The success of the Mingende practice model for preventing parent-to-child transmission of HIV in Papua New Guinea
TOGETHER, WE CAN

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Together, We Can: The success of the Mingende practice model for preventing parent-to-child transmission of HIV in Papua New Guinea

By Sumithra Prasanna

Cover photograph: Early mornings at the Mingende Rural Hospital where the staff’s children huddle together to play: Sumithra Prasanna/UNICEF Papua New Guinea/ October 2010

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UNICEF East Asia and Pacific Regional Office
19 Phra Atit Road
Bangkok 10200 Thailand
Tel: (66 2) 356-9499
Fax: (66 2) 280-3563
E-mail: eapro@unicef.org
www.unicef.org/eapro

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<td>Acquired immunodeficiency syndrome</td>
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<td>ANC</td>
<td>Antenatal care</td>
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<td>ART</td>
<td>Antiretroviral therapy</td>
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<td>ARV</td>
<td>Antiretroviral</td>
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<td>CABA</td>
<td>Children affected by HIV &amp; AIDS</td>
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<td>CHS</td>
<td>Church Health Services</td>
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<td>CICT</td>
<td>Client initiated HIV counselling and testing</td>
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<td>CMC</td>
<td>Church Medical Council</td>
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<td>DBS</td>
<td>Dry Blood Spot</td>
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<td>EAPRO</td>
<td>East Asia and Pacific Regional Office</td>
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<tr>
<td>FHI</td>
<td>Family Health International</td>
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<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<td>ICT</td>
<td>Information and communication technology</td>
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<tr>
<td>IMAI</td>
<td>Integrated management of adult illnesses</td>
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<td>MCH</td>
<td>Maternal and child health</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MRH</td>
<td>Mingende Rural Hospital</td>
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<td>NDOH</td>
<td>National Department of Health</td>
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<tr>
<td>NGO</td>
<td>Non-governmental organisation</td>
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<td>NVP</td>
<td>Nevirapine</td>
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<tr>
<td>OI</td>
<td>Opportunistic infection</td>
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<td>OVC</td>
<td>Orphan and vulnerable children</td>
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<td>PASHIP</td>
<td>Papua New Guinea-Australia Sexual Health Improvement Program</td>
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<tr>
<td>PCR</td>
<td>Polymerase chain reaction</td>
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<tr>
<td>PICT</td>
<td>Provider initiated counselling and testing</td>
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<td>PLHIV</td>
<td>People living with human immunodeficiency virus (HIV)</td>
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<td>PMTCT</td>
<td>Prevention of mother-to-child transmission (of HIV)</td>
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<td>PMV</td>
<td>Private motor vehicle</td>
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<td>PNG</td>
<td>Papua New Guinea</td>
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<td>PPTCT</td>
<td>Prevention of parent-to-child transmission (of HIV)</td>
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<tr>
<td>STI</td>
<td>Sexually transmitted infections</td>
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<td>SVD</td>
<td>Society of the Divine Word</td>
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<tr>
<td>VDRL</td>
<td>Venereal Disease Research Laboratory</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive Summary

Inside every mother lives a dream that her child will be born healthy. Inside every mother breathes a hope that her child will live a better life than hers. Deep in her heart are embedded fears and anxieties for her baby. And should the mother test HIV-positive, her worries know no bounds.

The land of Papua New Guinea is no stranger to HIV & AIDS. The country’s first reported case was in 1987, but in a little over two decades, the spread of the disease seems unabated with the country today facing the challenge of a generalized epidemic. The geographic isolation and remoteness, unreliable and costly transportation options and limited human resources combined with deeply entrenched cultural practices, gender disparities and pervasive violence against women weaken implementation of HIV & AIDS programmes across the country.

Papua New Guinea is the largest developing country in the South Pacific endowed with an abundance of natural resources that include copper, gold and oil accounting for nearly two thirds of export earnings. With an array of diverse cultures and communities speaking an astounding 860 languages, the country is the most heterogeneous in the whole world. But the flip side is that Papua New Guinea has the poorest social indicators in the region, with short life expectancies, high rates of maternal and child mortality, low levels of literacy, high rates of violence, and a lack of law and order situation with disparate communities constantly warring against one another.

Even a decade ago, mothers who tested positive feared death, while women who were pregnant could not muster the courage to test owing to HIV-related stigma. Positive women were suspected of infidelity by their male partners, and were subjected to domestic violence. People who were known to be HIV infected were driven far away from their homes by their own family members, and left to live alone or fend for themselves. Many health workers did not have much awareness about the illness then. They were too petrified to handle labour and delivery of HIV-positive mothers.

The year 2003 marked the groundwork for a new fortifying chapter in the nation’s health care. The year witnessed a Catholic-run rural hospital situated in the small town of Mingende, Kerowagi District, Papua New Guinea, taking the initiative of rolling out the prevention of parent-to-child transmission (PPTCT) programme to care for mothers and children alike, and through this process, strengthen mother and child health (MCH) services. The challenges, owing to social and cultural factors, were enormous and made the hospital’s reach out to communities in Simbu province difficult. But the challenges did not deter Mingende’s trained health workers from continuing to persuade people through mobile clinics, foot patrols, outreach to facilitate community participation and health talks to create awareness. The process of fostering community involvement had begun as far back as the year 2000, when tribal leaders from 13 tribes living in the catchment areas surrounding Mingende were approached to help in the hospital’s outreach activities.
Slowly, but steadily, the hospital built its credibility by way of serving and caring equally for all those who came to them, irrespective of whether they were HIV positive or otherwise, and thus earned the trust of visiting mothers and pregnant women, who in turn spread the word.

After an initial trial period and several changes to guidelines over the years, the PPTCT programme saw 41 babies testing negative, which includes all 25 of the most recently tested babies since 2009. It is an accomplishment that reinforces the fact that elimination of mother-to-child transmission of HIV is a realistic public health goal. It is also an important part of the campaign to achieve the Millennium Development Goals (MDGs).

How did the hospital manage this success? What are the ingredients of the unique Mingende programme? Can we take away lessons from this story, and prepare a working model that can be applied elsewhere? The purpose of this report is to document the Mingende practice model and to analyse the factors leading to the success of the PPTCT programme at the MRH.

Some of the lessons learned from the Mingende experience, covered in greater detail in the following pages, and good practices include the following:

1. Strong leadership drives excellence.
2. The PPTCT programme serves to strengthen MCH, and integration of services allows for timely ART interventions and care.
3. Clear maintenance of records aids stringent follow-up of mothers on ART and therefore, Prong 4 effectiveness: ARV for mothers’ own health. 1
4. Greater involvement of people living with HIV ensures follow-up of positive mothers and mobilizes community support.
5. Clear delineation of roles of staff, who are each responsive and responsible, improves service efficiency.
6. Identification of and swift responses to specific needs of the public, unique initiatives such as men’s clinic and involvement of community leaders in hospital’s outreach help tackle issues in a holistic manner.
7. Strong linkages with support services such as rural health centres and aid posts reduce loss of mothers to follow up.
8. The effects of these good practices are multiplied by a critical factor that sees the hospital management supporting and caring for its staff, whether it is housing them in staff quarters within the hospital premises, or training them as they work, thus keeping the morale high among staff members. This in turn, translates into quality care for patients visiting the various clinics.

Through the Mingende experience, we can confidently state that PPTCT programmes are creating a holistic health care environment with mothers and children cared for equally, while related community facilities are continuing to work towards educating men and engaging whole families to approach health centres for voluntary confidential counselling and testing (VCCT).

1 The 4 Prongs to prevent HIV: Prong 1 – Primary prevention of HIV infection among women of reproductive age. Prong 2 – Prevention of unintended pregnancies among women living with HIV. Prong 3 – Prevention of HIV transmission from women living with HIV to their children. Prong 4 – Provision of care, treatment, and support to mothers living with HIV, their children and families.
In the forthcoming pages, we will explore the innovative methods and processes that have led to the Mingende Rural Hospital’s (MRH’s) successful follow up for the continuum of care to reduce fall-out rates and improve timely ART provision as well as adherence. We will study the collateral factors aiding the hospital in its mission, examine the incremental effects of integration of health care services, understand what we can learn from these good practices, and deliberate on whether we can apply some of these suitably elsewhere. We will meet the people, explore the stories, analyse the key lessons, and witness hope.
1. Introduction

In a land of startling geographical contrasts, Mingende is a little town in the Kerowagi district of Simbu province, Papua New Guinea, tucked away in verdant vegetation and promising breathtaking views of the fertile Waghi Valley, with the Digine-Kubor range to the south and Drekore range to the north. Herein lies St. Joseph Rural Hospital sprawled over an impressive hilly terrain, and comprising a dedicated cast of medical officers, nurses, health workers, coordinators and community leaders who work tirelessly to enhance the quality of lives of the people they serve.

Run by the Catholic Health Services (CHS), Simbu, and supported by the Church Medical Council (CMC), St. Joseph Rural Hospital, better known as the Mingende rural hospital, was first established in the year 1964 as an aid post, and later transformed into a health centre in 1978. Since then, it has focused continuously on upgrading and expanding its facilities and services, and has espoused and encouraged staff development and training. In view of the extraordinary work it was doing, the health centre was elevated to the status of a Rural Hospital in 2006. MRH provides a comprehensive range of health services at a standard acceptable to the Nursing Council of Papua New Guinea, Medical Practice, National Health Plan 2001-2010 and the Objectives of the Church Health Services. It also forms the nucleus of six other health centres and two aid posts, all of which come under the umbrella of CHS/CMC.

Catholics have had a long history of connection with Papua New Guinea’s health services, dating back to before the country’s independence. Immediately following the Catholics discovery of people living in the Highland areas in the 1930s, “Roman Catholics of the Society of the Divine Word (SVD) reached the Central Highlands near the present settlement of Mingende and moved there further westward to the Mount Hagen area… The first Highlands “mission rush”, a sequel to the land rush and the gold rushes, peaked in 1934.”

Around the year 1956, two Catholic sisters, who were serving people in China, came to Mingende after the communist government there banned Christianity in the country. They took a long journey through the South Seas and eventually reached Simbu, where they stationed themselves at Mingende, set up an aid post in a traditional kunai house in 1964, and undertook foot patrols into remote areas to assist people who might need medical help. They even started performing immunizations this way.

The tradition of foot patrols continues to this day. Health workers at the rural health centres of Kendene, Goglme, Neragaima, Mai, Bogo and Denglagu go on overnight missions to remote areas, inaccessible by road, and stay in temporary encampments for a week or so and encourage people to undergo tests or treat them for illnesses.

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3 John Garrett, Footsteps in the Sea: Christianity in Oceania to World War II (Oceania Printers 1992) 324.
The mainstays of the Mingende Rural Hospital are the undying commitment of its staff toward work and the untiring belief that they do not just treat illnesses, but are bound by duty to teach people how to live their lives so they can learn ways to stay healthy and happy. It is holistic medicine, if you will, where smiles more than pills, personalized care more than medication, and undivided attention and quality time to patients are used more than drugs to build an environment of trust that people can count on. Truly serving from the heart seems to be the defining aspect of the MRH experience.

In the year 2003, the MRH with support from the CHS braced themselves to face the challenge of combating HIV & AIDS, of which PPTCT was a major component. At that time, PPTCT was one area where the Church felt they could make a big contribution. It was also seen as an entry point to further strengthen MCH services. The Catholic Medical Mission Board of New York arranged for Dr. Ann Doherty, Director of Africa Programmes, to come from Kenya to train CHS doctors and nurses in mother-to-child prevention programme that combined education and training with testing and anti-retroviral (ARV) medication. After several sessions of training using a manual from Kenya, until Papua New Guinea had its own training manual, the “Born to Live” programme was launched in 2003 at Mingende. It may have been just a health centre then, but it was the very first partner in the country to roll out the PPTCT programme.

The services provided at the Mingenda Rural Hospital include but are not limited to:

- Inpatient and outpatient treatment
- Obstetric care antenatal clinics with Venereal Disease Research Laboratory (VDRL) and HIV screening
- ARV treatment
- Voluntary counseling and testing (VCT)
- Prevention of parent-to-child transmission (PPTCT) programme
- MCH clinics
- School examination and immunizations
- Nutrition improvement programme
- Tuberculosis control programme
- X-ray services
- Dental services
- Laboratory (pathology) services
- Natural family planning services
- Sexually transmitted infection (STI) clinics
- Cervical cancer screening (PAP smear clinic)
- Malaria: passive case detection and screening
- Health promotion and health prevention programmes
Seven years on, with antenatal care services strengthened and integrated with PPTCT, the Mingende Rural Hospital has witnessed 41 success stories, including all 25 of the most-recently-tested infants since 2009. These 25 babies, born to HIV-positive mothers, tested HIV-negative at six weeks through Dry Blood Spot (DBS) Polymerase Chain Reaction (PCR) testing to detect the HIV virus. Their mothers are strictly adhering to their postnatal therapy and are looking healthy. The magnitude of this recent accomplishment should not be missed since it is a testimony to the fact that with timely intervention and a continuum of care, we can protect our babies and enable our HIV-positive mothers to lead normal lives.

“It is the relationship that you share with the mothers that makes the difference,” says Sr. Tarcisia Hunhoff, who heads the National Catholic Aids Office for Papua New Guinea. Personalized care has brought more and more mothers to Mingende. “The success lies in our rapport with people. And the medicines – you just follow the rules and regulations. The important thing is if they trust you, they will follow you.”
2. The Mingende Experience

2.1 Origins

The PPTCT programme

Since its beginnings, the MRH has continuously redefined itself to better address the growing demands of people accessing its health care services and, at the same time, the MRH has ably managed the logistical challenges of keeping abreast of a fast developing medical sector. The “Born to Live” programme was launched in October 2003 to pursue the mission of delivering holistic health care. The programme has improved over the years by staying up-to-date with the latest developments in technology and adapting to the newest guidelines for treatment. At the end of 2009, after six years of implementation, 5,569 antenatal mothers (5,475 among them had their first ANC visits) were tested for HIV at the MRH, out of which 60 tested positive. 79.2 per cent of the women who visited the antenatal clinic for the first time opted in for HIV testing.\(^4\)

**First antenatal visits and mothers tested for HIV, 2003 to 2009**

Source: MRH – Antenatal Clinic Statistics
Figures derived from PPTCT-MRH Presentation at Medical Symposium, Wewak, September 2010

According to the latest figures, arrived at by checking through the PPTCT register at the MRH from October 2003 till October 2010, out of a total of 78 HIV-positive mothers, 16 mothers were lost to follow-up, 3 mothers died, and 59 were accounted for. Some among them came to Mingende after having tested positive at Rabiamul Clinic, Mount Hagen and referred in.

Out of 84 deliveries from 78 HIV-positive mothers, 14 babies died before reaching one year and most of them died in the first 3 years of implementation of the programme, when many aspects were still on trial. Some of the babies who died were born in villages without ARV prophylaxis, some mothers could not adopt the exclusive breastfeeding option and introduced mixed feeding early, some never came for follow-up visits and only later was the death of the child reported. At the end of 2008, 16 babies tested negative at the age of 18 months or shortly after.  

Since 2009, the hospital has introduced the DBS-PCR testing for the HIV virus for babies at six weeks or older and the results have been overwhelming. In May 2009, out of 13 babies tested, all 13 tested negative, and in October 2009, out of 7 babies tested, all 7 tested negative. In 2010, 5 more babies have tested negative, making it a total of 25 mothers, since early 2009, going through the PPTCT programme and delivering 25 negative babies. It is an admirable feat, one that reinforces the fact that prevention of mother-to-child transmission of HIV is a very realistic goal, and with the right interventions at the right time, both mothers and babies can be saved.

“I am on the PPTCT programme to protect my child from HIV infection.”

28 year-old mother, pregnant – at 32 weeks – with her third child is on triple dose ART. The first time she came to Mingende was in 2009 when her second child got sick with TB. She and her child were both tested positive.

When she became pregnant again in early 2010, she came to the hospital as instructed by the nurses, and was immediately started on the PPTCT programme.

“It is a terrible experience bringing up a child with HIV,” she says with great sadness, “I have to be there with the baby all the time to ensure he gets his drugs.”

Now that she knows about the PPTCT programme, having heard about it during one-on-one counselling sessions she was given at MRH when she tested positive, she is here to protect her third child from being infected.

She has seen the care that other mothers have received here and has heard about the hospital’s success stories. She is taking her ARVs and is confident that her baby would be safe. She has seen it happen here; it is not a miracle, it is sheer discipline, and all about adhering to a prescribed regimen.

2.2 HIV counselling and testing

Comprehensive service package

Regardless of whether people come to HIV counselling and testing (C&T) through provider-initiated HIV counselling and testing (PICT) or client-initiated HIV counselling and testing (CICT),

the essential components of the C&T package remain the same, and include (as stipulated by HIV Counselling and Testing Guidelines for Papua New Guinea):

On average, delivery of the entire C&T package takes approximately 45 minutes to one hour. This includes a pre-test session for conducting the HIV test, and a post-test session and appropriate referrals.

A young mother living in the Western Highland province, about a 15-minute ride by a private motor vehicle was determined to come to the MRH for her second child. She said “Because I am HIV-infected, I need to go through the programme for my own health,” “That’s why I decided to come to Mingende. I never want to miss a dose. It is my life. If I missed a dose, I would die.” Supported by her partner who has tested negative twice in the last one year, the young mother is an example where couple counselling has enabled male partner participation.

Everyone who wishes to have an HIV test is required to sign on a consent form and is given adequate information about the risks of infection and the importance of going through the tests.

There are several points of detection of HIV infection in patients at Mingende. They include: Antenatal Clinic; General Ward where any ‘suspicious’ cases are detected and counselled for testing, VCT; and Men’s Clinic.

### 2.3 Voluntary counselling and testing

**Integration with Antenatal Clinic**

An accredited VCT site at the Mingende Rural Hospital offers counselling and testing services for the public, and attracts both men and women in equal numbers. Sr. Dominika Haiter, who has been heading VCT services since January 2007, says that she began with 3 patients on ART initially, and the number has gone up to 300 today.

An ART prescriber herself, Sr. Dominika does the rapid test, and then a confirmatory test with StatPak for reactive cases followed by counselling and treatment. Partners of pregnant HIV-positive women come here for their tests. “Women who come here voluntarily are concerned about their health and fear AIDS,” Sr. Dominika says, “there is high awareness about HIV & AIDS here.” VCT is connected to ANC and any positive cases of pregnant women detected here are immediately transferred to the PPTCT programme.
2.4 Prevention of parent-to-child transmission

The programme is in line with the current National Department of Health (NDOH) guidelines but will be adapted when new global recommendations are considered and national guidelines updated. PPTCT is an integral part of the quality package for MCH services.

Pre- and post-counselling and testing

Antenatal clinic visits are good access points for the hospital to counsel mothers and get them to test. The process flow is as follows:

1. **Counselling**: The health workers and nurses initiate STI/HIV counselling and testing.

2. **Tests for STI/HIV**: After a detailed talk on risks involved, precautions to be taken during intercourse and services offered at the MRH, the mothers are given the option of undergoing tests for STI/HIV.

3. **Consent**: Those who opt in – the MRH has an 80-90 per cent success rate at persuading pregnant women to go through the tests – are requested to sign a form to register their consent.

4. **Results**: From the time consent is given, it takes approximately 15-20 minutes for the tests and for results to be declared.

5. **Post-test counselling**: If tests are positive, post-test counselling is offered, where the coordinator discusses feeding options available. And the chosen option is supported.

6. **Couples counselling**: The women are encouraged to bring their partners in, if possible. Couples counselling is a newly begun procedure where the women are asked not to reveal their status themselves but to bring the male partners along so the latter can be tactically counselled and persuaded to take the tests (which are done through VCT or Men’s Clinic). A measured presentation of medical facts by a professional creates better awareness of HIV, and this approach avoids discord and works well for the family.
7. **PPTCT:** The women are registered on the PPTCT programme, and administered ART – usually this is from around 20-28 weeks, which is when they usually come for their first ANC visit – and monitored through labour and delivery. Dr. Gabriel Yohang, a medical officer at the MRH, mentions that the usual procedure “is to do a baseline blood investigation to determine other illnesses and to administer proper drug regimen,” then to give Bactrim prophylaxis to pregnant HIV-positive mothers, assess compliance, and after this, start them on suitable therapy. The hospital admits positive patients for one week at a cost of 15 kina (US US$ 6), a one-time fee, and during this time, they are closely monitored to assess compliance. This practice is unique to this hospital.

8. **ARVs for newborns:** Post labour, the babies are given prophylaxis till 28 days of birth and then, the drug is discontinued. (In a rare case of obstructed labour or when water broke before reaching the hospital, both infant and mother are kept under supervision in the hospital for 28 days.)

9. **DBS-PCR test for HIV:** After a wait of two weeks, post discontinuation of prophylaxis for the baby, at exactly 6 weeks or later, the infant’s status is determined through DBS-PCR test for HIV infection, and if positive, the baby is started on Paediatric ART. After weaning, usually at 6 months currently, the mother is transferred to General ART to continue her postnatal treatment.

10. **Follow-up care:** The infant is kept in follow-up care as an exposed baby, and receives Bactrim prophylaxis during the breastfeeding period; repeat testing is done once all exposure to breast milk ends.

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**Percentage of HIV positive mothers, 2003-2009, MRH-ANC**

![Bar chart showing percentage of HIV positive mothers from 2003 to 2009.](chart.png)

Source: MRH – Antenatal Clinic Statistics
Figures derived from PPTCT-MRH Presentation at Medical Symposium, Wewak, September 2010
2.5 ARVs for all HIV-positive mothers

What is administered?

1. Since the launch of PPTCT in 2003, the hospital was using a single dose Nevirapine for the mother during labour and a single dose for the newborn baby administered within 72 hours.

2. Four years later, a second ARV prophylaxis option was used – Zidovudine (AZT) 300mg BD – from 32 weeks gestation till one week after delivery and a single dose of Nevirapine at onset of labour, which produced better results, according to Sr. Erikewe, who oversees all of the hospital’s programmes.

3. Since 2009, the MRH have started using TRIPLE ART: ZDV+3tC+NVP, starting at 28 weeks gestation, and continuing to intrapartum and postpartum into the breastfeeding period. Babies are given NVP single dose, 2mg/kg + ZDV BD 4mg/kg for 28 days.

Preventive Bactrim therapy is available for all HIV-positive mothers and their babies to reduce the risk of opportunistic diseases for both. As for information and counselling on feeding choices for the baby, and assistance during the time of transition from breastfeeding to using infant formula, most mothers opt for exclusive breastfeeding for the first 6 months and then wean. The hospital is now gearing up to adopt the most recent WHO guidelines on breastfeeding of infants born to HIV-positive mothers.

2.6 Family counselling and testing

Strengthening MCH services

Family counselling plays an integral part of patient care at the MRH, and helps to further strengthen integration of services. A Well-Baby Clinic within the hospital as well as Outreach Clinics are conducted every Wednesday to test siblings, and allow mothers to bring their infants for immunizations against Tuberculosis, Hepatitis B, Diphtheria, Poliomyelitis and Measles. Every mother who visits these clinics has a child registry book that has clear information about vaccines administered with dates prescribed for subsequent doses such as BCG/Hepatitis B – 1st dose at birth, 2nd dose at one month, Oral Sabin 1st dose at 3 months, and so on. While health talks delivered at the mobile clinics persuade families to walk in for regular tests, individual one-on-one counselling with mothers during infant examinations ensures that they adhere to pre-appointed schedules for immunizations. The registry book also has information about tests conducted and their results, thus maintaining infant’s health record, and facilitating a strong link to Paediatric ART, should any infant test positive.

Family counselling also directs male partners to VCT or the Men’s Clinic for STI testing. STIs are diagnosed and treated as part of outpatient procedures at the MRH.
2.7 The Mingende model

Views from the National Department of Health (NDOH)

Dr. Daoni Esorom, Principal Advisor, STI/HIV/AIDS, NDOH, says that the Mingende Rural Hospital can be envied by all districts, not merely because they were the very first partner to show interest in rolling out the PPTCT programme and are generating success stories, but also because they have been able to bring all their services under one umbrella and have successfully integrated PPTCT and Paediatric ART within maternal and child health services. The hospital, according to Dr. Esorom, also “helped us develop the PPTCT training manual, way back in 2005-2006, during the process of scale up of policy.” While initially, the CHS brought in their staff for training including those from Mingende, today they have expanded to include Government staff too in their training.

“Mingende has a practice that looks at all aspects of any programme,” says Dr. Hilda Polume, Principal Advisor, Family Health Services, NDOH. “When we talk about programme implementation, we are looking at policy directions, standards, human resources, logistics, medical supplies and equipment, research, monitoring and evaluation – they are doing all that very well. They have a very good management network where they supervise, mentor, meet and coordinate all programmes together as a group. They have logistics support.”
3. New Initiatives

3.1 The Men’s Clinic

Empowerment for men

The Men’s Clinic, established in January 2009, is a groundbreaking initiative to appeal to men to come in for voluntary testing. It is a church partnership programme on STI and integrated with the men’s clinic; it is supported by the AusAID-funded PNG-Australia Sexual Health Improvement Program (PASHIP) that focuses on addressing the spread of HIV through increased accessibility of STI prevention, care and treatment services to vulnerable groups in PNG.

Conducted weekly, 455 men benefited from the clinic in the year of its launch alone (2009): 234 men and boys had their blood screened for HIV and Syphilis (not including those referred to VCT for tests). In 2009, two men were confirmed positive here.

Though men access the clinic on Thursday from 8 a.m. - 1 p.m. for all ailments, the clinic was originally designed to test men for STI/HIV. It was also meant to attract the male partners of HIV positive mothers – both for couples counselling and testing since it can be difficult to persuade men to accompany their female partners during their subsequent ANC visits.

The two components of the programme are community research and clinical service improvement. But how do the men know about the clinic?

Through

- Announcements in the Churches;
- Public-awareness campaigns during hospital outreach activities;
- Female partners attending ANCs who were requested to bring in their male partners for counselling and tests;
- Friends who had visited the clinic;
- Public notices in and around the catchment areas; and
- Community leaders who circulated these notices, or spread the message by word-of-mouth.

Men who are visiting the clinic every week feel that since their illnesses are treated here, their expectations are matched, and they are happy. Thirty-year-old Michael Tei, who regularly visits the Men’s Clinic says, “It helps having a clinic for men because we can discuss our issues openly and freely. We are currently using a Well-Baby Clinic, which is a makeshift arrangement. We would like a clinic of our own since the setups here are not convenient for us.”
Sr. Margaret Drikori, co-ordinator for the programme, adds that construction of a building for use exclusively by the Men’s Clinic is in the pipeline. The important question however is, will men who visit, like the 30-year-old Michael, be interested in joining outreach? They say that they are already talking to peers. Benefits of the clinic are that it is gender-specific and the services provided here are free, including consultation, drugs and treatment. These encourage many men to voluntarily walk in for tests.

3.2 Men’s participation

Community leaders

Men don’t just visit the clinic; there are also men who play a vital role in the hospital’s outreach activities. Otto Vitus is one such man, a community leader, who is determined to help men, especially the youth groups in the province, overcome the many problems they face today.

The Rural Hospital’s board comprises 13 members who are community leaders of 13 different tribes living in the catchment areas of Mingende. At 1,200-1,500 people per tribe, they have all reached a common understanding that public facilities such as schools and hospitals will never be affected during conflict between the tribes. The community leaders who have been involved in the outreach over the last decade talk about health issues. With such involvement from men already in place, it is recommended that they should be tackling gender issues as well through future outreach activities.
3.3 Workshops and training

Involving PLHIV

Yet another initiative of the hospital involves engaging with people living with HIV (PLHIV). In June 2010, a workshop was held consisting of health workers and PLHIV. The latter had a unique experience of sharing their stories with the rest of the group. It gave them not only a platform to express themselves, but also an opportunity where they could learn how to look after themselves, what kind of food to grow for better health, safe sex practices, and the various family planning methods.

An innovative method adopted recently to help mothers to safely wean their babies involved two HIV-positive mothers sharing their life stories, their fears and their concerns over one week when they were invited to stay in the hospital. Maintaining confidentiality, the nurses arranged for the mothers to share a room, not revealing to either of them their HIV status. Instead the nurses allowed the two mothers to discover information for themselves over the course of the week. The mothers were able to discuss in a safe and private environment their anxieties related to adherence, and also helped each other wean their babies safely.

PLHIV groups are an important and valuable resource for the coming years to educate peers, to help the hospital staff in their follow-up of positive mothers, to mobilize community support for promotion of good health practices, and to generate confidence among communities that it is possible to live a long and healthy life with HIV.

**Young mother, Western Highland province**

As someone who was part of a workshop in June 2010 to engage PLHIV groups, she says to Sr. Eileen Alalo, PPTCT Coordinator, MRH, “Whenever you call me, I am prepared to come. You can use me for peer counselling.”
4. A 360-Degree Approach

4.1 Community outreach

Health centres, aid posts and mobile clinics

Community outreach plays a key role in the hospital’s activities in creating general awareness about health issues. Mobile clinics are an integral part of the outreach since it is not only an opportunity for people to come for consultations but also allows them to listen to health workers talking about issues that concern them.

Dr. Gabriel Yohang, medical officer at the MRH, makes weekly visits to all health facilities of the CHS. During his weekly visits, he sees more than 100 patients, conducts blood tests and is able to advise if patients need to visit any of the clinics for further tests. These ‘bush visits’ as the doctor calls them, cuts down on consultation fees for patients as well as travel time since the hospitals may be situated far away from their areas of residence.

CHS has a total of 44 static and mobile MCH clinic sites conducted on a monthly basis and 26 MCH foot patrol sites conducted on a quarterly basis. About 89 per cent of planned clinics were conducted in 2009, the rest impeded by “bad weather, poor road conditions, tribal fights in some areas like Kendene or shortage of vaccines from the PHO.”

It must be noted that these clinics and outreach activities have, over the years, created awareness about diseases, specifically HIV & AIDS. Men and women do not just visit these clinics with their infants, or listen to health talks, but they actively participate by asking questions to know more about issues that affect them.

The MRH has strong links with the other six health centres and two aid posts attached to it by way of training or rotating staff for a short period. Each one of these health centres is equipped to handle VCT, group counselling for PPTCT and STI/HIV testing. HIV-positive cases detected at these centres are referred to the MRH. In this case, a health worker accompanies the patient to Mingende for registration and treatment. Further follow-up are handled by the health centres with the MRH clearly in the loop. These centres, as well as the aid posts, involve the surrounding communities during their outreach programmes to create awareness through providing brief education on HIV and other health issues.

Awareness is also generated through leaders who work with people within their own communities, specifically youth groups emphasizing the importance of an alcohol and drug-free environment as well as healthy and safe sexual behaviours. The leaders also communicate between themselves to promote harmony among the different tribal groups, thus considerably reducing conflict and ensuring a friendly and peaceful atmosphere. It is a 360-degree approach that tackles the social as well as health issues for the overall well-being of society.

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6 Catholic Health Services, Simbu, Annual Report, 2009: 12
For Sr. Erikeve Kiae, who has been with the MRH for 17 years now and oversees all programmes in the hospital, it is the complete set up that is most impressive about the hospital. “Everything is there for you – the treatment, the drugs, the tools... the environment is good. So you can offer good treatment to patients. I like my team because everyone thinks positively. Ours is a good team. We are putting our thoughts together and working towards one goal: to give our patients the best services possible. We are also constantly training our staff. Today, about 85 per cent of our staff are trained in PPTCT. So the patients are not referred from one counsellor to the other. All services are integrated. We’re a one-stop service. We are also good in our follow-up.”

Sr. Notburga Taki is a community health worker, HIV/AIDS counsellor, ART prescriber and has been PPTCT trained and certified to practice. Seventeen years ago, after finishing school, she was sponsored by the CHS to train as a community health worker, and since then, she has been training to keep up with developments in the health care sector. There’s one thing that’s constant about her – her big smile. She enjoys giving talks to communities in their local dialect, and seems to effortlessly handle the villagers’ queries and concerns. “The happiest moment for me,” she says, “is when our babies turn negative after we do our DBS-PCR tests to detect HIV. I am happy that we are doing what we are supposed to do, which is to save our babies and protect our mothers.”

Sr. Eileen Alalo, PPTCT coordinator since 2009 has been with the MRH for 12 years now. She feels immensely proud of the fact that ANC and PPTCT are connected and that all the services within the MRH are integrated. Having personally seen the effectiveness of positive peer counselling in Zambia during a UNICEF-sponsored study tour, Sr. Eileen hopes to see a mother-to-mother programme up and running soon at the MRH. “It will reduce my workload,” she says with a smile, since peer counsellors can talk to positive mothers and even do follow-up. She also feels the use of mobile phones should improve in the coming years. Sr. Eileen and Sr. Notburga are already sending test results through text messages. Mobile phones, she believes, will maximize their efficiency and cut down on time spent following up with the community.
5. The Key Elements of Success and Best Practices

It is not complex to understand what works for the MRH – the CHS have studied problems on the ground and turned them into opportunities to enhance the lives of the people they are in touch with every day by way of improving their health. By doing so, they have altered perceptions about health issues, thereby creating behavioural and attitudinal changes, and adopting a 360-degree approach to reach this population. They have broken difficult processes down into manageable small units, powered each by putting people in charge who can be responsive, responsible and accountable, and most importantly, empowered their staff and allowed them to learn as they work, and grow as they learn, through training and education. PPTCT has been the starting point for improvement of services at the MRH. Child welfare necessitates the mother’s good health, and this has in turn broadened the approach to include the whole family, with an understanding that integration is key.

Sr. Kinga Czerwonka, Former Church Health Secretary, Simbu Province, © Mingende Rural Hospital, Papua New Guinea
There are several factors responsible for success of the PPTCT programme at the MRH. Some of the key components are presented here.

5.1 Leadership – a vital part of management

Leadership at all levels has been crucial for the success of the PPTCT programme as well as in identifying and catering to specific needs of the population that the MRH including its six rural health centres and two aid posts serve.

Key staff are responsible for operating each of the different units, like Sr. Erikeve for Nursing Services, Sr. Eileen for PPTCT, Sr. Margaret for Administration, and Sr. Dominika, for VCT, each of whom is responsible for their respective units.

Weekly staff meetings bringing nurses and health workers together with their department heads, and monthly meetings between supervisors and senior management, promote communication across the different units. As there are clear accountability lines drawn, the system not only streamlines operations, but also achieves effective coordination of services and easy information flow, top down and bottom up.

Able leadership also recognizes a need, responds swiftly to cater to that specific need, as in the case of the Men’s Clinic. When the need was identified, a proposal was drawn, and funding for running the facility tapped. Each one of the heads of departments has the additional responsibility of identifying weak areas and suggesting training sessions; the higher authorities act on this information to tap funding for the same.

Strong leadership inspires employee motivation and elicits their active participation in improving health care services, and such proactive spirit has a direct bearing on how patients are received and treated.

5.2 Staff development and training improve service

Professional staff development is one of the priorities of the CHS, Simbu. Apart from the fact that staff are encouraged and sponsored by the CHS toward taking up formal studies as in the case of Sr. Notburga Taki, who studied Nursing under a church scholarship, or Dr. Gabriel Yohang who is pursuing higher studies and doing a Masters in Rural Medicine through a flexible learning programme, the management also trains its staff through short courses and in-service training.

As a result of in-service training for staff at the MRH, six rural health centres and two aid posts, six nurses completed IMAI training and are certified ART prescribers and two nurses completed DBS-PCR testing course for infants and children (supported by Clinton Foundation). Four nurses attended an International short course on HIV Medicine, and all 64 nurses working at the rural hospital, health centres and aid posts attached to it completed one-week training on Syndromic Management of STI.
Clinical teaching takes place during the doctor’s ward rounds at the MRH, and during weekly visits to the rural health centres. Also, short in-house training sessions and case presentations are held, the frequency of which is determined by the need for additional training whenever new guidelines have to be implemented.

5.3 Point person drives competence

The MRH has designated a focal person from among the existing nurses to function as the PPTCT coordinator, thus ensuring lines of accountability in the programme. This person oversees PPTCT and ensures it is streamlined with the rest of the MCH and VCT services.

PPTCT Coordinator, Sr. Eileen Alalo, employed in this position since 2009, ensures that the different services within the programme are streamlined, and that there is communication between the various clinics. So any pregnant woman detected as HIV-positive at VCT, ANC or General ART will automatically be directed toward the PPTCT programme.

Sr. Eileen conducts group and individual counselling sessions, accompanies other nurses during outreach sessions to consult with patients at mobile health facilities, supports and assists staff in the Gynaecology and Obstetrics Wards and also does follow-up with HIV-positive mothers, thus engaging in and rotating between different roles. Many times, she is able to see positive mothers through from ANC to PPTCT to labour and delivery to postnatal care, which establishes a strong nurse-patient relationship in addition to earning her patients’ trust.
It must be noted that most of the nurses are trained in PPTCT, and most of them are ART prescribers and, therefore, mothers are not referred from one consulting nurse to the other. The results are that time is saved, processes are quicker, and better patient-coordinator rapport is maintained since the system does not constantly move patients to different sections.

5.4 Integration improves efficiency

Integration of services within the hospital and effective internal communication reduce loss of mothers to follow-up and ensure timely interventions and care. What is detected at one clinic is shared promptly with the relevant departments for further tests and appropriate treatment.

Having structured a system that ensures multi-point detection of HIV-positive cases, and having strengthened communication lines between those points, the MRH has come up with an efficient model that allows their staff to report, act, respond, treat and guide patients with the personalized care that builds patients’ trust and establishes good client-coordinator rapport.

All services are integrated thereby securing a logical flow of patients from General ART to PPTCT and vice versa, or ANC or General Ward or VCT to PPTCT. The coordination mechanism is effective in ensuring that no mother is lost between ANC and labour ward, or between labour and postnatal, and so on. The moment an HIV-positive pregnant woman is detected at any of the clinics, she is immediately referred to PPTCT. She is then registered under the programme, administered drugs and monitored through labour and into delivery. By way of persuasive pre- and post-test counselling, the MRH ensures no mothers drop out of the programme. This is also aided by stringent follow-up with mothers for the continuum of care.

The PPTCT consulting room and Gynaecology/Obstetrics Wards are located in the same building where the ANC Clinic is conducted, and these are attached to a private screening area where Rapid Determine testing and tests for STI are done. The Men’s Clinic is understandably located at the far end, near VCT Clinic. This is notable because apart from a virtual integration, the MRH has been able to topographically plan and assign its clinics and services to allow for efficient work flow, privacy for patients, and convenience for both access and delivery of services.

5.5 Patient facilities enhance health care

The current process ensures that every woman who has consented to a STI/HIV test is tested immediately after group counselling in a room adjacent to ANC Clinic, with the whole process taking about 45-60 minutes. The same applies for the Men’s Clinic as well, where patients walking in for tests are counselled as a group, taken for screening post consent, and immediately informed about their test results.

There are regular MCH clinics with VCT services where most mothers opt for HIV testing. One of the reasons for this is that there is a high degree of awareness about HIV & AIDS due to the hospital’s outreach activities. Most mothers who opt in fear for their babies’ health want to make sure the latter are safe and free from infection. The health workers do not give up on the
mothers who opt out, but continue to persuade them during their subsequent visits, letting them know of the benefits of getting tested.

During the ANCs, the waiting women are provided with food cooked in the hospital’s kitchen, or sometimes, if the kitchen is busy catering for in-patients, the nurses take it as a personal responsibility to prepare a quick meal, which usually consists of chicken noodles and vegetables. That no one goes home hungry is one thing but this definitely has the added benefit of creating an atmosphere of warmth. As Sr. Eileen says, “We treat everyone alike, positive or negative. They are all our people who have come here to be taken care of.”

There is also a waiting house, sponsored by UNICEF, where women can come and stay and wait for labour to start. This facility is necessary especially in the Highland areas where women have to commute long distances to access health care. Many times, the sheer distance discourages women from going to hospitals for delivery. A waiting house allows pregnant HIV-positive women to be monitored through labour and into delivery.

### 5.6 Communication improves patient knowledge and adherence

The MRH staff encourages open communication about STI, HIV and AIDS, and the activities that can put people at risk of infection. Most importantly, maintaining patient confidentiality improves trust and gives patients confidence to access health care services without worrying about stigma. The approach is pragmatic whereby the staff understand the needs and behaviour patterns of the communities, and tailor responses accordingly.

Weekly outreach activities include group counselling and talks given by health workers to inform and educate people gathered at mobile clinic facilities about health issues. In addition, the MRH conducts monthly outreach activities engaging community leaders.

Couple counselling is an integral part of PPTCT where HIV-positive pregnant women are encouraged to bring their partners in for safe disclosure. Counselling at various levels – at ANCs, one-on-one with nurses, mother-to-mother workshops – improves knowledge about adhering to therapy, thus firmly advancing Prong 4 effectiveness – ARV for mother’s own health.

Open communication is encouraged at all mobile facilities and health centres making problem solving a democratic process, whereby understanding and catering to a need is of paramount importance and considered superior to merely handing down instructions.

**Young mother, Western Highland province**

“I am happy to come to Mingende because I have a lot of friends. If I had not known my status, I would have died. Because of this programme, I live. It has prolonged my life.”
5.7 New initiatives tap needs and fill gaps

Understanding the needs of the communities living in Simbu province elicits appropriate cultural, people and need-specific responses from the MRH. The Men’s Clinic is a direct derivative of this principle in that the hospital felt that men in the area would respond better to a clinic specifically for them. All services are provided free of cost. The clinic has improved men’s involvement in supporting their HIV-positive partners and has enhanced their overall engagement in community outreach.

A recent initiative brings in positive mothers and some fathers to train others on how they can care for themselves and be good advocates of the PPTCT programme. Those they train can go back into their communities and become peer counsellors.

The hospital recognizes the importance of a mother-to-mother network as a vital resource for the coming years to educate peers, and to help with counselling and follow-up. Their trials of bringing positive mothers in to spend time together sharing their stories and fears have given the MRH confidence to take this initiative forward. The hospital enjoys the enormous goodwill of positive mothers who are willing to contribute by functioning as peer counsellors.

5.8 Data management enables timely interventions

The MRH has an efficient system of maintenance of PPTCT records of patient history that includes dates of visits, tests conducted and their results, and drugs administered. A separate registry book also is available for PPTCT, deliveries and PCR tests. The use of a coding system for positive and negative mothers guarantees patient confidentiality. The records facilitate regular monthly follow-up with mothers and timely ART interventions in addition to reports on PPTCT outcomes. The recorded data are also sent to the NDOH for national HIV monitoring.
A 37 year-old mother has an 8 year-old from a previous marriage. Abel is her second child. She came to Mingende in 2009 because she had heard about the hospital. She tested positive at 7 weeks during her ANC visit and was asked to return at 27 weeks. She was then started on PPTCT. The baby was on single dose till 28 days of birth and has tested negative through DBS-PCR test for HIV.

“At first,” she says, “I had no idea about HIV. Now after explanation and counselling by health workers at Mingende, her baby is tested negative and is assured of a good and healthy life ahead of him. So I am taking my medication without fail, morning and evening, for my own health.”

She was worried that the baby may get infected too, but with a lot of care and support from the nurses at Mingende, her baby is now negative and is assured of a good and healthy life ahead of him.

“I am happy,” she says. “People living with HIV can lead normal lives, and it is possible to live positively with whatever little resources we may have.”

5.9 A multi-level approach encourages adherence

HIV-positive mothers strongly adhere to postnatal therapy since the hospital ensures that mothers stick to their pre-appointed visits for examinations during which time they also collect their monthly or bi-monthly drug supplies. Thus, achieving Prong 4 effectiveness – ARV for mothers’ own health.

The hospital is able to approach and aid this adherence at multiple levels:

1. Systematic counselling that puts the emphasis on the mother’s own health for her babies’ continuing good health;
2. Engagement of HIV-positive mothers in workshops or talks that can inform them about the benefits of therapy, in a process of re-learning what they may have already heard in individual counselling sessions;
3. Good follow-up support; and
4. Most importantly, safe disclosure to family, thus avoiding HIV-related stigma, and helping to establish support from partners and other members of the family to maintain the mothers’ adherence to therapy.

It is to be noted and applauded that PPTCT staff accompany HIV-positive mothers after delivery to their homes to see where they live to establish grounds for future follow up. This is unique to the MRH and its other facilities.

The MRH follows the five rights of administering drugs: the right patient, the right drug, the right dose, the right route, and the right time.
5.10 A 360-degree approach shapes a holistic service

A 360-degree approach ensures that there is community involvement and participation – this is done not just through mobile health facilities but also by engaging community leaders as part of the outreach. Men are encouraged to participate as fathers and as change catalysts.

The Rural Hospital’s Board comprises 13 leaders from 13 tribal groups in the catchment area. Each of these leaders, apart from participating in the hospital’s own monthly outreach activities, also individually go into their communities to generate dialogue on various issues, not limited to health. The leaders, like Otto Vitus, persuade youth groups to adopt safe sex practices. They are also proactive in distributing condoms widely amongst the youth. Notably, there has not been a single tribal conflict reported in these areas in the last ten years. This is a remarkable achievement and bodes well for the future of communities living here.

Mingende may be the centre of health care in Simbu province but its links with all the other six health centres and two aid posts are strong. The centres supplement the role of the MRH by providing health care to people in remote areas while, at the same time, referring HIV-positive patients to the rural hospital, and later, helping with follow-up of mothers on therapy.

5.11 High staff morale results in better performance

There is a very important reason why PPTCT is a huge success at Mingende and it relates directly to the support and motivation that the staff receives from the management, which boosts the workers’ morale and their efficiency.

The health facility has permanent staff houses fully furnished with gas burners, hot water systems, showers and toilets. These quarters, which allow most of the key personnel to be housed within close proximity, improves staff punctuality and timely service. When patients arrive on time for their appointments or visits, they are aware that they don’t have to wait around unnecessarily for long hours. The nurses report at 7.45 a.m., take about 15 minutes to prepare the clinics for patients’ visits – antenatal or well-baby or VCT or men’s clinic – and are ready to consult with patients at 8 a.m., on the dot, every day.

The high level of staff moral serves to strengthen an affable nurse-patient bond, while a clean and welcoming environment helps generate the trust and goodwill of visiting patients.
6. The Challenges

With huge success, the MRH does face challenges that need to be addressed in the years ahead.

1. **Driving demand:** The hospital’s success has driven demand for health services in the area and hence, increasing numbers of people access the Mingende facility. It is currently serving a total catchment population of roughly 13,500 people. Mingende and its health centres at Kendene, Bogo and Neragaima serve a population of 28,216 out of a total of 64,466 in the district, which is about 43.77 per cent of population covered by these CHS facilities comprising one rural hospital and three health centres. The numbers are growing everyday with people who could be accessing the government hospital at Kundiawa also sometimes making their way to Mingende because of the good services they are assured here. This raises questions of sustainability for the MRH in the long term, and if the same quality of service can be maintained if the hospital is to have an inflow of patients that is beyond its capacity. Stretching the MRH’s administrative and manpower capacity could unnecessarily cause a strain on the hospital’s resources.

2. **Manpower issues:** The hospital already faces a manpower issue since it has expanded considerably over the years, especially since the launch of PPTCT in 2003. According to Sr. Kinga “the CHS did not get an increase in staff ceiling since 2000.” The staff number particularly becomes an issue when it comes to follow-up. When mothers don’t turn up, the nurses are unable to leave the hospital, as they are busy with patients. Timely follow-up does sometimes suffer.

This could however be overcome through a mother-to-mother programme and getting PLHIV groups to be engaged in counselling and follow-up. Lay counsellors – paid or unpaid – could also significantly reduce the workload of full time staff. With a few weeks of training and supervision, these counsellors can be recruited from among the existing resource of PLHIV groups. HIV-positive mothers are willing to contribute in any small way they can. Since Mingende enjoys the advantage of goodwill from HIV-positive mothers, the hospital could draw strength from this resource. Small cash incentives to these mothers for their services will serve to help them support their families. It is a positive spin-off, and perhaps even a small step towards targeting MDG Goal 3, which is to promote gender equality.

3. **Exclusive breastfeeding:** All nurses mentioned the difficulty in getting mothers to stay on exclusive breastfeeding since there are cultural as well as familial pressures to give infants water, bananas and sweet potatoes during the breastfeeding period. A positive step is that the NDOH is investing in re-vitalizing the national exclusive breastfeeding campaign.

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Catholic Health Services, Simbu, Annual Report, 2009: 5
4. **Guidelines and regimens:** Science has discovered medicines that have made prevention of transmission of HIV infection from parent to infant a possibility. The new regimens have to be adapted as soon as they are revised, but sometimes, with fast changing guidelines, keeping up becomes a challenge. The nurses and health workers stay up-to-date through in-house training sessions for adapting to new guidelines. But occasionally, a lack of clarity does surface, like in the case of new WHO guidelines on breastfeeding released in July 2010.

5. **Managing data:** Data management could be enhanced in the future to allow for more extensive data analysis and future application of the model elsewhere. In addition, ICT could also be leveraged to lessen the burden on health workers and improve efficiency of data collection, tracking and reporting mechanisms.
7. Conclusion

In humanity’s greatest suffering lie the seeds for its greatest transformation. Commendably today, science has facilitated the virtual elimination of mother-to-child transmission of HIV, and has made it a realistic public health goal. But as Alan Whiteside maintains, dealing with HIV prevention and AIDS “does not lie only in responding to the disease but in addressing the underlying causes: poverty and inequality.”\(^8\) Improving access to health care is only a tiny part of a larger scenario whereby national governments can ensure equitable development by allowing the basic rights to water, food and shelter accessible to all, freely and fairly. It also means providing education, employment opportunities and social support.

A positive step already has been taken in Papua New Guinea with the formulation of a policy framework towards ensuring universal access and fair distribution of health care services to the community in the next few years under the PPTCT and Paediatric AIDS Operational Framework for Action (2010-2015).

The most important lesson of Mingende is that a 360-degree holistic approach works – an approach that fosters community participation and addresses issues inherent in an HIV response from all angles (i.e. medical, cultural, behavioural and psychological). Mingende’s good practices can be adapted to other environments: at the system’s core is efficiency, making strong leadership and political commitment vital to make the model work.

It must also be emphasized that the Department of Health, Papua New Guinea, recognizes the good work done by many partners: the Government hospitals such as Port Moresby General Hospital, Mt. Hagen Hospital, Goroka Base Hospital and others have made great progress in PPTCT and Paediatric AIDS response. NGOs including the Clinton Foundation, Susu Mamas, Friends Foundation and HIV stakeholders are also doing an excellent job in supporting the programme in place, and also increasing awareness about the disease and providing support systems to fill in the gaps, such as registrations, counselling and follow-up of HIV-positive mothers.

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The success of the Mingende practice model for preventing parent-to-child transmission of HIV in Papua New Guinea