BEST PRACTICES OF COMMUNITY ENGAGEMENT
PREVENTING MOTHER-TO-CHILD TRANSMISSION OF HIV, SYPHILIS AND HEPATITIS B

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LINXIANG DISTRICT
CHINA

ACRONYMS

ANC antenatal care
ART antiretroviral therapy
CDC Centre for Disease Control and Prevention
HIV human immunodeficiency virus
MCH Maternal and Child Health
MTCT mother-to-child transmission
PMTCT prevention of mother-to-child transmission
RMB Reminbi (Chinese Yuan)
UNICEF United Nations Children's Fund
INTRODUCTION

The world is facing a daunting challenge: to ensure that no child is born with HIV, syphilis or hepatitis B. Mother-to-child transmission (MTCT) of these infections can be prevented when pregnant women have access to timely, high-quality antenatal care (ANC), including early diagnosis and treatment. To meet that challenge, the United Nations Children’s Fund (UNICEF) initiated pilot demonstration projects in China to provide every pregnant woman with testing and diagnosis in the first trimester, and to ensure all pregnant women who test positive are supported to initiate and adhere to the full course of treatment. The pilots also aimed to provide the proper course of treatment to every infant exposed to HIV, syphilis or hepatitis B.

The pilots demonstrate the importance of including community health workers in routine maternal and child health (MCH) service delivery. They are powerful partners in timely outreach to ensure all women, including the most vulnerable, have access to MCH information and receive ANC, including rapid tests of HIV, syphilis and hepatitis B in the early stage of the first trimester of pregnancy. Community health workers can help to ensure follow-up and adherence to treatment and other interventions. Furthermore, the pilots illustrate the success of the MCH hospitals as the lead entity, with its administration at three levels (county-township-village), and also revealed the benefit of multi-sectoral cooperation led by the Government of China.

From this, the pilots serve as a good example of community-based interventions for the reduction of MTCT, the practices of which could then be scaled up throughout China and replicated in other countries in the Asia-Pacific region.
Linxiang District in Yunnan Province, with a population of 330,000, was one of the sites chosen to implement a pilot programme for the integrated prevention of mother-to-child transmission (PMTCT) of HIV, syphilis and hepatitis B. The pilot demonstration generated knowledge and lessons learned that helped to guide the new national policy on triple testing.

Located in China’s subtropical south-west, Linxiang District has a large population of migrants from Myanmar, and cross-border marriages are common. Rates of HIV infection in the Yunnan Province of Linxiang District are particularly high. In the past, the percentage of pregnant women in the district testing positive for HIV during ANC visits was 1 per cent, around three times the level for the province as a whole. Many more women were being infected than in the past – with new female HIV cases almost on par with male cases.

The Linxiang District MCH Hospital and key health departments were wrestling with how to establish an effective system to ensure PMTCT services reached all pregnant women, including those delivering at home and living in hard-to-reach areas.

Fast forward to 2017. Linxiang District has won accolades for its model of integrated PMTCT management and has become a frontrunner in China’s quest to eliminate MTCT of HIV, syphilis and hepatitis B. A pilot project in the district, supported by UNICEF and other partners, demonstrated strategies, interventions and lessons learned for preventing MTCT of HIV, syphilis and hepatitis B. The integrated PMTCT management practices from the pilot can be replicated or adapted across China and in other countries to eliminate MTCT within the next few years – well in advance of the 2030 regional deadline proposed by the World Health Organization (WHO).¹

The pilot programme in Linxiang District for PMTCT has delivered the following results:

**DROP IN HIV TRANSMISSION**
There were zero cases of MTCT of HIV in all but four of the past 13 years (2004–2017).

**MATERNAL MORTALITY**
Zero maternal deaths at the Linxiang District MCH Hospital since 2016.

**NEAR UNIVERSAL TESTING**
There is 99 per cent testing coverage today for pregnant women for HIV, syphilis and hepatitis B.

**PROGRESS AGAINST STIGMA AND DISCRIMINATION**
The PMTCT programme staff say there is more acceptance of and less discrimination against people living with HIV and much greater awareness of all these diseases as a result of education and advocacy.

**IMPROVED TREATMENT UPTAKE**
More than three quarters (78 per cent) of HIV-positive pregnant women were on antiretroviral therapy (ART) in the first trimester in 2016 compared to just over half (55 per cent) in 2013. Nearly all (98 per cent) women diagnosed with syphilis adhered to timely treatment.

**COMPREHENSIVE EARLY INFANT DIAGNOSIS**
One hundred per cent of infants born to mothers living with HIV have received antiretroviral prophylaxis and early infant diagnosis since 2014.

**REDUCED CASES OF CONGENITAL SYPHILIS**
Six cases of congenital syphilis were reported per 100,000 live births (below the impact target for eliminating MTCT of syphilis).

**PROGRESS ON EARLY DIAGNOSIS**
First trimester testing of HIV, syphilis and hepatitis B increased from 44 per cent in 2013 to 66 per cent in 2016.

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2 All statistical data and information are sourced from the Linxiang District MCH Hospital, Linxiang District, Lincang City, Yunnan Province, China.
INTEGRATION OF PMTCT INTO MCH SERVICES: THE KEY TO ELIMINATING HIV, SYPHILIS AND HEPATITIS B

The success of the pilot project in Linxiang District reflected a number of key factors, including the approach of the Government of China to health-care management. Since 2010, PMTCT of HIV, syphilis and hepatitis B has been fully integrated into routine MCH care. The importance of this is hard to exaggerate. MCH services in China reach a vast population through 800,000 MCH service providers. These include 3,098 MCH hospitals, 34,000 community health service centres and 37,000 township hospitals.

Virtually all pregnant women in China attend at least one ANC visit and deliver in a hospital, making the integration of PMTCT into MCH care a fundamental – and winning – strategy. Tests for HIV, syphilis and hepatitis B are standard practices during ANC visits, wherever they are provided, be it at the community, township, district, county or prefecture level. Additionally, there are other key entry points for voluntary testing for HIV, syphilis and hepatitis B: at marriage registration, at family planning centres and at hospitalization for any condition. All such testing is free of charge, as are the medicines to treat and control those infections.

Prevention of new infections in children is a top priority for the Government, which is backing up its commitment to action with funding – both at the central and local levels. The total government investment in PMTCT jumped from US$11.8 million in 2009 to US$119.8 million in 2010, and almost doubled between 2010 and 2016 to US$200.9 million.

Integrating PMTCT into routine ANC visits, which have a high coverage rate all over China, explains only part of the remarkable progress made in Linxiang District. The other lynchpins of success in PMTCT in the district are more contextual and nuanced and were designed to meet local needs. The innovative ideas and tailored approaches centred around early testing, early diagnosis and early intervention – key steps for attaining and sustaining the elimination of MTCT. The team and their teamwork has been crucial and commended as “excellent” in the words of MCH Hospital Director Dr. Yang Yiqing, who particularly commends staff “accountability and love for the people.” She adds: “Everyone works really hard and we treat all patients equally.”
Linxiang District MCH Hospital is one of eight MCH county hospitals in Lincang City. It has around 2,500 deliveries each year (accounting for 40 per cent of the 6,000 births annually in the District). The hospital provides 91 beds and has 230 personnel.

Around 95 per cent of pregnant women living with HIV in Linxiang District give birth at the MCH Hospital, which all come under the watchful eyes of Dr. Gao Liping, the head of the hospital’s PMTCT department. She has been right there from the beginning, back in 2003 when the PMTCT protocol was a single dose of nevirapine administered to pregnant women and newborn babies alike. Many things have changed since then but not Dr. Gao’s commitment and quiet heroism. She and two other staff manage the entire PMTCT programme, which includes coordination as well as care. Dr. Gao is six years past retirement age but still often works through the weekends, supporting pregnant women who have tested positive for HIV, syphilis or hepatitis B through the spectrum of services to prevent MTCT and to extend care for newborns.

Continued
In 2016 and 2017, all pregnant women who screened positive for HIV took ART with the exception of two (including one woman who was diagnosed as HIV-positive during labour). All HIV-exposed babies received antiretroviral prophylaxis and early infant diagnosis for HIV, with a first test at six weeks of age. Additional tests are carried out at three months, nine months and 12 months of age until a definitive antibody test at 18 months, confirming or ruling out HIV infection. All exposed babies born in 2016 have thus far been diagnosed as HIV-negative. Babies born at the hospital to HIV-positive mothers in 2017 were also found to be HIV-negative at the first HIV test.

**Syphilis and hepatitis B**

Before testing for syphilis and hepatitis B were integrated into the PMTCT programme, around four out of five pregnant women were tested for both of these diseases. Now all are tested. There has been just one case of congenital syphilis among the 40 pregnant women diagnosed with syphilis who gave birth at the hospital between 2009 and 2016 (59 pregnant women screened positive for syphilis but not all chose to continue with their pregnancy). During this same period, 1,292 pregnant women tested positive for hepatitis B, of which 848 took treatment, delivering 860 infants (12 women had twins). The rate of MTCT of hepatitis B was 0.47 per cent in 2016 (the WHO target for eliminating MTCT is 0.1 per cent prevalence of hepatitis B among children under five years old and a MTCT rate below 2 per cent). According to Dr. Gao, there are around 130 hepatitis B cases each year on average, with 10–20 cases lost to follow-up. Children lost to follow-up do not receive all three doses required for protection against hepatitis B infection (the first dose is within 24 hours, the second scheduled at one month of age and the third at six months). The number of women diagnosed as positive for hepatitis B and syphilis has risen in recent years as testing coverage has increased.
The progress engineered by Hospital Director Dr. Yang Yiqing, Dr. Gao and the medical team is making waves. Papers, publications and reports detailing their experiences and results in PMTCT have won scientific and technical prizes. Their work has also been reported in the media. Director Yang and Dr. Gao have been personally hailed as “outstanding professionals” by authorities in Yunnan Province.

The impression from spending a little time with Dr. Gao at the hospital is that she measures success on a simple scale: by the smile of a mother with her baby – whether in for a check-up or to collect infant feeding formula. This is all the more evident in how successfully the programme is working.
A system of standardized protocols and referrals is the bedrock of district-wide coverage of the PMTCT programme. MCH institutions under the National Health and Family Planning Commission have been at the core, supported by the HIV treatment centre located at the Lincang City Hospital and the Center for Disease Control and Prevention (CDC), the main institution for public health management in China. Closely coordinating with each other, they developed procedures to integrate PMTCT services into village, township and district health systems – expanding from communities to the city.

Village level
Local doctors are usually the first point of contact for women who suspect or know they are pregnant. Pregnancy is confirmed at the village health clinic, after which information and advocacy materials on ANC, including PMTCT, are handed out. Pregnant women will then be referred to the nearest township or district MCH hospital to get tested for HIV, syphilis and hepatitis B. All testing is done on a voluntary basis.
Dr. Qi Youzhen is one of two doctors running the health clinic at Tan Yao Village – population 2,250. She has been in the village for 20 years, having worked at the clinic for 15, and she knows pretty much everyone in the community. If PMTCT begins at the grass-roots level, it is carers like Dr. Qi who are on the front lines.

Some women from Tan Yao and the surrounding villages choose to go straight to the township or district hospital for ANC if they suspect or know they are pregnant. Most, though, head first to the local clinic. Tan Yao Village is part of Quannei Township in Linxiang District.

There is a good chance that the patient will already have a medical file thanks to the efforts of Dr. Qi. “When I hear there's going to be a marriage in the community, I’ll pay a household visit and set up a family health record,” she says.

A first ANC check-up at Tan Yao clinic will involve a pregnancy test and an update of the patient’s file, noting, for example, the approximate time of delivery and any high-risk factors or other pertinent information. Dr. Qi will then refer the patient to the township hospital for testing for HIV, syphilis and hepatitis B. She and other village doctors used to conduct HIV rapid testing on site, but when syphilis and hepatitis B were added to the PMTCT programme, that function was lodged with the township hospitals and clinics.

A significant part of Dr. Qi’s job is information sharing and advocacy about MCH and the prevention of sexually transmitted diseases. In the courtyard outside the clinic’s two ground-level rooms is an HIV-prevention information board. There are also boards on how to read medicine labels and where to go for psychological counselling. A stack of brochures and other health information materials are on hand and are given out during visits. Once in a while Dr. Qi will organize some information sessions on HIV and other health issues for local people. She is grateful for the informal assistance with HIV prevention efforts provided by the village committee, village head and women’s cadres. Family planning advice is also offered at the village level and condoms are available at the clinic.

If they’re planning to have a baby I’ll offer folic acid to the woman.

Dr. Qi Youzhen
Clinic doctor at Tan Yao Village
Three HIV-positive women from Tan Yao Village have given birth in the time Dr. Qi has been living there. All three had interventions to prevent MTCT and their babies were healthy. Dr. Qi also brought a woman from Myanmar living with HIV and her Chinese husband to the township hospital for confirmatory testing. She is also on the lookout for others she can help. It is difficult to identify people who inject drugs, for example, “but if I do, I encourage them to go for testing.”

She says that migrants from Myanmar living in the village (who have medical records) do not have rural medical insurance, but they can access the full range of public health services and their children are eligible for free immunizations – the clinic has a cold-chain fridge stocked with all required vaccines as per the national immunization schedule.

These days, people are more open-minded about HIV and other sexually transmitted diseases. In the past, she said, divorce was common if the woman was HIV-positive and her husband was negative. But no longer.

Nevertheless, people living with HIV still face some stigma and discrimination – mainly, she says, from family members. That is why women normally reveal their status only to their husbands, keeping it quiet from relatives and neighbours.

The clinic has regular opening hours, but Dr. Qi’s work stretches much beyond these. She and her male colleague are effectively on call around the clock. Her responsibilities extend to making home visits to neighbouring villages, not just when she hears about a marriage but for other reasons, such as checking on pregnant women and following up with them after they give birth. “We have a lot of work to do because the villages are scattered,” she said. The furthest village is 10 km away, reachable by road only since 2015.

With such a work schedule – and never taking a holiday – Dr. Qi is grateful for the incentives earmarked for village doctors in the public health budget. Dr. Qi receives “more than 20 days” per year of training by township and district hospital doctors while being regularly updated on new health guidelines. She feels supported in her work, always able to discuss issues with her colleague at the clinic and reach out to doctors further afield if she needs specific guidance. Moreover, villagers and volunteers, including women’s cadres, help out with logistics and communications.

“If’s because of treatment that attitudes have changed. If you’re on ART and use condoms there is no transmission.”

Dr. Qi Youzhen
Clinic doctor at Tan Yao Village
In case of an emergency, such as a pregnant woman going into labour early, Dr. Qi will call the township hospital, which will send a vehicle to collect her.

Dr. Qi and her colleague know their constituents well – including the families experiencing economic hardship. They are the focus of China’s poverty alleviation campaign, which is building roads and bringing piped water, electricity and cable television to every single village. There are 90 people living under the poverty line in Tan Yao Village (defined as those earning under a specific monthly income). Such families receive a minimum subsistence allowance each month and free health care.

**Township level**

Township hospitals and clinics are provided with rapid testing kits for HIV, syphilis and hepatitis B. Pre-test counselling is offered. If a woman tests negative for HIV and has no other high-risk pregnancy issues, she can continue her ANC and deliver at the township facility or opt to give birth at one of the hospitals in the city. If a woman screens positive for HIV, she will be personally accompanied to the MCH district or county hospital for specialized care as a high-risk pregnancy patient. Most township hospitals can administer treatment for syphilis and the hepatitis B hyper-immune globulin (HBIG) birth shot plus the series of three hepatitis B vaccine doses that are required for infants exposed to this condition. Nevertheless, a pregnant woman testing positive for syphilis or hepatitis B will be advised to deliver at the district, county or city hospital.

**District level**

An HIV-positive pregnant woman referred to the district MCH hospital will undergo counselling and confirmatory testing – the diagnosis is done by the CDC. Her CD4 (white blood cell) level and viral load will also be checked. If HIV is confirmed, the patient will be accompanied to the treatment centre a short walk away from the MCH hospital for counselling and ART. The time between rapid testing, confirmatory testing and the start of treatment is much shorter than it used to be, now being around two weeks. The MCH hospital will provide a comprehensive basket of services, including support and monitoring through pregnancy, delivery, post-delivery and early infant diagnosis. Women screened positive for syphilis will be given a full course of treatment and infants born to women with hepatitis B will receive the hepatitis B hyper-immune globulin shot and the first hepatitis B vaccine at birth.

**Provincial level**

The district MCH hospital sends blood samples for early infant diagnosis to the provincial-level MCH hospital in Kunming, the capital of Yunnan province, ensuring that results are received much quicker – within 10–15 days – than used to be the case when samples were sent to Beijing.
PRE-MARRIAGE HEALTH CHECKS: BOOSTING EARLY DIAGNOSIS

Couples registering their marriage at the marriage registration desk are offered free testing for HIV, syphilis and hepatitis B – something that they are encouraged to do. Thousands have signed up for this service which is a big factor in boosting early testing and diagnosis rates for the three diseases. Between 2003 and 2016, over 48,000 people were tested for HIV at pre-marriage checks in the district. Of these, 351 people were HIV-positive. MCH hospital programme officers work closely with the civil affairs department that manages the marriage registration desk. The hospital has trained three civil affairs officers on the importance of testing and options for treatment. Twice a day, blood samples from the tests are sent to the MCH hospital laboratory, which then carries out the diagnosis. Pregnant women whose results are positive will be contacted directly by the programme management office of the district MCH hospital and asked to come in for counselling and a confirmatory test. If this test is also positive, the woman will be referred for PMTCT services. For pregnant women whose results are negative, this information will be communicated to their village doctor and added to their medical record (or a new medical record will be created if none exists). Men and women who are not pregnant and who screen positive for HIV are referred to the CDC for treatment and care.

The Linxiang District treatment centre also plays a pivotal role in referrals and the uptake of PMTCT services for pregnant women. Around 60–70 per cent of the HIV-positive pregnant women using PMTCT services at the district MCH Hospital are referred by the treatment centre (that is, women previously diagnosed as HIV-positive who are on treatment).
The Linxiang District MCH Hospital has a department specifically handling high-risk pregnancies. Pregnant women screened positive for HIV, syphilis or hepatitis B fall into this category, as do women with diabetes, previous pregnancy complications, weight and height issues, and kidney, blood, cardiovascular or chronic conditions. All departments, in actuality, coordinate closely regarding high-risk case management: PMTCT, laboratory and testing, obstetrics/gynaecology and paediatrics. For ANC, a coloured rating system is used to differentiate risk levels. A yellow icon stands for the lowest high-risk case, pink for moderate risk and red for highest risk. On each icon, affixed to a check-up chart on the antenatal room wall, is written the name of the woman and her expected delivery date. In addition, different coloured cups that can be used for drinking or eating are gifted to each woman, the colour depending on their risk-level. Thus, simply by asking the patient what colour cup she received, the nurse will know her level of risk. One person is in charge of contacting – either by phone or through instant messaging (WeChat) – women in the high-risk group to tell them when to come in for their next ANC visit. Women undergoing treatment for syphilis will be reminded of the date for their next penicillin injection – the full treatment course of which takes three weeks. Pregnant women newly diagnosed as HIV-positive are personally accompanied to the HIV treatment centre. For the first three months, the collection of medicines is every two weeks, after which the period for refills is longer.
Yimu’s four-month-old son exudes contentment, gurgling in the arms of his mother as she shares her story. She is sitting on a sofa in a meeting room at the MCH Hospital in Linxiang City. Several staff have come to greet mother and son, and they can’t help but stay close by. Not because they expect the baby to cry, but because they are eager for the chance to hold and cuddle him. They are at the ready for the first sign of restlessness.

The baby is a joy – and proof that adherence to antiretroviral therapy is an effective barrier against the transmission of HIV from mother to infant. His negative diagnosis at four weeks old is the latest stage of the care spectrum that Yimu is progressing through to prevent MTCT, a process that will end only after a definitive diagnosis at 18 months of age. Yimu was closely monitored in pregnancy and is visibly moved when she describes the support she received from the hospital: friendly service, people who care and continuous support.

Her relaxed, confident manner is a far cry from how she felt when she found out she had HIV during a health check-up at the CDC. “I felt like committing suicide,” she admits. She had thought that her status was a death sentence and she couldn’t see any future for herself. But with post-test counselling and the knowledge about free and effective treatment for HIV – which she faithfully takes – her attitude completely changed. She has learned so much, including about anti-discrimination laws for people living with HIV – and various kinds of economic assistance.

Information from the hospital about preventing MTCT set her mind at ease about having a baby with her second husband (she split up with her first husband who injected drugs and from whom she acquired HIV). She knew there was every chance her baby would be healthy if she followed the full protocol. “The most important thing for people with HIV is taking medication every day at the same time,” she says.

It is easy for her to get to the hospital to pick up her free supplies of infant feeding formula as she and her husband live less than 2 km away. She is thankful though for the transport subsidies she gets and the living allowance from the Government.

She has a solid support system in the city and is good at counselling others. So good in fact that her skills have caught the attention of the hospital staff, who believe she would make an excellent peer counsellor. “If my close friends are feeling down about having HIV, I’ll comfort them,” Yimu says. In terms of stigma and discrimination, sometimes people won’t talk to you if they know about your status or they’ll avoid you. But we get a lot of strength from being together. I know about 100 people with HIV and they are all on treatment.”

**BOX 3  YIMU’S TALE: BABY JOY AFTER A POSITIVE DIAGNOSIS**

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There are also special procedures in place for children in the high-risk category. As is the case for adults, one health-care worker is responsible for following up on each child to ensure that they come in for a check-up or to be immunized, the contact of which is made either through a phone call or a WeChat message to a family member.

Close inter-departmental coordination is standard to ensure that particular requirements or instructions are followed. For example, babies born to HIV-positive mothers are not supposed to be administered a BCG vaccine (against tuberculosis) after birth due to the possible risk of tuberculosis infection since the BCG vaccine is alive.
A STRONG HEALTH INFORMATION MANAGEMENT SYSTEM

The district and township hospitals are connected through a well-established online information management system where patient information – including testing for the three diseases – is immediately accessible. Manual systems are also in use. Thus, in the Child Health-Care Department at the MCH Hospital, there is a large calendar with “pouches” for each month of the year. The pouches contain the file cards for children aged 0–3 years from all seven townships in Linxiang District who are due to come in for a health check-up at a specific time.

BOX 4 QUANNEI TOWNSHIP MCH HOSPITAL: WHERE REFERRAL WORKS

It is hard to miss the large blue and white chart on the wall of the ANC check-up room at the Quannei Township MCH Hospital, which is precisely the point. The referral chart is visible to everyone who enters. It provides clear information on who to contact and where to go for specific PMTCT services. “PMTCT” appears at the top in bold red letters so there is no mistaking the subject. Below the heading is a box listing the National Health and Family Planning Commission. An arrow connects this box with the Linxiang District MCH Hospital, which in turn has arrows to the CDC and the HIV treatment centre. Names and phone numbers are given for the MTCT prevention focal points at these organizations plus those in Quannei Township and the 11 villages under its purview. The chart explains what services are offered where. So, for example, a woman screened positive for HIV at a family planning check-up will know to contact the CDC while a pregnant women with a positive result will know to call the district MCH hospital.

An updated referral chart for 2018 also lists the names and numbers for community-based care and support. This chart is displayed at township and district-level facilities in Lincang City.

As a referral system, it is simple, patient-friendly and highly effective.

Quannei Township is around 40 km from the downtown area of Linxiang District. The Township is one of the richest of the seven in the district and has a population of 30,000. The hospital provides a comprehensive menu of MCH services, including for the management of chronic diseases. A list of services provided is posted just outside the entrance. There is a standardized online information management
system, but also, as in the district hospital, a manual system. Patient cards are slotted into the appropriate plastic holder on a giant wall calendar divided into months and days. The facility, with 24 beds, oversaw 360 deliveries in 2017. There is a laboratory for diagnostic tests and there are stocks of HIV, syphilis and hepatitis B rapid testing kits, supplied by the Public Health Department at the provincial level. In addition, there is also a fridge to store blood samples and a cold chain for vaccines.

Many women come to the Quannei Township MCH Hospital for testing (including pre-test counselling) and ANC on referral from their village doctor. The Hospital in turn follows the standard PMTCT protocol. If a pregnant woman tests positive for any of the three diseases, she will be personally accompanied to the District MCH Hospital for confirmatory testing and follow-up. Interestingly, according to staff, from Monday to Thursday fewer women come for check-ups. It is much busier on market days when villagers congregate in town.

At least one person is tested each day for HIV, syphilis and hepatitis B. In 2016, no one tested positive for any of the three diseases, while in the first nine months of 2017 there was one case of hepatitis B among the 93 women who were screened.

“The early pregnancy (and thus early testing) coverage rate is very high,”

Dr. Zheng Shilin
Township doctor

Around 76 percent of women come in for ANC before 12 weeks. Each test carried out is entered into a computerized database which is accessible to staff at the District MCH Hospital.

Testing and services for the three diseases here, as throughout China, are free for everyone, including migrants. They – like all people from across the border – have access to public health-care services. However, migrants are often reluctant to seek medical care and treatment. This is particularly the case for those who have left areas of conflict, who are likely to be timid, tend to see themselves as a disadvantaged group, have little knowledge about HIV and are hampered by language barriers. Thus migrant women tend to be screened late in pregnancy or during labour, an unfavourable scenario for the effective prevention of MTCT.

As part of a pilot programme managed by the Quannei Township MCH Hospital, village doctors are setting up local teams to reach out to migrant populations coming from Myanmar with an emphasis on information sharing and testing.
There are 76 Myanmar women registered in the township. Women from Myanmar are eligible to receive rural medical insurance one year after getting married to a local resident and obtaining an identity card that gives them legal status. Those who are registered may also be eligible for subsidies under the Government’s poverty alleviation scheme. For Myanmar women who do not have rural medical insurance, are poor and may move back and forth across the border regularly, the Quannei Township MCH Hospital extends as much financial support as it can.

“Awareness about HIV, syphilis and hepatitis B is improving thanks to advocacy. There are few cases of discrimination,” the doctor said, adding that services for migrant women are much better than they were 10 years ago.
The Xingyu peer support group provides guidance on all aspects of MTCT prevention and psychosocial support. With just five people in the team – a mix of full-time and part-time volunteers – the peer support group runs a host of HIV advocacy, educational and personal support activities covering seven villages in Linxiang District. They carry out home visits and talks at schools, factories and workplaces, as well as organize community events for HIV-positive pregnant women, including peer get-togethers and large events where health specialists are keynote speakers. They even conduct on-the-spot rapid HIV testing. The objective of all this is to spread awareness about HIV, syphilis, hepatitis B and other sexually transmitted diseases and to mobilize people – including pregnant women and sex workers – into action.

The group is led by Dr. Fengling Xing, a 10-year veteran of HIV prevention efforts. “What motivated me to get involved in peer advocacy was, I felt like many people were not fully aware of HIV. There was just not enough knowledge out there.” She is from the Tai ethnic minority group, whose language is the same as Burmese and is spoken in several of the villages where her team is active. The group’s base is a little office provided free of charge in the premises of the Linxiang District CDC. The group works closely with cadres from the All China Women’s Federation, which provides a number of services, including for family violence and alcohol abuse.

HIV education in schools is a priority. “Some schools come to us and ask us to speak to students. For some schools, we approach them,” said Dr. Xing. The HIV awareness-raising sessions start from Grade 9 (adolescents). “We show them how to use a condom and tell them where they can get tested,” Dr. Xing said. Information sessions are also held for factory workers and village cadres, who are a source of community support for Dr. Xing’s peer support group.

Adult audiences are told about the rapid HIV testing that qualified and trained members of the group can conduct on site. “More people these days are willing to get tested, and they will come to us,” said Dr. Xing. Between December 2016 and October 2017, the group tested more than 2,000 people. Of these, 10 were HIV-positive. Two refused to take up treatment in Linxiang District because they were afraid of being found out, although they said they would seek treatment in Kunming, the capital of Yunnan Province, where being anonymous is easier.

“Stigma and discrimination are still there but things are getting better because of advocacy. We are seeing fewer cases of discrimination,” Dr. Xing explained. Things are also improving for ethnic minority groups and the migrant population through targeted advocacy and other initiatives. For example, peer educators will visit shops and factories where migrants work and ask village committees to alert them in the event of any newcomers from Myanmar, who they will support to get tested.
“In terms of HIV-positive pregnant women lost to follow-up, the causes need more investigation,” said Dr. Xing. “We know this happens for many different reasons, such as fear about the negative effects of treatment, financial difficulties, problems with taking medication daily. We need peer educators to understand the reasons for each case.” One suggestion she has is for greater advocacy at the village level to get pregnant women to go to the MCH hospital for testing.

The biggest challenge is finding funding on a sustainable basis. The peer support group has no fixed income but it has regular expenses, such as transport subsidies for village home visits and hospital trips for HIV testing, plus the costs incurred for the various events and training sessions they organize. The funding cycle for each programme is 11 months and money needs to be secured again each year, which is somewhat precarious.

**INCENTIVES, TRAINING AND GUIDANCE FOR HEALTH-CARE WORKERS**

**Incentives and assistance**

Incentives for health staff play an important role in spurring uptake of services. For each woman in early pregnancy (first trimester) that they refer to a township or district hospital for ANC, a community health worker or village doctor will receive RMB 50 (RMB 20 from the Government and RMB 30 from the hospital). An additional RMB 50 is given for accompanying a pregnant woman in the high-risk category to the district MCH hospital. Village doctors are paid RMB 20 for each health record they create and the same amount is provided to each pregnant woman from the Government’s basic public health fund.

HIV-positive pregnant women in the PMTCT programme benefit from transportation subsidies to cover hospital visits, as well as subsidies for delivery.

In a voluntary scheme that started in 2013, each staff member at the district MCH hospital donates RMB 5 per month from their salary to help poor patients pay their hospital bill. For HIV-positive mothers, additional costs beyond delivery may be incurred if extra services are needed, for example, any type of surgery performed. This financial aid can make a big difference to those who cannot afford rural health insurance or who are not eligible for it, particularly migrants from Myanmar.

An important overall factor is that ANC services are part of free essential public health services. Women who are pregnant and living with HIV, syphilis or hepatitis B pay nothing for ANC, gynaecological and birth delivery services. Moreover, treatment for HIV and syphilis are provided at no cost and hepatitis B vaccines are free for children under the Expanded Programme on Immunization.

**Training and guidance**

Dr. Yang and her team have received training from professionals at the provincial level, giving them the technical, managerial and counselling expertise to apply and pass on. They, as well as other district, regional and national MCH experts and health institutes have trained grassroots medical personnel. Since the beginning of the pilot programme for PMTCT of the three diseases in Linxiang District, nearly 4,000 people at all levels have had capacity-building. Experts have made regular visits to health-care sites in the district.
to provide technical guidance and monitor the progress of the PMTCT pilot programme. Assessments have been based on factors such as knowledge of preventing MTCT of HIV, syphilis and hepatitis B among rural pregnant women, as well as infant feeding practices, capacity of the medical staff, quality control and use of primary data.

MOVING FORWARD

Strengthening the health system
Linxiang District is carrying out a gap analysis of the health system as part of the process of overcoming obstacles, pinpointing the areas that need greater attention and driving solutions to achieve triple elimination.

One issue mentioned by Linxiang District MCH Hospital staff is the need to strengthen standardized laboratory management and the implementation of the national technical guidelines. Another issue raised is limited staff at the hospital. The fact that the PMTCT department has only three professionals overseeing what is a model programme speaks volumes about the team’s capabilities, while also highlighting the daily challenge for these staff in performing their multiple tasks.

Reducing loss to follow-up
There are particular challenges to following up on migrant women with hepatitis B to ensure their babies receive all three required vaccine doses at the appropriate times. For one thing, migrants often change their phone numbers and may not be reachable through instant messaging. In such cases, village doctors are often asked to get in contact with individuals through other means, such as, for example, home visits in cases where the family has not moved. Language may also be a barrier. People from the border areas of northeast Myanmar speak the Wa ethnic minority dialect, but there may be no one at the hospital who speaks this dialect. One idea is to have a health-care worker dedicated to following up only on hepatitis B cases – for which numbers are still quite high – to ensure no one is lost to follow-up. Between 2009 and 2016, 860 infants were born to mothers with hepatitis B in Linxiang District, of which 634 children were negative for hepatitis B and three were positive. Fourteen children died, 62 were lost to follow up and 223 did not complete the full series of hepatitis B vaccinations or it was not yet the time to conduct testing.

There is also a need for greater emphasis on couples counselling, as well as counselling and training for health workers on how to help migrants and families from Myanmar.
For syphilis, there are virtually no more cases lost to follow-up, although the MCH Hospital’s high standards of testing and treatment for pregnant women with this condition are often not found at clinics in other counties. In some cases, pregnant women may test negative for syphilis outside of the district but positive when they get to the hospital, thus delaying the start of treatment. Also, as explained by Dong Youqin, Deputy Director of the MCH Hospital, some private hospitals do not focus sufficiently on treating syphilis.

**Providing psychosocial training for doctors**

One activity in the pipeline – to correct an identified gap – is psychosocial support and training for doctors, nurses and community health workers. According to the Deputy Director of the MCH Hospital, greater support and training are needed for outreach and services to high-risk groups, such as people who inject drugs and sex workers. This training will enable them to support children affected by or living with HIV, particularly children who find it difficult to accept their positive status. This training enables doctors, nurses and community health workers to provide critical care throughout the lifecycle, which contributes to eliminating MTCT.

**Expanding community care and support**

Hospital staff acknowledge that more formal mechanisms between the MCH hospital and community peer support groups are needed to carry out advocacy, awareness raising and communication on PMTCT, particularly among migrant populations. There are plans to move this forward, strengthening partnerships with social organizations and peer support groups, such as the Xingyu peer support group, while also bringing women from Myanmar (both HIV-positive and negative) who can speak some Chinese into the core team and training them. Engaging women from Myanmar is a strategy to enable migrants to identify with people from their own community. Given that many migrants from across the border are illiterate, it is not enough to translate the written guidelines for PMTCT into their own language. Novel ways are needed for information sharing, including, potentially, visuals and short videos. Overall, the MCH Hospital aims to ensure more vigorous links with community care and support groups, incorporating them into the PMTCT programme on a sustainable basis.