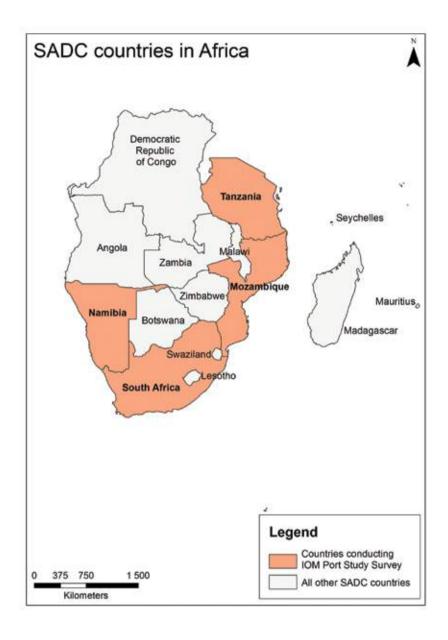
Health vulnerabilities of mobile and migrant populations in Selected Ports of South Africa -

Regional Synthesis Report









Prof. Tim Quinlan, Health economics and HIV/AIDS Research Division, University of KwaZulu-Natal February 2015

Project Co-ordinator: Nellie Myburgh, IOM, Pretoria

ACKNOWLEDGEMENTS

This report uses the findings of the reports of the four port studies which constituted the project and, therefore, due acknowledgment is made to the authors of those reports:

- Kerry Selvester, Lourdes Fidalgo, DelmiraMahace, and Victor Bie (Beira)
- Beatrice Mutayoba (team leader), Dr. Bernard Ngowi, Dr. WanzeKohi, Thomas Mwinyeheri, Dr. G.S Mfinanga, and Gerald Kyando (Dar es Salaam)
- Gavin George, Tim Quinlan and Kea Gordon (Durban)
- Sustainable Development Africa (Inc) (Walvis Bay)

Each port study received support from a number of agencies and organisations within their respective port cities/town, ranging from academic institutions to port authorities, to companies, to non-government organisations and, not least, the research informants. Each country report provides details of that support which ultimately enabled this report to be compiled.

The design, implementation and completion of this project was managed and facilitated by the International Organisation for Migration. Specifically, Ms Nellie Myburgh managed and supervised the process while staff at the IOM/s Pretoria office provided support throughout every stage of the process.

The conduct of this project was made possible through the financial support of the SADC Secretariat and, specifically, the assistance of Alphonse Murumba.

Finally, the research teams, the IOM and the SADC are grateful for the assistance and participation in review of the project finding by representatives of Departments of Health and municipal authorities from Mozambique, Maputo and Beira, Namibia and Windhoek, South Africa and Kwa Zulu Natal province, and Tanzania and Dar es Salaam.

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Treatment therapy
CS0	Civil Society Organisation
CSW	Commercial Sex Worker
FB0	Faith Based Organisation
HCT	HIV Counselling and Testing
HIV	Human Immunodeficiency Virus
IDU	Intravenous Drug Users
IOM	International Organisation for Migration
MCP	Multiple Concurrent Partnership
MSM	Men who have sex with men
NGO	Non-governmental Organisation
SADC	Southern African Development Community
STI	Sexual Transmitted Illness
ТВ	Tuberculosis

LIST OF TABLES

Table 1:	Proportion of worker categories in the samples of each port study	18
Table 2:	Age characteristics of total port sample populations	
Table 3:	Proportion of total port sample populations who ever went to school	
Table 4:	Proportion of total port sample populations who completed Primary, Secondary	. 22
Table 5 :	and Higher education Condom use with cohabiting intimate partners during most recent sexual	. 22
iable J .	· · · · · · · · · · · · · · · · · · ·	28
Table 6:	Frequency of condom use with cohabiting partner: consolidated population data	
iable o.	from each port	. 29
Table 7:	Condom use with non-cohabiting intimate partners during most recent sexual	
iubio 7.	intercourse: Consolidated population data from each port	.29
Table 8:	Frequency of condom use with non-cohabiting partner: Consolidated	
	population data from each port	29
Table 9:	Condom use with casual acquaintance: consolidated population data from	
	each port	.30
Table 10:	Frequency of condom use with casual acquaintance: consolidated population	
	data from each port	30
Table 11:	Condom use in commercial sexual relationship: consolidated population data	
	from each port	.30
Table 12:	Frequency of condom use in commercial sexual relationship: consolidated	
	population data from each port	31
Table 13:	Condom use with cohabiting intimate partners during most recent sexual	
	intercourse: Consolidated sample population categories' data from all ports	31
Table 14:	Frequency of condom use with cohabiting intimate partners: Consolidated sample	е
	population categories from all ports	.32
Table 15:	Condom use with non-cohabiting intimate partners during most recent sexual	
	intercourse: Consolidated sample population categories' data from all ports	. 32
Table 16:	Frequency of condom use with non-cohabiting intimate partner: Consolidated	
	1 1 1	. 32
Table 17:	Condom use with casual acquaintance during most recent sexual intercourse:	
	Consolidated sample population categories' data from all ports	.33
	Frequency of condom use with casual acquaintance: Consolidated sample	
Table 19:	Condom use with commercial sex worker during most recent sexual intercourse:	
Table 00	Consolidated sample population categories' data from all ports	33
Table 20:	· · ·	0.4
Table 01:	sample population categories from all ports.	. კ4
Table 21:	Knowledge of condom use to prevent HIV infection : Consolidated population	.35
	data from each port	. ა:

Table 22:	Knowledge in relation to myth of HIV infection via mosquito bite:	
	Consolidated population data from each port	36
Table 23:	Knowledge of HIV prevention via faithfulness of : Consolidated population data from each port	36
Table 24:	Knowledge of HIV prevention via abstinence from sex: Consolidated population	36
Table 25:	Knowledge of myth of HIV infection by meal sharing: Consolidated population data	a 37
Table 26:	Knowledge of HIV infection via needle sharing: Consolidated population data from	า 37
Table 27:	Knowledge that healthy looking people can have the HI-virus: Consolidated	37
Table 28:	P-P	38
Table 29:	· · · · · · · · · · · · · · · · · · ·	38
Table 30:	Knowledge of MTCT via breastfeeding: Consolidated population data from each port	38
Table 31:	Knowledge of means to prevent MTCT: Consolidated population data from each port	39
Table 32:	Knowledge of PMTCT services: Consolidated population data from each port: Attitudes about HIV and AIDS	39
Table 33:	Attitudes about school attendance by HIV infected students: Consolidated population data from each port	39
Table 34:	Attitudes about HIV infected teachers: Consolidated population	40
Table 35:	Attitudes about HIV infected shopkeepers: Consolidated population	40
Table 36:	Attitudes about care of HIV infected relative: Consolidated population data from	
	·	40
Table 37:	Attitudes about disclosure of HIV infection amongst family members: Consolidated population data from each port	41
Table 38:	Reported levels of HIV testing amongst port studies population categories	43
Table 39: Table 40:	Knowledge of HIV testing facilities:Consolidated population data from each port First source of treatment for STIs: Consolidate data from sample populations	43
	·	44
Table 41:	Number and type of health facility in, and near to each port	45

LIST OF FIGURES

Figure 1: Spaces of Vulnerability and Spheres of Interact	ion
---	-----

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.	3
Acronyms	4
List of Tables	5
List of Figures	6
TABLE OF CONTENTS	7
EXECUTIVE SUMMARY	9
Introduction	9
Aims and purpose	9
Method and Methodology	10
Key Findings	10
Conclusion and Recommendations	12
CHAPTER 1	
HEALTH VULNERABILITIES OF MIGRANT AND MOBILE POPULATIONS AND THE C	ONCEPT
OF SPACES OF VULNERABILITY	13
CHAPTER 2	
STUDY METHODS AND METHODOLOGY	17
Introduction	17
Methods	17
Methodology	19
Summary	19
CHAPTER 3	
DEMOGRAPHIC CHARACTERISTICS OF THE RESEARCH POPULATIONS	20
Introduction	20
Age	21
Gender	22
Education	22
Nationality	23
Marital Status	23
Employment forms	23
Conclusion	23
CHAPTER 4	
SEXUAL RELATIONS AMONGST THE RESEARCH POPULATIONS	25
Introduction	25
Tanzania	
Mozambique	26

Walvis Bay	26
Durban	
Conclusion	
CHAPTER 5	
RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: CONDOM USE	28
Introduction	28
Condom use	28
Conclusion	34
CHAPTER 6	
RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: KNOWLEDGE	
AND ATTITUDES ABOUT HIV AND AIDS	35
Introduction	35
Knowledge about HIV and AIDS	35
Attitudes about HIV and AIDS	39
Conclusion	41
CHAPTER 7	
RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: HEALTH STATUS	
(STIS) AND HEALTH SEEKING BEHAVIOUR (STIS & HIV)	42
Introduction	42
STI incidence	42
Health seeking behaviour	42
Hiv testing	42
STI Treatment	43
Conclusion	44
CHAPTER 8	
QUANTITY AND QUALITY OF HEALTH SERVICES, PARTICULARLY STI-AND	
HIV- RELATED SERVICES	45
Introduction	45
The range of facilities	45
Quality of services	45
Quantity of services	46
CONCLUSION AND RECOMMENDATIONS	44
Conclusion	47
Recommendations	49

EXECUTIVE SUMMARY

Introduction

This SADC- funded project was a regional project involving primary research conducted at the ports of Beira, Dar es Salaam, Durban and Walvis Bay. This report is a synthesis of the findings of the research from the studies conducted at each port. Those findings are based on research conducted by four teams of researchers. Each team was selected in the country where they were to conduct the research. Their respective research was presented in four different reports. A workshop involving all the teams was conducted after each report had been drafted (in October 2014). The findings of the reports and discussions at the workshop are the basis for this synthesis report.

Aims and purpose

The project was conceived and managed by the International Organisation of Migration (IOM). The overall aim of the project was:

"to contribute to the reduction of HIV incidence and impact of AIDS among migrant and mobile workers and their families, and the communities with which they interact in selected port communities in southern Africa" (IOM, Terms of reference, 2013)

The specific aims (op cit) were tobuild more detailed knowledge and understanding of:

- health vulnerabilities, specifically HIV and TB, within these spaces of vulnerability,
- current responses to those vulnerabilities,
- the nature of sexual networking including concurrent sexual partnerships that exist among sea-going personnel, truck drivers, sex workers and other sedentary populations around ports,
- assist stakeholders in developing relevant policies and programmes that address health vulnerabilities of mobile populations and affected communities in the selected ports."

The purpose and aims of the project were to serve several strategic objectives of the IOM in southern Africa. The research objective was to improve knowledge on the health vulnerabilities migrant and non-migrant populations in port environs in this instance. The broader objectives were to facilitate evidence-based health policies, programmes and services, enable advocacy for such interventions amongst the migrant and non-migrant populations, and to facilitate regional initiatives involving collaboration of government agencies, civil society organisations (CSO), migrants and other interested parties.

In sum, the rationale for the project was to fill a gap in research evidence and, in turn, enable informed practical interventions. On the one hand, there is a large body of evidence which shows that population mobility and migration are significant drivers of the HIV epidemic in southern Africa as well as other sexually transmitted illnesses(STI) and Tuberculosis (TB).

On the other hand, there is a lack of information on the dynamics of HIV, STI and TB transmission in, and through seaports and their environs where there are large concentrations of mobile and migrant populations; notably, seafarers, truck drivers, stevedores and commercial sex workers. Accordingly, the project was designed to address this knowledge gap as a basis for informing the design of policies and programmes to curtail the HIV pandemic in the region, other STIs and other diseases such as Tuberculosis(TB).

Method and Methodology

Mixed research methods were used; these being a generic behavioural questionnaire for use amongst samples of each population category, key informant interviews and focus group discussions, as well as literature reviews. The project was conducted in phases beginning with consideration and refining of a draft generic questionnaire and interview schedules, followed in sequence by the primary research at each port, report writing, review of the reports, dissemination of findings to the SADC secretariat and country health officials, and compilation of the final synthesis report.

The core methodological concept was 'Spaces of vulnerability' This is a socio-geographical concept which refers to:

- the social and economic conditions of existence within a locality which can affect negatively the welfare of the resident population and,
- the personal circumstances of individuals in those conditions, which can influence their behaviour to the detriment of their own welfare.

For the purposes of this project, the concept was used to refer to seaports as geographical areas where there are populations:

- who work in or pass through them, and who by the nature of their work (e.g. as poorly paid, temporary workers) or transient presence occupy the margins of that space,
- who include a significant proportion of individuals whose social, specifically sexual, behaviour can be influenced negatively by their marginal existence or presence in these areas and, consequently.
- who are likely to face a high risk of HIV, STI and TB infection.

In view of the above, it should be noted that this project was not a regional study of truck drivers, stevedores, seafarers and CSWs. It conceived and conducted as a regional study in the sense of enabling identification of common patterns and trends in the risk of HIV and STI transmission in and through ports in southern Africa.

Key Findings

The results, discussions and conclusions of the four port reports can be reduced to three core findings.

First, the research results collectively challenge stereotypical views of ports as the main location within port cities of illicit trade in sex and drugs through the presence of large numbers of itinerant seafarers and CSWs and, that they are major channels for the transmission of HIV and STIs. This is neither to deny that ports are places where risky sexual behaviour occurs frequently, nor to infer that sustained HIV and STI health interventions are no longer necessary in these locations. The research revealed that the 'spaces of vulnerability' for such disease infection is shifting away from ports and their immediate environs into the cities. Furthermore, the research revealed generally (recognising contextual variation between ports) that seafarers constitute a relatively 'low risk' population; that there are populations, sedentary as well as mobile and migrant (e.g. food traders; policemen; port officials) who are becoming 'high risk' populations; and that stevedores in due course will constitute a relatively small population due to decreasing demand for such labour.

These findings reflect broader economic forces; generally, the ongoing restructuring of the maritime industry and port operations and, specifically, the ongoing expansion and elaboration of container-based cargo transport, to reduce the costs of maritime and international transport operations. Many seafarers have health checks prior to securing contracts and do not secure work if they have STIs or HIV infection. In other words, they are not a significant channel for HIV and STI transmission into a country and, possibly, not for transmission into their home countries. In addition, ports are increasingly being separated from their adjoining towns/cities. The separation is tangible in the establishment of security measures to restrict and control the flow of persons and goods in and out of ports. Notably, road transport systems are being refined to ease congestions at port entrancesand the changes include establishment of 'truck stops' for documentation processing beyond city boundaries and for resting and refuelling in locations on the margins of cities and beyond. These developments mean that interactions between truck drivers and CSWs, for example, occur increasingly and more frequently in the environs of the 'truck stops'.

Secondly, multiple concurrent sexual relationships characterise sexual liaisons between truck drivers, stevedores, other port workers, CSWS and others who work in port environs (e.g. food traders; bar/night club staff). In general, there are large, porous sexual networks within which CSWs and truck drivers are core participants, inconsistent condom use by individuals in these networks, and lack of exclusivity of partners in the networks which include individuals who have regular partners. Notably, the research revealed that there is a blurring of boundaries between commercial, transactional and intimate sexual relationships with a consequence of increased high risk of HIV and STI transmission within these sexual networks. Condoms may be used consistently in commercial sexual liaisons but with decreasing frequency in other types of relationships.

Thirdly, 'spaces of vulnerability' can be a useful device to explore and identify 'hotspots' and channels of HIV and STI transmission within and between mobile, migrant and sedentary

populations. The main proviso is that the concept needs to be viewed not only in terms of physical spaces but also in psycho-social terms in the sense of the psychological and mental conditions and perspectives of vulnerable populations which influence their behaviour. Notably, the studies indicate that the risks and the needs of the populations who work in and around ports are 'hidden'. They may be hidden in the sense of individuals not accessing health services due to societal stigma and discrimination or via contradictions in the application of knowledge, such as using consistent of condoms with unfamiliar partners but less consistency with familiar and intimate partners, or by virtue of not being seen as a population which requires specific, targeted interventions.

Conclusion and Recommendations

The three core findings infer the need for health authorities to devise and/or adapt interventions in accord with the changing dynamics of HIV and STI transmission in and around ports. The findings also reiterate the need for dedicated interventions targeted at CSWS and truck drivers in view of the port studies showing that they are 'high risk' populations in terms of being infected and being channels for HIV and STI transmission into the populations of port cities and towns. Practical recommendations include defining truck drivers as 'key populations' to enable the design of targeted interventions and implementation of services which serve the needs of these mobile populations, such as clinics which are open at night and at weekends and mobile clinics. In sum, the rapid changes to port and maritime industry operations means that health officials need to recognise that the form, focus and location of HIV and STI interventions will need to adapt to those changes.

Each country report draws attention to issues that which were not a designated focus of the research but which deserve further attention. One issue common across all four studies is the indication of child prostitution and child abuse which deserves further attention.

HEALTH VULNERABILITIES OF MIGRANT AND MOBILE POPULATIONS AND THE CONCEPT OF SPACES OF VULNERABILITY

Historically, the Southern African region has seen large migratory movements due to natural disasters, political persecution, civil conflict and economic factors. During the colonial period (forced) movements of men across the region provided labour for the extractive industries in South Africa, Zimbabwe (Rhodesia) and Zambia, and wealth for the colonial governments. Agricultural workers also migrated through-out the region developing sugar and coconut and sisal plantations in Mozambique, Zimbabwe and South Africa. The independence struggles, including the struggle against Apartheid in South Africa, and civil wars resulted in millions of people becoming internally displaced or refugees in neighbouring countries.

Although the region is largely peaceful, the movement of people between and across countries is still a distinct characteristic of the development in Southern Africa. Given the dynamic nature of the economies in the region, population mobility will continue to be a reality as the pull factors of migration take rural households towards the cities, and the burgeoning economies mean increased transportation of goods and services across borders. The promulgation of the Free Trade Area Protocol in 2008 and the Protocol on the Facilitation of the Movement of Persons have further encouraged movement across borders. Although civil conflict is now less of an issue than in the previous decades1, the geographical position of countries2; uneven economic development; high levels of poverty; and deep seated traditions of migrant labour3, will ensure that people and goods continue to flow through the countries in the region.

The face of migration is changing with considerable out migration of skilled health staff seeking improved working conditions further weakening national health system in many countries; increased travel for reasons other than work (tourism, seeking health care); and finally improved transport links (and less restrictive contracts) mean that migrant workers and mobile populations tend to go home more often (or receive visits from family members).4

Mobility and migration are not in and of themselves negative phenomena and provide the motor for development and social cohesion across the region. However, the SADC has long recognised the various challenges facing the countries of the region in terms of meeting the health needs of these populations and the control of communicable diseases is the main priority. HIV, TB and Malaria are the greatest causes of morbidity and mortality in the region. Generally weak public health care systems and the high population prevalence with

¹Independence struggles (Zimbabwe, Mozambique, Namibia), the struggle against apartheid (South Africa) and post independence conflicts (Zimbabwe and Mozambique)

² Mozambique, Tanzania, South Africa and Namibia serve as access to the oceans for the countries of the hinterland

³Countries such as Mozambique, Malawi and Zimbabwe have long been the source of migrant labour for the mining industry in South Africa. Now with the development of the extractive industry sector in Mozambique and Tanzania labour migration to these countries is increasing.

⁴ For example in Southern Mozambique in the past, miners would have 12 month contract with no home leave. They would return home at the end of the year. The miners are now allowed to travel freely and often return home for public holidays. Also wives and partners of the miners are more likely to visit their husbands in South Africa. Previously this was unheard of.

these communicable diseases mean that, without targeted programming, there is potential for undermining efforts to control communicable diseases in countries across the region.

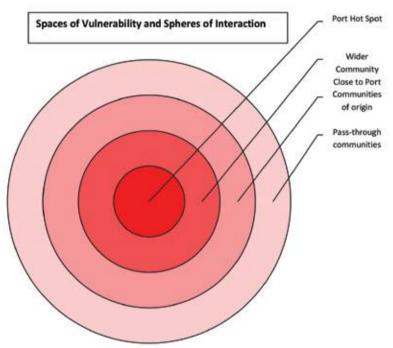
The SADC has prepared a policy to address these issues. The main policy areas identified in the framework include; developing regional harmonisation and coordination of communicable disease control protocols; ensuring the equitable access to health services by cross-border mobile populations; coordinating regional public health surveillance and epidemic preparedness; producing information, education and health promotion messaging for mobile populations; commissioning operational research and dissemination of strategic information; and the development of legal, regulatory and administrative Reforms.

On a parallel yet related course, the IOM began developing a research and policy agenda with regard to migrant populations in southern Africa in 2005. Later in 2010, the IOM concluded from a regional review that the most effective intervention to reduce HIV vulnerability of migrant workers and mobile populations is to develop 'space of vulnerability programming', rather than focusing on particular at risk groups. This entails attention given to service delivery and capacity of the health systems and health workers; advocacy and policy making (national and regional); research and evidence building and dissemination; within a geographical space or a series of inter-linked geographical spaces. Vulnerable space programming around HIV and AIDS explicitly recognizes the sexual interaction between mobile populations and host communities and the potential for stress to be placed on weak public health care systems in those host communities:

IOM's approach to migration health considers the different health and HIV vulnerabilities associated with the migration process rather than considering the migrant as the health vulnerability. By identifying spaces of vulnerability, which are often places where migrant workers live, work or pass through as areas of high-risk HIV vulnerability.'

This concept underpins the strategic framework which guides the IOM's guide its programming in eastern and southern Africa. Spaces of vulnerability is overtly a spatial/geographical concept but does not refer to one location. Recognising that migrant and mobile populations' vulnerability can be where they 'live, work or pass through', the concept guides thinking about interventions across different locations. In essence, an intervention may be anchored in a 'hot spot' (starting point) but involve activities radiating out to encompass all the geographical spheres of interaction. Figure 2 illustrates schematically this aspect of the 'spaces of vulnerability' concept.

Figure 1: Spaces of Vulnerability and Spheres of Interaction



Colour Code	Description
	Hot Spot –High concentration of interaction between mobile and
	resident populations. Characterised by largely opportunistic, casual and
	transactional sexual relations
	Wider community close to the hot spot - Source of the majority of people
	interacting with the 'hot-spot' working population. Characterised by both
	opportunistic sexual relations (hot spot) and stable partnerships (areas of
	residence)
	Communities of origin- source of the mobile populations. Characterised
	by mobile populations returning periodically to stable (but not exclusive
	sexual relationships)
	Pass through communities- communities where the mobile populations
	stay for short period of time (often on a regular basis). Characterised by
	opportunistic or stable non exclusive sexual relationships.

The overtly spatial aspect of the concept refers to the social and economic conditions of existence within a locality and across localities which can affect negatively the welfare of migrant and mobile populations. Put differently, these populations often live and work in the margins of these spaces which accentuates their vulnerability. However, there is also a

subliminal aspect of the concept which refers to the personal circumstances of individuals in those conditions, which can influence their behaviour to the detriment of their own welfare. Accordingly, in the case of this project, the conceptrefers to seaports as geographical areas where there are populations:

- who work in or pass through them, and who by the nature of their work (e.g. as poorly paid, temporary workers) or transient presence occupy the margins of that space;
- who include a significant proportion of individuals whose social, specifically sexual, behaviour can be influenced negatively by their marginal existence or presence in these areas and, consequently, who are likely to face a high risk of STI and HIV infection.

STUDY METHODS AND METHODOLOGY

Introduction

For the purposes of this project, research focused on three common categories of mobile and migrant populations found in port environs: seafarers, truck drivers, stevedores and commercial sex workers (CSW). Four country-based research teams were involved in a process which began with a workshop to assess a draft generic questionnaire in anticipation of using it in surveys of samples of these populations. Thereafter, the teams tested and conducted research, produced research ports of their respective port studies, participated in a workshop to review the findings and to outline a synthesis report and, finally, they participated in a workshop attended by SADC secretariat and country health officials, to disseminate the findings.

Methods

Mixed research methods were used; these being a generic behavioural questionnaire for use amongst samples of each population category, key informant interviews and focus group discussions, as well as literature reviews. Copies of the research tools are appended to the port research reports. The questions and themes for each method were considered and finalised at a workshop in the early stages of the project (in September 2013), involving the selected four country-based research teams and IOM representatives. The intended focus on TB was excluded at this stage because of researchers' concerns about practical challenges with conducting the questionnaire survey. The original questionnaire was very long and had to be shortened. Rather than try to reduce the scope of investigation across all disease domains, the decision was to omit coverage of TB to retain in-depth coverage of behaviour with regard to HIV/AIDS and STIs. Thereafter, the teams secured research ethical approval where necessary and support from government officials in their respective port cities/town and in provincial and national ministries.

There were variations in each team's sampling and research procedures due to contextual factors. Notably, the teams struggled to sample international seafarers due to limited scope for accessing them and, in the case of Walvis Bay, there were also local seafarers who are primarily fishermen working on boats that do short sea trips and who are mainly town residents. The Durban study was not able to conduct a sample-based survey amongst CSWs due to the conditions of the university research ethics committee for research on CSWs. In that instance, the researchers were restricted to conducting qualitative interviews with a small number of CSWs in an NGO clinic which provides services for CSWs. In the case of Walvis Bay, the small size of the town and its existence still as an adjunct of the port meant that the team could design their surveys to include the town's (sedentary) population as a whole. That was not an option for the other three studies in view of the large size of their respective port cities. The Walvis Bay study did not include a separate sample of stevedores because the form of cargoes transferred through that port which requires this form of labour are an insignificant

component of the port's operations. In Dar-es salaam and Beira, the teams were able to include stevedores but within samples of 'port workers' (and railway workers in the case of Beira) because of local conditions for conducting primary research within the ports. The Durban study had a separate sample of stevedores because stevedoring is still a substantive (though diminishing) component of that port's operations and the team was assisted by an executive of one stevedoring company which employs the majority of stevedores at the port. The influence of different contextual factors was reflected in the size of the samples at each port as is illustrated in Table 1 below.

Table 1: Proportion of worker categories in the samples of each port study

	Sample Worker Categories proportion (%) of each study's total sample population						
Port	Stevedore	Truck driver	Commercial Sex worker	Seafarer	Local Seafarer (Walvis Bay)	Leisure worker	Total (number of informants)
Beira	32.1 (inc. other port workers)	32.1	10	0	0	25.8	170
Durban	44.4	44.4	0	11.1	0	0	450
Dar es Salaam	35.8 (inc. other port workers)	36.8	0	27.4	0	0	380
Walvis Bay	0	32.3	32.3	0	35.3	0	133
Total	33	42	5	13	3	4	1133

Mapping of the ports and different facilities in and around each port was a component of the research, to enable definition of the 'spaces of vulnerability', and was conducted by a separate team. The original intention and expectation was that the research results would allow superimposition of 'hot spots' and channels of disease transmission in and around the ports. However, the results of the port studies revealed scattered patterns in the location and nature of the sexual networks, along with a process of diminishing significance of the areas within and adjacent to the ports as locations of 'risky' sexual behaviour amongst mobile and migrant populations. Accordingly, the maps reflect the location of 'hotspots' close with port environs and those further afield within and beyond the cities/town, via the location of bars, hotels and truck stops, but it was not possible to define spatially channels of disease transmission. The collection of maps are available from the IOM separately to this report.

The field research for each port study was conducted between November 2013 and April 2014. Draft reports were submitted to the IOM for review and a workshop was held in October 2014 for the teams to discuss the findings. Those discussions provided the basis for compilation of this synthesis report. Another workshop was held in January 2015 to disseminate the port studies' findings and to present an interim synthesis report. There will be further dissemination of those reports, this report and short briefs to interested parties as well

as interaction by the IOM with relevant regional and national agencies to promote appropriate practical health interventions.

Methodology

The core methodological concept was 'Spaces of vulnerability' This is a socio-geographical concept which refers to:

- the social and economic conditions of existence within a locality which can affect negatively the welfare of the resident population and,
- the personal circumstances of individuals in those conditions, which can influence their behaviour to the detriment of their own welfare.

For the purposes of this project, the concept was used to refer to seaports as geographical areas where there are populations:

- who work in or pass through them, and who by the nature of their work (e.g. as poorly paid, temporary workers) or transient presence occupy the margins of that space,
- who include a significant proportion of individuals whose social, specifically sexual, behaviour can be influenced negatively by their marginal existence or presence in these areas and, consequently,
- who are likely to face a high risk of HIV, STI and TB infection.

In view of the above, it should be noted that this project was not a regional study of truck drivers, stevedores, seafarers and CSWs. It was conceived and conducted as a regional study in the sense of enabling identification of common patterns and trends in the risk of HIV and STI transmission in and through ports in southern Africa.

Summary

In African seaports, seafarers, truck drivers, contract and casual (as opposed to permanently employed) stevedores and CSWs constitute substantive proportions of the populations who work on the margins of the ports and whose conditions of existence contribute to members of these populations facing a high risk of HIV and STI infection. Despite challenges with sampling, the port studies identified changing trends in the nature of the sexual networks amongst these 'marginal' populations and changing spatial patterns in the location of sexual interactions that drive the transmission of HIV and STIs at these ports. Together, the port studies and this synthesis report provide a basis for review of the inclusion of 'migrant' in categorisation of these populations and how health authorities are addressing their health risks and vulnerabilities.

DEMOGRAPHIC CHARACTERISTICS OF THE RESEARCH POPULATIONS

Introduction

The principal demographic finding challenged the project's implicit presumption that the bulk of the prescribed sample populations (seafarers, truck drivers, CSWs, stevedores) at each port would be mobile and/or migrant persons. The presumption was not unreasonable, in view of the scale and extent of labour migration across the region and ports being economic hubs with a range of informal and formal work opportunities to attract migrant workers. In the event, field research at all four ports revealed that the vast majority of stevedores and commercial sex workers were part of the port cities' (town in the case of Walvis Bay) sedentary population while, as expected, international seafarers and truck drivers were mobile populations. Furthermore, the same pattern was evident amongst other types of workers in three ports who were included in the sample populations due to practical exigencies and contextual factors with regard to population sampling (e.g. local seafarers in Walvis Bay; food vendors in Dar es Salaam; staff from bars and hotels adjacent to the port of Beira). Additionally, with the exception of international seafarers and truck drivers, the sampled populations consisted predominantly of citizens of the country where each port was located and there were few migrant workers amongst these citizens and amongst the minority of foreigners.

In the case of stevedores, CSWs and other port-associated workers, the majority were not originally from the ports where they lived and worked, they had been at these locations for relatively few years and yet, they regarded themselves as city/town residents not as migrants. Certainly, many individuals (e.g. amongst Namibian CSWS in Walvis Bay, Zimbabwean CSWs in Beira; food vendors in Dar es salaam, and older stevedores in Durban) had homes elsewhere but they could be defined as mobile rather than as migrant populations. To illustrate, there were some Nambian CSWs who lived and worked in both Walvis Bay and Swakopmund, 40kms away, their location and movement being determined largely by the arrival and departure of foreign and local seafarers who worked on the fishing fleets that operate in the South Atlantic ocean. Zimbabwean CSWs in Beira reported making occasional trips back to their home country but, collectively, they had formed mutual support groups to enable residence in Beira, such as sharing accommodation and assisting each other with child care. Amongst stevedores in Durban, the majority designated slums and townships in the Durban metropole as the location of their homes. There were a few older migrants (>45 years old) who also had homes in rural areas of the KwaZulu-Natal province and who represented the last vestiges of a migrant labour contracting system which used to define stevedore employment but which has not been the business practice of stevedoring companies since the mid-1990s.

Taking the point further, in the case of Walvis Bay, the vast majority of all informants had lived in the town for less than 15 years; like other town residents, they (or their parents) had come to the town as it was developed from the late 1990s onwards into Namibia's primary deepharbour port. In the Beira case, amongst all individuals who were interviewed, the research recorded 30 different 'home' origins across Mozambique, Malawi, Zimbabwe and Zambia but with the vast majority of interviewees seeing themselves as residents of Beira. In the case of

Durban, it is not unusual now for families to have two 'homes'- one in a city and another in a rural area – which reflects a process that used to be known as 'cyclical migration' but which, today, is perhaps better understood in terms of mobility; that is, it is a strategy to ensure access to different sets of resources in different settings(land/farming in the rural areas, jobs in the cities).

This principal demographic finding is significant because it begs questioning of what are the actual dynamics of disease transmission in port environs if this evidence suggests that the stereotypical view of ports as locations of transient populations no longer holds true. Loosely put, we refer here to the common wisdom that ports and their environs are dens of inequity: the location of 'red light' districts that serve predominantly mobile and migrant populations (seafarers, truck drivers and casual port workers) which, in the context of the HIV pandemic, infers that they are significant channels for the transmission of HIV and STIS into, through and out of port cities and their respective countries. As we show later in the report, the research challenges such stereotypical perspectives and, hence, directs health authorities to reconsider the design of port-oriented interventions. To that end, the following sections summarise other demographic findings which directly and indirectly should inform the design of future health interventions. The text covers general demographic indices of age, gender, education level, nationality, and marriage.

Age

Table 2 summarises the age characteristics of all informants at each of the four ports. The Table, in essence, shows that the research covered predominantly working age adults between 25 and 40 years old, very few young adults (18-24) and relatively few old adults approaching the end of their careers. This coverage is pertinent for it means that the research covered, across a range of occupations, the 'working age' population at ports.

Table2: Age characteristics of total port sample populations

	Age (yrs.) at last birthday (2014)								
Port	Mean	Std. Dev.	Median	Min.	Max.	Percentile 25	Percentile 75	Percentile 95	Valid N
Durban (South Africa)	38	10	36	20	64	31	45	58	446
Dar es Salaam (Tanzania)	35	10	33	18	68	28	40	55	380
Walvis Bay (Namibia)	35	8	35	19	61	29	40	50	133
Beira (Mzm.)	33	10	32	16	73	26	38	51	168
Total	36	10	34	16	73	29	41	56	1127

Gender

The studies included men and women. In all four studies, the truck driver samples consisted only of men. With the exception of the Walvis Bay study, the CSW samples included only women; in the former case, the sample included a small number MSM and transgender individuals. With regard stevedores and other port workers, the vast majority of the samples were men; there were a few women in the Durban stevedore sample. The Dar es Salaam study included women only in its sample of food vendors.

Education

The vast majority of informants at all four ports had attended school as is indicated in Table 3 below. Furthermore, substantive proportions of each port informant sample had completed secondary education as is indicated in Table 4. The variations in the proportions between the ports reflect different sub-sample sizes (e.g. larger samples of CSW in Beira compared to other port samples). Generally, the figures reflect inclusion of informal workers who largely had completed primary school education only and formally employed workers amongst whom there were large minority percentages, sometimes a majority, who had completed secondary education; for example truck drivers and port officials.

Table 3: Proportion of total port sample populations who ever went to school

	Ever attended school				
Port	Yes (%)	No (%)	Total (number)		
Durban (South Africa)	94.2%	5.8%	449		
Dar es Salaam (Tanzania)	99.7%	0.3%	380		
Walvis bay (Namibia)	96.2%	3.8%	133		
Beira(Mozambique)	96.4%	3.6%	166		
Total	96.6%	3.4%	1128		

Table 4: Proportion of total port sample populations who completed Primary, Secondary and Higher education

	Highest level of school education completed					
Port	Primary	Secondary	Higher	Total		
TOIL	Row N %	Row N %	Row N %	Count (No. of informants)		
Durban (South Africa)	16.8%	61.6%	21.6%	422		
Dar es Salaam (Tanzania)	40.6%	30.7%	28.7%	362		
Walvis Bay (Namibia)	14.8%	75.0%	10.2%	128		
Beira (Mozambique)	50.0%	48.4%	1.6%	122		
Total	28.8%	50.9%	20.3%	1034		

Nationality

As was mentioned earlier, the port sample populations consisted predominantly of citizens of their respective countries with the exception of international seafarers and truck drivers. With regard to international seafarers, the studies indicated that most were from Asian countries (China, Vietnam, Philipines, Sri Lanka), a minority of Russian and east european seafarers, and a scattering of individuals from other countries. With regard to truck drivers, the studies highlighted the extent of regional transportation and long distance travels of drivers from different countries in the region. For example, the majority in the Durban sample were South Africans (77%) but the sample also included drivers from Zimbabwe, Zambia, Lesotho, Namibia and Angola. In contrast, the majority of the truck driver sample in Walvis Bay were Zambians (54%)but included Namibians, Zimbabweans, Congolese and Malawian drivers. In a similar vein, the Dar es Salaam and Beira studies recorded drivers from these countries as well as from Rwanda.

Marital Status

The common finding was that men in all ports' sub-samples were more often married or cohabiting than the women and, generally, a 'steady' or 'stable' relationship was reported more frequently by the most mobile male populations (i.e. truck drivers and seafarers) than by sedentary sample populations. The majority of women informants, particularly CSWs, reported being divorced, separated, single or widowed.

Employment forms

With the exception of majority (70%) of local seafarers in Walvis Bay and the vast majority of port officials (80-93%)in Dar es Salam, casual, informal and contract forms of employment were more common than permanent jobs amongst informants at all four ports. International seafarers reported that contracts for employment for a period or for a ship journey is common practice now amongst shipping. Unexpectedly, the research revealed that while the majority of truck drivers have permanent jobs, a sizeable minority of drivers have contract and temporary jobs (25% in the Durban sample). Stevedoring commonly involves short term contracts (e.g. for the period required to load or unload cargo) and casual daily employment. All four studies recorded that CSWs were engaged informally in sex work and the latter was one means of earning and income amongst others, including part-time or casual formal work in the cases of Beira, Dar es Salaam and Walvis Bay. However, in Walvis Bay, 75% of the interviewed CSWs reported that they had no other work. In Durban, CSWs interviewed relied solely on their sex work. In Dar es Salaam, some women food vendors reported also engaging in commercial sex work on occasion.

Conclusion

The study design, by virtue of the focus on mobile and migrant populations, oriented the research towards populations who work on the margins of port economies and hence,

concentration on populations whose health and welfare were insecure by virtue of their material and social insecurities in that environment. This was achieved in the port studies but the demographic findings challenge simplistic perspectives on the nature and form of health risks in these environments.

In the first instance, the research revealed that few informants were migrant workers and that the majority fit more aptly into the categories of either mobile or sedentary populations. Such classification is significant for requiring acknowledgement that the majority of individuals, with some exceptions (international seafarers; truck drivers), are not transient but part of the resident population a port city/town. Ramifications include, for example, consideration of whether existing municipal, private sector and non-government health programmes in these environs can be effective if their conceptual premises are wrong.

Secondly, the demographic patterns infer that women are likely to have informal employment, low levels of education and lack a marital or cohabiting partner compared to the men who are more likely to have permanent (and better paid) jobs, higher levels of education and a marital or cohabiting partner. In other words, women are vulnerable by virtue of their poor conditions of existence and, therefore, they endure a relatively high risk of HIV and STI infection, This was borne out by the research as is discussed later in the report. This does not mean, of course, that men face less risk of HIV and STI infection. Men and women engage in unequal relationships in port settings but in ways and subject to various environmental and demographic factors which translate into differential health risks for men in different occupations. To illustrate briefly, the research revealed that truck drivers face a significant risk of HIV and STI infection and definitively higher risk than international seafarers and they are also more likely to transmit these infections. In part, this is due to the fact that they have more opportunity to have sexual relationships with different women in and beyond the ports they visit (i.e. their work conditions) but it is due also to different conditions of employment (seafarers have regular health checks and cannot get employment if HIV infected) and different opportunities with regard to the nature of the relationships.

In sum, the health of men and women is governed by variable and different proximal factors (individual and collective behaviour patterns in particular contexts) and different distal factors (broad influences on behaviour such as education, conditions of employment and conditions of existence and of work). The following chapters elaborate on this theme.

SEXUAL RELATIONS AMONGST THE RESEARCH POPULATIONS

Introduction

The four studies produced different findings on the scale and nature of sexual relations between the research populations. However, the common denominator was substantive evidence of multiple, concurrent relationships within and between these populations. In particular, all the studies showed that married as well as single truck drivers had frequent liaisons with CSWs.

Tanzania

This study revealed diverse relationships between different populations that work at, or reside adjacent to the port of Dar es Salaam. Sexual liaisons between truck drivers and commercial sex workers were frequent, as expected, as was the finding of frequent interactions between the latter and port workers. However, in this case, the evidence suggested that stevedores were not frequent customers of commercial sex workers. The unexpected finding was the inclusion in these sexual networks of people who lived next to the port, notably policemen living at the harbour barracks and tertiary-level students in nearby residences, and food vendors. The nature of the sexual relations between these people and between them and truck drivers and port workers was defined as transactional sex on the grounds that informants frequently did not see their relationships as commercial sex. For example, some food vendors had regular relations with particular truck drivers who would bring food and goods from the hinterland for them. International seafarers were the one population category which was found not to be significantly involved in these sexual networks. Their exclusion was due relatively few seafarers entering the city because the common practice amongst shipping companies is to load/unload their cargoes as quickly as possible and that frequently entails restricting ships' crews to their ships or the port itself.

A notable finding was that the port itself was not usually the location for sexual liaisons; informants described it as a meeting place where arrangements were made and interactions occurred elsewhere in the city. In particular, truck drivers' trysts were generally at various hotels and boarding houses in the city and not at the port. In this instance, a key determining factor was the current management of truck transport access to the port. Port and city authorities limit the time and number of trucks accessing the port on any given day, and require processing of documentation to be conducted at truck stops outside the city. Consequently, truck drivers do not stay over in the port environs but at different locations within and beyond the city.

In summary, the Dares Salaam study revealed a blurring of the lines between commercial and transactional sexual relationships between the sampled populations and between them and some city inhabitants who lived close to the port. The net result is that the study showed large porous sexual networks amongst these populations. Though not investigated directly, the researchers found evidence of child sex workers; for example, young assistants of food vendors.

25

Mozambique

This study found multiple concurrent partnerships between truck drivers, commercial sex workers and 'leisure workers' (individuals who worked at the bars and hotels next to the port). In this case, with the exception international seafarers, frequent sexual liaisons were reported commercial sex workers and truck drivers, stevedores and other port workers. In this instance, stevedores constitute a relatively well paid worker population in Beira and are regular clients of commercial sex workers. With regard to international seafarers, the same reasons cited above for the Dar es Salaam port study generally preclude this population from the sexual networks of the other research populations.

A notable finding was blurring of the boundaries between commercial, transactional, and intimate relationships amongst clients of commercial sex workers. For example, commercial sex workers had casual liaisons with truck drivers but also some also had regular, personal relationships with other truck drivers and/or with other individuals in the city. Likewise, those partners of commercial sex workers had other commercial and personal relationships with leisure workers, for example. In short, informants reported that there was no expectation of sexual exclusivity between partners though lower frequency of other and concurrent partners were reported by married informants. In contrast to the Tanzanian study, sexual liaisons do occur often in port environs due to the presence of hotels and bars but also elsewhere in the city.

In summary, the study revealed very porous sexual networks. The study also found indications of child sex workers.

Walvis Bay

This study was conducted in a small port town wherein the port constitutes the single biggest entity and the town itself is an outgrowth of the port. Consequently, the study recorded considerable sexual interaction between the main mobile populations, truck drivers and seafarers, and town residents. In this case, Walvis Bay is 30kms from a larger town, Swakopmund, and there was evidence that some commercial sex workers (men and women) and local seafarers 'commute' between the two towns. The study found multiple concurrent relationships between truck drivers and commercial sex workers with some indication of relations also with other residents such as workers at hotels and bars next to the port. However, as in the case of the two preceding studies, this research also found that there were locations beyond the port in the town's suburbs where truck drivers stayed and had liaisons with commercial sex workers and other residents.

The Walvis Bay study was the only study to find sexual relationships on a significant scale between seafarers and commercial sex workers and other town residents. In this case, the international seafarers' population includes crews from south Atlantic fishing fleets which come regularly to Walvis Bay for refuelling and supplies. A consequence is that there are

sexual relationships between the crews and sex workers when the ships are in port. Notably, there are women who have transactional relationships with these men, usually ships' officers; for example, being supported financially and occupying flats paid for by the officers. Local seafarers are also largely fishermen whose ships are at sea for shorter periods than those of the international fishing fleets and who visit sex workers in Walvis Bay on their return.

Durban

This study found multiple concurrent partnerships between truck driversand commercial sex workers. There were indications that some stevedores, older individuals with permanent jobs at the port, also had sexual relationships with commercial sex workers but, generally, the data showed that stevedores were not common clients of the sex workers. In this case, the vast majority of stevedores are poorly paid, temporary and casual workers who cannot afford sexual relationships with thesex workers. The study also revealed that international seafarers were not frequently clients of the sex workers due to limited numbers having time on shore in the city. There were indications that the seafarers who do come ashore, frequent brothels located within the Durban's suburbs more than clubs and bars adjacent to the port. Similarly, the study results suggest that truck driver/commercial sex worker liaisons occur predominantly in localities beyond the port, in or around truck stops that are 5-30kms away from the port. The clients of sex workers who work close to the port are predominantly city residents.

Conclusion

The findings indicated very porous sexual networks between sub-populations whose work was connected with ports and affirmed knowledge that truck drivers engaged in high risk sex with multiple partners. However, the findings challenge the common wisdom of frequent sexual interactions between sex workers and seafarers and that there are frequent interactions between sex workers and their clients in localities adjacent to ports. Discernible trends include diminishing interaction between international seafarers and port populations and movement of the primary locations for sexual interactions between mobile and migrant populations away from port environs into inner cities and to the boundaries of cities.

RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: CONDOM USE

Introduction

The port studies revealed variable risk to health amongst the study populations within the general finding of the high risk inherent in multiple and concurrent sexual partnerships and porous sexual networks. We refer here to factors which influence the probability of HIV infection and which were covered in this project; namely, social and economic status, use and consistency of use of condoms, knowledge about HIV and AIDS and STIs, health status (STI infections) and health seeking behaviour. The previous chapter have summarised the influence of social and economic status. This and the following three chapters summarise the other factors in turn.

Condom use

Consolidation of the findings of the port studies reveals a clear, general pattern of low use of condoms by individuals who are cohabiting with intimate partners, more frequent use with intimate partners with whom they are not cohabiting (i.e. boy/girl friend), and relatively high use with casual acquaintances and CSWs. Tables5-12 below illustrate this pattern. The Tables present consolidated results of answers to relevant questions from all informants who participated in the questionnaire surveys in each port. It should be noted that consolidation of the results serves to draw out risk parameters in condom use which were evident in some port study results but less visible from the data in others.

Table 5 : Condom use with cohabiting intimate partners during most recent sexual intercourse: Consolidated population data from each port

	The last time you had sex with your most recent husband/ wife/live in partner, did you use a condom			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	30.0	70.0	240	
Tanzania	10.1	89.9	238	
Namibia	19.7	80.3	66	
Mozambique	12.0	88.0	108	
Total	18.7	81.3	652	

Table 6: Frequency of condom use with cohabiting partner: consolidated population data from each port

Comple negations	In general, how often did you and your most recent husband /wife/live in partner use a condom when you had sex during the past 12 moths						
Sample populations' location	Always	Sometimes	Never	Total			
iocation	Row N %	Row N %	Row N %	Count (No. of informants)			
South Africa	12.8	29.3	57.9	242			
Tanzania	4.3	18.4	77.4	234			
Namibia	7.4	29.4	63.2	68			
Mozambique	3.7	38.0	58.3	108			
Total	7.7	26.8	65.5	652			

Table 7: Condom use with non-cohabiting intimate partners during most recent sexual intercourse: Consolidated population data from each port

	The last time you had sex with your most recent boy/girlfriend, did you use a condom			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	67.5	32.5	212	
Tanzania	52.4	47.6	126	
Namibia	11.9	88.1	59	
Mozambique	65.2	34.8	92	
Total	56.4	43.6	489	

Table 8: Frequency of condom use with non-cohabiting partner: Consolidated population data from each port

	How often did you and your most recent boy/girlfriend use a condom when you had sex during the past 12 months?			
Sample populations' location	Always	Sometimes	never	Total
	Row N %	Row N %	Row N %	Count (No. of informants)
South Africa	45.5	32.5	22.0	209
Tanzania	44.8	28.8	26.4	125
Namibia	47.5	30.5	22.0	59
Mozambique	23.3	61.6	15.1	86
Total	41.5	36.5	21.9	479

Table 9: Condom use with casual acquaintance: consolidated population data from each port

	The last time you had sex with your most recent casual acquaintance, did you use a condom			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	77.3	22.7	44	
Tanzania	80.5	19.5	87	
Namibia	92.9	7.1	28	
Mozambique	93.4	6.6	91	
Total	86.0	14.0	250	

Table 10: Frequency of condom use with casual acquaintance: consolidated population data from each port

		ou and your most r when you had sex		acquaintance use a t 12 months
Sample populations' location	Always	Sometimes	Never	Total
	Row N %	Row N %	Row N %	Count (No. of informants)
South Africa	68.3	22.0	9.8	41
Tanzania	68.2	20.5	11.4	88
Namibia	89.3	3.6	7.1	28
Mozambique	63.0	33.7	3.3	92
Total	68.7	23.7	7.6	249

Table 11: Condom use in commercial sexual relationship: consolidated population data from each port

	The last time you had sex on commercial basis; did you use a condom			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	97.4	2.6	38	
Tanzania	94.4	5.6	36	
Namibia	92.6	7.4	54	
Mozambique	91.8	8.2	97	
Total	93.3	6.7	225	

Table 12: Frequency of condom use in commercial sexual relationship: consolidated population data from each port

	How often did you use condoms with your commercial sex partners during the last 12 months?				
Sample populations' location	Always	Sometimes	Never	Total	
	Row N %	Row N %	Row N %	Count (No. of informants)	
South Africa	94.6	5.4	0	37	
Tanzania	91.7	5.6	2.8	36	
Namibia	75.9	22.2	1.9	54	
Mozambique	0	0	0	0	
Total	85.8	12.6	1.6	127	

This overview supports a finding which was highlighted in the Beira and Dar es Salaam studies; namely, that CSWs reported they always used condoms in commercial transactions with individuals they did not know but not always with individuals with whom they were familiar. This finding alludes to contradictions in the sexual behaviour of the sample populations. Informants in all the studies were generally well aware of the utility of condoms to prevent HIV infection and, seemingly, cognisant of the risks in commercial sex transactions; hence, the reported high frequency of condom use in these transactions. However, individuals discount that knowledge and behaviour, the practice of 'safe sex', when they engage in a relationship which neither they nor their partners view as a commercial transaction but as one of friendship and trust and possible intimacy.

Consolidation of condom use responses of all survey participants according to their population categoryand irrespective of their location supports the above interpretation of the data. Tables 13-20 summarise the findings by population category. As the Tables indicate, there is infrequent reported use of condoms by CSWs with intimate partners and, amongst all categories, increasing reported use (though still infrequent) with unfamiliar partners.

Table 13: Condom use with cohabiting intimate partners during most recent sexual intercourse: Consolidated sample population categories' data from all ports

	The last time you had sex with your most recent husband, wife/live in partner, did you use a condom			
Sample population categories	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
Stevedore	21.0	79.0	210	
Truck driver	16.8	83.2	322	
Sex worker	30.8	69.2	13	
Seafarer	16.5	83.5	85	
Local seafarer	27.3	72.7	22	
Total	18.7	81.3	652	

Table 14 :Frequency of condom use with cohabiting intimate partners: Consolidated sample population categories from all ports

			often did you and y a condom when you		husband /wife/live in the past 12 moths
Sample population	categories	Always	Sometimes	Never	Total
		Row N %	Row N %	Row N %	Count (No. of informants)
Stevedore		9.7	26.6	63.8	207
Truck driver		6.5	26.9	66.7	324
Sex worker		21.4	42.9	35.7	14
Seafarer		5.9	20.0	74.1	85
Local seafarer		4.5	45.5	50.0	22
Total		7.7	26.8	65.5	652

Table 15: Condom use with non-cohabiting intimate partners during most recent sexual intercourse: Consolidated sample population categories' data from all ports

	The last time you had sex with your most recent boy/girlfriend, did you use a condom			
Sample population categories	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
Stevedore	57.1	42.9	170	
Truck driver	63.7	36.3	226	
Sex worker	45.7	54.3	35	
Seafarer	52.9	47.1	34	
Local seafarer	4.2	95.8	24	
Total	56.4	43.6	489	

Table 16 :Frequency of condom use with non-cohabiting intimate partner: Consolidated sample population categories from all ports

Comple population	How often did you and your most recent boy/girl friend use a condom when you had sex during the past 12 months?				
Sample population categories	Always	Sometimes	Never	Total	
categories	Row N %	Row N %	Row N %	Count (No. of informants)	
Stevedore	36.5	35.9	27.5	167	
Truck driver	46.8	35.0	18.2	220	
Sex worker	31.4	51.4	17.1	35	
Seafarer	36.4	33.3	30.3	33	
Local seafarer	50.0	37.5	12.5	24	
Total	41.5	36.5	21.9	479	

Table 17: Condom use with casual acquaintance during most recent sexual intercourse: Consolidated sample population categories' data from all ports

	The last time you had sex with your most recent casua acquaintance, did you use a condom		
Sample population categories	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
Stevedore	71.4	28.6	56
Truck driver	91.5	8.5	129
Sex worker	91.7	8.3	36
Seafarer	68.8	31.3	16
Local seafarer	100	0	13
Total	86.0	14.0	250

Table 18: Frequency of condom use with casual acquaintance: Consolidated sample population categories from all ports

	How often did you and your most recent casual acquaintance use a cond when you had sex during the last 12 months			
Sample population categories	Always	Sometimes	Never	Total
	Row N %	Row N %	Row N %	Count (No. of informants)
Stevedore	56.6	22.6	20.8	53
Truck driver	71.5	25.4	3.1	130
Sex worker	71.1	23.7	5.3	38
Seafarer	53.3	33.3	13.3	15
Local seafarer	100	0	0	13
Total	68.7	23.7	7.6	249

Table19: Condom use with commercial sex worker during most recent sexual intercourse: Consolidated sample population categories' data from all ports

	The last time you had sex on commercial basis; did you use a condom			
Sample population categories	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
Stevedore	80.0	20	20	
Truck driver	95.5	4.5	111	
Sex worker	94.2	5.8	69	
Seafarer	94.7	5.3	19	
Local seafarer	83.3	16.7	6	
Total	93.3	6.7	225	

Table 20 :Frequency of condom use with commercial sex workers: Consolidated sample population categories from all ports

	How often did you use condoms with your commercial sex partners during the last 12 months?			
Sample population categories	Always	Sometimes	Never	Total
	Row N %	Row N %	Row N %	Count (No. of informants)
Stevedore	91.7	8.3	0	12
Truck driver	94.0	4.0	2.0	50
Sex worker	70.7	29.3	0	41
Seafarer	94.4	5.6	0	18
Local seafarer	83.3	0	16.7	6
Total	85.8	12.6	1.6	127

Conclusion

All four port studies revealed inconsistent and low use of condoms. Juxtaposed to that evidence is the evidence showing that the majority of informants are heeding the advice of longstanding campaigns for people to practice 'safe sex' but, ironically, in ways which negate the purpose of those campaigns. On the one hand, there is clearly popular acknowledgement of the importance of condom use in sexual relationships with unfamiliar partners, including CSWs. On the other hand, actual condom use depends on the nature of the relationship between the individuals; specifically, whether or not a social relationship alongside the immediate sexual relationship has been established between the individuals. Consequently, there is inevitably inconsistent use of condoms because, it may be inferred, individuals' assessment of the risks of not using condoms is influenced, even discounted, by their emotional and material interests in establishing a social relationship.

RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: KNOWLEDGE AND ATTITUDES ABOUT HIV AND AIDS

Introduction

The previous chapter alluded to people's knowledge and attitudes about HIV and AIDS, inferring that people generally are knowledgeable as a result of many years of education and awareness campaigns across the region. The inference was based the findings from all four port studies that the study participants were knowledgeable. This chapter summarises findings in terms of the study participants knowledge and attitudes.

Knowledge about HIV and AIDS

Tables 21-32 below summarise the answers to questions to assess individuals knowledge about HIV and AIDS. The Tables present consolidated data from all participants in the questionnaire surveys at each port. There were no significant variations in knowledge between the different sample categories; all the port studies reported generally high knowledge of HIV and AIDS across a range of issues. However, as the Tables indicate, within any one issue or set of issues, frequently there were substantive minority proportions of the informants who gave incorrect answers; thereby suggesting lack of comprehensive lay understanding of the disease in different adult sub-populations. Nonetheless, the total percentage answers at the base of each Table perhaps reflect best the general level of knowledge and awareness of HIV and AIDS across the region.

Table 21: Knowledge of condom use to prevent HIV infection : Consolidated population data from each port

	Can people protect themselves from HIV, the virus that causes AIDS by using a male condom correctly everytime they have sex			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	96.9	3.1	293	
Tanzania	75.6	24.4	348	
Namibia	93.9	6.1	132	
Mozambique	62.0	38.0	166	
Total	82.4	17.6	939	

Table 22: Knowledge in relation to myth of HIV infection via mosquito bite: Consolidated population data from each port

	Can a person get HIV from Mosquito bites			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	34.0	66.0	373	
Tanzania	14.2	85.8	337	
Namibia	10.3	89.7	126	
Mozambique	15.6	84.4	154	
Total	21.4	78.6	990	

Table 23: Knowledge of HIV prevention via faithfulness of : Consolidated population data from each port

	Can people protect themselves from HIV by having one faithful, non-infected sex partner			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	91.5	8.5	436	
Tanzania	85.3	14.7	367	
Namibia	94.6	5.4	129	
Mozambique	81.4	18.6	161	
Total	88.3	11.7	1093	

Table 24: Knowledge of HIV prevention via abstinence from sex: Consolidated population data from each port

	Can people protect themselves from HIV by abstaining from sexual intercourse			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	92.6	7.4	432	
Tanzania	61.2	38.8	371	
Namibia	97.7	2.3	133	
Mozambique	0.0	0	0	
Total	80.9	19.1	936	

Table 25: Knowledge of myth of HIV infection by meal sharing: Consolidated populatio ndata from each port

	Can a person get HIV by sharing a meal with someone who is infected			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	14.6	85.4	410	
Tanzania	11.3	88.7	364	
Namibia	3.8	96.2	131	
Mozambique	18.1	81.9	166	
Total	12.7	87.3	1071	

Table 26: Knowledge of HIV infection via needle sharing: Consolidated population data from each port

	Can a person get HIV by getting injections with a needle that was already used by someone else			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	98.0	2.0	444	
Tanzania	97.8	2.2	372	
Namibia	95.5	4.5	132	
Mozambique	91.7	8.3	168	
Total	96.7	3.3	1116	

Table 27: Knowledge that healthy looking people can have the HI-virus: Consolidated population data from each port

	Do you think that a healthy looking person can be infected with HIV the virus that causes AIDS			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	94.2	5.8	432	
Tanzania	81.4	18.6	365	
Namibia	93.9	6.1	132	
Mozambique	0	0	0	
Total	89.1	10.9	929	

Table 28: Knowledge of mother to child transmission (MTCT) of HIV: Consolidated population data from each port

	Can a pregnant woman infected with HIV or AIDS transmit the virus to her unborn child			
Sample populations' location	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	90.6	9.4	405	
Tanzania	74.8	25.2	325	
Namibia	73.8	26.2	130	
Mozambique	68.4	31.6	152	
Total	80.0	20.0	1012	

Table 29: Knowledge of MTCT during birth of child: Consolidated population data from each port

	Can a pregnant woman infected with HIV or AIDS pass the virus to her child at time of delivery (child birth)			
Sample populations' location	Yes	No	Total	
Sample populations location			Count	
	Row N %	Row N %	(No. of informants) (No. of	
			informants)	
South Africa	89.6	10.4	396	
Tanzania	90.0	10.0	329	
Namibia	91.1	8.9	124	
Mozambique	90.7	9.3	162	
Total	90.1	9.9	1011	

Table 30: Knowledge of MTCT via breastfeeding: Consolidated population data from each port

		voman infected w er child through b	ith HIV/AIDS pass the preastfeeding
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	85.2	14.8	384
Tanzania	89.6	10.4	326
Namibia	87.5	12.5	128
Mozambique	91.9	8.1	149
Total	87.9	12.1	987

Table 31: Knowledge of means to prevent MTCT: Consolidated population data from each port

			decrease the chance d: Take medication
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	95.7	4.3	373
Tanzania	83.6	16.4	213
Namibia	0.0	0	0
Mozambique	96.7	3.3	153
Total	92.4	7.6	739

Table 32: Knowledge of PMTCT services: Consolidated population data from each port

	Do you know of any hospital program that is offering mother to child transmission of HIV prevention services		
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	61.7	38.3	384
Tanzania	49.8	50.2	295
Namibia	81.1	18.9	127
Mozambique	72.8	27.2	147
Total	62.3	37.7	953

Attitudes about HIV and AIDS

Similar results were obtained with questions to assess people's attitudes to HIV and AIDS. Tables 33-37 below summarise the answers to questions in the surveys which sought to assess people attitudes. There were no significant variations between the sample categories.

Table 33: Attitudes about school attendance by HIV infected students: Consolidated population data from each port

		HIV but is not sic be allowed to att	k, do you think they end school
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	91.5	8.5	437
Tanzania	94.0	6.0	367
Namibia	97.7	2.3	131
Mozambique	90.2	9.8	164
Total	92.9	7.1	1099

Table 34: Attitudes about HIV infected teachers: Consolidated population data from each port

	If a teacher has HIV but is not sick, should he or she be allowed to continue teaching in school		
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	92.6	7.4	432
Tanzania	92.7	7.3	372
Namibia	98.5	1.5	132
Mozambique	93.3	6.7	165
Total	93.5	6.5	1101

Table 35: Attitudes about HIV infected shopkeepers: Consolidated population data from each port

		okeeper or food sold you buy food fro	eller had the HIV virus, om them
Sample populations' location	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	75.1	24.9	426
Tanzania	76.1	23.9	372
Namibia	88.4	11.6	129
Mozambique	89.8	10.2	166
Total	79.2	20.8	1093

Table 36: Attitudes about care of HIV infected relative: Consolidated population data from each port

Sample populations' location	If a male/female relative of yours becomes ill with HIV, would you be willing to care for him/her in your household		
	Yes	No	Total
	Row N %	Row N %	Count (No. of informants)
South Africa	96.5	3.5	433
Tanzania	95.7	4.3	370
Namibia	97.7	2.3	130
Mozambique	92.1	7.9	164
Total	95.7	4.3	1097

Table 37: Attitudes about disclosure of HIV infection amongst family members: Consolidated population data from each port

Sample populations' location	If a member of your family become ill with HIV, the virus that causes AIDS, would you want it to remain secret			
	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants)	
South Africa	44.7	55.3	398	
Tanzania	42.0	58.0	367	
Namibia	35.2	64.8	125	
Mozambique	59.6	40.4	156	
Total	44.8	55.2	1046	

Conclusion

The consolidated findings reveal, in essence, variations in people's knowledge of HIV and AIDS but generally sound knowledge of the disease. This is not surprising in view of the scale and duration of national epidemics in the region, longstanding public education and, as is discussed later, HIV testing (at least once) by the vast majority of all participants in the port studies. Findings on people's attitudes suggest relatively little, outwardly expressed prejudices. However, the findings with regard to disclosure of HIV infection amongst family members (Table 37)suggest internal fears about stigma and discrimination amongst many people.

CHAPTER 7

RISK BEHAVIOUR PARAMETERS OF THE STUDY POPULATIONS: HEALTH STATUS (STIS) AND HEALTH SEEKING BEHAVIOUR (STIS & HIV)

Introduction

The project included research on the incidence of sexually transmitted illnesses (STI) to gain insight into the health status of survey participants in relation to their sexual behaviour. The surveys also included questions on how soon individuals sought treatment after becoming aware of an STI symptom and where they sought treatment as well as questions on HIV testing. The purpose, in the first instance, was to ascertain STI incidence in the sample populations as an indicator of the health risks of multiple and concurrent sexual partnerships, Secondly, the purpose was to see if STI incidence in the sample populations indicated a significant risk of HIV transmission; that is, whether a substantive number of participants were at risk of being infected by virtue of a compromised health status. Questions on when and where individuals sought treatment were one means to assess their health seeking behaviour; in short, whether use of professional medical services was a norm.

STI incidence

The surveys addressed reported symptoms of gonorrhoea and syphilis. With the exception of CSWs, there was wide variation in reported incidence of symptoms of these STIs within and between different sample population categories at each port and across all the ports. A large percentage of CSWS (46-75%) in the Dar es Salaam study reported that they had one or other or both STI symptoms in the preceding years. Relatively high rates were recorded in the CSW samples at Beira (14%; and amongst 'leisure workers': 13%) and Walvis Bay (7-16%). The majority of the 16 CSWS interviewed in Durban reported they had STIs. The Beira, Dar es Salaam and Durban studiesrecorded relatively high rates amongst stevedores (15%; 23%; 17%; respectively). Similarly high rates were recorded amongst truck drivers in studies at Beira (23%) and Durban (13%) but low rates were recorded in Dar es Salaam (7%) and Walvis Bay (7%). The Durban and Walvis Bay studies reported very low incidence of STIs amongst seafarers; for example, two case in the Durban sample. In the case of Walvis Bay, it should be noted that 96% of informants reported that they had not had an STI in the preceding year; reports of STI infections were concentrated amongst CSWs and MSM.

Health seeking behaviour

Hiv testing

All four studies recorded that the vast majority of all informants reported they had been tested for HIV. The lowest percentages were recorded amongst leisure workers in Beira (68.5%) and truck drivers in Dar es Salaam. Table 38 below summarises the findings. The vast majority of informants knew of a clinic in the port where individuals could obtain an HIV test, as is indicated in Table 39. It should be noted that the figures indicating lack of knowledge of a

clinic need to be treated with caution. The figures include a proportion of informants who were unfamiliar with the ports that they visited, notably amongst international seafarers, and/ or were unfamiliar with facilities within the ports (e.g. some truck drivers, CSWs and, in Dar es salaam, probably some food vendors), and others who probably answered the question (as stated in the Table 39) in relation to whether they could access a facility in the port which, generally, are restricted, to particular workers such as port employees.

Table 38: Reported levels of HIV testing amongst port studies population categories

Study Site	Reported HIV testing (% of samples)			
Population Category	Beira	Dares Salaam	Durban	Walvis Bay
Commercial Sex workers	80	99	100	100
Truck Drivers	80	75	90	81
Seafarers	-	94	80	94
Port and railway workers, including Stevedores	79	79-90	88	-
Leisure workers	68	-	-	-
Food vendors	-	98	-	-
Local (sedentary) population	-	-	-	88

Table 39: Knowledge of HIV testing facilities: Consolidated population data from each port

Sample populations' location	Is it possible in this port for someone to get a confidential test to find out if they are infected with HIV?			
	Yes	No	Total	
	Row N %	Row N %	Count (No. of informants	
South Africa	86.2	13.8	305	
Tanzania	82.9	17.1	292	
Namibia	89.6	10.4	125	
Mozambique	83.8	16.2	130	
Total	85.2	14.8	852	

STI Treatment

As is indicated in Table 40below, the vast majority of all informants who reported having had an STI in the preceding 12 months sought professional medical assistance. The Table presents consolidated responses from the sample populations of the four ports. The record addresses informants first source of treatment. As is represented in the Table, very few informants went first to traditional healers or to a market to obtain medicines. The Table shows no use of health facilities at the ports by international seafarers because; the latter obtain medical treatment on board their ships (they access private hospitals onshore only in serious trauma cases arising from accidents at sea).

The research also investigated the reported elapsed time between an individual becoming aware of an STI symptom and seeking treatment, and whether the individual ceased sexual activities. Generally, the majority of informants sought professional medical assistance within 3-7 days after becoming aware of an STI symptom. There were no indications that informants delayed excessively in making the decision to seek treatment; the Dar es Salaam study recorded that foreign truck drivers sometimes delayed seeking treatment until they had returned to their home countries. However, with the exception of the Walvis Bay study, overall, a minority of STI-infected individuals ceased sexual activities when they had an STI. In the case of Walvis Bay, while, overall, a majority (76%) reported they had ceased sexual activities, fewer of the CSWs (62%) and MSM (50%) did so. It should be noted that the study dealt with small sample sizes of those who reported having had an STI and, in that case, included a majority of the sedentary population.

Table 40: First source of treatment for STIs: Consolidate data from sample populations at the four ports

Sample	Last time you had STI, which was first source of treatment: % responses per source						e?		
category	Govt. clnc/ Hsptl	Work Place clnc/Hsptl	private clinic	Trad. healer	NGO clinic	NGO Hsptl	Phrmcy.	Mkt.	Other
Stevedore	69	12	5	0	2	4	5	2	0
Truck driver	63	10	12	6	2	2	0	2	2
Sex worker	69	15	0	0	0	7	0	8	0
Seafarer	0	0	0	0	0	0	0	0	0
Local seafarer (Walvis bay)	100	0	0	0	0	0	0	0	0
Total	67	11	8	3	2	3	2	3	1

Conclusion

Collectively, the studies show that sample populations were not vulnerable with regard to accessing professional services for HIV testing and STI treatment. However, the finding that few STI-infected individuals reported that they ceased sexual activities indicates not only the health vulnerabilities amongst themselves but also more broadly amongst their sexual partners and other members of their sexual networks. Furthermore, while the evidence reiterates the common categorisation of truck drivers and CSWs as 'high risk' populations, the limited reported cessation of sexual activities across the spectrum of sample populations indicates the vulnerability of sedentary populations in and beyond the port cities. In other words, these population categories are probable channels for disease transmission in the city populations, bearing in mind the finding that the inner cities and city margins are frequently the locations for sexual liaisons generally amongst the sample populations and, in particular, for truck drivers and CSWs.

CHAPTER 8

QUANTITY AND QUALITY OF HEALTH SERVICES, PARTICULARLY STI-AND HIV- RELATED SERVICES

Introduction

Informants' assessments of the quantity and quality of health services in their respective ports, overall, support the findings on their health seeking behaviour. There are a range of facilities in, near to, and beyond port environs, which provide various services and which are accessed by individuals. Informants' criticisms revolved around the availability of services close to their workplaces and which served their health needs.

The range of facilities

There are a range of health service facilities within and in the environs of each port. Table 41summarises the number and type of medical facilities which were identified during the course of each port study. It excludes pharmacies and market places which retail medicines. The relatively large number of different facilities in Beira, Dar es salaam and Walvis bay, including hospitals, is a function of the relatively small size of the cities/towns (Beira and Walvis Bay) and concentrated development in the past around the port (Dar es Salaam). In short, the facilities were within walking distance or short journeys by public transport. The comparative lack of facilities in Durban including the absence of a nearby hospital, is a function of the closure of a nearby public hospital and of clinics as a result of urban renewal and the location of public hospitals further afield within the city.

Table 41: Number and type of health facility in, and near to each port

Port	Public Hospital	Public clinics	Private facility	NGO clinics	Workplace clinics	Mobile Clinics
Walvis bay	2	5	5	20	8	0
Beira	2	14	?	4	0	0
Dar es Salaam	4	2	0	2	0	0
Durban	0	3	1	2	2	1

Quality of services

In the case of Durban, the few facilities were the basis for a related criticism; namely, that access was restricted in the case of workplace clinics to employees of the companies that managed those clinics, were not open at times which took into account the work routines of people, and did not provide comprehensive services. For example, all stevedores in the Durban sample had access to their workplace clinic but permanent employees only had access to the full range of services it offered. Amongst CSWs, the issue was that the public clinics were not open at weekends or at nights which are the times when they frequently need services. That criticism was made in the context of a current experimental mobile clinic for CSWs in the city. Similar criticisms were made by informants in Beira; a night time clinic near the port closed

a few years ago. In Beira and Dar es Salaam, the principal concerns were congestion at the facilities though a particular criticism was the lack of availability of condoms at any venue (including bars and hotels) in the port environs. In Walvis Bay, there were generally positive comments in view of the variety of different facilities and services offered (abetted by the large number of NGO facilities) and the general quality of services. Assessments ranged from excellent to poor in the different ports but, overall, the majority of informants at all the ports rated the services from 'good' (45%) to 'excellent' (15%). 23% of informants gave a rating of 'adequate' and 17%, a rating of 'weak'.

Quantity of services

The variety of facilities means that a wide range of services are available and, at all the ports, the different public health facilities, between them if not individually, provide comprehensive services (i.e. ranging from HIV testing and counselling to TB and STI diagnostics, to trauma and disease treatment). Notably, NGO clinics are central to provision of HIV and STI-related services to migrant and mobile workers. For example, in Durban, there is one NGO clinic in the city which specifically caters for CSWs, providing testing and diagnostic services and referrals to public facilities for treatment. Likewise there is an NGO-operated clinic at a truck stop 30kms outside which provides these services and referrals, in the case of STI and HIV treatment to another NGO clinic in Durban. An NGO in Tanzania operates clinics along the transport corridors of the country, include a 'safe point' near Dar es Salaam's port for use by truck drivers and any other person (visitors can access HIV/AIDS, STI and other health-related brochures as well as condoms). There are four NGOsin and along the transport routes from Beira which also offer these services.

CONCLUSION AND RECOMMENDATIONS

Conclusion

There are limitations to the services used by the sample populations but these are not specific to mobile and migrant populations. Generally, there is not a problem of accessibility and availability to the services. The findings support those of informants' health seeking behaviour in terms of individuals knowing about and using professional medical services, primarily at public facilities, when required. Nonetheless, they did allude to a particular weakness; that is, the lack of services which accommodate the work patterns of mobile populations and which are available in the places where they congregate. This lack has some significance in relation to health interventions amongst key populations; notably, the lack of appropriate and/or dedicated facilities represent gaps in public health and HIV prevention interventions such that the potential and probable transmission of HIV and STIs into the populations of port cities is not being addressed adequately.

In summary, the primary research revealed:

- Few migrant workers amongst the sample populations; the majority fit more aptly into the categories of either mobile or sedentary populations;
- Very porous sexual networks within and between the sample populations;
- Inconsistent and relatively low use of condoms; trust relationships within sex networks contradict high levels of knowledge of risk and use of condoms in commercial sex relations;
- Limited, reported, cessation of sexual activities amongst STI-infected individuals across the spectrum of sample populations;
- A trend for the location of sexual liaisons being located away from the harbours in the inner cities and beyond;
- The sample populations were not vulnerable with regard to accessing professional services for HIV testing and STI treatment; available and accessible health services which were used:
- Service limitations were not specific to mobile and migrant populations except with regard to lack of services which accommodate the work patterns of mobile populations and which are available in the places where they congregate;
- Variations in, but generally sound knowledge of HIV and AIDS, and few outwardly expressed prejudices.

The research results collectively challenge stereotypical views of ports as the main location within port cities of illicit trade in sex and drugs through the presence of large numbers of itinerant seafarers and CSWs and, that they are major channels for the transmission of HIV and STIs. This is neither to deny that ports are places where risky sexual behaviour occurs frequently, nor to infer that sustained HIV and STI health interventions are no longer necessary in these locations. The research revealed that the 'spaces of vulnerability' for such disease infection is shifting away from ports and their immediate environs into the cities. Furthermore, the research revealed generally (recognising contextual variation between ports) that seafarers constitute a relatively 'low risk' population; that there are populations, sedentary as well as mobile and migrant (e.g. food traders; policemen; port officials) who are becoming 'high risk'

populations; and that stevedores in due course will constitute a relatively small population due to decreasing demand for such labour. The one finding which affirmed what is already well known was that CSWs and truck drivers constitute 'high risk' populations.

These findings reflect broader economic forces; generally, the ongoing restructuring of the maritime industry and port operations and, specifically, the ongoing expansion and elaboration of container-based cargo transport, to reduce the costs of maritime and international transport operations. For example, shipping companies are increasingly using ships which require smaller and 'cheaper' crews; the bulk of seafarers are Asian men (from countries such as Vietnam and Indonesia) rather than citizens of the home countries of the companies. Many seafarers, it seems, are contract workers; they secure contracts for periods of time or for specific ship journeys. While they may be regularly employed, they have health checks prior to securing contracts and do not secure work if they have STIs or HIV infection. In other words, they are not a significant channel for HIV and STI transmission into a country and, possibly, not for transmission into their home countries. 'Turn around time' of ships in port is a key concern of shipping companies in view of the costs of docking; hence, the imperative is to spend as little time as possible loading and unloading cargo. Related consequences include reduction in the numbers of seafarers with opportunity to leave their ships and enter cities and diminishing demand for stevedores (i.e. human labour to load and offload bulk cargoes).

In addition, ports are increasingly being separated from their adjoining towns/cities. The separation is tangible in the establishment of security measures to restrict and control the flow of persons and goods in and out of ports. Such separation also reflects, in growing towns/cities, that the ports are one, and not necessarily most significant, economic resource for the municipal governments. Furthermore, systems for road transport of goods into and out of ports are being refined to ease congestions at port entrances. To illustrate, in Dares salaam, the completion of documentation for load and clearing of truck loads to be delivered or collected at the port is conducted at a truck stop 30 kms inland. The city authorities, moreover, regulate the number and times when truck going to the port can travel through the city. In Durban, the expectation is that with 4-5 years, trucks will offload and load their cargoes at a newly constructed terminus 40 kms inland from the city with the bulk of cargoes for road transport being shipped by rail between that terminus and the port. These developments mean that interactions between truck drivers and CSWs, for example, occur increasingly and more frequently in the environs of the 'truck stops'.

It is emphasised that these are the general processes which are changing the role and significance of ports as channels for HIV and STI transmission. Looking at the four ports of this study, in terms of a spectrum, Beira and Walvis Bay represent 'classical' ports with various clubs and illicit sex trade occurring next to the port. Dar es Salaam and Durban represent ports at the other end of the spectrum in terms of the developments described above. However, in due course, the conditions at Beira and Walvis Bay are likely to be similar to those found now in Dar es Salaam and Durban. as port operations change in relation to the demands of offshore mining in their respective countries and industrial developments inland. There are indications, nonetheless, of the general process in Beira and Walvis Bay. As in Dar es Salaam and Durban, there are localities adjacent to the ports where risky sexual interactions occur (e.g. between CSWS and port workers as well as with truck drivers, stevedores, and seafarers; between

food traders and truck drivers and port workers) but, also, venues for such interactions (clubs, brothels, hotels and street locations) which are located further within these port towns.

Multiple concurrent sexual relationships characterise sexual liaisons between truck drivers, stevedores, other port workers, CSWS and others who work in port environs (e.g. food traders; bar/night club staff). In general, there are large, porous sexual networks within which CSWs and truck drivers are core participants, inconsistent condom use by individuals in these networks, and lack of exclusivity of partners in the networks which include individuals who have regular partners (e.g. regular truck driver clients of a CSWs; a food trader who has a longstanding relationship with a visiting truck driver). Notably, the research revealed that there is a blurring of boundaries between commercial, transactional and intimate sexual relationships with a consequence of increased high risk of HIV and STI transmission within these sexual networks. To illustrate, in Dar es Salaam and Beira particularly, the evidence indicated very high consistent condom use by CSWs in their liaisons with truck drivers but CSWS and truck drivers have other sexual relationships (within the cities and beyond) of a more transactional nature wherein use of condoms diminishes once the relationship has been established and, moreover, these individuals may also have intimate relationships (i.e. boy/ qirlfriends and/or husbands/wives) with whom condoms are never used.

Recommendations

With regard to the aims of the study, the principal message is the need for interventions which are capable of adapting to the rapidly changing dynamics of HIV and STI transmission in and around ports. Mobile populations, particularly CSWs and truck drivers, are significant channels for HIV and STI transmission but increasingly within the metropolitan areas, in dispersed locations within cities and also beyond, in the hinterlands, rather than within the port environs. Practical ramifications include interventions which go to where those 'high risk' populations are concentrated, acknowledgement that existing services do not provide the services they need and hence, need for facilities which serve those needs (e.g. clinics open at night, at weekends; mobile clinics).

The study findings, overall, suggest that port cities should include truck drivers in their operational definitions of 'key populations' and, in particular contexts, other sedentary and mobile populations (e.g. food traders in Dar es Salaam; policemen in Durban). In the latter instance, the rationale would be that such sedentary and mobile populations are themselves, potentially significant channels for HIV and STI transmission within the broader city population through sexual liaisons with truck drivers and CSWs.

Conceptually, 'spaces of vulnerability' can be a useful device to explore and identify 'hotspots' and channels of HIV and STI transmission within and between mobile, migrant and sedentary populations. The main proviso is that the concept needs to be viewed not only in terms of physical spaces but also in psycho-social terms in the sense of the psychological and mental conditions and perspectives of vulnerable populations which influence their behaviour. For instance, CSWs are a 'hidden' population in Durban and Walvis Bay: they are known not to access available services regularly for numerous reasons (e.g. social stigma; legal harassment; work conditions) such that they are both agents and subjects of their marginalisation in society and, in relation to HIV programming, of limited access to health

services. In contrast, in Beira and Dar es Salaam, CSWs present themselves as individuals for who sex work is one amongst other means of earning an income, who are socially well organised (e.g. mutual assistance with regard to child care and accommodation), and who access HIV and STI treatment from the public health services. Their space of vulnerability lies in the contradictions in their efforts to maintain sound health; for example, in using condoms with truck drivers and/or 'new'/'irregular' clients but not with 'regular' or 'familiar' clients (and these can include truck drivers) and 'boyfriends'. In a different vein, the space of vulnerability for truck drivers generally is not only their frequent, multiple and concurrent sexual liaisons whilst travelling. They are also 'invisible' in HIV programming by virtue of being viewed simply as a 'high risk' population who can access health services, rather than as a 'key' population in view of the extent to which they are channels for HIV and STI transmission throughout a national population and regionally and yet, they are not reached adequately by existing public, private sector and NGO services.

Other findings indicated issues that such interventions should take into account. For example, education and awareness campaigns by themselves would be of limited use as the research revealed generally, high level of knowledge about HIV and the threat of infection to individuals' health amongst the study populations, along with reported high levels of testing and low levels of stigma with regard to PLHIV. The common need was for improved access to services; for example, ready availability of condoms at venues such as bars, clubs and hotels and clinics that are open after normal working hours and at weekends. In addition, the research suggested the need for defined STI campaigns in view of significantly high (7-20%) levels of STI infection amongst the study populations (excluding seafarers), low knowledge of the risks of STI infection compared to HIV knowledge and yet, readiness to seek professional medical assistance when infected.

Each country report draws attention to issues that which were not a designated focus of the research but which deserve further attention. One issue common across all four studies is the indication of child prostitution and child abuse. In Dar es Salaam, there were reports that child assistants of food vendors were being subjected to commercial sexual liaisons. In Beira, informants reported that there were child CSWS. In Walvis Bay, informants reported that some parents and guardians of children were 'selling' their children for sex. In Durban, CSWs reported that the path into commercial sex work often began when individuals were young adolescents.

Finally, the rapid changes to port and maritime industry operations means that health officials need to recognise that the form, focus and location of HIV and STI interventions will need to adapt to those changes. Such adaptation requires recognition that there are sub-populations who work on the margins of port economies and, hence, whose health and welfare are insecure by virtue of their material and social insecurities in that environment. Furthermore, in reference to the findings of this project, it requires recognition that these sub-populations of individuals, with some exceptions (international seafarers; truck drivers), are not transient but part of the resident population a port city/town. Ramifications include, for example, consideration of whether existing municipal, private sector and non-government health programmes in these environs can be effective if their conceptual premises are wrong.

