



Convenience Advertising

THE NSW TRAVELLERS SEXUAL HEALTH PROGRAM 1999

REPORT FOR NSW HEALTH DEPARTMENT

March 2000

Executive Summary

In January 1999, NSW Health commissioned the present project named "The NSW Travellers Sexual Health Program", with funding provided by the Commonwealth Public Health Outcome Funding Agreement Incentives Funding 1997/8, and a projected time frame of six months. The objectives specified under the agreement were "to increase awareness of personal risk of sexually transmitted diseases (STDs) and human immunodeficiency virus infection (HIV) by selected groups of travellers to and from NSW, and to increase awareness, and develop the skills to address the risks to travellers, among travel and health professionals."

The strategies specified were: "to develop specific behavioural and health messages in convenience advertising and relevant guide books, develop culture specific posters and brochures; undertake a longitudinal evaluation of the project, and collaborate with key industry stakeholders."

These strategies took twelve months to complete; nevertheless, they were successfully implemented. Here they are summarised in the order outlined above.

1. Campaign *Travel Tips*. A brand name "Travel Tips" was developed with a distinctive logo, and several messages focus tested. Four principal messages were refined together with take-away information regarding safer sex practises and telephone numbers of all sexual health clinics in NSW. This information was provided in English, Chinese, Thai, Japanese, and Spanish. The campaign messages were approved (with one rejected, requiring re-design, and another, modification) by appropriate authorities at NSW Health, the Australian Department of Health and Aged Care, and the Department of Foreign Affairs and Trade. This material was then installed using convenience advertising methodology (narrowcast messages delivered in public conveniences (toilet and washing areas)) over a two week period ending the first week of September 1999. There were 241 display points in 20 key venues as follows (figures refer to the number of display points): Qantas Domestic Airport (40), Ansett Domestic Airport (40), Sydney International Airport (56), selected Youth Hostels (60), Sydney Central Train Station (21), and selected gay venues (22). These display points had an approximate audience reach of 1,141,971 patron visits to venues per week.

A longitudinal evaluation of the project was considered neither possible nor desirable within the timeframe; moreover, due to budgetary constraints, only a limited cross-sectional evaluation was undertaken. However, the intercept methodology and subsequent analysis was particularly robust. In brief, 151 detailed interviews were undertaken, spread evenly across venues at the airport, backpackers accommodations, and gay venues in January 2000. Overall, there was high unprompted (66%) recall of "a condom message" across venues, and high acceptability by the public. Those most likely to read or recall the campaign were younger adults, backpackers, those who perceived that the campaign might change their own or other peoples' behaviour, and those at high risk. These preliminary data suggest that this campaign using targeted media was successful in reaching these particular at risk populations. Interestingly, they also provided some information about sexual risk behaviour; for example, high-risk sexual behaviour was as high among backpackers as the sample of men at gay venues (38% high risk in both groups).

2. An important collaboration was established with *Lonely Planet Publications*, publishers of international guidebooks, with annual sales of approximately 12 million guidebooks worldwide, and a travel web-site of 1.5 million daily 'hits'. A substantial written contribution on HIV and sexual health was made to four new Lonely Planet publications, entitled "Healthy Travel" (Asia and India, Africa, Latin America, Australia and the Pacific), which were published on February 21st, 2000. The original print run was 72,000 copies, but the credibility of *Lonely Planet* within the travel industry world-wide will ensure that the health messages contributed and acknowledged by this Australian initiative will reach a vast global audience, with future editions.

Other publications of note include a chapter in a Travel Medicine textbook, *Harcourt Brace Publishers, Edinburgh* (in press, April 2000), audience health professionals, (print run 2000), a training module for the Australian Federation of Travel Agents (AFTA), an article in the *Lancet*, and written and oral abstracts and presentations to four conferences of STD/health professionals in Australia, and one in Africa.

3. This program has achieved a high profile within the travel and related industries by actively lobbying key stakeholders. In particular, active and ongoing collaborations have been established with the AIDS Council of New South Wales (ACON), the Australian Federation of Travel Agents (AFTA) and its umbrella body, the Universal Federation of Travel Agents Associations Asia Pacific Alliance Ltd (UAPA), the Travellers Medical and Vaccination Centres (TMVCS), Asia Pacific Alliance Ltd. Letters of support for the project have been received from SOCOG, (including para-Olympics), gay Games, Mardi Gras, Tourism NSW, Tourism Australia, the Sydney Convention Bureau, YHA Australia, Qantas, the Department of Immigration, the Department of Foreign Affairs and Trade, the travel publications *TNT* and *Spartacus* and several travel insurance companies.

4. Finally, the program has also undertaken additional research on the recent movements of travellers, and the surveillance methods that underpin the epidemiological links between sexual behaviours, disease, and Australian travellers.

In conclusion, the Program has succeeded in implementing and refining an ambitious brief, and moreover, has advanced a holistic approach to travellers and the travel industry. Future programs need to take further account of parallel developments in Health Promotion theory; they need to be evidence-based, to demonstrate their effects, and to serve as templates for future campaigns.

Future directions are outlined in terms of these general principles, with suggestions for improvement in the areas of focus-testing and process evaluation. A detailed blueprint is outside the scope of this report; nevertheless, preliminary strategies for a 3yr program have been devised for consideration. These encompass various groups of the travelling public, with special emphasis on the order of calendar events. For example, campaigns that aim to include the Olympic games in 2000 need to be expedited.

The NSW Travellers Sexual Health Program 1999

Acknowledgements

Project Advisory Committee

Brian Mulhall	(Chair and Project Consultant), Department of Public Health and Community Medicine (DPHCM), University of Sydney Program Manager (from March 1999)
Basil Donovan	Sydney Sexual Health Centre (SSHC), Sydney Hospital and DPHCM, Program Manager (until March 1999)
Jenny Heslop	NSW Health
Brent Mackie	NSW Health
Andrew Gow	NSW Health
Michael Lodge	Commonwealth Department of Health and Aged Care
Marilyn Wise	Australian Centre for Health Promotion
Allan Hildon	Sydney Sexual Health Centre
Campaign 'Travel Tips'	Convenience Advertising Pty Ltd, David Stanley and Brad Sellars
Questionnaire design	Qualitative and Quantitative Social Research (QQSR), Steven Mugford (<i>pro-bono</i>), Brian Mulhall, Adrian Bauman
Field Evaluation	Taylor Nelson Sofres Pty Ltd, Cietan Kitney, Craig Hobson
Analysis of Evaluation	Australian Centre for Health Promotion, Adrian Bauman
Guide books	'Healthy Travel' <i>Lonely Planet Publications Pty Ltd</i> , Isabelle Young
Textbook of Travel Medicine	Cameron Lockie, Eric Walker (corresponding editors), and <i>Harcourt Brace Publishing Ltd.</i>
Training module for Australian Federation of Travel Agents	Kel Burgess
Travel Industry Consultant	John Dart, OBE
Report compiled by	Brian P Mulhall
Editorial Assistant	Virginia Wynne-Markham
Senior Administrative Assistant (finance)	Beverley Murphy

Further acknowledgements

Ross O'Donoghue, Kim Stewart and Jenny Heslop (NSW Health) facilitated the process 1997/1998. Basil Donovan co-authored the 1996 proposal, particularly the Executive Summary, and withdrew from the present project due to service reductions at Sydney Hospital. Adrian Bauman conducted the statistical analysis at short notice *pro-bono*. Penny Hawe and Shane Hearn (Australian Centre for Health Promotion) offered advice on future focus testing and the athlete community respectively. Brent Alien (ACON) provided extra advice about the gay community. Don Nutbeam provided leadership and the facilities of the Department of Public Health and Community Medicine, University of Sydney.

The NSW Travellers Sexual Health Program 1999

Contents Page

<i>Executive Summary</i>	i
<i>Acknowledgements</i>	iii
<i>Chapter 1 Introduction</i>	1
<i>Chapter 2 The Travel Tips Campaign</i>	6
Design of messages, installation, maintenance	7
Field evaluation	30
Statistical analysis	39
<i>Chapter 3 Educational Publications</i>	46
Lonely Planet guide books	46
Harcourt Brace textbook – Travel Medicine and Migrant Health	47
Travel Agents training module	47
Other publications and conference presentations	48
<i>Chapter 4 A Joint Commitment</i>	49
Collaborations with key travel industry stakeholders	
<i>Chapter 5 Conclusions, Criticisms & Future Directions</i>	52
<i>Technical Appendices</i>	
<i>Appendix 1 The 1996 Program Proposal</i>	56
<i>Appendix 2 A global review of STDs and Travel (book chapter)</i>	66
<i>Appendix 3 Travel, sexual behaviour and disease among Australians Including previous health promotion initiatives</i>	108
<i>Appendix 4 Sexual health promotion and access to travellers by the Sydney Sexual Health Centre</i>	145

CHAPTER 1

INTRODUCTION – THE CURRENT PROGRAM

The current Program is based on a proposal, commissioned in 1996 by NSW Health, entitled "The NSW Travellers Sexual Health Program". (see Technical Appendix 1 for summary). Obviously, existing Commonwealth Travel-Safe materials will continue to be available and distributed. The Commonwealth strategy has been informational, mostly about the speed of spread of HIV/AIDS and protection through the use of condoms. However, as a number of behavioural studies have shown, many travellers are fully informed but do not personalise the risk.

The central message of this campaign was therefore to deliver the idea that many travellers behave differently whilst away from home and to confront the individual with the notion that they might also behave differently whether they intend to or not. This represents a fundamental shift, from an information paradigm to a behavioural one.

An important component of the proposal was the intention to use modern methods of health promotion, particularly with regard to evaluation. In order to be sustainable, it was envisaged as a 3-year Plan; however budgetary constraints prevented its implementation. In 1998/9 some funding became available under the Public Health Outcome Funding Agreement Incentives Funding 1997/8, (\$130,000), with a projected time frame of six months. A set of outcome objectives and strategies were derived by NSW Health as follows:

1. PROJECT TITLE:

The NSW Travellers Sexual Health Program

2. PROJECT DESCRIPTION:

2.1 Objectives

- Increase awareness of personal risk by selected groups of travellers to and from NSW
- Increase awareness and develop the skills to address the risks to travellers of STDs and HIV among travel and health professionals.

2.2 Main strategies

- Develop specific behavioural and health messages in convenience advertising and relevant guide books.
- Develop culture specific posters and brochures.
- Collaborate with key travel industry stakeholders.
- Undertake a longitudinal evaluation of the project.

2.3 Expected outcomes

- Increased access to sexual health information and services in NSW for international travellers in and out of NSW as well as travel within Australia.
- Reduced incidence of STDs in international travellers in and out of NSW as well as travellers within Australia.
- Increased capacity to target travellers to Sydney 2000 Olympics re minimising STD transmission.

3. Evaluation Strategy

- Process and impact evaluation of convenience advertising.

4. Outcome indicators

- Rate of overseas acquisition of STDs by Australians
- Rate of local acquisition of overseas strains of STDs, particularly gonorrhoea
- Risk behaviour profile of travellers to and from NSW
- It was considered by Program staff that many of these objectives could be met, and the Program commenced on 4th February 1999.

TECHNICAL BACKGROUND

A global review of STDs and travel by Dr Brian Mulhall was written as part of the Program and is to be published in April 2000 as a chapter in a textbook of Travel Medicine: Mulhall BP. Travel Related Risks – Sexual, in Lockie C, Walker E, Calvert L, Cossar J, Knill-Jones R, Raeside F (eds). *Travel Medicine and Migrant Health*. Harcourt Publishers, Edinburgh (in press). The text is reproduced in Technical Appendix 2. Detailed information of the travel patterns, sexual behaviour and disease experience of Australians, and previous health promotion initiatives in this country are provided in Technical Appendix 3. These are summarised below.

Numbers and types of travellers to and from NSW and Australia

Travel to and from Australia is increasing rapidly. For the 1996 Program proposal crude data were collected from the Australian Bureau of Statistics and analysed. The data showed that one million NSW residents left Australia on short-term (<1 year) journeys in 1994. Favourite destinations included South East Asia and Europe. When stratified by age and sex, there were several differences between destination countries which may have implications for targeting certain groups of travellers. Briefly, for Indonesia and Thailand the mean age of Australian male visitors was significantly higher than for female visitors, suggesting more visits by singles than couples. On the other hand, the high proportion of Australian visitors to the Philippines in the 0-14 years age group suggested more visits by young families. Vietnam, a relatively new travel destination, had a marked preponderance of Australian male visitors aged 25-45 years. A growing phenomenon is Vietnamese Australians on short visits to their home country, from 4,656 in 1991 to 9,790 in 1993. The relative contribution of other Asian Australians to the travel statistics is not known at this time. Incoming international visits to Australia have continued to increase (total 3.1 million in 1994) with Japan accounting for 27%, other Asia 19%, USA and Canada 14%. NSW was the most popular destination, as measured by both numbers of visitors and numbers of visitor nights.

For the present proposal figures were updated using data published by the Tourism Forecasting Council. In brief, outbound tourism has already increased to 2.9 million, and will reach 4.5 million by 2007. International visitor arrivals will increase by an average annual rate of 5.9 percent, to reach 7.7 million in 2007. The 'direct' and 'promotional' impact of the Sydney 2000 Games is projected to lead to 1.5 million additional visitors from 1998-2004.

Because of their young age, and the fact that they stay longer than other visitors, backpackers are an important target group for sexual health promotion messages. There were 217,200 international backpackers in Australia in 1994, representing 7% of all visitors aged 15 and above. This group spent over 13 million nights in Australia or 21% of visitor nights in that year. Their average stay was 70 nights, compared with 25 nights for all visitors. By 1998, numbers had increased to 350,000.

A small (around 3,000p.a.) but important group of inbound travellers is international sex workers, mainly from Thailand, Malaysia, and China. This group has high rates of STD morbidity.

The number of national and international visitors to NSW increases each year during the week of the Gay and Lesbian Mardi Gras. The number is also expected to increase considerably for the sporting events up to and including the Olympic Games.

Epidemiology of STDs and HIV Infection

Evidence to quantify the association between STDs/HIV and travel to and from Australia is difficult to obtain. However, figures from the NSW Health Department, Sexual Health Services, the National Centre in HIV Epidemiology and Clinical Research, and the Australian Gonococcal Surveillance Program at the Prince of Wales Hospital reveal the lower limits of such importations to be large enough to be of concern.

Since 1994, improved methods of surveillance have demonstrated a rising trend for "imported" HIV infection. Although a cumulative figure of 18,782 new diagnoses of HIV infection had been made nationally by 31 December 1994, only 11,950 could be ascribed to a reliable exposure category. 124 of these were ascribed to the evidence of exposure to HIV in a country where HIV is transmitted primarily by heterosexual contact, or had evidence of exposure to HIV through heterosexual contact with a person from such a country. Since these latter estimates are only reliable since 1992, the actual figures are likely to be much higher. From January 1993 to December 1994, the number ascribed to the above categories was 70, itself likely to be an underestimate. However, by 1997-8, this figure had risen to 135. In the case of NSW alone, the cumulative number of diagnoses of HIV infection to December 1994 ascribed to heterosexual contact in a specified country or with person from specified country was 39, but by the end of 1998, this had risen to 153 cases.

Gonorrhoea is more amenable to surveillance mechanisms because it usually presents acutely, particularly in men. By the end of the 1980s, direct connections with Asia accounted for about half of the gonorrhoea diagnosed in heterosexual men in Sydney. Travellers continue to import strains resistant to antibiotics that then become endemic. For example, quinolone resistant strains have increased from 4% to 8% of all isolates from 1994- Between 1991 and 1994, 70% of cases of early infectious syphilis diagnosed at the Sydney Sexual Health Centre were directly attributable to overseas travel: 80% occurred in heterosexuals.

When compared with local female sex workers attending the Sydney Sexual Health Centre, Asian sex workers had higher rates of chlamydia (0 v 15%), gonorrhoea (0 v 14%), syphilis (0 v 10%) and HIV infection (0 v 1%). Disease rates were highest among the most recently arrived women.

Sexual Behaviour of Travellers

Studies from around the world show that although knowledge of STDs is increasing amongst travellers the level of knowledge has little to do with actual behaviour, with a modest increase in the use of condoms but abundant evidence that a wide variety of sexual behaviours take place among travellers and local inhabitants. Those behaviours range from occasional sexual encounters through to travel for the express purpose of having sex (sextourism). Sexual encounters are common among both male and female travellers and take place in socio-cultural contexts that vary as widely as their geographical ones. This variety may make it difficult to find common themes for the purpose of sexual health promotion efforts (Technical Appendix 2).

The sexual behaviour of Australian tourists has not been systematically studied, but seems to be comparable to other industrialised countries. In other words, it shows considerable heterogeneity. In the first study of young Australians travelling alone to Thailand in 1990- only 34% of the sample reported a definite intention not to have sex. More males than females said they would have sex with a Thai national, while more females than males said they would choose an Australian traveller; 18% of men said they would have sex with a bargirl. 82% of the sample reported they would use condoms 100% of the time, but there were significantly more females than males who expressed this intention. However, a larger number of females reported that they did not intend taking condoms with them. Travellers did not perceive a higher personal risk of acquisition of AIDS in Thailand than Australia, even though they were aware of the difference in prevalence of HIV infection. An alarming misclassification was made between female Thai nationals and 'bar-girls', and this group of travellers were not obviously 'sex-tourists'. With the close proximity of South East Asia, an area of very high prevalence of HIV and other STDs, however, any unsafe sexual behaviour is of critical importance (Technical Appendix 3.4).

Although convenience samples of STD patients suffer from an inherent selection bias, clinics that collect detailed and reliable demographic data provide valuable background information. In 1995 at Sydney Sexual Health Centre, Sydney Hospital (SSHC), 8,706 patients attended. 55% were born in Australia and 45% overseas. 11 % normally lived overseas at the time of their attendance at SSHC. A similar proportion applied in 1997. SSHC patients were born in over 90 different countries. 1,437 reported sexual activity overseas with someone other than a travelling companion in the previous 12 months. 493 patients reported contact in southeast Asia. 35% reported always using condoms when they had sex overseas, while 30% reported never using condoms when they had sex overseas.

Some information about the sexual behaviour of Australian travellers derives from unexpected sources or in situations where the collection of such information was not the primary objective. For example, during a process evaluation of the TravelSafe campaign at Sydney airport in 1992 by AGB McNair, some travellers answered a sealed section. Within this group, 11% of in-bound travellers reported casual sexual contact on their recent trip, and 10% of outbound travellers intended to have casual sex with local people. In a sample of backpackers interviewed by Family Planning NSW in 1996, 40% were travelling alone, and almost half of male backpackers thought it was likely they would have sex with someone they had just met on holiday. In a second sample, almost all male backpackers used condoms at home, and 60% had packed condoms for the present trip. In the 1999 campaign presented in this report, at least half of the sample had recently had casual sex partners in the last 3 months, and had sex overseas in the previous 12 months.

Sexual Health Promotion for Travellers

World-wide, sexual health promotion for travellers is in its infancy. Indeed, it could more accurately be called 'health education', since most programs fail to incorporate modern principles of health promotion.

In addition, counselling may not be provided nor health promotional materials distributed by at least one important group, namely travel-related health care providers, as demonstrated by a survey of members of the International Society of Travel Medicine. This pilot study revealed insufficient awareness of travel as an epidemiological factor in the spread of STDs/HIV, particularly by practitioners based in North America (personal data, unpublished). On the other hand, in Australia, both Commonwealth and some State governments have responded to the challenges posed by STDs/HIV.

In Australia, sexual health promotion aimed at travellers (Travel-Safe) began in 1991, and has consisted of the provision of convenience advertising, billboards, and pamphlets to an indiscriminate group of travellers. The Travel-Safe campaign has been mostly concerned with the provision of information, rather than any substantial attempts to change behaviour. Evaluation has consisted mostly of process evaluation.

In 1994, new initiatives included a cooperative and innovative agreement with Thailand to advertise at well-known entertainment venues in Bangkok, the distribution to General Practitioners of a Travel-Safe Kit, and the development of a corporate policy on Travel Health for the Australian Chamber of Commerce and Industry (ACCI). In Western Australia, a modified Travel-Safe campaign still exists, at least at Perth International Airport. Pamphlets derived from the original campaign, and produced by the local Travellers Medical and Vaccination Centre in collaboration with the Health Department are prominently displayed airside (personal observations, November 1999).

In NSW, the Health Department commissioned the Family Planning Association (Heterosexual Men's Project) to undertake a sexual health promotion initiative targeted at male backpackers (1996-8 incl). This resulted from earlier commissioned research at the University of Sydney, which highlighted the potential importance of backpackers in the spread of STDs/HIV. A resource based approach was used to disseminate information, and introducing the notion of the different sexual behaviour of travellers ("Sex Happens"). This approach proved very successful in terms of acceptability and recall.

Finally, also in NSW, three health promotion campaigns have been run over recent years to increase awareness of safe sex practices among young people in beach (Safe Summer Safari), inland (Bush Tour) and snowfields (Snow Fields Campaign) environments. Each group could be described as intra-state travellers. While the focus of these three campaigns has been different, the general strategies have been similar: to offer HIV/STD information, quizzes, prizes, publicity at social events involving young people, and practical instruction on safer sex. An interesting project "Chippers and pickers" involving outreach health promotion to itinerant workers in North West NSW has been initiated under challenging and isolated conditions. report, There are also several small scale projects, such as the Seaport projects in Wollongong and Newcastle, the findings from which have not been widely disseminated. However, evaluation of all of these campaigns has proved problematic.

CHAPTER 2

THE TRAVEL TIPS CAMPAIGN

Methodology and summary of results

1. *Narrowcasting sexual health messages to travellers in New South Wales.*

Design of messages, focus group testing, installation, and maintenance on 2-week cycles was carried out by Convenience Advertising Pty Ltd, with timely reports to the Project Advisory Committee. The process is described and illustrated in detail in the following pages.

Briefly, a brand name "Travel Tips" was developed with a distinctive logo, and several messages focus tested. Four principal messages were refined together with take-away information regarding safer sex practises and telephone numbers of all sexual health clinics in NSW. This information was provided in English, Chinese, Thai, Japanese, and Spanish. The campaign messages were approved (with one rejected, requiring re-design, and another, modification) by appropriate authorities at NSW Health, the Australian Department of Health and Aged Care, and the Department of Foreign Affairs and Trade. This material was then installed using convenience advertising methodology (narrowcast messages delivered in public conveniences (toilet and washing areas)) over a two week period ending the first week of September 1999. There were 241 display points in 20 key venues as follows (figures refer to the number of display points): Qantas Domestic Airport (40), Ansett Domestic Airport (40), Sydney International Airport (56), selected Youth Hostels (60), Sydney Central Train Station (21), and selected gay venues (22). These display points had an approximate audience reach of 1,141,971 patron visits to venues per week.

2. *Process evaluation using intercept methodology.*

A questionnaire was designed by Qualitative and Quantitative Social Research (Steven Mugford), Brian Mulhall, and Adrian Bauman. In late January 2000, 151 detailed interviews were conducted by Taylor Nelson Sofres Ltd, spread evenly across venues, as follows: backpackers (Sydney Central YHA, Nomads City Central), gay venues (Gilligan's, Oxford Hotel, Stonewall), and domestic and international terminals (air-side).

3. *Analysis of the intercept data was undertaken by the Australian Centre for Health Promotion, using standard statistical techniques.*

Overall, there was high unprompted (66%) recall of "a condom message" across venues, and high acceptability by the public. Those most likely to read or recall the campaign were younger adults, backpackers, those who perceived that the campaign might change their own or other peoples' behaviour, and those at high risk. These preliminary data suggest that this campaign using targeted media was successful in reaching these particular at risk populations. Interestingly, they also provided some information about sexual risk behaviour: for example, high risk sexual behaviour was as high among backpackers as the sample of men at gay venues (38% high risk in both groups).

TRAVEL TIP

NSW Travellers Sexual Health Program

CONVENIENCE ADVERTISING
AUSTRALIA

CONTENTS

The NSW Travellers Sexual Health Program: Narrowcasting Sexual Health Messages to Travellers in NSW – Proposal (March 1999)	1
1.1 The Convenience Advertising Strategy	3
2. Program Overview	6
2.1 Targeted Areas and Target Audiences	6
2.2 Message and Communication Material Design	6
The NSW Travellers Sexual Health Program: Travel Tips Focus Group Report (April 1999)	9
1. Focus Testing: Methodology and Procedure	10
1.1 Sample Characteristics	10
2. Focus Group Results	11
2.1 Additional Focus Group Exercise: Gay Male Target Audience	14
The NSW Travellers Sexual Health Program: Travel Tips Installation Report (September 1999)	18
1. Executive Summary	19
1.2 Site Summary	20
Appendix B: Site Summary Report	24
Appendix C: Display Point Location	25
Appendix D: Venue Demographics Report	26
The NSW Travellers Sexual Health Program: Travel Tips – maintenance report (January 2000)	28

1.1 The Convenience Advertising Strategy

Since 1984, Convenience Advertising (CA) has been operating as a communicative 'narrow cast' medium that uses permanent A4 display sites in toilets (including above urinals and hand dryers) of selected locations to target specific groups with health education messages. The medium is practiced successfully in Ireland, New Zealand, United States, United Kingdom, Thailand and of course, Australia. It has been utilised to narrowcast public health messages privately to such diverse groups as, students, travellers, 'at risk' youth, long-haul truck drivers, men who have sex with men, 'disadvantaged' women, injecting drug users, commercial sex tourists, and persons within the work place.

The system is pro-active by nature of the field work mechanisms which are conducted during the various stages (eg. site acquisition & maintenance). The mechanisms are based upon collecting qualitative and quantitative data at the grass-roots level. Firstly, an identification and ranking of relevant venues frequented by the target audience, as determined in the brief, along with the use of geographic and demographic data from a national, state, regional, district and community level. This is followed by message focus testing within the identified venues providing qualified feedback about the relevance, usefulness and effectiveness of the proposed message.

Messages can be designed to target audiences in gender specific ways. This option often increases the strength and relevance of specific information disseminated in a culturally appropriate manner. The design of each message can contain specific information that can be used to effect change in behaviour and attitudes. For example, telephone information lines can be displayed within a message, which can be monitored to gauge the relevance and effectiveness of a campaign.

One of the features of the CA system is the interaction with the target audience that is achieved through the managed recording of things such as graffiti, damage/collectable /replacement place me and anecdotal comments collected from venue staff and management during the maintenance condition activity. This is collected during the maintenance cycle. This is conducted by 39 maintenance officers Australia-wide that visit and report in writing on each venue and message placement on/around the 15th and 30th of every month. (Maintenance Condition Reports – MCRs).

Message management and attendant logistical activities are aided by a purpose built system/program. The Convenience Advertising Ad Management System (CAAMS) allows for greater analyse of venue demographics, damage/collectable rates and type, graffiti/written incidents by issue and/or message type, location, venue category and frequency. This system is designed to assist in the delivering the most effective message placement in the most effective locations. CA provides quarterly reports that provide data of a quantitative and qualitative nature. A confidential copy of all documents used in the maintenance control cycle, and reports used and provided are enclosed.

CA conducted the narrowcasting aspect of the Commonwealth Department of Health and Family Services TRAVEL SAFE programme which was launched in November 1991. The programme has enjoyed widespread support from the Australian travel and tourism industries and has been endorsed by the Australian Federation of Travel Agents (AFTA), the Australian Tourism Industries Association (ACCI). The TRAVEL SAFE campaign has the support of the Royal Australian College of General Practitioners (RACGP), the Pharmacy Guild of Australia (PGA) and the Australian Medical Association (AMA).

In 1993 an evaluation was conducted by A.G.B. McNair for the Commonwealth Department of Human Services and Health on the Travel Safe program. Results showed that out of all the communication methods used (brochures, airline ticket messages, print ads, editorials in tourist information publications, illuminated billboards, animated campaign videos, adverts and editorials in inflight magazines) CA provided the most effective source of information dissemination. This is evidenced by the following extract:

"Among the multiple campaign formats utilised, convenience advertising, in particular, was the most effective for travellers. For those respondents who had an opportunity to see convenience advertisements, awareness of the campaign was significantly higher than the average".

Intercept interviews were conducted with 893 respondents, the findings revealed that 66% recalled seeing CA advertisements with no prompting. The impact of CA increased awareness of the program and produced greater opportunity to influence behaviour, especially when nearly all respondents (97%) agreed it was very important to practice safe sex when both travelling and at home.

Given the nature of the private delivery of sensitive health messages in a one-to-one environment, CA is able to reduce the 'third person' effect (the tendency to deflect the influence/effects of a communication off oneself). The messages are designed and located with a specific audience in mind so that relevance and recall are not hindered by mass environmental variables (eg. interruptions, uncomfortable situations etc.).

2. PROGRAM OVERVIEW

2.1 Targeted Areas and Target Audiences

The CA component of the NSW Travellers project will involve the placement of appropriately designed and focus proven messages, with multilingual take away information in a brochure format in the toilet areas of Sydney Airport (international and domestic), Sydney Central Train Station, selected Youth Hostels, and in selected key areas of interest or leisure for the gay community. This venue type selection strategy has been developed to ensure that the following target audiences are exposed to the messages at an optimal and comprehensive level:

- International inbound travellers;
- International outbound travellers;
- Domestic inbound travellers;
- Domestic outbound travellers;
- Youth/backpackers;
- Gay travellers in Sydney.

2.2 Message and Communication Material Design

CA will develop branding and visual identity material for the NSW Travellers project (project title and logo). CA will develop four A4 message types which have graphic and text content which enables them to target:

- General Audience
- Male Audience
- Female Audience
- Gay male Audience

CA will develop a concertina brochure which will be delivered with the A4 message, as take away information. It is intended that the brochure will be translated into the four most predominant languages spoken by international visitors to Sydney.

It is expected that the brochure will contain referral telephone numbers for further information as a measure to increase access to sexual health information and services.

Convenience Advertising emphasises the importance of focus testing the communication material among representatives of the target audience to ensure optimal message relevance, accuracy and impact.

Campaign branding:

The campaign branding "travel tip" follows ON from the idea of travel guides. All travel guides, travel agents and even friends/ family of a traveller will have their given 'travel tips' for a certain country or city. Be it a great place to eat, something worth seeing, money saving ideas etc, this is true for both the business or holiday traveller. It refers to the "must see or do" mentality of a traveller.

In reference to sexual activity it refers to protective behaviour, and is reinforced by the icon of the tip of a condom.

Here is the travel tip, use a condom!

The messages in themselves become a sequential list of "tips" and any related collateral produced reinforces this.

Messages:

At this stage, the messages are in concept form, the refining design process of aesthetics and copy writing would take place after focus testing, when evaluation of the and application of concepts can be ascertained.

Message copy:

The message copy that appears on the messages is similar, but will be refined to help strengthen the strap lines on each message. The copy has taken a unified approach in addressing the risk of HIV/AIDS; that being that AIDS is a GLOBAL issue, knowing no boundaries to culture, ethnicity, language, gender, age or sexuality.

The globe is also an icon for travel.

Being a Global issue the image of a condom transcends language barriers and is a recognisable icon in the prevention of AIDS.

The copy reads:

HIV is a global issue.

No matter where you are from and where you are going, be sure to use a condom.

Condoms and water based lubricants are the best protection for you and your partner from HIV and other sexually transmitted diseases.

**NSW Travellers Sexual Health Project
Travel Tips
Focus Group Report**

Prepared By
Convenience Advertising
April 1999

1. Focus Testing: Methodology and Procedure

Focus Testing was conducted on 27 March 1999 at Queensberry YHA in North Melbourne. The focus group respondents all fell within the category of young international travellers. An additional requirement was that all participants be either recent (within the last three months) travellers to Sydney, or be bound for Sydney in the near future. Queensberry Youth Hostel (YHA) were supportive of the program, and of the exercise, and their assistance is gratefully acknowledged.

Participants were paid \$20 for their time and the duration of focus group testing was approximately one hour. Two questionnaires were developed, one was utilised as a series of prompt questions in relation to the communication material while the second questionnaire gained demographic information on participants. Both questionnaires were reviewed to ensure that language and structure were displayed in a clear and appropriate format.

Questionnaires were answered individually in written form. Identification of the environment in which the communication material would be viewed (toilet convenience/private-individual) was discussed with each group/individual. Focus test participants were informed that the questionnaires were to help understand individual responses and perceptions to each execution.

Participants were urged to respond openly and honestly and were assured their responses would be kept anonymous and NO names were sought.

The prompt questions remained the same for each of the designs. Participants were shown each execution and asked to consider the content, style, and what it represented. Individual responses were noted in each questionnaire. This procedure was repeated for each execution of the concepts developed.

1.1 Sample Characteristics

Nine People participated (n=9) in a focus test exercise conducted by Bradley Sellars of Convenience Advertising.

1. Gender

Male	<i>n</i> =5
Female	<i>n</i> =4
2. Age
Participants ranged in age from 20-28 years
3. Nationality

British	<i>n</i> =5
Canadian	<i>n</i> =2
Irish	<i>n</i> =2
4. Employment Status (when at home)

Employed	<i>n</i> =8
Unemployed	<i>n</i> =1
5. All respondents were single, and all were heterosexual.
6. Five out of the nine respondents reported having had casual sex whilst travelling in Australia.

7. Of those five, two had not used condoms during the most recent experience.
8. In response to the question "If you used a condom, were you most concerned about pregnancy, or the risk of an STD?", two were most concerned about pregnancy, and one was concerned about both.
9. Only one respondent claimed that issues of safe sex were something they about during sex.

2. Focus Group Results

A series of four logos were focus tested, followed by seven executions of the Travel Tip message concept. Detailed responses are available from Convenience Advertising.

Logo Recommendations: Overall

It is recommended that the Travel Tip in a bold rectangular box be retained as a base element of the branding identity for the campaign. The representation of the air mail stamp was extremely well received, although there was still some resistance to the illustration of the unrolled condom. It is recommended that:

- The rectangular box remain
- The condom be redrawn to resemble an unrolled condom, to scale.
- The postmark/air mail stamp be retained, and used without the condom image.

Messages

Responses were divided into visual effect/graphic design.

Message One

One has the tip "Travel Insurance from \$1" with text which reads *from the nearest vending machine or local supermarket.

It is produced on a background designed to resemble a passport page, with a red and black Travel Tips logo (logo 3). A photograph of a condom is also on the image.

Recommendations

- Remove the background image, but retain a soft background colour scheme
- Enlarge the strap line
- Enlarge the text beneath the strap line, or make it bolder
- Develop the air mail envelope style as consistent with other images.

Message Two

Message Two has the text "As seen in Sydney's hotspots" in white type over a bright pink background which is a map of the Darlinghurst/Kings Cross Area. It has an image of a condom, with the text, "HIV is a global issue".

Recommendations

- Maintain all key elements of message two
- Develop and apply logo

Message Three

Message three is a local variation on the saying "When in Rome, do as the Romans do." It contains the copy "When in Sydney ... or Rome, New York, Beijing, London, Cairo", and is on a pale coloured map of New South Wales, indicating Sydney. Message three is within the red and pale blue stripes of an air mail envelope.

Recommendations

- Provide a stronger background colour scheme
- Enlarge the text to enable a more direct message
- Make the layout less 'symmetrical', to provide more eye catching elements

Summary

It is recommended that this message not be developed as a primary campaign message.

Message Four

Message Four is a modification of the message three, with the Strap Line now reading "When in Rome or Sydney, New York, Beijing, London, Cairo". This message is also framed within an air mail envelope style border, and has an image of a condom in the centre of the frame.

Recommendations

- Provide a coloured background, or a background image
- Make all text larger and more noticeable
- Retain air mail envelope border
- Perhaps keep the 1800 number and then have an explanatory note.

Message Five

Message Five contains the text "Local Mating Habits" over a faint image of a kangaroo with a Joey in pouch. It is intended to create a visual association between "local" sexual (ie safer sex with condoms) and local icons/Australian identity. There is a photograph of a condom on the background image. This message is also framed within an air mail envelope style border.

Recommendations

- Either enhance the background image, or remove it to clarify the message
- Enlarge and define all text
- Make the phone number more prominent
- Retain air mail envelope border

Summary

It is recommended that this message not be developed as a primary campaign message.

Message Six

Message Six contains the strap line "Fly The Flag". Against a white background, the flags of different nations have been superimposed over the outline of a condom in its packet. In the centre of the row of flags there is a rainbow flag, symbolising the gay and lesbian community, and the gay inclusiveness of the campaign. This message contains the text: No matter where you're from or what you're into, always wear a condom. Message six is also within an air mail envelope border.

Recommendations

- Provide a coloured background
- Provide some colour variation or distinction in the text
- Clarify the 1800 number
- Retain air mail border and 'stamp' logo
- Utilise the Australian flag

Message Seven

Message seven is a variation on the design of message six. Its primary differences are that it does not have the Rainbow Flag, and that it has a background composed of a row of assorted national flags, which are heavily blurred.

Recommendations

- Provide a clearer and less cluttered background image
- Utilise the Australian flag
- Retain the air mail border and 'stamp' logo

2.1 Additional Focus Group Exercise: Gay Male Target Audience.

To determine the relevance and appropriateness of the current programme messages among a gay male target audience, an additional focus group exercise was undertaken on 4th May 1999. Five men were focus tested at the offices of the Melbourne Start Observer, a local gay publication. Focus testing was conducted by Bradley Sellars of Convenience Advertising, under standard focus group exercise protocols.

Sample Characteristics

Five People participated (n=5) in a focus test exercise conducted by Bradley Sellars of Convenience Advertising.

1. Gender
Male n=5
2. Age
Participants ranged in age from 26-37 years
3. Nationality
Australian n=5
4. Employment Status
Employed n=5
5. All respondents were single, and all were homosexual.
6. All respondents reported that they have had sex while travelling away from home.
7. Of those five, three had not used condoms during the most recent experience.
8. Three of the five respondents reported that issues of safe sex were something they thought about during those experiences.

Focus Group Results

For the purpose of this exercise, four messages were focus tested. These messages were chosen as a representative sample of the key concepts of the programme message selection, and were considered messages which could have a direct gay male target audience. A further objective in conducting this exercise was to test an additional text concept recommended by the committee. To two of the messages tested, the copy "many travellers don't intend to have sex but sex happens. Always use a condom" was applied.

The following messages were tested to gauge their appropriateness and relevance to a gay target group:

Message One

Message One is the developed version of the "When in Rome" message. It features an image of a condom on a pale purple background, which is an image of a map of The Rocks area. It is in an air mail envelope border.

Recommendations

The results of this focus group indicate that there is little need to make major changes to this message, and that its execution of the safer sex message in the context of travel is successful, and enjoyable. It is suggested that the message could be improved by:

- Enhancing the background image, ie making it stronger
- Placing the logo to give more clarity to the air mail stamp

Message Two

Message Two is the developed version of the "As seen in Sydney's hotspots" message. It contains an image of a condom in a rainbow flag wrapping, and has a bold pink background, which is a map image of the Kings Cross area. The copy "Many travellers don't intend to have sex but sex happens. Always use a condom" was included in this message.

Recommendations

This message was successful and effective, and also highly popular. Its gay inclusive and sex positive style were appreciated by all respondents, and its tone and focus contributed identification with both its style and subject.

- Enhance the colours of the rainbow condom
- Revert to original text: "No matter where you're from or what you're into, always use a condom". This text delivers an outcome oriented suggestion, and further emphasises gay inclusiveness of the message.

Message Three

Message Three is the developed version of the "Travel Insurance from \$1" message. This message contains the text "the best insurance when you travel is to use a condom", and an image of a condom on a pale purple background image, which is a map of the Circular area.

Recommendation

This message was extremely popular, and requires no significant alteration or development. Focus group respondents indicated that the message could be improved by:

- enhancing the image of the condom
- making the background image slightly stronger

Message Four:

Message Four is a developed version of the "Fly the Flag" message. The message is composed of five national flags, and the rainbow flag, which is a symbolic flag used to represent the gay and lesbian community. This version of the message included the copy: "Many travellers don't intend to have sex but sex happens. Always use a condom"

Recommendations

All respondents provided a positive reception of this message, and appreciated its innovative, clever and challenging approach. No major design changes are recommended for this message, although it is suggested that the message revert to the original text: "no matter where you're from and what you're into, always wear a condom". This copy provides a clear, outcome oriented message, and provides a more subtle and relevant gay inclusive, one and meaning.



FOCUS TESTING GROUP



TRAVEL TIP

Travel insurance from
\$1*

*from the nearest vending machine
or local chemist and supermarket.

HIV is a global issue.
No matter where you are from and where
you are going, be sure to use a condom.

Condoms and water based lubricants are the best protection
for you and your partner from HIV and other
sexually transmitted diseases.

For more information on HIV and AIDS call toll free
1800 123 456



TRAVEL TIP

Travel
insurance
from
\$1*

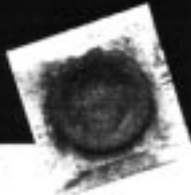
*from the nearest vending machine
or local chemist and supermarket.

The best insurance when you travel is to use a condom.

Condoms and water based lubricants are the best
protection for you and your partner from HIV and other
sexually transmitted diseases.

For more information on HIV and AIDS call toll free
1800 123 456

As seen in Sydney's hotspots



HIV is a global issue.

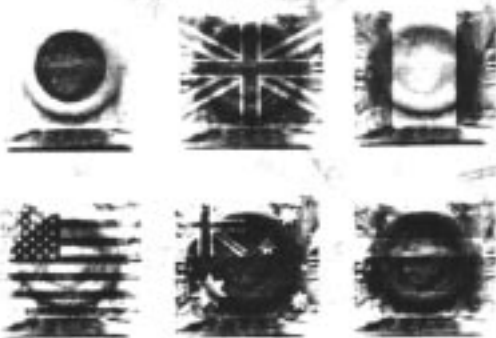
No matter where you are from and where
you are going, be sure to use a condom.

Condoms and water based lubricants are the best protection
for you and your partner from HIV and other sexually
transmitted diseases.

For more information on HIV and AIDS call toll free 1800 123 456

TRAVEL TIP

Fly the Flag!



No matter where you're from and what
you're into, always wear a condom.

Condoms and water based lubricants are the best
protection for you and your partner from HIV and
other sexually transmitted diseases.

For more information on HIV and AIDS call toll free
1800 123 456

TRAVEL TIP

When in Rome...



or Sydney, New York, Beijing, London, Cairo

HIV is a global issue.
 No matter where you are from and where you are going, be sure to use a condom.

Condoms and water based lubricants are the best protection for you and your partner from HIV and other sexually transmitted diseases.

For more information on HIV and AIDS call toll free 1800 123 456

TRAVEL TIP

When in Rome...



or Sydney, New York, Beijing, London, Cairo

HIV is a global issue.
 No matter where you are from and where you are going, be sure to use a condom.

Condoms and water based lubricants are the best protection for you and your partner from HIV and other sexually transmitted diseases.

For more information on HIV and AIDS call toll free 1800 123 456

TECHNICAL APPENDIX - 4

Sexual Health Promotion and Access to Travellers by the Sydney Sexual Health Centre

	Page
4.1 Summary of Health Promotion Activities Based out of the Sydney Sexual Health Centre	146
4.2 Travellers Attending the Sydney Sexual Health Centre	149

4.1 Summary of Health Promotion Activities Based out of the Sydney Sexual Health Centre, Sydney Hospital

As well as its clinical roles in managing people with or at risk of STDs/HIV infection, the Sydney Sexual Health Centre has a diverse range of health promotion activities. Many of these activities impact on travellers. Funding has recently been obtained from the NSW Health Department to appoint a Health Promotion Co-ordinator to evaluate, consolidate and extend the program.

1. Prostitution Policy Development and Advocacy

The Centre has a long and successful track record in advocating and demonstrating the public health gains associated with prostitution law reform, of supporting community-based organisations, and of tailoring health services to the needs of sex workers. Funded 1992-5 through a CARG Scholarship to Christine Harcourt.

2. Bodyline Outreach Project

The SSHC runs a health education, counselling and screening clinic at one of Sydney's largest gay saunas, Bodyline, in Darlinghurst each Wednesday evening. This service provides unique access to NESB men and men not otherwise accessing health services. Funded through the SSHC clinical budget.

3. Multi-cultural Health Promotion Outreach Project

Two nights a week, and in close liaison with the Sex Workers Outreach Project (SWOP), a health promotion officer visits Sydney's Asian sex industry establishments. Education groups are conducted, culture-specific safe sex videos are shown, clinical referrals made, and condoms and lubricant distributed. Funded by the NSW Health Department through the SESAHS.

4. Thai and Chinese Language Clinics

Two Thai and one Chinese language clinics are conducted at SSHC each week. Experienced interpreters sensitive to Asian sex workers' needs are rostered to these clinics and a half-time Thai Clinical Nurse Specialist is employed to perform patient education, counselling, and support tasks. Funded by the NSW Health Department through the SESAHS. The SSHCs experience with international sex workers is described in greater detail in Technical Appendix 4.4

5. Vietnamese Community Project

Beginning in 1994, a Vietnamese Health Promotion Officer was employed to develop and implement sexual health and HIV/AIDS education programs for Sydney's Vietnamese community through the ethnic media, community agencies, and other health services, particularly Vietnamese GPs. This has involved producing a newsletter, networking with community and health agencies, and staging community and professional educational seminars. Target groups include Vietnamese men who:

- visit sex workers;
- visit Vietnam;
- have sex with other men; or
- inject drugs.

Funded by the NSW Department of Health through the SESAHS. This project is discussed in more detail in Technical Appendix 4.2.

6. Patient Education Materials

Co-ordinated and updated by the Clinical Nurse Consultant, the SSHC has developed 19 unique patient education brochures on STDs or sexual health procedures. These brochures have been translated into several other languages and are the only materials of their type in Australia. The brochures are used extensively by other health services⁶ and undergone formal evaluation. The translation and printing of the non-English brochures was partially funded by the NSW Health Department through the SESAHS.

- 7. Community Events and Other Functions**

SSHC staff regularly respond to invitations or opt to participate in community or health events, eg fairs, Mardi Gras, World AIDS Day, Hospital Open Days, University/College Orientation Weeks. At these events direct health advice is given, materials are distributed, videos shown, and condoms/lube distributed. Funded the SSHC clinical budget and voluntary time by SSHC staff.
- 8. Telephone Information Line**

A nurse is rostered full-time at SSHC to handle over 4,000 telephone requests per year from the public for sexual health information. The Counselling Unit handles a further 1,500 per year. Many of these calls are followed up by posting information or by referral. Several hundred requests for information per year from community organisations, students and other health agencies are also handled by the Nursing or Counselling Units at SSHC. Funded through the SSHC clinical budget.
- 9. Community Support, Liaison and Counselling**

SSHC staff participate in various capacities in the activities of community-based organisations such as SWOP, the Sex Workers Outreach Project, People Living with HIV/AIDS, the AIDS Council of NSW, the Australian Federation of AIDS Organisations, the Multi-cultural HIV/AIDS Education and Support Project, Schools, the Thai Welfare Association, the Vietnamese Health Professionals Association, and the Gay and Lesbian Counselling Service. These activities include serving on committees, advocating for resources, and consulting on or providing education programs. Most weeks the clinical staff also review, edit, help develop, and provide materials for sexual health pieces produced by radio stations, newspapers, magazines and television. Funded through the SSHC clinical budget and voluntary time by SSHC staff.
- 10. Development of Other Services and Professional Education**

The SSHC has a long history of advocating, consulting and supporting the development of NSW's network of specialist sexual health services as well as developing the interest and skills of other health services including FPA; general practice; women's health services; and Corrective, Education and Community Services. Now co-ordinated with the Academic Unit of Sexual Health Medicine, regular seminars are held in sexual health counselling, nursing and medicine. Funded through the SSHC clinical and Academic Unit budgets.
- 11. Needle and Syringe Exchange Program**

The SSHC's modest NSEP, dating back to 1988, continues to grow steadily and services a unique clientele. Goods and Services funded by the NSW Health Department through the SESAHS.
- 12. Sexual Self-Esteem Groups for Women**

Female patients identified at SSHC and women referred from outside who are at increased risk because of low self-esteem are taken through a two session program to foster assertiveness skills- Developed by the Counselling Unit at SSHC in 1995, the program has been replicated at the Leichhardt Womens' Health Centre in 1996. Funded through the SSHC clinical budget.
- 13. Young Men's Support Group**

Young men who are having sex with men but who do not identify as gay are offered peer support groups and talks first developed in 1995 by the SSHC Counselling Unit. The aims of this project are to overcome self-loathing and to foster safer sex. Funded through the SSHC clinical budget and voluntary time by SSHC staff.

- 14. Herpes Support Group**
These groups have been run by the SSHC Counselling Unit for almost ten years. People affected by herpes, referred from the SSHC or outside agencies, attend a series of information nights with the aim of helping people adjust to their diagnosis and promoting safer sex. Funded through the SSHC clinical budget.
- 15. Sexual Health on the Radio**
Developed by the SSHC Health Promotion Committee this is a series of sexual health education talk-back shows by SSHC staff during 1996 targeted at under-25 year olds. Funded by the NSW Health Department through the SESAHS,
- 16. Outreach Project For Male Sex Workers**
The Counselling Unit provides a weekly counselling service for male sex workers at the Sex Workers' Outreach Projects premises in Surry Hills. Commenced at the beginning of 1996.

4.2 Travellers Attending the Sydney Sexual Health Centre

Introduction

An important opportunity exists in Sexual Health Centres to document sexual behaviours in many sub-population groups, including travellers, and to target sexual health promotion efforts at these sub-groups.

In theory, STD/sexual health clinics should be ideal venues for establishing the risk of STDs attributable to travel, investigating past and recent sexual behaviour (eg. use of condoms) when travelling, and identifying sub-groups of travellers who might be considered core transmitters. They should also be able to highlight the opportunity for health education about sexual health risks in any geographical location, which can be incorporated into the counselling attenders at sexual health clinics. Through August 1996, there have been six published and one unpublished study of travellers in STD clinics.

At the Melbourne Sexual Health Centre¹ in a six month period in 1990, 111 men who had sex in south-east Asia were studied. 66 had evidence of an STD (not HIV or syphilis); all of these had sex with at least one prostitute, 28% without a condom, and 43% had sex with a partner after return to Australia. In Bergen, Norway, 245 (41%) of 606 consecutive patients reported having a sexual partner abroad in the previous five years, and in four English STD clinics 2, 3, 4, 6, 25-52% of heterosexual males and 18-20% of heterosexual females who had travelled in the previous three to six months had new partners during their trips. In the most thorough of these investigations⁶, the authors estimated the proportion of infections due to travel abroad at 11.6%. They also identified risk factors such as being male, single, and having visited an STD clinic previously.

There are several important limitations with these studies. First, the patients studied were probably not representative of the travelling public as a whole, or even of all STD clinic attenders; however the numbers of visits made abroad by members of the public is high. Thus, even if the sexually active proportion of the total number of travellers is low, the absolute numbers of people at risk may be considerable. Second, in few of these studies have the demographic and behavioural characteristics of travellers who attend STD clinics been compared with STD attendees who have not travelled, ie. with non-travelling controls. This is the only way that behaviour and disease can be properly attributed to travel, in a quantifiable way, that could form the basis for a prevention campaign that is amenable to evaluation. Third, comparison of previous studies is difficult because of differences in the questionnaires and reporting biases due to different time-lags.

Finally, with one exception⁵, these studies have not attempted any qualitative research. Quantitative research provides only a measure, not the context of the phenomena it addresses. A case can be made for the value of more qualitative research as a means of placing quantitative information within its social context.

Sydney Sexual Health Centre

The SSHC was established (as the "Blue Light Clinic" near Circular Quay) in 1933, with a mandate from the League of Nations' Brussels Agreement (1924), to which Australia was a signatory. The Agreement required the provision of a free STD service in all major ports accessible to foreign sailors. The Brussels Agreement was a response to growing awareness that the behaviour of travellers posed major risks for the transmission of STDs across national boundaries.

While still catering for this first "risk group", the SSHC progressively expanded its role over the subsequent 63 years. Inner and eastern Sydney is the stopover for approximately three million incoming and one million outgoing travellers each year. These numbers are increasing steadily. Thus the clientele currently seen include:

- (i) sailors;
- (ii) business and leisure travellers to and from Sydney;
- (iii) refugees and immigrants to Australia;
- (iv) ethnic Australians re-visiting their countries of origin;
- (v) interstate and rural visitors, particularly those attending community events, such as the Gay and Lesbian Mardi Gras;
- (vi) commercial sex workers catering to all of the above groups;
- (vii) foreign sex workers (see Technical Appendix 4.4); and
- (viii) Australians engaged in sex work overseas.

Clients attend SSHC for a variety of reasons, including:

- a) investigation and treatment of symptoms suggestive of an STD
- b) perception that they are at risk of infection with an STD and require screening
- c) Incoming travellers are frequently excluded from other health services for the management of STD/HIV infections by their travel insurance policies, yet they still pose a risk for Sydney residents. For many, SSHC is their only health care option and local GP's refer them for this reason.

Travellers To and From Overseas Seen at SSHC

Detailed demographic and behavioural data are kept for all SSHC clients including sex overseas. In 1995, these were analyzed in detail.

Of 8,706 different patients who attended SSHC:

- 1. 55% were born in Australia and 45% overseas (Table 1, Figure 1) These figures remained similar in 1997 (Table 6).
- 2. 11% normally lived overseas at the time of their attendance at SSHC (Table 2, Figure 2). A similar proportion applied in 1997 (Table 7).
- 3. SSHC patients were born in over 90 different countries (Table 3, Figure 3).
- 4. 1,437 reported sexual activity overseas with someone other than a travelling companion in the previous 12 months (Table 4)
- 5. 493 patients reported contact in south-east Asia (Table 4)
- 6. 35% reported always using condoms when they had sex overseas, while 30% reported never using condoms when they had sex, overseas (Table 5).

CONCLUSION

The SSHC has achieved the objective of accessing a large number, and wide variety, of travellers. Its computerised database enables continuous monitoring of sexual behaviour and morbidity in this group. Figures for 1995 reveal an alarming number of patients who have had sex overseas in the past 12 months, particularly in south-east Asia, with a poor overall use of condoms.

Recommendations

The capacity for SSHC to target travellers for sexual health promotion should be strengthened. This can be achieved by:

- 1. Expanded quantitative and qualitative information to determine why some travellers place themselves at risk for infection with an STD. This will require the epidemiological information referred to above, and the use of questionnaire data. It will facilitate the provision of focussed health promotion messages.
- 2. A post-intervention evaluation in terms of measurable changes in sexual behaviour and morbidity.

Table 1. Country of birth of SSHC patients, 1995.

Africa	Frequency	%
Kenya	6	0.1
Malawi, Tanzania, etc.	16	0.2
Mauritius	9	0.1
Other Africa	36	0.4
South Africa	67	0.8
Zimbabwe	9	0.1

Asia	Frequency	0
Bangladesh	10	0.1
Burma	1	< 0.1
China	118	1.4
Hong Kong Macau	59	0.7
India	42	0.5
Indonesia	34	0.4
Japan	58	0.7
Kampuchea	4	< 0.1
Korea	28	0.3
Laos	4	< 0.4
Malaysia / Brunei	58	0.7
Other Asia	4	< 0.1
Pakistan	11	0.1
Philippines	51	0.6
Singapore	26	0.3
Sri Lanka	13	1
Taiwan	7	0.1
Thailand	149	1.7
Timor	4	< 0.1
Vietnam	33	0.4

Australia	Frequency	%
Australia	4,786	55.0
Christmas island	1	< 0.1
Cocos Island	1	< 0.1
Norfolk Island	3	

Europe	Frequency	%
Austria	14	0.2
Belgium	11	0.1
Bulgaria	4	< 0.1
Cyprus	12	0.1
Czechoslovakia	20	0.2
Denmark	14	0.2
England	885	10.2
Estonia	2	< 0.1
Finland	6	0.1
France	73	0.8
Germany	70	0.8
Greece	47	0.5
Hungary	18	0.2
Italy	65	0.7
Latvia	2	< 0.1
Malta	16	0.2
Netherlands	43	0.5
Northern Ireland	31	0.4
Norway	6	0.1
Other Europe	13	0.1
Other USSR	35	0.4
Other USSR	35	0.4
Poland	24	0.3
Portugal	10	0.1
Republic of Ireland	106	1.2
Romania	9	0.1
Scotland	69	0.8
Spain	29	0.3
Sweden	41	0.5
Switzerland	24	0.3
Ukraine	13	0.1
Wales	5	0.1
Yugoslavia	44	0.5

Latin America	Frequency	%
Argentina	18	0.2
Brazil	27	0.3
Caribbean	4	< 0.1
Chile	29	0.3
Columbia	7	0.1
Ecuador	4	< 0.1
Mexico	3	< 0.1
Other Latin America	12	0.1
Peru	13	0.1
Uruguay	18	0.2

Middle East	Frequency	%
Bahrain	12	0.1
Egypt	14	0.2
Iran	15	0.2
Iraq	6	0.1
Israel	124	1.4
Lebanon	34	0.4
Syria	6	0.1
Turkey	15	0.2

North America	Frequency	%
Canada	88	1.0
United States	167	1.9

Pacific	Frequency	%
Fiji	30	0.3
Nauru	2	< 0.1
New Caledonia	2	< 0.1
New Zealand	395	4.5
Other Oceania	1	< 0.1
Papua New Guinea	25	0.3
Solomon Islands	4	< 0.1
Tonga	3	< 0.1
Vanuatu	2	< 0.1
Western Samoa	6	0.1

Other and Totals	Frequency	%
Data Missing	210	2.4
TOTAL	8,706	100

Table 2 Usual place of residence of SSHC patients, 1995.

	Number*	Percent
Metropolitan Sydney	51691	82.9
Other NSW	256	4.1
Another state	1171	1.9
Another country	6941	11.1
TOTAL	6236	100

*2,470 (28.4%) declined to answer.

Table 3: Country of birth – SSHC patients not usually resident in Australia (n=694)

Australia	36	Hong Kong/Macau	6
New Zealand	25	Japan	8
Oceania	4	Korea	1
England	232	Taiwan	1
Other United Kingdom	21	Indonesia	5
Republic of Ireland	25	Laos	2
Italy	7	Malaysia/Brunei	6
Spain	6	Singapore	2
Belgium	6	Thailand	9
France	21	India	2
Germany	12	Sri Lanka	2
Netherlands	15	Israel	82
Switzerland	9	Other Middle East	3
Scandinavia	25	South America	5
Former USSR	1	Canada	40
Ukraine	5	United States	46
Other Europe	8	Africa	9
China	2	Data Missing	5

Table 4: SSHC patients reporting sexual activity while overseas in the last 12 months, by country visited, 1995.

	Number	Percent
Thailand	174	12.1
Philippines	42	2.9
Other Asia	277	19.3
North America	192	13.4
Africa	39	2.7
Central / South America	39	2.7
Europe (inc. UK)	518	36
Pacific	45	3.1
New Zealand	99	6.9
Middle East	12	0.8
TOTAL	1437	100

Table 5 Reported use of condoms by SSHC patients who had sex while overseas, 1995.

	Number	Percent
not applicable (no anal or vaginal contact)	62	5.6
no condoms	332	30.2
sometimes (<50%)	142	12.9
usually (>50%)	180	16.4
always	382	34.8
TOTAL	1098	100

Table 6

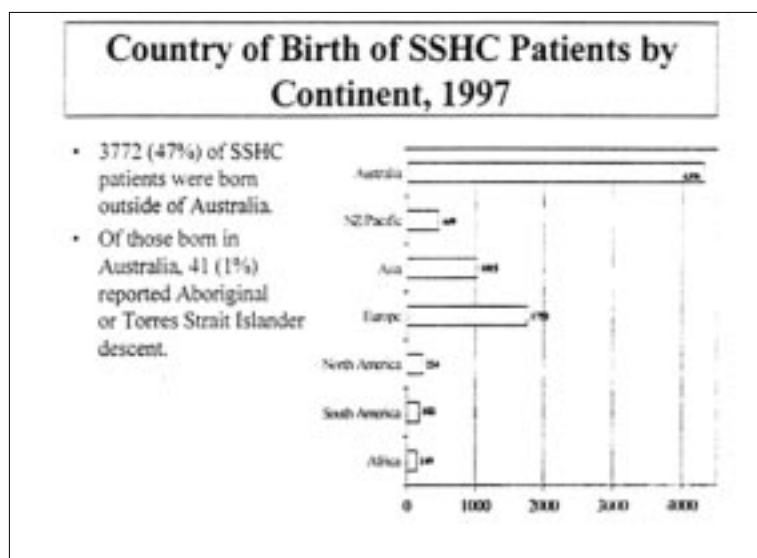


Table 7

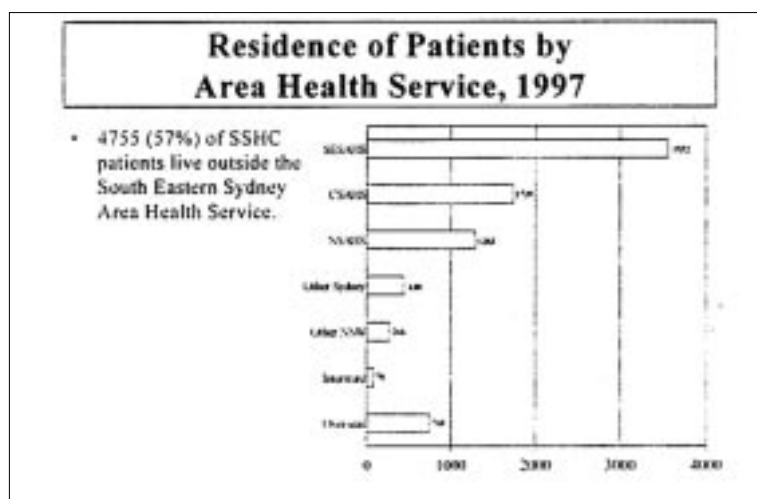
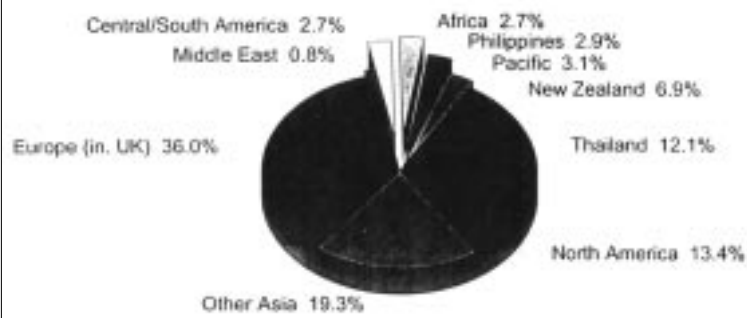


Figure 4

Countries where new SSHC clients reported sexual contact in the previous 12 months, 1995



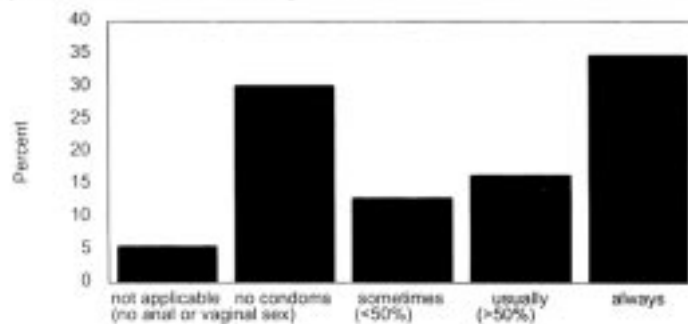
n = 1,437

(total number of countries where clients reported overseas sexual contact)

(Data missing for 2470 cases)

Figure 5

Reported use of condoms by SSHC clients who had sex overseas



n = 1,247

(Missing data for 149 cases)

REFERENCES

1. Rowbottom J. Risks taken by Australian men having sex in South East Asia. *Venereology* 1991; 4(2):56-59.
2. Daniels DG, Kell P, Nelson MR, Barton SE. Sexual behaviour amongst travellers: a study of genitourinary medicine clinic attenders. *Int J STD & AIDS* 1992; 3:437-438.
3. Lister P, Robinson A. STD in travellers presenting to a GUM clinic (letter). *Int J STD & AIDS* 1993; 4:59-61.
4. Treit KS, Nilsen A, Nyfors A. Casual sexual experience abroad in patients attending an STD clinic and at high risk for HIV infection. *Genitourin Med* 1994; 70:12-14.
5. Black P, Clift S, Wijesundra C (1995). The sexual behaviour of travellers/tourists: A qualitative and quantitative study of genito-urinary clinic attenders (unpublished data).
6. Hawkes S, Hart GJ, Bletsoe E, Shergold C, Johnson AM. Risk behaviour and STD acquisition in genitourinary clinic attenders who have travelled. *Genitourin Med* 1995; 71:351-354.
7. Mendelsohn R, Astle L, Mann M, Shahmanesh M. Sexual behaviour in travellers abroad attending an inner-city genitourinary medicine clinic. *Genitourin Med* 1996; 72:43-46.

**THE NSW TRAVELLERS SEXUAL HEALTH PROGRAM
TRAVEL TIPS**

Narrowcasting Sexual Health Messages
to Travellers in NSW

Installation Report
Convenience Advertising (Aust) Pty Ltd
September 1999

1. Executive Summary

For the purposes of this program, venues in the following categories have been contracted for the display of 'Travel Tips' communications resources:

- Qantas Domestic Airport, Sydney
- Ansett Domestic Airport, Sydney
- Sydney International Airport
- Selected Youth Hostels in Sydney
- Sydney Central Train Station
- Selected Gay venues in Sydney.

The Travel Tips program also delivers take away information regarding condom and water based lubricant use, safe sex practices, and HIV/AIDS and STI education messages in English, Chinese, Thai, Japanese and Spanish.

It is the purpose of this report to detail the process of installation, and the key variables of message placement in the 'Travel Tips' program. To date, 241 display points have been installed in 20 key venues in Sydney. These display points have an approximate audience reach of 1,141,971 patron visits to venues per week. CA have reached an optimal message installation and display of 250 display points. However, recent renovations at the Ansett domestic terminal in Sydney have entailed the temporary closure of several toilet blocks, which have caused a decrease in optimal message display to 241 display points. CA will ensure that all display points removed during venue renovations are replaced once renovations have been completed.

Currently, there are 134 display points which deliver take away information at hand dryer locations in venues. The remaining 107 display points are a range of frame only messages.

This report will provide a background to the program, target audience and venue location strategy information, message design and development information, and key data regarding the specific variables of message placement in the current program.

1.2 Site Summary

To date, 241 display points have been installed in 20 venues in Sydney. Venues have been contracted across several categories: Accommodation, Airport, Cafe, Hotel, Club, and Train Station. As indicated at figure 3.1, the Airport venue category contains the greatest number of display points (136), followed by accommodation venues, which are primarily youth hostels, and a small number of guest-houses. The category cafe consists of one very busy cafe, Cafe 191, in Oxford Street, which contains 2 'Hot Spots' messages targeting the gay community.

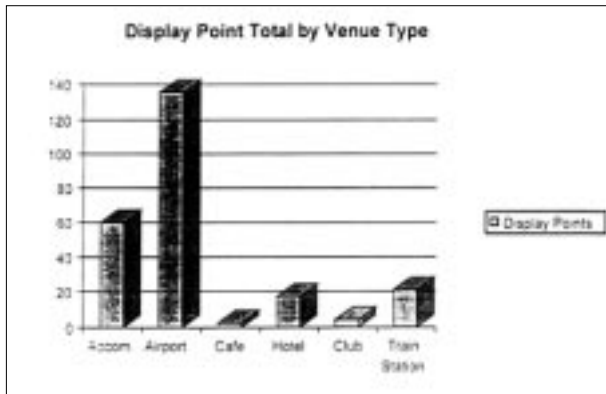


Figure 3.1: Display Point Totals by Venue Type

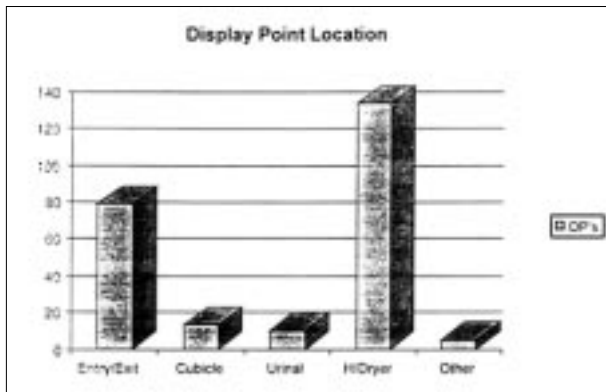


Figure 3.2: Display Point Location

Figure 3.2 indicates the number of display points currently installed at particular locations within venues. Hand Dryers are currently providing the greatest single resource for message delivery, with 134 display points. Each hand dryer located display point also contains the take away information resource. There are 79 display points at entry/exit areas, 10 display points at urinal, and 5 display points located at 'other' locations within toilet or bathroom facilities. The 13 display points which have been designated cubicle locations are not in cubicles per se, but are in locations in which the entire washroom or bathroom encloses the toilet, i.e., disabled toilets, guest house shared bathrooms.

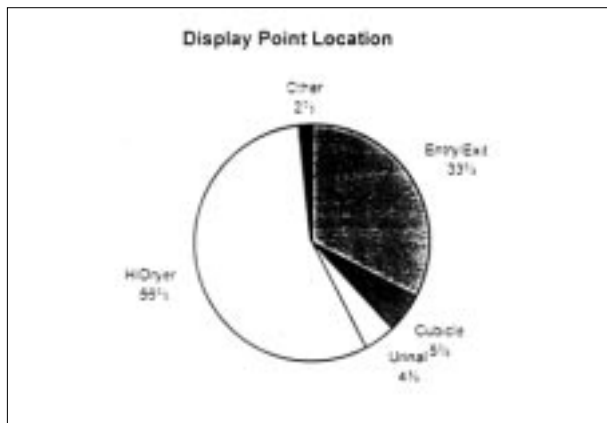


Figure 3.3: Percentage of Display Points by Location

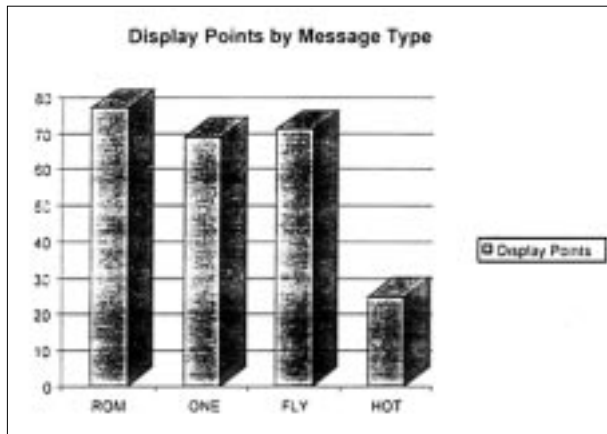


Figure 3.4: Display Point Totals by Message Type

As indicated at figure 3.4, a reasonably even distribution of Rom (When in Rome), One (Travel Insurance for One Dollar) and Fly (Fly the Flag) has been achieved. A smaller number of Hot (As Seen In Sydney's Hot Spots) has been delivered, due to the smaller volume of venues available for the display of this message, which was specifically designed to target members of the gay community.

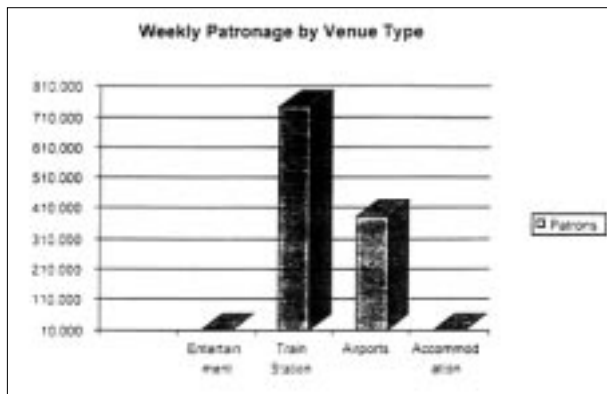


Figure 3.5: Weekly Patronage by Venue Type

The current message display strategy and ratio provides a program which delivers highly targeted information to approximately 1,141,971 patron visits to contracted venues per week. As indicated in the above chart, the Sydney central Train Station experiences the highest weekly patronage, followed by the Qantas, Ansett and International terminals at Sydney airport combined. Whilst the relative scale of these charts renders the demographic index for the accommodation and entertainment (hotels and clubs) venue types proportionately small, it must be pointed out that both Accommodation and entertainment venues currently contracted have a weekly patronage of approximately 16,000 patron visits per week. These venues are also the most appropriate venues and are frequented exclusively by the target audience.

Appendix B: Site Summary Report

Period: July 1999, Active Venues: New South Wales

Reg	Venue	Suburb	Booked Mess	Actual Mess	Venue Total
Accommodation					
3279	Backpackers Headquarters Hotel	Kings Cross	4	4	4
3281	Hancock Hostel	Kings Cross	1	1	1
3233	Harbour City Motel	Woolloomooloo	4	4	4
3278	Nomads	Sydney	6	6	6
3277	Nomads Captain Cook	Darlinghurst	4	4	4
3280	Nomads City Central	Sydney	8	8	8
240	Original Backpackers	Kings Cross	6	6	6
3275	Park Lodge Hotel	Surry Hills	1	1	1
3282	Plane Tree Lodge	Kings Cross	2	2	2
3286	Sydney Central YHA	Sydney	20	20	20
3276	The Pelican	Darlinghurst	4	4	4
	Total display points for Accommodation		60	60	
Airport Terminal					
17	Ansett Airlines	Mascot	40	40	40
10	Qantas, Sydney Airport	Mascot	40	40	40
74	Sydney International Aiport	Mascot	56	56	56
	Total display points for Airport Terminal		136	136	
Café					
3188	Café 191	Darlinghurst	2	2	2
	Total display points for café		2	2	
Hotel					
1338	Beresford Hotel	Darlinghurst	2	2	2
605	Gilligans	Sydney	12	12	12
601	Oxford Hotel	Darlinghurst	4	4	4
	Total display points for Hotel		18	18	
Nightclub					
608	Byblos	Darlinghurst	4	4	4
	Total display points for Night Club		4	4	
Train Station					
3284	Sydney Central	Sydney	21	21	21
Total display points for Train Station			21	21	
Total display points for Campaign: Travel Tips			241	241	
Total display points for this report:			241	241	

Appendix C: Display Point Location

Period: July 1999, Active Venues: New South Wales (Travel Tips)

Reg #	Venue	Suburb	Entr	Cubic	Urin	H/Dry	Other	Total
Accommodation								
3279	Backpackers Headquarters Hotel	Kings Cross	4					4
3281	Hancock Hostel	Kings Cross				1		1
3233	Harbour City Motel	Woolloom.				4		4
3278	Nomads	Sydney	6					6
3277	Nomads Captain Cook	Darlinghurst	4					4
3280	Nomads City Central	Sydney	1			7		8
240	Original Backpackers	Kings Cross	1	2		2	1	6
3275	Park Lodge Hotel	Surry Hills	1					1
3282	Plane Tree Lodge	Kings Cross	1			1		2
3286	Sydney Central YHA	Sydney		5		15		20
3276	The Pelican	Darlinghurst	3	1				4
	Subtotals for Accommodation		21	8		30	1	60
Airport Terminal								
17	Ansett Airlines	Mascot	10		5	24	1	40
10	Qantas, Sydney Airport	Mascot	17		1	22		40
74	Sydney Int Aiport	Mascot	16			40		56
	Subtotals for Airport		43		6	86	1	136
Café								
3188	Café 191	Darlinghurst		1	1			2
	Subtotals for Café			1	1			2
Hotel								
1338	Beresford Hotel	Darlinghurst		2				2
605	Gilligans	Sydney	6		1	4	1	12
601	Oxford Hotel	Darlinghurst	2			2		4
	Subtotals for Hotel		8	2	1	6	1	18
Nightclub								
608	Byblos	Darlinghurst				3	1	4
	Subtotal Night Club					3	1	4
Train Station								
3284	Sydney Central	Sydney	7	2	2	9	1	21
	Subtotal for Train Station		7	2	2	9	1	21
	Subtotal for Campaign		79	13	10	134	5	241
	Grand Total for this Report		79	13	10	134	5	241

Appendix D: Venue Demographic Report

Reg #	Venue	Suburb	Gender	Age	Patron	Rate	DPT	Comment
Accommodation								
3279	Backpacker Headquarters Hotel	Kings Cross	F>M	18-24	448	Week	4	9 dorms, 64 beds, seasonal mix of 50% Asian, 50% European
3281	Hancock Hostel	Kings Cross	F:M	25-29	0		1	Largely Korean clientele, mornings busiest, average stay 1 week
3283	Harbour City Motel	W/mloo	F:M	18-24	1640	Week	4	Average 220 patrons/night, 2nd biggest motel in NSW
3278	Nomads	Sydney	M>F	18-24	434	Week	6	60% M:40% F, UK 40%, Aus 10%, US 10%, 62 beds, condom machine low sales
3277	Nomads Captain Cook	D'hurst	F:M	18-24	504	Week	4	72 beds, av. stay 2 wk, bar/gaming/recreational activities. Condom machine low sales (<3m)
3280	Nomads City Central	Sydney	F:M	18-24	672	Week	8	96 beds, 3-4d average stay, 40% UK, some Korean/Japanese, UK boys promiscuous, 97% occupancy, soon to renovate toilets.
0240	Original Backpackers	Kings Cross	F:M	18-39	469	Week	6	Travel safe in every bathroom, mornings busy, 70% UK, 30% US/Canada, 150 beds avail. 95% occupancy 8-9 months/year
3275	Park Lodge Hotel	Surry Hills	F:M	30-34	266	Week	1	Markets to gay community, all rooms with own bathroom, 19 bedrooms, adversely affected by road works
3282	Plane Tree Lodge	Kings Cross	M>F	20-40	420	Week	2	60 patrons/night, 70% occupancy, 40% UK/European
3286	Sydney Central YHA	Sydney	F:M	18-24	3850	Week	20	98% occupancy; full Mardi Gras, O/S guests: #1 Japanese, 2 European/German/Dutch and Sweden; opened Dec 96
3276	The Pelican	D'hurst		30-34	98	Week	4	14 rooms busy every day, fully booked Mardi Gras
Subtotal for accommodation					8,801			

Reg #	Venue	Suburb	Gender	Age	Patron	Rate	DPT	Comment
Airport Terminal								
0017	Ansett Airlines, Sydney	Mascot	F:M	NA	114670	Week	104	Domestic combined average total in and out January to June
0010	Qantas, Sydney Airport	Mascot			115000	Week	99	
0074	Sydney International Airport	Mascot	F:M	NA	154000	Week	205	
	Subtotal for Airport Terminal				383670			
Café								
3188	Café 191	D'hurst			0		2	
	Subtotal for Café				0		0	
Hotel								
1338	Beresford Hotel	D'hurst	M>F	30-34	1000	Week	3	11 rooms
0605	Gilligans	Sydney	M>F	18-34	2200	Week	12	
0601	Oxford Hotel	D'hurst	M>F	18-34	2500	Week	4	"very effective ... catches the eye"
	Subtotal for Hotel				5700			
Nightclub								
0608	Byblos	D'hurst	M>F	25-29	2800	Week	4	21-30% non alco sales, 800 patrons Thursdays, 1000 patrons Friday, 100 0 patrons Saturday
	Subtotal for Nightclub				2800			
Train Station								
3284	Sydney Central	Sydney		18-50	741000	Week	21	570000/week plus 30% through wide gate. Peak times 7-10am and 4-7pm
	Subtotal for Train Station				741000			
	Grand total for this Report				1141900			

THE NSW TRAVELLERS SEXUAL HEALTH PROGRAM TRAVEL TIPS

Narrowcasting Sexual Health Messages
to Travellers in NSW

Quarterly Report
Convenience Advertising (Aust) Pty Ltd
January 2000

Entertainment venues currently have a weekly patronage **of approximately 22,351 patron visits per week.**

Uptake of the Take Away Brochure

The replacement rate for take away brochures has been consistently high for the months of October and November. Replacement rate indicates both a level of legitimate consumption and a level of possible wastage. As replacement rates and reports of graffiti and other incidents are very low for the Travel Tips campaign in general, it is felt that a very high level of legitimate consumption is being experienced in this program. Results of a program communication material evaluation may assist in determining the level of consumer response, or attitude, to the take away medium. Brochure replacement rates are as follows:

October	5,696 brochures
November	6,270 brochures
December 15th	2,822 brochures

Each card holder contains approximately 40 brochures max at any one time. An average of 6,000 replacements per month, on 134 DP's produces a total of about 44 brochures per display point replaced each month. This means that we are replacing approximately half of all brochures each fortnight. This doesn't seem unreasonable across the venue range.

Message Replacement

As reported above, records of damage or souveniring have been very low for the program. A significant level of replacement was recorded for the month of September, due largely to the closure of several toilets in the Ansett terminal in Sydney. 36 messages were replaced during September maintenance. In both October and November, only one insert replacement was recorded.

TAYLOR NELSON SOFRES (AUST) PTY LTD
144 RILEY STREET
EAST SYDNEY NSW 2010
Telephone: (02) 9334 4201

BATCH NO: Q. NO:

QC	Checked	Validated
Date		
Initials		

INTERVIEWER NO:

MARK QUOTA

Backpacker	1
Gay venue	2
Airport	3

PROJECT SAFE

INTERVIEW START TIME:

Good morning/afternoon/evening. My name is _____ from Taylor Nelson Sofres, the market research company. We're doing a survey here today on bathroom advertising and we'd like to include your opinions. Will you help us please?

SECTION 1: SCREENING QUESTIONS

1. I'm going to start by asking a couple of questions about how often do you use **[NAME OF LOCATION]** and facilities within it. Firstly, have you been here before today?

SKIP TO Q.3 First time used this location 1
ASK Q.2 Been before 2

IF BEEN BEFORE (CODE 2 AT Q.1) ASK:

2. **(HAND CARD 2)** How often do you come to use **[NAME OF LOCATION]**? **SINGLE RESPONSE ONLY.**

	S/R
Daily	1
Several times a week	2
Weekly	3
Several times a month	4
Monthly	5
Less often	6
Don't know/No answer	9

3. During your visit today, have you used the toilet facilities here?

SKIP TO Q.5 Yes 1
IF REGULAR USER, ASK Q.4 No 2
IF FIRST TIME USER, GO TO PAGE 6
(DEMOGRAPHICS SECTION)

IF USED MORE THAN ONCE, ASK:

4. When you come to **[NAME OF LOCATION]**, how often would you use the toilets?
READ OUT. SINGLE RESPONSE ONLY.

	S/R
Every time	1
Most times	2
Sometimes	3
Don't know/No answer	9

5. When you used the toilets, do you recall seeing any type of poster or message displayed in the toilet stalls? **SINGLE RESPONSE ONLY.**

		S/R
	Yes	1
PROMPT AS BELOW	Don't know/No answer	2
	No	3
SKIP TO SECTION 3	Did not use stalls	4

PROMPT: IF CODES 1, 2 AND 3 AT Q.5, ASK:

6. Did you see any posters with condom related health messages?

	Yes	1
PROMPT AS BELOW	Don't know/No answer	2
	No	3

PROMPT: IF CODES 2 AND 3 AT Q.6, SHOW RESPONDENT PROMPT AND ASK:

7. Do you recall seeing this poster at all? **READ OUT.**

	All of it	1
	Some of it	2
GO TO SECTION 3	None of it	3
	Don't know/No answer	9

8. How much of the poster did you read? **READ OUT. SINGLE RESPONSE ONLY.**

		S/R
	All of it	1
GO TO Q.9	Some of it	2
	None of it	3
SKIP TO SECTION 3	Don't know/No answer	9

SECTION 2: EVALUATION OF POSTER AND DESIGN

First I'd like to ask you some general questions about the poster.

9. **(HAND CARD 9)** How easy was it to understand the main message of this poster?
SINGLE RESPONSE ONLY.

	S/R
Very easy	5
Quite easy	4
Neither easy nor hard/Don't know	3
Quite hard	2
Very hard	1
Recall inadequate	6

10. What was the main message of this poster? **BRIEF NOTES ONLY. PROBE.**

11. Was the information in this poster useful to you? **READ OUT. SINGLE RESPONSE ONLY.**

	S/R
Very useful	3
Quite useful	2
Not useful	1
Recall inadequate	4
Don't know	9

12. Would this message be likely to change your behaviour? **SINGLE RESPONSE ONLY.**

	S/R
Yes, likely to change	1
No, not likely to change	2
Does not apply	3

13. **(HAND CARD 13)** Do you think that it is a good idea to advertise condom related health messages in toilets this way? **SINGLE RESPONSE ONLY.**

	S/R
Yes, definitely	5
Yes, probably	4
Not sure	3
No, probably not	2
No, definitely not	1
Recall inadequate	6
Don't know	9

SECTION 3: GENERAL QUESTIONS

14. Do you think posters like this would be useful to others? **READ OUT. SINGLE RESPONSE ONLY.**

	S/R
Very much	3
Somewhat	2
Not at all/Don't know	1
Recall inadequate	4
Don't know	9

15. Do you think posters like this would change other people's behaviour? **READ OUT. SINGLE RESPONSE ONLY.**

	S/R
Very likely	3
Somewhat	2
Not at all/Don't know	1
Recall inadequate	4
Don't know	9

- 16a. **(HAND PHOTOPROMPT 16)** Do you recall seeing these leaflets with the poster?

	Yes	1
SKIP TO Q.19	No	2

- 16b. Did you take one?

Yes	1
No	2

17. Which of the following best describes your opinion of the leaflet? **READ OUT. SINGLE RESPONSE ONLY.**

	S/R
It is a good idea	1
It is neither a good nor bad idea	2
It is a bad idea	3

18. And why do you say that?

SECTION 4: DEMOGRAPHICS

Just to finish off, I'd like to ask you a couple questions about yourself. We'll use these for statistical purposes in looking at our survey results.

19. **RECORD GENDER.**

Male	1
Female	2

20. **(HAND CARD 20)** Looking at this card, could you tell me which age group you fall into?
SINGLE RESPONSE ONLY.

	S/R
Under 18 years	1
18-29 years	2
30-39 years	3
40-49 years	4
50+ years	5
Refused	8

20a. And what is your nationality? **WRITE IN:**

FOR AIRPORT AND BACKPACKER QUESTIONNAIRES ONLY.

21. About your marital status ... are you? **READ OUT. SINGLE RESPONSE ONLY.**

	S/R
Single	1
Married	2
Separated/divorced	3
Current relationship or regular partner	4
Other	5

The next few questions may be a little sensitive. Please remember your answers are strictly confidential and you can refuse to answer any question.

FOR GAY VENUES AND BACKPACKER LOCATIONS ONLY.

22a. Are you in a current relationship? **SINGLE RESPONSE ONLY.**

	S/R
Yes	1
No	2
Refused	8

22b. Do you have a regular partner? **SINGLE RESPONSE ONLY.**

	S/R
Yes	1
No	2
Refused	8

22c. Have you had casual partners in the last three months? **SINGLE RESPONSE ONLY.**

	S/R
Yes	1
No	2
Refused	8

22d. Did you always wear a condom? **SINGLE RESPONSE ONLY.**

	S/R
Yes	1
No	2
Refused	8

23a. Have you had sex whilst travelling overseas in the last 12 months? **SINGLE RESPONSE ONLY.**

	S/R
GOT TO Q.23b	Yes 1
SKIP TO Q24	No 2

IF 'YES' (CODE 1 AT Q.23a), ASK:

23b. How many times? _____
Where? _____
Did you always use a condom? _____

24a. Have you had sex whilst travelling with someone other than your current partner (ever)? **SINGLE RESPONSE ONLY.**

	S/R
GO TO Q.24b	Yes 1
SKIP TO Q.25	No 2

IF 'YES' (CODE 1 AT Q.24a), ASK:

24b. How many times? _____
Where? _____
Did you always use a condom? _____

25a. Have you ever contracted a STD overseas? **SINGLE RESPONSE ONLY.**

	S/R
GO TO Q.25b	Yes 1
CLOSE	No 2

IF 'YES' (CODE 1 AT Q.25a), ASK:

25b. Where? _____
What? _____

INTERVIEW FINISH TIME: ____ **DATE:** ____

Thank you for your time. Just to remind you my name is _____ from Taylor Nelson Sofres. If you have any questions about this research you can telephone our office. The number is on this card (HAND RESPONDENT PR CARD).

If you wish to check that my company is listed with the Market Research Society, you can call the Market Research Society Survey Line on 1300 364 830.

In case we need to get back to you to clarify an answer, may I have your name please?

RESPONDENT'S NAME: _____

RESPONDENT'S ADDRESS: _____

RESPONDENT'S TELEPHONE NUMBER: _____

INTERVIEWER'S NAME _____

INTERVIEWER'S NUMBER: ____

I hereby certify that this is an accurate and complete interview, taken in accordance with my instructions and the ICC/ESOMAR International Code.

SIGNATURE: _____

26. Would you be willing to be recontacted in the future to participate in other market research studies?

ENSURE FULL NAME AND CONTACT NUMBER IS GIVEN	Yes	1
	No	2

FINAL QUESTIONNAIRE SIGN-OFF.

OFFICE USE ONLY:					
	Field	ARD	V&C	Research	Data Collection
Signed:					
Date:					

Analysis of questionnaire data obtained by intercept methodology

This report describes 150 interviews conducted at the end of the "travel tips" campaign. This is a post only evaluation of the impact of this campaign upon convenient samples of interviewees chosen from three specific venues. The data in this report describes the responses provided by 151 completed interviews, and provides some information on the impact of such preventive advertising.

N=151 interviews

- 50 at back packer venues
- 51 at gay venues
- 50 at airport venues

First time used this venue (N=45), which was much more likely among backpackers interviews (31 out of 50, or 62%), compared to 8 gay venue and 6 airport interviews.

For those 106 who had been before, two categories were constructed – those who had been daily to monthly (n=47) and a second group who came to that venue less often than monthly (n=59).

Visiting frequency was distributed differently by venue – the backpackers (8/19) and airport interviews (7/44) were less likely than the gay venue (32/43) to have visited more than monthly.

Responders were asked if they had used the toilets on this visit – 96 said yes. Of these who didn't use the toilet on this occasion, 26 more used toilets on previous visits every time or most times.

This meant that 122 interviews had visited toilet on this visit, or usually did so on previous visits – they are the eligible population who might be exposed to convenience advertising located in the toilets. The remaining 29 are less certain to have had the opportunity to see any health messages.

More backpackers and airport interviewees were in this eligible group, whereas only two thirds (34/51) of the gay venue responders were in this category.

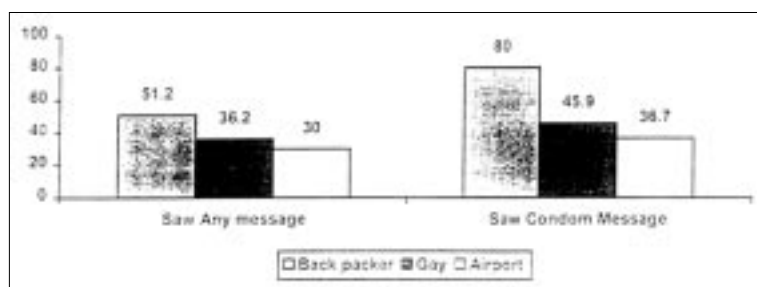
Some logical inconsistencies were apparent in the next question, "when you used the toilets do you recall any type of poster or message", as 138 responded to this question. This was slightly inconsistent, as only 122 interviewees had visited the toilet on this occasion or usually did so on previous visits. A further 13 were missing data. Of the 138, four said they didn't use the stalls suggesting that 134 did (which is 12 more than the toilet-using denominator above). Of these 138 responders 53 had seen a message (38.4%), 21 didn't know (15.2%), and 61 had not see a message (44.2%), with 4 (2.2%) not using toilet stalls. A slight inconsistency was observed in these responses. This is shown in the table below (numbers of responders shown), with the top row variable derived from Q3 and Q4 and the column variable derived from Q5. The three people in cell (b) are inconsistent responses.

	Visited/used toilets		
	Today or usually	Not today, sometimes/never before	
Saw message in toilet stalls	50 (a)	3 (b)	53
Did not see message or don't know	72 (c)	13 (d)	85

Those who used toilet stalls (05 estimates, N=134) were asked if they had seen any posters with condom related health messages. There were 135 responses to this question, with 71 having seen such a message (52.6%), and the remainder didn't know or had not seen such a message. This was a measure of partially prompted recall, with just over half recalling this message.

Any message recall and partially prompted recall by venue are shown in Figure 1 below. There was no difference among groups for any message ($X^2 = 4.4$ $p=0.11$), but there were differences for having seen any condom messages ($X^2 = 17.9$, $p<0.001$), with backpackers most likely to recall this. Given the small samples, and non-random selection, care should be exercised before generalising these estimates, but they are indicative.

Figure 1. Message Recall



Note that the 71 who recalled a condom message were not asked the next question which was directly prompted recall, where 64 responders were shown actual campaign posters and asked if they recalled it.¹ Of these 64, 8 had seen all of it, 10 some of it, and 46 "none" or "don't know". The 18 who had seen some were included as recalling the poster (and added to the 71, to provide an estimate of "any prompted recall" N=89).

The next question asked how much of the poster responders had read – there were 100 responses to this question.² With 26% reading all of it, and 54% reading some of it, and the remainder (20) read none or were not sure.

The next question (Q9) asked how easy it was to understand the main message of the poster.

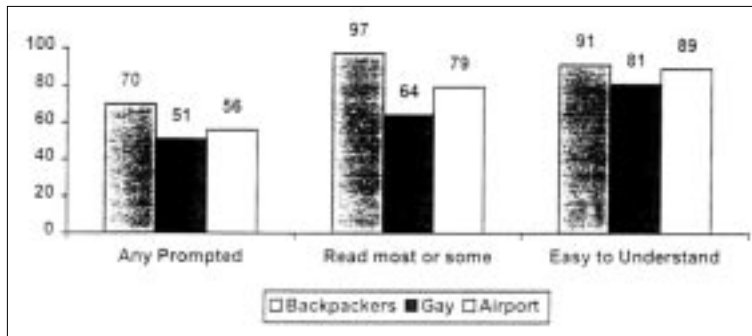
Of the 89 responders to this question, 78 (88%) said it was "quite" or "very" easy to understand. This variable was not subsequently used given the skewed response – almost all found the messages easy to understand.

Figure 2 below shows these data by venue. Backpackers were most likely to recall, read and understand the messages (although only *significant difference* among venues was for reading the message, $p=0.002$).

¹ For future surveys, all responders (including the 71 who recalled a condom message) should be shown specific campaign posters to ensure it was that poster which was recalled.

² More than expected – filtering processes were inconsistent.

Figure 2. Prompted recall and posters read

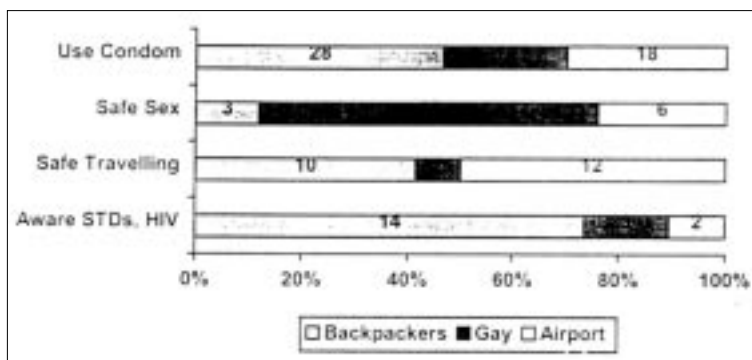


The next question asked what was the main message of this poster (open ended) – closed coded responses are shown in the most often cited thematic groups of responses.

- use condom, protection (N=60)
- safe sex, not random (N=25)
- stay safe travelling (N=24)
- awareness HIV, STDs (N=19)

The numbers responding by venue are shown below (Figure 3) for each of the four main messages above. Travel related risk was perceived more at airports and backpacker venues.

Figure 3. Numbers from each venue reporting main message understood



Responders were asked if the information in the poster was useful to them – of the 89 responses, 59 said it was "quite" or "very" useful to them (66%). These 89 were asked if it would be likely to change their behaviour, and 15 (17%) said it would.

The next question asked these 89 people whether it was a good idea to advertise condom related health messages in toilets in this way – 78 people said "yes definitely" and 7 more said "yes probably", indicating strong approval of such campaigns (96%). This provided overwhelming support from these venue based interviews, for campaigns like this.

The next question asked if these posters might be useful to others. For this question, 138 responses were obtained and 66 thought "very useful" (48%), 55 said "somewhat useful" (40%) and 5 (4%) said not useful, and 12 (9%) did not know. These 138 were asked if posters like this would change other people's behaviour – 99 said "very or somewhat" likely to change others (72%). There were no people who said it would be likely to change them but not others, so the total was N=99 for likelihood of any change (me or others). Proportions in each venue perceiving any likelihood of change were similar (70, 59, 68% respectively).

Only 13 people recalled seeing a leaflet with the posters (9%), and only two people took one (1%). Of the 13 who recalled a leaflet, 8 thought it was a good idea, 4 neutral and 1 negative. These numbers were too small for further analysis.

The data below show the demographic characteristics of the samples interviewed (Table A). The sample was comprised of two-thirds males and one third female. A larger number of the sample were aged less than 30 years, with around a third of the sample aged 30 or more. The sample was 43% Australian born, with 57% born in other countries or of other nationality. Marital status and additional questions were asked of the various sub-samples. Marital status was only asked of the airport and backpackers sample.

Table B shows additional social and behavioural variables asked only of interviewees at the gay venues and backpacker venues. These questions were asked in order to determine a risk classification, which is shown in table C. This is a preliminary risk classification system, and is used in a general way to describe low and high risk of contracting STDs.

Table A. Demographic Characteristics

		N	%
Gender	Male	100	66
	Female	51	34
Age Group	<30 years	95	63
	30+	56	37
Nationality	Australian	65	43
	Other	86	57
Marital (airport & back packers only)	Single	45	60
	Married	12	116
	Sep/Divorced	3	47
	Regular partner	14	19
	Other	1	1

Table B. Additional social and behavioural data asked only of responders at gay and backpacker venues (N=101)

		N	%
Current Relationship	Yes	39	39
	No	60	59
	Refused	2	2
Regular partner	Yes	39	39
	No	58	57
	Refused	4	4
Casual partners past 3/12	Yes	50	50
	No	47	47
	Refused	4	4
Always used condom	Yes	57	56
	No	26	26
	Don't know/Refused	1	18
Sex overseas, past 12/12	Yes	45	45
	No, Refused	56	56
Sex overseas not with current partner	Yes	29	29
	No, Refused	72	71

Table C. Risk Classification System (Gay, Backpackers)

Descriptor	At Risk (low, High)
Regular partner, no casual partners, no sex overseas	Low
Regular partner, casual partners. not always condom	High
Regular partner, casual partners overseas, not always condom	High
Casual partners, condom not always	High
Casual partners overseas, condom not always	High

("refused" responses treated in the "at risk" group for coding)

Using this classification system, 38 were at higher risk and 63 at low risk and 63 at low risk of the 101 interviewed. The numbers at increased risk were similar for backpackers (19/50) and gay venues (19/151).

The two tables below shows summary analyses. These use specific dependent variables and attempt to ascertain any independent characteristics associated with those dependent variables. Forward stepwise logistic regression modelling was used to analyse these data. Given the small sample size overall, the confidence intervals for many parameter estimates are very wide. The models show adjusted odds ratios and their 95% confidence intervals. The two dependent variables chosen and modelled separately were first, any, message seen or recalled. This was either prompted or partially prompted. The second set of models shown in table E relate to whether people read the message.

Factors associated with any message seen were whether people had used the toilet that day, which was substantially associated with an increased likelihood of recalling a message. There was also an eleven fold increase in message recall in 'those who perceived that they or others were likely to change as a result of seeing this message. Model 2 was the same data, but only confined 'to the backpacker and gay interviews, which also had a risk classification system. This risk classification was also significantly associated with message recall, in those at high risk were 4.6 times as likely to recall the message compared to those at lower risk. The perception about likelihood to change was also highly associated with message recall, although this confidence intervals were very wide, but remain significant.

Table E shows factors associated with reading the message, or at least some of the message. Those aged 30 or more were significantly less likely to read the message than those aged less than 30 years. The perception of likelihood to change was also significantly associated with reading the message, in that those who thought that such campaigns or messages would be likely to change them or others were more likely to have read the message. Given the small sample size in model 2, a risk classification was not statistically significant.

Summary analyses

- any message seen
- read the message

Table D. Any prompted message recalled (Yes)

		%	Adjusted OR	
			Model 1 (N=151)	Model 2 (N=101)
Gender	Male	62.0	1.0	1.0
	Female	52.9	0.53 (0.21-1.38)	0.24 (0.05-1.18)
Age Group	<30	64.2	1.0	1.0
	30+	50.0	0.81 (0.30-2.14)	0.73 (0.14-3.73)
Venue	Backpacker	70.0	1.0	1.0
	Gay	51.0	0.32 (0.08-1.29)	0.08 (0.01-0.57)
	Airport	56.0	0.28 (0.07-1.13)	NA
Used Toilet	Definitely	69.7	6.06 (1.72-21.38)	
	Less likely	13.8	1.0	
Nationality	Australian	56.9	1.0	1.0
	OSB	60.5	0.62 (0.23-1.74)	0.19 (0.03-1.11)
Risk (N= 101)	High	54.0		4.60 (1.15-18.3)
	Lower	71.0		1.0
Any likely to change	Yes	79.8	11.3 (4.45-28.68)	71.8 (15.6-329.1)
	No	19.2	1.0	1.0

Table E. Read Message (at least some)

		%	Adjusted OR	
			Model 1 (N=108)	Model 2 (N=71)
Gender	Male	80.3	(NS)	(NS)
	Female	79.3		
Age Group	<30	93.5	1.0	(NS)
	30+	57.9	0.18 (0.03-0.87)	
Venue	Backpacker	97.1	(NS, P=0.06)	(NS)
	Gay	63.9		
	Airport	79.3		
Toilet visit/used	Definitely	89.5	(not modelled)	
	Less likely	21.4		
Nationality	Australian	75.0	(NS)	(NS)
	OSB	83.9		
Any likely to change	Yes	91.3	18.0 (3.9-82.4)	21.5 (2.6-180.7)
	No	35.0	1.0	1.0
Risk	High	89.3		(NS)
	Low	74.4		

(Only significant OR shown here) NS = not significant in model

Comments

These data show quite good levels of awareness of the messages by these three groups of interviewees. In particular the back packer groups recalled the message, and were more likely to understand it and read it compared to the other two venues. All three groups showed good message recall, particularly if the message was relevant to them, if they were younger, or if they perceived that such messages were likely to change them or others. The higher risk group was much more likely to read the message than those at lower risk.

Further research should have before and after campaign samples, using much larger sample sizes to assess the impact of this kind of intervention. Nonetheless these preliminary data are promising, and provide estimates that within specific at risk populations and in specific settings, these campaigns reach their intended audiences reasonably well.

CHAPTER 3

EDUCATIONAL PUBLICATIONS

The materials in this section are reproduced for the purposes of this report only. The reader is reminded that they are subject to copyright law. No part may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior Permission of the respective publishers. Other conditions almost certainly apply.

The following is an account of the methodologies used in this segment of the NSW Travellers Sexual Health Program 1999, and is followed by reproductions of the actual material (see also Technical Appendix 2).

1. *Lonely Planet Publications Pty Ltd.*

Healthy Travel (Asia & India), by Isabelle Young
Healthy Travel (Australia, New Zealand and the Pacific), by Isabelle Young
Healthy Travel (Africa), by Isabelle Young
Healthy Travel (Central and South America), by Isabelle Young

All four books were published simultaneously on 21st February 2000, print run 18,000 copies each.

About Lonely Planet

Lonely Planet began in 1973 with the simple idea to document a journey from London across Asia to Australia. It has grown from a modest operation to a global enterprise, with 300 staff spread across the world through a head office in Melbourne and regional offices in Oakland, London and Paris. Currently, there are over 60 titles, and in 1998, sales totalled 12 million. Although the main project remains guidebooks, over the past 25 years, others include its own internet site (currently 1.5 million hits/day) and another on AOL (American OnLine). It has developed a reputation as an informed and savvy travel authority. Through commercial partnerships with a broad range of travel organisations, and participation in the world's largest travel shows, it has in addition developed an image of an active industry player. Its willingness to provide information freely to media and travel organisations, as well as to individuals, has resulted in a reputation as a reliable source of hard-to-get information, and this is one of the cornerstones of its success. Apart from a free quarterly newsletter *Planet Talk*, which includes health reports, the current project is the first comprehensive initiative on travellers' health.

About the collaboration with the present Program

One of the Program staff was introduced to Mr Tony Wheeler (joint proprietor) in 1991, via the latter's involvement with the Travellers Medical and Vaccination Centres (TMVCs) in Australia. He subsequently invited Tony to present at a Symposium on international Medicine held at Sydney Hospital, which he was requested to co-ordinate. The event was an unqualified success, and since then Tony has been a discreet supporter of our health promotion initiatives for travellers. Thus, in 1996 he personally supported the Program proposal and in 1999, the author Isabelle Young (employed by Lonely Planet) invited the participation of the Program in the series *Healthy Travel*. The collaboration involved an intensive exchange of information and views over a period of several months conducted exclusively by electronic mail. It proved a very successful partnership, with *Lonely Planet* journalistic style provided by Isabelle Young (herself a qualified medical practitioner and the other a Medical Advisor) and factual and other insights provided by the Program. The final text was chosen and edited by *Lonely Planet Publications Pty Ltd* and does not always accord exactly with views expressed by the Program. It is hoped that the partnership will continue with future editions of the Healthy Travel series, as well as contributions to individual country guides.

Footnote: The first guide written was for Asia and India, and therefore the material reproduced here is both generic and topical. Subsequent editions include material pertaining to other geographic areas covered.

2. Australian Federation of Travel Agents (AFTA) – materials supplied by the Program to the Australian Travel Agents Qualifications Program (ATAQ).

AFTA was founded in 1957 (see details in Technical Appendix 1) and presently has a membership of approximately 4,000. Its training program began in 1989, and is currently under review. The immediately previous ATAQ program was employed to promote the development of professional travel expertise; its learning materials were part of a four level, 24-subject program comprising the qualification of Australian Travel Consultant (ATC), International Travel Consultant (ITC), Travel Supervisor (TS), and Travel Manager (TM). In the present context, the material provided by this Program to ATAQ is carefully constructed from the Lonely Planet texts, and the essay upon which the contribution to the textbook of Travel Medicine was based (see next section and Technical Appendix 2 for details). The latter included extensive comments addressed to the travel agent industry. *It is important to acknowledge that copyright to Lonely Planet material was generously waived for this purpose by the publisher.* This underlines the supportive relationship enjoyed by particular organisations who hold each other in special regard. The Program believes these key stakeholders are AFTA, TMVC, and Lonely Planet Pty Ltd.

3. Chapter in Textbook of Travel Medicine

Audience: medical travel medicine specialists (print run 2,000)
Date of publication: June 2000
Title: see title.

Methodology: Due to previous publications (listed below), a member of the Program staff was invited to contribute to the first distance learning course in travel medicine in the world (as below). The co-ordinators of this course subsequently invited the Program to submit a chapter to a new textbook on Travel Medicine. This is to be published in June 2000, and will be credited to the NSW Travellers Sexual Health Program 1999, namey sponsors – the NSW Health Department and the Commonwealth Department of Health. The methodology near straightforward; the manuscript was accepted immediately as submitted (Technical Appendix 2) with the condition that the editors requested and accepted a revised reference section, (with fewer references).

4. Miscellaneous Publications

Miscellaneous publications in the Journal (*Lancet*), and oral and poster abstracts in national and international conferences. With the exception of the *Lancet* article which is reproduced, the audience for this last initiative were probably small, though influential, and consisted of on average 100-200 STD health professionals per presentation.

Other Publications and Presentations for the Program

Mulhall BP. Sexual behaviour in travellers. (letter). *Lancet* 1999; (I):595-596

Mulhall BP, Donovan B. The New South Wales Travellers Sexual Health Program. Australasian Sexual Health Conference, May 13-15, 1999, Adelaide, SA. Abstract Volume, p25.

Mulhall BP. Sex and Travel. Key-note presentation to Annual Scientific Meeting, Travellers Medical and Vaccination Centres, Sydney, 4 August 1999.

Mulhall BP, Donovan B. Minimizing the spread of STI's by International Travellers- the South Wales Travellers Sexual Health Program. IUSTI/STD/HIV 6th World Congress and 38th IUSTI General Assembly combined with the 7th Joint Biennial Congress of the STD and ID Societies of Southern Africa, Lesedi Afrika 99, 21-24 November 1999, Sun City, South Africa. Abstract Volume.

Mulhall BP, Donovan B. A mass media program to minimize the spread of HIV/STD by travellers – the NSW Travellers Sexual Health Program. 11th Annual Conference, Australasian Society for HIV Medicine, 9-11th December 1999, Perth WA.

Mulhall BP. Targetted advertising – the NSW Travellers Sexual Health Project. Conference, Mass Media, New Technology, and Health Promotion. 8-10th December 1999, Sydney.

CHAPTER 4

A Joint Commitment – collaborations with the travel industry

Introduction

It has been clear from the outset that a campaign involving sensitive issues such as sexual behaviour would never have any degree of success unless strong, political commitment was demonstrated by leaders in the travel industry. Well-known stakeholders that were willing to show such qualities were evident as early as 1991, and importantly, included the chain of travellers clinics, Travellers Medical and Vaccination Centres (TMVCs), and the Australian Federation of Travel Agents (AFTA). Later on, in 1996, and especially 1999, other crucial individuals or organisations lent their moral support. Examples include *Lonely Planet Publications* and the AIDS Council of New South Wales (ACON). All participants that provided written support have added to a growing consensus that health promotion initiatives in this area are important and worthwhile.

Methodology

A key industry figure, Mr John Dart, OBE, had indicated enthusiasm for the campaign as early as 1991, when he served voluntarily on a Commonwealth Travel-Safe advisory committee. He maintained support through the 1996 proposal, and was recruited as part of the team to implement the 1999 campaign. Mr Dart has many years of experience in the travel industry, most recently as Chief Executive Officer of the Australian Federation of Travel Agents (AFTA), from which position he retired in 1997-8 to take up the post of Secretary General, Universal Federation of Travel Agents' Associations, Asia-Pacific Alliance Ltd (UAPA). UAPA is the umbrella body for 16,000 travel agents in 15 member countries in the region.

Dart effectively provided an introduction to many of key stakeholders in Australia, and continues to provide an ongoing adviser and lobbyist role, both in Australia, the region, and worldwide. Program staff wrote to many of his extensive network, explaining the aims and objectives of the campaign.

Results

The Program received many letters of support, often following subsequent clarifications. It is important to note that financial support was rarely sought, it was considered more feasible and important to obtain statements of moral support and leadership, to provide a springboard for future campaigns, without specific promises of resource allocation. For conventional commercial reasons, these letters are not reproduced *verbatim*. Nevertheless, a chronological list follows and more information is available under *bona fide* conditions at the discretion of the Program Manager.

Date	Organisation	Author
6 Aug 1996	Australian YHA	Geoff Bannon, National Marketing Manager
22 Aug 1996	CTC Cruise Lines	Massimo Soprano, Shipping Operations Manager
18 Sept 1996	P&O Holidays	Captain SM Hunt, General Manager, Operations
24 Sept 1996	1996 Tourism Council, Australia	Bruce Baird, Managing Director
3 Dec 1996	<i>Lonely Planet Publications</i>	Tony Wheeler, Proprietor
15 Apr 1999	<i>Lonely Planet Publications</i>	Isabelle Young, Editor and Author
27 Apr 1999	CGU Travel Insurance	P Watson, Travel Manager
29 Apr 1999	Cover-More Insurance Services	Shayne R Smyth, Managing Director
6 May 1999	SOCOG	Danny Stiel, Chief Medical Officer
25 May 1999	Parliament House (immigration)	Phillip Ruddock, MP, Minister.
31 May 1999	Parliament House (Dept Foreign Affairs & Trade)	JE Monfries, Director, Consular Policy Branch
6 Jun 1999	Sydney Convention & Visitors Bureau	Jon Hutchison, Managing Director
14 Jun 1999	Paralympic Games 2000	Lois Appleby, Chief Executive
15 Jun 1999	SOCOG, Sydney 2000	Patsy Trethowan, Manager, Medical Program
9 July 1999	<i>TNT</i> (worldwide magazine for backpackers)	Holly Wainwright, Editor
13 July 1999	Tourism NSW	Tony Thirlwell, CEO & General Manager
7 Aug 1999	Tourism, Council, Australia	Phil Young, Managing Director
20 Aug 1999	<i>Spartacus</i> (international gay traveller guidebook)	Robin Rauch, Proprietor
Sep 1999	Sydney 2002 Gay Games Ltd	Garrie Gibson, Chief Executive Officer
21 Sep 1999	AIDS Council of New South Wales	Robert Griew, Chief Executive Officer
2 Nov 1999	Australian Federation of Travel Agents	Kel Burgess, National Manager, AFTA Education & Training
3 Nov 1999	AFTA	Mike Hatton, Chief Executive
Nov 1999	Universal Federation of Travel Agents' Associations, Asia-Pacific Alliance Ltd (UAPA)	John Dart, Secretary General
Dec 1999	The Travel Doctor (Traveller Medical and Vaccination Centres)	Mandy Hu, Director, TMVC Group
14 Feb 2000	<i>Spartacus</i> (international gay travellers guidebook)	Brian Bedford, Editor in Chief
18 Feb 2000	<i>Lonely Planet Publications Pty Ltd</i>	Peter Cruttenden, Publishing Manager, Special Lists and New Titles

Conclusions

In summary, the Program achieved considerable support from key stakeholders in the industry. We ascribe this to enthusiasm from an experienced travel adviser, frequent discussions with one of the Program staff, and a sensitive approach to explaining the Program to the industry.

There are probably some areas in which improvements could be made. First, certain insurance companies were reluctant in their support; this may have been because they were the only group the Program actively canvassed for financial support. Second, some groups that were active in their support of the 1996 proposal were not contacted again in 1999. We refer here to the cruise shipping companies and the Youth Hostel Association. With regard to the first, there is no reason to suppose that they will not be as helpful in 1996, and it is crucial to observe that they will comprise a large floating population, especially during the Sydney Olympic Games. With regard to the YHA and the general backpacking community, it will be important to re-establish links at the highest level. Nevertheless, it seems that the backpacking community, as evidenced by positive reaction to the Family Planning initiative (see Technical Appendix 3), and our own, have not only subtly changed from a YHA-based community, but are already receptive to initiatives of this kind.

The most serious deficiency in our Program directed towards key travel industry stakeholders continues to be our failure to engage the airlines. In our original reports of 1995 and 1996 we noted the same problem. Worldwide, there still is (2000) only one airline that, to the Program's knowledge, has agreed to *any* campaign directed towards sexual health promotion (see LOT, Tech App 4). With regard to this problem, some small progress has been made. Until recently, very intensive lobbying of the two major Australian airlines failed to bear any fruit. This was despite connection at the highest levels. However, recently, one of the major airlines (J Dart, personal communication, March 2000) has indicated that it is sympathetic to the campaign, but is prevented from public declarations due to legal advice pending ongoing litigation. It remains to be seen what the outcome is in the meantime, strenuous efforts are in place to persuade Ansett and Qantas of the desirability of assisting in future campaigns, and of course, their participation is very important. In addition, the Program intends to actively lobby the third airline, Virgin Atlantic Australia for their participation. Program staff are very optimistic with regard to Virgin, given their previous record in sexual health promotion and the production of condoms.

CHAPTER 5

Conclusions, criticisms, and future directions

Conclusions

Overall, the Program appears to have succeeded in implementing the Strategies requested within an ambitious brief; indeed, the outcomes achieved have been considerably greater in quantity than can have realistically been envisaged, especially within the original time-frame.

The 'Travel Tips' Campaign, carried out by Convenience Advertising Pty in conjunction with Program staff, was imaginative, and met with considerable success, as demonstrated by an independent evaluation. Interestingly, it was also enthusiastically well received when presented at various conferences, although these were not the audiences originally intended for the messages. There may be a general lesson here; third parties have an inherent – or perhaps learnt – tendency to assume their reactions to advertising apply equally to others. In reality, focus groups results (the 'they') are often ignored if their ideas contradict the 'we'. Examples of this were found in the Program; for example, rejection of the messages relating to 'local mating habits' (on grounds of bestiality ...) and the use of the location 'Cairo' (on grounds of diplomacy ...) by individuals on regulatory bodies at State and Federal levels.

Other components of the Program directed at the travel industry seemed striking in their success in terms of implementation, (although it is important to note that methodologies do not yet exist for formal evaluation, especially in terms of outcome objectives, namely educational or behavioural change.) *However, an important practical point is that unlike previous campaigns where materials were distributed free of charge, the present publications will be purchased by the target groups. Market research by the publishers strongly suggest guaranteed circulation figures, and it seems likely that these materials will be read and assimilated.* The main examples are the significant breakthroughs achieved in travel health literature, both for the industry and consumers. The initiatives at *Lonely Planet Publications for travellers*, *AFTA* for trainee travel agents, and *Harcourt Brace Publishers* for medical travel health professionals can hardly have been more spectacular. These are international initiatives for which Australia will be credited for being first, and more importantly, will be sustainable through future editions.

The third part of the Program, namely, collaborations with industry stakeholders, has also been very successful. It built on key contacts established first in 1991 and consolidated during the 1996 proposal and the present Program. These contacts will obviously continue into the future as the important infrastructure has been secured. This has only been possible through intensive and persistent lobbying, via a strategy that included the crucial participation of a universally respected travel industry consultant, and comprehensive explanations of the aims, strategies, and intended outcomes of the Program to the industry.

An important overall impression has been that the travel industry is favourably disposed to the Program for two reasons. First, information with regard to STDs/HIV is now perceived as acceptable to consumers. This represents a fundamental shift from the attitudes prevalent only a few years ago. Second, there is growing apprehension within the industry of the possibility of consumer-driven litigation with regard to 'duty to warn'. This used to most obviously apply to holidays negligently spoilt due to unfinished accommodation etc, but is now seen by some to include other inconveniences such as travellers' diarrhoea, and in the present instance, STDs and HIV. There appears to be no case law, but there is a belief within the industry that this may no longer be the case in the not too distant future.

Criticisms

As mentioned above, methodologies have not yet been developed to evaluate or criticise the publication or lobbying components of the Program. However, with regard to the 'Travel Tips' campaign, there are two obvious areas of concern.

The first concerns the methodologies employed to 'focus test' the campaign, which by academic standards could be described as opportunistic message testing, and whether "saturation" of messages has been reached with only two groups; in addition whether the diversity of the travelling public has therefore been addressed sufficiently (see discussion under 'future directions'). This may have been the result of insufficient funding support to the agency involved.

The second concern is one regarding process evaluation; although the methodology was robust, best practise would normally have dictated much larger numbers, and this was not adequately allowed for in the Program budget.

Future directions

A detailed blueprint for the future is beyond the scope and brief of this report. Nevertheless, a proposal by Program Staff is currently in preliminary draft form. Only general principles are discussed here. First, it is desirable that future mass media campaigns should incorporate parallel developments in modern Health Promotion theory.

In particular, any campaign needs to:

- be evidence-based
- demonstrate its effects, and
- serve as a template for future campaigns.

With regard to its components, the following considerations are germane:

(a) 'Focus group' testing:

As stated previously, the focus group testing in the present Program could probably be more accurately described as 'opportunistic message testing', and a concern of some Program staff relates to whether the central issue of the 19906 proposal ('personalising' the risk) was ever adequately explored in this context. In fact, this message was better communicated in the *Lonely Planet* Healthy Guides.

The concepts behind focus testing are now briefly explored. Market researchers invented focus group testing – which was designed specifically to see how different market segments (population sub groups) think about certain things. The method is intended to be very open and unstructured and the reason for testing is to see how other 'consumers' persuade each other, coach or bring out ideas in each other (processes which are then appropriate for selling products). So they are best for looking at language and cultural style and researching topics which people may feel that they know little about (so they are unlikely to agree to a one to one interview) – but they surprise themselves when they get into a group to find that they do have something to say. So good market research on this would comprise several groups with different population group sectors and split genders (as gender influences responses). In fact, the rule is to put like people with like people so that people feel free to express their views and are less likely to hear their values contradicted. A focus group report would then describe the way the discussion was structured (key themes, or issues they were led through) and it would advise on whenever there was consensus or deviance of opinion). The results would be presented contrasting the differences from different focus groups.

In addition, because there were only two focus groups used in designing the present Program there is some concern that "saturation" has not been reached on this issue - that is, there is more to be said that has not been heard.

Market researchers don't usually formally code and analyse the findings – it is very much up to the person running the group to give their interpretation and that is the chief difference between market research and university-standard focus group research. The latter has to produce an analysis which meets rigorous standards of reproducibility of the findings and integrity of the results (which involves double check coding and specifying the type of analysis conducted eg thematic analysis, discourse analysis etc) plus justification for the sampling according to the type of construct being researched. In pragmatic terms, where the interest is on the impact of the intervention than anything else, there should be a couple more message testing- groups to get more of a sense of the impact of messages on the diversity of people or groups comprising the travelling public.

(b) Campaign evaluations:

Health promotion theory has advanced considerably in recent years; indeed a recent declaration in Jakarta requests that the Director General of the World Health Organisation supports the development of 'evidence-based' health promotion policy and practise within the organisation.² In that sense, theory has already advanced beyond the simple hierarchical framework advocated in our 1996 Program proposal (Technical Appendix 2). However, the term 'evidence-based' may serve to emphasise systematic reviews of the Cochrane variety at the expense of a broader approach³⁻⁵. Considerations advanced within the literature are summarised here, with particular reference to the current and future Programs.

Many past and present evaluation campaigns have severe attribution problems because they attempt to ascribe outcomes/indicators to *single* interventions. They utilise a simplistic reductionist approach which is usually easier (than a more complex one) for researchers, policy makers, and funding bodies alike, because, among other things, it relies on recent or privileged interventions to establish a causal relationship between an intervention, and a healthy outcome³. In the present context, the short-term indicators are reception of the message and a reduction of risky behaviours, while the long-term indicator is a reduction in the incidence of STD/HIV attributable to travel. However, the travelling public may be exposed to a plethora of confounding factors. For example, even with the Program, the Travel-Tips campaign was only one component amenable to conventional process evaluation. The influence of the *Lonely Planet* intervention for travellers, and the educational materials for travel agents, travel health professionals, and STD physicians may be equally effective, but more difficult to evaluate, especially in the longer term. These considerations should not induce an 'evaluative paraisis'³, but instead encourage an assembly of 'evidence' that is relevant to the complexities of contemporary health promotion. Given these complexities, there can be no single 'right' method or measure to evaluate the effectiveness of programs, nor an 'absolute' form of evidence⁴. First, the Program was planned based on extensive analysis of available epidemiological, behavioural, and social research that indicated *reasonable linkage* between the short-term impact of Program interventions and subsequent changes in the determinants of health or health outcomes. Second, evaluation of Program implementation (process evaluation) were thorough, namely, intercept methodology interviews and analysis for the Travel Tips poster campaign, and successful publication and guaranteed circulation Figures for the educational material. An important point mentioned earlier in the Chapter, is that these materials are voluntarily purchased, not casually picked up freely distributed ('junk mail'). Third, another criterion for maximising success⁴, is to ensure that the intervention(s) are of sufficient size, duration, and sophistication to be detectable above the 'background noise' of more general changes in society. In fact, this sustainability may arguably apply more to the published material than the transient Travel Trips campaign. Finally⁴, Nutbeam stresses that programs which combine different intervention methods, rather than relying on a single methodology, are most likely to be successful. The current Program fulfils that condition.

A detailed blueprint for the future is outside the scope of this report; nevertheless, preliminary strategies for a sustainable three year program are currently in preliminary draft form. These encompass various groups of the travelling public, with special emphasis on the order of calendar events. For example, campaigns that aim to include the Olympic games in 2000 are in a position to be expedited.

Footnote and References

The author is grateful to Marilyn Wise, who reviewed a previous draft and directed him to the pertinent literature on the evolving philosophy and methodology of modern health promotion and its evaluation.

1. World Health Organisation (1997). The Jakarta Declaration on Leading Health Promotion into the 21st Century. *Health Promotion International* 12, 261-26.
2. World Health Organisation (1998). Resolution of the Executive Board of the WHO on health promotion. *Health Promotion International* 13, 266.
3. Chapman S. Unravelling gossamer with boxing globes: problems in explaining the decline in smoking. *Br Med J*, 1993; 307:429-32.
4. Nutbeam D (editorial). The challenge to provide 'evidence' in health promotion. *Health Promotion International* 1999; 14(2):99-10 1.
5. Van de Ven P, Aggleton P. What constitutes evidence in HIV/AIDS education? *Health Education Research* 1999; 14(4):461-7 1.

TECHNICAL APPENDIX – 1

The NSW Travellers' Sexual Health Program

A proposal for a sexual health promotion program designed to address the specific needs of travellers in to and out of New South Wales.

The program is to be conducted by the Department of Public Health, University of Sydney, in association with the Sydney Sexual Health Centre, Sydney Hospital.

September 1996

EXECUTIVE SUMMARY

Sexually transmissible diseases (STDs) have been linked to travel and migration since the advent of syphilis in Europe in the late 15th century. More recently, the earliest cases of HIV infection among gay men in Sydney were attributed to travel to the USA. Since the end of the 1980s about half of the heterosexually acquired cases of gonorrhoea diagnosed in Sydney have related to overseas travel, particularly to South East Asia. The last observation is very pertinent as Asia is rapidly becoming the epicentre of the global AIDS epidemic and because the HIV subtypes circulating in Asia appear to be more easily transmitted via vaginal intercourse than the HIV subtype predominant among gay men and injecting drug users.

While not fully understood, the factors that link travel to STD/HIV risk probably include:

- the higher prevalences of infections in other countries or remote parts of Australia;
- situational or contextual factors such as the relative availability of sex, different cultural expectations, and the relative unavailability of condoms; and
- psychosocial disinhibition (the 'traveller's head-space').

To date, the main Australian initiative to address the increased risk of STD/HIV infection among travellers has been the Commonwealth Government's Travel-Safe program. However the Travel-Safe program is limited to providing general messages to general groups of travellers.

NSW and particularly Sydney is the focus of travel into and out of Australia as well as travel within the country. It is timely for the NSW Health Department to address the needs of its highest risk subsets of travellers by complementing the more general strategies of the Travel-Safe campaign.

The central message of the proposed Program will be to deliver the idea that many travellers behave differently whilst away from home and to confront the individual with the notion that they might also behave differently whether they intend to or not. This represents a fundamental shift, from an information paradigm to a behavioural one.

The NSW Travellers' Sexual Health Program will be based out of the Academic Unit of Sexual Health Medicine, Sydney Hospital because of its statewide brief and its links with relevant agencies. The Program will also consolidate and extend existing projects relevant to travel which are based out of the Sydney Sexual Health Centre and other health facilities.

Several new projects are also under development and are listed in the Table at the end of this summary. Costs have been kept to a minimum by negotiating special arrangements with travel-related companies that are supportive of the goal of the program; by adopting low profile ("narrow cast") strategies; by having a common administration, surveillance and health promotion infrastructure; and by developing and implementing specific projects in concert with other health agencies. Special projects will be prioritised and mobilised according to availability of resources each year. Corporate support for some projects should be achievable, particularly for projects targeting business travellers.

Structurally the Program will consist of both broadly directed long-term elements and shorter term specific projects which will have more particular objectives and target groups. Activities will range from strategically placed (according to target groups) convenience inservice training for travel and health professionals, modifying clinical protocols, and enhancing surveillance systems to monitor the importation of STDs/HIV infection.

The proposed Program has benefited from comprehensive planning including provisions for outcome, impact and process evaluation. Importantly, strong support has been received from the main stakeholders in the travel industry. In keeping with the forthcoming National Strategy on HIV/AIDS the Program will fully integrate HIV, sexual health and related communicable disease issues. This integration should both increase the relevance and acceptability of elements of the Program to various target groups as well as increasing the impact across a broader range of travel-related health issues.

A table summarising target groups, strategies and agencies collaborating on the Program appears on the next page:

The NSW Travellers' Sexual Health Program: Academic Unit of Sexual Health Medicine

Target Group	Size of NSW	Braod Strategies (Vehicles)	Collaborative Agencies
Departing international travellers	975,723 in 1994	<ul style="list-style-type: none"> • Specific behavioural messages in convenience advertising 	<ul style="list-style-type: none"> • Federal Airports Commission • Australian Federation of Travel Agents
Incoming international travellers	c. 2 million in 1994	<ul style="list-style-type: none"> • Specific behavioural and health service messages (Federal Airport Guidebook – 900,000/yr) 	<ul style="list-style-type: none"> • Federal Airports Commission
Business travellers	Hundreds of thousands per year	<ul style="list-style-type: none"> • Specific behavioural messages in frequent flyer lounges • Corporate in-service training for staff travelling overseas • Training video for business travellers 	<ul style="list-style-type: none"> • Federal Airports Commission/ Airlines • Human resource managers of larger corporations • Corporate sponsors (to be negotiated)
Gay travellers	Thousands p.a.	<ul style="list-style-type: none"> • Specific behavioural messages in gay press • Culture-specific brochures distributed through travel agents with gay clientele 	<ul style="list-style-type: none"> • Gay press, AIDS Council of NSW (ACON) • Gay targeted travel agents, ACON
Backpackers	177,500 in 1994	<ul style="list-style-type: none"> • Convenience advertising in 450 hostels • Specific behavioural and health service messages in targeted press ('Going Overseas' magazine - 30,000p.a.) 	<ul style="list-style-type: none"> • Family Planning Association of NSW • NSW Sexual Health Services
Travel agents	c. 1,000	<ul style="list-style-type: none"> • Enhanced sexual health and communicable disease information (in-house newsletter) • Revise training modules relevant to sexual health and communicable diseases 	<ul style="list-style-type: none"> • Australian Federation of Travel Agents
Passengers and crew of cruise ships	Unknown	<ul style="list-style-type: none"> • Review and develop training packages for hospitality, medical and general crew of cruise ships • Possibility of specific behavioural messages through convenience advertising for passengers • Possibility of enhancing condom distribution on board 	<ul style="list-style-type: none"> • Cruise ship lines
Migrant Australians visiting their countries of origin	Tens of thousands per year (increasing rapidly)	<ul style="list-style-type: none"> • Enhance the travel component of the SSHC Vietnamese project • Investigate knowledge, attitudes, beliefs and behaviour of other ethnic groups • Specific messages through ethnic media/travel agents • Engage ethnic community and health community associations 	<ul style="list-style-type: none"> • Sydney Sexual Health Centre • Ethnic community organisations • Ethnic radio and press • Ethnic health professional associations • Ethnic travel agents • Multicult. HIV/AIDS Education/ Support Project
Clients of Travellers' Medical and Vaccination Clinics (TMVCs)	c. 30,000 per year	<ul style="list-style-type: none"> • Offer of staff training • Offer to review and revise counselling protocols • Offer to re-design and distribute specific educational materials • Longitudinal evaluation of Program through self-reported behaviour 	<ul style="list-style-type: none"> • TMVCs • Sydney Sexual Health Centre
Clients of Sexual Health Services	Thousands of travellers per year	<ul style="list-style-type: none"> • Staff training • Review of counselling and vaccination protocols for travellers • Review clinics and health promotion protocols for non-English speaking patients • Consider expanded clinics, esp. Japanese • Longitudinal evaluation of Program through self-reported behaviour and incidence of imported STDs 	<ul style="list-style-type: none"> • NSW Sexual Health Services • National Centre in HIV Epidemiology and Clinical Research • Australian Conococcal Surveillance Program

THE PROGRAM PROPOSAL

Goal and Objectives

The purpose of program planning is to devise an intervention or series of interventions that are appropriate to the health problem and the identified target groups, within the resources available, and which will have the best chance of bringing about the desired change. In the present context this includes:

Program goal: To minimise the incidence of STDs/HIV in travellers to and from NSW.

Outcome evaluation: minimisation of reported cases of HIV/STDs attributable to travel.

Program objective: To reduce risk-taking behaviour by travellers to and from NSW.

Impact evaluation: reduction in self-reported risk-taking

Strategy objectives: 1. To increase awareness of personal risk by particular groups of travellers to and from NSW.

Process evaluation: measurement of the reach of elements of the program among the target groups.

2. To increase awareness and develop the skills to address the risks to travellers of STDs/HIV among and health professionals.

Process evaluation: acceptability and evaluation of training modules and materials.

3. To establish ongoing surveillance mechanisms for risk behaviours and STD/HIV morbidity among travellers into and out of NSW.

Process evaluation: Generation of timely and meaningful reports.

Planning the Process

The NSW program will complement the Commonwealth Travel-Safe initiative by focusing on high risk groups and settings. Rather than using high profile and expensive public education strategies, the NSW Program will tailor strategies to each group and collaborate closely with travel, health and community organisations. Many of these collaborations have already been developed. Written commitments are contained in Technical Appendix 6.

The Central Message

Obviously, existing Commonwealth Travel-Safe materials continue to be available and distributed. The Commonwealth strategy has been informational, mostly about the speed of spread of HIV/AIDS and protection through the use of condoms. However, as a number of behavioural studies have shown, many travellers are fully informed but do not personalise the risk.

The central message of this campaign will be to deliver the idea that many travellers behave differently whilst away from home and to confront the individual with the notion that they might also behave differently whether they intend to or not. This represents a fundamental shift, from an information paradigm to a behavioural one.

This message can be conveyed:

- a) pictorially, as a poster, most commonly a "convenience" poster, or a billboard, or in a traveller's magazine. The travellers depicted can be male, female or androgynous. The message, particularly with "convenience" advertising, can be gender-specific and context-specific.

For details of "convenience" advertising methodology, please refer to Technical Appendix 5. Briefly, it is considered to be highly cost-effective, continually modifiable, and easily evaluable. In addition, the loci chosen can be on the basis of numbers of people utilising a facility (via market research) or on the basis of presumed risk (to use an overseas example, a girlie bar in Patpong), or both.

- b) via articles written specifically for travellers in travel magazines, and for members of the travel industry, emphasising not only factual information, but also confronting the differences in sexual behaviour whilst away from home.

Activity Description

The various elements of the Program are described here by target group.

1. Departing International Passengers

There are 2.4 million departures from Australia each year and 1 million of these are NSW residents. The most efficient way of accessing this group is convenience advertising. Three different messages would be designed and modified according to impact evaluation – one each for male and female economy/tourist class, and one for the male business traveller. Considerable thought will also be required as to the best placement for these material eg. frequent flyer lounges for business travellers. Messages can also be relayed through selected travel according to the target group.

2. Incoming International Passengers

Australia welcomed 2.7 million visitors in 1994 and this figure could rise to 8 million in the Olympic year. Three quarters of these visitors pass through NSW. Incoming passengers are usually in a hurry to get to Customs and Immigration. Nevertheless, the Federal Airports Corporation (FAC) commissioned the Total Tourism Group to produce a guide "Welcome to Sydney" (500,000 English, 200,000 Japanese and 200,000 Chinese copies per annum). This guide is the only publication distributed airside at Sydney International Airport, and is displayed on 10 purpose built units at Piers A, B, C. It is the first guide any incoming traveller can pick up, and has a high retention rate and repeat impact. In an independent survey (NV Marketing, May 1996), the FAC guidebook was the guide carried by the most number of tourists interviewed at hotels (37%). Total Tourism has already agreed to put across a general sexual message relating to Sydney Sexual Health Centre within the health and/or useful information editorial pages in the September 1996 issue. Subsequently, more focussed sexual health messages could occupy advertising space in later issues.

3. Business Travellers

Specific behavioural messages will be developed, focus-tested and placed to access departing business travellers. One obvious venue will be frequent flyer lounges while other venues will emerge in consultation with business travellers and human resource managers of corporations that have staff travelling overseas. Representatives of the 40 corporate travel agents in NSW will also be consulted. In consultation with these groups, training modules will be developed for both human resource managers and as part of the in-service programs of staff required to travel as part of their job.

The Australian Chamber of Commerce and Industry (ACCI) currently produces a glossy brochure in conjunction with Travel-Safe. This brochure contains no useful information and its companion booklet has only four sentences on HIV/STDs. Program staff will approach ACCI to develop a more useful and context-specific package.

Early signs of interest have been shown in developing a training video which addresses the issue of the corporate traveller who is offered sex (along with other gifts) overseas as part of corporate culture in some countries. The development of such a video would be subject to corporate funding support.

4. Gay Travellers

With fewer domestic hindrances, gay men are more likely to travel overseas than the general population. Program staff will work with the AIDS Council of NSW, gay-targeted travel agents and the gay press to develop a culture- and context-specific sexual health promotion project for gay travellers into and out of Sydney.

Annual gay and lesbian events such as Mardi Gras and Sleaze Ball attract additional international and interstate visitors. Placement of specifically developed materials in the Mardi Gras Guide and at social venues is under discussion with the Mardi Gras Committee.

5. Backpackers

Australia accommodates 217,200 backpackers a year. This group is younger, more likely to be single, and stay much longer than the average visitor. Liaison will be established with the Family Planning NSW "Heterosexual Men's Project" to avoid duplication in this area if they are still involved with this group. The Sydney Sexual Health Centre already has substantial access to backpackers at a clinical level.

Convenience Advertising Pty Ltd already hold a Commonwealth Travel-Safe maintenance contract on backpacker hostels in NSW, so on the basis of throughput, the busiest hostels will be chosen for convenience advertising, from Sydney to Byron Bay. Commonwealth Travel-Safe material will be supplemented with the newer designs.

There are 400-450 backpacker hostels in NSW, of which approximately one third are owned or franchised by the Youth Hostel Association. The YHA has about 120,000 Australians and 30,000 (per annum) overseas members. The YHA is formally committed to collaborating with the present proposal. Besides interventions at hostels, the YHA has proposed feature articles on sexual health in its publication "Going Overseas", which sells around 30,000 copies per year.

6. Travel Agents

The Australian Federation of Travel Agents (AFTA) was founded in 1957. Among AFTA's objectives are to establish and maintain a code of ethics for travel agents. Its current membership is 3,200 in Australia, of which 100 specialise in corporate travel (40 in NSW). AFTA is affiliated by membership to the Universal Federation of Travel Agents Association, (UFTA), the world body of travel agents, and has two seats on the Executive Council of the International Air Transport Association (IATA). The AFTA Education and training program began in 1989 with the development of the Australian Travel Agents Qualification (ATAQ) program. Since 1992, the Chief Executive of AFTA, Mr John Dart, has been very supportive of attempts to include sexual health promotion among AFTA activities, and was personally invited by the Commonwealth to advise on the Travel-Safe campaign. AFTA, through Mr Dart, are fully committed to the present proposal; initial ideas are to contribute health promotion articles to their monthly inhouse publication "Frontline", and to re-write parts of the Travel Medicine module in their ATAQ diploma. AFTA have an important advocacy role [or the present proposal; Mr Dart has an immediate line of communication to all airlines, world travel agencies, and government tourist bodies. As Mr Dart is about to retire but has an ongoing interest in travel and sexual health, it is strongly recommended that he be appointed a part-time consultant to the Program.

7. Cruise Ships

There are two distinct populations on cruise ships; the passengers (Australian), and the crew (often Indonesian sailors and Filipina waitresses). Discussions have already been held with the two main companies operating out of Sydney, CTC and P&O Holidays. Certain ships, such as the "old" Oriana and the Fairstar, abound with stories of multiple sexual liaisons among passengers. The Sydney Sexual Health Centre is familiar with liaisons among the crew, and between the crew and passengers. The current cruise line management promotes a more sedate image, and would prefer initial health promotion efforts to be directed towards the crew, and not the passengers. This is a new target group for sexual health promotion – virtually all other sections of the travel industry have been de-sensitised by the government-sponsored Travel-Safe campaign. However, there are positive indications that gradual evolution of a campaign would be rewarded. This will become a particularly important area as the Olympics approach; estimates from within shipping industries are that anything between six and twenty major cruising vessels will be in the harbour. These will be much bigger vessels than we are used to, with 600-800 crew and several thousand passengers on each ship.

8. Migrant Australians visiting their countries of origin

All available evidence points to a major HIV epidemic emerging in Vietnam and many other Asian countries. In addition, there is abundant evidence of a burgeoning sex industry in Vietnam as well as increasing numbers of young, male Australian Vietnamese re-visiting their country (Technical Appendix 4.2). Anecdotal evidence suggest many of them visit sex workers whilst in Vietnam, accompanied by brothers, uncles, old friends or business associates. According to two studies carried out in Sydney, the knowledge of many Vietnamese Australians about HIV/AIDS is limited.

The excellent initial contacts and support of the Sydney Sexual Health Centre's Vietnamese Community Project by community leaders will be strengthened. The Program will review data and conduct needs assessment for other migrant communities in NSW in collaboration with the Multicultural HIV/AIDS Education and Support Project. The model developed through the Vietnamese Community Project can be readily adapted for other communities.

9. Clients of the Travellers' Medical and Vaccination Centre (TMVC) Group

The TMVC group is Australia's largest privately operated travel medicine provider, one of 'the top three such providers in the world. It has a network of travel medicine centres in all capital cities in Australia, seeing more than 80,000 Australian travellers annually. The group is also represented in Bangkok, Auckland and, soon to be opened, Jakarta. TMVCs service a preponderance of younger clients who are more likely to be travelling to developing countries for longer periods, and 'roughing it' on their travels. TMVC participated in our original study in 1990/91 entitled "Planned Sexual Behaviour of Young Australian Visitors to Thailand", and later became a major resource for the first Commonwealth Travel-Safe campaign (Technical Appendix 2). TMVC has committed itself formally to this project; its venues are ideal for sexual health promotion, and also ideal for cross-sectional and longitudinal evaluations of behaviour change. Program staff will also review and advise on TMVC staff training in relation to sexual health as well as counselling/advice protocols.

10. Clients of NSW Sexual Health Services

The Sydney Sexual Health Centre's computer database revealed that, of 8,706 clients in 1995, 45% were born overseas, 11% lived overseas at the time of attendance, and a minimum of 1,437 reported sex overseas in the previous twelve months, with only 35% reporting consistent condom use while overseas (Technical Appendix 4.3). Sexual Health services provide an ideal venue for attributing STDs to travel, promoting sexual health for travellers, and monitoring longitudinal trends in the sexual behaviour of travellers. While the Sydney Sexual Health Centre is best placed geographically, all sexual health services have significant caseloads of travellers. Program staff have already agreed to organise the Annual Scientific Meeting of the NSW Chapter of the Australasian College of Venereologists in March 1997 (the Friday before Mardi Gras). The major theme will be Travel and Sexual Health and the Meeting will offer an excellent opportunity for advertising the Program and for developing knowledge and skills among Sexual Health Physicians. Program staff will work with NSW's two dozen sexual health services, all relevant professional bodies – medical, nursing and counselling – to raise awareness and skills in travellers' health issues.

11. Athletes attending the Olympic Games, 2000

The Olympic village at Homebush will host thousands of young athletes, many from countries with a very high prevalence (up to 20%) of HIV, as well as other STDs. It would be naive to suggest that during the Olympics and the millennium celebrations that there will not be an increase in social and sexual activity. Convenience Advertising Pty Ltd is currently tendering for the Homebush site. If the tender is successful, an opportunity would exist for trials of sexual health promotion during the other sporting events which will be held at Homebush over the next several years before the Olympics.

12. Readers of the Lonely Planet 1 Survival Kit Series of Guidebooks

The proprietor of this highly successful series of over 60 Guidebooks, Tony Wheeler, has incorporated a health section. Some (eg. Thailand) have reasonably long sections on AIDS. Program staff are negotiating for sexual health promotion messages to be given equal weight for each country guidebook, thus providing for non-discriminatory advice. These guidebooks are extremely influential in shaping travellers' opinions, and Program staff are optimistic of a favourable outcome, in part attributable to personal and professional connections with Mr Wheeler.

13. On board airline passengers

Previous attempts to involve the international airlines in sexual health promotion for onboard passengers have been uniformly unsuccessful, with the exception of one advertisement on the Polish Airline LOT (Technical Appendices 1 and 2). Via John Dart. the Program staff intend to lobby the airlines on a regular basis to resurrect the issue. Health promotion material for travellers, presented on international flights could possibly constitute the most effective message of all.

Program Evaluation

Constraints

The overriding problem for evaluating health promotion programs is to ascribe positive (or negative) measurable outcomes to the program itself. Numerous examples abound. For example, was the minimisation of HIV/AIDS among Australian injecting drug users due to the needle and syringe exchange program or to other factors? The biggest difficulty is ascribing, in an hierarchical fashion, successes demonstrated for impact and process evaluation to program/goal successes. Process evaluation is usually relatively straightforward (eg. AG McNair - Travel-Safe), but translating that to impact (behaviour) or to outcome (reduction in STDs/HIV) is much more problematic. The last two may have to be reasonably inferred rather than epidemiologically proven.

Process Evaluation (ie. message penetration)

In essence, process evaluation assesses the numbers in various target groups, who have seen, remembered, or have an opinion on the message delivered. The last two elements can be measured regularly using well established intercept techniques. For this component the Program will engage in independent evaluators.

Impact Evaluation (ie. reduction in risk-taking behaviour)

Self-administered questionnaires will be designed, piloted and distributed to representative community-derived samples from each group of interest (eg. business travellers, backpackers). A baseline survey would be required, followed by regular follow-up surveys, taking care to ensure that the demographic features of each cross-sectional sample were as similar as possible to the baseline. While recognising the inherent biases of the sample, longitudinal behavioural trends (eg. proportion using condoms when having sex overseas) will also be accessible from sexual health service databases.

Outcome Evaluation (ie. minimised STD/HIV infection)

The true number of cases of STDs/HIV attributable to travel is unknown, and the methods of estimating the number will remain imperfect. Any effect on outcome may have to be inferred in part from measures of impact. The Sydney Sexual Health Centre database (collecting data on all STDs attributable to sex overseas), the Australian Gonococcal Surveillance Programme at Prince of Wales Hospital, and the HIV Surveillance Unit at the NSW Health Department are the most robust collection instruments available. As part of a scheme developed by the National Centre in HIV Epidemiology and Clinical Research, the NSW Health Department collects extra data on all newly detected HIV cases not attributable to male homosexual contact or injecting drug use. This scheme includes possible HIV exposure overseas or to persons from countries where heterosexual transmission of HIV is more common.

Sydney Sexual Health Centre

The SSHC is NSW's major HIV testing and counselling site and has unique access to a wide spectrum of high risk international travellers. In addition, the Centre is currently appointing a Health Promotion Co-ordinator to consolidate and manage the SSHC's diverse health projects. The Co-ordinator will be affiliated with the National Centre for Health Promotion, University of Sydney and develop links with Area Health service and NSW Health Promotion Units.

TECHNICAL APPENDIX – 2

Chapters in books:

Mulhall BP.

Chapter “Travel Related Risks: Sexual” in A Textbook of Travel Medicine and Migrant Health, eds Lockie C, Calvert L, Cossar J, Knill-Jones R, Raeside F, Walker E, Harcourt Brace, Edinburgh, 2000.

Autobiographical details as requested by publisher are:

Brian Mulhall MA MPH FRCP FACSHP DTM&H

Clinical Senior Lecturer, Dept of Public Health & Community Medicine

University of Sydney, Australia

(his contribution was sponsored by the NSW Health Dept and the Commonwealth Dept of Health, as part of a sexual health program for travellers).

SECTION 4 – TRAVEL RELATED RISKS – SEXUAL

**Brian P Mulhall, Clinical Senior Lecturer, Department of Public Health and
Community Medicine, University of Sydney, NSW 2006, Australia**

SUMMARY

Sexually transmissible diseases (STDs) continue to be the most common notifiable infectious conditions worldwide. Their unacceptably high incidence is underlined by the recent emergence of a (presently) incurable and lethal STD - human immunodeficiency virus (HIV) infection - which merits its description as a pandemic, and with which other STDs interact in an epidemiological synergy. Data that quantify the association between STDs/HIV infection with travel are difficult to obtain; nevertheless figures are presented that reveal the lower limit to be large enough to be of considerable concern. Studies from around the world show, overall, although knowledge of STDs is increasing amongst travellers, the level of knowledge has little to do with actual behaviour, with a modest increase in the use of condoms, but abundant evidence that a wide variety of sexual behaviours take place among travellers and with local inhabitants. Certain travellers, by virtue of their behavioural interactions with 'core-groups' of efficient transmitters, may have a high risk of acquisition of an STD/HIV. Worldwide, sexual health promotion for travellers is in its infancy; indeed, it could more accurately be merely described as 'sexual education'. A fresh approach is recommended, which includes comprehensive program planning and outcome, impact, and process evaluations, and which is based on a behavioural, rather than an informational paradigm.

Keywords: sexually transmissible diseases, human immunodeficiency virus, sexual behaviour, interactions between STD & HIV, core-groups, sexual health promotion

Correspondence to:
Dr BP Mulhall, MA, MPH, DTM&H, FRCP, FACSHP
at the above address

PART ONE: GLOBAL EPIDEMIOLOGY OF SEXUALLY TRANSMISSIBLE DISEASES

Introduction

Sexually transmissible diseases (STDs) are a group of communicable diseases that are transferred predominantly by sexual contact, and are thus to a large extent 'behavioural diseases'¹. They are now the commonest group of notifiable infectious diseases in most countries. Despite some fluctuations their incidence remains unacceptably high; in 1995 there were over 333 million cases of the four major curable STDs in adults between the ages of 15 and 49 - 12 million cases of syphilis, 52 million cases of gonorrhoea, 89 million cases of chlamydia, and 170 million cases of trichomoniasis^{2,3}. Many pathogens are known to be spread by sexual contact and these are shown in Table 1 (the agents in parentheses are considered to be either less strongly associated with sexual contact except in certain circumstances, or to have less epidemiological importance in the context of this review). Some, like Chlamydia trachomatis and viral agents, were tending to replace the classical bacterial diseases (syphilis, gonorrhoea and chancroid) in importance and frequency, until the recent realization that not only are the latter diseases incriminated in transmission of human immunodeficiency virus (HIV) - see section below on the interaction of STDs and HIV - but also that the number and variety of antibiotic resistant strains has increased markedly⁴. However, these agents, which may be regarded as the second generation of sexually transmitted diseases are frequently more difficult to identify, treat, and control, and can cause serious complications resulting in chronic ill-health, disability, and even death⁵. Data on frequency of various STDs are largely dependent on the accuracy of reporting. The most comprehensive data available on incidence are from a few industrialized countries. In most developing countries, the data is prevalence data from *ad hoc* surveys in population groups that are not necessarily representative of the total population. Although these surveys provide useful estimates, they must be interpreted with caution.

In the following sections the epidemiology of most of the common STDs is considered (though not necessarily in order of frequency). Broad guidelines for treatment are indicated, though other clinical data is not provided, except for those diseases that Western trained physicians may not have encountered.

TABLE 1 Classification of Sexually Transmissible Agents

A	BACTERIAL AGENTS
	Chlamydia trachomatis
	Haemophilus ducreyi
	Neisseria gonorrhoea
	Treponema pallidum
	Calymmatobacterium granulomatis
	(Mycoplasma hominis)
	(Mycoplasma genitalium)
	(Ureaplasma urealyticum)
	(Shigella spp)
	(Campylobacter spp)
	(Group B streptococcus)
	(Bacterial vaginosis-associated organisms)
B	VIRAL AGENTS
	Human papilloma viruses
	Hepatitis virus B
	Human herpes virus 1 or 2
	Human immunodeficiency viruses HIV-1, HIV-2
	Human herpes virus 5 (formerly cytomegalovirus)
	(Hepatitis virus C)
	(Hepatitis virus D)
	(Hepatitis virus A)
	(Human herpes virus 6)
	(Human T lymphotropic virus type 1 (HTLV-1))
	(Human herpes virus 8)

- C PROTOZOAL AGENTS**
Trichomonas vaginalis
(Entamoeba histolytica)
(Giardia lamblia (intestinalis))
- D FUNGAL AGENTS**
(Candida albicans)
- E ECTOPARASITES**
(Pthirus pubis)
(Sarcoptes scabiei)

SYPHILIS

(a) Developed countries

After the large peak during the Second World War the number of cases of primary and secondary syphilis dropped to a low level in the late 1950s with a slow but steady increase since that time. However, from 1986-1990 there was an epidemic of primary and secondary syphilis in the United States⁶ with increases ranging from 10% to 200% in 25 cities.

The most notable trends were the substantial increase in cases involving black heterosexuals, changes in geographical distribution, and the association with 'crack' cocaine use. This enormous increase was attributed to several factors, the most important being the exchange of drugs for sex, the widespread use of spectinomycin rather than penicillin for the treatment of gonorrhoea, and the shifting of resources from syphilis to AIDS. By 1996 however, rates had dropped precipitously leaving an endemicity (>4.0/100,000) concentrated in less than 15% of all counties.

(b) Developing Countries

Most available data are prevalence figures; in addition, seropositivity can be due to venereal syphilis (infectious or non-infectious), or to previous infection with nonvenereal treponematoses. Nevertheless, prevalence rates are high, varying from 5-20% in women attending antenatal clinics, to 70% in certain groups e.g. prostitutes². A few studies report incidence data showing an increase in cases of infectious syphilis^{8,9}.

All strains of *Treponema pallidum* worldwide are sensitive to penicillin, which remains the treatment of choice. Second-line treatments include, amongst others, the tetracycline group of antibiotics.

GONORRHOEA

(a) Developed countries

The trends show a clear increase from 1957 onwards, reaching a peak in the early seventies and decreasing since, although not as steeply as syphilis². There was an increase in rectal gonorrhoea in the seventies in homosexual men which has since declined¹⁰, however, both the number and variety of antibiotic resistant strains have increased markedly¹¹. In the fifties, strains partially resistant to penicillin emerged, which were soon found to be prevalent throughout the world¹²⁻¹⁴. Fortunately, these (chromosomally mediated) resistant strains proved sensitive to a step-wise increase in therapeutic levels of penicillin, until penicillinase-producing *N. gonorrhoeae* (PPNG) strains were isolated in 1976, simultaneously in England and the United States^{15,16} containing plasmids probably originating from West Africa¹⁷ and Asia¹⁸ respectively. These strains with plasmid-mediated resistance have spread worldwide^{4,19}. In addition, partial resistance to quinolones is becoming more frequent²⁰⁻²², and although resistance to ceftriaxone has yet to be reported, the genetic flexibility of the gonococcus is such that it is never entirely unexpected when resistance to newly introduced antimicrobial agents appears. Fears are held even for third generation cephalosporins - minor changes would see PPNG become 'expanded spectrum' beta-lactamase producers. In some developed countries heterosexually acquired gonorrhoea in males is predominantly acquired from foreign prostitutes, overseas, or working in the host country.

(b) Developing countries

The available incidence figures are unreliable but estimates for large cities in Africa suggest an annual incidence rate for gonorrhoea of 3,000 - 10,000 cases per 100,000 inhabitants^{2,25}.

CHLAMYDIAL INFECTIONS

(*Lymphogranuloma venereum* is discussed separately)

(a) Developed countries

Genital infection caused by *Chlamydia trachomatis* has been the most common bacterial STD in the United States and the United Kingdom^{26,27} since the early eighties.

Non-gonococcal urethritis (NGU) in men is caused by *C. trachomatis* in at least 40% of cases²⁸. The female counterpart to NGU, mucopurulent cervicitis²⁹ is also increasing, as is its major complication, pelvic inflammatory disease. It is estimated that chlamydia causes 4-6 million infections per year in the United States of America³. It is not known how much of this increase may be due to the recording of "epidemiological treatment"; certainly efforts to control chlamydia have been hampered by the relative difficulties, compared with gonorrhoea, of diagnosis and treatment. *C. trachomatis* is sensitive to most tetracycline and macrolide antibiotics, and conveniently, to a single dose of the new macrolide antibiotic, azithromycin.

(b) Developing countries

Until recently, the spectrum of STDs commonly identified in developing countries was limited to the classical "venereal" diseases. However, sexually transmitted pathogens of the second generation have started to be identified. In general, the prevalence of *C. trachomatis* infections is higher, especially in Sub-Saharan Africa².

GENITAL HERPES VIRUS INFECTION

(a) Developed countries

Genital herpes is the most common cause of genital ulceration in the developed world³⁰. More than 20,000 cases of genital herpes are reported annually from STD clinics in the UK³¹, and 500,000 new cases are estimated each year in the USA³². Recent sero-epidemiological surveys have shown widespread exposure (usually asymptomatic); however nucleic acid amplification techniques have demonstrated viral shedding in symptom-free HSV-infected individuals³⁰.

(b) Developing countries

There is virtually no published data on clinical herpes, probably reflecting the fact that individuals do not present to health services, and more importantly, the difficulties in differential diagnosis with other genital ulcer diseases which are common, and the absence of laboratory facilities for virus culture. One report, from Durban, South Africa found herpes virus to be an aetiological agent in 18% of all genital ulcers (mixed infections were common)⁹. Moreover, in a review of sero-epidemiologic surveys, evidence of exposure was high or even higher (than developed countries) in the countries for which results are available (Costa Rica, Jamaica, Zaire, Rwanda, Congo, and Senegal)³². This may be particularly important in those countries in which genital ulcer disease is thought to be important in facilitating acquisition and spread of HIV infection (see later section in part 2(i))

GENITAL HUMAN PAPILLOMAVIRUS (HPV) INFECTION

(a) Developed countries

The epidemiology of genital HPV infections is similar to that of genital herpes, except for its magnitude, is 3 times higher, and the fact that its key consequence, cervical cancer, is more severe³⁴. Even more than for genital herpes, genital warts represent only the symptomatic tip of the iceberg of HPV infections. Subclinical papillomavirus infections of the male and female genital tract are becoming more commonly recognized. At present no reliable serologic test is available, and the virus cannot be recovered through tissue culture. Subclinical infection may be diagnosed by the presence of koilocytes on a cytologic smear or tissue biopsy, HPV DNA sequences detected by hybridisation studies. HPV antigen detected by immunoperoxidase stains, or certain morphologic features on colposcopy. All of these remain controversial with respect to management.

However, using these techniques, about 50% of sexually active women are infected with HPV types that have the potential to progress to malignancy^{35,36}. Thus, HPV infections of the genital tract are probably the most prevalent STD. No specific wart treatment has been shown clearly to be superior to any other; podophyllin should not be used in pregnancy.

(b) Developing countries

No reliable data are available, but it seems unlikely that an ubiquitous virus such as HPV does not exist with similarly high prevalence rates. In view of the lack of access to health care facilities, it is probable that patients do not present for treatment, since lesions are usually painless, if unsightly. The facilities to diagnose subclinical infections are almost totally absent in most developing countries.

CHANCROID

The global incidence of chancroid greatly exceeds that of syphilis³⁷. Chancroid is caused by *Haemophilus ducreyi*. The disease starts with a painful papule at the site of infection resulting in a single or in multiple ulcers. Inguinal lymphadenopathy may be present in up to 50% of patients. Accurate diagnosis of chancroid depends on the ability to culture *H. ducreyi*. Different isolation media have been used with varying success³⁸. Chancroid lesions are highly infectious.

(a) Developed countries

In the United Kingdom fewer than 100 cases have been reported annually for the last fifteen years³⁷. However, in the United States, there have been repeated outbreaks with frequent prostitute contact repeatedly implicated. In 1985, the number of reported cases rose above 2000 for the first time since 1956, and in 1987 almost 5000 cases were reported³⁹.

(b) Developing countries

Chancroid is endemic in many developing countries, particularly in SE Asia, eastern and Southern Africa, and Papua New Guinea. Prostitutes play an important role in its spread. In Africa, even in areas where syphilis is highly prevalent, most genital ulcers are due to chancroid, though mixed infections are common.

Owing to the unreliability of clinical diagnosis and the frequent presence of the two agents in the same genital ulcer, appropriate chancroid treatment combined with syphilis therapy has been recommended. Multi-dose therapy with erythromycin for seven days and single-dose treatment regimens with azithromycin and ceftriaxone are now recommended as the treatments of choice for chancroid, at least in the United States⁴⁰. Unfortunately, in other parts of the world where such regimens are impractical, resistance to other previously useful antibiotics is increasing⁴. In addition, in patients with concurrent HIV infection, extensive and persistent genital ulcers may be present without bubo formation, and they heal less frequently after short course treatment and often fail to respond to longer antimicrobial courses³⁸.

TRICHOMONAS VAGINALIS

Despite the fact that *T. vaginalis* receives less attention in the world literature than *Neisseria gonorrhoeae* and *Chlamydia trachomatis*, it is not a benign condition. The presence of *T. vaginalis* may predispose to premature rupture of membranes, premature labour, and low birth weight, and its potential in HIV transmission is of great concern⁴¹. It affects an estimated three million American women annually⁴², and although the incidence of trichomoniasis is believed to have decreased in the UK in recent years⁴³, it is still the most commonly diagnosed STD worldwide and affects an estimated 170 million people annually². Metronidazole remains the drug of choice for treatment of trichomoniasis and is the only agent approved by the US Food and Drug Administration for the infection.

LYMPHOGRANULOMA VENEREUM

Lymphogranuloma venereum (LGV) is caused by *Chlamydia trachomatis*. Three serovars (L1, L2, L3) are responsible for the vast majority of cases. LGV is a chronic disease with acute and late complications. A primary stage causing a small genital lesion is seen in a minority of patients. Most common is the secondary stage characterised by acute inguinal (and femoral) lymphadenitis with bubo formation. Late complications may occur in the anogenital area, such as ulcers, fistulas, strictures and elephantiasis. The laboratory diagnosis of LGV may be based on positive chlamydial serology, isolation of *C. trachomatis* from the infected site, and histological identification of chlamydia in infected tissue³⁸. In the differential diagnosis syphilis, chancroid, and herpes should always be considered.

LGV has a worldwide distribution, although few reliable data are available. It is sporadic in North America, Europe, Australia, and most of Asia and South America. It is endemic in Eastern and Western Africa, India, parts of South-Eastern Asia, South America and the Caribbean⁴⁴. Since 1950, no country in Europe has reported more than a few dozen cases of LGV annually⁴⁵, and the average for the United States has been 595 cases per year, with slight increases during the wars in Korea and Vietnam⁴⁶. In contrast, one municipal clinic in Ethiopia reports several thousand cases of LGV annually⁴⁴. In general, this infection accounts for 5-10% of cases of STDs seen in developing countries⁴⁷. LGV is sensitive to tetracycline and macrolide antibiotics.

DONOVANOSIS (Granuloma inguinale)

Donovanosis is a chronic infection of the genital region caused by *Calymmatobacterium granulomatis*. The disease starts with a subcutaneous nodule at the site of infection. This nodule enlarges and erodes through the skin to reveal a red granulating ulcer. This disease may spread haematogeneously resulting in cutaneous lesions at extragenital body sites³⁸. The diagnosis and treatment of donovanosis has recently been comprehensively reviewed⁴⁸. Diagnosis requires the careful collection of smears or biopsies for demonstration of the pathognomonic Donovan bodies within histiocytes.

Donovanosis has an unusual geographical distribution, it is rare in most developed countries^{46,49} but it is among the most prevalent STDs in some developing countries. It is endemic in the Southern States of India, especially along the Eastern Coast⁴⁵, and to a remarkable degree in Papua New Guinea⁵⁰. Additional foci are found in the Caribbean and neighbouring parts of South America, Zambia, South Africa, Vietnam, Japan and among Australian aboriginals⁴⁸.

Antibiotics reported as showing good activity against Donovanosis include streptomycin, chloramphenicol, erythromycin, co-trimoxazole, and the tetracyclines. Good results have also been reported with norfloxacin and thiamphenicol⁴⁸. More recently, azithromycin has been shown to be very effective in early studies^{50,51}.

HEPATITIS VIRUS INFECTIONS

HEPATITIS B (HBV)

Viral infections principally affecting the liver, are among the STDs with the highest incidence worldwide. The most important of these is infection with hepatitis B virus (HBV), which is estimated to be responsible for chronic infection in at least 300 million individuals, and is the ninth major cause of premature mortality. 75% of these carriers live in Asia and the Far East. Soon after the first description of the "Australia antigen", its discoverer speculated that sexual partners of an infected carrier had an increased probability of also being infected. With increasing experience it became more apparent that sexual activity (rather than vertical, or horizontal during childhood) may be one of the most common forms of HBV transmission, particularly in regions of moderate or low endemicity of HBV⁵². Most studies of transmission have been performed in developed countries. The strongest epidemiological association between sexual behaviour and hepatitis B virus infection is among homosexual men, with markers of previous exposure in 50-70%, and HBV carrier rates 1.5-4%⁵³. The major risk factor for transmission in homosexual men is unprotected anal intercourse⁵⁴.

Prevalence studies among heterosexual persons attending STD clinics, and case-control studies of acute HBV infection suggest that heterosexual transmission is common⁵⁵⁻⁵⁷, although there is wide geographical variation. Fortunately, HBV is the first hepatitis virus against which a vaccine has been developed, and indeed the first sexually transmitted disease against which there is an effective vaccine⁵⁸. Recommendations for the control of HBV infection in general, and sexual transmission in particular⁵⁹, must take account of the widely varying prevalences in different countries.

In one review of retrospective and follow-up studies in travellers visiting developing countries, it was suggested that 1 in 2500 develops symptomatic HBV infection after returning home. Vacationers were rarely affected, whereas persons working in developing countries frequently seroconverted⁶⁰. However, none of these studies controlled adequately for asymptomatic infections, and more importantly, sexual activity. The author concluded that vaccination against HBV was advisable for people working in developing countries, and for those travellers who might engage in high risk activities (such as sexual intercourse).

Recently⁶¹, preliminary evidence has been forthcoming to suggest that a hitherto- unsuspected route of transmission, viz via bed bugs, may be important, and intervention studies involving vector control are currently in progress in the Gambia to further investigate this possibility. If proven, this would represent a (semi-) sexual route of transmission.

HEPATITIS A

Hepatitis A virus (HAV) is spread by the faecal-oral route, and sexual transmission is thought not to be a major mode of transmission, although there has been evidence for some time of an increased risk among homosexual men⁶². The recent increase in the number of cases of hepatitis A among homosexual men⁶³, is possibly due to the increased prevalence of oroanal intercourse being adopted as a "safer" practice with respect to HIV transmission, which still permits transmission of HAV⁶⁴.

HEPATITIS D (delta)

The group most affected by HDV are injecting drug users. Studies in Europe and the USA^{65,66} have found surprisingly little HDV infection among homosexual men, although a recent study in France showed a prevalence of 14% among 42 homosexual HBV carriers without a history of injecting drug use.

HEPATITIS C

In an epidemiological study Alter et al. showed that sexual contact was a risk factor for acute non-A, non-B hepatitis⁵⁶. However, the evidence is not conclusive, and HCV infection is much more efficiently transmitted by needle sharing than sexual intercourse^{68,69}.

OTHER HEPATITIS VIRUSES

Hepatitis E virus (HEV) has recently been characterised, and is transmitted by the faecal-oral route, like HAV⁷⁰. Outbreaks of HEV infection have been described, particularly in Asia. There is no evidence yet of sexual transmission of HEV, however the possibility of oro-anal transmission among homosexual men, as has been documented for HAV infection, cannot be discounted.

Evidence of sexual transmission exists for cytomegalovirus (CMV). Studies of homosexual men have found a high prevalence of antibodies to CMV (90-95%), compared to age-matched heterosexual controls (50-60%)^{71,72}. CMV, however, is a rare cause of acute hepatitis, most infections being asymptomatic.

HIV/AIDS

The acquired immunodeficiency syndrome (AIDS) was first described in 1981⁷³ but it has since reached pandemic proportions; as of June 1998, the World Health Organisation estimates that there are approximately 30.6 million people living with HIV/AIDS, of which 1.1 million are children under 15 years of age⁷⁴. Moreover, HIV infections have been documented in virtually all countries⁷⁵.

Medical and scientific progress has been remarkably rapid, including: the isolation of the aetiological agent human immunodeficiency type 1 virus (HIV-1) in 1983-84⁷⁶; the development of sophisticated diagnostic screening tests⁷⁷; rapidly expanding knowledge of the modes of transmission (see below), molecular biology and immunopathogenesis of disease; and considerable experience in treatment and prophylaxis, at least in developed countries. Until recently, the disease was thought to be completely irreversible with a variable latent period between infection with HIV, and progression to the opportunistic infections, tumours, and other conditions that variously satisfy the case-definitions of AIDS⁸⁴⁻⁸⁸.

In the past five years, a better understanding of HIV pathogenesis has led to the development of new concepts such as early therapeutic intervention, combination antiviral therapy, and complete suppression of viral replication that have had a major impact on the clinical management of HIV disease - in particular, decreasing progression to AIDS, and prolonging survival - at least in industrialised countries⁷⁸⁻⁸². Public interest and political commitment in the quest for an AIDS vaccine have dwindled in most parts of the developed world, partly because of a perceived lack of progress. In fact, although the obstacles to development, production and delivery of an effective and safe vaccine for HIV remain formidable, there is a large and growing body of sound scientific data indicating that vaccination against lentivirus infection is feasible and attainable⁸³.

Extensive epidemiologic investigation has affirmed the principal means by which HIV-1 is spread: through blood, by sex, and from mother to child⁸⁹. Sexual transmission of HIV accounts for about three quarter of all infections worldwide. The majority have been through heterosexual transmission. Homosexual transmission also occurs in most parts of the world, and is predominant in some developed countries⁹⁰. American and European studies suggest that male to female transmission is more efficient than vice versa⁸¹. The probability of female to male transmission per sexual contact in Thailand has been estimated as 0.031, while the estimate in North America was about 0.001⁹¹. Moreover, per-contact risk from rectal sex is relatively greater than vaginal intercourse⁸¹. Perinatal transmission includes transmission during pregnancy, during delivery, and through breast-milk⁹⁰. Prospective cohort studies reported that the range of perinatal transmission rate was approximately between 15 and 30%. Even though breast-feeding may be an additional and important route of transmission^{92,93}, it is still recommended where infectious diseases are a common cause of death in childhood, despite the additional risk of HIV transmission. Infected blood or blood products is another transmission route. Besides infecting drug use (IDU), improper use of needles and syringes in the medical setting has been noted to cause transmission of HIV in Africa⁹⁴, Romania⁹⁵, and Russia⁹⁶. Contaminated instruments such as inadequately sterilized needles and syringes, skin-piercing instruments and ritual scarification tools account for only a small proportion (in Asia and sub-Saharan Africa)⁹⁰.

Although HIV-1 is found in low concentration in saliva, this route is not thought to be frequent⁹⁷⁻⁹⁹. The following pieces of evidence indicate that HIV is not transmitted via insects¹⁰⁰; the age-specific rates of HIV infection and disease do not fit the pattern for arthropod-borne diseases (which have high attack rates in young children)¹⁰¹; rates of HIV infection in Africa are higher in urban than rural areas (ibid); serological studies of humans have failed to show a relationship between the presence of antibody to HIV and antibody to arboviruses¹⁰²; and HIV does not replicate in cell lines derived from arthropods¹⁰³. Finally, 'casual' transmission has not been reported¹⁰⁴.

During the past decade it seemed possible to distinguish three broad, yet distinct, geographical patterns of HIV-1 infection¹⁰⁵. Pattern 1 is predominant in North America, Western Europe, Australia and New Zealand. In pattern 1, sexual transmission occurs principally among homosexual and bisexual men, but heterosexual transmission also occurs and appears to be increasing. Transmission through blood occurs principally as a result of injecting drug use. Perinatal infection is less common because relatively few women in these areas have been infected thus far. Pattern 2 is found in sub-Saharan Africa, and, increasingly in Latin America and the Caribbean. Sexual transmission is predominantly heterosexual, while transmission via contaminated blood transfusion continues in areas where the screening of blood is not yet routine, and perinatal transmission is a major problem since, in some cities, at least 5 to 15% of pregnant women are infected. Pattern 3 areas include North Africa, the Middle East, Eastern Europe, Asia (but see below) and the Pacific. These areas accounted until recently for only a small proportion of AIDS cases reported. Initial cases resulted from contact with people in Pattern 1 or 2 areas, or from exposure to imported blood. However, indigenous transmission of HIV-1 infection is increasing, especially among prostitutes and IDU's. Indeed, it is becoming apparent that India and South East Asia are in the middle of a major epidemic, at least of the same order of magnitude as sub-Saharan Africa. In these areas, a 'fourth' pattern has been suggested, viz rapid spread among IDU's and female prostitutes, followed by rebound waves in male clients of prostitutes, and then in their wives¹⁰⁶. There are major features distinguishing pattern IV from other patterns (I and II), namely faster spread with more rapid and widespread transmission into the general population. This exceptionally rapid spread makes a large infected but not yet actively sick population (larger iceberg and smaller tip)¹⁰⁷. It is possible that these so-called epidemiologic 'patterns' are spurious, or at least misleading, and they are described here simply because most national surveillance systems still utilize them when referring to cases thought to be acquired outside their national boundaries.

The increasing epidemic in Asia, but encouraging signs in some African countries have been recently extensively reviewed^{108,109}. Other recent epidemiological trends have been a relative stabilisation of new cases of HIV infection in homosexual men, and in intravenous drug users (IDUs) (in the cities where harm reduction policies are in place), but an alarming epidemic among IDUs and heterosexuals in countries of the former Soviet Union¹¹⁰.

Finally, a closely related virus, HIV-2, was described in 1985 in asymptomatic West African prostitutes¹¹¹. It appears to be endemic in West Africa but rare elsewhere, to be transmissible in identical ways to HIV-1 but maybe less pathogenic than HIV-1. Differentiation from HIV-1 by serologic tests is problematic but feasible.

TRANSMISSION OF STDS AND HIV VIA BLOOD PRODUCTS AND INADEQUATELY STERILISED INSTRUMENTS

Excess mortality of international travellers, especially tourist, is commonly due to traffic accidents^{112,113}, in addition pregnant travellers suffer the additional risk of obstetric complications, and in both of these situations blood transfusion might be necessary as a life-saving measure. In the USA, approximately 1 million persons are transfused annually, with each person receiving an average of 2.9 units of blood¹¹⁴. If these figures were applied to a typical international trip, the number of persons requiring transfusion would be 1.3 per 10,000 per 2-week period¹¹⁵. The first indication that HIV may be transmitted by blood products came in 1982 in three haemophiliacs, and Amman reported the First case thought to be transfusion related in April 1983¹¹⁶. Efficient screening techniques for HIV antibodies were implemented in most industrialised nations by 1985-1986, and in addition improved techniques for preparation of blood components, which can maintain their biological activity for days, weeks, or months, have been developed over the last 10 years. Using data from over 17 million American Red Cross donations, it was estimated that the probability of contracting HIV infection in 1987 was 1:153,000 per unit transfused¹¹⁷. Sadly, this is not the case in the developing world, especially Africa, where blood transfusion carries a high risk to the recipient of acquiring HIV, and other infections such as hepatitis B, hepatitis C, syphilis, and malaria¹¹⁸⁻¹²¹. Indeed, in Africa, blood transfusion has become the third most important mode of HIV transmission, after heterosexual and perinatal transmission¹²². A number of factors contribute to unsafe operation and limited screening of donated blood¹²³ and the World Health Organization (WHO) Global Blood Safety Initiative (GBSI) was formed to address these important concerns. It has issued a number of recommendations, including the development of rapid-screening tests, use of plasma expanders, and the testing of HIV antibody on serum pools¹²⁴. In certain situations autologous blood transfusion including pre-operative deposit, perioperative haemodilution and intraoperative blood salvage may be appropriate¹²⁵⁻¹²⁶ and feasible. However, all possible steps should be taken to avoid unnecessary blood transfusion and to encourage alternative treatment modalities using saline, plasma expanders, and albumin solutions for acute hypovolemia¹²³. Anecdotal reports suggest some diplomatic communities make provisions for their own programmes of homologous blood transfusion. Finally, it should be noted that even in countries where blood screening is routine and efficient, but where HIV seroprevalence is increasingly rapidly, e.g. Thailand, the theoretical risk of transfusing blood from an HIV-seronegative but viraemic donor in the "window period" of infection has increased greatly; in these countries screening for p24 antigen has been suggested¹²⁷.

Improper use of needles and syringes has also been noted to cause transmission of HIV in Africa¹²⁸, Romania¹²⁹, and Russia¹³⁰. This is unnecessary since HIV is easily inactivated by standard methods of sterilisation or disinfection, such as autoclaving or boiling for 20 minutes¹³¹. International travellers should also be warned of the dangers of unnecessary injections; some travel clinics provide sterile syringes, needles and intravenous infusion sets for this reason.

The inequities between the developed and developing world with regard to access to a safe blood supply have recently been comprehensively reviewed¹³².

PART TWO: EPIDEMIOLOGY OF STDs AND HIV IN THE CONTEXT OF TRAVEL AND TRAVELLERS

The association between travel and STDs has been known for centuries, particularly for syphilis, and it has been traditional to blame foreigners, usually sailors and armies¹³³. For example, Christopher Columbus's sailors allegedly brought syphilis to Europe, having acquired the infection during their first trip to America in 1492 after intercourse with Haitian women¹³⁴, and Captain James Cook was concerned with the spread of venereal disease, especially during his third voyage (1776-9), when almost half the ship's company had been affected¹³⁵. Today's international travellers are a heterogeneous group which includes holidaymakers, business persons, students, refugees, and migrants. It has been stated¹³⁶ that migrants and travellers are two fairly different questions, mirror images of each other when seen from the point of view of an individual country. Immigrants come to a specific country, and travellers leave for more or less brief periods. The notion of *time* is fundamental. The United Nations, the World Health Organization, and the International Organization for Migration define travellers as people entering a country for three months or less. This review concentrates more or less on "travellers", rather than "immigrants"; studies showing the influence of migration on the spread of STDs/HIV have been presented by others¹³⁷⁻¹⁴⁰. Two special features of modern travel are that the largest group are now tourists; there were 341 million in 1986¹⁴¹, and that the mode of transport is shifting increasingly towards air-travel^{142,143}. One consequence of the latter observation is that there is a greater chance now than before for a traveller to return within the incubation time of many STDs¹⁴⁴.

(i) Concepts of STDs/HIV interactions

Three relationships between STDs/HIV have been postulated:

- (1) Increased transmission of HIV in the presence of other STDs, possibly due to disruption of the genital mucosa, or to recruitment of HIV-susceptible or HIV-Infected lymphocytes or macrophages.
- (2) Alteration in the natural history, diagnosis, or response to therapy of other STDs in the presence of HIV-induced immunosuppression.
- (3) Accelerated progression of HIV disease in the presence of other STDs, for example by repeated immunostimulation.

Most studies have suffered from serious problems of confounding by differing sexual behaviours, co-infection with other STDs, lack of HIV-seronegative controls, or because they have been case-control or cross-sectional in design. However, Wasserheit has recently conducted an extensive analysis of previously available data from observational studies¹⁴⁵. One hundred and sixty three studies on the inter-relationships between HIV infection and other STDs were examined. Of 75 studies on the role of STDs in HIV transmission, the 15 analyses of clinical or laboratory evidence of STDs adjusted for sexual behaviours showed that both ulcerative and non-ulcerative STDs increase the risk of HIV transmission approximately 3- to 5-fold. Due to limited data, the role of STDs in progression of HIV disease remains unclear. However, data from 83 reports on the impact of HIV infection on STDs suggest that, at a community level, HIV infection may increase the prevalence of some STDs, especially genital ulcers. If co-infection with HIV prolongs or augments the infectiousness of individuals with STDs, and if the same STDs facilitate transmission of HIV, these infections may greatly amplify one another. This "epidemiological synergy" may be responsible for the explosive growth of the HIV pandemic in some populations. Randomised controlled trials (RCTs) are the most effective way of proving a causal relation and estimating the magnitude of effect. They are, however, difficult to conduct, especially where the unit of randomisation is the community rather than the individual. Nevertheless, two such studies are being evaluated. In the first, improved STD case-management over two years in Tanzania has reduced HIV incidence by about 40%, and is the clearest evidence thus far of the interaction of STDs and HIV¹⁴⁶⁻¹⁴⁸. The second trial, whose results are awaited, involves an intervention of mass treatment for STDs in the Rakai district of Uganda¹⁴⁹.

(ii) Relationships between STDs/HIV and sexual behaviour and sexual networks

One fundamental theoretical tenet of STD epidemiology, that of 'core-groups', was developed for gonorrhoea¹⁵⁰. It is based on the observation that this infection is 'endemic' among a small sub-population of highly sexually active individuals, from whom it spreads in mini-epidemics to the population at large.

Thus, the epidemic behaviour of sexually transmitted infections is related to the heterogeneity of the sexual behaviour of the population. This concept can be applied to all STDs, including HIV. This theory has been re-visited recently, using principles of mathematical ecology to give core-group theory biological plausibility¹⁵¹. This work has been very influential in designing control programs for controlling STDs and HIV and is discussed further here.

The ecologic success for any infectious disease is described by its basic reproductive rate (R_0). To achieve long term persistence, the effective R_0 must equal or exceed one. For STDs including HIV, R_0 is determined by the product of the probability of infection transmission given contact between infective and susceptible individuals (β), the contact rate between infective and susceptibles (c), and the duration of infectivity (D). Thus: $R_0 = \beta c D$. A small sub-population of highly sexually active individuals form a mixing subset which exceeds the threshold of c value, and thus becomes the reservoir for endemic persistence in a community, and is the site from which most infections in the community originate. This is termed "core group". Core groups are defined by their sexual behaviour and connectivity. By definition, R_0 exceeds unity only in the core, and is less than one in the non-core population. Thus in theory, only within the core group are productive chains of infection sustained. Although many infections exit the core and enter adjacent populations; infection chains ultimately extinguish in these adjacent populations; thus the endemic persistence is entirely dependent on the core group.

$$R_0 = \beta c D$$

R_0 = basic reproductive rate

β = infectivity per contact

c = rate of contact change

D = duration of infectivity

Despite this biological probability theory, personal risk and mixing patterns which include specific behaviour and social diffusion are other important factors. Personal behaviour is embedded in a social and geographic context which may provide the link between behaviours which place individuals at risk, and sustain transmission of HIV in the community. Selection or preference of partner, self-perception, and connection with the "highly infective component" which form the social network, contribute to the dynamics of transmission of many STDs, including HIV. This may explain different transmission dynamics of HIV and other STDs such as gonorrhoea, syphilis, and *C. trachomatis* infection, and different patterns among specific sub-population groups, as well as providing insights into the demographic impact of STD/HIV. In summary, the core group concept has a major impact on STD/HIV control and surveillance programs. If core group members could be kept free of STD/HIV, infection should, in theory, disappear from the entire population.

Finally, it should be noted that R_0 can be decreased by decreasing infectiousness (by use of condoms) or decreasing duration of infectivity (access to effective health care).

Prostitutes and their clients are not the only type of "core-group" for HIV and STDs but it should be apparent how important they may be in continued transmission of these pathogens. The usual composition of core-groups in Africa seems to comprise a few women and a large number of men. The opposite situation, a large number of women having sex with a small number of men would probably be similarly efficient; two such situations of male core-groups are seafarers and long-distance truck drivers. These will be discussed below under travellers.

(ii) STDs/HIV and travellers

Travelling may be difficult to recognize as an obvious epidemiological component. In addition, people can return home and have several sexual contacts before symptoms are obvious. Accurate contact tracing is occasionally feasible: an often quoted example is that of a Californian prostitute, nicknamed 'syphilis Mary', who had secondary syphilis; she kept a diary which helped trace 168 long-distance truck drivers among her 310 male consorts spread over 31 American States, Canada, and Mexico¹⁵². In England and Wales, during the year 1976 (the last year for which these data are available) 14% of cases of early syphilis were believed to have been contracted abroad¹⁵³, and in Sweden the percentage of new cases of syphilis contracted abroad was 20% in 1986 and 32% in 1987, showing that the impact of travel on STDs is not diminishing^{152,154}.

Geographical tracing for STDs is perhaps easiest for gonorrhoea because it is usually a symptomatic and acute infection. It can be done by the taking of an accurate history and/or microbiological techniques that take advantage of the fact that different strains of the gonococcus can be classified according to nutritional requirements (auxotype), reaction with a monoclonal antibody to the major outer membrane protein (serovar), and antibiotic resistance patterns, including plasmid profiles. The most complete example of geographically accurate history taking is available from six polyclinics of dermatology in Switzerland¹⁵⁵. In the six Swiss clinics, among 1,988 heterosexuals who were not injecting drug users, 25% of patients reported that, they had acquired their STD abroad. Casual sex and sexual contacts with prostitutes played an important role in the acquisition of the STDs abroad, particularly in developing countries. In Sweden, using a combination of several of these techniques, there were 665 cases of gonorrhoea in 1991, 536 in 1992, and 417 in 1993¹⁵⁶. More than half the patients had been infected abroad, mostly during vacation; women predominantly in the Southern parts of Europe, and men in East Asia and Southern Parts of Europe. Almost all PPNG infections could be traced from abroad (there are no endemic PPNG infections in Sweden).

Switzerland 1990-1993

Six polyclinics of dermatology (Basel, Bern, Lausanne, (Geneva, Zurich).
23% of patients acquired STD abroad (27% of men vs 155 of women).
Paget et al, 1994.

In Singapore, a country in which the reporting system is particularly robust, 88.9% of gonococcal infections in heterosexual men 1981-9 were thought to have been acquired abroad (A. Goh, personal communication, 1992).

Contact Tracing – Easiest for *N. gonorrhoeae*

1. Accurate history-taking
2. Microbiological techniques
 - auxotype
 - serotype
 - antibiotic susceptibility
 - plasmid profile

In Sydney, Australia, an increasing proportion of heterosexually acquired gonorrhoea in males in the years 1981-1989 was an Asian strain of PPNG, and was acquired either outside the country, or from Asian prostitutes working in Australia on short-term visas^{157,158}. In another study in Kenya, six per cent of tourists reporting sick presented with urethritis¹⁵⁹. The attitudes, knowledge, and behaviour of the largest group of international travellers viz tourists will be discussed later, but there are certain other groups of travellers, by virtue of their strange living and working conditions that could be at increased risk with respect to STDs/HIV. These "core-groups" (defined above) are seafarers and long distance truck drivers. Seafarers all over the world acquire venereal diseases five to twenty times more frequently than the male population living on land. An epidemiological study in a unselected population of seamen from all over the world attending for check-ups in an outpatient clinic in Hamburg from 1967-1987 showed that 3.1% had venereal disease¹⁶⁰. British seafarers still have a relatively high incidence of STDs; infection rates have been shown to be between 170/1000 and 230/1000¹⁶¹. Long-distance truck drivers will be discussed in the context of HIV.

Although travel is not a risk factor for HIV per se¹⁶², the importance of travellers in the spread of HIV from one population to another is undeniable¹⁶³. Present in the minds of many is the image of "Patient Zero", implanting HIV in one country after another in Europe and North America¹⁶⁴. It is possible that HIV left Africa at least a few times over the last few decades. From Africa, HIV spread to Haiti among Haitian guestworkers returning from Zaire in the 1970's, and then from Haiti to the US, the Caribbean and South America, particularly among homosexual men, and Hispanic IDU's¹⁶⁵. There was also early spread from Central Africa to Europe, among African students and among returning Europeans. The excess of HIV from pattern II countries¹⁶⁶ and several case-clusters¹⁶⁷⁻¹⁷⁰ reflects in many cases the longstanding links certain African countries have with the European ex-colonial powers. Nearly all cases had histories of multiple sexual partners, local African contacts, and contact with prostitutes¹⁷⁰. In the late seventies HIV moved from the US to Europe and Australia via homosexual men. In the Mediterranean, spread was initially among injecting drug users, and then into populations of homosexual men. In Norway and Sweden reliable reporting systems reveal that up to 1993, the proportion of "imported" HIV infections were 27% and 20% respectively (Hasseltvedt V, and Ramstedt K, personal communications). HIV has entered Asia (India, Thailand, Myanmar, Southern China) through changing patterns of drug trafficking and widespread female prostitution. In the view of the present author the last two risk-factors, when found in close association, represent the most explosive means of spreading HIV.

It is possible that in certain instances advances in molecular epidemiology may prove enlightening. It is recognised that HIV DNA sequences from different geographic regions vary; the spread of variants to other locations has been used to suggest origins of HIV and how it is spread throughout the world¹⁷¹.

As mentioned previously, certain core-groups are pre-eminent, viz. female prostitutes, truck drivers, seafarers, and migrants. Rates of infection among prostitutes may be seen as a watershed for the importance of heterosexual transmission of HIV in any area in the world¹⁷². Infection rates from 6-90% have been recorded among female prostitutes in urban areas of central, eastern, and southern Africa¹⁵³, and 0-60% (median 15%) in Thailand^{173,174}. In all cases, the "lowest class" prostitutes (who service the most customers) have the highest rates of infection. Prostitutes who travel internationally have higher rates of infection than their domestic counterparts¹⁷⁵. They also have higher rates of STDs; this has become an increasingly serious epidemiologic problem in Europe. This can be ascribed in part to socio-economic differences between the countries of the former socialist bloc and the countries of Western Europe. These differences have led to a great increase in the traffic of sex workers and of their clients across the frontiers between these two previously separated parts of the continent¹⁷⁶. Foreign bar-hostesses in Vienna, when offered a special health service in 1991 had an infection rate with gonorrhoea of 50%, dropping to 18% in 1992 (Stary A. and Kopp W, personal communications 1994). In the same city, the overall rate of STDs among illegal "female sex-workers" was 38 times higher than the infection rate among the licensed prostitutes (Schmidt A, personal communication, 1994). 90% of the window prostitutes in the red light district of Amsterdam are not native to the Netherlands¹⁷⁶; a similar proportion applies to go-go girls in Switzerland (Lebert M, personal communication, 1994).

Women from the former Eastern bloc are also vulnerable due to low levels of a study of Romanian sex-workers in Istanbul revealed that 28% of the girls were first-time prostitutes. They had either very little or no knowledge about STDs or the means to protect themselves against them¹⁷⁷. Immigration in Europe of prostitutes from areas such as Africa, the Caribbean, South America, and Thailand, where the prevalence of HIV is much higher than in Europe, seems to constitute an underestimated epidemiologic phenomenon that could accelerate the spread of HIV-1 and HIV-2. In Asia, there is mobility of sex-workers from Nepal to India, Myanmar to Thailand, Thailand to Japan¹⁷⁸. International sex workers in Sydney that attend dedicated clinics in the largest STD facility (mostly from Thailand and Malaysia) have much higher rates of gonorrhoea, chlamydial infection, and hepatitis B carriage, as well as much lower condom usage, than their local counterparts^{179,180}.

Long distance truck drivers, by virtue of their travel within countries and across borders are an important example of a male core-group. In fact, the epidemiology of much of the African HIV epidemic can be directly traced along the major highways¹⁸¹⁻¹⁸⁷. Three studies have examined the prevalence of HIV infection in seafarers; in Valencia in 1987, seven of 290 seafarers were infected, a prevalence much higher than in the general population¹⁸⁸. In another study of seafarers working with Belgian Shipping Companies, 15 of 336 screening tests (4.5%) yielded a positive result, compared to an average estimated prevalence among Belgians of 0.062%¹⁸⁹. A third study conducted between 1985-1987 in 2000 seamen revealed nine HIV infections (0.5%); in this sample general knowledge about AIDS was very poor¹⁹⁰.

A final core-group might be "sex-tourists", they are discussed below along with the sexual attitudes and behaviour of tourists in general.

Calculation of rates of infection, relative risks, and trends in HIV prevalence in various groups of travellers requires that accurate numerators and denominators are available. This is rarely the case. Moreover, only a few studies have estimated the relative risk of HIV infection associated with travel, by comparing travellers with a group of non-travelling controls. One difficulty with these investigations is that the relationship between HIV and travel may be confounded by differences between travellers and their controls in other factors (J Elford - personal communication, 1993). Among Danish homosexual men, HIV seropositivity in 198 was strongly associated with travel to the United States (relative risk 3.5, $p < 0.007$)¹⁹⁰. In 1987, 20% of people with Ugandan or Rwandan links had HIV infection, compared with only 2.2% of those who had never left Tanzania - a nine fold difference in risk ($p < 0.01$)¹⁹¹. Using surveillance data, the risk of AIDS to heterosexual UK residents travelling abroad was estimated as being 300 times greater than their risk of acquiring AIDS in the UK. However, changing the assumptions as to whether those "presumed to be infected abroad" were travellers, immigrants, or returned expatriates reduced the risk to 6.0¹¹². Injecting drug-users who share needles while travelling may also face a risk of HIV-infection. In a study conducted in Victoria, Australia, injecting drug users who had travelled to Sydney were more likely to be infected with HIV (O.R.13.2)¹⁹³.

PART THREE: SEXUAL BEHAVIOUR OF INTERNATIONAL TOURISTS AND SEXUAL HEALTH PROMOTION

(i) Knowledge, attitudes, and perceptions of risk in intending travellers

In two early studies^{194,195} of several hundred new attendees at a travel clinic in London, there was mostly correct knowledge about general risk factors for AIDS, but only 25% requested more information, even if 30% did not know AIDS was present in the country they were visiting, and only 10% said they would purchase condoms abroad. An important conclusion emerged that has since been confirmed many times, viz. despite adequate knowledge of sexual transmission of HIV, there was no perceived personal risk of acquisition. In Korea¹⁹⁶, intending male travellers were misinformed about many aspects of AIDS. In Canada, as recently as 1991, 14% of 331 travellers did not think that avoiding sexual intercourse was protective, and many thought that condoms were more effective if used with fellow travellers than with locals¹⁹⁷. In a cross-sectional study by the present author of young Australians travelling alone to Thailand, (n = 213, mean age 26 years), only 34% of the sample reported a definite intention not to have sex¹⁹⁸. More males than females said they would have sex with a Thai national, while more females than males said they would choose an Australian traveller; 18% of men said they would have sex with a bar-girl. 82% of the sample reported they would use condoms 100% of the time, but there were significantly more females than males who expressed this intention. However, a larger number of females reported that they did not intend taking condoms with them. Once again, travellers did not perceive a higher personal risk of acquisition of AIDS in Thailand than Australia, even though they were aware of the magnitude of the difference in prevalence. An alarming misclassification was made between female Thai nationals, and "bar-girls", and this group of travellers were not obviously "sex-tourists" (See below).

(ii) Sexual behaviour identified during travel

To the knowledge of the present author there are only five published studies. This probably reflects (methodological) problems of access.

In an early study in Copenhagen¹⁹⁹ 21% of male and 6% of female tourists (n = 1229, mean age 22.5 years) were carrying condoms, but only 19/40 males who had sex used one, compared to 0/4 females. A sample of 105 Japanese men (55 tourists and 50 businessmen) were interviewed in 1993 in Bangkok, using in depth interviews and focus group discussions, facilitated by the Japanese Chamber of Commerce²⁰⁰. Both groups made extensive use of CSW's (71%), though 76% saw this as risky behaviour. Condom use was used by at least 95% of respondents, but only 51% used condoms all of the time. The same authors performed a situational analysis of young Japanese women tourists on the island of Phuket in Thailand²⁰¹ (and Vorakitphokatorn S, personal communication 1994). The study started with interviews with tour company managers, then with Thai tour guides, Thai beach boys, and last with Japanese female tourists. Absolute figures were not supplied. Nevertheless, beach boys reported that 70% of their tourist lovers were female Japanese. The sexual initiation was made mutually by 35%, by beach boys 30%, and by tourists 13.6%. The author concluded that these young women tourists are culturally and socially naive, and yet willing to take risks with the local service boys, who quickly develop a casual sexual relationship with them. Condom use was sometimes requested by the women, but the place and the frequency of sex acts did not lend itself to any effective preventive behaviour. Another group of 386 tourist industry workers in the UK resort Torbay were surveyed; only 7% had not engaged in intercourse in the last year; nearly half the male workers had engaged in intercourse with four or more tourists. Levels of condom use were low, with only 40% using a condom during their last intercourse; levels of condom use were lower still among those respondents reporting the most partners²⁰². The last two studies, of German visitors to Thailand and other destinations, are presented below, under the sub-heading "sex-tourists".

(iii) Sexual behaviour identified post-travel

The only national sex survey to ask specifically about partner change while on holiday was a Swiss telephone survey conducted in 1990. Among 1220 men aged 17-45, 66% had holidayed abroad in the first nine months of 1990, and 7% of the sample reported that they had sexual relations with a person in the holiday country in that year²⁰³. In a postal survey of returning travellers in the UK²⁰⁴, 17/353 had sex with a new partner, but only 12 had been carrying condoms, and only 9 had used them. In Switzerland²⁰⁵, in an unusual study, travel physicians claimed to be able to correctly identify (by dress, manner etc.) travellers who were likely to be promiscuous; when interviewed post-travel 60% of this group had casual sexual contacts whilst travelling (mean age 33 years) vs 3.6% of an unselected control group. In a study²⁰⁶ of 782 attendees at the largest travel clinic in London (probably a mixture of tourists, expatriates and migrants) over a six month period in 1991-2, 141 (18.6%) had had new sexual partners during their most recent trip abroad. Almost two-thirds of those having sex abroad did not use condoms with a new partner, and 5.7% had contracted an STD during their most recent trip. 26% of men who had new sexual partners abroad paid for sex. Sixteen out of 731 (2.2%) participants were HIV-antibody positive. The authors concluded that high risk behaviours were found in both male and female international travellers. Men had more new partners abroad, but were more likely to use condoms.

In theory, STD/sexual health clinics should be ideal venues for establishing the risk of STDs attributable to travel, investigating past and recent sexual behaviour (eg. use of condoms) when travelling, and identifying sub-groups of travellers might be considered core-transmitters. They should also be able to highlight the opportunity for health education about sexual health risks in any geographical location, which can be incorporated into the counselling attenders at sexual health clinics. Through August 1996, there have been six published and one unpublished study of travellers in STD clinics²⁰⁷⁻²¹¹.

Risk behaviour and HIV prevalence in international travellers

Setting: Hospital for Tropical Diseases, London
Questionnaire results: n=757 (97%)

1. 18.6% had new partner during most recent trip
2. 5% contracted an STD during most recent trip
3. 20% of new partners were sex workers.

Hawkes et al, 1994.

At the Melbourne Sexual Health Centre in a six month period in 1990²⁰⁷, 111 men who had sex in South-East Asia were studied. 66 had evidence of an STD (not HIV or syphilis); all of these had sex with at least one prostitute, 28% without a condom, and 43% had sex with a partner after return to Australia. In Bergen, Norway, 245 (41%) of 606 consecutive patients reported having a sexual partner abroad in the previous five years²⁰⁸, and in three English STD clinics 25-52% of heterosexual males and 18-20% of heterosexual females who had travelled in the previous three to six months had new partners during their trips²⁰⁹⁻²¹¹. In the most thorough of these investigations, the authors estimated the proportion of infections due at 11.6%. They also identified risk factors such as being male, single, and having visited an STD clinic previously.

There are several important limitations with these studies. First, the patients studied were probably not representative of the travelling public as a whole, or even of all STD clinic however the numbers of visits made abroad by members of the public is high. Thus, even if the sexually active proportion of the total number of travellers is low, the absolute numbers of people at risk may be considerable. Second, in few of these studies have the demographic and behavioural characteristics of travellers who attend STD clinics been compared with STD attendees who have not travelled, ie. with non-travelling controls. This is the only way that behaviour and disease can be properly attributed to travel, in a quantifiable way, that could form the basis for a prevention campaign that is amenable to evaluation. Third, comparison of

previous studies is difficult because of differences in the questionnaires and reporting biases due to different time-lags.

Most of the information presented above has been quantitative, but researchers are beginning to realise that more qualitative research is needed as a means of placing this information within its social context^{200,201,212-215}.

(iv) "Sex-tourists"

Although it can be safely assumed that there are some who travel abroad with the primary intention of having sexual encounters (in 1987 the Committee of Ministers of the Council of Europe identified the group of "sex tourists" as a special target group for AIDS/HIV prevention activities) it is probable that the distinction between a person who has sex whilst travelling and a "sex tourist", is not only difficult and arbitrary, but also potentially misleading. Certainly men and women do travel specifically for the purpose of sex; men are said to prefer Thailand, the Philippines, Sri Lanka and some of the Caribbean and Latin American countries, and women (considered by some to account for 10% of sex-tourists) have a slight preference for Kenya and Haiti (Inquiry Commission of the Federal Republic of 1990). Sexual encounters take place in socio-cultural contexts that vary as as their geographical ones. Thailand will be taken as an illustration.

Men do travel to Thailand specifically for the purpose of sex, but they are a difficult group to at identify, at least in their country of origin, since "sex tours" are usually officially banned by tourists in the company of Thai organisations. One study interviewed 152 German tourists in the company of Thai prostitutes at well-known ("girlie") tourist spots such as Pattaya, Patpong village in Phuket, and the Patpong area of Bangkok²¹⁶. Even these "sex tourists" may not have been easily identified at their place of departure; the share of business travellers or men travelling with or group was low (3.4%); indeed, 66.2% travelled as so-called "individual tourists". There were generally older men (median 38 years), two-thirds of whom were regular visitors to Thailand, and just under half were married, widowed or divorced. 61% of their sample had brought condoms with them, although only 28% used them regularly, compared to 50% of those who also visited prostitutes in their own country. The study of returning male travellers from South East Asia who presented at an STD clinic in Melbourne²¹⁰ found that the mean age was older than their usual clinic population (33.6 years vs. 24 years), and that there was a low frequency of use of condoms (28%). In addition to age, other factors may distinguish so-called "sex-tourists" from other travellers, e.g. length of stay. It is possible that the former group generally stay for a shorter time. In the German study the median stay was 4 weeks; in the Melbourne group the median figure was not provided, but 70% of 97 men stayed less than five weeks. Both studies found the number of partners in Thailand to be high. 25% of the Australians and 12% of the Germans had more than five partners during their holiday.

Sex Tourists

- difficult and arbitrary definition
- men – Thailand, Philippines, Sri Lanka, Latin America
- women – Kenya, Haiti, Bali
- difficult to identify at place of departure
- socio-cultural contexts vary widely

The German study group later extended their findings in a series of interviews between 1991-1993²¹⁷ (and personal communications D. Kleiber & M. Wilke, 1994). Since this is the largest, and as far as is known, only, detailed study of sex tourists (defined as individuals who had commercial sex with local partners), performed in-situ, it is reported here. 766 interviews were carried out in selected countries: Kenya (n=136), Brazil (n=112), Thailand (n=204), Philippines (n=78), and Dominican Republic (n=236), with male heterosexual (n=661) and homosexual (n=105) sex-tourists. Only the results for the heterosexuals are reported here. The instruments used were a standardised questionnaire, face to face interviews, and in-depth personal interviews. The average age was 35 (range 19-74), and the level of educational attainment was poor (45% junior high school, 25% high school graduate, 13% pre-college, 9% college graduate). 70% were single (vs 51% German population census data). They were largely not participants in package touring schemes. Only 40% of those questioned were first time visitors to the respective countries; many had previously vacationed or travelled in other non-European countries, where the majority reported having had sexual intercourse (visitors to the Dominican Republic were an exception). The majority were travelling with the explicit intention of engaging in sex, with an average sexual contact with four women. Since the previous study by the same authors, condom use in Thailand had increased ("always" increased from 28% to 50%, "never" decreased from 45% to 30%), and there was high rate of use ("always", 75%) in the Dominican Republic. However, overall, only 45% of the whole sample regularly used condoms, and one third never used them. The average age of the female partners were reported to be around 23, whilst the youngest was 13 years. There was little mention of explicit child prostitution; sex with partners younger than 11 years was a priority for 2.8%. 23% reported having had sexual contacts with prostitutes in Germany in the previous 12 months, with the number of such instances showing a very skewed distribution (median - 3 times, mean -10 times). In the view of the present author, this almost certainly reflects a small 'core' of very frequent visitors to prostitutes. One third reported having had an STD at least once (mostly gonorrhoea, 22.9%); about half had been tested for HIV at least once. Finally, on the coast of Kenya the same group interviewed 81 German women (average age 36 years); nearly one third reported sexual contact with local males. With one exception all the women interviewed reported having had only one sexual partner; however 13 (68%) had never used a condom.

A smaller study of German sex-tourism in the Philippines by a different author²¹⁸ (and G. Weiler, personal communication, 1995) suggests a dichotomy between short- and long-term sex tourists, and therefore that different health promotion messages are probably needed for group.

The interactions between tourists and commercial sex workers vary from country to country depending on the socio-cultural context. This has been most extensively studied in Thailand.

Certain aspects about prostitution in Thailand are important to emphasise. First, it is widespread. Commercial sex is illegal, but it is nevertheless condoned, and estimates of the number of sex workers in Thailand range from 100,000 to 800,000 individuals, mostly in the upper range¹⁷³. Thai men of all ages and all social classes, whether single or married, frequently visit sex workers¹⁷⁴. Thai male customers have been estimated to number between 3 to 8 million in total²¹⁹. Therefore Thai women working (full-time, or occasionally) as sex workers are ubiquitous; the proportion catering especially to tourists is small comparison, concentrated in a few well-known tourist spots.

Second, with regard to encounters between Thai sex workers and foreign ("fareng") customers, there is little in common with prostitution in Western society. For example, in the first German study²¹⁶, 63% of the men spent several days together with their last Thai date, many of them regarding themselves as being "in love". Other authors have described these encounters as "open-ended", that is, a mixture of pecuniary interest and emotional attachment (by the Thais), and "romantic interludes" (by foreigners)²²⁰.

Third, pre-marital or extra-marital sex is uncommon among Thai women, though common among Thai men¹⁷⁴. Therefore, most (if not all) of the "Thai nationals" identified by male subjects in the previous study¹⁷⁴ as potential sex partners are probably commercial sex workers, even if not obviously "bar girls", an alarming mis-classification. The newcomer "fareng", unable to grasp this culture-specific category, a vaguely defined grey area lying between "full fledged prostitution" and "straight" sexuality, initially refuses to label the girls as "prostitutes"²¹¹. Although no figures are available on how many young single male tourists pass through Thailand without a sexual encounter with a Thai female, it is possible that the number is small. Therefore, the intention of female participants in the previous study¹⁹⁸ to have sex with fellow tourists, (and indeed Thai males) is also alarming. Although only one study of homosexual sex tourism to Thailand has been identified²²², there is evidence that an increasing number of "bar boys" are infected with HIV^{223,224}. Many of the latter also have Thai and "fareng" girlfriends²²⁵.

In summary, while "sex tourists" should be specifically targeted if possible, particularly as they may act as so-called "core-transmitters" of STDs and HIV, they are usually difficult to identify. Therefore, it is vital that all sexually active persons should be warned forcefully of the dangers of casual sex, particularly if they are young, travelling without spouse or partner, and to countries where the socio-cultural context is conducive to risky behaviour.

(v) Sexual health advice from the travel industry and other agencies

Although travellers have been identified as being important targets for sexual health promotion²²⁶, regrettably, there have been until recently remarkably few attempts to educate the travelling public, and to bridge the obvious gap between knowledge and changes in sexual behaviour. A certain proportion of this inaction has been due to attempts by various governments to play down the problem of STDs, and especially HIV, particularly in those countries heavily dependent upon tourist revenue for foreign currency.

Efforts to influence the sexual behaviour of travellers can be sub-divided into the passive provision of health information (by health care providers, agents, and public health authorities). and active health promotion interventions, aimed at specific groups of travellers on location. These will now be considered in more detail.

Only one study, by the present author, has attempted to collate global knowledge, information, and health promotion initiatives by an important core-group of health care providers, namely travel physicians (unpublished data).

The conclusion from this pilot survey is that although travel is widely recognized as an epidemiological factor by STD clinicians, there appears to be insufficient awareness or emphasis among workers in the field of travel medicine. This is particularly evident in North America and needs to be urgently remedied.

A Canadian survey²²⁷ revealed that 60% of all travellers relied to some extent on their travel agent to provide them with information on diseases, health hazards, etc. However, a telephone survey of 30 travel agents in Leeds, United Kingdom²²⁸ revealed that although 19 recognized the risk of HIV infection in Bangkok, only 4 advised customers of that risk. Booklets containing health advice either did not mention HIV, or were distributed only sporadically. Two noteworthy projects of travel agents taking an active stance were identified. The famous chain of "Club Mediterranee" holiday resorts, with 98 holiday villages in 25 countries, and more than 8 million overnights per year, has a program for its staff (1,700 in the villages) whereby oral, written, and video-information is given. Condoms are available in the village shops, which are also accessible to holiday guests²²⁹. In Scarborough, Ontario, Canada, travel agencies distributed condoms with sunburn oil and lip balsam; the reaction from travellers was in general, very favourable²³⁰.

In response to an overwhelming need, the National Committee on AIDS of the Netherlands (with support from the Commission of the European Communities, the Ministry of Welfare, Health and Cultural Affairs of the Netherlands, and from 'the Regional Office for Europe of the World Health Organization) has embarked on an ambitious project, named AIDS AND MOBILITY - "The Impact of International Mobility on the spread of HIV, and the need and possibility for AIDS/HIV prevention programmes." This project continues to be the single biggest resource in Europe and produces bibliographies, educational materials and annual reports²³¹⁻²³⁴. In September 1994 the World Health Organization designated "AIDS and mobility" as a "Special Project" of the WHO Global Program on AIDS.

The most commonly used means of information are the so-called "AIDS/HIV holiday campaigns", with accompanying posters, brochures, television spots, etc. These campaigns probably fail to reach a significant number of travellers.

In Australia, sexual health promotion aimed at travellers (TRAVEL-SAFE) began in 1991, and has consisted of the passive provision of convenience advertising, billboards, and pamphlets to an indiscriminate group of travellers, and mostly concerned with provision of information, rather than any attempts to change behaviour. In addition, evaluation has been minimal, consisting mostly of process evaluation. New initiatives have included a cooperative agreement with Thailand to advertise at well-known entertainment venues in Bangkok, the distribution to General Practitioners of a Travel Safe Kit, and the development of a corporate policy on Travel Health for the Australian Chamber of Commerce and Industry (ACCI). As the AIDS and MOBILITY project notes, it is somehow embarrassing that no information materials have been identified exclusively directed towards female travellers. What is the use of encouraging men to use condoms without making a similar effort towards women, for instance to help women on how they could insist that their male partners use a condom?

Several Swiss organisations have adopted a different approach, aiming at sex-tourists, and particularly those involved in child prostitution. Their actions are coordinated with the International Campaign to End Child Prostitution in Asian Tourism (ECPAT), which emerged in 1990, and which drew heavily on earlier work by others²³⁵⁻²³⁸. The Federal Department of Equal Rights between women and men convened a working group in 1992, and prepared a leaflet "Wenn einer eine Reise tut"/"A vous qui partez en voyage" for the purpose of providing sensitising information on the situation of women in Third World countries, particularly with regard to child prostitution. 100,000 have been distributed to places where travellers prepare their holidays, and the Campaign is presently being evaluated (Christine Pluss, personal communication 1995).

Several countries, following the example of Germany (1992) have attempted to provide a more powerful deterrent to sex-tourism involving child prostitution. For example the Child Sex Tourism Act was ratified in the Australian parliament in July 1994 (and later adopted by New Zealand), essentially making it an offence for Australians to engage in sex with children overseas. However, with the exception of the discovery or incriminating evidence on Australian soil, the greatest problem is that the child sex trade in Asia is a crime normally without an official complainant. Recently the Philippine government has been enraged by reports by women's groups which claimed that Australians were dominant in the country's sex industry, including 80 per cent of the sex bars in Angeles City. This figure was disputed by the Australian Embassy in Manila²³⁹.

In general, although they would be very useful, but expensive, attempts to involve airline carriers in AIDS prevention, for example, by including messages in in-flight magazines, have been unsuccessful. An appeal to all major European airlines flailed, with the exception of LOT, the Polish carrier (Georg Broring, personal communication, 1994).

Finally, more active intervention programs are hard to identify. In Torbay, UK, a pilot project in 1990 involved fun-nights, local taverns, competitions, and was so successful that a 3-year HIV/AIDS Prevention Project 1993-1995 has been launched – "Happy Health Holiday Campaign", with the slogan "Sea, Sand, and Safe Sex", whose central strategy is to recruit and train peer-educators (age 11-25) for the summer holiday season (M. Inman, personal communication, 1995). A less ambitious program took place at a Norwegian resort in Mallorca in 1992 (N. Amundsen, unpublished data). In Berne, Switzerland, the Federal Office of Public Health is endeavouring to target various subgroups within the extremely heterogeneous group of travellers by training travel professionals (tour leaders, flight attendants, resident managers) as mediators of AIDS prevention²⁴⁰.

Conclusions on sexual health promotion efforts in travellers

1. The provision of information on modes of transmission of HIV/AIDS/STDs during international travel has recently increased (with the exception of North America), but may be insufficient to change sexual behaviour. More vigorous interventions are probably required.
2. The reluctance of the travel industry, especially international air carriers, to promote safer sex whilst travelling, needs to be addressed.
3. Behavioural research, particularly situational and contextual analysis of the different sexual behaviours of travellers is urgently needed, the results of which should be incorporated into health messages. These should include culturally specific information relating to the effects of sex-tourism, with special emphasis on child prostitution.
4. While not fully understood, the factors that link travel to STD/HIV risk probably include:
 - the higher prevalences of infections in other countries
 - situational or contextual factors such as the relative availability of sex, different cultural expectations, and the relative unavailability of condoms; and
 - psychological disinhibition (the 'traveller's head-space')²⁴¹.
5. Appropriate methodology is needed to evaluate sexual health promotion interventions in travellers. A completely fresh approach is recommended including comprehensive program planning and evaluation.

The purpose of program planning is to devise an intervention or series of interventions that are appropriate to the health problem and the identified target groups, within the resources available, and which will have the best chance of bringing about the desired change. In the present context this might include:

- | | |
|----------------------|--|
| Program goal: | To minimise the incidence of STDs/HIV in travellers.
<i>Outcome evaluation:</i> minimisation of reported cases of HIV/STDs attributable to travel. |
| Program objective: | To reduce risk taking behaviour by travellers.
<i>Impact evaluation:</i> reduction in self-reported risk-taking. |
| Strategy objectives: | <ol style="list-style-type: none"> 1. To increase awareness of personal risk by particular groups of travellers.
<i>Process evaluation:</i> measurement of the reach of elements of the program among the target groups. 2. To increase awareness and develop the skills to address the risks to travellers of STDs/HIV among travel and health professionals.
<i>Process evaluation:</i> acceptability and evaluation of training modules and materials. 3. To establish ongoing surveillance mechanisms for risk behaviours and STD/HIV morbidity among travellers.
<i>Process evaluation:</i> Generation of timely and meaningful reports. |

The Central Message

Obviously, existing educational materials will continue to be available and distributed. Most governmental strategies have been informational, mostly about the speed of spread of HIV/AIDS and protection through the use of condoms. However, as a number of behavioural studies have shown, many travellers are fully informed but do not personalise the risk.

The central message of future campaigns should be to deliver the idea that many travellers behave differently whilst away from home and to confront the individual with the notion that they might also behave differently whether they intend to or not. This represents a fundamental shift, from an information paradigm to a behavioural one.

Program Evaluation

Constraints

The overriding problem for evaluating health promotion programs is to ascribe positive (or negative) measurable outcomes to the program itself. Numerous examples abound. For example, was the minimisation of HIV/AIDS among Australian injecting drug users due to the needle and syringe exchange program or to other factors? The biggest difficulty is ascribing, in an hierarchical fashion, successes demonstrated for impact and process evaluation to program/goal successes. Process evaluation is usually relatively straightforward, but translating that to impact (behaviour) or to outcome (reduction in STDs/HIV) is much more problematic. The last two may to be reasonably inferred rather than epidemiologically proven,

Process Evaluation (ie. message penetration)

In essence, process evaluation assesses the numbers in various target groups, who have seen, remembered, or have an opinion on the message delivered. The last two elements can be measured regularly using well established intercept techniques.

Impact Evaluation (ie reduction in risk-taking behaviour)

Self-administered questionnaires can be designed, piloted and distributed to representative community-derived samples from each group of interest (eg. business travellers, backpackers). A baseline survey would be required, followed by regular follow-up surveys, taking care to ensure that the demographic features of each cross-sectional sample were as similar as possible to the baseline. While recognising the inherent biases of the sample, longitudinal behavioural trends (eg. proportion using condoms when having sex overseas) will also be accessible from sexual health service databases.

Outcome Evaluation (ie. minimised STD/HIV infection)

The true number of cases of STDs/HIV attributable to travel is unknown, and the methods of estimating the number will remain imperfect. Any effect on outcome may have to be inferred in part from measures of impact.

Personalising the Risk

A central message of future programs should be to deliver message that many travellers behave differently whilst away from home, and to confront individuals with the notion that they might also behave differently whether they intend to or not. This represents a fundamental shift, from an informational paradigm to a behavioural one.

PART FOUR: FROM EPIDEMIOLOGY TO CLINICAL PRACTICE

Practical Conclusions and Advice for Travellers and Their Physicians

The risk of acquisition of STDs or HIV infection can be virtually eliminated by avoiding penetrative sexual intercourse with casual partners, especially injecting drug users and persons who have had multiple sexual partners (such as prostitutes), or reduced by the use of condoms. The risk of parenteral exposure to these agents Can be reduced by avoiding parenteral drug use and behaviour that is likely to lead to injury (with its attendant risk of requiring blood transfusion), and by seeking facilities with adequate capabilities to screen blood donors and to sterilize instruments.

Post-travel checks for STDs (except HIV) are usually unnecessary and impractical in most asymptomatic persons. However, if travellers have been exposed to high-risk individuals/behaviours and request assessment, this is best done at centres specialising in genitourinary medicine. If patients are symptomatic, this is even more important for the following reasons:

- (i) the patient may have had multiple exposures, making history-taking more complex
- (ii) the patient may have been partially treated, altering the natural history, and making special investigations more difficult
- (iii) knowledge of patterns of antibiotic resistance and interpretation of serological tests for syphilis is usually limited to a few centres
- (iv) facilities such as selective media, dark ground microscopy etc are not usually available in travel clinics.

With respect to choice of testing centre for exposure to HIV-1 or HIV-2, this is a matter for individual clinicians to decide; it should be remembered that the pre- and post-test counselling requires considerable skill, is time consuming, and is recommended by most Departments of Health in developed countries. If there is a possibility of exposure to HIV-2 this should be emphasized to the laboratory, so that appropriate tests are performed and difficulties in interpretation are taken into account.





REFERENCES

1. Burton J. VD - a behavioural disease. *Int J Hlth Educ* 1968; 11:13-17.
2. Gerbase AC, Rowley JT, Heymann DHL, et al. Global prevalence and incidence estimates of selected curable STDs. *Sex Transm Inf* 1998; 74(Suppl 1):S12-S16.
3. Gerbase AC, Rowley JT, Mertens. Global epidemiology of sexually transmitted diseases. *Lancet* 1998; 351(Suppl 111):2-5.
4. Ison CA, Dillon J-AR, Tapsall JW. The epidemiology of global antibiotic resistance among *Neisseria gonorrhoeae* and *Haemophilus ducreyi*. *Lancet* 1998; 351(Suppl 111):8-12.
5. WHO Technical Report Series No 736, 1986 (Expert Committee on Venereal Diseases and Treponematoses: Sixth report)
6. Centers for Disease Control. Primary and Secondary Syphilis - United States 1981 - 1990. *MMWR* 1990; 40(19):314-23.
7. Division of STD prevention. Sexually transmitted disease surveillance, 1996. Atlanta: Centers for Disease Control and Prevention, 1997:21-28.
8. Damiba AE, Kelley KF, Vermund SH. Rising trend of reported primary genital syphilis and genital ulcer disease in Burkina Faso. *Int J Epidemiol* 1991; 20(2):490-4.
9. O'Farrell N, Hoosen AA, Coetzee KD, van den Ende J. Genital ulcer disease in women in Durban, South Africa. *Genitourin Med* 1991; 67(4):322-6.
10. Judson FN. Fear of AIDS and gonorrhoea rates in homosexual men. *Lancet* 1983; 1(ii):159.
11. Zenilman JM, Cates W Jr, Morse SA. *Neisseria gonorrhoeae*: an old enemy rearms. *Infect Dis Med Let Obstet Gynecol* 1986; 7:2.
12. Martin JE Jr, Lester A, Price EV, Schmale JD. Comparative Study of gonococcal susceptibility to penicillin in the United States, 1955-1969. *J Infect Dis* 1970; 122:459-61.
13. Curtis FR, Wilkinson AE. Penicillin resistant gonorrhoea. *Br J Vener Dis* 1958; 34:70-2.
14. Reyn A, Korner B, Bentzon MW. Effect of penicillin, streptomycin, and tetracycline on *Neisseria gonorrhoeae* isolated in 1944 and 1957. *Br J Vener Dis* 1958; 34:227-39.
15. Phillips I. Beta-lactamase-producing, penicillin-resistant gonococcus. *Lancet* 1976; 1(ii):656-7.
16. Ashford WA, Golash RG, Hemming VG. Penicillase-producing *Neisseria gonorrhoeae*. *Lancet* 1976; 1(iii):657-8.
17. Perine PL, Schalla W, Siegal MS, Thornsberry C et al. Evidence for two distinct types of penicillinase-producing *Neisseria gonorrhoeae*. *Lancet* 1976; 1(ii):993-5.
18. Roberts MC, Elwell LP, Falkow S. Molecular characterisation of two beta-lactamase-specifying plasmids isolated from *Neisseria gonorrhoeae*. *J Bacteriol* 1977; 131:557-63.
19. Centers for Disease Control. Global Distribution of penicillinase-producing *Neisseria gonorrhoeae* (PPNG). *MMWR* 1982; 31:1-3.

20. Turner A, Jephcott AE, Haji TC, Gupta PC. Ciprofloxacin-resistant *Neisseria gonorrhoeae* in the U.K. *Genitourin Med* 1990; 66:43.
21. Gransden WR, Warren C, Phillips I. 4-quinolone resistant *Neisseria gonorrhoeae* in the United Kingdom. *J Med Microbiol* 1991; 34:23-7.
22. Tapsall JW, Schultz TR, Phillips EA. Characteristics of *Neisseria gonorrhoeae* showing decreased sensitivity to quinolone antibiotics. *Pathology* 1992; 24:27-31.
23. Donovan B, Bek MD, Pethebridge AM, Nelson MJ. Heterosexual gonorrhoea in central Sydney: implications for HIV control. *Med J Aust* 1991; 154:175-180.
24. Donovan B, Harcourt C, Bassett I, Philpot CR. Gonorrhoea and Asian prostitution: the Sydney Sexual Health Centre experience. *Med J Aust* 1991; 154:520-1.
25. Arya OP, Lawson JB. Sexually transmitted diseases in the tropics. Epidemiological, diagnostic, therapeutic and control aspects. *Trop Doct* 1977; 7:51-56.
26. Thompson SE, Washington AE. Epidemiology of sexually transmitted *Chlamydia trachomatis* infections. *Epidem Rev* 1983; 5:96.
27. Statistical bulletin on new cases seen at genito-urinary medicine clinics in England - 1987. DH Statistics and Research, March 1989.
28. Judson FN. Epidemiology and control of nongonococcal urethritis and genital chlamydial infections: A review. *Sex Transm Dis* 1981; 8(Suppl):117.
29. Brunham RC, Paavonen J, Stevens CE et al. Mucopurulent Cervicitis – the ignored counterpart in women of urethritis in men. *N Engl J Med* 1984; 311:1.
30. Mindel A. Genital herpes - how much of a public health problem? *Lancet* 1998; 351 (Suppl 111):16-18.
31. Government Statistical Service. Sexually transmitted diseases, England 1995; new cases seen at NHS genito-urinary medicine clinics. London HM Stationery Office 1996:1-15.
32. Centers for Disease Control and Prevention. Genital herpes infections – United States, 1966-79. *MMWR* 1982; 31:137-139.
33. Nahmias AJ, Lee FK, Beckman-Nahmias S. Sero-epidemiological and sociological patterns of *Herpes Simplex Virus* Infection in the world. *Scand J Infect Dis* 1990; Suppl 69:19-36.
34. Oriel JD. Wart virus infections. *Current opinion in infectious diseases* 1988; 1:3-10.
35. Bauer HM, Ting Y, Greer CE, et al. Genital human papillomavirus infection in female university students as determined by a PCR-based method. *JAMA* 1991; 265:472-477.
36. Ho G, Bierman R, Beardsley L, et al. Natural history of cervicovaginal papillomavirus infection in young women. *N Engl J Med* 1998; 338:423-428.
37. Editorial. Chancroid. *Lancet* 1982; (ii):747-748.
38. Van Dyck E, Piot P. Laboratory techniques in the investigation of chancroid, lymphogranuloma venereum and donovanosis. *Genitourin Med* 1992; 68:130-133.
39. Schmid GP. Chancroid in the United States - re-establishment of an old disease. *J Am Med Assoc* 1987; 258:3265-3268.

40. Centers for Disease Control and Prevention. 1993 Sexually transmitted diseases treatment guidelines. *MMWR* 1993; 42(RR-14):1-102.
41. Laga M, Manoka A, Kivuvu M, et al. Non-ulcerative sexually transmitted diseases as risk factors for HIV-1 transmission in women: results from a cohort study. *AIDS* 1993; 7:95-102.
42. Rein MF, Muller M. *Trichomonas vaginalis* and trichomoniasis. In: Holmes KK Mardh PA, Sparling PF, Weisner PJ Eds. Sexually Transmitted Diseases 2nd Edition, New York: McGraw Hill, 1990:481-492.
43. Harry TC, Rashid S, Saravanamuttu MA, Shrestha TL, Trichomoniasis: perspectives in declining prevalence in a GUM clinic. *Sex Transm Dis* 1994; 21:357-9.
44. Perine PL, Osaba AO. Lymphogranuloma venereum. In: Holmes KK et al. (eds), *Sexually Transmitted Diseases*. New York, McGraw-Hill, 1984; (pp28-291).
45. Wilcox RR. Importance of the so-called "other" sexually transmitted diseases. *Br J Ven Dis* 1975; 51:221-226.
46. Centers for Disease Control. Summary of notifiable diseases, United States. *MMWR* 1987; 36(54):59.
47. Osaba AO. Lymphogranuloma venereum. In: *Clinical Tropical Medicine and communicable diseases*. London, Baillière Tindall, 1987 (Vol 2, No 1).
48. Richens J. The diagnosis and treatment of donovanosis (granuloma inguinale). *Genitourin Med* 1991; 67:441-452.
49. Government Statistical Service. New cases seen at NHS genitourinal medicine clinics in England 1976-1986. London, Department of Health and Social Security, 1988 (Statistical Bulletin, 2 July 10-88).
50. Bowden FJ, Mein J. A pilot study of azithromycin in the treatment of genital donovanosis. *Genitourinary Med* 1996; 72:17-19.
51. Skov S, Tait P, Kaldor J, Bowden F. A field trial c: azithromycin in the treatment of donovanosis in Central Australia: a step towards eradication? *Venereology* 1998; 11(2):11-14.
52. Piot P, Andre F (eds). *Hepatitis B. A sexually transmitted disease in heterosexuals*. Excerpta Medica, Amsterdam, New York, Oxford, 1990.
53. Gilson RJC. Sexually transmitted hepatitis: a review. *Genitourin Med* 1992; 68:123-129.
54. Szmunes W, Much MI, Prince AM et al. On the role of sexual behaviour in the spread of hepatitis B infection. *Ann Intern Med* 1975; 83:489-95.
55. Fulford KWM, Dane DS, Calterall RD et al. Australia antigen and antibody among patients attending a clinic for sexually transmitted diseases. *Lancet* 1973; (i):1470-3.
56. Alter MJ, Coleman PJ, Alexander WJ et al. Importance of heterosexual activity in the transmission of hepatitis B and non-A, non-B hepatitis. *JAMA* 1989; 262:1201-5.
57. Polakoff S. Acute viral hepatitis B, reported to the Public Health Laboratory Service, *J Infect* 1990, 20:163-8.

58. Szmunes W, Stevens CE, Harley EJ et al. Hepatitis B vaccine. Demonstration of efficacy in a controlled clinical trial in a high-risk population in the United States. *N Engl J Med* 1980; 303:833-41.
59. WHO. Consensus statement from the consultation on hepatitis B as a sexually transmitted disease. Geneva, 28-30 November 1990.
60. Steffen R. Risks of hepatitis B for travellers. *Vaccine* 1990; 8(Supplement):S31-2.
61. Blumberg BS. Sex-related aspects of hepatitis B infection and its consequences. In: Plot P, Andre F (eds). *Hepatitis B. A sexually transmitted disease in heterosexuals*. Excerpta Medica, Amsterdam, New York, Oxford, 1990.
62. Owen RL, Dritz SK, Wibbelsman CJ. Venereal aspects of gastroenterology. *West J Med* 1979; 130:236-46.
63. Public Health Laboratory Service. Communicable Disease Report w/e 2 November 1990.
64. Kani J, Maguire HC, Gilson RJC, Nandwani R et al. Hepatitis A virus infection among homosexual men. *Br Med J* 1991; 302:1399.
65. Weller IVD, Karayiannis P, Lok ASF et al. Significance of delta agent infection chronic hepatitis B infection: a study in British HBV carriers. *Gut* 1983. 24:1061-3.
66. Weisfuse IB, Hadler SC, Fields HA, et al. Delta hepatitis in homosexual men in the United States. *Hepatology* 1989; 9:872-4.
67. Pol S, Dubois F, Roingeard P et al. Hepatitis delta virus infection in French male HBsAg-positive homosexuals. *Hepatology* 1989; 10 : 342 - 5
68. Choo OL, Weiner AJ, Overby LR, Kuo G et al. Hepatitis C virus: the major causative agent of viral non-A, non-B hepatitis. *Br Med Bull* 1990; 46:423-41.
69. Kiyosawa K, Sodeyawa T, Tanaka E et al. Intrafamilial transmission of hepatitis C virus in Japan. *J Med Virol* 1991; 33:114-6.
70. Bradley DW. Enterically-transmitted non-A, non-B hepatitis. *Br Med Bull* 1990; 46:442-61.
71. Drew WL, Mintz L, Miner RC et al. Prevalence of cytomegalovirus infection in homosexual men. *J Infect Dis* 1981; 143:188-192.
72. Collier AC, Meyers JD, Corey L et al. Cytomegalovirus infection in homosexual men: relationship to sexual practices, antibody to human immunodeficiency virus, and cellmediated immunity. *Am J Med* 1987; 82:593-601.
73. Centers for Disease Control. Pneumocystis pneumonia - Los Angeles. *MMWR* 1981; 30:250-2.
74. UNAIDS/WHO. Report on the global HIV/AIDS epidemic, June 1998, Geneva.
75. Mann JM. AIDS - The Second Decade: A Global perspective. *J Infect Dis* 1992; 165:245-50.
76. Gallo R, Montagnier L. The chronology of AIDS Research. *Nature* 1987; 326:435-6.
77. Dax EM. Developments in HIV testing. *Today's Life Science* 1992; 6:66-9.

78. Luciw PA, Harada S. Overview - virology. *AIDS* 1998; 12(Suppl A):SI-S3.
79. Ho DD, Neumann AU, Perelson AS, et al. Rapid turnover of plasma virions and CD4 lymphocytes in HIV-1 infection. *Nature* 1995. 373:123-126.
80. Mellors JW, Munoz A, Giorgi JV, et al. Plasma viral load and CD4+ lymphocytes as markers of HIV-1 infection. *Ann Intern Med* 1997; 126:946-954.
81. Carpenter CCJ, Fischl MA, Hammer SM, et al. Antiretroviral therapy for HIV in 1997. updated recommendations of the International AIDS Society - USA panel. *JAMA* 1997; 277:1962-1969.
82. Pantaleo G, Perrin L. Can HIV be eradicated? *AIDS* 1998; 12(Suppl A):S175-S180.
83. Stott J, Hu SL. Overview: vaccines and immunology. *AIDS* 1998; 12(Suppl A):S95-S96.
84. Centers for Disease Control. Update on acquired immune deficiency syndrome (AIDS) - United States. *MMWR* 1982; 31:507-14.
85. Centers for Disease Control. Classification system for human T-lymphotropic virus type III/lymphadenopathy - associated virus infections. *MMWR* 1986; 35:334-9.
86. Centers for Disease Control. Revision of the CDC surveillance case definition for acquired immunodeficiency syndrome. *MMWR* 1987; 36(Suppl):1S-15S.
87. Centers for Disease Control. 1993 Revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults. *MMWR* 1993; 41:RR17.
88. Centers for Disease Control. 1994 Revised classification system for human immunodeficiency virus infection in children less than 13 years of age. *MMWR* 1994; 43:RR12.
89. Friedland GH, Klein RS. Transmission of the human immunodeficiency virus. *N Engl J Med* 1987; 317(18):1125-35.
90. World Health Organization. Global programme on AIDS: The HIV/AIDS pandemic: 1994 overview. Geneva. 1994.
91. Mastro TD, Satten GA, Nopkesorn T, et al. Probability of female to male transmission of HIV-1 in Thailand. *Lancet* 1994; 343:204-7.
92. Dunn DT, Newell ML, Ades AE, Peckham CS. Risk of human immunodeficiency virus type 1 transmission through breast feeding. *Lancet* 1992.1 340(ii):585-8.
93. Mastino M, Tovo PA, Tozzi AW, Pezzotti P, et al. HIV-1 transmission through breast milk: appraisal of risk according to duration of feeding. *AIDS* 1992; 6:991-7.
94. Bonneux L, van der Stuyft P, Taelman H, et al. Risk factors for infection with human immunodeficiency virus among European expatriates in Africa. *Br Med J* 1988; 297:581-4.
95. Hersh BS, Poporici F, Apetrei RC, Zolotusca L, et al. Acquired immunodeficiency syndrome in Romania. *Lancet* 1991; 338(8768):645-9.
96. Pokrovsky W. Nosocomial outbreak of HIV infection in Elista, USSR. In: *Vth International Conference on AIDS*, Montreal, 4-9 June 1989. Abstract Volumes no. WA05.

97. Groopman J, Salahuddin S, Sarngadharan M, Markhum P, et al. HTLVIII in saliva of people with AIDS-related complex and healthy homosexual men at risk of AIDS. *Science* 1984; 226:447-9.
98. Ho DD, Byington R, Schooley R, Flynn T. Infrequency of isolation of HTLV-III virus in saliva in AIDS. *N Engl J Med* 1985; 313:1606.
99. Levy JA, Greenspan D. HIV in saliva (letter). *Lancet* 1988; (ii):1248.
100. Zuckermann AJ. AIDS and insects. *Br Med J* 1986; 292:1094-5.
101. Von Reyn CF, Mann JM. Global epidemiology. In: AIDS a global perspective. *Western J Med* 1987. 147:694-701.
102. Castro KG, et al. Transmission of HIV in Belle Glade, Florida: Lessons for other communities in the United States. *Science* 1988; 239:193-7.
103. Lifson AR. Do alternate modes for transmission of human immunodeficiency virus exist a review. *JAMA* 1988; 259:1353-6.
104. Friedland GH et al. Lack of transmission of HTLVIII/LAV infection to household contacts of patients with AIDS or AIDS related complex with oral candidiasis. *N Engl J Med* 1986; 314:344-9.
105. Mann JM, Chin J. AIDS - a global perspective. *N Engl J Med* 1988; 319:302-3.
106. Weniger BG, Thongcharoen P, John JT. The HIV epidemic in Thailand, India, and neighbouring nations: a fourth epidemiologic pattern emerges in Asia. In: *VIIIth International Conference on AIDS/III STD World Congress*, Amsterdam 19-24 July 1992. Abstract Volumes no. PoC 4087.
107. Brown T, Xenos P. AIDS in Asia: The gathering storm. Analysis from the East-West Center. August 1994; 16:1-15.
108. Kaldor JM (Ed). AIDS in Asia and the Pacific (Second Edition), AIDS 1998.
109. Laga M (Ed). AIDS in Africa (Second Edition), AIDS 1998. Nb these should both have been 1998, not 88.
110. Unpublished observations. International Conference on AIDS, Geneva, 1998.
111. Clavel F. HIV-2, the West African AIDS virus. *AIDS* 1987; 1:135-140.
112. Paixao MTD, Dewar Rd, Cossar JH, Covell RG, Reid D. What do Scots die of when abroad? *Scot Med J* 1991; 36:114-116.
113. Steffen R. Travel medicine - prevention based on epidemiological data. *Trans R Soc Trop Med Hyg* 1991; 85(2):156-62.
114. Curran J.W. et al. Acquired immunodeficiency syndrome (AIDS) associated with transfusions. *New Engl J Med* 1984; 310:69-75.
115. Von Reyn CF, Mann JM, Chin J. International travel and HIV infection. *WHO Bulletin OMS* 1990; 68:251-259.
116. Wylie B. HIV and blood transfusion. *Today's Life Science* 1991 (June):72-76.

117. Cummings RD, Wallace EL, Schorr JB, Dodd RY. Exposure of patients to human immunodeficiency virus through the transfusion of blood components that test antibody-negative. *N Engl J Med* 1989; 321:941-946.
118. Jäger H, Nseka K, Gonssard B et al. Voluntary blood donor recruitment: a strategy to reduce transmission of HIV-1, hepatitis B, and syphilis in Kinshasa, Zaire. *Infusionstherapie* 1990; 17:224-226.
119. Mhalu FS, Ryder RW. Blood transfusion and AIDS in the tropics. *Baillieres Clin Trop Med Commun Dis* 1988; 1:551-558.
120. N'galy B, Ryder RW. Epidemiology of HIV infection in Africa. *J Acquir Immune Defic Syndr* 1988; 1:551-558.
121. De Schryver A, Meheus A. Syphilis and blood transfusion a global perspective. *Transfusion* 1990; 30(9):844-847.
122. Chin J, Mann JM. Global Surveillance and forecasting of AIDS. *Bull World Health Organ* 1989; 67:1-7.
123. Jäger H, Jersild C, Emmanuel JC. Safe blood transfusions in Africa. *AIDS* 1991; 5(Suppl 1):S163- S168.
124. WHO. Global Programme on AIDS and global blood safety initiative. Recommendations for testing for HIV antibody on serum pools. *Weekly Epidemiology Rec* 1991; 66(44):326-7.
125. Surgenor D, Mac N. The patient's blood is the safest blood. *N Engl J Med* 1987; 316:542-544.
126. World Health Organization. Guidelines for the appropriate use of blood. WHO/GPA/89.18. Geneva:WHO, 1989.
127. Chiewslip P, Isarangkura P, Poonkasem A, Iamsilf W et al, Risk of transmission of HIV by seronegative blood (letter). *Lancet* 1991; 338(ii):1341.
128. Bonneux L, van der Stuyft P, Taelman H, et al. Risk factors for infection with human immunodeficiency virus among European expatriates in Africa. *Br Med J* 1998; 297:581-584.
129. Hersh BS, Poporici, F, Apetrei RC, Zolotusca L et al. Acquired immunodeficiency syndrome in Romania. *Lancet* 1991; 338(8768):645-9.
130. Pokrovsky VV. Nosocomial outbreak of HIV infection in Elista, USSR. In: Program and Abstracts from V International Conference on AIDS, Montreal, 4-9 June 1989, Abstract Volumes. WA05
131. LS et al. Disinfection and inactivation of the human T lymphotropic virus type III lymphadenopathy associated virus. *J Infect Dis* 1985; 152:400-403.
132. Lackritz EM. Prevention of HIV transmission by blood transfusion in the developing world: achievements and continuing challenges. *AIDS* 1998, 12(Suppl A):S81-S86.
133. Waugh MA. History of clinical developments in sexually transmitted diseases. In: Holmes KK et al (eds), *Sexually Transmitted Diseases*. New York, McGraw-Hill, 1984 (pp3-19).

134. Grosby AW Jr. The early history of syphilis: A reappraisal. *American anthropologist* 1969; 71:218-227.
135. Watt J. Lettsonian lectures. Medical Perspectives of some voyages of discovery. *Trans Roy Soc Lond* 1979; 95:61-91.
136. Haour-knipe M. Assessing AIDS Prevention among migrant populations. In: Assessing AIDS Prevention. Paccand F, Vader JP, Gutzwiller (eds). Birkhauser Verlag. Basel. 1992.
137. De Schryver A, Meheus A. Sexually Transmitted Diseases and Migration. *International Migration* 1990; 29(1):13-22.
138. Quinn TC. Population migration and the spread of types 1 and 2 human immunodeficiency viruses (review). *Proc Natl Acad Sci* 1994; 91(7):2407-2414.
139. Mabey D, Mayaud P. Sexually transmitted diseases in mobile populations. *Genitourin Med* 1997; 73:18-22.
140. Decosas J, Adrien A. Migration and HIV. *AIDS* 1997; 11(Supp: A):S77-S84.
141. Cossar JH, Reid D. Health hazards of international travel. *Wld Hlth Statist. Quart* 1989; 42:61-69.
142. Cossar JH et al. Illness associated with travel: a ten year review. *Travel Medicine Int'l* 1985; 3(1):13-18.
143. Mardh PA, Kallings I. Tourism has a great impact on the epidemiology of sexually transmitted diseases; emphasis of European perspective. In: Proceedings of the Second Conference on Tourist Health, Rimini, Italy, March 15-18, 1989.
144. De Schryver, Meheus A. International travel and transmitted diseases. *Wld Hlth Statist Quart* 1989; 42:90-99.
145. Wasserheit J N. Epidemiological synergy. Interrelationship between Human Immunodeficiency Virus infection and other Sexually Transmitted Diseases. *Sex Transm Dis* 1992; (2):61-77.
146. Hayes R, Mosha F, Nicoll A, Grossfurth H, et al. A community trial of the impact of sexually transmitted disease treatment on the HIV epidemic in rural Tanzania. 1. Design. *AIDS* 1995; 19:919-926.
147. Grossfurth H, Mosha F, Todd J, Senkoro K, et al. A trial of the impact of improved sexually transmitted disease treatment on the HIV epidemic in rural Tanzania. 2. Baseline survey results. *AIDS* 1995; 9:927-934.
148. Grossfurth H, Mosha F, Todd J, Mwijarubi E, et al. In pact of Improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania : randomised controlled trial. *Lancet* 1995; 346 : 530-536.
149. Wawer MJ, Serwadda D, Musgrave SD, Konde-Lule JK, et al. Dynamics of spread of HIV-1 infection in a rural district of Uganda. *Br Med J* 1991; 303:1303-1306.
150. Yorke JA, Hethcote HW, Nold A. Dynamics and control of transmission of gonorrhoea. *Sex Transm Dis* 1978; 5:31-36.
151. May RM, Anderson RM. Transmission dynamics of HIV infection. *Nature* 1987; 326:137-42.

152. Guthe T, Willcox RR. The international incidence of venereal disease. *Roy Soc Hlth J* 1971; 91:122-133.
153. Anonymous. Sexually transmitted diseases. Extract from the annual report of the Chief Medical Officer of the Department of Health and Social Security for the year 1976. *Br J Vener Dis* 1978; 54:57-59.
154. Anonymous. Syphilis, Sweden. *Weekly Epidemiol Rec* 1988; 63:174-175.
155. Anonymous. Maladies Sexuellement transmissibles Contractees lors de voyages a l'etranger. *Bulletin de l'office federal de la Sante publique* 1994; 20:314-317.
156. Ruden AK. Gonorrhoea in Stockholm. PhD thesis. University of Stockholm 1993.
157. Donovan B, Bek M, Pethebridge AM, Nelson MJ. Heterosexual gonorrhoea in central Sydney: implications for HIV control. *Med J Aust* 1991; 154:175-180.
158. Donovan B, Harcourt C, Bassett I, Philpot CR. Gonorrhoea and Asian prostitution: the Sydney Sexual Health Centre experience. *Med J Aust* 1991; 154:520-1.
159. Cunningham GA. The Kenya general practitioner looks at the tourist. *J Roy Coll Glen Pract* 1972; 22:645-647.
160. Vuksanovic P, Goethe WHG, Burchard HV, Schnitz H et al. Seamen and AIDS. *Travel Medicine Int'l* 1988; 6:18-19.
161. Cross AB and Harris JRW. Reappraisal of the problem of British mariners and sexually transmitted infection. *Br J Vener Dis* 1976; 52:71-77.
162. Gilmore N, Orkin AJ, Duckett M, Grover SA. International travel and AIDS. *AIDS* 1989; 3(Suppl):S225-S230.
163. von Reyn CF, Mann JM, Chin J. International travel and HIV infection. *WHO Bulletin OMS* 1990; 68:251-259.
164. Shilts R. And the band played on. New York. St. Martin's Press. 1987.
165. Crofts N. Epidemiology of AIDS. *Today's Life Science* 1992 (June):10-17.
166. Noone A, Gill ON, Clarke SE, Porter K. Travel, heterosexual intercourse and HIV-I infection. *Commun Dis Rep* 1991; 1:R39-R43.
167. Vitteroq D, Rove RT, Mayand C et al. Acquired immunodeficiency syndrome after travelling in Africa: an epidemiological study in seventeen Caucasian patients. *Lancet* 1987; (1)612-515.
168. Tauris P, Black FT. Heterosexuals importing HIV from Africa. *Lancet* 1987; (i)325.
169. Clumeck N, Magrez P, Roth D, De Wit S et al. Pattern of HIV heterosexual infection in Brussels. Fourth International Conference on AIDS, Stockholm 1988, Abstract Volumes:4013.
170. Bonneux L van der Stuyft P, Taelman H et al. Risk factors for infection with human immunodeficiency virus among European expatriates in Africa. *Br Med J* 1988; 297:581-4.
171. Weniger BG, Takebe Y, Ou CY, Yamazaki S. The molecular epidemiology of HIV in Asia. *AIDS* 1994; 8(Suppl2):S13-S28.

172. Padian NS (editorial review). Prostitute women and AIDS: epidemiology. *AIDS* 1988; 2:413-419.
173. Viravaidya M. Confronting a culture at risk: a curbside view of AIDS Education and prevention in Thailand (abstract). AIDS in Asia and the Pacific Conference, Canberra, Australia, 5-8 August 1990; Official Proceedings Document:63-67.
174. Vithayasai V and Vithayasai P. HIV infection in Northern Thailand (abstract). Presented at Conference on Travel and Tropical Medicine for South East Asia, Chulalongkorn University, Bangkok, 5-8 February 1992.
175. Koenig ER. International prostitutes and transmission of HIV. *Lancet* 1989; (i):782-783.
176. Mardh PA, Genc M. Migratory prostitution with emphasis on Europe. *J Travel Medicine* 1995; 2(1):28-32.
177. Genc M, Agacfidan A, Gerikalmaz O, Mardh PA. A descriptive study of Romanian women prostituting in Istanbul. Third Conference on International Travel Medicine, Paris, April 25-29, 1993. Abstract 53.
178. Brown T, Mulhall B, Sittitrai W. Risk factors for HIV transmission in Asia and the Pacific. *AIDS* 1994; 8(Suppl 2):S173-S182.
179. O'Connor C. Predictors of STDs and condom usage in local and international sex workers in Sydney. Master of Medicine treatise. University of Sydney 1995.
180. Anderson B, Bodsworth IN, Rohrsheim R, Donovan 9. Hepatitis B virus infection and vaccination status of high risk people in Sydney: 1982 and 1991. *Med J Aust* 1994; 161:368-371.
181. Carswell JW, Lloyd J, Howells J. Prevalence of HIV-I in East African lorry drivers. *AIDS* 1989; 3:759-761.
182. Mohammed Ali O, Bwayo JJ, Mutere AN et al. Sexual behaviour of long-distance truck drivers and their contribution to the spread of STD and HIV infection in East Africa. VI International Conference on AIDS, San Francisco, June 1990. Abstract Volumes:729.
183. Mbugua G, Hearst N, Linden C, Waiyaki P.G. et al. Risk factors associated with HIV infection among long distance truck drivers in Kenya. Abstract PoD 5367, (in ref 101).
184. Mutura CW, Mbugua GG, Oogo SA, Mumbi J et al. Needs assessment survey the truckers in Kenya: frustrations could lead to bad behaviour attitudes. Abstract PoD 5369, (In ref 101).
185. Gashau W, Hall TL, Hearst N. Awareness regarding AIDS and HIV Nigerian long distance truck drivers. Abstract PoD 5221, (in ref 101).
186. Oogo SA, Mbugua GG, Mutura CW, Songok EM et al. Seroprevalence of HIV-2 infection among long distance truck drivers in Kenya. Abstract PoC 4718, (in ref 10 1).
187. Orubuloye 10, Caldwell P, Caldwell JC. The role of high-risk occupations in the spread of AIDS: Truck Drivers and Itinerant Market Women in Nigeria. *International Family Planning Perspectives* 1993; 19(2):43-48.
188. Dhar J, Timmins DJ. Seafarers and HIV infection (letter). *Br Med J* 1991; 303:1132-1133.

189. van Damme J, van Damme P. Incidence of HIV in a seafarers' population. In: Consensus statement from the consultation on AIDS and seafarers, Geneva WHO GPA 1989:1-3.
190. Melbye M, Biggar RJ, Ebbesen P et al. Seroepidemiology of HTLVIII antibody in Danish homosexual men: prevalence, transmission, end disease outcome. *Br Med J* 1984; 298:573-575.
191. Schutzhard E, Fuchs D, Hengster P et al. Retroviral infections (HIV-1, HIV-2 and HTLV-1) in rural northwestern Tanzania. *Am J Epidemiol* 1989; 130:309-318.
192. Feachem RG, Phillips-Howard PA. Risk to UK heterosexuals of contracting AIDS abroad. *Lancet* 1988; (ii)394-395.
193. Crofts N, Hay M. Entry of human immunodeficiency virus infection into a population of injecting drug users, Victoria, 1990. *Med J Aust* 1991; 155:378-382.
194. Porter JDH, Phillips-Howard PA, Behrens RH. AIDS awareness among travellers. *Travel Medicine International* 1991; 28-32.
195. Behrens RH, Porter JDH. HIV infection and foreign travel. *Br Med J* 1990; 301:1217.
196. Choi KH, Catania J, Coates TJ, Hearst N. International Travel and AIDS risk in South Korea (letter). *AIDS* 1992; 6(12):1555-1557.
197. Allard R, Lambet G. Knowledge and beliefs of international travellers about the transmission and prevention of HIV Infection. *Can Med Assoc J* 1992; 146:353-359.
198. Mulhall BP, Hu M, Thompson M, Lin F et al. Planned sexual behaviour of young Australian visitors to Thailand. *Med J Aust* 1993; 158:530-535.
199. Worm AM, Lillelund H. Condoms and sexual behaviour of young tourists in Copenhagen. *AIDS Care* 1989; 1(1):93-96.
200. Vorakitphokatorn S, Cash R, Elliot ST. Heterosexual behaviour related to the risk of HIV infection among Japanese men in Bangkok, Thailand Xth International Conference on AIDS/International Conference on STD, Yokohama 7-12 August 1994. Abstracts, Volume 1, PD0367.
201. Vorakitphokatorn S. Sexual behaviour of young Japanese women tourists in Southern Thailand and risk for HIV infection. Xth International Conference on AIDS/International Conference on STD, Yokohama 7-12 August 1994. Abstracts, Volume 1, 066D.
202. Ford N. Safer sex in tourist resorts. *World Health Forum* 1992; 13:77-80.
203. Hausser D, Zimmerman E, Dubois-Arber F, Paccaud F. Evaluation of the AIDS prevention strategy in Switzerland, third assessment report, 11:189-1990. Lausanne. Institut Universitaire de Medicine Sociale et preventive, 1991.
204. Gillies P, Slack R, Stoddart N, Conway S. HIV-related risk behaviour in UK holidaymakers. *AIDS* 1992; 6(3):339-340.
205. Steffen R, Stricker NI, Eichmann A, Gutziller F. Casual sexual contracts of Swiss tourists in tropical Africa, the Far East and Latin America. V International Conference on AIDS, Montreal 1989, Abstract Volumes:M.D.P. 25.
206. Hawkes SJ, Hart G, Johnson AM, Shergold C et al. Risk behaviour and HIV prevalence in International travellers. *AIDS* 1994; 8:247-252.

207. Rowbottom J. Risks taken by Australian men having sex in South East Asia. *Venereology* 1991; 4(2):56-59.
208. Treit KS, Nilsen A, Nyfors A. Casual sexual experience abroad In patients attending an STD clinic and at high risk for HIV infection. *Genitourin Med* 1994; 70:12-14.
209. Daniels DG, Kell P, Nelson MR, Barton SE. Sexual behaviour amongst travellers: a study of genitourinary medicine clinic attenders. *Int J STD & AIDS* 1992; 3:437-438.
210. Mendelsohn R, Astle L, Mann M, Shahmanesh M. Sexual behaviour in travellers abroad attending an inner-city genitourinary medicine clinic. *Genitourin Med* 1996; 72:43-46.
211. Hawkes S, Hart GJ, Bletsoe E, Shergold C, Johnson AM. Risk behaviour and STD acquisition in genitourinary clinic attenders who have travelled. *Genitourin Med* 1995; 71:351-354.
212. Black P, Cliff S, Wijesundra C. The sexual behaviour of travellers/ tourists: A qualitative and quantitative study of genito-urinary clinic attenders (unpublished data).
213. Bloor M. HIV-related behaviour among international travellers. In: Fitzsimmons D, et al (eds): *The Economic and Social Impact of AIDS in Europe*. London: Cassell and National AIDS Trust, 1995.
214. Carter S. Places of danger and places of safety: Travellers social construction of risky locations In relation to HIV/AIDS. Conference Proceedings, AIDS in Europe: The Behavioural Aspects, Berlin, September 25-29, 1994.
215. Hawkes SJ, Hart GJ. Travel, migration, and HIV. *AIDS Care* 1993; 5(2):207-214.
216. Kleiber D, AIDS and (Sex) Tourismus. Hrsg. Niedersächsisches Sozialministerium, Edition AIDS 11, 1991.
217. Kleiber D, Wilke M. Sexual behaviour of German (sex) tourists. IXth International Conference on AIDS, Berlin, June 6-11, 1993, Abstract Volumes, WS-D10-2.
218. Weiler GA. German sex tourism in the Philippines: The client's perspective in the light of AIDS. Paper presented at Conference, AIDS in Europe - The Behavioural Aspects, Berlin, September 25-29, 1994.
219. Ungpakorn J. The impact of AIDS on women in Thailand. Conference on AIDS and the Pacific, Canberra 5-8 August 1990. Official proceedings document:151-154.
220. Ford N, Koetsawong S. The socio-cultural context of the transmission of HIV in Thailand. *Soc Sci Med* 1991; 33(4):405-414.
221. Cohen E. Sensuality and venality in Bangkok. The dynamics of cross-cultural mapping of prostitution. *DEBEDF* 1987; 8:223-224.
222. M, Kleiber D. Sexual Behaviour of gay German (sex) tourists in Thailand. (Abstract), PoD 5239, (in ref 101).
223. Sittitrai W, Brown T, Sterns J. Opportunities for overcoming the continuing restraints to behaviour change and HIV risk reduction. *AIDS* 1990; 4(Suppl 1):S269-S276.
224. Ungchusak K, Thanprasertsuk S, Sriprapandh S et al. First National Sentinel Seroprevalence Survey for HIV-1 infection in Thailand, June 1989. VI International Conference on AIDS, San Francisco 1990. Abstract Volumes:F.C. 99.