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Impacts of HIV/AIDS 2005–2025 in Papua New Guinea, Indonesia and East Timor

SYNOPSIS REPORT OF THE HIV EPIDEMIOLOGICAL
MODELLING AND IMPACT STUDY

FEBRUARY 2006

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A research initiative arising from the South West Pacific Dialogue

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Executive Summary

In December 2004, at a meeting of the South-West Pacific Dialogue, Governments of Papua New Guinea (PNG), Indonesia, East Timor, the Philippines, New Zealand and Australia agreed on the importance of undertaking a collaborative study of the epidemiological, social and economic risks and vulnerabilities related to HIV/AIDS.

An epidemiological model was developed to project the future course of the HIV epidemic over the period 2005–2025 in PNG, Indonesia and East Timor under three scenarios. The first scenario assumed that HIV interventions remain at current levels (baseline scenario). The second and third scenarios assumed increases in HIV interventions to medium and high response levels.

Projections of HIV case numbers and deaths were used as a basis to estimate future social, economic and security impacts. The following outcomes are predicted by 2025 under the baseline scenario:

PAPUA NEW GUINEA

- > a generalised epidemic with over 500,000 people living with HIV
- > HIV prevalence of over 10% of the adult population
- > 300,000 adult deaths

- > 117,000 children will have lost their mothers to AIDS
- > the workforce reduced by 12.5% and GDP by 1.3%
- > health sector severely impacted, with over 70% of medical beds occupied by people living with AIDS

INDONESIA

- > a generalised epidemic with 1.95 million people living with HIV
- > HIV prevalence of over 1% of the adult population nationally
- > 1.5 million deaths
- > Papua will be hardest hit with HIV prevalence of over 7% of adults
- > 5% fewer people of working age in Papua, particularly impacting the agricultural workforce
- > 166,000 maternal orphans in Papua
- > greatest social and economic effects will be felt at household levels
- > rising health sector costs as 27% of public medical beds are occupied by people living with AIDS, rising to over 80% in Papua

EAST TIMOR

- > a mostly urban epidemic of around 5,000 people living with HIV
- > HIV prevalence of 0.6% of the adult population
- > 2,200 adult deaths and 400 maternal orphans
- > HIV prevalence of 34% among sex workers and 6% among men who have sex with men

These impacts will be significantly reduced, and in the case of PNG and Indonesia, hundreds of thousands of lives saved under medium and high level response scenarios.

Increasing spending on prevention is demonstrated to have long term economic benefits due to savings on treatment and care costs.

Impacts are identified at individual, family, community and national levels. Impacts on gender relations are likely to be significant and women may bear a disproportionate burden of family and community impacts. Adverse impacts on security and stability are anticipated, particularly for Papua in Indonesia and for PNG.

Successes in implementing medium and high level responses will require strong political commitment and expansion of infrastructure in areas including primary health care and education. Measures proposed to support elevated responses include:

- > **Indonesia:** expansion in prevention coverage among people who inject drugs, sex workers and their clients, and in Papua culturally appropriate prevention programs for indigenous populations.
- > **PNG:** improving the status of women, challenging stigma, addressing men's roles in prevention, health service strengthening and decisive leadership.
- > **East Timor:** integration of HIV prevention, care and treatment within a health sector-wide approach that strengthens human resources, procurement and distribution systems.

1 Introduction

The HIV Epidemiological Modelling and Impact (HEMI) Study was funded by the Australian Government through AusAID, to be undertaken in relation to the sub-region incorporating Papua New Guinea, Indonesia and East Timor.

In May 2005, NewSouth Global Pty Limited, the consulting company of the University of New South Wales, was commissioned by AusAID to conduct the study. The complete study will be published as a separate volume and available from the AusAID website www.ausaid.gov.au.

The study was undertaken in four parts. First, the research team worked with AusAID to identify in-country partners and data sources. In the second part of the study, mathematical models were developed to predict the course of the HIV epidemic based on the best available epidemiological data and three different intervention scenarios. Next, the output of the epidemic model was applied to forecast the economic and social consequences of HIV/AIDS under each of the three intervention scenarios and to provide cost effectiveness analyses of the interventions. Finally, in-country workshops were held to present and discuss the results.

2 Epidemiological model for HIV transmission

For the purposes of the HEMI study, an HIV-transmission model was developed that could be adapted for use in each country under various scenarios. The model was calibrated against the most recent national HIV prevalence estimates, where they were available. Within the adult populations of each country, subpopulations considered in the model were female sex workers, male clients of female sex workers, men who have sex with men, injecting drug users (male and female) and other adults. The generic transmission model also distinguished between urban and rural regions, age groups and categories of HIV-disease progression (early stage HIV infection, later stage HIV infection and AIDS). In order to apply the model for a given country, information is needed about the sizes of all defined subpopulations, the frequency of contacts (sexual and drug injecting) between members of the subpopulations, and the rate of HIV transmission that occurs when different types of contact take place.

A model of this kind is understood to be a vast oversimplification of the real dynamics of HIV transmission in a human population.

Furthermore, it is dependent on assumptions about sizes of subpopulations and transmission rates that are based on limited sources of data. Although it is generally not possible to validate the models in an absolute sense, it is important to ensure that they are based on the best available data, that they are conceptually coherent, and that they predict levels of HIV prevalence that are broadly consistent with observed levels.

The model was separately adapted for Papua New Guinea, Indonesia and East Timor based on the best available epidemiological and behavioural data for each country. For Papua New Guinea the model was calibrated against the 2004 national prevalence estimates and for Indonesia the most recently published national prevalence estimates of 2002. Assumptions were made to define the epidemiological characteristics of HIV transmission in each of the three countries. These assumptions are those that are believed to apply with prevention and treatment programs operating under current levels of resourcing. This situation was considered to be the **baseline scenario** for the projections of the future course of the HIV epidemic.

3 Alternative scenarios for intervention

In addition to the baseline scenario, two **alternative intervention scenarios** were identified, representing the outcomes, in terms of a range of behavioural and therapeutic target levels, of a mid level and a high level of enhanced intervention, and used to project the future course of the epidemic in the three countries. The alternative scenarios were defined in terms of increases over the period 2005-2010, sustained until 2025, in the extent to which people at risk of HIV infection were able to undertake preventive actions (condom use for sexual intercourse, treatment for sexually transmitted infections, use of clean needles and syringes, antiretroviral drugs to stop mother-to-child HIV transmission) and people with HIV infection were able to obtain effective treatment, which would have the effect of reducing both disease progression rates and infectiousness in those treated.

The alternative scenarios were defined to be realistic, in the sense that they are not extreme departures from the baseline scenario, and could be feasibly achieved in each country with enhanced levels of resourcing. It must nevertheless be understood that the implementation of the alternative scenarios would not simply be a matter of increasing expenditure within narrow programmatic areas such as condom distribution. Realisation of the alternative scenarios would require strong political commitment, as well as expansion of the underlying infrastructure in various areas, including primary health care and education. These alternative intervention scenarios are defined relative to the assumed baseline scenario, so any inaccuracies in the baseline scenario will have implications for the validity of the mid and high level scenarios.

Estimating the social, economic and security impacts

Under each of the three intervention scenarios (baseline, mid level and high level), the epidemiological model was used to generate **projections of case numbers and deaths**, which provided the means of estimating the future impacts of the HIV epidemic. Impact was defined at the level of the individual, the health system, and the broader community and its functioning.

Limited data were available from the three countries on the impact of HIV on families, but more extensive information of this kind is available for Thailand and several African countries, and was used in a qualitative way to indicate the **household impact**, as measured by the potential loss of income and expenditure of funds arising through HIV-related illness and death. These impacts are of course in addition to the personal grief and loss that severe, fatal illness inevitably brings to families.

Impact on the provision of health care under each of the three scenarios was assessed by using the model to project the numbers of people who would require hospital care due to HIV/AIDS, the cost of providing this care, and the expenditure on antiretroviral drugs. Prevention expenditure was estimated using available costing information, combined with estimates of the numbers of people in subpopulations at risk.

At a community or population level, a quantitative assessment of impact was undertaken via a projection of the **demographic changes** that would arise as a result of HIV/AIDS. The numbers of deaths projected under the models were translated into reduced population sizes and increased numbers of orphans. Reductions in population sizes were in turn used to project the **workforce impact** of HIV/AIDS on various sectors, including health and education. In the absence of more specific data, it was assumed that individuals in all sectors of the workforce were equally likely to be affected.

Impact on Gross Domestic Product (GDP) was inferred by applying projected HIV prevalence to a curve published by the International Labour Organization that establishes an empirical relationship across a number of (predominantly African) countries between HIV prevalence and GDP growth. The economic impact of the loss of life of working age people was measured by approximating the value of each year of life, multiplied by the number of years lost.

Analysis of **security impacts** was largely theoretical, as few studies have examined this relationship empirically. It took account of the social and political context of each country and considered the potential impact on social cohesion of increased HIV prevalence, deaths, loss of income and the creation of orphans.

5 Study findings

5.1 PAPUA NEW GUINEA

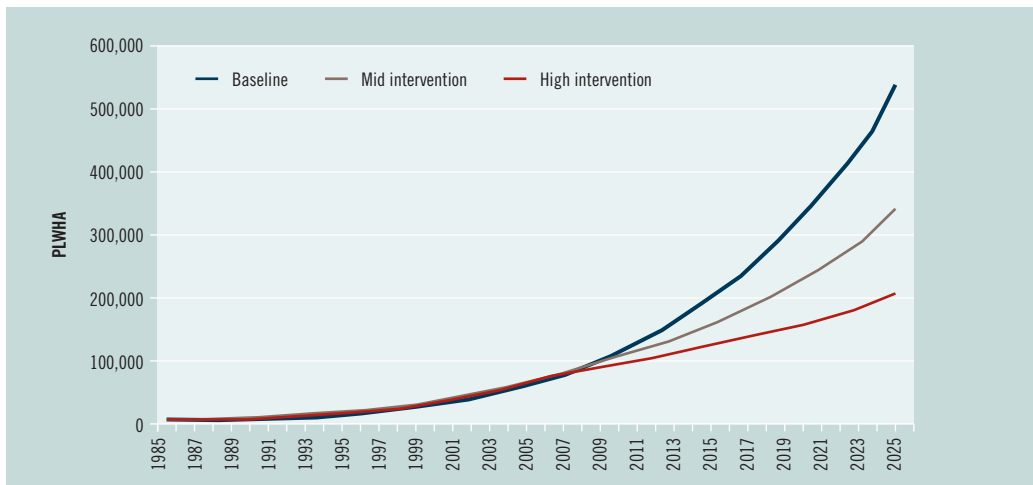
The HIV epidemic in Papua New Guinea has been largely driven by sexual transmission, both outside and within marital relationships. According to the best available data for Papua New Guinea, condoms are currently used for 20 per cent of contacts between sex workers and their clients, and around a third of urban women who engage in sex work have a sexually transmitted infection. There is very limited use of antiretroviral drugs, either for treatment or prevention of mother to child transmission.

The epidemic model predicts that if this baseline scenario continues, Papua New Guinea will see over half a million people, or 10 per cent of the adult population, having

HIV infection by 2025 (Figure 1). An epidemic that has so far mainly affected households and families will start to have community wide consequences, which will ultimately have an impact on state structures and capacities.

The high level alternative intervention scenario assumes condom use by sex workers and clients would rise to 40 per cent over the next five years. Over the same time period, the rate of sexually transmitted infections would be cut by half and access to antiretroviral treatment would extend to 80 per cent of those with AIDS in urban settings. These changes would be sustained for the following fifteen years, to 2025. The mid level intervention scenario falls in between the baseline and the high level scenario.

Figure 1: Projected number of people living with HIV (PLWHA) in Papua New Guinea under three scenarios



If Papua New Guinea can implement the high level intervention scenario, the model projects that there will be around 200,000 people living with HIV in 2025, or 4 per cent of the adult population, thereby avoiding hundreds of thousands of cases. Even the more modest mid-level intervention would prevent a very substantial number of cases.

The numbers of deaths from AIDS related conditions will increase rapidly under the baseline scenario. By 2010 there will have been 85,000 adult deaths, rising to 300,000 by 2025. Because HIV is sexually transmitted, the cases of infection, and hence the deaths, occur largely in the 15-49 year age group. A high level of deaths in adults of reproductive and working age would have a number of immediate impacts.

19,000 children will have lost their mothers to AIDS by 2010, and this figure will increase to over 117,000 by 2025. Reports from African countries indicate that orphaned children are more likely to experience food insecurity and can lose their housing and inheritances. While traditional support systems based on extended families and community structures may absorb orphans, there is growing concern about the sustainability of such systems. Furthermore, AIDS orphans are often stigmatised and discriminated against and they are more likely to engage in antisocial behaviour.

Under the baseline scenario, the predicted levels of HIV illness and death will affect economic performance and place very substantial strains on national resources. The size of the workforce could decline by as much as 12.5 per cent by 2025 (Figure 2), with GDP growth 1.3 per cent less than anticipated, due to the loss of labour.

Figure 2: Reduction in the size of the workforce in PNG

	Baseline	Medium response	High response
2010	3.9%	3.8%	3.8%
2015	6.2%	5.8%	5.5%
2025	12.5%	10.5%	9.1%

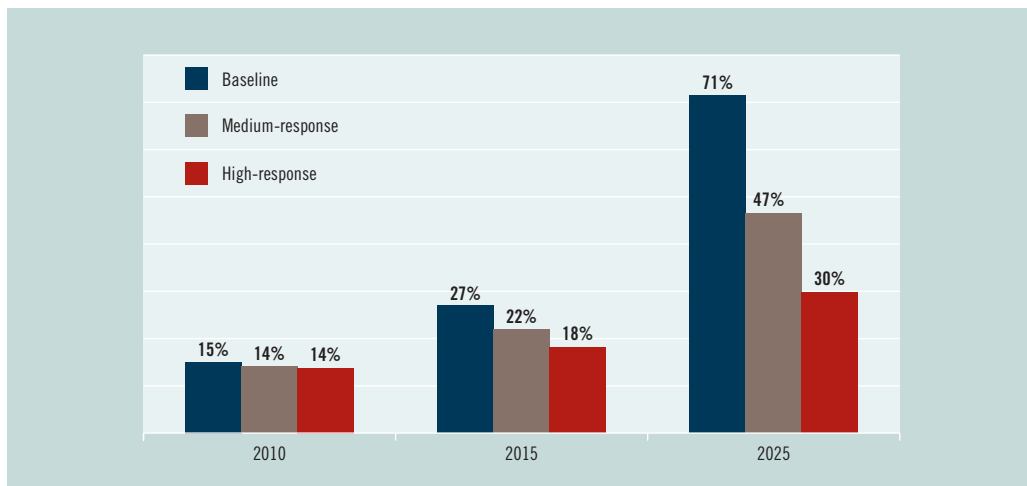
The enhanced intervention scenarios would result in very different outcomes, according to the model. Under the high level scenario the cumulative number of deaths to 2025 would be reduced by over 100,000, and the number of maternal orphans by some 80,000.

The budgetary impact of HIV in PNG is likely to be felt most in the health sector, as growing numbers of people need care and treatment. Under the baseline scenario, over 70 per cent of medical beds will be taken with AIDS patients by 2025, but with high level intervention, the proportion would be closer to 30 per cent (Figure 3).

Under the assumption that government policy results in around 20 per cent of people with HIV infection being treated with antiretroviral therapy and that all are treated for opportunistic infections, the additional medical costs to the budget under the baseline scenario could be as high as PGK 114 million (AUD 50 million) per annum at current prices by 2025.

These costs would be cut by close to PGK 70 million (AUD 30 million) under the high level intervention scenario, because there would be far fewer people with HIV infection. The expansion in preventive interventions required to achieve these reductions in transmission will cost an additional PGK 27 million (AUD 12 million) by 2010, and PGK 41 million (AUD 18 million) by 2025, but from a purely economic perspective these figures are still far lower than the amount being saved in the costs of treatment and care.

Figure 3: Percentage of hospital beds taken by AIDS patients over the next 20 years in PNG



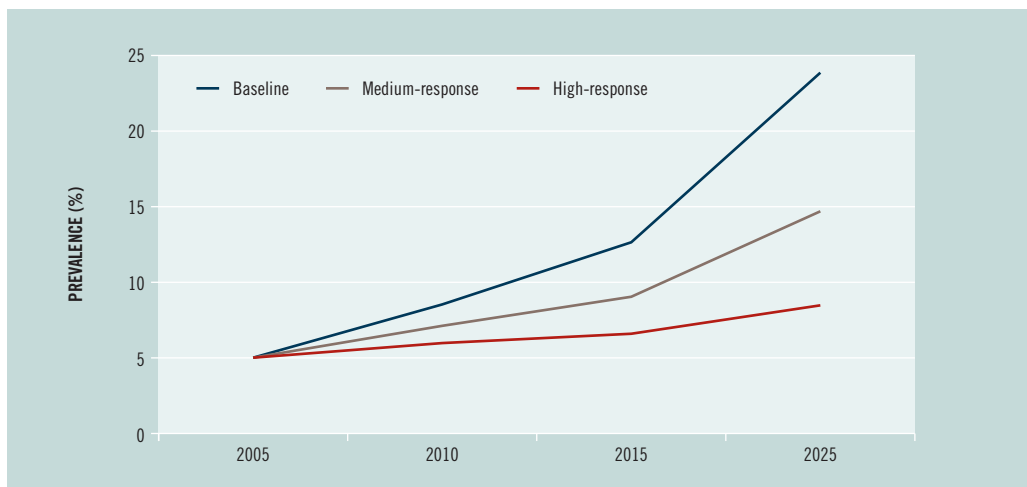
Indeed, the model predicts that the expenditure on prevention will plateau over time, while the savings on the costs of treatment and care continue to climb.

The key to HIV prevention in Papua New Guinea is a reduction in sexual transmission of the virus. Many new infections are taking place through sexual contacts outside marriage, that often involve the provision of money, goods or services by men to women in

exchange for sex. Under the baseline scenario, up to 25 per cent of women who engage in such contacts will have HIV infection by 2025, but if the high level scenario could be implemented across the country, this proportion would stay below 10 per cent (Figure 4).

The benefits of reducing transmission among women who engage in sex work would extend well beyond this population group to their male clients, of whom there are estimated to be more

Figure 4: HIV prevalence among female sex workers in Papua New Guinea, 2005-2025



than one million, and to the women who are the marital partners of these clients. By 2010, under the baseline scenario, 25,000 women who are not involved in sex work will be HIV positive, and the figure will rise to over 120,000 by 2025. However, if the high level intervention scenario is achieved, this total would be cut in half.

There are those who have argued that the best way to eliminate HIV transmission would be to eliminate sexual relations outside marriage, but long experience tells us that this is an unrealistic objective. The combination of low levels of condom use, high rates of sexually transmitted infections, and women's lack of authority to negotiate safe sex both within and outside marriage presents particular challenges for HIV prevention in Papua New Guinea.

At the levels of prevalence and consequent death rates projected under the baseline scenario, HIV infection has the potential to undermine governance and increase poverty in the community. The urgent call on care and treatment resources will result in a diversion of government efforts away from development of the very infrastructure that is necessary for the delivery of HIV interventions and relief of poverty and human security. Reduced state capacity has the potential to provoke challenges to government stability which may become an issue of wider regional security.

On the other hand, enhanced responses, even under the mid level scenario, can ultimately result in savings because they will save thousands of lives through reduced transmission rates, avoid government expenditure through a reduced need for care and treatment and allow for greater productivity and development opportunities.

It is important to emphasise that achievement of the high and even the mid response scenario will need financial resources, multi-level, and

multi-sectoral political support, with legislative, social and policy changes. In the long term, the sustainability and effectiveness of enhanced interventions will depend on strengthened health services, infrastructure, and ongoing provision of the necessary information and tools to stop the spread of HIV. This requires measures to improve the social status of women, addressing men's roles in prevention, challenging stigma, providing support for those living with HIV and sex education including relationship skills for young people. Facing an epidemic of the magnitude predicted by the models using the best available data, Papua New Guinea still has the opportunity to make a big difference in its course through decisive leadership.

5.2 INDONESIA

In most of Indonesia it appears that the HIV epidemic is concentrated in urban areas, and largely related to the practices of drug injection and, to a lesser extent, commercial sex. Prevalence among the wider population remains very low. Clean needles and syringes are consistently used by only about 12 per cent of those who inject, and condom use by sex workers and their clients covers only about a quarter of contacts.

In Papua, a very different pattern of transmission is evident, with the dominant source of infection being sexual, both within and outside marital settings, and a much greater spread in rural areas. The population prevalence of infection may have already reached 1 per cent. About a third of commercial sex contacts in urban areas of the province involve condoms, but usage is far lower in rural settings.

There has so far been very limited use of antiretroviral drugs in Indonesia, either for treatment or prevention of mother to child transmission.

The epidemic model predicts that if this baseline scenario continues, there will be around 1.95 million people living with HIV infection by 2025, made up of over 145,000 in Papua and 1.85 million elsewhere (Figure 5). HIV prevalence among adults in Papua would reach 7 per cent, while in the rest of the country, it would exceed 1 per cent, thereby satisfying the international definition of a generalised epidemic.

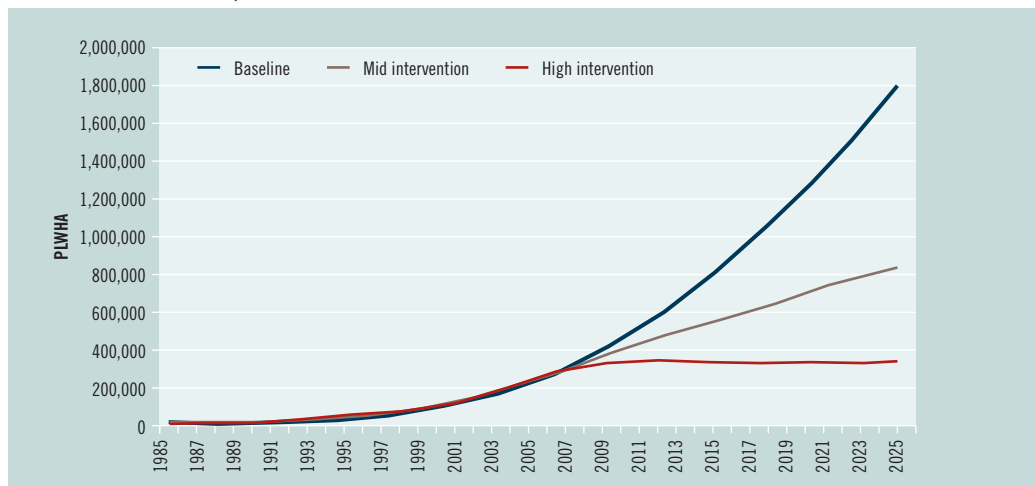
The future would be very different for Indonesia under the high level enhanced intervention scenario. Over the five years to 2010, consistent

use of clean equipment would expand to 36 per cent of those who inject drugs, condom use by sex workers with their clients would rise to 60 per cent, and the rate of sexually transmissible infections would be cut by half. Antiretroviral treatment would become available to 80 per cent of people with AIDS. These changes would be sustained for the following fifteen years, to 2025. The mid level intervention scenario falls in between the baseline and the high level scenario.

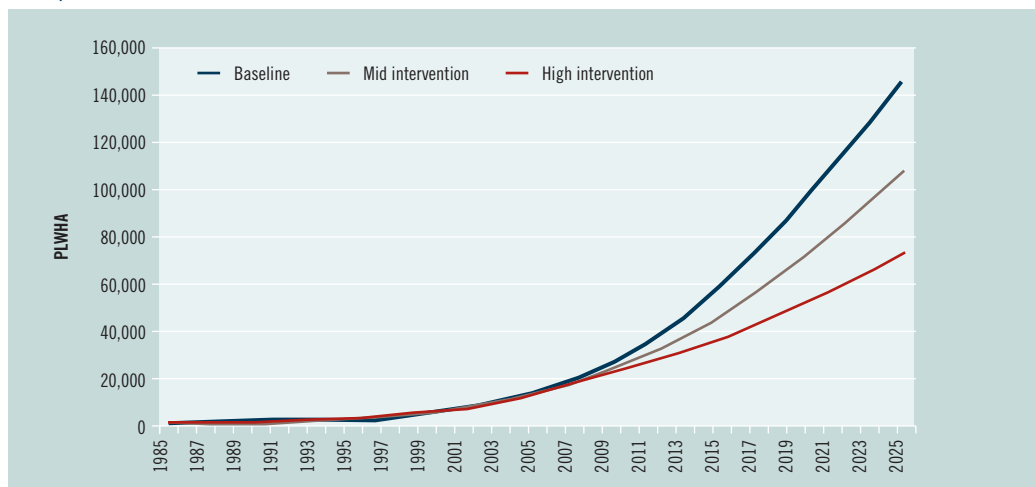
If Indonesia can implement the high level intervention scenario, the model projects that

Figure 5: Projected number of people living with HIV in Indonesia under three scenarios

(a) Provinces other than Papua



(b) Papua



there will be less than 500,000 people living with HIV in 2025, and that over 1.4 million infections will thereby have been avoided. Prevalence will have been maintained below 0.1 per cent nationally, and at 3 per cent in Papua. Even under the more modest mid-level intervention, Indonesia can prevent one million infections by 2025. The effect of the high level scenario is particularly dramatic for provinces other than Papua, where transmission outside the context of injecting drugs and sex work could be largely eliminated, because the background levels of infection are currently very low.

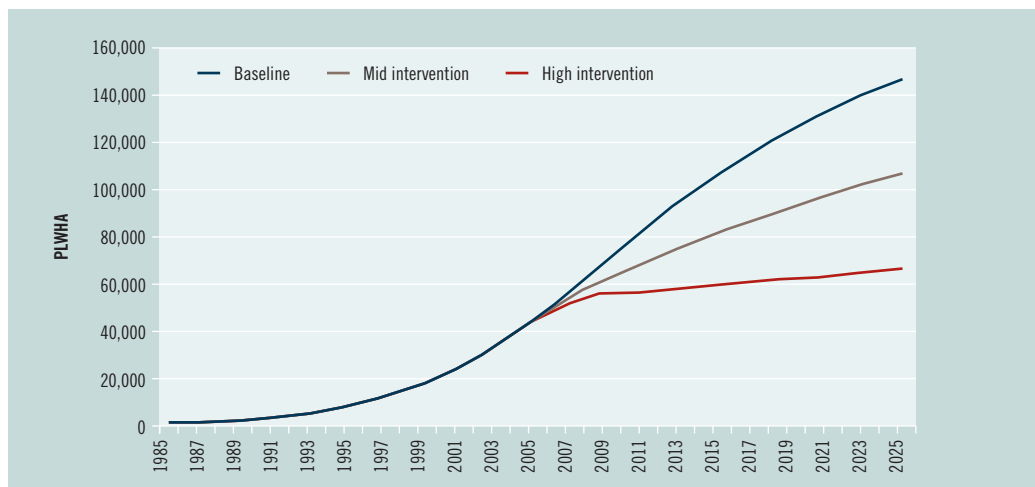
Among injecting drug users, the baseline model indicates that HIV prevalence will reach nearly 40 per cent by 2025 but it could be kept closer to 15 per cent if the high level intervention scenario is implemented, with some 80,000 fewer people acquiring the infection through their drug injecting practices (Figure 6). It is important to note that HIV infection in people who inject drugs can result in transmission to their sexual partners, and to their children, and can ultimately be a cause of ongoing transmission in the wider population.

Sex workers in all provinces will be highly affected by rising HIV rates under the baseline scenario. In particular, by 2025, a third of the women predicted to have HIV under the baseline scenario in Papua will have acquired the infection through sex work. The models indicate corresponding increases in prevalence among men who are clients of sex workers, reaching 10 per cent by 2025 in Papua, and in turn, transmission to the wives of these clients.

In other provinces of Indonesia, HIV prevalence among women who have engaged in sex work will increase from 4 per cent to nearly 23 per cent by 2025 and in their male clients the rise will be from 0.5 to 3 per cent. However, under the high intervention scenario, prevalence in sex workers could be kept to below 4 per cent nationally, and 20 per cent for Papua (Figure 7). Although the projected prevalence for sex workers outside Papua seems relatively low, even under the baseline scenario, the large population base in Indonesia means that there is a potential for extensive transmission.

In Indonesian provinces other than Papua, the projected HIV prevalence will not be high enough to have a measurable effect on

Figure 6: Projected number of people who injected drugs living with HIV in Indonesia (not including Papua) under three scenarios



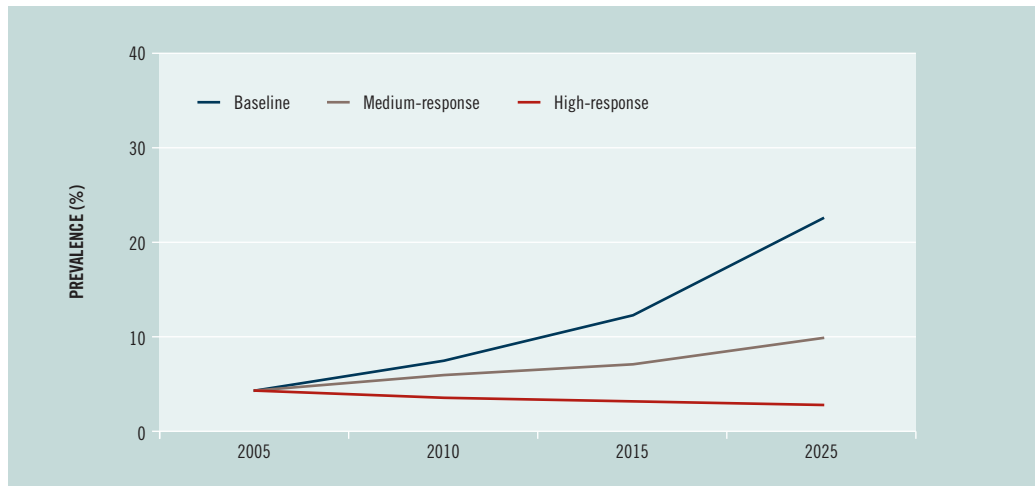
population structures. Nevertheless, under the baseline scenario, the number of deaths nationally will be very large, with adult deaths of over 300,000 projected by 2010 and 1.4 million by 2025. If the high level response can be implemented, the total number of deaths will be cut to 600,000. For Papua, the mortality rate will be high enough to affect population structure. Under the baseline scenario, there will be a measurable decline in population growth, with the age group 20–49 years particularly affected. By 2025, there will be 5 per cent fewer

people of working age in Papua than there would have been if the HIV epidemic had not occurred. However, under the high level intervention, this population loss would be reduced to 3.3 per cent.

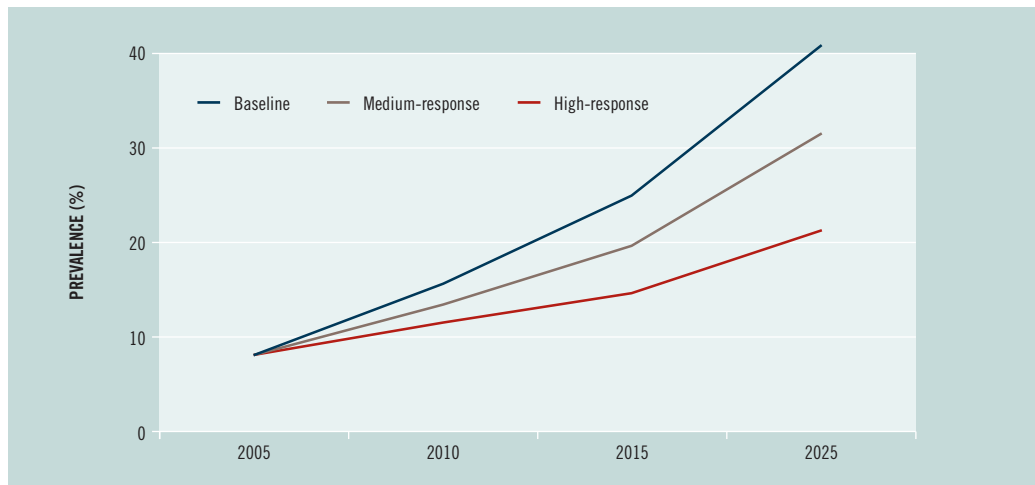
Overall effects of HIV-related mortality on the Indonesian economy will therefore be limited, except in Papua, which is predicted to have experienced 84,000 adult deaths due to HIV/AIDS by 2025 under the baseline scenario. As most of these deaths will have occurred in the 15–49 year age group, they will have a particular effect on the largely agricultural workforce, and

Figure 7: Projected HIV prevalence amongst female sex workers in Indonesia under three scenarios

(a) Provinces other than Papua



(b) Papua



a third of deaths will be in adult women. The impact will also be heavy on children in Papua, with 33,000 maternal orphans by 2010 rising to 166,000 by 2025. Orphaning may reduce school attendance if children are required to provide economic support by tending gardens and other activities. Land inheritance may become an issue, and HIV stigma may further marginalise orphans.

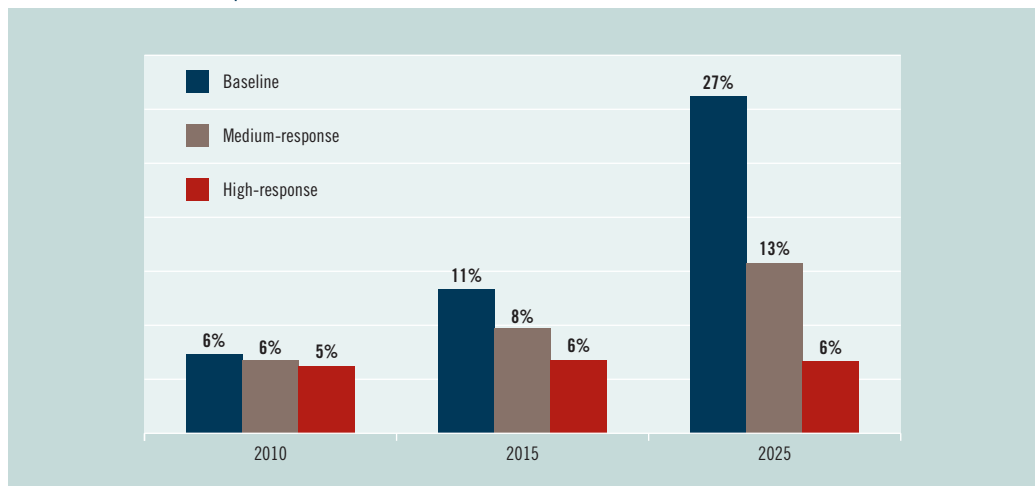
Nationally, the sectoral and budgetary consequences of increasing HIV prevalence are likely to be felt most heavily in the health sector,

as growing numbers of people need treatment. In Indonesia, by 2025, the baseline model predicts that 27 per cent of the public medical beds will be filled with people with AIDS, and in Papua the proportion will be over 80 per cent (Figure 8). Under the high level response scenario, this figure for Papua would fall to 40 per cent.

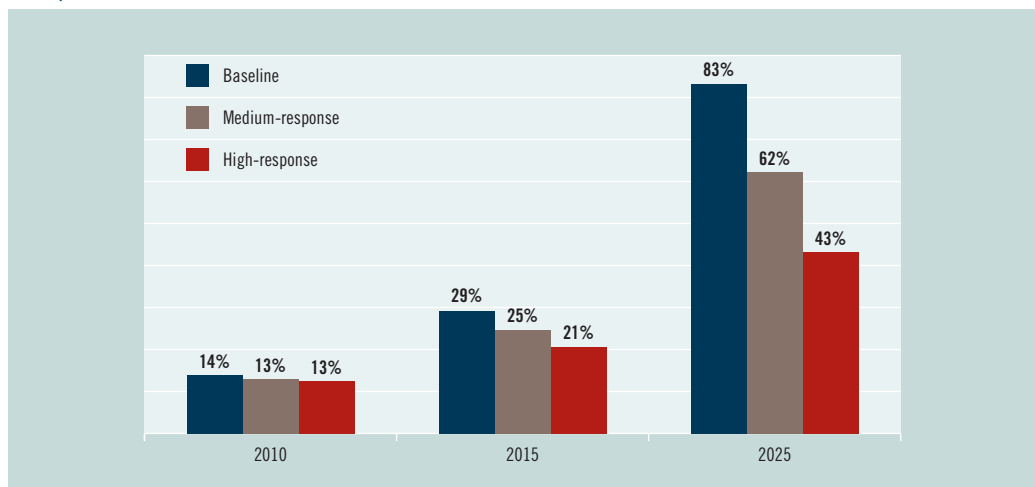
If the epidemic continues without an increased prevention effort, the costs of caring for those with opportunistic infections and providing antiretroviral drugs will continue to rise. By 2025

Figure 8: Percentage of hospital beds taken by AIDS patients over the next 20 years in Indonesia

(a) Provinces other than Papua



(b) Papua



treatment costs are predicted to be over IDR 3,210 billion (AUD 450 million) at current prices under the baseline scenario, and assuming that there is a continued expansion of treatment access. An additional investment in prevention of around IDR 357 billion (AUD 50 million) per annum would result in a saving of some IDR 2,854 billion (AUD 400 million) in the costs of treatment and care.

At the levels of HIV prevalence projected for Indonesia as a whole, the social and economic impacts will be felt most strongly in the households of those directly affected. Women within these households will experience particular vulnerability. Under the baseline scenario, even though the prevalence overall among women is projected to be less than 0.5 per cent, there will nonetheless be 200,000 non-sex worker women who are HIV-positive. In Papua, the projected prevalence in women will be nearly ten times higher, with 40,610 women HIV-positive (4.3 per cent prevalence), and 21,000 deaths by 2025. The increases in HIV will place greater economic pressure on women and the economic imperative to undertake sex work may also increase.

In terms of the governance and security impacts of HIV, major infrastructural and state service advancements have been achieved in Indonesia since independence, but many people remain economically vulnerable. The impact of rising HIV prevalence may in turn increase instability if it increases poverty and threatens food security in an environment that is strongly dependent on subsistence agriculture. In Papua, the destabilising impact on communities of high HIV prevalence may escalate tensions and contribute to conflict.

In conclusion, under the baseline scenario, Indonesia will be facing a generalised epidemic by 2025, with prevalence exceeding 1 per cent

of adults, and in Papua an epidemic on a much larger scale is envisaged. The increasing care and treatment costs and the rising demands on the health sector will be the most direct systemic effects, with the greatest social and economic impacts being felt at the household level.

Nevertheless, with appropriate political support, legislative and policy changes, and the financial resources, the HIV epidemic in Indonesia can be substantially mitigated, provided a response can be developed that provides for a real expansion in prevention coverage among people who inject drugs and female sex workers and their clients. In Papua, a high level response will inevitably depend on culturally appropriate HIV prevention programmes for indigenous people.

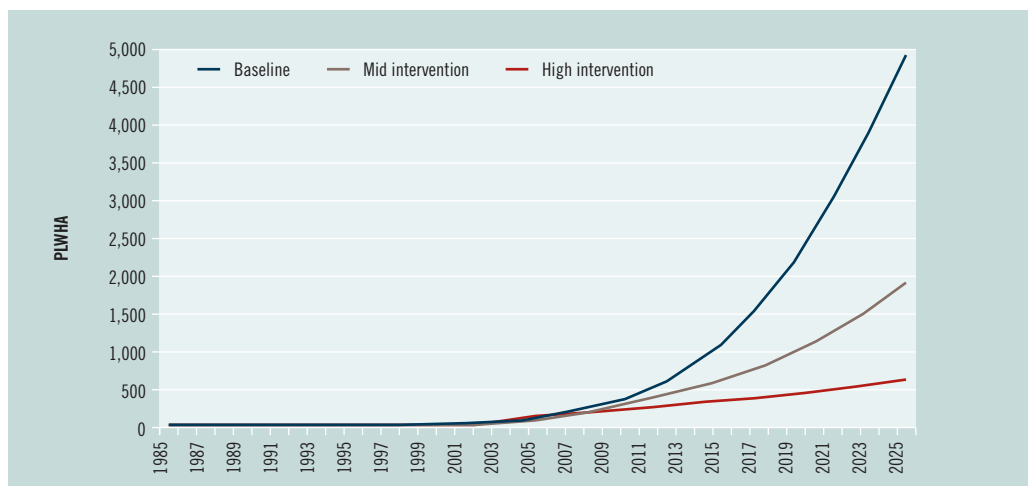
5.3 EAST TIMOR

Despite facing many health challenges, East Timor has so far had very limited experience of HIV/AIDS. The available survey data suggest low levels of condom use and high levels of sexually transmitted infections in women who engage in sex work.

Under the baseline scenario, the prevalence of HIV in East Timor will increase to about 0.6 per cent by 2025, resulting in around 5,000 people living with HIV (Figure 9). Thus, even under the baseline scenario, HIV prevalence in East Timor is not predicted to reach the defined threshold for a generalised epidemic. Nonetheless, under this scenario there will be a cumulative total of 2,200 adult deaths and around 400 maternal orphans by 2025. The epidemic is predominantly urban.

Enhanced interventions in East Timor would be aimed at increasing condom use by sex workers and their clients to around 30 per cent, and halving the prevalence of sexually transmitted infections in sex workers. Under the baseline scenario, HIV prevalence among sex workers will increase from just over 3 per cent in 2005 to

Figure 9: Projected number of people living with HIV in East Timor under three scenarios



34 per cent in 2025, and the prevalence in male clients of sex workers will rise to over one per cent by 2025. The high level response scenario would see prevalence among women involved in sex work staying below 5 per cent, with corresponding reductions in prevalence among their clients, and the marital partners of clients.

Among men who have sex with men the prevalence will reach 6 per cent by 2025 under the baseline scenario, but if condom use rises to cover 30 per cent of sexual acts, the projected prevalence can be expected to remain close to 2 per cent.

The East Timorese are building up a health system from a limited base. The high level of poverty in East Timor has particular implications for women, who also fare poorly compared to men in a number of indicators. While few women who are not sex workers will be infected with HIV in the next twenty years, HIV has the potential to increase the vulnerability of those affected.

With the availability of Global Fund to Fight AIDS, Tuberculosis and Malaria monies and the conclusion of the 2002–2005 HIV/AIDS/STI National Strategic Plan, East Timor is now at a critical junction and poised to translate lessons learnt from the previous strategic plan, and the additional funding, to maintain its current low HIV prevalence.

Key to the success of the high response is the integration of HIV prevention, care and treatment activities within a health sector-wide approach. Such integration means the health sector is adequately equipped, in terms of staffing, skills and procurement and distribution systems, to undertake an expanded and comprehensive HIV response.

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