

The organization of HIV/AIDS risk-taking among long-line fishermen in Bali, Indonesia

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ABSTRACT

We report on selected findings of a qualitative social network study investigating STI/HIV-related risk among migrant fishermen based at one of Indonesia's major fishing ports in Bali. Their activities between fishing trips include drinking parties, watching pornographic videos, and visiting brothels, while condom use is rare. While on board, they plan and anticipate these activities and many insert penile implants. These fishermen run a high personal risk of contracting STI/HIV, and, with their circular migration patterns among Indonesian and foreign ports such as Thailand and South Africa, and with visits back to their rural hometowns and wives or girlfriends in Java, there is a serious risk of disease transmission to the general population. This paper argues that the role that social interactions play in HIV/AIDS-related risks should be considered as important as (if not more important than) individual knowledge, attitudes, and practices in the design of effective STI/HIV prevention programs.

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Key words: HIV/AIDS, STI, fishermen, Indonesia, structural barrier, social networks

INTRODUCTION

COMMERCIAL FISHERMEN AND HIV/AIDS

Indonesia is the world's largest archipelago, with over 17,000 islands and 33 provinces, spread across almost 4000 miles (GOI, 2005a and 2005b), so major transportation is by sea. Maritime and fishing industries form an important source of national income, and a major sector of employment. Indonesia has 755 fishing ports [1]. In 2005, Kissling et al. estimated that Indonesia had 5,118,571 "fisherfolk", i.e., people who work in the fishing industry, including fishermen and members of the surrounding community, and that 71,660 (1.4%) of these "fisherfolk" were infected with HIV [2].

In 2006, Indonesia's National AIDS Commission (NAC) and Ministry of Health (MOH) estimated that between 0.14% and 0.18% of Indonesians aged 15 to 49 years were living with HIV/AIDS,

and this prevalence is expected to double to 0.4% by 2014 [3]. Prevalence rates in 2006 among high risk behaviour groups were estimated to be much higher, for example approximately 41.1% among IDUs, 13.5% among transvestites, and 4.0% among female sex workers (FSWs) (Indonesian AIDS Community, 2007, at: aids-ina.org). In Bali, it was estimated in 2006 that 0.2% of Bali's adult population were living with HIV/AIDS (4041 people) [4], and this has now risen to 0.3% (7317) [3]. In 2006, it was estimated that 10.0% of approximately 2950 direct FSWs had HIV, in addition to 1.9% of the estimated 5875 indirect FSWs [4]. By the end of 2009, 22% of all FSWs in Bali were estimated to have HIV/AIDS [3]. In 2007 in Bali there were estimated to be 88,530 male clients of FSWs, of whom 1.6% were estimated to have HIV [4], and in Indonesia overall there were estimated to be approximately 3.1 million male

clients of FSWs, of whom 0.9% were estimated to have HIV (Indonesia AIDS community, 2007, at aids-ina.org).

In Bali alone, thousands of long-line fishermen work on boats of all sizes. The fishermen are highly mobile and generally live and work for months or years without seeing their families. Most of these fishermen are not Balinese but come from other islands of Indonesia [5]. They return to their hometowns in other provinces during the stormy months and for holidays. The regular migration of these fishermen, in addition to their risk network interaction factors in different places, makes them a dangerous bridge for HIV distribution between high and low risk populations [6].

Hugo [7] and Press [8] have emphasized that heavy drinking and sexual interaction with FSWs are among the most prominent features of the sub-culture of fishermen. Studies in Thailand and Cambodia [6, 8–12] have indicated that deep-sea fishermen have no income-saving mechanism but tend to spend their earnings quickly on these entertainment activities.

While previous studies on fishermen or sailors have rarely taken a qualitative or social network approach, some relevant information has emerged. Ford et al. [13] suggested new approaches should look at the potential influence of friends on risk-taking behaviour, especially among clients of prostitutes. This approach is relevant to investigate how Indonesian fishermen form and maintain their social relationships, and how particular friends and associates influence each other's practices, in relation to risk of HIV/AIDS.

The aim of this paper is to discuss the importance of fishermen's social networks, in addition to data on their knowledge, perceptions, and reported behaviour, for designing and implementing effective HIV/AIDS prevention and care programs for this high-risk behaviour group.

MATERIAL AND METHODS

This research was conducted towards completion of a doctoral dissertation and received ethical approval from the University of Illinois at Chicago, Institutional Review Board, and The Board of National Unity and Human Resource Protection, Ministry of Internal Affairs, Republic of Indonesia [14]. The data were collected between August and October 2005. A qualitative social network approach was applied to investigate and analyse the role of social networks and interactions on the choices of activities and on

STI/HIV related risk-taking [15, 16] among fishermen in Bali. The starting point was a preliminary assumption that risk-taking crewmembers from the same boat would buy sex and drink alcohol together, forming "risk-taking cliques" (i.e. STI/HIV-related risk) (In conducting this study, the author also accepted and fulfilled an obligation to assist any STI- or HIV-infected respondents in accessing necessary care and assistance). The study was designed to allow investigation and analysis of the dynamics of these overlapping "social" and "risk-taking" cliques — how members went about their activities, what and who influenced their conduct, and other related information.

In collecting the data, the Principal Investigator conducted observation and in-depth interviews. The first step was to map out and develop a good understanding through observation of all the relevant community groups in their physical and social environment (boats, port, dormitories, and entertainment venues), and to determine ways to reach and access the fishermen. Pilot interviews were conducted to test the flow and rigor of the semi-structured instrument. The findings were included in the analysis to highlight the risk behaviours common among sex-buying fishermen. Next, a detailed sampling plan and revised semi-structured interview instrument were developed. Questions from the interview guideline were addressed in similar wording from one interview to the next, with the format allowing for a certain amount of flexibility in the wording and in bringing up additional questions [17–19]. Three small boats with a maximum of 9 crewmembers were selected as the sample based on their availability in the port and consent to participate during the study period. A tape recorder was also used for documentation. Crewmembers from each boat were interviewed during the same two- to three-day period of loading and unloading at the port between trips, in a room near the port rented for the purpose of the study to ensure privacy and confidentiality. Subsequently, after their three-week fishing trip, observations were made during their next period of time at the port, dormitories, and entertainment venues, focusing on social networking and interactions in relation to STI/HIV risk-taking behaviour, as a means to triangulate the data gathered in the interviews.

The qualitative data, including descriptions of social networks, were analysed using ATLAS.ti. 4.1 [20]. The data from interviews and observations were segregated and coded into levels based on themes of interactions: *items* (glossaries, jokes, activities, etc.); *patterns* (sequences of actions taken

Table 1. Selected characteristics of interview respondents (n = 29)

Sample Group	Pilot	Boat A* Crew of 8	Boat 1 Crew of 8	Boat 2 Crew of 9	Boat 3 Crew of 8	Total
Number interviewed	n = 5	n = 2	n = 7	n = 8	n = 7	n = 29
Type of boat	Various	14 ton	14 ton	14 ton	14 ton	NA
Average age	28.5	27.5	24.3	26.4	25.3	26.4
Age range (years)	26–34	27–28	19–29	21–44	21–37	19–44
Average years in fishing	7.4	4.5	4.8	5.2	6.8	5.7
Range of years in fishing	4–13	3–6	1–8	0.3–15	1.5–8	1–15
Married	0	1	0	1	4	6
Origin from Java	100%	100%	100%	100%	100%	100%
Any penile implant	3	0	1	0	1	5
Ever bought sex	5	0	6	2	6	19
Ever shared prostitutes in one session	1	0	1	0	1	3
50% of most recent pay spent on alcohol and sex	5	0	6	2	6	19
Ever injected drugs	1	1	1	0	1	4

*Boat A was sampled, but scheduling problems prevented interview of all/most of the crew as required by sampling methodology, so sampling continued with another three boats

by individuals to construct social or risk activities among subgroup or individuals); and *structures* (the social and risk events as well as the sequences of activities that converge risk and social activities) [18], for all crew members of each boat in the sample and other key individuals in their social and risk-taking networks in Bali. This paper presents selected findings relating to the organization of high-risk activities among interview respondents and people who participated in discussions and conversations during observations, focusing on: insertion of implants under the penis skin; drinking alcohol; and buying sex from prostitutes.

RESULTS

As shown in Table 1, the full sample of 29 interview respondents included 24 fishermen from 4 separate small fishing boats, and 5 pilot interview respondents who worked on boats of varying sizes. Ages ranged from 19 to 44 years (average 26.4), with 1 to 15 years in the fishing industry (average 5.7). Six (20.7%) of the interviewees were married, 5 (17.2%) had at least one penile implant, 19 (65.5%) had bought sex, 3 (10.3%) had shared prostitutes, and 4 (13.8%) had injected drugs. Nineteen (65.5%) of the respondents had spent more than half of their most recent pay on alcohol and sex.

FISHERMEN'S ORIGINS, MOBILITY, AND SOCIO-ECONOMIC AND CULTURAL FACTORS

The fishermen interviewed were mainly from farming communities in Java; areas which have come to be known as major source areas for labour for the long-line fishing industry. Previously, relatives or friends who had joined the industry were known to bring news back to the village about work opportunities and pay levels, encouraging young men to leave farming work. During observations, unmarried fishermen tended to be easier to talk with and spent more time hanging around at the port and the entertainment establishments. Most married fishermen leave their wives in their hometowns for practical and financial reasons.

On two of the sampled boats (Boats 1 and 3), the crews mostly comprised of fishermen with experience with sex workers, while the crew of Boat 2 were mostly religious (see Table 1). Muslim fishermen's adherence to religious practices varies widely, from very religious to not at all. Most fishermen say that they pick up their religion whenever they have time, such as when they visit home, or if they happen to be at port for Friday prayer. For some fishermen, freedom from religious practice is one of the many opportunities they value in their lives as fishermen away from home.

AT SEA

Fishing Work

Fishermen describe work in long-line fishing, in the open ocean, as monotonous, dangerous, and low paid, requiring good teamwork, a brave crew, and physical strength, rather than skill. Discussing anything serious or sensitive while working at sea is considered to add to their heavy burden. As one fisherman said, “Usually when we are so stressed from working... at sea all our fantasies are about sex... We talk about all the prostitutes we had sex with, to compare their services. We talk about the advantages of having sex with prostitutes compared to regular women”. Sex-buying fishermen said that sex-related discussions at sea often lead to actual plans for future entertainment-seeking back on land, especially if the catch has been good.

Penile Implants and Enlargement

According to the fishermen, the implants are to “tickle” the vaginal wall, to give greater pleasure to the woman, and thus encourage prostitutes to give them sexual bonuses, such as free sex, or extra sexual services, like oral or anal sex. As one fisherman said, “The women will enjoy it better... The girls say they like it and sometimes give me a bonus”. However, the fishermen with implants have to be more selective with their sexual partners, and having too many implants generally leads to rejection. Five study respondents had penile implants, including one with four implants (see Table 1).

Fishermen with penile implants make them from materials available on board, such as toothbrush handles, glass from the base of a soy sauce bottle, and cuts of plastic from life rafts. The blades used for insertion are often made from sharpened toothbrush or spoon handles, or fish bone. Experienced fishermen will supervise the preparation and usually do the insertion for a beginner by making a small incision in the skin, through which to push the implant. Coffee powder and/or spider web is applied to help stop the bleeding and prevent infection. To give the wound time to heal, the fishermen said that the procedure is always done at sea, usually on the journey home while working for bigger boats, which takes 5 or 6 days.

Unless the insertion wound had become infected, the fishermen reported, after arriving back at port, they would generally rush to the brothels with friends after drinking parties to see the impression their implants would make on their sexual partners.

One fisherman said, “Some still have open wounds when they got to land, sometimes infected and painful, so they take them out. Some have sex with an infected and swollen open wound on their penis”. Some respondents mentioned that their implants came out during sexual intercourse.

ON LAND

Living Arrangements

In general, fishermen live in dorms not far from the port, and will share a room with a friend who works for a different boat. This maximizes usage of the room, and opportunities for privacy. Also, having a different pay schedule makes it more likely that one of them will always have money. Beyond taking turns to pay the rent, roommates also sometimes combine funds to pay for a television set, CD/DVD player, mobile phone, and to pay for food and other supplies. Respondents mentioned visiting friends at different dorms for various purposes, including picking up money, for example from illegal trade of shark fins or sale of left over supplies.

Drinking Alcohol

Almost all alcohol-drinking fishermen said that their definition of entertainment include drinking, buying sex, playing pool, and watching pornographic films. Discussion topics at drinking sessions revolve around new porn films, new brothels, new prostitutes, sex workers with particular techniques, new brands of sex-prolonging ointment, new penis enlargement methods, genital infections from the last sexual contact, and plans for further entertainment.

Many factors are in operation behind fishermen's drinking sessions. Sometimes it is the captain's treat, and crew attendance is obligatory. On arrival from a successful trip, the captain commonly throws a drinking party for the crew, right at the port. The crew see this as a way for captains (even if they are not drinkers) to show off, and everyone throws around the phrase “*bagi bagi rejeki*” (sharing the good fortune) to passers-by.

At other times, fishermen said that after being paid they may buy alcohol and invite friends to their dorm, to “warm up” before moving on to a bar (karaoke bar or “*kafe*”) or a brothel. As one fisherman described, “We usually have other plans besides just drinking when we have money, like going to the brothel...” Foremen and other experienced fishermen usually pressure the newest

fishermen on board to drink, taking them out drinking and to a brothel.

Buying Sex

Fishermen mainly frequent the three main brothels in Bali, just a few miles from the port, in Sanur. Prices range from about \$3 to \$20 per transaction. Besides the price, for fishermen the decision about which brothel to go to is based on news about newly-arrived prostitutes, local politics and crime, and also friendly atmosphere. In addition, news about STI infections from a particular brothel is a consideration, but if their cash is low they may still choose that brothel. Fishermen need to keep up with all this news from friends who have been on land.

Buying sex for some fishermen is an inevitable, obligatory, basic expense. And they want “bang for their buck.” Benefit is measured in terms of sexual and social pleasure – unique relationship and sexual fantasies – within the transaction. Sex-buying fishermen indicated that buying sex is a function of *personal* and *social* factors.

In terms of *personal* reasons, all sex-buying respondents said they developed a liking for sex with prostitutes. They said all it takes is money and then they can realize all kinds of sexual fantasies – wild, experimental, and relaxed relationship – later discussed with fellow crew during fishing trips.

Many fishermen in Bali call prostitutes *lonte*, which corresponds with the term “whore”. This term implies immoral and wild, characteristics which correspond to their own temporary circumstances as migrant workers in a risky job far from home. Sexual intercourse with *lonte* gives the fishermen room to experiment with techniques they’ve heard about or seen in porn films. Sex-buying fishermen indicated that they consider condom use to be emasculating, given that their occupation frequently demands risk-taking, fearlessness, and even recklessness.

Fishermen appreciate sexual expertise among prostitutes, and may demand a range of extra services, including oral and anal sex. Sex-buying fishermen expect prostitutes to be active, while they expect “good women” to be passive during sexual relations. Married sex-buying fishermen and those with steady (non-prostitute) girlfriends, said they could not ask their wives or girlfriends to perform the services they expect from prostitutes. Fishermen said that only prostitutes understand and accept their obsession for seeking fun after long, harsh weeks at sea, and know how to treat them as kings. And they can also be good drinking friends, and can commiserate

about social problems associated with being marginalized migrant workers in Bali. The majority of prostitutes come from Central and East Java and speak Javanese, and thus their company provides the fishermen a familiar sense of home.

The *social* reasons for buying sex tend to mimic those for drinking alcohol, since these activities are rarely conducted alone. For the sex-buying fishermen from the same boat, the sense of having worked hard together on a recent fishing trip leads them to reward themselves with collective entertainment, reflected in their saying “*berat sama dipikul ringan sama dijinjing*” (heavy loads we carry together on our shoulders and light loads we carry together by hand). A drinking party on arrival or departure is the first step to buying sex. As some respondents said, “Going to the brothel or having sex is the completion of a drinking session... Sex releases all the stress from drinking alcohol...”

Sex-buying with fishermen from different boats is part of a “circle of good friends” culture. These fishermen mentioned that the more frequently they change boats, the wider this “circle” becomes, and they seek each other out when on land. Income among these friends is fluid to a large extent, which enables many to seek daily fun during their time on land, since there will always be at least one among their good friends who has recently been paid. Some said they owe friends for past favours (e.g. saved his life at sea, or helped him find a good boat to work on), for gifts (e.g. cigarettes, or antibiotics for STI treatment on board), or for cash loans (e.g. to pay for drinks or sex). Buying sex for a friend is a highly-appreciated means of debt repayment within these circles of friends.

DISCUSSION

IDENTITY CONSTRUCTION OF A MIGRANT POPULATION

The findings from this study among fishermen also support what studies among workers in other high-risk occupations, including gold miners in South Africa [21–23] and long distance truck drivers in Sub Saharan Africa [24], have documented – that work-related risk is well accepted. With all the occupational risk they face, these population groups tend to test their endurance and ability to cope with dangerous outcomes. On a personal level, penile implant insertion is one way for the fishermen to feel special; showing they can brave the pain and the risks, and can offer added plea-

sure to their sex partners, through an activity which is closely influenced by social contacts – similar to the findings from other studies in the Philippines [25] and Indonesia [26].

As migrant workers, fishermen are constantly reconstructing their identities in the new place, adapting for survival, similar to their fishermen colleagues in Thailand [8] or their other mobile cousins, gold miners in South Africa [27, 28]. They shape their social identity in response to the life challenges faced in the work environment, as well as in their leisure time. Barriers to social integration with the Balinese host community (language, religion, culture, prejudice, outsider status, regulations, and policies) also reinforce the aspects of their anonymous, migrant worker social identity, which encourages deviant behaviour – like a self-fulfilling prophecy. In relation to HIV and other STIs, their new social identity and circumstances as fishermen, in the absence of the social sanctions they accept back home, lead them to engage in commercial sexual relations that expose them to the risk of infection.

SOCIAL ORGANIZATION OF SEXUALITY AND HIV RISK

As has been pointed out in many analyses of structural barriers of HIV intervention [29–31], it is imperative to study the social and cultural contexts in which high risk of HIV transmission occurs among fishermen. For the fishermen, their occupation is a vivid structural aspect that clearly also amplifies their risk for HIV infection [8]. The fishing companies are even complicit in the commercial sexual activities, assuming work performance will improve if the men can relieve stress and have fun, giving them leave without pay or loans if they fall sick with STIs.

Fishermen's STI/HIV risk-taking practices and perceptions have many similarities with fishermen in Thailand, which highlights how existing social values and modes of interaction become the key ingredients in the shaping of certain related behavioural outcomes [8]. For example, after their harsh weeks at sea, the fishermen's desire for social and physical intimacy with women, their access to money, and input from their network of friends, lead them to select a prostitute at an acceptable price. A satisfying experience may lead to development of an intimate, long-term relationship, based not on considerations of risk but of companionship [23, 32], fantasy, and pleasure [33].

Fishermen's susceptibility to STIs and HIV is also culturally determined. Their commercial sexual relationships are not a matter of simply executing a plan, nor the result of a cost-benefit analysis about disease risk versus pleasure, but also a function of fantasies, life goals, and cravings for intimacy, respect, power, and love, involving a complex series of physical and emotional actions and reactions, incorporated into social relations. Simply telling these fishermen to use condoms will have little or no impact. Instead, an understanding of many particularities of fishermen's risk-taking sub-culture is needed before promoting condom use as one STI/HIV-prevention intervention strategy.

METHODOLOGY CAVEATS AND LIMITATIONS

This data on the nature of STI/HIV, social, and risk-taking behaviour of fishermen came predominantly from the risk-takers, revolving around their sex-buying, drinking, penile implants, and clique formation activities. Had more time been spent observing the daily life of religious fishermen, a deeper understanding would have emerged of the nature of their faith, how their social networks function to provide a buffer effect for their members against HIV and related risk behaviours. These limitations are only partially made up for by information obtained from current risk-taking fishermen who admitted being religious during the beginning months of their fishing careers, and described how they left this behind.

The risk-taking fishermen initially felt reluctant to reveal private and intimate information, even in the confidential, one-on-one interview setting. It became clear that their sexual behaviour was due to connections with their additional income-generating activities, which were often illegal and could cause serious legal (and possible violent) repercussions from the companies they worked for, if revealed. Risk-taking fishermen in general provided more information after the interview sessions were over. When the tape recorder was turned off, they would mention that the interview process had helped them feel comfortable, assured them that they were not being interviewed by company spies, and they revealed more personal information.

Fishermen from small boats had built their social networks and risk behaviours around their short and frequent periods on land. Their small earnings also affected their ability to participate in risk-taking events and to draw bigger risk-taking crowds to each event – i.e. drinking alcohol and buying sex. Additional

information was also collected from some fishermen with experience working for bigger boats with international fishing routes and longer fishing trips. During observations, they recounted their memories about risk-taking practices among crews of large boats, indicating that knowledge and risk practices on the individual level were generally comparable to those on smaller boats – operating based on similar beliefs about STIs/HIV, and with similar STI self-treatment practices, low condom use, etc.

CONCLUSIONS

One clear and practical conclusion of this study is that those wishing to help prevent STIs/HIV in this population must find a way to re-frame the issue with reference to the particular values and experiences of this sub-culture, such that condom use might become acceptable.

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