Situation and Response to HIV in Papua New Guinea –

Briefing Note

HIV Epidemic in PNG

Previously described as a generalised HIV epidemic, the understanding of Papua New Guinea's HIV epidemic has undergone substantial revision in recent years in response to increased data availability[1]. In 2005 there were only 17 antenatal HIV testing sites while in 2013 this increased to 329. This has resulted in a more comprehensive set of data on which to base national and regional estimates. Projections undertaken in March 2014 estimate a national HIV prevalence of 0.65% with an estimated 31,945 PLHIV in 2013 and project a national prevalence of 0.65% in 2021 with an estimated 38,844 PLHIV.

These estimates show Enga, Western Highlands, Jiwaka and NCD as the only provinces with > 1% HIV prevalence in 2013, and project that Hela, Western Highlands, Jiwaka, Chimbu, Oro, Madang and Manus will have a rising HIV prevalence between 2013 and 2021.

Papua New Guinea is now understood to have a HIV epidemic that is concentrated in certain geographical locations and among key populations. There is substantial evidence to suggest that key populations such as men and women who sell and exchange sex, and men who have sex with men are particularly at risk of HIV. Men who have sex with men and those who transact sex with multiple partners (both women and men), either formally or informally find themselves at heightened risk. The selling of sex and male to male sex are illegal in PNG. The illegal nature of these practices increases the marginalisation of these populations, adds to their risk for HIV, and poses substantial constraints to their access to responsive and supportive HIV and STI prevention, treatment and care services.

Studies have indicated high HIV prevalence amongst FSW including 19% in Port Moresby and 2.7% in Eastern Highlands Province[2]. To date no representative bio-behavioural data are available for MSM, but HIV prevalence amongst male sex workers in Port Moresby, some of whom are MSM, is high with 8.8% of men who sell sex living with HIV and 23.7% of transgendered males who sell sex living with HIV.

National HIV Response

The HIV epidemic in PNG is addressed through the National HIV and AIDS Strategy 2011 – 2015[3]. The NSP has 10 priority interventions in 3 priority areas:

Priority Area 1: Prevention

- Develop and scale-up combination prevention programs for addressing multiple concurrent sexual partnerships in locations where this behaviour is common.

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[1] National AIDS Council (2014) *PNG Report (Interim) to UN General Assembly Special Session on HIV/AIDS (UNGASS)* Port Moresby: http://www.unaids.org/sites/default/files/en/dataanalysis/knowyourresponse/countryprogressreports/2014countries/PNG_narrative_report_2014.pdf

[2] Ibid

[3] National AIDS Council (2010) *National HIV and AIDS Strategy 2011 – 2015* Port Moresby: http://www.adi.org.au/wp-content/uploads/2013/07/2010_AidsCouncilPNG_NatHIVAIDSStrategy2011-2015_Implementation.pdf

- Develop and scale-up targeted HIV and sexually transmitted infections (STIs) combination prevention interventions for more-at-risk populations (MARPs).[4]
- A significant improvement in the availability and accessibility of male and female condoms through condom social marketing and distribution. This includes addressing stigma, myths and misinformation around condom use.
- Develop specific interventions to reduce HIV vulnerability associated with gender-based violence and sexual violence against women and girls.
- Ensure that all pregnant women and their partners have access to the full range of prevention of parent to child transmission (PPTCT) interventions through strengthened maternal and child health (MCH) service delivery.

Priority Area 2: Counselling, testing, treatment, care and support

- Significantly increase availability of point-of-care (POC) rapid testing, with an emphasis on provider initiated counselling and testing (PICT), STI and tuberculosis (TB) services.
- Increased access to adult and paediatric antiretroviral treatment (ART) and opportunistic infection (OI) and TB management at the district and local level in high-prevalence provinces.

Priority Area 3: Systems strengthening

- Strengthen and expand second generation surveillance systems (biological and behavioural surveys, case reporting and STI surveillance).
- Significantly increase technical assistance (TA) and organisational capacity development at the sub-national levels for key organisations.
- A strengthened and functioning NACS and Provincial AIDS Council Secretariats (PACS), with an initial emphasis on PACS in high-prevalence provinces.

As noted in the 2014 UNGASS report, this National Strategy is more suited to a generalised epidemic than for the current concentrated epidemic among key populations. A new National Strategic Plan is expected to be developed in 2015.

Research on HIV and Key Populations

Prior to the Tingim Laip project, a limited number of studies were conducted into HIV and key populations in PNG. A 2011 Behavioural Surveillance Survey (BSS)[5] of 585 participants - 302 men who have sex with men (MSM) and 283 women - in Port Moresby revealed very high levels of sexual violence (53% of MSM and 71% of women were forced into sex in the previous month). There were also high levels of sexually transmitted infections: 40% of MSM and 33% of women had STI symptoms in the past year. Rejection of MSM and women exchanging sex (WES) was common: 63% of MSM had been rejected by their family and 26% by their community; 61% of WES had been rejected by their family and 49% by their community.

[4] More-at-risk populations are defined in the NSP as: "groups of people who share a common HIV risk behaviour and often some other defining characteristic such as selling sex and where there is an existing rate of HIV infection (for example, sex workers who engage in unprotected sex with their clients)...There is currently insufficient epidemiological data in PNG to determine which populations are 'most' at risk so the term 'more' at risk has been used. In PNG, more-at-risk populations include: women and men involved in sex work and transactional sex, men who have sex with men, migrant workers, enclave workers, prisoners and mobile men with money (such as public servants, police, politicians, landowners, cash crop buyers and sellers, transport sector workers, and business men).

[5] USAID (2011) *Behaviours, Knowledge, Exposure to Interventions: Report from a Behavioural Surveillance Survey Port Moresby Papua New Guinea* May. USAID RDMA. Bangkok: http://www.fhi360.org/resource/behaviors-knowledge-and-exposure-interventions-report-behavioral-surveillance-survey-port

A study focused more specifically on men, women and transgender people in Port Moresby who exchange sex was also carried out in 2010[6]. Respondent-driven sampling (RDS) was used to survey 593 participants 441 women, 96 men and 56 transgender people - in June and July 2010; and 25 interviews were carried out. The mean number of clients per week varied greatly according to gender. Women averaged 6.2 clients, transgender people 5.7 clients and men 2.9 clients per week. Seventy-eight percent (78%) of the sample had only men as clients, but 58% of the men and 23% of the transgender had women clients. Traditional landowners were the most common clients, followed by company employees and public servants. The most common location for selling or exchanging sex was a settlement or village, followed by a guest house, and the house of a friend or client.

Anal sex with opposite-sex clients was common – 46% of the women and 56% of the men having anal sex with opposite-sex clients in the last six months. The majority of transgender people (84%) and men (71%) had anal sex with same-sex clients in the last six months. Only 37% of the sample used a condom every time for vaginal sex in the last six months. Thirty percent (30%) of the sample used a condom every time for anal sex with an opposite-sex client in the last six months, and 46% used a condom every time for same-sex anal sex in that time period. This study also found similar levels of sexual violence to the above BSS.

Of the 593 survey participants, 381 had tested for HIV, with 40% of those testing in the last six months. The HIV prevalence was overall 17.6%: 19% among women, 8.8% among men and 23.7% among transgender people.

A meta-analysis of studies and research papers on HIV and PNG published in 2007-08[7] found very few studies that focused on key populations. While sex work and sex between men was mentioned in some papers, these participants were rarely the main focus of research. A further meta-analysis of papers published from 2009-2012[8] found 18 major studies published in that period, only three of which concentrated on a key population defined by the National AIDS Strategic Plan (one on truck drivers and two on WES). These studies sought to evaluate the national HIV program's work with truck drivers (using different survey methods in 2006 and 2010, leading to validity questions), evaluate presumptive STI treatment among sex workers in Port Moresby (from research carried out in 2004), and a description and evaluation of an intervention among WES between 1994 and 1998.

TL Social Mapping

With so little valid, recent data available, TL needed to undertake research that would guide the development of its programs. In 2011, TL embarked on an ambitious Social Mapping exercise aimed at providing the project with up-to-date information on the changing context of HIV risk and impact in a range of settings, and the driving forces of the epidemic.

Two small teams of local and international consultants conducted field work along four main 'corridors' of particular HIV risk and impact: The Highlands Highway; the LNG Pipeline Project; the Oil Palm industries of Milne Bay and Oro and the movement of military personnel between Port

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[6] Kelly, A, Kupul, M, Man, WYN, Nosi, S, Lote, N, Rawstorne, P, Halim, G, Ryan, C & Worth, H (2011) *Askim na save (Ask and understand): People who sell and/or exchange sex in Port Moresby. Key Quantitative Findings* Papua New Guinea Institute of Medical Research and the University of New South Wales. Sydney: https://sphcm.med.unsw.edu.au/sites/default/files/sphcm/Centres_and_Units/Askim_na_Save.pdf

[7] King E, Lupiwa T (2009) A systematic literature review of HIV and AIDS research in Papua New Guinea 2007-2008. PNG National AIDS Council Secretariat; Port Moresby: http://www.tropicalhealthsolutions.com/sites/default/files//uploaded/SLR-HIV-King-2009.pdf

[8] Muller R and MacLaren D (2013) *Systematic literature review of HIV/ AIDS research in Papua New Guinea 2009-2012* PNG National AIDS Council Secretariat. Port Moresby: http://www.tropicalhealthsolutions.com/sites/default/files//uploaded/NACS-HIV-SLR-2012.pdf

Moresby, Wewak and Vanimo. These were not the only settings of increased HIV risk and impact in PNG, but they were chosen because they represented a range of industries and groups and because they were corridors along which many people move and interact.

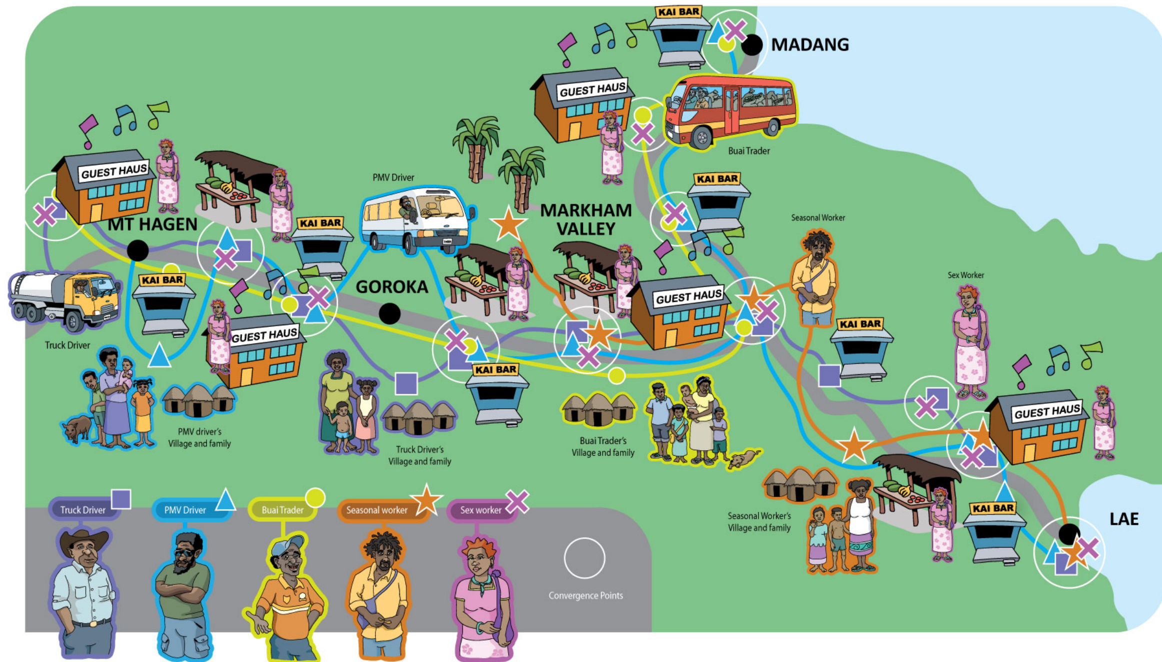
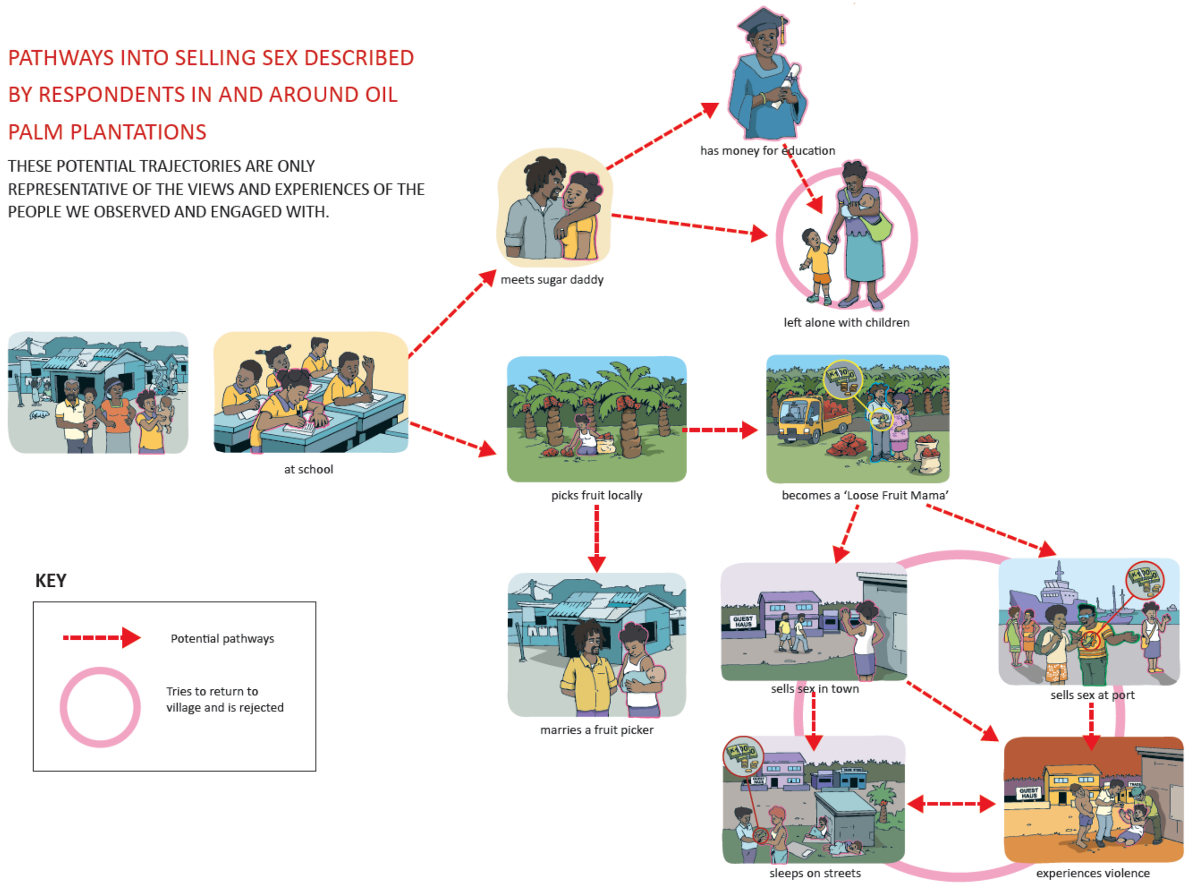


Figure 1: Map from the TL Highlands Highway Social Mapping Report

Four reports (on the Highlands Highway, LNG Pipeline, the Military and Oil Palm Plantations) and three project briefs (on WES, MSM, Mobile Populations and Buai Traders) were produced from this research. These reports and briefs provide rich detail of the ways that men and women are at increased risk for HIV depending on their gender, sexual activities, work, travel, alcohol use and other factors. A key issue examined in these documents was the variety of "pathways" through which a person might acquire HIV, might travel from one place to another, might become involved in exchanging sex or in buying sex, might become involved in multiple sexual relationships. In addition, they examined ways to reach those people found to be at the highest risk for acquiring and transmitting HIV.



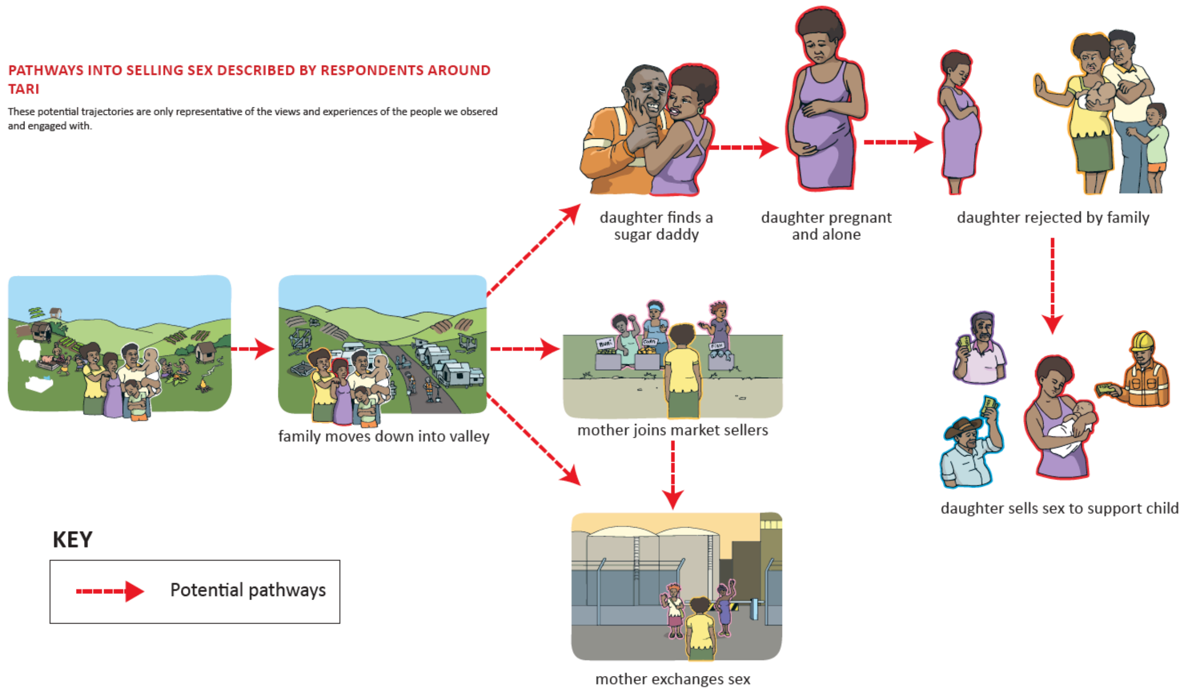


Figure 2: Pathways Diagrams from TL Social Mapping Reports

The project briefs described not only the pathways that could lead to greater risk, but the specific factors in the lives and behaviour of WES, buai traders and mobile men with money (MMM) that increase HIV risk and impact.

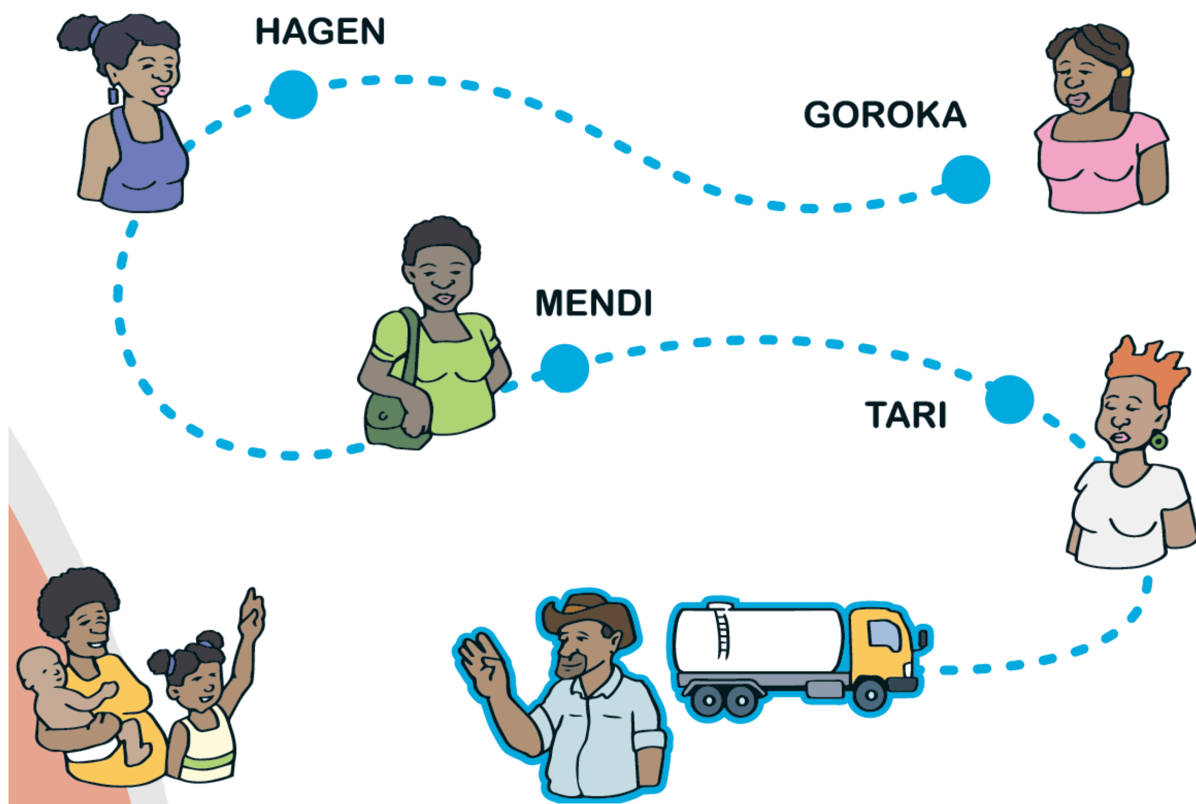


Figure 3: Mobile Men with Money diagram from TL Social Mapping Report

Social Mapping was followed by the TL Micromapping process: this used the findings of the social mapping studies to examine each of the sites in which TL offered HIV prevention services. For example, a site might be on the Highlands Highway, near oil palm plantations, a place where WES were common, and so on. By examining each site in the light of what had been learned from social mapping, site-specific plans were developed about what key populations most needed HIV prevention; what types of field officers and volunteers would most likely reach those key populations; what messages would fit the cultural context discovered by the social mapping; what places outreach would most likely and most often encounter key populations; and what commodities would be most suitable to exchange with clients for participating in outreach education and other activities.

The results of the TL project provide strong evidence of the usefulness of carrying out careful mapping of the drivers of the HIV epidemic among key populations, risk behaviours in their cultural context, and sites where key populations can most readily be approached to maximise the project's reach. It was also necessary to apply this data from social mapping to the specific characteristics of each site to ensure that TL could design site-appropriate responses.