## Potential Roles for Community-Based Organizations and Self-helped Groups in other Public Health Areas beyond HIV in 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
ВоН	Bureau of Health
СВО	Community-Based Organization
CDC	Center for Disease Control and Prevention
DOTS	Directly Observed Treatment-Short Course
FSW	Female Sex Worker
GONGO	Government Organized Non-Governmental Organization
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
MDR	Multi-Drug Resistant
MoCA	Ministry of Civil Affairs
МоН	Ministry of Health
MSM	Men who have Sex with Men
NHFPC	National Health and Family Planning Commission of China
PLHA	People Living with HIV and AIDS
SHG	Self-Helped Group
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
ТВ	Tuberculosis
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization
XDR	Extensively Drug Resistant

### **Executive Summary**

The great contribution of community-based organizations (CBOs) and self-helped groups (SHGs) to HIV control through the China-Gates HIV Prevention Cooperation Program calls for the consideration of government support for a broader use of CBOs/SHGs for other challenging public health issues.

Examples of public health issues in which CBOs/SHGs can play a strategic role in supporting the Chinese Government's initiatives include tuberculosis (TB), multi-drug resistant (MDR) TB and sexually transmitted infections (STIs). Based on the experience of the China-Gates HIV Prevention Cooperation Program with HIV CBOs, CBOs/SHGs can contribute meaningfully to public health issues through:

- Effective identification of and outreach to persons who are at risk and may be difficult for government services to reach – i.e., migrants at risk of TB and MDR-TB, youth at risk of STIs.
- Treatment adherence support through timely and confidential counseling and psychosocial support i.e., TB and MDR-TB treatment adherence among migrants, STI treatment among youth.
- Stigma reduction by educating government partners about a stigmatized community and by communicating the community's needs to the government – i.e., TB and MDR-TB among migrants.

The National Health and Family Planning Commission of China and Ministry of Civil Affairs of China, National Center for Disease Control and Prevention, Municipal Bureaus of Health and CDCs, and Municipal Bureaus of Civil Affairs may consider providing service contracts to registered non-governmental organizations (NGOs) to support and manage CBOs/SHGs to complement government services in TB and MDR-TB among migrants, STIs among youth, and other public health areas (e.g., chronic diseases and cancers, which are not fully elaborated in this paper but also hold significant potentials). The government (Bureaus of Health and

Civil Affairs) could provide financial support through its plan to purchase social services from registered NGOs, and these NGOs, in turn, would support and coordinate CBOs/SHGs to deliver social services. \*\*\*

Although most of the work would be carried out by volunteers of CBOs/SHGs, larger NGOs that support these CBOs/SHGs would require salaried staff to manage the volunteers. In addition to financial support, CBOs/SHGs would also need technical capacity building and organizational development support. Registered NGOs can provide and procure such support in addition to funneling government funding to these CBOs/SHGs. NGOs are more flexible than the government in managing service contracts with and the performance of CBOs/SHGs.

In sum, this paper uses the cases of TB and MDR-TB among migrants and STIs among youth to illustrate the potential public health benefits of civil society involvement to bridge gaps between government public health programs and their targeted service recipients. We hope the Chinese Government would consider greater involvement of CBOs/SHGs in these two and other public health areas such as cardiovascular disease, diabetes and cancer.

## Introduction

ommunity can be defined as "a group of people living in the same location or sharing a particular characteristic, value, or interest". Likewise, community-based organizations (CBOs) or self-helped groups (SHGs) can be defined as small and informal organizations, located within a community, which are set up and run by its own members in order to serve common interests of the community. Members of a community may unite together to form a CBO or SHG to address the specific needs of their communities, often by providing volunteer services or by facilitating access to existing government services. Examples of CBOs serving their local communities include Hispanic CBOs providing English language lessons to Hispanic immigrants in Chicago, a volunteer-supported gay men's CBO providing HIV prevention services to gay men in New York City, and a migrant workers CBO in a village on the outskirts of Shanghai helping female migrant workers access government health services. A desire to help fellow community members often drives the motivation and commitment of CBOs/SHGs. Because of their community membership, CBOs/SHGs are uniquely placed to serve populations that governments find hard to reach.

Public health is "the science and art of preventing diseases, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" (Winslow, 1920). Addressing major public health issues often requires concerted action from the government. However, for some public health issues affecting marginalized populations, such as HIV or tuberculosis (TB), government-run public health interventions, may not effectively reach stigmatized and hard-to-reach populations. For HIV control, CBOs have played a significant role bridging government-run public health services to the hard-to-reach populations affected by HIV, such as injecting drug users (IDUs), female sex workers (FSWs), men who have sex with men (MSM), and people living with HIV and AIDS (PLHA).

①Oxford University Dictionary, http://oxforddictionaries.com/definition/english/community?view=uk (accessed on 23 Oct 2012).

Similar to CBOs, non-governmental organizations (NGOs), which are voluntary non-profit groups of individuals unaffiliated with the government in their provision of social services, also help strengthen government-run public health initiatives. Unlike CBOs, NGOs generally are larger, legally-registered organizations with salaried staff that may not belong to the target community that the NGO serves. In addition to providing direct social services, NGOs can also assist smaller CBOs to provide services to the members of their communities.

The Chinese government is exploring the possibility of evolving from being direct providers of social services to managing and contracting selected social services, such as home care for disabled elderly, job training for unemployed youth, counseling for domestic violence victims, to name a few, from registered NGOs. For example, Shanghai<sup>®</sup> and Beijing<sup>®</sup> launched programs for "Government Purchase of Services" (in 2006 and 2011, respectively) to contract registered NGOs to either provide social services or to support CBOs/SHGs to do so. Historically, the stringent bureaucratic registration requirements for non-profit organizations in China have constrained the full development of public service from non-profit organizations. However, the current government may be moving to relax these registration requirements, which may allow for an expansion of the roles of NGOs and CBOs/SHGs in public service. In 2012, Guangzhou $^{\circledR}$ province enacted new regulations that lowered the threshold of registration of NGOs/CBOs, by removing the prior administrative requirement according to which NGOs/CBOs must obtain government sponsors before registration. These developments in Shanghai, Beijing, and Guangzhou serve as trials for the rest of China, and hold promise for an expanded role of NGOs and CBOs to help government to deliver social and public services to local communities and hard-to-reach populations.

<sup>@</sup>Encyclopedia Britannica, http://www.britannica.com/EBchecked/topic/759090/nongovernmental-organization-NGO (accessed on 21 Jan 2013).

**<sup>®</sup>**Gerontological Society of Shanghai, 10 Apr 2009 press release "Government Purchasing Services from NGOs – Shanghai Pilot", http://www.shanghaigss.org.cn/news\_view.asp?newsid=5983 (in Chinese, accessed on 23 Oct 2012).

Beijing Municipal Government Social Development Office, 15 Mar 2011 press release "Announcement of Beijing Municipal Government's Purchasing Services from NGO 2011", http://www.bjshjs.gov.cn/78/2011/03/16/23@5351.htm (in Chinese, accessed on 23 Oct 2012).

<sup>©</sup>China Daily, 25 Nov 2011, "NGOs Get more Leeway in Guangzhou", http://www.chinadaily.com.cn/china/2011-11/25/content\_14158553.htm (accessed on 23 Oct 2012).

# CBOs in the China-Gates HIV Program

The China-Gates HIV Prevention Cooperation Program (China-Gates HIV Program), started in 2007, aimed to scale up prevention of HIV in key urban centers of China with a two-pronged strategy:

- Prevention for groups most at risk-assure the reach and effectiveness of interventions for IDUs, FSWs and MSM-reduction in risky behavior and increase in HIV testing.
- Prevention with positives-accelerate the provision of adequate counseling and support for all individuals found HIV positive including intensified interventions to reduce HIV transmission.

The program was based on the premise that early detection leading to early treatment would decrease HIV transmission within the target population. The program emphasized collaboration between government, health care providers and CBOs in the delivery of this two-pronged strategy.

#### 2.1 Roles

In the China-Gates HIV Program, CBOs helped to mobilize MSM, FSWs and IDUs to get tested, disseminated HIV prevention messages to target populations, and to provide care and support to PLHA during antiretroviral therapy (ART). At hospitals and clinics, health care providers tested and diagnosed HIV cases through their routine medical care provision. Both hospitals and CBOs worked with local Centers for Disease Control and Prevention (CDCs) to ensure that persons screened HIV positive were referred to CDC for follow-up confirmation and CD4 tests, and subsequent ART treatment when appropriate. A special feature of the China-Gates HIV Program was grants to Government-Organized Non-Governmental Organizations (GONGOs) to manage the service contracts with CBOs. With GONGOs leading on CBO management,

local CDCs could focus on ensuring the technical standards of CBOs in the delivery of HIV services (HIV knowledge, rapid testing, follow-up on cases screened positive, client privacy and confidentiality).

As the program evolved, CBO's roles expanded from mobilizing and conducting outreach to the target populations to also providing HIV services, such as conducting rapid tests and providing psychosocial support during ART. As their roles developed, CBOs recognized that the value of their contributions to the MSM community increased with the provision of "hard" services such as HIV testing and ART adherence support. Equally important, strong "soft" skills such as counseling and client confidentiality were critical in building trust with clients in the MSM community. The effectiveness of CBOs in delivering HIV services to hard-to-reach MSM was based on their ability to build trust and relationships within the MSM community through delivering high quality service and maintaining strict confidentiality. Typically, a potential MSM client required several relationship-building sessions with a CBO peer counselor before he would agree to receive HIV testing and follow-up from the CDC. As the program evolved, CBO peer educators and counselors shifted from being unpaid volunteers to salaried staff. Paid CBO staffs were more likely to deliver on targets within the context of a program worked out around performance-based management. In contrast, volunteers could only conduct CBO work during their occasional free time; and while volunteers were dedicated and often skilled, it was more difficult to hold them accountable for reaching performance targets because they were not paid. The experience of working to serve fellow MSMs in the China-Gates HIV Program inspired some MSM CBOs to consider providing additional services to address other needs of the MSM community. One such area is general professional counseling services for MSM. CBO leaders realized that MSM had a range of non-HIV-related support needs but might not know where to obtain MSM-friendly professional counseling services. To ensure long-term sustainability, some CBOs considered charging fees for professional counseling services in order to generate revenue to sustain other projects such as HIV prevention and anti-stigma advocacy. Such planning by CBOs reflected a longer-term commitment, a broader vision of community service, and an

As their service quality improved and roles expanded, CBOs gained greater recognition from the government for their contribution to the government's HIV response (China CDC, 2011). Data from the China-Gates HIV Program showed that, in 2011, CBOs helped recruit, test, and diagnose 58% of newly diagnosed HIV cases among MSM; 67% of cases screened positive by CBOs were successfully followed up by local CDCs, and 43% of PLHAs received support by CBOs (China CDC, 2012a).

awareness of that international donors or government funds may run out.

**<sup>@</sup>**MSM in China are faced with social stigma, which limit their trust in government-run services. They are worried about their gay identity being exposed to family and work colleagues.

#### 2.2 Advantages

The China-Gates HIV Program experience led to the identification of three key strengths of CBOs in supporting government's response to HIV:

- Effective identification of and outreach to persons who are at risk and may be difficult for government services to reach.
- Treatment adherence support through timely and confidential counseling and psychosocial support.
- Stigma reduction by educating government partners about a hard-to-reach and stigmatized community, and by communicating the community's needs to the government.

#### 2.3 Needs

The China-Gates HIV Program demonstrated that maximizing CBO involvement required not just financial support, but also support for developing technical capacity and organizational capacity. Founded and based within the communities they serve, CBOs held a strategic advantage in helping strengthen the government's HIV response to communities disproportionately affected by HIV. However, CBOs were also small, informal, and often voluntary associations, and needed the following technical and organizational support to ensure long-term sustainability:

- Technical capacity building support to ensure the core services delivered by CBOs are of high quality and meet the needs of the community. For HIV control, these technical areas included strengthening disease knowledge, counseling skills, and techniques of maintaining client confidentiality.
- Organizational development support in areas such as strategic planning sessions, community-based annual reviews, leadership mentorship for CBO leaders, staff and volunteer management systems, monitoring and evaluation systems to track work progress, and financial management, accounting, and reporting systems. Support in these areas helped ensure that CBOs listened regularly to the communities they served, delivered services needed by the community, and worked effectively as the bridge between the government and the community.
- Financial support for salaried staff and organizational development, including resources for performance-based salaries, staff training, office rent, equipment and organizational development initiatives.

# Opportunities for CBOs/SHGs in other Public Health Areas

#### 3.1 General and Multi-Drug Resistant Tuberculosis among Migrants

#### 3.1.1 China tuberculosis situation

Tuberculosis ranked second highest in incidence (30%) among the 28 most prevalent infectious diseases in China (China CDC, 2012b). After India, China had the second highest TB burden in the world (WHO, 2012). China's estimated 1.4 million TB cases in 2011 represented 12% of the global burden of TB, while China's 61,000 multi-drug resistant (MDR) TB cases represented 20% of the global burden of MDR-TB. The case-detection rate for TB was 89% in China; in contrast, less than 10% of MDR-TB cases have been identified.

China's well-run TB control program relies mostly on community-based village doctors for monitoring treatment compliance by patients. These village doctors are responsible for ensuring TB patients take their medications under the standard Directly Observed Treatment Short-Course (DOTS) protocol. In DOTS, a health worker provides the prescribed TB drugs and watches the patient swallow every dose for the entire treatment course, typically 6-8 months. China's treatment success rate for non-MDR TB exceeded 90% (WHO, 2012). While DOTS is also practiced for MDR-TB, the treatment for MDR-TB requires a much longer course, ranging from 18 to 24 months, and has lower treatment success rate<sup>®</sup> (Liu et el., 2011). MDR-TB has created new challenges to China's TB control program, particularly among migrant workers in urban settings.

China had more than 210 million migrant workers in 2010, $^{\textcircled{0}}$  and this number is projected to

The patitis ranked the highest at 42%.

<sup>1</sup> million new cases (incidents) reported in 2011 and 0.4 million cases from 2010.

**<sup>©</sup>**53% of the 716 MDR-TB patients were successfully (cured and treatment completed) treated at a Beijing TB hospital during 1996-2006.

<sup>(</sup>http://www.chinadaily.com.cn/china/2010-06/27/content\_10024861.htm (accessed 23 Oct 2012).

reach 350 million by 2050. Most migrant workers travel to east coast cities where they take low-paying factory and manual labor jobs in order to support their families living in rural hometown villages. Migrants often stay in cheap, dense, small housing units on the fringes of cities, where overcrowding and poor ventilation are key TB risks. As poor, illegal, unregistered inhabitants of the cities where they work, migrants may not have access to the city government's health and social services. This barrier, in turn, constrains the ability of public health clinics to screen and diagnose TB among migrant workers. In summary, while China's migrant workers are at higher risk of acquiring TB infection, they are also less likely to receive screening and be diagnosed for TB infection through the existing city government's public health clinics.

Additionally, the rates of treatment completion and treatment success are lower among migrants diagnosed with TB infection. The mobile and marginalized lives of migrant workers create challenges for DOTS, such that healthcare workers may not be able to locate the migrant diagnosed with TB. Incomplete TB treatment additionally increases the risk of developing drugresistant TB, including MDR-TB. MDR-TB has a very high treatment failure rate because of multiple factors, including delayed diagnosis of MDR-TB, limited number of effective drugs, challenges in administration of second-line drugs, and longer treatment duration. Given the barriers in accessing healthcare services for migrant workers, the treatment failure rate for MDR-TB among migrant workers would likely be extremely high. Therefore, migrant workers with TB infection are at higher risk of not completing TB treatment and acquiring drug-resistant TB including MDR-TB; migrant workers with MDR-TB are at extremely high risk of delayed recognition that they have a drug-resistant strain of TB, and of incomplete treatment for MDR-TB. The risk of an uncontrolled outbreak of TB or MDR-TB among marginalized migrant workers in cities may jeopardize the excellent record of China's TB control program thus far.

3.1.2 Potential public health contribution of migrant self-helped groups organized by NGOs

NGOs in China have provided services to migrants ranging from children's education, women's health, and legal aid. For instance, Xintu, a NGO established in 2006 and registered with the civil affairs department of a Shanghai district, currently has contracts with the district government to support self-helped groups to provide services to the elderly, migrants and the disabled. These self-helped groups are comprised of the elderly, migrants and the disabled themselves. Each self-helped group receives Xintu's support to identify community needs and mobilize volunteers from the community to provide services or support access to government services. For example, a migrant self-helped group identified a pre-natal care service gap for pregnant migrant women.

Whttp://www.xintu.org (accessed 23 Oct 2012).

Benefited by the program-planning support from Xintu, the group started offering workshops for pregnant migrant women to provide pre-natal care knowledge and information on how to obtain government services.

Migrant self-helped groups being supported by registered NGOs such as Xintu appear to have promising potential to contribute to the government's efforts at TB and MDR-TB control among migrants:

- These community groups already exist and have the financial and technical support of a registered NGO, and can be ramped up quickly to serve TB control initiatives faster, compared with mobilizing and incubating new community groups.
- The self-helped approach, in which migrants reach out to and help fellow migrants, offers the prospect of improved case finding among hard-to-reach migrants who lack legal status in the cities in which they live and are not easily reached by government health services. Educating migrant self-helped groups on how to spot symptoms of TB and train fellow migrants to do so can improve early case detection and treatment among migrants.
- Migrant self-helped groups are also much better positioned than health care providers to supervise migrants to take TB medication. As migrants are highly mobile, government health services may face challenges in tracking them down to administer TB treatment with DOTS.
   Migrant self-helped groups, with much closer relationships with their fellow migrants, can be given training to do such supervision and help minimize the chance of treatment incompletion, hence lowering population risk of MDR-TB among migrants.
- Migrant self-helped groups can also help remove some of the barriers to treatment such as stigma by providing psychosocial support to patients during treatment and educating the migrant community that TB is a curable disease.
- For migrants under treatment leaving the city, migrant self-helped groups working with city TB officials can facilitate referral of these migrants to the TB health officials in their hometowns or new destinations to minimize the chance of TB treatment disruption.

#### 3.2 Sexually Transmitted Infection among Youth

#### 3.2.1 China sexual health situation among youth

In 2010, 200 million youth aged 15-24 in China accounted for over one-sixth of the country's total population of 1.3 billion (China CDC, 2012b). As Chinese society has modernized over the

past decades, the proportion of sexually active Chinese youth has risen concomitantly, from 1% in 1981 to 7% in 2004 (Xue et al., 2004). The China Youth Risk Behavior Survey in 2005 found that 4.8% of pre-university adolescents and 11.3% university students had sexual intercourse (Yi & Ji, 2010). By the time they graduate from university, 10.6% of females and 22.0% of males had sexual intercourse. A recent study by Tsinghua University in Beijing found that 71% of young people in China were sexually active before marriage. As Chinese society continues to modernize, and as Chinese attitudes and behaviors towards sex continue to evolve, this rising trend of sexual activity among youth will likely continue.

Sex is a taboo subject of conversation in China, rarely discussed in private or public. Parents, who themselves did not get much information about sex from their own parents, are generally not comfortable discussing sex with their children. Although sex education is mandatory in Chinese schools, the course is often relegated to a one-hour class during middle school, with nominal content on the physical development of the adolescent body; issues such as relationships, contraception, sexually transmitted infections (STIs), and sexual identities are not discussed. As a result, many youth in China turn to their friends or the Internet for information about sex. A recent United Nations Population Fund (UNFPA) survey found that over 40 percent of China's youth rely on the Internet for information about sex. However, the accuracy of information on the Internet varies widely, and there are no official Chinese websites for youth to get accurate information on sexual and reproductive health.

Because of the varying quality of such information on the Internet, and inadequate sex education at home and at school, Chinese youth consequently have a poor awareness of sexual and reproductive health issues. According to the UNFPA report, only 4.4% of the Chinese youth surveyed were able to answer all three of the following questions correctly: Can a woman get pregnant the first time she has sex? Masturbation causes serious damage to health – true or false? Abortion affects a woman's future pregnancy – true or false? As a result, Chinese youth may engage in risky sexual behavior and place themselves at risk for STIs and HIV. The China Youth Risk Behavior Survey found that almost half (49.7%) of sexually active university students in urban areas did not always use condoms during sex.

Newsweek Magazine, 3 Dec 2012, "China's Sex Ed Problem," http://www.thedailybeast.com/newsweek/2012/12/02/china-sex-ed-problem.html (accessed 18 Jan 2013)

<sup>®</sup>Newsweek Magazine, 3 Dec 2012, "China's Sex Ed Problem," http://www.thedailybeast.com/newsweek/2012/12/02/china-sex-ed-problem.html (accessed 18 Jan 2013)

The Guardian, 16 Nov 2012, "Is China Failing Its Young People On Sexual Health?", http://www.guardian.co.uk/society/2012/nov/16/china-young-people-sexual-health (accessed 18 Jan 2013)

**<sup>(</sup>b**UNFPA, 27 Sep 2012 press release, "China: More than 40 Percent of Chinese Teens Get Sex Info from the Internet", http://inthenews.unfpa.org/?p=13616 (accessed on 23 Oct 2012)

#### 3.2.2 Potential public health contribution of youth groups organized by NGOs

Chinese youth lack access to reliable information on sex and to youth-friendly sexual and reproductive health services. To help fill this gap, existing NGOs could support youth groups and CBOs to provide information on sexual and reproductive health to other youth in their community or peer groups. One potential example is Kangzhong, a NGO that provides support to community groups and is registered with the civil affairs bureau in Chaoyang district of Beijing. Involved in a wide range of community service projects, Kangzhong trains youth volunteers to organize youth groups, promotes community environmental hygiene, trains home care helpers for elderly support, and organizes students from law schools to provide legal aid to marginalized people. In collaboration with local CDC and healthcare providers, Kangzhong could help to expand the capacity of these community groups, especially youth groups, to promote sexual and reproductive health awareness among youth in their community. Youth groups have the following advantages:

- Because youth groups are not single-issue groups and focus on a variety of topics of interest, they can incorporate sensitive topics on sexual and reproductive health to their overall agenda, without being labeled as a sex-focused salon. Youth groups can serve as safe forums for frank discussions on sexual health as part of a comprehensive youth support program.
- As peers to other youth, youth group leaders may be more approachable and allow for a more frank discussion among youth on sex, contraception, and STIs.
- Compared with government health officials, youth group members may be more effective in educating and supporting fellow group members to identify symptoms of STIs.
- Given that sex is a sensitive and uncomfortable subject for Chinese parents and teachers, youth group leaders may be the most appropriate persons to provide psychosocial support for their peers diagnosed with STIs and to assist them in seeking STI treatment.

## Conclusions

Based on the experience of the China-Gates HIV Program, specific roles of HIV CBOs that could also be applied to TB and MDR-TB among migrants and STIs among youth include: <sup>6</sup>

- Effective identification of and outreach to persons who are at risk and may not be reached through existing government services, such as migrants and youth.
- Treatment adherence and effectiveness through timely and confidential psychosocial support
  TB and MDR-TB treatment adherence among migrants, STI treatment among youth.
- Stigma reduction by educating government partners about hard-to-reach or stigmatized communities, and by communicating the community's needs to the government.

Although most of the work would be carried out by volunteers of CBOs/SHGs, the NGOs that support these CBOs/SHGs would still need to have salaried staff, particularly in the context of a performance-based funding environment. Financial support should come from the government (Bureaus of Health and Civil Affairs) in light of the government's plan to purchase social services from registered NGOs, who in turn would support and coordinate volunteers of CBOs/SHGs to deliver social services. In addition to financial support, CBOs/SHGs would also need technical capacity building and organizational development support. Registered NGOs can provide and procure such support in addition to funneling government monies to these CBOs/SHGs. NGOs are more flexible than the government in managing service contracts with and the performance of CBOs/SHGs.

Cardiovascular disease, diabetes and cancer also represent potentials for greater CBO/SHG involvement. They accounted for almost nine out of ten (87%) deaths in China in 2010 (WHO, 2011). This pattern is driven by multiple factors including longer life expectancy, population aging, dietary changes, declining physical activity, and smoking. These diseases often require lifestyle changes (increasing physical activity and improving dietary intake for patients of cardiovascular disease and diabetes) and counseling support (mitigating side effects of cancer treatment). Shanghai's Xintu is one of the first NGOs providing such support through its "patient clubs". These club members, who are ex-or current patients, provide psychosocial support in the case of cancer and promote physical activity and conduct dietary change workshops for fellow club members in the case of cardiovascular disease and diabetes.

The National Health and Family Planning Commission of China, the Ministry of Civil Affairs of China, the National Center for Disease Control and Prevention, Municipal Bureaus of Health and CDCs, and Municipal Bureaus of Civil Affairs may consider providing service contracts to registered NGOs to support and manage CBOs/SHGs to complement government services in these two and other public health areas such as cardiovascular disease, diabetes and cancer.

In sum, this paper uses the cases of TB and MDR-TB among migrants and STIs among youth to illustrate the potential public health benefits of civil society involvement to bridge gaps between government public health programs and their targeted service recipients. We hope the Chinese Government would consider greater involvement of CBOs/SHGs in these two and other public health areas such as cardiovascular disease, diabetes and cancer.

#### References

China CDC (2011) "Chinese Ministry of Health-Gates Foundation AIDS Prevention Cooperation Program-Good Practices"

China CDC (2012a) "Chinese Ministry of Health-Gates Foundation AIDS Prevention Cooperation Program – 2011 Annual Report", tables 2.2.2, 2.2.11 & 2.4.3

China CDC (2012b) "China Health Statistical Yearbook"

**Liu CH, et al.** (2011) "Characteristics and Treatment Outcomes of Patients with MDR and XDR Tuberculosis in a TB Referral Hospital in Beijing: A 13-Year Experience" PLoS ONE 6(4): e19399. doi:10.1371/journal.pone.0019399

**Song Y, Ji CY** (2010) "Sexual Intercourse and High-risk Sexual Behaviors among a National Sample of Urban Adolescents in China" Journal of Public Health, Vol. 32, No. 3, pp. 312–321

WHO (2011) "Non-communicable Disease Country Profiles 2011"

WHO (2012) "Global Tuberculosis Report 2012"

Winslow, Charles-Edward Amory (1920) "The Untitled Fields of Public Health" Science: 51 (1306): 23–33

**Xue L, et al.** (2004) "The Current Situation of Reproductive Health Among Chinese Adolescents" (in Chinese), Maternal Child Health Care China 19(8): 122–3