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Abstract

The HIV/AIDS-related policy framework in China has come a long way from initially attempting to prevent HIV from entering the country in the early stages of the epidemic to facilitating comprehensive national HIV response of today. Each step of the way, policymakers in China have strived to ensure that HIV-related policies were pragmatic, tailored to the Chinese context, aligned with international best practices, and based upon the best available information at the time. Although there have been a great many policy actions since HIV was first discovered on the mainland, a few key policies were foundational, had a major impact on the epidemic, and marked an important shift China's HIV response, for example, the Blood Donation Law (1998), the first Five-Year Action Plan for the Containment and Control of HIV/AIDS (2001), and the "Four Frees and One Care" policy (2003). These and other key policies are highlighted here. Going forward, as China's HIV epidemic increases in size and complexity, policymakers need to remain grounded in evidence but also be open to alternative and innovative approaches.

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18.1 Introduction

China has sought to develop and implement HIV/AIDS-related policies that are pragmatic, tailored to the Chinese context, aligned with international best practices, and based upon the best available information at the time. For roughly 10 years after the first HIV case was first discovered on the mainland in 1986 (a foreign national diagnosed with AIDS), the best information available was from case reporting. However, during this period, nearly all cases were identified very late, when patients presented to hospitals with already severe symptoms of advanced HIV disease or AIDS. Thus, case reporting information was already many years out of date, and policymakers were unable to see the current picture of the HIV epidemic during this time. To make matters worse, while there were certainly more people living with HIV (PLWH) who were still undiagnosed compared to those diagnosed and therefore counted among case reports (i.e. a total of 20,711 by the end of 2003), there was uncertainty and substantial worry surrounding just how many Chinese citizens had HIV infection and did not know it (Wang et al. 2010).

Thus, on advice from the World Health Organization (WHO) and under the leadership of the Chinese Academy of Preventive Medicine (the institute was renamed as Chinese Center for Disease Control and Prevention—China CDC, in 2002), the National HIV Sentinel Surveillance System was developed and launched in 1995. This system did not take the place of case reporting. Rather, it acted in parallel, and the two sources of information were complementary to each other. The surveillance system began with collection of data among key, high-risk groups including drug users, female sex workers (FSW), pregnant women, sexually transmitted infection (STI) clinic attendees, long-distance truck drivers, and military recruits. It also began with data collection in geographical areas most affected by the HIV epidemic based on case reports, for example, Yunnan province. Although the system started out very small, with only 42 sentinel sites operating from 1995 to 1996, it quickly expanded both in terms of numbers of sites (i.e. 101 by 2000 and 194 by 2003) and in terms of key populations covered (i.e. former plasma donors [FPD] were added in 1998, men who have sex with men [MSM] were added in 2002). This system became a key source of information for HIV/AIDS policy formulation (Lin et al. 2012) (see Chap. 2 for more information).

Also important in shaping HIV/AIDS-related policy in China was an international agreement made in 2004 among international aid agencies and other donors, developing countries, and United Nations (UN) agencies. The core principles of this agreement, called the “Three Ones,” were:

one agreed HIV/AIDS action framework that provides the basis for coordinating the work of all partners, one national AIDS coordinating authority, with a broad based multi-sector mandate, and one agreed country-level monitoring and evaluation system.

The purpose of these principles was to help ensure that the global HIV/AIDS response was well coordinated among members of the international community and to ensure that limited resources were used as efficiently as possible with a goal of

targeting priority issues, making maximal impact, and preventing duplication of effort (Joint United Nations Programme on HIV/AIDS 2004).

Over time, more sources of information became available that were also important in further understanding China's HIV epidemic and informing policy supporting China's HIV/AIDS response. For example, behavioral surveillance among some risk groups began in 2004, active testing campaigns were launched in 2004 and 2005, improved methods of estimating the total number of PLWH in China (diagnosed and undiagnosed) were incorporated and made routine in 2005, and several large, special epidemiological surveys were conducted beginning in the latter half of the 2000s. Many international aid programs were also generating data during this time as well and all of these sources of partially overlapping and nonstandardized data gathered via disparate methods began to be overwhelming. The days of not having enough data were over, but the true nature of the epidemic was not clearer. Thus, in 2008, China launched its National HIV/AIDS Comprehensive Response Information Management System (CRIMS), which integrated eight smaller systems (i.e. case reporting, testing and counseling, sentinel surveillance, behavioral surveillance, anti-retroviral therapy [ART] for adults, ART for children, high-risk group behavioral intervention, and methadone maintenance treatment [MMT]) and one new system (i.e. county demographic information) into a single, unified, web-based, real-time monitoring and evaluation data system. From 2008 on, CRIMS has been the primary source of data informing policy development and implementation for China's HIV/AIDS response (Mao et al. 2010) (see Chap. 24 for more information).

The Chinese Government at all levels has issued hundreds of HIV/AIDS-related policies since the start of the epidemic, and they cannot all be covered in detail here. Thus, this chapter highlights some of the most significant national-level policies, which were critically important to China's HIV/AIDS response.

18.2 Key HIV/AIDS Policies

An overview of the major, national-level HIV/AIDS-related policies issued by the Chinese Central Government is summarized in chronological order in Table 18.1. This overview is provided along with a short description of the status of the HIV epidemic at the time these policies were issued (see Chap. 1 for more information).

18.2.1 Implementation and Repeal of the Travel Ban

By 1988, 22 HIV/AIDS cases had been reported on the mainland, mostly among foreigners, Chinese residents returning from overseas, or locals who had received imported blood products that were contaminated. This spurred the Chinese Government to take action, issuing a series of early policies focused mainly on preventing the virus from entering the country, whether carried by infected individuals or by contaminated blood products. Foreign students, researchers, business people, and others visiting China on 12-month visas had to submit to an HIV test within

1 month of entering the country. Foreigners already residing in China for more than 12 months were required to provide health certificates that specified HIV status. HIV testing was set up at major border crossings and customs checkpoints and in large cities. Foreigners attempting to enter the country who were found to have HIV infection were denied entry, quarantined, and then deported (Ministry of Health 1985; Ministry of Health et al. 1988; Ministry of Public Security and Ministry of Foreign Affairs 1986; State Education Commission and Ministry of Health of China 1986; Ministry of Health and Ministry of Public Security 1987; Sun et al. 2010).

The travel ban was temporarily lifted for a few special events including, for example, the 1990 Asian Games, the 1995 UN Fourth World Conference on Women, the 2007 Global Fund Board Member Meeting, and the 2008 Olympics Games. However, over time and with improved quality and timeliness of data, officials

Table 18.1 An overview of key, national-level HIV/AIDS policies. Adapted with permission from Sun et al. (2010)

HIV epidemic status	Policy and response
<p>1985–1988: In 1985, a US citizen was diagnosed with HIV infection while traveling in China, and four patients with hemophilia, treated with imported blood products, were also diagnosed with HIV. By 1988, a total of 22 cases had been reported across seven provincial-level administrative areas, most among foreigners or citizens returning from abroad (see Chap. 1 for more information)</p>	<p>The Chinese Central Government responded with policies aimed at stopping HIV from entering China and at initiating case reporting</p> <p>1984: <i>Blood Product Imports</i>—This policy banned the importation of foreign blood products into China (Ministry of Health 1984)</p> <p>1985: <i>Surveillance of Imported Cases</i>—This policy established checkpoints and quarantine facilities at border crossings and in major cities (Ministry of Health 1985)</p> <p>1986: <i>Notifiable Disease Designation</i>—This policy designated HIV/AIDS a Class B notifiable disease, requiring newly identified cases be reported within 24 h (Ministry of Health 1986)</p> <p>1986: <i>Travel Ban Invoked</i>—This policy instituted a ban on entry into China by PLWH (Ministry of Public Security and Ministry of Foreign Affairs 1986)</p> <p>1986, 1987, 1988: <i>Foreigner Health Certificates</i>—This series of policies required that all foreigners seeking entry or remaining in China for 12 months provide a certification of health that included HIV status (State Education Commission and Ministry of Health 1986; Ministry of Health and Ministry of Public Security 1987; Ministry of Health et al. 1988).</p>
<p>1989–1994: An outbreak of HIV was discovered among people who inject drugs (PWID) in remote, rural Yunnan province (Ma et al. 1990; Shao et al. 1991; Zhang et al. 1994). HIV began to spread rapidly. By 1994, roughly 2000 cases had been reported in 22 of 31 provincial-level administrative areas</p>	<p>The response of the Chinese Government during this period was primarily punitive, attempting to combat HIV via increased policing and organized “crackdowns” on drug use and prostitution (Ministry of Health and Ministry of Public Security of China 1991). Officials within China’s Ministry of Health (MOH) also began to discuss implementing behavioral interventions among high-risk populations, including providing STI testing and treatment for FSW (see Chaps. 3 and 7 for more information)</p>

Table 18.1 (continued)

HIV epidemic status	Policy and response
<p>1995–2002: A much larger outbreak of HIV was discovered among FPD in rural central China—HIV had spread to tens of thousands of poor farmers through unsafe plasma collection practices (Wu et al. 1995, 2001, 2008). Meanwhile, HIV continued to spread among PWID, FSW, and other high-risk groups. By 1998 all 31 provincial-level administrative areas had reported HIV cases. By 2002, approximately 10,000 PLWH had been diagnosed</p>	<p>Senior-level officials within the Chinese Central Government became aware of the seriousness of the HIV epidemic and the critical and urgent need for a response, resulting in another series of policies and actions:</p> <p>1995: <i>Sentinel Surveillance</i>—China CDC was directed to lead the development and launch of a national sentinel surveillance system to monitor the HIV/AIDS epidemic</p> <p>1996: <i>Multi-Sector Coordination</i>—The State Council STD/AIDS Prevention and Control Coordinating Meeting Mechanism was established to strengthen cooperation between government agencies</p> <p>1998: <i>NCAIDS Established</i>—The MOH created the National Center for STD/AIDS Control and Prevention (NCAIDS) within the China CDC, tasking it to provide technical guidance for HIV/AIDS prevention and control nationwide</p> <p>1998: <i>Blood Donation Law</i>—This law ensured the safety of blood for clinical use and safeguarded the health of blood donors and recipients. It stressed that blood donation be voluntary and devoid of compensation (Standing Committee of the National People’s Congress 1998)</p> <p>1998: <i>Medium- and Long-Term Plan</i>—The China Medium- and Long-Term Plan for HIV/AIDS Prevention and Control (1998–2010) encouraged condom use promotion as a means of preventing sexual transmission of HIV (Ministry of Health et al. 1998)</p> <p>2000: <i>Delineation of Responsibilities</i>—A policy entitled Working Duty in HIV/AIDS Prevention and Control for Related Ministries, Committees, Administrations and Social Groups was issued to ensure responsibility and accountability for different components of the HIV/AIDS response was clear (Ministry of Health 2000)</p> <p>2001: <i>First Five-Year Plan</i>—The first Five-Year Action Plan for the Containment and Control of HIV/AIDS (2001–2005) was issued, setting up a regular planning cycle for the HIV response and allowing the exploration of harm reduction strategies such as MMT (State Council 2001)</p>

(continued)

Table 18.1 (continued)

HIV epidemic status	Policy and response
<p>2003–2013: Improved methods for estimating the total number of PLWH were implemented beginning in 2005, yielding reliable biennial estimates (Wang et al. 2010). In 2005, an estimated 650,000 were infected. Just 8 years later in 2013, the estimate was 810,000 (Ma et al. 2018). Nevertheless, the epidemic remained concentrated both geographically and within high-risk groups, although expansion to new high-risk groups occurred (e.g., MSM; Wu et al. 2013). Availability and uptake of prevention, harm reduction, testing, and treatment services improved during this time, and as a result, more cases were identified, and individual and community outcomes improved (He et al. 2013; Zhang et al. 2009, 2011; Zhao et al. 2013a, b), but extremely poor retention in care was a major problem (Gu et al. 2016; Ma et al. 2018)</p>	<p>After the 2003 outbreak of severe acute respiratory syndrome (SARS) virus, support for public health efforts rose, and the HIV response was strengthened by high-level political support and an influx of domestic and international funds. Policies developed and implemented during this period included the following:</p> <p>2002: <i>Importation of Medicines</i>—The Ministry of Health, Ministry of Finance, State Taxation Administration, and General Customs Administration jointly obtained approval from the State Council for the 5-year tariff-free import of AIDS-related medications</p> <p>2003: <i>Domestic Medicines</i>—The State Food and Drug Administration (SFDA) approved the production of four antiretroviral (ARV) drugs by domestic pharmaceutical manufacturers, increasing access to ART</p> <p>2003: <i>Four Frees and One Care</i>—The Four Frees and One Care policy, which aimed to increase access to HIV testing and clinical care services, was a foundational policy that marked a critical turning point in the evolution of China’s HIV response (State Council 2004; Wu et al. 2007).</p> <p>2004: <i>Active Testing Campaigns</i>—The scale-up of HIV testing, including active testing campaigns among key populations and mandatory testing for incarcerated drug users, resulted in an enormous increase in the numbers of diagnosed PLWH (Ministry of Health et al. 2004; Ministry of Health 2004) (see Chap. 12 for more information)</p> <p>2005: <i>Harm Reduction</i>—Establishment and rapid expansion of MMT and needle and syringe exchange programs (see Chaps. 9 and 10 for more information)</p> <p>2006: <i>Regulations on Prevention and Treatment</i>—Not just a promotion of prevention and treatment initiatives, this policy also protected the legal rights of PLWH and their families and set up a framework of consequences for failure to implement HIV-related policy (State Council 2006a).</p> <p>2006: <i>Second Five-Year Plan</i>—Launch of China’s Second Five-Year Action Plan for the Containment and Control of HIV/AIDS (2006–2010), which was characterized by more specific and ambitious targets for the HIV response (State Council 2006b)</p> <p>2010: <i>Travel Ban Revoked</i>—The State Council lifted its ban on PLWH entering the country (State Council 2010a)</p> <p>2010: <i>Five Expands, Six Strengths</i>—This policy aimed to increase health education, HIV testing, and prevention and care services (State Council 2010b)</p> <p>2011: <i>12th Five-Year Plan</i>—Launch of China’s Third Five-Year Action Plan for the Containment and Control of HIV/AIDS (2011–2015), which emphasized the importance of involvement of civil society in the HIV response (State Council 2012)</p>

Table 18.1 (continued)

HIV epidemic status	Policy and response
<p>2014–Present: In 2014, sexual transmission became the primary driver of the epidemic and MSM became the high-risk group with the fastest rise in prevalence (National Health and Family Planning Commission 2015)</p>	<p>Two important changes in the global strategy to combat HIV/AIDS were influential during this period. First, the Joint United Nations Programme on HIV/AIDS (UNAIDS) 90-90-90 Targets refocused international efforts on improving testing and treatment services and addressing poor retention in care (Joint United Nations Programme on HIV/AIDS 2014, b). Secondly, substantial evidence of individual and community benefit of early ART led WHO to eliminate the ART eligibility criterion and recommend ART for all PLWH (World Health Organization 2016)</p> <p>2016: <i>13th Five-Year Plan</i>—China’s 13th Five-Year Action Plan for the Containment and Control of HIV/AIDS (2016–2020) contained three very important changes in national HIV-response strategy: (1) the 90-90-90 Targets were adopted as a national strategy, (2) the CD4 count-based ART eligibility criterion was eliminated, and (3) a new, streamlined and accelerated protocol for PLWH to obtain a confirmed diagnosis, complete clinical staging, and initiation of treatment, the so-called “One4All” strategy, was adopted (State Council 2017)</p>

within China’s Central Government came to realize that foreigners were not driving the HIV epidemic in China. In fact, between 2007 and 2009, foreigners accounted for only 0.3% of all newly identified HIV infections within China. Therefore, in 2010, the more than two-decades-old travel ban was finally revoked (State Council 2010a; Sun et al. 2010).

18.2.2 Blood Donation Law

In the mid-1990s, a massive outbreak of HIV infection was discovered among FPD in rural central and eastern China (Wu et al. 1995, 2001, 2008). Those affected were largely poor farmers who sold their blood to support their families. Domestic blood collectors and blood product manufacturers, finding themselves in a market suddenly shielded from international competition because of the ban on importation of foreign blood products, took advantage in the lag in government regulation and oversight of this new and highly lucrative market. Interest in growing profits eclipsed concerns for quality and safety, and the health of donors and recipients was compromised when equipment became contaminated and tens of thousands became infected with HIV. The outbreak became one of the worst tragedies of the global HIV pandemic (Sun et al. 2010; Wu et al. 2007).

In response to the crisis, blood collection stations were shut down within several weeks nationwide, and in 1996, China’s Blood Donation Law was drafted. Enacted in 1998, the most important component of the law was the prohibition of blood

donation outside nationally regulated blood collection facilities. However, the law also emphasized that blood donation must be voluntary, and donors may not be compensated (Standing Committee of the National People's Congress 1998). Since the enactment of the Blood Donation Law, only a handful cases of HIV infection via blood transfusion have been reported (Sun et al. 2010; Wu et al. 2007). Substantial effort has been made to develop standards and quality assurance programs to ensure the safety of the nation's blood supply. This has included improved testing methods to ensure that even a "window-period" donation (i.e. donation from an individual who is in the window period of infection when it is still undetectable by traditional antibody-based serological tests) is caught and removed before it enters the blood supply (see Chap. 6 for more information).

18.2.3 China's First Five-Year Action Plan (2001–2005)

To improve the coordination of the response to China's growing HIV epidemic, high-level representatives from the Ministries of Health, Finance, Public Security, and Justice, as well as the Development Commission met to discuss the introduction of harm reduction measures including MMT, needle and syringe exchange, and condom use promotion. The decision was made to move forward with formulation of policies supporting these measures and endorsing small pilot studies of harm reduction interventions. The result was that harm reduction strategies were included in China's First Five-Year Action Plan for the Containment and Control of HIV/AIDS (2001–2005; State Council 2001; Sun et al. 2010).

Unfortunately, the plan was not sufficiently funded, which weakened its impact, particularly in its early years from 2001 to 2003. However, the SARS outbreak in 2003 caused public health to rise to the top of China's policy agenda, and funding was dramatically improved (Sun et al. 2010; Wu et al. 2007). Funding issues aside, the mere inclusion of harm reduction in the plan was a major step forward and a victory for public health specialists who had been advocating for harm reduction already for many years. Long-standing sociocultural barriers to harm reduction were beginning to fall away (see Chap. 19 for more information).

18.2.4 The "Four Frees and One Care" Policy

The massive HIV outbreak in central China among FPD led to a huge demand for treatment and care, as a growing proportion of this population progressed to advanced HIV disease and AIDS, and experienced high and increasing morbidity and mortality (see Chap. 1 for more information).

In response, the Chinese Government announced a major, new commitment to engage in a more comprehensive HIV response at the UN High-Level Special Meeting in late 2003. This commitment, which later became known as the "Four Frees and One Care" policy, included the following five promises:

1. Free ART for AIDS patients in rural areas and those without medical insurance living in urban areas,
2. Free HIV voluntary counseling and testing (VCT) services,
3. Free ART for pregnant women living with HIV for the prevention of mother-to-child transmission (PMTCT) and free HIV testing for their HIV-exposed infants,
4. Free schooling for children orphaned by AIDS, and
5. Care and economic assistance to households of PLWH.

Implemented beginning in early 2004, the “Four Frees and One Care” policy has had an enormous impact on the HIV/AIDS epidemic in China (State Council 2004; Sun et al. 2010; Wu et al. 2007). Most importantly, it caused a dramatic increase in ART coverage for PLWH. Led by the National Free ART Program (NFATP) and facilitated by a massive support program called China CARES, the number of PLWH on ART in 2003 was only roughly about 100, but by 2005, this number had increased to 20,000 and by 2007, to 34,000 (Ma et al. 2018). ART scale-up had a major impact on HIV/AIDS-related mortality (Zhang et al. 2009), and as evidence of the benefits of ART accumulated, requirements restricting ART eligibility were relaxed and greater and greater proportions of PLWH who were diagnosed were receiving treatment (Ma et al. 2018). Additionally, HIV testing overall increased, and the number of pregnant women screened for HIV and provided PMTCT services increased dramatically. All children orphaned by AIDS were taken in by relatives, neighbors, or local government-run social welfare programs. Moreover, although not a primary objective of the policy, stigma and discrimination appeared to be positively impacted in the wake of the “Four Frees and One Care” policy, particularly in areas where the epidemic was driven by contaminated plasma collection (Cao et al. 2006) (see Chaps. 13, 25, and 28 for more information).

18.2.5 Regulations on AIDS Prevention and Treatment

In 2006, the Chinese Government issued the Regulations on AIDS Prevention and Treatment, which helped define the roles and responsibilities of the different relevant agencies within the government, civil society, and PLWH (State Council 2006a). However, it importantly was the first piece of legislation in China that dealt with the protections of the rights of PLWH. Stigma associated with HIV/AIDS has been very severe in China since the beginning of the epidemic. PLWH and their family members, neighbors, or friends have been discriminated against due to their medical diagnosis or their association with someone with an HIV diagnosis. Discrimination resulting from stigmatizing attitudes has been particularly severe in the workplace and in healthcare settings. This policy clearly set out, specifically, the right to marry, the right to access healthcare services, the right to equal employment opportunities, and the right to receive an education for all PLWH. The primary aim of the regulations was to address stigma and discrimination against PLWH and to create legal protection for politically sensitive prevention measures, particularly harm reduction interventions including MMT, needle and syringe exchange, and condom use

promotion. It furthermore described consequences for failure to implement HIV/AIDS-related policy. However, implementation and enforcement of this regulation has been inconsistent across geographies, levels of government, and sectors within the government (Sun et al. 2010). Nevertheless, this was a very important piece of legislation that again marked a turning point in China's HIV response (see Chap. 28 for more information).

18.2.6 The Second Five-Year Action Plan (2006–2010)

The new administration led by President Hu Jintao, Premier Wen Jiabao, and Vice Premier and then Minister of Health Wu Yi placed HIV policy high on the national agenda (Sun et al. 2010; Wu et al. 2007), and this more supportive political environment greatly facilitated the development of China's Second Five-Year Action Plan for the Containment and Control of HIV/AIDS (2006–2010; State Council 2006b). The plan set more specific and ambitious targets, particularly for prevention programs for marginalized, high-risk groups, such as PWID, FSW, MSM, and migrant workers. It also contained targets for harm reduction programs. For example, one target was to establish MMT clinics in all counties and cities with more than 500 registered drug users, and for MMT coverage to reach at least 70% of registered opioid users. This explicit target, and the funding associated with it, was instrumental in the successful scale-up the MMT program. Finally, the plan also contained targets related to treatment including ART coverage of at least 80% for AIDS patients by 2010 and PMTCT coverage of more than 90% for pregnant women living with HIV by 2010 (Sun et al. 2010).

18.2.7 The “Five Expands, Six Strengths” Strategy

The “Five Expands, Six Strengths” strategy was introduced in 2010, when the HIV epidemic was continuing to grow at an ever-faster rate despite the government's prior efforts—a large population of PLWH remained undiagnosed, and transmission dynamics were shifting more toward sexual contact, and new high-risk groups were becoming affected. This strategy was meant to combat the HIV epidemic with renewed focus and greater commitment. The five “expands” were expand coverage of (1) information, education, and communication (IEC) interventions; (2) HIV testing; (3) PMTCT services; (4) integrated interventions; and (5) ART services. The six “strengths” were strengthen (1) blood safety management, (2) health insurance, (3) care and support, (4) rights protections, (5) organizational leadership, and (6) response teams.

18.2.8 The 12th Five-Year Action Plan (2011–2015)

The estimated number of PLWH in China had climbed from 650,000 in 2005 to 700,000 in 2007, and then to 740,000 in 2009. Although the proportion of all PLWH

who were diagnosed was improving, there was still a huge number of PLWH who did not know they were infected—74% of all PLWH in 2007 were unaware of their status (Ma et al. 2018). Additionally, while the epidemic remained concentrated geographically and among key populations, new high-risk groups were being affected (e.g., MSM, migrants, serodiscordant couples) and more people were progressing to AIDS. China's HIV epidemic was becoming more dynamic and more complex. Thus, when it came time to draft the third plan for 2011–2015, policymakers had realized that the HIV response required renewed vigor and new measures that would increase the efficiency and effectiveness. Therefore, in the 12th Five-Year Action Plan for the Containment and Control of HIV/AIDS (2011–2015; called the 12th instead of the third to align with the national planning cycle), policymakers took a new direction, and for the first time, civil society was included as an important partner in the HIV response. The new plan heavily emphasized the need to support the involvement of organizations outside the government, such as nongovernmental organizations (NGOs) and community-based organizations (CBOs), in HIV prevention and care. This was groundbreaking and added much needed additional capacity for implementation of interventions. Additional key components of the plan included strengthening the prevention and control capacity of local administrative levels and further expanding coverage of prevention and care services (State Council 2012).

18.2.9 The 13th Five-Year Action Plan (2016–2020)

Already in 2014, sexual transmission had become the primary driver of China's HIV epidemic, and high-risk groups had changed—HIV among MSM was escalating at an alarming rate. In 2007, just 3.4% of all newly diagnosed cases were among MSM, but by 2014, 26% were among MSM (National Health and Family Planning Commission 2015). At the same time, the epidemic overall was continuing to grow and the expansion of testing and treatment services were still lagging. The estimated total number of PLWH in China was 850,000 at the end of 2015, one-third of whom did not know their status (Ma et al. 2018).

Internationally, the global effort to combat the HIV pandemic was becoming increasingly coordinated by UNAIDS, among others. In 2014, UNAIDS, seeking to galvanize support and create momentum for further expansion of treatment, launched a new, ambitious goal for the global HIV response. It took the form of what has been named the 90-90-90 Targets. These targets are 90% of all PLWH know their status, 90% of all diagnosed PLWH are on treatment, and 90% of all PLWH on treatment achieve viral suppression by 2020 (Joint United Nations Programme on HIV/AIDS 2014). The targets placed emphasis not just on scale-up of ART but on finding the many people who still do not know they have HIV infection, getting them onto life-saving and community-protecting treatment, and helping them to achieve the goal of that treatment, viral suppression (Joint United Nations Programme on HIV/AIDS 2017). It has stimulated countries, like China, to take a closer look at the failings of their HIV care continua from HIV screening to treatment to clinical outcomes.

Additionally, by 2015, considerable, high-quality evidence from both observational studies and clinical trials had accumulated, demonstrating the significant individual clinical benefits and community preventive benefits of early ART (i.e. treating HIV infection with antiretroviral drugs before CD4⁺ T-lymphocyte populations declined below 500 cells/mm³). Therefore, in 2016, WHO announced revised treatment recommendations. Historically, it had recommended that only PLWH with low CD4 counts receive ART, and although this criterion had been expanded over time, from <200 cells/mm³ to <350 cells/mm³ and then to <500 cells/mm³, it was now eliminating the requirement altogether recommending that all PLWH, regardless of CD4 count receive ART (World Health Organization 2016).

In the meantime, China had been examining its HIV care continuum and had already been studying the effects of early ART for expanded populations of PLWH in the Chinese setting. As of 2015, it had not yet met the 90-90-90 targets, but it had measured performance against them and found that 68% of its PLWH were diagnosed, 67% of its diagnosed PLWH were on ART, and 65% of its PLWH on ART had achieved viral suppression (Ma et al. 2018). It had also examined loss to follow-up along the continuum (Gu et al. 2016) and found that creating a simplified and streamlined patient pathway, known as the “One4All” strategy, from screening HIV-reactive to receiving a confirmed diagnosis to being initiated on ART, regardless of CD4 count, had important clinical benefits including a dramatic reduction in all-cause mortality (Wu et al. 2015, 2017).

Thus, when it came time for the State Council to draft its next five-year plan, some very important strategic changes were included. The 13th Five-Year Action Plan for the Containment and Control of HIV/AIDS (2016–2020) adopted the 90-90-90 Targets as a national strategy, eliminated the CD4 count-based ART eligibility criterion, and incorporated the “One4All” strategy (State Council 2017).

18.3 Challenges and Future Directions

China has made enormous progress over the past 30 years, and in particular in the most recent 15. However, China faces a myriad of challenges in responding to its HIV epidemic and the needs of its affected citizens. By the end of 2015, an estimated 850,000 people in China were living with HIV, but only 574,000 (68%) had been diagnosed. Among those diagnosed, only 383,000 (67%) were receiving treatment. Clearly, there is still a long way to go toward the ultimate goal of elimination of HIV infection (Ma et al. 2018).

Stigma and discrimination are still unacceptably prevalent and cause the vulnerable and the marginalized to choose not to access prevention, testing, treatment, and care services for fear of being exposed. Consistent condom use, one of the most effective and affordable prevention measures available, is still low both among heterosexual couples and homosexual couples as well as in the context of extramarital noncommercial and commercial sexual contact. Harm reduction measures still do not cover all those in need of services, and retention is

persistently poor. Testing uptake even among those who are aware and knowledgeable, educated, and financially stable is suboptimal—many do not access testing frequently enough, and many more have never tested. HIV VCT services are slow, PITC services are poorly targeted and routinely identify infection too late, and self-testing, which could be very promising for reaching those who choose not to access facility-based or government-run testing services, suffers from a lack of regulation, quality assurance, and linkage to care mechanisms. Enormous numbers of PLWH who screen HIV-reactive or are diagnosed with HIV infection are lost to follow-up before they start treatment due to fragmented services, long wait times, complicated procedures, and difficulty in navigating a complex health system. Those who do successfully start treatment struggle with follow-up and adherence to medications and often do not achieve the all-important treatment goal of viral suppression. Furthermore, treatment for coinfections such as hepatitis B virus, hepatitis C virus, and tuberculosis is not integrated into HIV services. Together, these factors contribute to high mortality and morbidity even among China's treated PLWH.

Since the beginning of China's HIV/AIDS epidemic, leaders and policymakers have sought to find pragmatic solutions, tailored to the Chinese context, aligned with international best practices, and grounded in the best available information at the time. However, implementation of existing policy has been uneven and inconsistent and more importantly, China's epidemic has changed, and China itself has changed. New, innovative approaches must be developed, and bold steps must be taken, if China's current HIV epidemic is to be confronted and controlled.

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