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**ACRONYMS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>ARV</td>
<td>Antiretroviral Drugs</td>
</tr>
<tr>
<td>AusAID</td>
<td>Australian Agency for International Development</td>
</tr>
<tr>
<td>BCC</td>
<td>Behavior change communications</td>
</tr>
<tr>
<td>CBO</td>
<td>Community-based organization</td>
</tr>
<tr>
<td>CHBC</td>
<td>Community and home-based care</td>
</tr>
<tr>
<td>CoPCT</td>
<td>Continuum of Prevention to Care and Treatment</td>
</tr>
<tr>
<td>FBO</td>
<td>Faith-based organization</td>
</tr>
<tr>
<td>FSW</td>
<td>Female sex worker</td>
</tr>
<tr>
<td>GIPA</td>
<td>Greater Involvement of People Living with HIV/AIDS</td>
</tr>
<tr>
<td>HBYP</td>
<td>Helvim Bilong Yumi Project</td>
</tr>
<tr>
<td>HCT</td>
<td>HIV counseling and testing</td>
</tr>
<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
</tr>
<tr>
<td>HRM</td>
<td>High-risk man / High-risk men</td>
</tr>
<tr>
<td>HRW</td>
<td>High-risk woman / High-risk women</td>
</tr>
<tr>
<td>IEC</td>
<td>Information, education and communication</td>
</tr>
<tr>
<td>KBW</td>
<td>Kirap Bung Wantaim</td>
</tr>
<tr>
<td>MARP</td>
<td>Most-at-risk population</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
</tr>
<tr>
<td>MSM</td>
<td>Man who has sex with men / men who have sex with men</td>
</tr>
<tr>
<td>NAC</td>
<td>National AIDS Council</td>
</tr>
<tr>
<td>NACS</td>
<td>National AIDS Council Secretariat</td>
</tr>
<tr>
<td>NCD</td>
<td>National Capital District</td>
</tr>
<tr>
<td>NDoH</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
</tr>
<tr>
<td>OI</td>
<td>Opportunistic infection</td>
</tr>
<tr>
<td>OV</td>
<td>Outreach volunteer</td>
</tr>
<tr>
<td>PAC</td>
<td>Provincial AIDS Committee</td>
</tr>
<tr>
<td>PE</td>
<td>Peer educator</td>
</tr>
<tr>
<td>PHO</td>
<td>Provincial Health Office</td>
</tr>
<tr>
<td>PLHIV</td>
<td>Person living with HIV/AIDS / People living with HIV/AIDS</td>
</tr>
<tr>
<td>PLWHA</td>
<td>People Living With Higher Aims</td>
</tr>
<tr>
<td>PNG</td>
<td>Papua New Guinea</td>
</tr>
<tr>
<td>PPTCT</td>
<td>Prevention of parent-to-child transmission</td>
</tr>
<tr>
<td>QA/QI</td>
<td>Quality assurance/quality improvement</td>
</tr>
<tr>
<td>RIPA</td>
<td>Real Involvement of People Living with HIV and AIDS</td>
</tr>
<tr>
<td>SNF</td>
<td>Sirius Naraqi Foundation</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard operating procedure</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
</tbody>
</table>
BACKGROUND
1/ BACKGROUND

1.1 The CoPCT Model

The Continuum of Prevention to Care and Treatment (CoPCT) model builds on the “continuum of care” concept, which has been implemented successfully in many countries in the region to deliver high-quality, comprehensive and continuous care to PLHIV and their families. The CoPCT model (See Figure 1) augments the National HIV/AIDS Strategy (NHS) of Papua New Guinea (PNG) by facilitating linkages, coordination and consolidation of prevention, care, treatment and support services for people infected and affected by HIV. The model is comprised of two distinct but interrelated components:

» The prevention component of the model focuses on reaching most-at-risk populations (MARPs) through hot spot and community based outreach, providing behavior change communications (BCC), and promoting uptake of screening and treatment for sexually transmitted infections (STIs) and HIV counseling and testing (HCT).

» The care and treatment component facilitates access to HIV-related clinical services including treatment for opportunistic infections (OI) and antiretroviral therapy (ART), psychosocial support and community and home-based care (CHBC).

The CoPCT model is designed to strengthen referral linkages between prevention services and HIV care and treatment, with HCT service providers serving as the key linkage between the two components. The entire model is underpinned by a coordinating committee, made up of service providers and other stakeholders, which serves as a platform for communication, coordination, and joint planning between all implementing agencies.
The CoPCT model came into being after an initial site assessment\(^1\) found that many services in place at the provincial level were not properly linked. Many PLHIV described difficulty accessing the full range of services and/or were lost to follow-up due to limited referral linkages, poor communication, lack of knowledge about available services among providers, and limited availability of services in general. Palliative and home-based care needs were highlighted during this assessment. The joint team recommended that the CoPCT model link different services provided by government and non-government organizations (NGOs), faith-based organizations (FBOs) and community-based organizations (CBOs) within the hospital, between the community and hospital, and among organizations working in the community. USAID continued funding for BCC and clinical services, while AusAID contributed by supporting provision of CHBC services.

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\(^1\) Conducted by AusAID, the National AIDS Council Secretariat, and USAID in the National Capital District, Eastern Highlands Province, and Madang Province
Between 2008 and 2012, the CoPCT model was piloted in two provinces in Papua New Guinea. Implementation began in 2008 in the National Capital District (NCD), otherwise referred to as Port Moresby; the model was expanded to Madang Province beginning in 2010. Services provided under this model are listed in Box 1, below.

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Care and support</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>» Prevention package:</td>
<td>Home based care, which includes:</td>
<td>» Opportunistic infection prophylaxis and treatment</td>
</tr>
<tr>
<td>» referral (STI, HIV counselling and testing, care and treatment)</td>
<td>» Client follow up</td>
<td>» HIV management &amp; linkages to TB programs</td>
</tr>
<tr>
<td>» condom and lubricant distribution</td>
<td>» Adherence support</td>
<td>» Antiretroviral therapy</td>
</tr>
<tr>
<td>» counselling for safer sex and partner reduction</td>
<td>» Palliative care</td>
<td>» Adherence counseling and monitoring</td>
</tr>
<tr>
<td>» peer outreach</td>
<td>» Peer counselling and support</td>
<td>» Palliative and supportive care</td>
</tr>
<tr>
<td>» Prevention of parent to child transmission (PPTCT)</td>
<td>» Nutrition and hygiene</td>
<td>» Post-exposure prophylaxis (PEP) for survivors of sexual violence (introduced in late 2012)</td>
</tr>
<tr>
<td>» STI management</td>
<td>» PLHIV support groups</td>
<td></td>
</tr>
<tr>
<td>» HIV counselling and counselling</td>
<td>» Stigma reduction activities in community</td>
<td></td>
</tr>
<tr>
<td>» Prevention with positives</td>
<td>» Linkage and referrals to social services</td>
<td></td>
</tr>
<tr>
<td>» Universal precautions/post-exposure prophylaxis</td>
<td>» Psychosocial and spiritual support</td>
<td></td>
</tr>
<tr>
<td>» Addressing gender based violence</td>
<td>» Legal issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Income generation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Care for vulnerable children (VCs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Trauma counselling for survivors of gender-based violence (introduced in late 2012)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Promoting behavioral change communication interventions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>» Effective links between HIV services and family planning/reproductive health (FP/RH), gender based violence prevention, and other CoPCT services</td>
<td></td>
</tr>
</tbody>
</table>
1.2 Overall goal of CoPCT

The overall goal of the CoPCT model coincides with the overarching goal of the 2011-2015 NHS, which is “to reduce the transmission of HIV and other STIs and minimise their impact on individuals, families and communities.” The NHS highlights successful implementation of activities to strengthen HIV prevention, counseling and testing, and treatment and support services as key to having the most impact on achieving the strategy's overarching goal.

The NHS also acknowledges that service strengthening in these priority areas will only be achieved if the national response also makes a concerted effort to address a range of key cross-cutting issues including gender inequality; the meaningful involvement of people living with HIV (PLHIV); reduction in HIV-related stigma and discrimination; community mobilization and capacity building for individuals and institutions; effective use of research, surveillance, and monitoring and evaluation (M&E) data; sustained and visible leadership at all levels; and improved coordination at the national and sub-national levels.

In response to the key priorities highlighted in the NHS, the following are the key objectives of the CoPCT model:

1. To improve the lives of those infected and affected by HIV through increasing access to quality prevention, care, support, and treatment services.
2. To increase service effectiveness through linkages and through coordinated planning, implementation, data collection, analysis, and use of strategic information among partners.
3. To promote the active involvement of civil society, PLHIV and most-at-risk populations in implementing and managing the HIV response at local, regional and national levels.
PROCESS EVALUATION
2// PROCESS EVALUATION

2.1 Rationale and objectives

The first phase of implementation of the CoPCT model in PNG was completed in September 2012. While it was felt that substantial progress had been made in improving coordination and linkages across and between partners, no in-depth analysis had been done to see how this model was implemented and learn from its successes and challenges and to see if the model had achieved its objective. Its impact on the health system in general was never evaluated. A process evaluation was therefore proposed to be conducted in NCD and Madang, where the model has been piloted, to determine the successfulness of the model and to provide information that could improve PNG’s future epidemic response.

Specific evaluation objectives were:

» To assess the extent to which the CoPCT model was implemented and document its successes and challenges in terms of addressing its objectives focusing on: service uptake and accessibility, rates of loss to follow up, increases in service linkages among the different service providers, joint planning and data use among different service providers, and increased involvement of civil society, PLHIV and MARPS.

» To assess the degree to which the CoPCT model has spill-over and/or direct effects on the health system.

Specific questions which the process evaluation sought to answer were as follows:

1. Were program activities accomplished?
2. What was the quality of these activities?
3. How well were program activities implemented?
4. Was the target audience reached?
5. What external factors influenced program delivery?
The results of this evaluation provide information which can be used to inform the implementation of quality improvement measures which are likely to improve the efficiency and effectiveness of these services in future.

### 2.2 Evaluation methodology

The process evaluation used both qualitative and quantitative methods to evaluate components of the program, specifically prevention interventions (outreach in communities and hot spots, HCT and STI management); clinic-based treatment services (OI management and ART); and community-based services (CHBC).

**Qualitative data**

Qualitative research methods included document review and primary data collection through in-depth interviews (IDIs) and focus group discussions (FGDs). Documents reviewed for this evaluation included annual and semi-annual donor reports as well as the joint assessment report from 2007 and a 2011 report on USAID’s evaluation of FHI 360’s program. Quality assurance reports from 2010 were reviewed for NCD and a final round of quality assessment (QA) activities was carried out in both NCD and Madang as part of the evaluation in order to determine changes over time in the quality of services. IDIs were conducted among clients, service providers and stakeholders. A total of six FGDs were held with male and female project beneficiaries and care providers.

IDI and FGD participants were purposively selected in collaboration with implementing partners based on their roles in providing clinical services to clients. Participants categorized as non-clinical partners were selected for their role in coordination and supervision both at the national and sub-national levels and included stakeholders from the National Department of Health (NDoH), the National AIDS Council Secretariat (NACS), the Provincial AIDS Councils (PACs) and the Provincial Health Offices (PHOs). Representatives from other NGOs were also included under this category due to their involvement in coordination and linkage at the provincial level. FGD participants providing clinical services were identified through local partner organizations (Hope Worldwide in Port Moresby and Id Inad Clinic in Madang).
Topics explored during the IDIs and FGDs included the perceived benefits of the CoPCT model, implementation challenges, linkages across providers, involvement of PLHIV, and the identification of barriers to accessing prevention, care, treatment and support services. Questions were also asked about any secondary, health system-related effects of the model.

FGDs and IDIs were carried out between 22nd March and 24th April, 2012. A local consultant hired for the evaluation provided basic training to six (6) research assistants for over two days with external technical assistance from FHI 360’s Asia Pacific Regional Office (APRO). These research assistants were students from the University in PNG and were closely supervised in conducting interviews. Field work in NCD was completed in 14 days, after which three team members travelled to Madang and completed field data collection at that site over a period of 10 days. Data collected through interviews and group discussions were voice recorded and verbatim transcripts were completed. All interviews and discussions were conducted in either English or tok pisin, and translation of transcripts into English was completed as necessary. Data management, coding and analysis were done using a qualitative data analysis software package, Nvivo 9.

Documents were reviewed to assess implementation progress, achievements and challenges over time. The review focused on annual donor reports to USAID and AusAID, as these provided the most comprehensive overviews of successes and challenges in implementation.
Table 1: Documents reviewed as part of the process evaluation

<table>
<thead>
<tr>
<th>Year</th>
<th>Document name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2009</td>
<td>Semi-annual donor report</td>
</tr>
<tr>
<td></td>
<td>Annual donor report (USAID)</td>
</tr>
<tr>
<td></td>
<td>AUSAID/NAC/USAID joint assessment report</td>
</tr>
<tr>
<td>2009-2010</td>
<td>Semi-annual donor report</td>
</tr>
<tr>
<td></td>
<td>Annual donor report (AUSAID/USAID)</td>
</tr>
<tr>
<td></td>
<td>QA/QI reports from clinical sites in Madang and NCD</td>
</tr>
<tr>
<td>2010-2011</td>
<td>Annual donor report (AUSAID/USAID)</td>
</tr>
<tr>
<td>2011-2012</td>
<td>Annual donor report (AUSAID/USAID)</td>
</tr>
<tr>
<td></td>
<td>USAID evaluation report</td>
</tr>
<tr>
<td></td>
<td>QA/QI reports from clinical sites in Madang and NCD</td>
</tr>
</tbody>
</table>

**Quantitative data**

Quantitative data was collated from program and clinical records. Program data were reviewed to determine levels of service uptake over time and to compare targets vs. achievements. No collection of primary quantitative data was conducted for this evaluation. Clinical records were analysed retrospectively by entering them into excel sheets and analysed using STATA 11 tm.

The protocol was reviewed and approved by FHI 360’s Protection of Human Subjects Committee.
3 // FINDINGS
3 // FINDINGS

3.1 Service Uptake and Clinical Outcomes

For the purposes of this process evaluation, two of the key questions regarding the CoPCT model were (a) whether program services were actually provided according to the targets set in the planning phase; and (b) whether those services were provided in a targeted manner to the individuals at highest-risk of being infected with HIV, or of transmitting HIV to another person. These questions were considered through a review of program monitoring and evaluation data for each of the key service delivery areas.

Outreach Interventions

Outreach has been a fundamental component of prevention programming since the beginning of the project. In addition to encouraging prevention behaviors among people who are at risk of becoming infected with HIV or of spreading their infection to others, within the context of the CoPCT model outreach has played a key role in facilitating referrals to HIV counselling and testing - the entry point into care, support and treatment services.

Outreach-based prevention interventions were launched in 2005 and focused on trying to reach most-at-risk populations in community settings. In the first two years of implementation, project monitors noted unusually high numbers of MARPs being reached; investigation revealed that prevention teams were classifying outreach targets as MARPs based on highly superficial and subjective assessments and were overestimating the number of actual MARPs present in the community. In 2008, FHI 360 introduced a decision tree tool to standardize the classification process in the field. The introduction of this tool resulted in a significant drop in the number of MARPs reached throughout the rest of the project life span (see graph 1 showing actual number of people, in thousands reached per year). However, new monitoring and evaluation data collected using the decision tree is considered to be a more accurate reflection of the true profile of high-risk behaviors in the community. This is appropriate given the project focus on reaching most-at-risk populations. It is also worth noting that, from FY10-FY12, when the decision tree was being used, the total number of BCC encounters increased 23% (from 6,344 to 7,827). Hence, a targeted BCC approach was achieved amongst subpopulations most at risk.
A second challenge to conducting outreach related to the use of general population “outreach volunteers” (OVs) to reach high-risk, marginalized populations in which they were not peers. At the beginning of fiscal year 2010, FHI 360 assisted staff of the Helvim Bilong Yumi Project (HBYP) implemented by Hope Worldwide (PNG) to re-strategize its outreach interventions so that, by 2011 outreach volunteers were based within communities and settlements while peer educators (PEs) focused on reaching most-at risk populations within hot spots such as bars and discos. Community sites were divided into four zones, with a group of OVs permanently stationed in each zone rather than continuously rotating - this strategy allowed OVs to become familiar with their target groups and develop a trusting relationship with them. This approach was sufficiently successful that in 2011, Hope Worldwide and Sirus Naraqi Foundation (SNF, our local partner responsible for implementing community based care) decided to work jointly to increase the impact of their prevention services in the community.
Graph 2: MSM reached with BCC, by year

Graph 3: FSW reached with BCC, by year A key question under
This process evaluation was whether services, including prevention outreach, actually reached those populations for which they were intended. Because no reliable size estimations are available for MARPs in Papua New Guinea, we could not calculate program coverage. However, from FY 10-12, using the decision tree to appropriately identify MARPs, the number of FSWs and MSM reached with outreach interventions increased by 66% and 45% respectively (see graphs 2 and 3, above). Over the life of the project, MSM and FSW also progressively accounted for a greater proportion of all BCC encounters (from 44% in FY08 to 59% in FY12) as shown in the graph 4, below.

Graph 4: Composition of populations reached by BCC, by year
Finally, during focus group discussions many participants said that outreach audiences were becoming tired of standard HIV prevention messages and that outreach needed to be more targeted towards meeting real (or felt) needs; for instance, providing information and linkages for comprehensive reproductive health services, not just HIV/STI services.

Clinical Prevention Interventions

Clinical prevention interventions under the CoPCT model included the provision of STI management services and HIV counselling and testing at the Lawes Road and 9 Mile clinics in Port Moresby, and through the Id Inad clinic at Modilon General Hospital in Madang.

Diagnosis and Treatment of Sexually Transmitted Infections

STI management services were launched in Port Moresby in 2009, and Madang in 2010. Services included syndromic management of symptomatic patients, one-time presumptive treatment and regular STI check-ups for asymptomatic patients, laboratory testing, and treatment. Clients included walk-in patients as well as people referred by outreach volunteers and peer educators.

Graph 5: STI targets and achievements, by year

---

“I think we need to do a lot of awareness, awareness and the health education that was given before it was talking about what is HIV and how it was transmitted and it was in a different context. So now what we have to do is we got to emphasize more on the ability of the ART the benefits of it and Home Based Care teams what they are doing. We need to tell them that, even I think the TB programs do a lot of awareness but they should also include HIV and AIDS information in their programs because they go together so this is one of the good things I see is that people come with TB they are likely to have HIV test. Because they don’t have information on that so we really need to do a lot of awareness.” Outreach volunteer, NCD.
FHI 360 supported provision of STI diagnosis and management services to an average of 2,465 clients per year, though the majority of these clients did not self-identify as members of either of the two key high-risk groups (see graph 5 and 6, above). This average is skewed by the high number of clients served in FY08 – the subsequent decline in service uptake may be attributed in part to the reduced number of individuals (both MARPs and high-risk general population) reached which BCC interventions following introduction of the decision tree tool in 2009. It should also be noted that these data include individuals who accessed services multiple times within and across years.

While uptake of STI services declined over the life of the project, a retrospective analysis of specific STI syndromes (vaginal and urethral discharge) also showed some decline among Lawes Road clinic attendees (see graph 7 below). This suggests that the project may have had some success at reducing bacterial STI syndromes among clinic attendees. The national guidelines for management of gonococci and chlamydia need to be revised due to possible drug resistance against the present treatment as per current National STI guidelines for Papua New Guinea that were developed in 2006.
Graph 7: Decline in STIs, by year

Decline in Vaginal discharge syndrome at Lawes road clinic

Decline in urethral discharge syndrome at Lawes road clinic

Note: recurrent urethral discharge not taken into account
Finally, PNG has a high rate of syphilis and rates of loss to follow-up among syphilis patients are also high. A key achievement of the CoPCT model has been the establishment in 2010 of a syphilis case management team to monitor clients, partner treatment and loss to follow-up. The team reviewed and compared data to assess the impact of the tracking system introduced in 2010. A trend analysis showed that on average over 80% of syphilis cases were lost to follow-up in previous years whereas after the introduction of the tracking system this was reduced to 33%. This reduced loss to follow-up helped the MARPs complete the treatment regimens for seropositive syphilis.

**HIV Counselling and Testing**

HCT is the main entry point under the CoPCT for PLHIV to access treatment, care and support services. The NDoH officially accredited the HBYP Lawes Road Clinic as a nationally recognized HCT site in October 2008; the 9 Mile Clinic had pre-existing accreditation by the NDoH. The Id Inad clinic began providing HCT services in 2010.

Clients accessing HCT were referred by OVs and PEs or through other clinics, or were walk-in clients. Significant efforts were made at CoPCT sites to ensure that HCT services were of high quality and non-stigmatizing, including providing extensive clinical training and sensitization for service providers. A positive diagnosis triggered a series of events, including post-test counselling and referral for further testing to determine eligibility for treatment. Eligible clients were linked to voluntary supportive systems including case management teams and support groups.

Graph 8: HCT targets and achievements, by year
Graph 9: MSM HCT cascade, by year

Graph 10: FSW HCT cascade, by year
From FYO8 to FY12, FHI 360-supported HCT service sites provided counseling and testing for an average of 1,536 clients per year (see graph 8, above). Across all project years high levels of clients went through the pre-testing process and received their results (overall take-up rate 98%, range 97-99%), speaking to the skill of program counsellors. By 2012, when rapid testing was fully integrated into all clinical sites, loss to follow up was zero.

In between 2008 and 2011 at the Lawes Road clinic in NCD a total of 117 positive cases (6.96%) were detected among women, while 81 cases were detected among men (7.03%). The general trend over the four years of testing showed a decline in detection of positive cases as shown in graph 11 below. At the Id Inad clinic in Madang, an average of 11.9% of men (5.0%-18.4%) and 29.6% of women (9.2%-27.0%) tested positive for HIV each calendar year between 2007 and 2010.

Graph 11: HIV cases identified at Lawes Road Clinic between 2008 and 2011
While HCT services have been successful at identifying HIV-positive cases, a key shortcoming under the TASC3 project was that specific MARPs populations remained a minority among HCT clients, and in fact declined from 42% of all HCT clients in FY08 to 10% of all clients in FY12. Further investigation is necessary to determine effective methods of increasing service uptake among FSWs and MSM.

**Care, Treatment and Support Interventions**

The care, treatment and support component of the CoPCT model involved the provision of coordinated and linked services for PLHIV and their families focusing on both the health care facilities and the community. FHI 360 and its partners in both NCD and Madang provinces collaborated to provide care, treatment and support services for PLHIV and their families.

**Antiretroviral Therapy**

Beginning in October 2007, FHI 360 and NDoH collaborated by providing necessary assistance and training to build capacity of medical officers and establish systems for roll-out of ART from Heduru Clinic to the 9 Mile and Lawes Road clinics in Port Moresby. The main reason for the establishment of the satellite sites was to reduce overcrowding at Heduru clinic which was one of the main referral clinics in NCD at that time. In FY10 (2009-2010), two additional OI/ART nurses were recruited to assist the Medical Officers to run the OI/ART services in the 2 clinics which enabled these services to be available to clients five days per week compared to two days per week in the previous year. As a result of support from FHI 360 and NDoH, sizable numbers of PLHIV commenced ART each year, and improving rates of retention resulted in significant annual increases in the total number of PLHIV actually receiving ART.
Graphs 12: Care targets and achievements, by year

Graph 13: ART targets and achievements, by year
From FY09-FY12, FHI 360 supported the provision of non-ART clinical services (including OI treatment and prophylaxis and TB/HIV services) for an average of 258 PLHIV patients per year (see graph 12, above). Under the CoPCT model, FHI 360 also supported 267 new PLHIV to initiate ART between FY09 and FY12 and the total number of clients currently receiving ART increased 211% from 71 in FY09 to 221 in FY12 (see graph 13, above). The loss to follow-up rate for patients on opportunistic infection (OI) medication and/ or ART at the two NCD clinics decreased from 38% in 2008 to 5% in 2011 and at the Id Inad Clinic declined from 14% to 1% over the same period. This is a key indicator for the CoPCT model. These results were due to the successful implementation of adherence counseling; referral linkages with the CHBC program; the use of tracking logs; and active follow-up for treatment defaulters.²

As part of this process evaluation, the electronic data base at Lawes Road and clinical records of ART clients from the Lawes Road and 9 Mile clinics in NCD were also reviewed and analysed.

Over the project period, 184 PLHIV clients initiated ART within the Port Moresby clinics. The mean period of follow-up was 369 days, with an average 38 days between clinical visits. From first to last visit, 95% adherence to ART increased from 58.8% to 75.1% (p=0.027). Mortality rates decreased from 56.5 per 100 person years (PY) in 2008 to 20.5 per 100 PY in 2009, 13.6 per 100 PY in 2010, and 6.8 per 100 PY in 2011 (p<0.001).

**Community and Home-based Care and Support**

FHI 360 supported the provision of CHBC services in NCD through Sirius Naraqi Foundation beginning in 2009, and in partnership with the NDoH, Modilon General Hospital, and the Madang Provincial AIDS Committee under the RIPA project in Madang. RIPA focused on involving PLHIV in service provision at Id Inad Clinic and providing CHBC services at five community sites. All CHBC teams established links with the nearest health care facility to ensure PLHIV had access to services free of stigma and discrimination, and to encourage referral of PLHIV patients from health care facilities for CHBC services. This included linkages with facilities supported by other donors (notably the Clinton Foundation, which provides ART drugs) and referral for non-ART services including TB/HIV, ANC, STI and other chronic diseases.

² Source: USAID evaluation report, 2011
CHBC services were provided in 10 communities within NCD and five in Madang. The initial focus was on PLHIV, but stigma and discrimination within communities in PNG is high, making a targeted approach to this service detrimental to its overall goal. The CHBC services were therefore made more widely available to all community members, with services provided for end of life care for cancer patients, for post-partum and neo-natal care, and for malaria and TB-cases in communities. While the percentage of PLHIV did increase, particularly in year two of the project, PLHIV never made up a significant part of the overall clients served (see graph 14, above).

In fact, focus group discussions confirmed that stigma and discrimination were significant factors in uptake of this service throughout the life of the project. CHBC volunteers had no desire to work within their communities, nor did clients wish to be provided with services in their home - they would much rather have travelled to the clinics. At the same time, some focus group participants expressed that CHBC volunteers might be the people best suited to help PLHIV overcome their reluctance to seek healthcare services.

CHBC needs strengthening to better promote and provide palliative care within the home. However, in an environment where stigma and discrimination persist more efforts need to be made to focus on sensitisation and creating an enabling environment prior to trying to promote additional CHBC services to PLHIV.
3.2 Strengthening Standards for Clinical Service Delivery

In addition to increasing uptake of and retention in treatment, care and support services, FHI 360 also placed a major emphasis on improving the quality of clinical services provided under the CoPCT model through trainings, on-site mentoring and regular field monitoring using quality assurance and quality improvement checklists. These checklists were reviewed as part of this evaluation. In 2010 a baseline exercise was conducted at the 9 Mile Clinic in NCD and as part of the process evaluation in 2012 this was also carried out in 9 Mile and Lawes Road Clinic in NCD, and Id Inad Clinic in Madang. Comparisons were only possible for 9 Mile Clinic, where quality assurance was implemented in both 2010 and 2012. FHI 360 developed tools for quality improvement called the Performance to Standards tools (PTs) focusing on STI service delivery to MARPs.

Implementation of Standard Operating Procedures

In 2012, 9 Mile met the minimum standard in all areas. That is, a copy of the clinical SOPs was present at the site and available to staff, all staff were present during operating hours, staff appraisals were being carried out twice per year, staff were familiar with FHI 360 clinical standards and were attending annual refresher trainings. Clinic staff had established targets, data collected were correct and complete, and performance against targets was being regularly reviewed.

In all cases provision of HIV clinical care followed established SOPs. However, some improvements were necessary, including the need for staff to have the client’s baseline chest X-rays and Mantoux results on file, and the need to strengthen the psycho-social assessment process.

A separate “quality to standards” assessment carried out in 2012 showed that STI service providers were applying skills taught and were increasingly performing in accordance to standard operating procedures, as seen in the graph 15. It is unclear why proctoscopy use was low in 2011 but country office staff indicated part of this may have been related to staff changes.
Establishing Referral Systems

Strengthening a comprehensive and efficient referral system between multiple service providers was a key goal of the CoPCT model. A review of quality assessment checklists also found that referral mechanisms had been established and all guidelines and tools (SOPs, client flow charts, and job aides) were available. This finding was bolstered by qualitative interviews with project staff, during which almost all participants mentioned that they use a project-specific referral card to refer clients to clinical services.
One key strength of the CoPCT referral system, noted by key informants during qualitative interviews, was that apart from linkages and referrals that took place between clinical service providers, the model had also resulted in strengthened linkages with civil society and the private sector. As one key informant explained:

“Now we actually have good linkages with the police where previously it was quite difficult. We now have a specific person within the police CID unit to deal with HIV cases and gender violence. Within Modilon Hospital we have specific people that we can contact, id Inad clinic, even within the Provincial Administration, Community Development and Education... they support where they can.”

It should be noted that not all project staff necessarily supported the idea of expanding the scope of services involved in the CoPCT model – some focus group participants expressed a concern that diluting the focus on HIV could have a negative impact on PLHIV.

“It’s better just to have a PLHIV focused, just HIV focused, stay focus and don’t introduce other services because if we include other clients, other cases, our PLHIV might not want to join, continue with this”. HCT counselor, NCD

Focus group participants also indicated a number of remaining challenges regarding the referral system under the CoPCT model. One key difficulty was that referral to service providers not directly supported by FHI 360 was complicated by the need to provide a referral letter including adding more detailed information on the client, and that loss to follow-up was more likely when referring to non-FHI 360 sites, as these sites have weak referral systems (or none at all). A common complaint among project staff and clients was that patients referred to non-FHI 360 providers faced extra costs, including registration fees and sometimes examination and testing fees even if these services were already provided at CoPCT sites. This indicates a need for strengthened communication with and active involvement of all CoPCT clinical service sites (not merely those directly supported by FHI 360) in the referral network as well as the desirability of agreements to be reached between service providers on fee schedules for services provided.
Monitoring of the CoPCT referral system was another weakness noted by project staff in qualitative interviews. FHI 360-supported sites maintain regularly updated registration logs which track referrals into and out of services, but the lack of unique client identifiers made it difficult to track whether specific referrals were actually taken up. A coding system is in place to track categories of referral (i.e. MSM, FSW, MSW) but this system in practice sometimes complicated matters, as outreach workers and clinical care providers sometimes coded the same client into different risk categories. Project staff also noted that the emphasis under the FHI 360 project on monitoring and evaluation created an additional burden for project staff, who must meet the different M&E requirements of multiple donors and government agencies as well as fulfilling other work responsibilities. Whilst this cannot be avoided, a more effective data management and reporting system needs to be introduced in order to meet the challenges in reporting.

Finally, some focus group participants noted that the referral system under the CoPCT model remained somewhat “one-sided.”

“The referrals from the communities coming in health facilities it is very very good but from the health facility going into the communities we are still working on it. That is one area where we have not really achieved what we wanted to achieve.”

Infection Control
This review concluded that SOPs for infection control had been developed and hand washing facilities were available in examination room, staff wore gloves when handling medical waste, and sharps were disposed of in an appropriate container and out of reach of children. One area of weakness was that suspect TB patients were not being provided with a mask and that lab ventilation needed improvement in order to prevent cross-contamination.
Clinic Set-up and Management

The review also considered the appropriateness of clinic set-up in NCD sites and effectiveness of commodity management, and found that the toilet facilities available to clients had soap, water and clean towels; consultation rooms offered audio/visual privacy; and a designated waiting area was available to clients. Waiting time averaged 15-20 mins and services were found to be well organized.

Condom stocks were sufficient to meet demand; however, the drug inventory management system was found to be deficient and required improvements such as the need for air conditioning for the drug storage rooms to keep drugs at the appropriate temperatures recommended. The clinics (Lawes Road and 9 Mile) also required some essential commodities, including examination beds, an X-ray reading machine, an ear-nose-throat examination equipment set, ophthalmoscope, tendon hammer, and an ambu bag for ventilation.

3.3 Systems Strengthening

An additional objective of the CoPCT process evaluation was to identify the extent to which development and implementation of the CoPCT had secondary effects on strengthening the overall health system. We addressed this question through review of program reports and explored this theme during in-depth interviews and focus group discussions with key informants.

Participants in interviews and focus group discussions tended to focus heavily on the more proximal impacts of the CoPCT - only one person directly mentioned the secondary outcome that capacity building under the project enabled clinicians to address health needs beyond HIV, specifically by enhancing their ability to integrate services and discuss with clients issues related to diabetes, TB and cancer. Some participants also noted that CHBC volunteers were more capable of providing a wider range of non-HIV care services within clients’ homes.
Program reports indicated that, through the CoPCT model, FHI 360/PNG contributed to system strengthening in both the national and sub-national fronts. These impacts were achieved through monitoring and supervisory trips conducted jointly with the National Department of Health, the Central Public Health Laboratory, NACS and other bodies; contribution to the drafting of national guidelines, writing of the UNGASS and universal access (UA) indicators as well as the Global AIDS reports in 2010 and 2012 and strategies; membership in committees and technical working groups; and mentoring and institutional capacity building for local agencies and organizations.

Acknowledging the degree of gender based violence occurring within communities, FHI 360 initiated work with clinical staff to address the needs of survivors of sexual and physical violence during the last year of the project. This included development of a poster on post-exposure prophylaxis (PEP), training of peer educators and outreach volunteers on PEP and training of clinical staff at the Lawes Road and 9 Mile clinics. The clinicians were trained using standard operating procedures (SOPs) which were developed in FY11 to guide staff on how to counsel, treat and refer any victims of violence that attend the clinic. An important element of this training was also training clinicians on how to screen for violence, so that information, appropriate care and support can be provided to clients who are coming to the clinics with a history of sexual violence. While data on these services was not available at the time of this evaluation, the integration of these services into the existing program demonstrated how FHI 360 continued to respond to community needs over time.
National Level

In FY08 when the CoPCT model was initiated, FHI 360 technical experts met with staff of the FHI 360/PNG Country Office, local IAs and NACS to review the M&E system, data forms and reporting mechanism and subsequently provided assistance to improve the system and tools. This TA included assistance defining MARPS and program monitoring indicators for PNG. The TA also included two days of training for 29 participants to build capacity on data quality, target setting and evaluation. In the following years the FHI 360 senior technical officer for monitoring and evaluation was a member of the National surveillance and M&E technical working groups. The two TWGs were merged in 2012 and are responsible for providing the support necessary to review and finalize national M&E program indicators, including those for MARPs.

From FY10, the FHI 360/PNG team provided significant inputs into the development of numerous reports, strategies and guidelines, including:

- the National HIV Prevention Strategy (now integrated into the National HIV Strategy),
- the National HIV Strategy – 2011-2015,
- the UNGASS report 2010 and Global AIDS Response (GAR) report 2012,
- the operational plan for the prevention of parent to child transmission of HIV,
- HIV counseling and testing guidelines, and
- other key policies of the Government of PNG.

FHI 360/PNG staff have also developed protocols for conducting research on MSM and vulnerable women (including those in the general population) and have submitted an application to the NACS Research Advisory Council to conduct routine behavioral tracking among target populations.
FHI 360 continued to participate in policy development and system strengthening through membership in various committees and TWGs. These included the Global Fund CCM, the NACS Research Advisory Committee, the monitoring and evaluation oversight committee, the HIV Garamut (communication) committee, and technical working groups on PPTCT, HCT, STI, surveillance, and gender violence.

With USAID and AusAID funding, FHI 360 developed a PPTCT and pediatric AIDS curriculum for NDoH. The curriculum has four modules targeting different populations: PPTCT, pediatric AIDS, PPTCT for health managers and PPTCT for community workers. Key partners including UNICEF, NDoH, Clinton Foundation and Susu Mamas made their contributions, comments and provided feedback through consultation meetings/workshops organized by FHI 360 and NDOH. The curriculum was field-tested, and a final version completed by the end of FY11.

FHI 360/PNG also played a proactive role in the establishment of the STI TWG, coordinated by the Sexual Health and STI Unit at NDoH and supported by FHI 360. The group met for the first time in April 2011.

FHI 360 also organized numerous joint monitoring trips with NDoH and other stakeholders including NACS and CPHL. In August 2010, Dr. Paison Dakulala, Deputy Secretary for Health (Technical), Dr Daoni Esorom, Principal Advisor for STI/HIV and Dr. Peniel Boas, Care and Treatment Coordinator from NDoH visited Lawes Road Clinic. The purpose of their visit was:

» to better understand the client flow at the ART clinic and the linkages and referral system between the clinic and community (and vice versa);
» to understand how the CoPCT model promotes Greater Involvement of PLHIV (GIPA); and
» to see PLHIV involvement in service provision.
Dr. Dakulala was impressed with the system in place and commended FHI 360/PNG and Hope Worldwide/HBYP on providing such quality services. During the Madang stakeholder meeting in August 2010, the Deputy Health Secretary, NDoH pointed out that organizations like FHI 360 are doing health system strengthening work and should be recipients of GFTAM resources.

Sub-national Level

At the sub-national level, FHI 360/PNG continued to work closely with NDoH, NCD-PAC, M-PAC and local partners on strengthening coordination and referral systems so as to increase access to HIV prevention, care and treatment services for MARPs, PLHIV and their families. Major accomplishments included the establishment of the first provincial counselor's networks in NCD and Madang, which played a critical role in strengthening HCT services by identifying gaps and addressing issues affecting services in both provinces. NCD-PAC succeeded in establishing a sub-CoPCT coordination committee for Port Moresby North-East district and through provision of CHBC services has developed useful links with local community leaders.

In Madang, M-PAC also made progress towards setting up a sub-CoPCT coordination committee for Sumkar District. Additionally, with support from FHI 360, the Real Involvement of People Living with AIDS (RIPA) Project implemented by PLWHA in Madang facilitated and organized regular PLHIV monthly meetings at Modilon Hospital and conducted self-care trainings for PLHIV and care givers. These Kirap Bung Wantaim (KBW; ‘Rise Up, Get Together’) meetings were attended by PLHIV, health workers, CHBC and self-care team members, and family members and friends. The meetings played a critical role in increasing access to HIV prevention, care, treatment and support for PLHIV; facilitating referrals; improving ARV treatment adherence; addressing stigma and discrimination; and overall improving PLHIV's quality of life. The increasing participation by PLHIV in KBW meetings clearly demonstrated that they are keen to make a difference in their own lives.
FHI 360/PNG also mentored and built the capacity of CoPCT implementing agencies in project management, particularly in the areas of financial management and strategic information. FHI 360/PNG, in consultation with the IAs, developed a CoPCT monitoring and evaluation framework and trained relevant staff on the M&E protocol. The FHI 360/PNG team spent considerable time with IA staff in improving the quality of data.

A Tri-Partite Memorandum of Understanding (MoU) between FHI 360, Modilon General Hospital, and Madang PHO was signed by all parties in January 2010. The MoU outlines how the three parties will work together to build the capacity of Id Inad Clinic and other MGH clinics for provision of quality HIV and HIV-related services. Under this agreement, FHI 360 has provided numerous trainings on topics including positive prevention, safe sex, family planning, and counseling skills for PLHIV. FHI 360/PNG also helped Modilon General Hospital complete their 2010 comprehensive care and treatment work plan, and continued strengthening ART clinic systems to streamline client flow, organize filing of medical records and create a coding system and tracking log for client appointments and/or follow-up. FHI 360 also continued to strengthen the MGH HIV Clinical Response Committee.

In FY12, FHI 360 assisted the PHO in the roll out of a new HIV testing algorithm to HCT sites in all Madang districts. Madang PHO has in addition formally requested FHI 360 to provide TA in the roll out of ART to district all districts.
4// STAKEHOLDER PERCEPTIONS OF THE CoPCT MODEL
As noted above, as part of this process evaluation, we engaged project staff and volunteers, clinical service providers, and project beneficiaries in a series of focus group discussions. Insofar as information gleaned from these discussions was relevant to provision of specific prevention, care and/or treatment interventions or addressed specific implementation barriers, it has been noted in those sections of this report. Below follows an analysis of community perceptions of the CoPCT model overall, as informed by discussions with those involved in either planning, implementing or benefiting from this model.

### 4.1 Understanding of the CoPCT Model

When asked about available HIV-related services, beneficiaries taking part in focus group discussions tended to focus on delivery of clinical services, with the majority of respondents describing HCT and ART as the core of the CoPCT model. CHBC services were also mentioned, but were described as underutilized, generally for reasons relating to stigma and discrimination.

The most commonly referenced non-clinical, HIV-related service available in the community was outreach education, though this was referenced as “raising awareness” as opposed to education or behavior change communications. That prevention interventions were not viewed as a more important component of the CoPCT model may be a result of the fact that outreach interventions were launched independently of clinical services under the CoPCT model and were only later fully integrated into the model.
In discussing services available under the CoPCT model, focus group participants who were service beneficiaries also referred to numerous, often private-practice service providers not included under the CoPCT network. Several participants shared stories (their own or others) regarding poor patient experiences at these services, or else noted the extra charges imposed by those providers. In general, private sector providers were portrayed as providing lower-quality, higher-price services in comparison to services supported under the CoPCT model.

It was apparent from their responses that the roles and responsibilities of FHI 360 and its implementing partners under the CoPCT model were not always clear to focus group participants, and that some participants had higher expectations regarding what could be achieved under the model. For example, delays in salary payment were a frequently cited concern of service providers in the focus groups, but as these individuals were staff of local implementing agencies, FHI 360 was not responsible for their human resources management issues. In the future, roles and responsibilities need to be clarified among program staff in order to avoid misunderstandings and misplaced expectations.

4.2 Perceptions of change over the course of implementing the CoPCT

The CoPCT program was launched in 2008 to help bridge the gaps between prevention, care and treatment services for those most at risk for HIV and PLHIV. There were many PLHIV who could or would not access services for various reasons; there were many ART treatment defaulters; and the level of stigma and discrimination was still high within communities. Focus group participants recognized that when the CoPCT model was introduced many changes were seen: more clients accessing services, the establishment of a referral system and ART patient tracking, and efforts to reduce stigma and discrimination in the community. Some PLHIV service providers – themselves former patients of the health care system – contrasted their own experiences with the present situation under the CoPCT model.
Focus group participants also observed a decrease in stigma and discrimination within communities. More clients came to the clinic with confidence in the services provided.

“One of the biggest change I’ve seen is the attendance of the clients at the clinics. Previously because of stigma and discrimination was very high. I will say hardly people coming to the clinic, sitting down, relaxing, asking a few questions, popping in and going out. But when the CHBC program under the CoPCT was implemented I saw that clients started coming in because we have team go out at the rural sites making awareness and telling them to come”. ART prescriber, Madang

Participants also indicated that for those clients who test positive, they are more open to disclose their serostatus to their families than they would have been in the past. One participant mentioned that the CoPCT model has created a trusting relationship between service providers and the community.

“I think the benefit here is I’m seeing the MSM now walking freely, freely from here into the community there and those guys who are, some of them I mean who are usually hush (do not talk/engage) to them but friendly to them”. ART prescriber, NCD

“There has been a big change over time. People who used to be afraid of HIV and AIDS and would not get near PLHIV are now hugging them. Even my mother never used to like me, she used to be afraid of sitting next to me until the CHBC teams visited and through counselling they realized and way our son will not die.” Caregiver, Madang.

Additionally, one participant mentioned that there is a change in the nursing school as well. Previously people did not know about HIV/AIDS - they didn’t teach about HIV/AIDS in school, but currently the Lutheran School of Nursing has started sending students to the STI clinic in Madang to learn about the situation.
4.3 The Role of PLHIV under the CoPCT Model

Encouraging greater involvement of PLHIV in the planning, implementation and monitoring of HIV prevention, care and treatment services was a major goal of the CoPCT model. During focus group discussions, there was acknowledgement of the role PLHIV played as care providers and educators. Clinical service providers noted that they believed that more people are accessing services because other PLHIV are involved in providing services to their peers. Participants agreed that PLHIV involvement is an essential component of successful implementation of the CoPCT model.

“[The model] could be strengthened if we involve more of the PLHIV – involve them in, going into the communities and doing those awareness themselves”.
ART prescriber, NCD

While it was widely agreed that PLHIV were engaged in activities such as the Kirap Bung Wantaim meetings, and played a key role in providing referrals and working on CHBC teams, one theme that arose in focus group discussions was the need to involve PLHIV more fully in other parts of the model, such as (for example) in starting up income generation programs, or serving in clinic roles as administrative staff, receptionists and HCT counselors. Participants most strongly emphasized the need for PLHIV to be more actively involved in the intervention planning process.

“I think it will be best to my community to sit with my people and ask them about how they would like CHBC to be run in their community. Because right now all the planning are done up there. It’s why we are not achieving a lot of things”.
CHBC team leader, NCD

Focus group participants also noted that, through the CoPCT model, many PLHIV are becoming knowledgeable about how to take the drugs for treatment and deal with their positive status which contributes to prevention of the spread of HIV.
4.4 FHI 360 Support for the CoPCT Model

During the focus group discussions, many participants mentioned that technical assistance from FHI 360 was good, and that staff members were able to learn necessary knowledge and skills to run the program. As one prominent key informant put it:

“FHI is more community based... You can go so much in the facility based settings but that’s where your strength stops and you may not be mandated to go beyond. And what FHI is bringing in is beyond that, beyond that where you cannot reach them. You are so focused within the hospital setting, health facility setting that you may not link in well, Well FHI comes in and gets to the nitty gritty right at the ground level where people are need help most and that to me is very very important”. Government official, NCD

It should, however, be noted that some participants felt FHI 360 spends a lot of money in hiring international consultants who do not know the PNG context. It was expressed that:

“This is not good to have consultants who do not know the country. They might give the wrong information or information that they don’t understand about.” CHBC team leader, NCD

Participants also felt that, despite providing good trainings, supervision and management of the CoPCT model, implementation needed to be improved to ensure that trainings translated into improved quality of work. One participant mentioned that in the last two years, they had received hardly any technical support and supervision from either FHI 360 or their own field support officers. When asked why this was occurring, volunteers indicated that they had been told there was no money to support field visits.

Finally, staff of partner agencies expressed a desire to be more involved in the program planning, rather than having implementation plans dictated by FHI 360. This desire was especially strong given the many years of capacity building support provided to programs such as HBYP, which felt ready to take on a larger leadership role.
4.5 Benefits of the COPCT model

Key informants at the policy and program manager levels tended to identify the key benefit of the CoPCT model as being the improvement of service delivery across all levels of the healthcare system, and particularly the successes in bringing effective service delivery into communities. As one individual explained:

“There are people out there who know who are more knowledgeable in caring for the terminally ill, for the person who needs care than the medical officer and the nurse can do. There are people who have really gained expertise in providing care at the local level in the village in the settlement and it’s an area that by the nature of the government system it’s not covered by the health worker employed by the government, and that’s why the experience of the partners in the community level is very valuable for us”. Government official, NCD

Several individuals described the model as providing a “missing link” necessary to tie together stakeholders across multiple sectors and at different levels of service delivery.

Participants also noted major benefits in terms of improved uptake of health care services and improved clinical care outcomes. Service providers in the clinics as well as in the CHBC programs described how the numbers of PLHIV who have come out to access services has increased, as have the numbers freely disclosing their status or being assisted to do so:

“The number of people registered has increased. We have over 300 cases now and people are coming freely and they come, they are coming out because we involved a lot of PLHIV’s at the clinic when they find out someone is like them... not like before when we would hardly see anyone. They’re becoming interested in the clinic.” Hospital administrator, Madang
Service providers also noted the dramatic reductions in loss to follow-up which were achieved through implementation of the case management teams:

“Previously we had very high numbers of lost to follow-up clients and we did not (could not) even go and check them or look for them where are they have they transferred out of the province or are they dead or but through the strengthening of the M&E systems here we've greatly reduced that.” (MAD_IDI_NonCl01)

As data provided above indicates, the CoPCT may also have contributed to reduced HIV-related mortality. Participants felt that improvements in counseling services and in tracking defaulters to get them back on treatment has resulted in better health status among clients. Clients get better very quickly. They are happier in their homes instead of the hospital.

“The most important benefits that I see is client’s behavior has been changed. Clients came to the clinic and they went out getting some support not only in the clinic but into the community, then into the household, into the family and then they came out happy.” ART prescriber, NCD

On several occasions, focus group discussion participants also stated that the CoPCT model has benefited many others aside from PLHIV, particularly through their community-based prevention efforts which have raised awareness and (potentially) reduced stigma and discrimination.

“The CHBC under the CoPCT model has done great. It’s not only benefited the PLHIV but the non HIV or general population as well.” ART prescriber, Madang
5 // FACTORS INFLUENCING IMPLEMENTATION
In order to better understand any challenges to implementation, we reviewed annual donor reports to determine overarching external factors that may have affected service delivery.

**Lack of operational definitions for target populations**

A lack of operational definitions for target populations, combined with a target-driven approach, resulted in misclassifications and over-reporting of the number of MARPs served. A data quality audit which included discussions with volunteers revealed that they over-reported in order to assure targets were met, and that they often used their own judgement in classifying clients as members of target populations. Further calculations confirmed this, when it was found to be unrealistic to achieve the numbers reported given the number of volunteers and hours worked in the field. The decision tree tool was introduced to address this issue and resulted in a more systematic classification of individuals reached by the project; however, a side effect was a reduction in overall numbers reached and subsequently referred on to other services provided under the project.

**Location of clinical service sites**

As described above, FHI 360 and local partners put considerable effort into improving the quality of clinical services provided under the project. However, services were provided through pre-existing service sites which were not always located in the areas with the highest concentration of need. Clients complained regularly that these services were located too far away from the settlements where members of the target populations lived, and security
concerns combined with a relatively weak public transportation network made travelling significant distances to access services a prohibitive barrier in many cases. This situation is sometimes compounded by difficulty ensuring that services will be available once a client arrives, due to regular service disruptions as discussed below.

“For us in the town area it’s okay for us, but for those ones in the remote villages it’s rural out there and then we need bus fare and these kinds of things... I feel sorry for the ones who travel far to come for treatment and they wait here for long hours.”

Staff in the focus group discussions lamented the lack of a dedicated project vehicle which could be used to facilitate referrals; they said they sometimes had to pay clients’ transportation costs out of their own pocket to ensure an effective referral.

Security Issues
Physical safety concerns are a well-documented issue in Papua New Guinea and particularly in Port Moresby. The need to ensure the safety of project staff and volunteers hampered efforts to conduct outreach activities (i.e. some potential outreach “hot spots” were considered too risky) and limited the times during which outreach activities could be conducted. As discussed above, safety was also a major concern influencing clients’ willingness to travel to project-supported clinics to receive services. Finally, provision of clinical services was disrupted numerous times over the life of the project as clinics were closed due to security concerns.

Other Service Disruption
Project services were also disrupted repeatedly over the life of the project for other reasons, including national elections and related political unrest beginning in 2011 which limited ability to conduct outreach activities and resulted in clinic closures. Project-supported clinics were also closed on multiple occasions due to unstable water and electricity supply and in some cases due to relatively high levels of staff absenteeism with insufficient back-up staff.
Human resources was a common issue noted by participants in focus group discussions, particularly with regard to the heavy work load among staff and volunteers. Project staff and volunteers expressed a desire for more health care staff to become involved in providing project-related services (particularly providing referral and follow-up support). Clinic staff and volunteers also indicated that they needed higher pay for the work they do, and that delays in payments of salaries should be avoided. Note however, the quote below is from the district health official and not a project staff member.

“One staff has to do many things. FHI put pressure on us. They want us to do STI, HIV, PPTCT, family planning, trauma counseling and GBV. That's part of the reason why some of us have transferred or found new jobs. There's too much on our plate and yet they don't want to increase our salary”. District health officer, NCD

**Drug Stock-outs**

During focus group discussions with project staff, inefficient drug supply management was cited by some workers who noted procurement is only conducted three times per year, and on several occasions CHBC volunteers have run out of the medicines they keep in their kits and must borrow from other clinics. HIV clinical care services were also affected by a national stock-out of some ARV drugs in 2012; however, in this case FHI 360 staff responded with training and capacity building for clinicians to address changing ART regimes, to ensure minimum impact on patients under the CoPCT model.

**Stigma and Discrimination**

Stigma and discrimination was one of the key barriers to service uptake raised during focus group discussions. Participants explained that there were multiple aspects to the impact of stigma and discrimination on care seeking behavior. People do not want to come to the clinic because they afraid they will meet someone who knows them and there is still reluctance to disclose HIV status to partners and family members for fear of being ostracized by the communities and having to leave or being victimized. It is interesting to note that, while in terms of service accessibility, participants expressed a preference for clinics located in or near their own communities, while in terms of privacy and confidentiality they expressed a desire for the opposite.
RECOMMENDATIONS
Focus group discussions and individual interviews adequately demonstrated that at the policy level (national and provincial) the CoPCT model is perceived to be the best model to bridge the gap between community structures and health facilities, and to build linkages between existing service providers which have traditionally operated in separate “silos.” The model is viewed as a way to bring together many different players to bring about a more holistic response to HIV. Some CoPCT activities – for instance the Case Management Teams and the Kirap Bung Wantaim support meetings – are already recognized as successful activity models and should be rolled out to others sites.

This being said, no model is perfect, and this process evaluation through a review of project-level data and through discussions with program implementers and beneficiaries has also generated a series of recommendations to overcome some of the implementation barriers discussed above and further improve service delivery.

1. **Further strengthen implementation of HIV prevention interventions.** M&E data highlight the need for innovative approaches which expand coverage of prevention interventions, particularly targeting most-at-risk populations. Hot spot-based interventions in bars and clubs may be one means of targeting MARPs at the places and times when they seek sexual partners, but this approach is also seen as a distraction by venue managers and patrons. Other innovative methods need to be explored, including mass media approaches, and the use of social media platforms and peer-driven approaches.
2. In a related issue, prevention interventions often depend upon a team of dedicated but largely semi-literate or illiterate peer educators and outreach volunteers to reach members of the community. Existing tools and training/mentoring methodologies need to be modified in order to meet the needs of these staff members; one example could be the use of symbols instead of numeric or alphabetic codes in recoding data. Training should also be on-going and regularly scheduled. This is true for all project staff, but most especially for prevention staff, who require regularly refreshed outreach messages and information to avoid burn-out and message fatigue. At the same time, messages should be locally relevant, bearing in mind the cultural diversity of the country where messages used in one project site may not be relevant to another.

3. Explore alternative modes of clinical service delivery, including mobile services (which could be integrated into other mobile clinics visiting communities) to reach clients who cannot travel into the city; or the provision of transportation to the clinic; and integrated one-stop service centers. Satellite sites to de-centralize ART and make it more locally accessible should also be considered. Location of service centers, lack of transportation, and the need to visit multiple sites to access necessary services were among the chief barriers cited by program beneficiaries to increasing service uptake.

4. Basic and essential medications should be made available at all service delivery centers and in all CHBC medical kits (for example, in qualitative discussions many service beneficiaries complained of not being able to access Septrim, an antibiotic, at the same clinic where they accessed ART). Ensuring an uninterrupted supply of basic medications will require a review of existing procurement policies and a shift away from commodity tracking systems which reactively respond to drug stock-outs and toward a system which proactively prevents these stock-outs. It is, however, acknowledged that commodity management at the clinic level is dependent on national drug procurement systems and policies, which are beyond the scope of local implementing agencies and FHI 360 to adjust.
5. Establish a care unit within the existing FHI 360-supported ART clinics for patients who arrive seriously ill and require stabilization prior to being transferred to other healthcare providers in the community who may lack the resources, manpower or technical capacity to provide a similar standard of care.

6. Address staffing issues within FHI 360-supported implementing agencies – which should include preparing staff retention plans for peer educators, outreach and CHBC volunteers and clinical service providers. Manpower at service centers should be maintained at levels sufficient to avoid burn-out of individual staff members, and to avoid undue service disruption in the case of staff absenteeism.

7. Encourage and facilitate more active involvement of PLHIV in all aspects of the project. The CoPCT model has been a leader in PNG in involving PLHIV not merely as patients, but as providers as well as through their roles in support groups and case management teams. However, comments during focus group discussions indicated there is still an element of tokenism in some aspects of PLHIV involvement. To ensure further progress in implementing the principle of greater involvement of PLHIV, these individuals should be fully engaged as intervention planners and leaders.

8. Community engagement needs to be strengthened in order to address issues of stigma and discrimination and promote an enabling environment. This engagement should include community and church leaders, both powerful opinion leaders within communities who can effectively lead change and promote the success of HIV prevention, care and treatment.

On a final note: a key theme which arose repeatedly over the course of this process evaluation, through document reviews and also during interviews and FGDs, was the disruptive nature of the security situation in Papua New Guinea, which made it difficult for clients to access services and for providers to guarantee stable service availability. While all steps must be made to ensure the physical safety of both project staff working under the CoPCT model, and project beneficiaries, a comprehensive solution to the local security situation is beyond the scope of this evaluation, or the project itself. Absent solutions at a higher level of authority, the security situation in project sites is likely to remain a key service barrier for the foreseeable future.
7 // THE FUTURE OF THE CoPCT MODEL
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Papua New Guinea has made important progress in recent years in combating the spread of HIV infection, but much work remains to be done. It is our hope that this document provides sufficient evidence to justify support for continued development of the CoPCT model. While challenges remain – particularly around expansion of prevention services for MARPs and overcoming barriers to service uptake – findings from this process evaluation have indicated that the model has successfully contributed to (1) establishing linkages between disparate service providers toward a true continuum of prevention, to treatment and care services; (2) strengthening the quality of services provided; and (3) improving retention in treatment services, adherence to treatment regimens and treatment outcomes.

During in-depth interviews and focus group discussions, many participants expressed a need not only for continued support of the CoPCT model, but a desire to expand this model to new areas, as is envisioned under the new USAID Strengthening HIV/AIDS Services for MARPs project. The model was particularly praised for working down to the community level, for sensitizing potential program beneficiaries to the importance of health-seeking behavior, and for providing a template that can be replicated in other locations.
APPENDIX
APPENDIX
DECISION TREE (MEN)

**ASK** Has had sexual relations *in last 3 months*
- **Yes**
  - Has had *sex with more than one person* in last 3 months
    - **Yes**
      - Had *same sexual (penetrative) relations* in the last 3 months
        - **Yes**
          - **Low Risk:** Man, general population
        - **No**
    - **No**
  - **No**
- **No**

**ASK** Has had same sexual (penetrative) relations in the last 3 months
- **Yes**
  - **High Risk:** Man, general population
- **No**

**ASK** Had sex in exchange for money or other goods in the last 3 months
- **Yes**
  - **MARP:** Men who have sex with men (MSM)
- **No**

**ASK** Had sex in exchange for money or other goods in the last 3 months
- **Yes**
  - **MARP:** Men Sex Worker (MSW)
APPENDIX (2)  
DECISION TREE (WOMEN)

**WOMEN**

ASK

Has had sexual relations in last 3 months

Yes

No

ASK

Has had sex with more than one person in last 3 months

Yes

No

ASK

Had your partner had sex with another person in the last 3 months

Yes

No/ Don't know

ASK

Had sex in exchange for money or other goods in the last 3 months

Yes

No

CLASSIFY AS

**Low Risk:** Woman, general population

**High Risk:** Woman, general population

**MARP:** Female Sex Worker (FSW)