 1307 undiagnosed HIV cases in Wuhan as of 2011, with the majority (844)¹⁵ among MSM (Figure 2). The remaining undiagnosed cases (423) were presumed to be from the other key populations – female sex workers (FSWs) and their clients, injecting drug users (IDUs), and blood donors.

In short, MSM accounted for the majority of HIV cases, known or undiagnosed, in Wuhan. Recent surveillance data indicated that HIV prevalence among MSM continued to rise rapidly, from 6% in 2009/2010 to 8.5% in 2011 (Wuhan CDC, 2012). Additionally, about one sixth¹⁴ of MSM in Wuhan also reported unprotected sex with women, adding to the urgency of prevention programs for this population. Taken together, these data suggest that, in the absence of enhanced HIV prevention interventions, the HIV epidemic among MSM will likely to worsen and may increase the potential for the HIV epidemic to cross over from MSM to the heterosexual population.

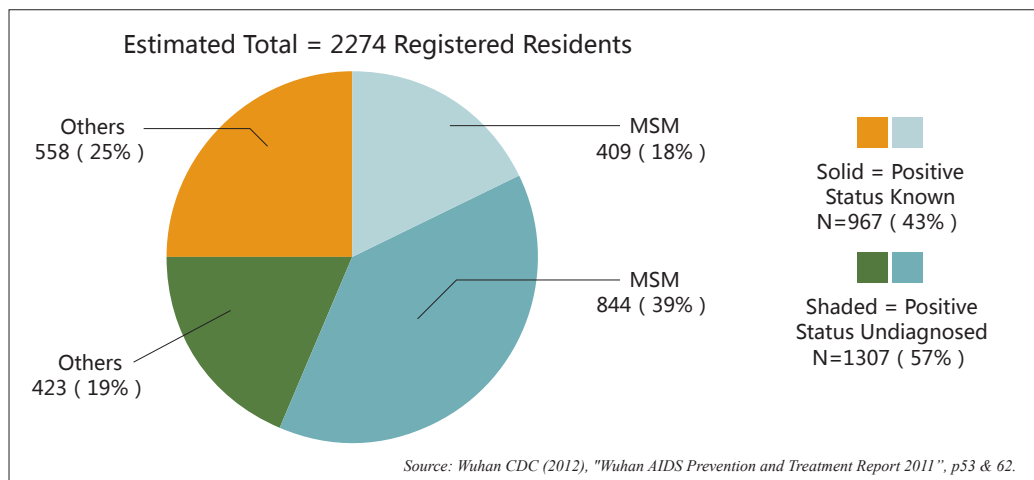


Figure 2 Estimated Number of Registered Residents with HIV Infection, Wuhan, 2011

¹⁵This is probably an under-estimate as this is based on MSM HIV prevalence rate of 6% found in 2009 and 2010 surveillance data. The corresponding prevalence rate rose to 8.5% by 2011 (Wuhan CDC, 2012).

¹⁴2011 surveillance data also showed 21% of MSM had sex with a female in the previous six months but 83% of these MSM did not use condoms, resulting in an estimated 17% (21% x 83%) of MSM having unprotected sex with women (Wuhan CDC, 2012).



1.2 The China-Gates HIV Program

In 2007 the China-Gates HIV Prevention Cooperation Program (China-Gates HIV Program) began to scale up prevention in key urban centers of China with a two-pronged strategy:

- Prevention for high-risk groups – to ensure the reach and effectiveness of interventions for IDUs, FSWs and MSM – reduction in risk behavior and increase in HIV testing.
- Prevention with positives – to accelerate the provision of adequate counseling and support for all individuals tested HIV positive including intensified interventions to reduce secondary transmission.

The program was based on the premise that early detection leading to early treatment will reduce infectiousness within the targeted population. The program placed a strong emphasis on collaboration between public health officials (CDC), health care providers (hospitals and community health centers) and CBOs in the delivery of this two-pronged strategy.

In the program, hospitals identified HIV cases through their non-HIV clinical work. Community-based organizations (CBOs) helped mobilize key populations (MSM, FSW, IDU) to get tested, spread HIV prevention messages among them, and provided care and support to people living with HIV and AIDS (PLHA) during antiretroviral therapy (ART). Both hospitals and CBOs worked with their local CDCs to ensure that persons screened HIV positive were referred to the CDC for confirmation and CD4 tests, and for subsequent ART treatment when appropriate. A special feature of the China-Gates HIV Program was the management of service contracts with CBOs by Government-Organized Non-Governmental Organizations (GONGOs). With GONGOs leading on CBO management, local CDCs focused on ensuring the technical standards of CBOs in support for and delivery of HIV services (HIV knowledge, rapid test, follow-up of cases screened positive, client privacy and confidentiality).

Before 2008, as in the rest of China, Wuhan's health authorities experienced considerable difficulties in finding undiagnosed HIV cases among MSM. This was attributed to social stigma against MSM, and MSM's lack of trust in government-led services. There were also significant problems in moving PLHA onto ART treatment and regular follow-up.

When Wuhan began implementing the China-Gates HIV Program in 2008, a city-level program office was formed to manage the project. The office included the Wuhan Bureau of Health (BoH), Wuhan CDC and Hubei Preventive Medicine Association (PMA). The Wuhan BoH and CDC focused on the coordination of local hospitals and various government units (Wuhan Public Security Bureau and Wuhan Bureau of Finance in particular). Hubei PMA, a GONGO, focused on the management of CBOs. These CBOs supported district-level CDCs in case finding and



ART treatment adherence. Regular working meetings were organized by the program office to discuss project implementation progress and challenges and devise solutions. In 2010, Wuhan began to receive additional technical support from the Gates Foundation (Pangaea Global AIDS Foundation and AIDS Care China provided technical support)¹⁵ and the city switched to a client-centered service model in 2011.¹⁶

Since the project launch in 2008, Wuhan has witnessed a steady increase in the number of MSM being tested¹⁷ and newly diagnosed with HIV infection,¹⁸ which rose more than five-fold from 51 in 2008 to 330 in 2011 (Figure 3).

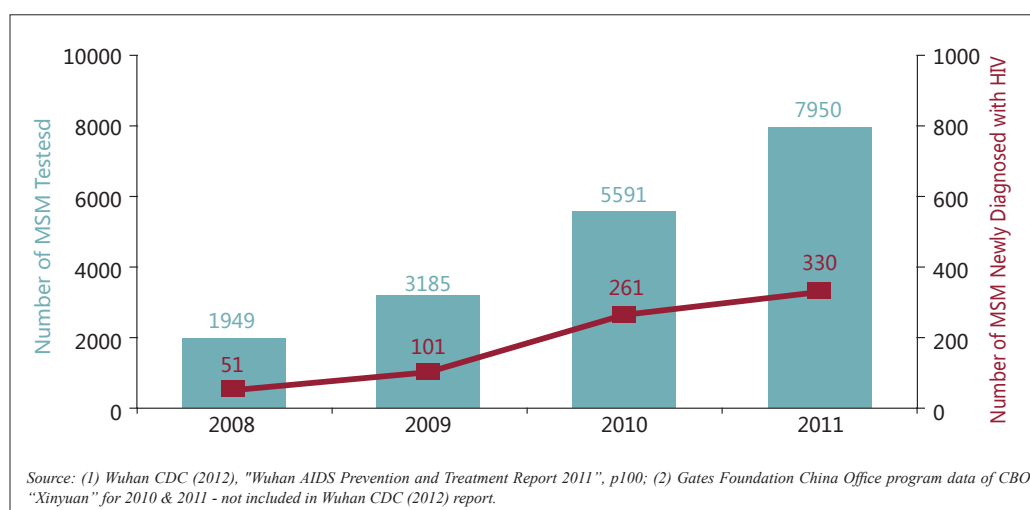


Figure 3 MSM in The China-Gates HIV Program, Wuhan, 2008-2011

¹⁵ Among the 14 cities and Hainan, based on its program results and commitment of city health officials, Wuhan was determined by the China Office of the Gates Foundation to have the strongest potential to test and deliver an integrated and comprehensive HIV service for MSM. Therefore, starting from 2010, Wuhan was provided with additional technical support to pilot test models exploring how CBOs can become more integrated with the work of local CDC and health care providers.

¹⁶ Wuhan Bureau of Health led the multi-stakeholder transition from a disease-centered to a client-centered HIV service-delivery model for MSM. In addition to the programmatic and financial support it received through its participation in the China-Gates HIV Prevention Cooperation Program, Wuhan also received support from other organizations including NCAIDS, UNAIDS and WHO.

¹⁷ Wuhan's program initially focused on four key populations – PLHA, MSM, FSWs and IDUs. Beginning in 2011 the China-Gates HIV Program shifted support to focus only on MSM based what was found to be substantially higher cost effectiveness compared to the other key populations.

¹⁸ Data sources: (1) Wuhan CDC (2012) "Wuhan AIDS Prevention and Treatment Report 2011" and (2) CBO "Xinyuan" 2010-2011 data from the Gates Foundation China Office program data.

2 Service Model in Transition

Wuhan's China-Gates HIV Program can be broadly classified into two phases: (1) the earlier disease-centered phase in 2008-2010, and (2) the latter client-centered phase in 2011-2012.

2.1 Rationale

During the disease-centered phase of the China-Gates HIV Program (2008-2010), the benefits of CBO involvement in case-finding were recognized, and Wuhan's health authorities and the Hubei PMA began involving CBOs to mobilize MSM to get tested. This typically involved a limited role for CBO peer volunteers, who accompanied local CDC officials (public health doctors and nurses) to MSM venues (bars, saunas, parks) to recruit MSM for testing. Once recruited by CBOs, the MSM would be introduced to CDC staff, who would draw blood for testing. The blood samples were taken back to the CDC laboratory for testing, and the tested person informed of results later. The overall procedure typically took from one to two weeks (although it could take up to four). Through the involvement of CBOs, the number of MSM tested did increase (see Figure 3), but there were several limitations.

2.1.1 High rate of loss to follow up

Due to stigma many MSM used fake names and phone numbers when giving blood samples to CDC staff at MSM venues. Although CBO peer workers initially introduced MSM clients to CDC staff, a lack of continued CBO peer involvement in pre- and post-test counseling limited MSM clients' trust in CDC staff. Even when Wuhan CDC staff introduced rapid tests into its service in 2009, the limited CBO involvement lowered the potential case-finding benefits of rapid tests. MSM screened positive through the rapid test were asked to report to the CDC for



a confirmation test, but cases were lost as they remained unreachable for follow-up, i.e. if they did not show up at the CDC or provided fake names and phone numbers during screening. For a combination of these reasons, many infected MSM continued to be unaware of their positive status, and many remained with their positive screening unconfirmed. Hence substantial public health risks of secondary transmission remained.

2.1.2 Low ART initiation

The same follow-up problems discussed above meant that many MSM confirmed positive would also fail to access the CD4 tests offered by the CDC, and thus not learn the status of their infection or start ART when appropriate.⁰⁹ Such failures in status notification and resulting delays in ART initiation negatively impacted the effectiveness of ART which was only initiated when AIDS symptoms became obvious (CD4 well below 350). Late initiation of ART treatment and related counseling can elevate population-level infectivity within the MSM community (US CDC, 2011).

2.1.3 Poor ART adherence

Effective treatment was further inhibited by service fragmentation across the local CDCs and hospitals. This had a negative impact on adherence rates. The range of ART treatment services required included counseling and support for ART adherence, psychosocial support, and clinical services for side effects, opportunistic infections (OIs), tuberculosis (TB) and other sexually transmitted diseases (STDs) including hepatitis. However, local CDCs, which were not clinically-oriented, focused primarily on dispensing ART drugs, and left AIDS patients on their own to seek out their own clinical evaluation and hospital treatment if side effects, OIs, TB and other STDs occurred. Yet, because of stigma and discrimination among medical staff, hospitals often refused to treat HIV patients and their clinical complications. In some cases, patients would stop ART prematurely when clinical complications occurred, despite ART being free under the national “Four Frees, One Care” policy. This kind of treatment disruption may breed drug-resistance and limit the range of effective ART drugs that can be used for a particular AIDS patient. Thus, the

⁰⁹The current national standard is that ART should be initiated when CD4 drops below 350 (NCAIDS, 2012).



lack of clinical expertise and services at the CDC and the widespread stigma at hospitals resulted in low ART adherence and high rates of treatment disruption, which undercut the effectiveness of ART. When trained properly on HIV and ART knowledge and counseling skills, CBO peer workers working with CDC and hospitals could help mitigate this service fragmentation for HIV-infected clients by providing ART adherence counseling, psychosocial support, and referrals to MSM- and PLHA-friendly clinicians.

2.1.4 Inadequate prevention

Within the disease-centered model, CBOs were paid only to look for HIV cases. The lack of a requirement for CBOs to be involved in prevention activities beyond identifying and delivering clients for testing meant their full potential to help the CDC reinforce prevention messages was largely missed. Furthermore, CBOs were not part of the process whereby the CDC informed those found to be positive of their status. Therefore, there was no potential for CBOs to help the CDC follow up with positive MSM. With CDC staff focused on confirmation and ART drug distribution, and without follow-up by CBOs, there was little opportunity to convey prevention messages to reduce secondary transmission.

2.1.5 CDC staff overloading

Operating within the above systemic constraints, many local CDCs found their staff increasingly overstretched, despite little noticeable improvement in case finding among MSM or movement of PLHA onto ART. By 2010, the limited effectiveness in addressing case finding, treatment and care among MSM led Wuhan health authorities to begin looking for an alternative service model.



2.2 Process

Following participation in an international AIDS conference that focused on a new model for treatment and prevention in 2010 (UNAIDS and WHO, 2011), Wuhan health officials, working with Hubei PMA and P-ACC,¹⁰ began to adapt elements of the international model into the context of Wuhan. This adaptation focused primarily on shifting HIV services from the disease-centered model towards a more integrated client-centered one involving two innovative and complementary approaches. Both approaches were available to clients to choose from.

The first approach involved expanding the role of CBOs beyond mobilizing MSM to get tested. Wuhan health authorities worked with Hubei PMA, with technical support from P-ACC, to engage CBOs more directly in conducting community-based rapid tests, informing clients of positive status, providing counseling-based prevention for MSM testing positive and negative, psychosocial support for ART treatment, and informal referrals to MSM- and PLHA-friendly clinicians. This service was provided at no cost to clients.

The second approach, the one-stop clinic, had the advantage of embedding clinical and psychosocial aspects of HIV care into a package of comprehensive HIV services offered at one location, and integrated the work of the CDC, hospitals, and CBOs throughout the entire flow of the HIV healthcare services. A monthly service charge of RMB200 (USD32) was designed to offset the costs of staff salary (doctors, nurses, CBO peer counselors), rent and equipment. Clients had unlimited access to clinical attention (doctors on call during non-business hours), counseling by CBOs and nurses, and basic ART-related examinations and blood tests. As part of the case management protocol, they also received regular reminders from clinic staff (nurses and CBO counselors) for routine check-ups. Because this one-stop clinic approach represented a significant departure from the disease-centered model more commonly found in China, Wuhan health officials decided on an initial pilot to assess its feasibility. They partnered with counterparts in Xiangyang (another large city in Hubei province) and proposed the setting up and piloting of a client-centered one-stop clinic to the National Center for AIDS/STD Control and Prevention (NCAIDS). The pilot would aim to remove the service and treatment barriers of the disease-centered approach and create a comprehensive integrated service model. The pilot, named “Wuhan AIDS Care Center” (WACC), was set up at the Wuhan Institute of Dermatovenereology and became operational in 2011.

¹⁰ AIDS Care China, a well-established Chinese NGO with extensive experience working on prevention among MSM and treatment support for PLHA, provided technical capacity building for MSM CBOs in Wuhan.



2.3 Principles

2.3.1 From focusing on the disease to focusing on the client

While the disease-centered model focused on the CDC confirming cases and distributing ART drugs, the client-centered model recognized that individuals testing positive have a range of medical and psychosocial needs, and designed the service model around the objective of meeting these needs. The needs include up-to-date HIV/AIDS information, peer-based counseling and psychosocial support and stigma-free clinical attention. The client-centered model aimed to ensure that service recipients (i.e., clients) feel comfortable with, trust and use various service providers. The service chain, from outreach, counseling, and testing, to treatment and prevention, was viewed and planned from the client's perspective. What, who, when and how these services should be delivered to the potential client were viewed from the perspective of maximizing the chance of their continued use and adherence by each client.

2.3.2 From limited role for CBOs to full integration of CBOs into clinical processes

As this client-centered model has developed in Wuhan, the role of CBOs has expanded beyond mobilizing the MSM community solely for testing to supporting, delivering, and implementing other key HIV services. According to health officials leading the development of the Wuhan client-centered model, at the minimum, the role of CBOs has expanded to include conducting community-based rapid tests, informing clients of positive status, providing ART treatment support, and providing HIV prevention counseling. Ideally, CBOs should be integrated fully into the clinical processes and procedures, with CBO staff working with clinical personnel side-by-side to provide on-the-spot psychosocial support throughout the service chain. The core principle of the client-centered model was to maximize the potential benefits of CBOs in HIV service delivery by integrating them as fully as possible in the entire service chain.

2.3.3 From service fragmentation to integration

Another gap bridged by the client-centered model was the issue of limited clinical expertise within the CDC. Even with the expansion of the CBO's role, with the CDC at the center, there remained a gap in clinical expertise to deal with OIs, TB and STDs. CBOs contributed by helping MSM and PLHA find non-stigmatizing clinical services, but this did not fully address the short term and longer term healthcare needs of persons with HIV infection. Wuhan health authorities



decided to set up an integrated HIV one-stop clinic that could provide MSM clients with ongoing services related to prevention, ART, timely diagnosis and referrals related to OIs, TB and STDs and psychosocial support.

Three operational frameworks underlying the transition from the disease-centered model to client-centered model of HIV service delivery in Wuhan are described in the table below. Highlighted are the various testing and treatment roles played by different stakeholders. They show the transition from the disease-centered model in 2008-2010 to a client-centered one in 2011-2012.

MSM HIV Service Delivery Model in Transition in Wuhan

		2008–2010 Disease-centered			2011–2012 Client-centered						
		CBO's role limited to testing mobilization			CBO's role expanded to support testing, follow-up and treatment			One-stop clinic with CBO services fully integrated into clinical processes			
		CDC	Hospital	CBO	CDC	Hospital	CBO	CDC	Hospital	One-stop Clinic	CBO
Testing	Mobilization			✓			✓				✓
	Screening	✓	✓		✓	✓	✓	✓	✓	✓	✓
	Confirmation	✓			✓		✓	✓		✓	✓
	Negative Prevention						✓			✓	✓
Treatment	ART	✓			✓		✓			✓	✓
	Side effects		✓			✓				✓	✓
	OIs/TB/STDs		✓			✓			✓	✓	✓
	Positive Prevention						✓			✓	✓

✓ indicates changes from the disease-centered model in 2008-2010

3

Client-Centered Model

The two approaches of the client-centered model (“CBO’s role expanded” and “one-stop clinic”) implemented in Wuhan began operating in June 2011, and their long-term public health impact remains to be assessed. However, their short-term results can be described in enough detail to allow readers, particularly health authorities of other cities in China, to consider moving toward similar models in order to enhance HIV responses among MSM.

3.1 First Approach-CBO’s Role Expanded to Support Testing, Follow-up and Treatment

3.1.1 Roles and responsibilities

In this approach of expanded CBO roles across the HIV service-delivery chain, the city BoH/ CDC led the overall HIV response, while collaborating with four key operational stakeholders: district CDCs, city hospitals, CBOs, and a GONGO (Hubei PMA). The table below shows the roles and responsibilities of each key stakeholder and how they collaborated and complemented each other’s work.

3.1.2 Advantages

The key advantage of this approach was the close collaboration between the CDC and CBOs. The rate of loss to follow-up decreased as CBOs became directly involved in mobilization, screening, informing clients of confirmatory test results and providing treatment support. Throughout the service chain, relationships were built by CBO peer workers (through one-to-one confidential and professional high-quality counseling) which helped dispel the common fear among positive MSM of having confirmatory tests at the CDC. CBO peer workers directly



CBO's Role Expanded to Support Testing, Follow-up and Treatment

		CDC	Hospital	CBO	GONGO	BoH
Testing	Mobilization			<ul style="list-style-type: none"> Peer outreach (venues, social media) 		
	Screening	<ul style="list-style-type: none"> Train CBOs on rapid tests and client confidentiality 	<ul style="list-style-type: none"> Provider-initiated testing and counseling 	<ul style="list-style-type: none"> Conduct community-based rapid tests (venues, CBO drop-in centers) 		
	Confirmation	<ul style="list-style-type: none"> Conduct confirmatory tests on blood samples screened positive by and sent from CBOs Pass confirmatory test results back to CBOs to inform testers Input positive cases into the national infectious disease database Conduct CDC-based VCT 		<ul style="list-style-type: none"> Draw blood at CBO drop-in centers (doctors/nurses hired by CBOs) Deliver blood samples to CDC for confirmatory tests (clients do not need to visit CDC themselves) Inform clients of CDC confirmatory test results 	<ul style="list-style-type: none"> Recruit and select CBOs, work with CBOs to develop responsibilities and targets, sign contracts with CBOs Agree with CBOs on project performance management methods and details, hold CBOs accountable to agreed performance (salaried staff with performance indicators) Identify needs of CBOs, work with CDC to provide technical support, procure other technical and organizational development support Monitor and assure CBO service quality (with CDC, including rapid test, counseling, confidentiality) and progress towards agreed targets 	<ul style="list-style-type: none"> Lead city-level HIV response Coordinate government units (police, finance) and hospitals Issue "red head" documents to formalize roles and responsibilities of stakeholders With GONGO/CDC, assure CBO service quality (rapid test, counseling, confidentiality)
	Negative Prevention			<ul style="list-style-type: none"> Peer counseling on-the-spot after being screened negative 		
Treatment	ART	<ul style="list-style-type: none"> Conduct CD4 tests (twice annually) Distribute ART drugs Update CD4 and ART treatment statuses of positive cases in the national infectious disease database 		<ul style="list-style-type: none"> Accompany confirmed positive clients to CDC for CD4 tests and ART treatment initiation Peer-based treatment adherence and psychosocial support Provide information on PLHA/MSM-friendly doctors for side effects, OIs/TB/STDs 	<ul style="list-style-type: none"> Channel funds to CBOs on monthly basis based on CBO previous month's service quality and target completion With BoH, coordinate government units (police) and hospitals 	
	Side effects		<ul style="list-style-type: none"> Treat (but limited to a few PLHA/MSM-friendly doctors CBOs informally identified) 			
	OIs/TB/STDs					
	Positive Prevention			<ul style="list-style-type: none"> Peer counseling before and after ART initiation 		



involved in HIV screening (community-based rapid tests) were well positioned to counsel MSM screening positive to receive confirmatory tests by the CDC. CBO peer workers were also involved in the provision of ART treatment adherence support, and helped assure the MSM client of ongoing support from their peers as they learned to deal with being HIV positive and gay. Having CBO peer workers deliver HIV screening and counseling services was seen as a key strategy because many MSM resisted testing not because they do not know the benefits, but because they fear their homosexual identity (gay) and behavior (MSM) being exposed to their family (sometimes wives) as a result of testing. Successful screening follow-up was substantially supported by CBO peer workers who often accompanied the client screened positive to the CDC for confirmatory tests.

Another advantage was that the higher level of trust gained by CBO staff and volunteers, who themselves were also MSM, made it easier for CBOs to provide timely counseling for MSM clients: prevention counseling for MSM screening negative, and HIV, ART, and prevention counseling for positive MSM. The effectiveness of prevention counseling among positive MSM depended on both timing and the messenger. Positive MSM may not be receptive to attempts by medical and government officials to deliver prevention messages because of fear of stigma and discrimination. Any type of detailed counseling attempted at the time an MSM client learns his positive status may not be effective because of the immediate shock and worry about how to deal with family and their own positive status. CBO peer workers, having developed a counseling-based and confidential relationship with the clients, were better positioned to deliver prevention messages at a later, more suitable time as their relationship with a client continued and deepened. With appropriate training in HIV/AIDS knowledge, counseling skills and client confidentiality, committed CBOs were best positioned to perform these non-clinical but often time consuming tasks effectively.

3.1.3 Challenges

The key gap in the expanded role of CBOs approach was related to the lack of clinical expertise. Neither CDC staff nor CBOs were qualified to provide the clinical services needed by positive MSM who experienced ART side effects or symptoms related to OIs, TB and STDs. Clinical complications not only cause discomfort but can be life threatening, and may discourage ART patients from adhering to treatment. The problems related to the lack of clinical expertise among CDC and CBO staff were further complicated by the widespread stigma among health care providers against PLHA and MSM.¹¹ Although CBOs can and did provide information to

¹¹ Although national laws prohibit discrimination against they are difficult to enforce. Stigma against PLHA and MSM by health care providers results in their reluctance to clinical care.



One-Stop Clinic with CBO Services Fully Integrated into Clinical Processes

		CDC	Hospital	One-stop Clinic	CBO (Based at one-stop clinic)	GONGO	BoH
Testing	Mobilization				<ul style="list-style-type: none"> Peer outreach (venues, social media) 		
	Screening	<ul style="list-style-type: none"> Train CBOs on rapid tests and client confidentiality 	<ul style="list-style-type: none"> Provider-initiated testing and counseling 	<ul style="list-style-type: none"> Conduct clinic-based rapid tests with pre- and post-screening counseling (with CBO) 	<ul style="list-style-type: none"> Conduct community-based rapid tests (venues, CBO drop-in centers) Pre- and post-screening counseling (with clinical staff) 		
	Confirmation	<ul style="list-style-type: none"> Conduct confirmatory tests on blood samples screened positive by and sent from one-stop clinic Pass confirmatory test results back to one-stop clinic/CBO to inform clients Input positive cases into the national infectious disease database Conduct CDC-based VCT 		<ul style="list-style-type: none"> Draw blood samples at clinic Deliver blood samples to CDC for confirmatory tests (clients do not need to visit CDC) Inform clients of CDC confirmatory test results (with CBO) 	<ul style="list-style-type: none"> Inform clients of CDC confirmatory test results (with clinical staff) 	<ul style="list-style-type: none"> Recruit and select CBOs, work with CBOs to develop responsibilities and targets, sign contracts with CBOs Agree with CBOs on project performance management methods and details, hold CBOs accountable to agreed performance (salaried staff with performance indicators) 	
	Negative Prevention			<ul style="list-style-type: none"> Counseling on the spot after being confirmed negative by CDC (with CBO) 	<ul style="list-style-type: none"> Peer counseling on-the-spot after being confirmed negative by CDC (with clinical staff) Phone and schedule high risk negative clients to come back for testing in 3 months 		<ul style="list-style-type: none"> Lead city-level HIV response Coordinate government units (police, finance) and hospitals
Treatment	ART	<ul style="list-style-type: none"> Update CD4 and ART treatment status of positive cases in the national infectious disease database 		<ul style="list-style-type: none"> Conduct CD4 tests (4 times annually) Remind pre-ART positive clients for CD4 tests (together with CBO) Conduct health tests (liver, kidney) Prescribe ART treatment Provide routine clinical monitoring Provide treatment adherence support (with CBO) Inform CDC client's CD4 and ART treatment statuses 	<ul style="list-style-type: none"> Remind pre-ART positive clients for CD4 tests (with clinical staff) Provide treatment adherence support (with clinical staff) Peer-based psychosocial support Remind ART clients for regular clinical follow-up (with clinical staff) 	<ul style="list-style-type: none"> Identify needs of CBOs, work with CDC to provide technical support, procure other technical and organizational development support Monitor and assure CBO service quality (with CDC, including rapid test, counseling, confidentiality) and progress towards agreed targets 	<ul style="list-style-type: none"> Issue "red head" documents to formalize roles and responsibilities of stakeholders With GONGO/ CDC, assure CBO service quality (rapid test, counseling, confidentiality)
	Side effects			<ul style="list-style-type: none"> Pre-ART counseling for side effects (with CBO) Provide practical medical tips to clients to deal with simple side effects (e.g. rashes) Train and support CBO handling simple side effects Treat side effects 	<ul style="list-style-type: none"> Pre-ART counseling for side effects (with clinical staff) Handle simple side effects (trained by clinical staff) Refer more complicated side effects to clinical staff 	<ul style="list-style-type: none"> Channel funds to CBOs on monthly basis based on CBO previous month's service quality and target completion 	
	OIs/ TB/ STDs		<ul style="list-style-type: none"> Treat (referral agreements between PLHA/ MSM-friendly doctors and one-stop clinic, patients skip registration at hospitals and go straight to the doctors/nurses) 	<ul style="list-style-type: none"> Conduct TB, syphilis and hepatitis tests Spot clinical symptoms of OIs, TB and STDs Refer OIs, TB and STD cases to PLHA/MSM-friendly health care providers one-stop clinic has agreements with 	<ul style="list-style-type: none"> Peer-based psychosocial support (with clinical staff) 	<ul style="list-style-type: none"> With BoH, coordinate government units (police) and hospitals 	
	Positive Prevention			<ul style="list-style-type: none"> Encourage positive clients to start ART early, CD4>350 (with CBO) 	<ul style="list-style-type: none"> Peer counseling before and after ART initiation (with clinical staff) 		



patients on how to access PLHA/MSM-friendly healthcare providers, this was neither systematic nor formal. The one-stop clinic approach under development in Wuhan and described below sought to address these problems.

3.2 Second Approach-One-Stop Clinic with CBO Services Fully Integrated into Clinical Processes

3.2.1 Roles and responsibilities

The one-stop clinic approach was built upon the expanded CBO roles related to testing, treatment and care adopted by the first approach, but added dedicated clinical expertise and client-centered referral services to achieve a more comprehensive, speedy, professional and high-quality service package for the client.

3.2.2 Advantages

The clear advantage of the one-stop clinic approach was that clients received clinical and peer support in one place. After screening positive, they did not need to present themselves at the CDC for confirmatory tests. The one-stop clinic drew blood samples, delivered them to CDC for confirmatory tests, and informed the client of confirmatory test results, together with the CBO. Clients did not have to worry about where to obtain non-discriminatory services in the event of OI, TB and STD treatment. The one-stop clinic had agreements with a small pool of doctors (and their hospitals) that were friendly with MSM and PLHA. They benefited from ongoing and sustained support and regular check-up reminders by both clinicians and CBO peer workers. The first set of clients using these services in Wuhan appeared well engaged and stated they are much better empowered to overcome ART side effects. This is expected to lead to a better treatment experience and reduced episodes of ART treatment interruption.¹²

ART clients were found to be more receptive to both treatment and prevention messages as they knew that they were being taken care of both clinically and psychologically. Clinicians and CBO

¹²Based on input of MSM, including clients of the one-stop clinic, who attended a focus group conducted at Zhongnan Hospital in September 2012.



peer workers worked together to pro-actively follow up with both MSM initially testing negative and pre-ART positive MSM. Through the one-stop clinic, prevention based on early testing and early treatment (where CD4 count is above 350) was becoming a reality.

Integrating CBO peers into the clinical process also enhanced the reputation of CBOs within the MSM community. CBO staff trained by and working side-by-side with clinicians strengthened the CBO's capabilities for treatment support and created a more professional image of the CBO among MSM. Hence the scope of CBO support to the entire HIV service chain was also increased.

According to informal estimates by Wuhan CDC, the operating costs for a one-stop clinic with a caseload of 500 patients was approximately RMB 1 million per year. This cost covered the salary of three doctors, three nurses, two CBO counselors, equipment and rent. Using this estimate, the total caseload of 2200 HIV cases in Wuhan in 2011 could have been covered by five one-stop clinics. These costs could be offset partially by a monthly service charge to clients (or alternatively by social welfare). As of 2012, clients of the pilot one-stop clinic paid RMB 200 (USD 32) per month for this high quality integrated service. Such charges were affordable for Wuhan MSM, who tended to be economically better off than other groups at risk of HIV infection. Based on early experience, the integration of clinical and counseling services at the one-stop clinic appeared to attract clients. They were willing to pay for high quality stigma-free integrated services rather than opt for the free but limited non-clinical services offered via CDC.

3.2.3 Challenges

The one-stop clinic pilot had been running since June 2011 and had served about 100 ART patients at the time of this review. More time is needed to confirm its public health impact.¹⁵ The pilot continues to be closely observed by health officials and its managers and new procedures are still being piloted to optimize the approach in the context of Wuhan's overall effort to deal with HIV among MSM.

¹⁵A preliminary study (Zhao et al., 2012) comparing two groups of MSM AIDS patients who started ART during a 12-month period from July 2011 to June 2012 – clients of one-stop clinic (n=93) and other patients who opted to use CDC service (n=240), which includes clients who used the expanded services of CBOs and those who chose not to use the service of CBOs. The study found clients of the one-stop clinic on average had: (1) a shorter interval time between HIV confirmatory test and the first CD4 test (6.5 vs. 9 days); (2) higher percentage of patients having CD4 test done within 6 months (96% vs. 80%); (3) shorter time interval between the first test of CD4<350 and ART initiation (26 vs. 40 days); and (4) higher percentage of eligible clients (CD4<350) on ART (90% vs. 69%). Although the study also found quicker CD4 increase and higher level of HIV suppression among one-stop clinic patients, more time is needed to accumulate more cases to filter out the impact of the newly available ART drug, Tenofovir (NCAIDS, 2012), on these preliminary results.



3.3 Summary

During the five years of the China-Gates HIV Program, Wuhan health authorities, Hubei PMA and the CBO community have joined together in developing the client-centered model. The approaches of the “one-stop clinic” and “expanded CBO’s role” addressed issues that limited the effectiveness of the disease-centered model of HIV service delivery. Participating clients now receive more integrated clinical and psychosocial support, and the improved overall treatment experience has led to better ART adherence.¹⁴ Prevention messages targeting clients testing both positive and negative have become more systematic. Both approaches utilized greater involvement of CBOs to address the psychosocial aspects of HIV.

¹⁴There have been a few cases of clients moving away from Wuhan. The one-stop clinic made sure all of these clients were followed-up by the CDCs in the location to where the clients moved to.

4

Enabling Roles of Stakeholders

The BoH, CDC, hospitals, the new one-stop clinic, GONGO and CBOs have all been involved in the new client-centered model developing in Wuhan. The model offers some practical lessons on the roles and responsibilities of different city stakeholders. The participation of each stakeholder is critical to enable planning, to secure required authorizations and to implement the client-centered model. These lessons should be useful to similar stakeholders in other cities facing similar challenges and seeking to more effectively reach and serve the MSM community.

4.1 Bureau of Health

4.1.1 Leads city-wide HIV response by providing overall vision and direction

The Wuhan BoH's decision to plan and develop a more effective alternative to the disease-centered model being used in 2008-2010 was driven by recognition of the problems of an overworked CDC staff with limited clinical expertise and experience and slow ART take-up despite the drugs being offered free of charge by the government. Wuhan BoH began by identifying key international best practices of client-centered HIV related services and adapting them to the Wuhan context. Wuhan BoH involved other planning stakeholders – Wuhan CDC, Hubei PMA and P-ACC (providing technical assistance and funded by the Gates Foundation China Office) – to map out the details, including assistance in securing funding and political support from the Wuhan city government.

4.1.2 Ensures political and administrative directives are in place

Based on an initial plan Wuhan BoH secured funds from Wuhan Bureau of Finance for the operation of the one-stop clinic and test kits for community-based rapid tests. The BoH also secured CDC's technical support for community-based rapid tests mobilization in addition



to CDC's routine HIV services including confirmatory tests and results notification. The administrative support BoH provided included designating a medical institution to host the one-stop clinic and three hospitals to work with the one-stop clinic to provide stigma-free OI, TB, and STD treatment. These three hospitals agreed to forego regular hospital registration for clients referred by the one-stop clinic. A series of appropriate government orders and guidelines ("red head" documents) were issued thereby adding the extremely important political support for each agreement with stakeholders.

4.1.3 Assures stakeholder communication during implementation

With the initiation of the new activities, the BoH ensured regular communication across CDCs, GONGO, CBOs, the one-stop clinic and hospitals. This allowed all parties to clarify and resolve implementation challenges. One example is quality assurance of the CBO's service. Quality assurance of CBO service is critical because CBOs play key service delivery roles in the client-centered model. In addition, the sustainability of CBOs depends on the value and trust placed on their services by the MSM community they serve. Wuhan health authorities and Hubei PMA have recognized that standard operating procedures (SOP) for CBO services will be needed as the model expands to include additional CBO participation and to assure sustainability as volunteers and staff change.

4.2 CDC (city and district)

4.2.1 Supports community-based rapid tests

To increase the case-finding potential of CBOs, Wuhan CDC introduced community-based rapid tests as a service component of the client-centered model. Rapid tests by CBOs at MSM venues and at CBOs' drop-in centers has strengthened Wuhan CBOs' outreach work. Before the transition to the new model, CBOs' outreach activities focused only on distributing HIV information and condoms and identifying clients for testing by CDC staff. The new model includes CBO staff administering a rapid test, which enables deeper engagement with MSM including pre- and post-rapid test counseling. This increases successful follow-up by the CDC when someone is screened positive in a rapid test. In such a case, CBO peer workers provide on the spot counseling to support the client and accompany the client to visit the CDC for the required confirmatory test as soon as possible (often the morning following the night when the rapid test was done at an MSM venue). The experience of conducting rapid tests increases CBO



capacity, especially around the use of counseling skills for supporting clients who test positive. As the provision of community-based rapid tests services are often the first point of contact between clients and the HIV service chain, the CBOs involved must have proper training. They must be able to correctly and safely administer the rapid tests, be able to correctly interpret and explain the results and have the counseling skills needed to deal with positive cases. They also need to be able to practice strict client confidentiality and build the trust needed to ensure clients who are screened positive go to the CDC for confirmation and to facilitate necessary CDC follow-up.

4.2.2 Supports community-based blood sample drawing for confirmatory tests

To increase the rate of successful follow-up by the CDC, Wuhan health authorities piloted the placement of medical professionals at CBO drop-in-centers. They conduct rapid tests for drop-in clients requesting this service and draw blood samples for confirmatory tests including those clients screened positive at MSM venues by the CBO staff. For confirmation, in such cases, the CBO delivers the blood samples to the CDC. This removes the need for the client to visit the CDC in person, thereby removing one critical point in the process at which clients were previously lost to follow up. This arrangement was new at the time of this report and more time is needed to observe its implications, benefits and challenges. However, the procedure fits well into Wuhan's effort to build a more client-centered model to increase testing and to minimize follow-up losses of MSM screened positive for HIV.

4.2.3 Supports community-based receipt of confirmatory test results

Another component of the client-centered model is to allow CBOs to perform the task of informing clients confirmed positive (by the CDC) of their HIV status. This bolsters the CBO's role to accompany the positive client to visit the CDC in person for follow-up (CD4 test, ART treatment). While this arrangement is still in under development, early stage procedures match well with the client-centered model.

4.3 Hospitals

4.3.1 Agrees to treat OI, TB and STD patients referred by the one-stop clinic

Three hospitals in Wuhan agreed to provide OI, TB and STD treatment for patients referred by the doctors at the one-stop clinic. The one-stop clinic makes advanced reservations with a small pool of hospital doctors and nurses with strong commitment to public service. This allows



patients to skip hospital registration –point at which discrimination was formerly a significant deterrent to access – and proceed directly to the doctors and nurses for relevant treatment. The patient’s comfort and confidence in seeking the treatment they need is thereby increased. Before providing services to patients referred by the one-stop clinic, these doctors and nurses would receive training on HIV/AIDS by the CDC and one-stop clinic staff. The hospital administration needs to ensure safety protocols and procedures are in place to equip doctors and nurses to minimize and mitigate potential occupational exposure to HIV.

4.3.2 Coordinates with the one-stop clinic to maximize effectiveness of ART, and treatment for OIs, TB and STDs

These hospitals also need to coordinate with the one-stop clinic by sharing clinical and treatment information in order to maximize patient care outcomes and minimize ART disruption.¹⁵ It is part of the agreement between the hospital and the one-stop clinic that regular case management communication between doctors and nurses of both the hospitals and the one-stop clinic takes place to ensure the best treatment outcomes.

4.4 One-Stop Clinic

4.4.1 Liaises with city and district CDCs

The development of new procedures for information streams is another critical element of the Wuhan one-stop clinic model. The clinic liaises regularly with city and district CDCs. Blood samples drawn by the clinic were sent to city CDC for confirmatory tests. City CDC would return confirmatory test results to the clinic in two batches per week. The clinic was also authorized by city CDC to update clients’ records in the national infectious diseases database. This enabled CDC to retrieve information of HIV and AIDS cases in a timely manner. At the district level, the one-stop clinic promotes its service to the CDC staff that then refers clients to the clinic.

4.4.2 Integrates CBOs into clinical processes

Since the start of operations clinic staff have focused on a multi-dimensional approach to meeting the needs of PLHA and MSM. This approach extends beyond the clinical expertise of

¹⁵The stopping of a particular ART drug would render that drug less effective for that patient. In light of the limited range of ART drug options it is extremely important to minimize stoppage of ART drugs.



doctors and nurses to include strong peer counseling to deal with psychosocial issues.

The one-stop clinic fully integrates CBO peer workers into its clinical work. This requires careful selection of a clinic location, and screening and recruitment of doctors and nurses. Recruitment screening needs to focus on the following characteristics for one-stop clinic staff:

- Clinical competence in essential services, basic health tests, ART and problems facing PLHA.
- Lack of prejudice toward MSM and PLHA.
- Willingness to work with and train MSM CBO staff/volunteers in support of clinic-based activities and community follow-up in areas such as psychosocial support, ART compliance, preliminary recognition of common OIs and ART side effects.
- Willingness to work with medical specialists in hospital settings, to whom referrals for treatment of OIs, TB and STDs will be made.

Concerning the full involvement of CBOs in clinic activities, the Wuhan experience suggests that success may take several rounds of recruitment and trial to find the right CBO counselors for the clinical setting. Characteristics of a good CBO counselor suitable for the clinical setting include the following:

- A respected member of the community being served.
- A good understanding of the needs of the community.
- An understanding of and ability to practice strict client confidentiality.
- An aptitude for basic medical knowledge such as ART drug side effects, signs of OIs, the meaning of CD4 and viral load.
- An interest in and willingness to learn from and work with doctors and nurses in a clinical setting.
- Potential of being a good counselor with a typical background in social sciences such as Social Work, Sociology and Psychology.

4.4.3 Establishes and maintains referrals with hospitals to treat OIs, TB and STDs

While the one-stop clinic can deal with ART side effects and outpatient care of OI and STDs, serious complications from OIs and TB require hospital-based specialists. Such complications are often not only debilitating and dangerous to the patients themselves but may cause ART disruption or termination making a functional referral system extremely important. Wuhan health



authorities decided on using a small manageable pool of hospitals that were willing to work with the one-stop clinic to co-manage the treatment of the patient to minimize ART disruption.

4.5 GONGO

4.5.1 Identifies CBOs with the potential to deliver

Wuhan's experience demonstrated that not all CBOs are able to effectively participate in or deliver expanded and more integrated HIV services. One critical characteristic discovered that would help indicate the potential of a CBO to successfully deliver such services is the strength of their standing within the MSM community. This is often demonstrated by three characteristics:

- Staff and volunteers of the CBOs are themselves from the MSM community.
- Length of service for the MSM community (may or may not be HIV-related services).
- Commitment to serving the community in the future even without external financial support (external funds only serve to enhance the scope and quality of their service – a demonstrated commitment precedes the availability of funds).

Commitment to the community facilitates a CBO's reach into the community and better allows the CBO to provide the services the community needs (including HIV-related services). The community perceives such CBOs to exist for the sake of meeting their needs rather than for the opportunity to secure funding. Thus GONGOs need to ensure their staff are equipped with community knowledge on how to identify and select CBOs with a solid standing in the community, including how the CBOs view the need for HIV services as part of their overall service provision to the community.

4.5.2 Manages CBOs performance

During the shift to a client-centered model, CBO roles were expanded, filling some key service gaps. This increased the service demands on CBOs regarding both scope of work and performance. Hubei PMA recognized that the new performance standards required would need a transparent, clearly defined performance-based incentive system to ensure CBOs actually performed client-centered work according to required indicators. Targets were agreed between the CBOs and Hubei PMA and the achievement of related activities was regularly monitored to



measure performance.¹⁶ While the need for a set of standard operating procedures (SOP) for CBOs is recognized, this has not yet been developed. The lack of this critical component of CBO service quality assurance needs to be completed for use in Wuhan and to be shared with other cities that may develop similar client-centered models.

4.5.3 Procures or provides technical and organizational development support to CBOs

In addition to having a strong community foundation and transparent performance-based management Hubei PMA also recognized the importance of a multi-faceted approach to supporting CBOs in order to better assure their long-term participation and sustainability. This may include support for developing their technical knowledge and skills in core service areas and support for organizational development. CBOs need up-to-date information on HIV prevention and treatment to allow them to provide accurate and up-to-date information to the community. For organizational development, most CBOs urgently need financial and human resource management support. Hubei PMA worked with the CDC to provide CBOs with training on the rapid test. A portion of the budget allocated to CBO support was set aside to cover office rent and other organizational development needs of funded CBOs. For areas where additional support was needed Hubei PMA procured support for CBOs from third parties. Thus GONGOs need to ensure their staff are equipped with the capacity to identify technical and organizational development support needs of CBOs and provide or procure from third parties to meet those needs.

4.6 CBO

4.6.1 Listens to the community

Another dimension of a CBOs' ability to deliver HIV services lies with its understanding of the needs of the community to be served. CBOs, particularly their leaders, need to pro-actively engage with the community to learn not just about its needs but also the best and most acceptable ways these needs can be met. Such a continued focus on meeting community needs

¹⁶Details of the performance-based management system, including bonuses for CBOs, were discussed and agreed with both the national office of the China-Gates HIV Program. Bonuses for CBOs were disbursed at the end of the year. These year-end bonuses were divided into two components: service output (75% of bonus) and service quality (25% of bonus). The "service output" component is divided into four sub-components to be met: number of HIV tests (15%), number of positive cases found (40%), number of CD4 tests (15%), number of new ART cases (5%). The "service quality" component focused on the CBO's professionalism, client service attitude and organizational health.



helps prevent CBOs from diverging from their core business of serving the community. If the community stops seeing the CBOs as meeting community needs, the usefulness of CBOs in HIV service delivery will diminish.

4.6.2 Professionalizes human resources to enhance service quality

To ensure service quality, CBOs need to increase the professionalism of their human resources. This does not mean not using volunteers. Rather, CBOs need to identify the performance-based aspects of their work that (regardless of whether it is driven by donors or the community) need dedicated staff who are held accountable for delivery. Often, salaried staff are easier to manage than volunteers when meeting targets and delivering on quality service. Unpaid volunteers may also provide excellent services but it needs to be taken into account that most have other responsibilities outside the CBOs they volunteer for. Their contribution is as allowed for by their other responsibilities and as such may be difficult to manage in a performance-based, target-orientated, operating environment.

4.6.3 Engages in constructive solution-seeking dialog

CBOs working within the context of the new client-centered model in Wuhan stress the importance of good communication with the CDC. This allows the CDC to keep abreast of developments at the CBOs and enables the CBOs to engage the CDC in finding ways to enhance the impact of their work. It also keeps open a channel for new technical and programmatic information to move from the CDC to the CBO. CBO leaders need to understand the needs and requirements of the CDC and be ready to work with the CDC to find win-win solutions towards common problems. Two examples of such collaboration in finding innovative solutions between CDC and CBOs in Wuhan are (1) blood drawing at CBO drop-in-centers and (2) CBO involvement in communicating confirmatory results to clients confirmed positive by the CDC. Allowing CBOs to have a doctor or a nurse at the CBO drop-in-center to draw blood for confirmatory tests, and allowing the CBOs to inform clients of confirmatory test results, helped the CDC improve follow-up and enhance the CBO's services for the community. The need for two visits by the client to the CDC was eliminated. Finding these win-win solutions often involves patience and commitment on the part of both the CBOs and the CDC. A solution-seeking approach can also resolve conflicts between CBOs. For example, in Wuhan, Hubei PMA created a common pool of bonus funds to be shared among all participating CBOs on condition the city's overall targets were met.

5 Conclusions and Recommendations



During the first year of development, the integrated client-centered model in Wuhan began to bridge service gaps in the former disease-centered model of HIV prevention and control programs. Wuhan's client-centered model holds substantial promise and should be considered by other cities in China seeking alternatives to improve their existing HIV response.

With strong leadership and commitment by health authorities, Wuhan successfully began a transition that integrated the work of the CDC, clinicians and CBOs to help solve the follow-up problems faced by the CDC, improve treatment outcomes, and enhance the client experience. Some critical barriers for MSM and PLHA in accessing HIV prevention and treatment services have been addressed. Comprehensive prevention services for both positives and negatives have become more fully realized in the context of HIV testing, replacing a narrower focus on behavior change communication. The Wuhan client-centered model, while still in its infancy, offers major lessons and provides the basis for additional trials as the national government commits to reducing HIV infections in China ("China AIDS Action Plan 2011-2015", China State Council, 2012) and plans to purchase social services from CBOs. Wuhan's client-centered model is effectively offering an integrated service in which the CDC, clinicians and CBOs work together to enhance the city's HIV response.

It is hoped that the encouraging preliminary results discussed in this paper will influence the National Health and Family Planning Commission of China, national CDC, National Center for AIDS/STD Control and Prevention (NCAIDS), and city Bureaus of Health and CDCs across the country to consider transitioning the current disease-centered HIV service model to a client-centered one, which binds together CDCs, hospitals, and CBOs to deliver a comprehensive and integrated service to maximize the public health benefits of the government's response to HIV.



Two specific policy recommendations for the relevant government departments to consider are as follows:

- At the national level, both the endorsement and promotion of the client-centered HIV service model by the National Health and Family Planning Commission of China, national CDC and NCAIDS are recommended, particularly for provision of HIV services for MSM, to provide the political support for this service model. Technical support from NCAIDS will be required in the form of staff to help cities develop and adopt the client-centered model.
- In Wuhan, the client-centered model needs to continue to develop and expand. This will take increased political and financial support at both national and city levels in order to demonstrate its public health impact and deepen operational knowledge. In this manner, Wuhan's client-centered model will continue to serve as a learning model and source of experience for other cities.



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Key Informants Interviewed

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Wuhan AIDS Care Center (one-stop clinic)	Dr. Zhao Min	Director
Zhongnan Hospital, HIV/AIDS Unit	Dr. Gui Xi'en	Professor
Xinyuan (MSM CBO)	Yu Qing	Group leader
	Zhang Xin	One-stop clinic peer counselor
AIDS Care China (Technical assistance to Xinyuan)	Thomas Cai	Director
	Xiao Fei	Secondment to Xinyuan
Community	MSM/PLHA	Service recipients