



Sexually transmitted diseases and HIV/AIDS in Vanuatu: a cause for concern and action

Dominik Zenner, Steven Russell

Abstract

Aims. This article argues that sexually transmitted infections (STIs) and HIV/AIDS in Vanuatu are a cause for concern and that a strong response is needed to stem an epidemic.

Methods. Three sources of data are used: studies and policy documents on STIs and HIV/AIDS in Vanuatu; analysis of reported STI cases from public health facilities; and key informant interviews with 14 policy stakeholders.

Results. In Port Vila (capital of Vanuatu), more than a quarter of the women attending antenatal clinics were positive for at least one STI. Although Vanuatu Ministry of Health (MoH) case records for gonorrhoea, genital ulceration, and syphilis show national prevalence rates have remained relatively constant between 1.2% and 2%, there is probably gross under-reporting because MoH data exclude trichomoniasis and chlamydia cases; surveillance systems are poor; and patient access to services is limited. High STI prevalence and several socioeconomic factors create a high-risk environment for the rapid spread of HIV/AIDS.

Discussion. The need for a strategic response in Vanuatu is pressing. Priorities for action include the scaling up of awareness programmes for young people, particularly girls, and the development of surveillance systems. Government capacity weaknesses mean the MoH should explore possible partnerships with the non-government organisation (NGO) sector and point to the need for international support to implement a new government *Strategic Plan*.

The number of officially reported cases of HIV and AIDS in the Pacific Island countries remains low compared to other parts of the developing world (Table 1), but in some countries, notably Papua New Guinea, reported cases are rising. Estimates also show that reported cases may only be the tip of the iceberg, with 16,000 (7,800–28,000) infected people in Papua New Guinea^{1,2}—an overall prevalence rate of 0.6%.³

Much higher prevalence rates are estimated among high risk groups (up to 17% in female sex workers).⁴ As far back as 1996, the United Nations Development Programme (UNDP)⁵ warned of an epidemic in the region, and these warnings have been repeated recently by United Nations Programme on HIV and AIDS (UNAIDS).⁶

Vanuatu recorded its first HIV case in September 2002, and a second has now been officially reported. It is likely that more people are HIV-positive but remain invisible to the scanty reporting and surveillance systems in the country. Infections may be concentrated among high-risk groups such as sex workers, but a high prevalence of other sexually transmitted infections (STIs) and the risk environment in Vanuatu discussed below mean that HIV infections are likely to spread to the wider population if effective preventive actions are not taken.

Table 1. Reported HIV and AIDS cases (end of 2003) in Melanesian countries

Country	HIV reported	AIDS reported	HIV estimated ¹
Fiji	142	25	600
New Caledonia	263	99	n/a
Papua New Guinea	7,320	1,336*	16,000
Solomon Islands	2	1	n/a
Vanuatu	2	2	n/a

Source: South Pacific Commission¹; *as of December 2001; n/a=not available.

This article aims to fill a gap in current knowledge as the first situational report on STIs and HIV/AIDS in Vanuatu, using the limited data available. STIs are the focus of attention because potential HIV cases remain hidden and because STIs themselves increase susceptibility to HIV transmission. High STI prevalence rates may also indicate behavioural patterns that contribute to greater transmission risk, such as multiple partners, commercial sex, and low condom-use rates.

The paper examines the evidence on STI prevalence rates, monitoring, and surveillance system weaknesses and the factors contributing to the high-risk environment in Vanuatu. The viewpoint expressed is that these findings are a cause for grave concern to the public health and development community in Vanuatu and the wider region, and concludes by reviewing capacity response weaknesses and policy priorities.

Methods

Quantitative and qualitative data were collected in May 2003 for a small research project approved by the Vanuatu Ministry of Health (MoH) and the National Statistics Office (NSO).

Data were derived from three sources.

- A review of studies and policy documents on STIs and HIV/AIDS in Vanuatu.
- An analysis of STI cases reported by public health facilities (dispensaries, health centres, and hospitals) through standard Monthly Statistical and Epidemiological Reports.
(These information sheets record case numbers for gonorrhoea, syphilis, and genital ulcers (not chlamydia or trichomoniasis) and should be processed by the Statistics Unit of the MoH into an Annual Epidemiological Report. Some non-government organisation (NGO) facilities also report to the MoH but many private-for-profit surgeries do not. Procedure dictates that any HIV cases should be reported directly to the MoH.)
- Semi-structured key-informant interviews with 14 policy stakeholders, (4 with government officials and 10 with NGO workers).

Respondents were selected because of their involvement with policy and practice and to obtain a spectrum of perspectives and opinions. A standardised question guideline was used and the interviews were taped, transcribed, coded, and analysed. This method generated complementary qualitative data on the risk environment, monitoring and surveillance capacity and other policy matters. Anonymity was guaranteed as part of the ethical procedures of the research.

Results

STI prevalence rates in Vanuatu

Data on STI incidence and prevalence rates in Vanuatu is severely limited. All key informants working in the field of reproductive health believed that STI rates were

rising (particularly in urban areas), a conclusion based on the limited data available, anecdotal evidence, and their overall perception that risk factors were increasing (see below).

The first body of evidence comes from two STI prevalence surveys. The first was a World Health Organization (WHO)-funded survey of 545 pregnant women conducted by the MoH in Port Vila in 2000.⁹ In this relatively low-risk sample, 27.5% of the women were positive for *Trichomonas vaginalis*, 21.5% for *Chlamydia trachomatis*, and 5.9% for gonorrhoea (Table 2). Out of the 66 teenage women tested, 58.1% had at least one infection and the study concludes that these findings are ‘of major concern’ and that ‘the unexpectedly high burden of disease among a traditionally low-risk population of antenatal women argues for policy and community-level interventions....’

Table 2. Sexually transmitted infections (STI) rates in Port Vila from an antenatal survey

STI	Women tested	Women infected	Prevalence (%)
<i>Trichomonas vaginalis</i>	545	150	27.5
<i>Chlamydia trachomatis</i>	545	117	21.5
<i>Neisseria gonorrhoea</i>	545	32	5.9
Treponemal antibody seroactivity	537	13	2.4
HIV	537	0	0

Source: WHO⁹

The second survey, conducted by the Vanuatu Family Health Association (VFHA) in cooperation with the WHO and MoH in West Ambae Island, found lower prevalence rates (5.2% and 1.5% for *Trichomonas* and *Chlamydia* respectively) in a random sample of clinic attendees.¹⁰ The lower infection rates in these more remote rural areas are not surprising, but the results of the urban and rural studies are difficult to compare because of the different sampling and also age composition of the two surveys.

In the urban study, the median age was 25 years and in the rural study 35 years; and given that 60% of Ambae’s population is below 24 years, the rural sample of older women does not reflect the ‘normal’ population nor the most sexually active group.

The second body of evidence comes from the authors’ analysis of routine MoH case returns from facilities. Weaknesses in public sector STI monitoring and surveillance systems and data quality should be highlighted. Facility reporting rates were found to vary considerably between provinces; for example, ranging from an 18% questionnaire return rate in Penama Province in 2002 to 72% in Sanma Province in the same year, and seemed to depend on provincial and facility capacities such as staffing levels, training and motivation to complete returns. Penama had the lowest average return rate from 1995 to 2002 (62% of questionnaires) and its understaffed hospital lacking an STD treatment room and appropriate laboratory facilities underlines this.⁸ The 2002 country-wide return rate (48%) was markedly lower than previous years (64–83%), probably as a result of a change to the information sheet that led to some confusion. The public sector’s weak capacity to manage the case

reporting system is illustrated by the fact that since 1988 the MoH has not processed monthly returns into an Annual Epidemiological Report.⁸

Acknowledging the weaknesses of Vanuatu's STI reporting system and the crude results generated, STI case numbers have been estimated by taking the cases recorded by MoH facilities and adjusting for the respective under-reporting rates of each province in each year:

$$\text{Estimated cases} = \text{reported cases} \times \text{reporting rates}^{-1}$$

The total case numbers of all three recorded STI entities between 1995–2002 (gonorrhoea, genital ulceration, and syphilis) are presented in Figure 1 and corresponding adult prevalence rates for each STI in Table 3.

Figure 1. Countrywide STI estimates (gonorrhoea, genital ulceration, and syphilis) in Vanuatu

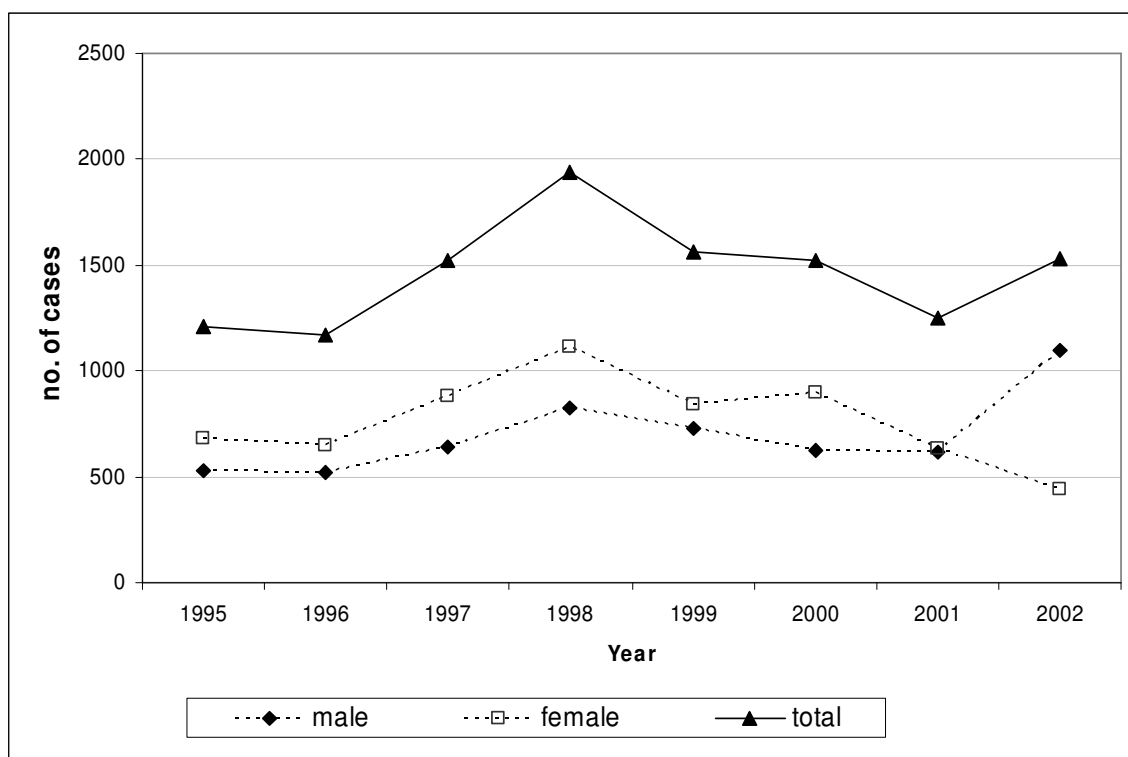


Table 3. Prevalence rates for gonorrhoea, genital ulceration and syphilis (total cases as a percentage of the adult population aged 15–59 years for 1995–2002*)

STI	1995	1996	1997	1998	1999	2000	2001	2002
Gonorrhoea	1.31	1.23	1.57	1.88	1.44	1.32	0.99	1.22
Genital ulceration	0.02	0.02	0.01	0.08	0.09	0.11	0.13	n/a
Syphilis	0.01	0.01	0.02	0.03	0.03	0.05	0.07	0.19
Cumulative prevalence	1.34	1.26	1.6	1.99	1.56	1.48	1.18	1.42

Source: MoH^{11,12} and NSO¹³; *Prevalence was calculated for the adult population using 1999 National Census data and incorporates inter-census population growth rates derived from the NSO demographic analysis report.

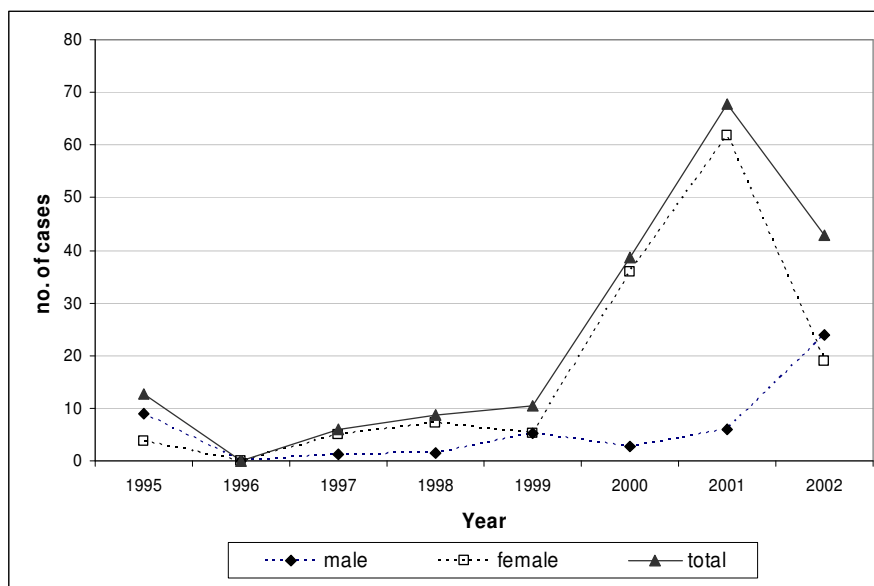
Gonorrhoea cases were far more numerous than syphilis and genital ulcer cases nationally; for example, in 2000 there were 1358 gonorrhoea cases compared to only 166 syphilis and genital ulcer cases. A steep rise in male gonorrhoea cases and a decline in female cases between 2001 and 2002 may have been exaggerated by changes to the MoH reporting form.

Reported case levels and prevalence rates of about 1.2–2% for the three STIs appear to have been fairly consistent over time, but two important gaps in the MoH data justify the inference that STI prevalence is likely to be much higher. First, MoH data exclude trichomoniasis and chlamydia due to lack of adequate testing methods (i.e. polymerase chain reaction), and these STIs are far more prevalent according to WHO survey data (Table 2). Second, it is likely that poor surveillance systems, low awareness of STIs, and poor patient access to services mean a gross under-reporting of cases.

Patient under-reporting is illustrated when looking at Shefa Province which saw a dramatic rise in reported syphilis and genital ulceration cases (notably by females) after a new reproductive health clinic (Kam Pussum Hed Clinic) was opened by the Wan Smolbag NGO in 1999 and submitted its first case reports to government in 2000 (Figure 2).

Shefa Province’s steep rise in reported cases after its clinic’s establishment indicates that it was addressing unmet needs; improving service delivery in other provinces could lead to a similar rise in reported STI cases through improved access. The accessibility of care provided to women at Kam Pussum Hed Clinic and its discreetness on the outskirts of Port Vila were important factors explaining the rise in utilisation.

Figure 2. Genital ulceration and syphilis estimates in Shefa Province based on reporting rates there each year



The risk environment for STIs and HIV/AIDS in Vanuatu

High STI prevalence and several socioeconomic factors interact to make a range of people *susceptible* to infection, thus creating a risk environment for the rapid spread of STIs and HIV/AIDS:

Demographic structure—Young people are particularly vulnerable to HIV infection (globally half of new cases are among 15–24 year olds).¹⁴ In Vanuatu, 59% of the population are under 24 years and 18% aged between 15 and 24 years old¹³ thus making a large section of the population vulnerable now (and in the near future) at a time of rapid socioeconomic change through urbanisation, migration and transition to cash economy among others.¹⁵

Poverty and inequality—Until recently, Vanuatu has experienced comparatively low economic growth rates which have caused rising unemployment and impoverishment.¹⁶ Unequal gender relations add to these risk factors. Women's greater physiological and societal susceptibility to STI and HIV transmission is internationally recognised,¹⁷⁻¹⁹ and key informants gave abundant examples to illustrate women's limited bargaining power over when and how they have sex (rooted in cultural and social norms that expect women to be timid and to obey their husbands), as well as fears of abuse and violence.

Political and social institutions—Vanuatu's rural society (and to a lesser extent its urban society) is hierarchical and patriarchal (male dominated)—with leading roles ascribed to the male chief, the pastor, and village elders. Key informant interviews confirmed that public talk about sex and reproductive issues is generally taboo and perceived by community leaders as a threat to the sociocultural integrity of the community—thus imposing serious barriers to reaching rural areas and women with sexual health awareness campaigns.

Condom distribution is sometimes equated with the encouragement of casual sex or promiscuity. Even in Port Vila, a large randomised Knowledge, Attitudes, and Practice (KAP) survey (n=1053)—conducted by the NGO Vanuatu Young People's Project (VYPP)—found considerable resistance to condom use, and women were accused of promiscuity if they suggested condoms.¹⁵ MoH staff themselves are embedded in this sociocultural context which one government informant argued contributes to a degree of 'ambivalence about the distribution of condoms.'

Economic activity and risky livelihoods—The South Pacific Commission (SPC) warns that high levels of migration and lifestyle changes associated with new economic activity and rapid urbanisation are risk factors for the spread of STIs and HIV.²⁰ An estimated 19% of the Ni-Vanuatu (indigenous) population do not live on their home islands but migrate to urban centres for work.²¹ The tourist industry is also large, accounting for 40% of GDP and employing 4000 people.²² For example, in 2000, 57,500 tourists and 50,000 cruise ship passengers visited Vanuatu (compared to Vanuatu's 186,678 inhabitants).

Although more sex education is recommended by UNGASS,¹⁹ the Government admits that only limited sex education is available in tourist hotels and workplaces.²³ Key informants also argued that the rapid transition to a cash economy and

urbanisation were driving increases in risk factors such as the commercial sex industry and alcohol consumption.

Service infrastructure and biomedical knowledge—According to key informants, a widespread lack of knowledge about prevention or treatment of STIs is a key risk-factor. The UNDP adult literacy rate is only 34%²⁴ and 56% of the population receive only primary education up to class 6 (age 12) with no learning about reproductive health matters. Awareness campaigns achieve low coverage outside the main urban centres due to limited geographical access, people's limited access to television and radio media, and the social taboos around sex noted above.

Key informants at the MoH saw lack of awareness and lack of access to curative services as mutually reinforcing, because if people are not interacting with services then they are not receiving information and advice. Information delivery by rural health workers may be further restricted by taboos if they come from the communities where they work.

Discussion

The high STI prevalence rates found by a WHO antenatal survey in 2000, and the first officially reported case of HIV 2 years later, are a cause for concern for the public health community in Vanuatu. Although routine MoH STI-case reporting shows no clear pattern of increase, complacency would seem misplaced given reporting system gaps and the likelihood of under-reporting, notably in rural areas. Poverty, gender inequality, and poor health service and awareness coverage interact to make a range of people susceptible to infection.

Policy lessons for Vanuatu come from countries that have successfully tackled the epidemic and reduced incidence, either at an early and concentrated stage of the epidemic (e.g. Thailand) or after the disease had spread to the general population (e.g. Uganda).

These lessons include the early strengthening and implementation of STI/HIV surveillance systems; high-level political leadership and commitment to HIV/AIDS prevention; treatment and surveillance strategies; a multi-sectoral response across ministries; response partnerships with a range of civil society actors; and strict promotion of condom use in the commercial sex industry.^{25,26}

The need for such responses in Vanuatu is pressing, and the Government recently published its response with the *Vanuatu Policy and Strategic Plan for HIV/AIDS and Sexually Transmitted Infections 2003–2007*.²³ The core aims and policies of the *Strategic Plan* are to improve monitoring and surveillance systems; to increase awareness about STIs and HIV/AIDS (particularly among high-risk groups); to promote condom-use; and to reduce the incidence of STIs through better prevention and treatment measures.

Despite the *Strategic Plan's* good intentions and ambitious aims, government capacity and political commitment will be the key to success. Government capacity is clearly limited in terms of budget constraints, shortages of skilled and motivated staff,²² and weak information systems. The MoH recognises the importance of improving its crude and erratic STI and HIV surveillance systems in order to identify needs and to monitor incidence and evaluate planned interventions—and some of these investments could be covered through the recurrent budget.²⁷

More ambitious HIV surveillance systems (noted in the *Strategic Plan*), or surveys to evaluate awareness and prevention programmes that conform to international standards, are likely to require external funding and human resource support from the international community.

Targeting awareness campaigns and services at high-risk groups is also fraught with difficulties because such groups are hard to identify or reluctant to be found. According to key informants, sex workers are particularly difficult to reach due to societal attitudes. NGOs working with this group emphasised the need for great caution and discretion to avoid negative community reactions to their work. Indeed, reaching other vulnerable groups such as women in rural communities will be difficult due to the aforementioned political and social institutions and taboos around public talk about sex, gender inequalities, and access difficulties.

Even if a range of vulnerable groups can be reached, greater awareness will not necessarily empower them to change risky behaviours (if poverty and gender inequalities persist), and changing underlying social relations that play a role in STI transmission is never easy. These challenges, however, should neither deter action nor prevent successes, as the examples of Thailand and Uganda have demonstrated, and peer education among young people, particularly girls, may be the most appropriate and feasible point to begin interventions. Such engagements might also build capacity and facilitate more ambitious initiatives with vulnerable groups in the future.

MoH-capacity weaknesses mean that Government should explore the possibility of partnership with the NGO sector to deliver services. Indeed, several NGOs in Vanuatu have already demonstrated they can deliver reproductive health campaigns and services, and partnerships with NGOs and community-based organisations will strengthen capacity for reaching vulnerable groups.

NGO programmes were identified during the situational analysis, and included: two reproductive health clinics in Port Vila (including Kam Pussum Hed) and one in Luganville; a community theatre group that promotes awareness about sexual health matters and tours the islands six times every year; several peer-to-peer education initiatives with youth in urban areas; and radio shows. The MoH *Strategic Plan* acknowledges the significant contribution that NGOs can make to the fight against HIV/AIDS, and partnerships are most likely to be successful if relationships of trust, equal collaboration, and mutual support can be developed.

Government-capacity weaknesses also point to the need for international support to implement the *Strategic Plan*. At a recent UNAIDS workshop in Fiji, the scaling up of HIV awareness and prevention programmes for young people in the region was emphasised as an urgent priority to prevent an HIV/AIDS epidemic in the Pacific—and both the Global Fund to Fight AIDS, TB, and Malaria (GFATM) and the Australian Agency for International Development (AUSAID) have committed funds to strengthen a regional AIDS strategy and capacity to deliver services.⁶

Another priority in Vanuatu is to develop monitoring and surveillance systems; and a response by a re-invigorated National AIDS Council²³—to coordinate government actors within the MoH and National Statistics Office, NGOs, and international agencies (such as WHO or GFATM)—would be an important contribution to the fight against HIV/AIDS.

HIV is new to Vanuatu, and although many organisations seem determined to fight its spread, strong political leadership will be needed to overcome rivalries and push for such a coordinated response.²⁸

Author information: Dominik Zenner, GP Registrar, Cologne, Germany; Steven Russell, Lecturer in Health Policy and Social Development, School of Development Studies, University of East Anglia, Norwich, UK

Correspondence: Dr Steven Russell, School of Development Studies, University of East Anglia, Norwich NR4 7TJ, UK. Fax: +44 (0)1603 451999; email: S.Russell@uea.ac.uk

References:

1. UNAIDS. Report on the global AIDS epidemic. Geneva: UNAIDS; 2004. Available online. URL: <http://www.unaids.org/bangkok2004/report.html> Accessed August 2005.
2. WHO. Epidemiological fact sheets: Papua New Guinea; 2000. Available online. URL: <http://www.med.unsw.edu.au/pathology/png.pdf> Accessed August 2005.
3. UNAIDS. Epidemiological fact sheets on HIV/AIDS and sexually transmitted infections: Papua New Guinea. 2004. Available online. URL: http://www.unaids.org/NetTools/Misc/DocInfo.aspx?LANG=en&href=http%3a%2f%2fgva-doc-owl%2fWEBcontent%2fDocuments%2fpub%2fPublications%2fFact-Sheets01%2fPng_EN%26%2346%3bpdf Accessed August 2005.
4. WHO. HIV/AIDS in Asia and the Pacific region. New Delhi: World Health Organization; 2001.
5. UNDP. Time to act: the Pacific response to HIV and AIDS. Suva: United Nations; 1996.
6. UNAIDS. Pacific islands face rapidly expanding HIV epidemic, says UNAIDS Executive Director. 2004. Available online. URL: http://www.unaids.org/NetTools/Misc/DocInfo.aspx?LANG=en&href=http%3a%2f%2fgva-doc-owl%2fWEBcontent%2fDocuments%2fpub%2fMedia%2fPress-Releases02%2fPR_PIslands_22Mar04_en%26%2346%3bpdf Accessed August 2005.
7. South Pacific Commission. HIV/AIDS statistics for Pacific islands countries and territories. Available online. URL: <http://www.spc.org.nc/aids/English/Tables/PICTHIVcases03-05-04.doc> Accessed August 2005.
8. Ministry of Health. Second National Health Development Plan 1997-2001. Port Vila: Government of the Republic of Vanuatu; 1997.
9. WHO. Antenatal clinic STI survey. Port Vila: WHO Regional Office for the Western Pacific; 2000.
10. Vanuatu Family Health Association. Pap smear screening and STI survey of Ambae Island, Vanuatu, 6-22 February 2002. Port Vila: VFHA; 2002.
11. Ministry of Health. Demographic and Reproductive Health Data to monitor the UNFPA funded Project. Project Review Meeting, 19-23 July 1999. Port Vila: Government of the Republic of Vanuatu; 1999.
12. Vanuatu Ministry of Health. Statistical Data on Sexually Transmitted Diseases 1999-2002. Unpublished data.
13. National Statistics Office. The 1999 Vanuatu national population and housing census: main report. Port Vila: Government of the Republic of Vanuatu; 2000.
14. UNAIDS. Report on the global HIV/AIDS epidemic (Barcelona Report). Geneva: UNAIDS; 2002. Available online. URL: http://www.unaids.org/Unaid/EN/Resources/Publications/Corporate+publications/Report+on+the+global+HIV_AIDS+epidemic+2002+.asp

<http://www.spc.org.nc/aids/English/Tables/PICTHIVcases03-05-04.doc> Accessed August 2005.

15. Mitchell J. Young people speak: a report on the Vanuatu Young People's Project. April 1997-June 1998. Port Vila: Vanuatu Cultural Centre; 1998.
16. UNDP. Human Development Report 2002: Economic Performance. New York: UNDP; 2002. Available online. URL: http://www.undp.org/hdr2002/indicator/cty_f_SDN.html Accessed August 2005.
17. WHO. Gender and HIV/AIDS. Geneva: World Health Organization; 2001 Available online. URL: http://www.who.int/gender/hiv_aids/en Accessed August 2005.
18. Brown AD, Jejeebhoy SJ, Shah SJI, Yount KM. Sexual relations among young people in developing countries: evidence from WHO case studies. Geneva: World Health Organization; 2001.
19. United Nations General Assembly Special Session on HIV/AIDS (UNGASS). Monitoring the declaration of commitment on HIV/AIDS: guidelines on the construction of core indicators. Geneva: UNAIDS; 2002.
20. South Pacific Commission. Regional strategy for the prevention and control of STD/AIDS in Pacific Island countries and territories, 1997-2000. Noumea: South Pacific Commission; 1997.
21. National Statistics Office. National Population Census 1989: Demographic and Migration Analysis. Port Vila: Government of the Republic of Vanuatu; 1989.
22. Asian Development Bank. Vanuatu: Economic Performances and Challenges Ahead. Manila: Asian Development Bank; 2002.
23. Ministry of Health. Vanuatu Policy and Strategic Plan for HIV/AIDS and Sexually Transmitted Infections 2003-2007. Port Vila: Government of the Republic of Vanuatu; 2003.
24. UNDP. Human Development Report 2002. New York: UNDP; 2002. Available online. URL: http://hdr.undp.org/statistics/data/cty/cty_f_VUT.html Accessed August 2005.
25. Ainsworth M, Beyrer C, Soucat A. AIDS and public policy: the lessons and challenges of 'success' in Thailand. Soc Sci Med. 2003; 64:13-37.
26. Hogle JA. What happened in Uganda? Declining HIV prevalence, behaviour change and the national response. Washington: USAID; 2002.
27. Ministry of Health. Ministry of Health 2003 Business Plan. Port Vila: Government of the Republic of Vanuatu; 2002.
28. Leo C. Statement of the Government of the Republic of Vanuatu. Port Vila. Delivered at the 26th United Nations Special Session on HIV AIDS, New York 27 June 2001. Available online. URL: <http://www.un.org/ga/aids/statements/docs/vanuatuE.html> Accessed August 2005.