

Oxfam Humanitarian Field Studies

**Understanding the Effect of the Tsunami
and Its Aftermath on Vulnerability to
HIV in Coastal India**

March 2007



IMPROVING EMERGENCY RESPONSE

The tsunami disaster of December 2004 affected millions of people, dramatically magnifying the challenges that survivors and aid providers face in smaller emergencies elsewhere around the world. In 2005, Oxfam launched a program to investigate social, economic, and health issues that are critical to the recovery of tsunami survivors. Working through partners in universities and institutes in the region, Oxfam is carrying out studies that combine data and perspectives from disaster-affected communities with existing knowledge from related fields. Our goals are to strengthen the programs of Oxfam and other humanitarian aid providers for this and future emergencies, and to improve accountability to those we aim to help. This report is one of a series of summaries of the Oxfam Humanitarian Field Studies.

The research that forms the basis of this report was carried out by the Swasti Health Resource Center of Bangalore, India. Oxfam funded the project, and Hari Krishna, India Humanitarian Representative for Oxfam America, provided technical and advisory support. This article, drawn from the original research report written by N. Shiv Kumar, N. Raghunathan, and Benoy Peter of Swasti, was composed by Mercy Mutonyi of the Feinstein International Center at Tufts University. Oxfam would like to give special thanks to K. Jose Michael, former Oxfam program coordinator for HIV and AIDS, who conceived the research project; the Swasti researchers; and the hundreds of community members who participated in the study and volunteered their time and insights.

© Oxfam International September 2007 The text in this report may be used free of charge for the purposes of advocacy, campaigning, education, and research, provided that the source is acknowledged in full. The copyright holder requests that all such use be registered with them for impact-assessment purposes. For copying in any other circumstances or for re-use in other publications or for translation or adaptation, permission must be secured and a fee may be charged. E-mail editor@oxfamamerica.org.

ABSTRACT

In 2006, Oxfam commissioned the Swasti Health Resource Center in Bangalore, India, to study whether the 2004 tsunami and its aftermath increased vulnerability to HIV infection among affected residents of coastal India. Researchers found that such vulnerability did indeed increase in most of the 30 communities studied, primarily because the physical, social, and psychological conditions after the tsunami led to a significant increase in unprotected sex with non-regular sexual partners, especially among people living in temporary shelters. The research team recommends measures that government, local NGOs, and international aid groups can take to minimize the risk of HIV infection among displaced people after major disasters.

INTRODUCTION

The massive tsunami of Dec. 26, 2004, caused devastation in 14 countries bordering the Indian Ocean—especially in India, Indonesia, the Maldives, Sri Lanka, and Thailand. About 227,000 people lost their lives and 1.7 million were displaced.¹ In India, more than 2,000 kilometers of coastline along the southern Indian states of Tamil Nadu, Andhra Pradesh, Kerala, and the Union Territories of Puducherry (formerly Pondicherry) and the Andaman and Nicobar Islands were affected. Authorities reported more than 18,000 deaths, while more than 150,000 houses were damaged or destroyed and more than 600,000 people displaced from their homes. Tamil Nadu was the hardest hit, accounting for 66 percent of the total deaths and 84 percent of the damage to housing.

There were tremendous successes in the humanitarian response to the tsunami, such as the prevention of outbreaks of deadly waterborne disease among those who were displaced from their homes. However, the urgent needs identified by communities and aid providers—to supply food, water, shelter, medical care, psychosocial support, and eventually the means to make a living—tended to overshadow the need to provide information and services that could prevent the spread of HIV.

Yet, even when aid providers prioritize AIDS prevention activities, there is a dearth of information to help them understand what conditions trigger increased risk of infection or how communities and aid providers can best address those conditions.

The research undertaken by Swasti is aimed at discovering ways in which the tsunami and its aftermath affected the risk of contracting HIV. Its purpose was not to measure how many tsunami-affected people are now HIV positive. Instead, the study aimed to identify changes in behavior that occurred after the tsunami that placed community members at greater (or lesser) risk—changes that may have been triggered by trauma and losses, disrupted communities, and by the aid effort itself.

Throughout the study (unless citing outside references), the term “vulnerable” is used to mean “at risk for HIV infection” or, more formally, the characteristics of a person or group or community, and their situations that influence their behavior and practices—leading or exposing them, through a causal chain of events resulting in increased likelihood of acquiring HIV or another sexually transmitted infection (STI). While there are many ways of characterizing vulnerability, for the purposes of this research, the term refers primarily to exposure to one or more of the following risk factors: unprotected sex with non-regular partners, exposure to infected blood or blood products, sharing infected needles, or HIV transmission from mother to child. Self-reporting by members of the tsunami-affected communities was the key source of the information about

The conclusions and recommendations put forward in the humanitarian field studies represent the views of the researchers and not necessarily those of Oxfam.

REPORT OUTLINE

- Abstract
- Introduction
- HIV and AIDS in disasters: an overview
- Significance of the study
- Objectives of the study
- Research methodology
- Limitations of the study
- Results of the study
- Key findings
- Recommendations of the Swasti Health Resource Center
- Conclusion
- Notes
- References
- About the researchers
- About Oxfam International

behavior—and changes in behavior—that created vulnerability. Whenever possible, results were confirmed by area medical staff and other key informants.

HIV AND AIDS IN DISASTERS: AN OVERVIEW

During and after disasters, physical, financial, and social insecurity may erode the caring and coping strategies of individuals and households, rendering communities more vulnerable to HIV infection.²

- **Loss of livelihoods.** Disasters and emergencies lead to loss of livelihoods and further impoverishment, especially in poor societies. Women and girls become especially vulnerable, as they may find themselves coerced into engaging in sex as a survival strategy to gain access to food, shelter, and physical security. In some emergencies, increased powerlessness and insecurity make this group more vulnerable to rape and other sexual violence.
- **Breakdown of social norms.** Displacement often leads to the breakdown or weakening of traditional social norms and systems that control social behavior and activities, including sexual relationships. The breakdown of families and communities and exposure of the uprooted population to unfamiliar social and livelihood situations can increase vulnerability to HIV infection.
- **Challenges to health care.** Disaster situations can greatly overtax the existing health-care infrastructure. The result can be gaps, such as in the supply and distribution of condoms, which hamper HIV prevention. Efforts to treat STIs and other diseases are sometimes ineffective and sporadic in this setting. (STIs are relevant to this research not only because HIV is sexually transmitted but also because infection with other sexually transmitted diseases can increase a person's risk of contracting HIV.)

The risk of transmitting HIV through transfusion of contaminated blood might also rise due to inadequate screening services at health centers.

- **Disruption of HIV-control activities.** During disasters, HIV- and AIDS-control activities like awareness campaigns tend to be disrupted or eclipsed by other priorities, like the provision of basic food, water, and shelter, and the treatment of wounds and more acute diseases and infections. Institutions like schools and shopping centers, where awareness campaigns tend to be conducted, are sometimes closed down in emergencies.
- **General trauma.** Trauma related to an emergency may sometimes lead to problems like alcoholism and high-risk sexual behavior.
- **Relief efforts.** Paradoxically, relief and rehabilitation efforts by aid providers may sometimes contribute to the risk of HIV and AIDS.³ In the case of the tsunami, for example, the structure and location of the new temporary shelters were major contributing factors.

The tsunami prompted concerns that rates of HIV infection and transmission would rise in the affected areas.⁴ Similar predictions had been made following previous emergencies. While assessing the role of health systems in disaster mitigation, for example, the World Health Organization (WHO) observed that the conditions that define complex emergencies—conflict, social instability, poverty, and powerlessness—are also the conditions that favor the rapid spread of HIV and other STIs. Before the tsunami, most of the countries that it would later strike were already dealing with

conflict, political tensions, chronic poverty, and weak support for human rights; in other words, there were existing vulnerabilities to HIV.⁵

After the tsunami, the United Nations Development Program (UNDP) warned the affected countries about the need to guard against increased HIV transmission in devastated areas, because of high-risk behavior and greater vulnerability among the affected populations.⁶ The main risk factors UNDP identified were similar to those identified by WHO (above). The Tearfund Disaster Management Team also observed that, as in the tsunami, post-emergency situations increased both people's vulnerability and the impact of HIV and AIDS.⁷ The International Agency Support Unit (IASU) of the UN office in Thailand shared these sentiments.⁸ It also added that, after the tsunami, another vulnerable group emerged: reconstruction workers, who were at high risk of infection because of the mobile nature of their work.

In her review of existing policies and guidelines vis-à-vis responses to HIV and AIDS in emergencies, Ann Smith of the Overseas Development Institute identified two major links between HIV and emergencies.⁹ First, humanitarian crises, whether resulting from conflict or natural disaster, are more likely to occur in countries where rates of HIV infection are already high. Second, emergencies may cause changes in sexual behavior, disrupt medical facilities, and lead to sexual violence and loss of livelihoods—all factors that increase vulnerability to infection.

The Inter-Agency Standing Committee (IASC) made a similar link.¹⁰ In its handbook, which provides elaborate guidelines on emergency response and addresses the specific needs of HIV-infected and -affected people, the IASC notes that in areas affected by natural disasters, the amount by which HIV infections increase depends on existing HIV prevalence rates.

Still, as the tsunami response illustrated, concerns about tracking, preventing, or treating HIV and AIDS are usually eclipsed by other, seemingly more immediate, priorities—with the probable result that thousands of people were left increasingly vulnerable to HIV and other STIs.

SIGNIFICANCE OF THE STUDY

There is an urgent need to incorporate HIV and AIDS programming into emergency response programs. Local, national, and international aid providers concur on this point, and the United Nations General Assembly has mandated that national strategies and international assistance programs following emergencies include measures for HIV and AIDS awareness, prevention, and care in the aid offered refugees and internally displaced persons, particularly women and children.¹¹

Yet, most guidelines for HIV prevention in disaster-related emergencies are focused on conflict situations rather than natural disasters. There is little reliable field-level information on the impact of natural disasters on HIV vulnerability. Systematic efforts to understand such vulnerability have been limited. Most prevention efforts are therefore based on few experiences, are limited to awareness and informational campaigns, and are not able to address the causal chain of factors leading to vulnerability. The tsunami disaster is no exception.

Significant work remains to be done in determining risk factors for the spread of HIV in emergency settings, but—perhaps due to the sensitivities surrounding the topic and the difficulty in eliciting accurate information about HIV-related behavior—few have attempted research in this area. Without such studies it will be difficult to design appropriate programs and strategies to prevent the spread of HIV in future emergencies.

The magnitude of the tsunami disaster and the large numbers of people displaced by the event prompted Oxfam to initiate a study that would gather and analyze firsthand information about HIV vulnerability from communities in the affected areas of mainland India and the Andaman Islands. The agency contracted the Swasti Health Resource Center, in Bangalore, India, to carry out the research, which took place in late 2006 and early 2007.

OBJECTIVES OF THE STUDY

The hypothesis of this study was that the tsunami disaster and some of the subsequent relief and rehabilitation measures influenced the behavior and practices of the affected populations in ways that increased their vulnerability to acquiring HIV and AIDS.

The aim of the study was to identify any changes in vulnerability to HIV infection in India's coastal communities that might have been triggered by the tsunami and its aftermath in order to provide useful policy recommendations to aid providers.

The objectives of the study were:

1. To understand and assess the level of vulnerability to HIV and AIDS of coastal communities in tsunami-affected areas.
2. To understand how various agencies responded to HIV and AIDS in the post-tsunami context.
3. To develop recommendations for addressing the needs of coastal communities with respect to reducing vulnerability—now and in the event of future disasters.

RESEARCH METHODOLOGY

Researchers tested their hypothesis by interviewing approximately 1,100 people in 30 coastal villages located in five states—selected to represent a cross-section of area residents—to determine their vulnerability to HIV. Vulnerability in this context meant exposure, either directly or through a spouse or partner, to at least one of the following four risk factors for HIV infection:

- unprotected sex with non-regular partners;
- exposure to infected blood and blood products;
- sharing infected needles; or
- HIV transmission from mother to child.

In addition to these behavioral risk factors, vulnerability also included other causal factors such as knowledge about STI prevention, access to health services, cash flow, and alcohol consumption.

Researchers assessed how vulnerable each of the villages was to these factors, based on the evidence (from polling booths, interviews with key informants, and case studies) and the prevalence of the risk factors, and then determined whether and how that vulnerability had changed since before the tsunami. Patterns related to housing (settlements of original homes, temporary shelters, and new permanent homes), to major sources of livelihoods (fishing, agriculture, and other activities), to degree of devastation (high or low loss of life), and to sub-populations (married and unmarried men and women) were all analyzed. Factors affecting behavior—such as knowledge of sexual health, access to sex partners, and environmental considerations—were also explored.

Sampling Procedures

The study sample was drawn from the five southern states affected by the tsunami: Tamil Nadu, Kerala, Andhra Pradesh, Puducherry Union Territory, and the Andaman Islands. Eighteen of the 30 study locations were located in Tamil Nadu, which experienced 66 percent of all deaths and 84 percent of all property damage in India. Six study locations were in the Andaman Islands, while each of the other three states had two study locations apiece.

One, two, or three districts in each state were selected for study, based on the reported amount of damage. Damage was measured in terms of the number of deaths or, as in the case of Andhra Pradesh, the amount of money spent on relief.

One study location was then identified in each village—a location where participants were living in either temporary (intermediate) shelters, new permanent homes, or habitations (settlements composed primarily of original pre-tsunami homes). In total, 16 habitations, 12 temporary shelter settlements, and two areas primarily composed of new permanent homes were selected.

Table 1: Number of Research Locations by Profile

State / Union Territory	Category of location			Major means of livelihood			Total
	Habitations	Temporary shelters	New permanent houses	Agriculture	Fishing	Others	
Andaman Islands	0	6	0	1	1	4	6
Andhra Pradesh	2	0	0	0	2	0	2
Kerala	2	0	0	0	2	0	2
Puducherry	2	0	0	0	2	0	2
Tamil Nadu	10	6	2	2	15	1	18
Total	16	12	2	3	22	5	30

Study Procedures

The research followed the principles of action research, emphasizing qualitative methods over quantitative ones.¹² Participatory research was used extensively in the selected locations. A number of research tools were employed, including the transect walk, social mapping, resource mapping, risk mapping, and “polling booths,” followed by focus group discussions.¹³ The polling booths developed by Swasti enabled participants in a group setting to answer yes or no questions with guaranteed confidentiality. The results were triangulated.¹⁴ All the tools except the polling booth sought to collect qualitative data. Key informant interviews and in-depth interviews with stakeholders were conducted to provide case studies on specific profiles and factors related to vulnerability. Field surveys were carried out in the 30 locations in five states.

Two pilot studies were undertaken to test the field survey methods and the capacity of the field teams to analyze the qualitative information collected. This process helped the field teams hone their approach before undertaking the research.

LIMITATIONS OF THE STUDY

1. The issues explored in the study are sensitive ones that many people find difficult to discuss (sex outside marriage, condoms, etc.). The study therefore collected most of the data through qualitative methods, such as focus groups and informant interviews, which are often hard to quantify.
2. During interactions with key informants in government, NGOs, and elsewhere, many officials suggested there was little relationship between the tsunami and HIV. Many advised the study team “not to create new problems.” Some felt these studies were conducted only because money was available for the purpose. These perceptions limited interactions with some key informants, who otherwise might have provided useful information.
3. The study was conducted after a huge humanitarian crisis that caused lasting trauma among some groups of respondents. The many studies conducted by various agencies after the tsunami led to “research fatigue” in some communities and in some ways might have affected the quality of the responses.
4. The study team could not visit any of the locations in Nicobar District, because of licensing restrictions and accessibility factors. In Andaman, as people were brought in from multiple locations, understanding their pre-tsunami status was difficult. However, the study team tried to cross-check with multiple sources to arrive at their best estimates.

RESULTS OF THE STUDY

Researchers assessed vulnerability to HIV infection according to a number of different determinants.

Across all categories

Among the 1,104 study participants, unprotected sex was the key source of increased HIV infection. More than 20% of all respondents surveyed in the polling booth reported that they were engaging in sex with non-regular partners. Fewer than 20 percent of the men polled used condoms with their non-regular partners, and fewer than five percent of the women polled used condoms. Condom use was reported to

be inconsistent or absent in 29 of the locations. About 21 percent of polling booth respondents reported having STI symptoms during the study period, and 15 percent reported a recurrence of symptoms in the past three years.

Though NGOs and government agencies mounted one-time HIV-awareness campaigns in various locations, their effects were usually eclipsed by other factors such as trauma and alcohol consumption.

By geographic location

Communities in 29 of the 30 locations studied were found to be vulnerable to HIV infection. On average, about 17 percent of the affected population studied was found to be vulnerable to HIV. But that figure ranged widely—from 2 percent in two villages in the Andaman Islands to 46 percent in a fishing community in Tamil Nadu. This large gap underscores the wide disparity in the documented number of AIDS cases in the five states studied, from just 37 in the Andaman and Nicobar Islands to 52,036 in Tamil Nadu.¹⁵

In 20 of the communities found to be vulnerable to HIV, participant responses indicated that their vulnerability worsened as a result of the tsunami. In none of the study locations did vulnerability decrease. The communities in Chauldari, Andaman, that participated in the research appeared to have little or no vulnerability to HIV infection, according to the criteria of this study (see Introduction). Some characteristics that distinguished these settlements from others studied were that they were relatively well-off economically and very homogeneous. Few people from the other islands were present in the shelter settlement, and social interactions among them were very limited.

By marital status

Unmarried women (women who hadn't ever married) were the least vulnerable to HIV among all the groups. The study explored possible reasons for their low vulnerability and found that, even though family and social structures were reshaped following the tsunami, family members and communities still monitored the activities of unmarried women to a greater extent than those of other groups. Also, affairs involving unmarried women usually ended in marriage, one result of which is that unmarried men reported a preference for sexual relations with married women, who were subject to fewer social controls or fears about pregnancy.

Nevertheless, the highest post-tsunami increase in vulnerability was found to be among unmarried women. A major causal factor was that unmarried women often stayed home alone in temporary shelters while their parents were at work. The next-highest increase was among married women. After the tsunami, married women who were displaced from their homes lived in close proximity to other men, and in many cases their husbands' work involved long or frequent absences. Married women were vulnerable to HIV infection both directly (through unprotected sex with non-regular partners) and indirectly (through sex with their husbands, who may have had other sexual partners).

Results from the polling booth exercise showed high STI rates among married men, married women, and unmarried men. The increase in STI symptoms after the tsunami was relatively greater among married women and unmarried men. (STI rates are relevant to this study because some STIs can increase a person's risk of contracting HIV.)

By type of housing

In 10 out of 11 temporary shelter settlements, 8 out of 16 habitations, and both the new permanent shelter communities, vulnerability to HIV increased after the tsunami. In four of the habitations (two in Puducherry and two in Andhra Pradesh) there was no change in vulnerability. Unprotected sex with non-regular partners was found to be occurring in all but one of the temporary shelter communities and both of the new permanent shelter settlements studied.

STI cases were self-reported among residents of all types of housing, though the prevalence of was highest in temporary shelters (23 percent) and lowest in habitations (19 percent).

By degree of damage

No major patterns linked any change in HIV vulnerability with the degree of damage in a community.

Table 2: Occurrence of STIs Among Polling Booth Respondents

Category	Currently have STI symptoms	Experienced STI symptoms more than once	Sought Treatment for STI symptoms
Male	19%	15%	12%
Female	23%	15%	13%

Other modes of transmission

No HIV infection was reported as a result of infected blood or blood products. In none of the sampled locations did people report sharing drug needles. Two pregnant women were HIV-positive, but the status of their infants was not known.

KEY FINDINGS

1. Key causal factors leading to increased vulnerability include

Poor sexual health practices and lack of awareness

The study's findings suggest that many people in the areas studied have very limited knowledge of sexual disease-prevention practices. For instance, most respondents believed that condoms were useful only for family planning. People had little knowledge of STIs, and underestimated the risk from sex with apparently healthy partners. Over 70 percent of respondents from fishing communities were either misinformed about HIV and AIDS or had not heard of them. Many believed that HIV could be transmitted only via contact with commercial sex workers, while others said they were not at risk since their partners appeared to be healthy. Some respondents did understand the value of condoms for preventing disease, but they worried that if they suggested using a condom with their partners, they would be suspected of being unfaithful.

Proximity and structure of shelters

Close physical proximity of temporary shelters within the shelter settlements was reported by most people in most locations to be the key factor increasing vulnerability. Shelter design was also a factor in vulnerability: each family was typically housed in a single cubicle, which afforded married couples no privacy for marital sex. Many therefore looked for sex outside the home.

Cash flow and the gap between relief and rehabilitation

Relief measures often included cash compensation, which increased the supply of ready money in communities. Sometimes the compensation was so high that people stopped searching for alternative livelihoods. The combination of greater income and the leisure time that accompanied the loss of livelihoods in some cases resulted in increased alcohol consumption and also facilitated access to commercial sex workers. This situation was most prevalent in the period between the emergency and rehabilitation phases of the disaster response.

Reluctance to seek medical treatment

Lack of knowledge and fear of social stigmatization prevented many people from seeking medical treatment for STI symptoms, some of which increase the risk of contracting HIV. Men sometimes traveled to distant towns for such treatment, while most women depended on the village health nurse; if the problem persisted, they would visit a private doctor. Both men and women had more access to informal providers like faith healers, nurses, and pharmacists than to formal certified health providers. Women sometimes used their friends' prescriptions to get treatment for STIs. Most health facilities did not afford any privacy to patients for discussing diseases or symptoms in detail with their doctors, so doctors often just prescribed medicine without offering advice on preventive measures.

Alcohol consumption

In the wake of the tsunami, alcohol consumption reportedly increased in 29 locations. Reasons cited included the availability of cash and the tendency to use alcohol both as a means of coping with massive trauma, as well as to help pass the time during idle periods when people could not work.

Trauma

Lacking sufficient psychosocial support, some of those who experienced deep losses in the disaster turned to alcohol and commercial sex as means of coping with their shock and grief. Some also adopted a fatalistic approach that eclipsed ordinary concerns about health risks.

Breakdown of social norms and systems

In one-third of the communities, the traditional Panchayats—village elders who play a role in regulating community behavior—lost control over their communities as the tsunami displaced and dispersed their villagers. Many community members therefore found themselves at greater liberty to pursue extramarital relationships; alcohol abuse was less likely to be penalized by village authorities in the aftermath of the tsunami.

Poverty and loss of livelihoods

Some fishermen who lost major assets like nets and boats migrated as far as Singapore and Malaysia in search of alternative jobs and livelihoods. When married couples were separated, vulnerability to HIV increased for both men and women to the extent that they sought extramarital sex and failed to use protection.

Obligations

In two locations, women reported that they felt obligated to have sex with the men who rescued them during the tsunami. Fishermen sometimes asked women fish vendors for sex in exchange for selling them their fish. Both married and unmarried women who were caught having sex with non-regular partners were sometimes asked for sex as the price of keeping their affairs a secret. The coercive nature of these situations could have reduced the chances that condoms were used.

2. Stakeholder response to address vulnerability

Humanitarian agencies

Programs coordinated by international humanitarian agencies like Oxfam and World Vision as well as the UN used a variety of methods to create awareness of STIs and HIV. Local NGOs and community-based organizations like Nehru Yuva Kendras, VBEDS, and Jagruthi are engaged in social marketing of condoms in affected areas. However, there is still a gap in the treatment of STIs.

Government

The government promotes HIV and AIDS awareness campaigns on television and radio, while the reproductive and child health program of the Health and Family Welfare Department reaches people through grassroots health-care workers of the state public health system. Sometimes village health nurses are used to promote awareness of general health issues and STI infection among married women in the affected areas.

In Kanyakumari District, the Tamil Nadu State AIDS Control Society (TANSACS) conducts STI camps and, through James Hospital, also provides care and support to people living with HIV. The Kerala State AIDS Control Society (KSACS) helped NGOs conduct awareness programs in tsunami-affected locations in Kerala. Counseling and testing centers also conducted STI camps and counseling in Puducherry and Tamil Nadu.

Panchayats

Traditionally, the Panchayats played a significant role in upholding social and behavioral norms, controlling activities like alcohol consumption and extramarital sex and protecting unmarried girls from exploitation. Their role was diminished, however, when community residents were displaced and scattered into temporary shelter communities.

3. Needs expressed by the communities to reduce vulnerability

When community members were asked what they felt was needed to avoid vulnerability to HIV, a majority said that moving from temporary shelters into permanent homes would be of greatest help. Some people wanted to know more about HIV and AIDS, especially the transmission modes and how they could practice safe sex. They wanted to know about the facilities available at HIV testing centers for private consultations. Women in particular seek counseling centers that afford them privacy.

RECOMMENDATIONS OF THE SWASTI HEALTH RESOURCE CENTER INCLUDE THE FOLLOWING:

1. People should be moved from temporary camps or shelters to permanent housing as soon as possible to minimize time spent in crowded camp conditions.
2. Temporary housing should afford privacy to married couples.
3. In order to prevent unnecessary disturbances to their social fabric, displaced communities should be allowed to live together in temporary shelter settlements.
4. Sexual health counseling and services should be an integral part of medical and public health services and should be offered in settings where people can discuss intimate issues in privacy.
5. Condoms should be widely available and should be offered quickly after disasters.
6. The most crucial moment to be sure HIV and AIDS awareness programs are underway and sexual health services are available is the period between the emergency and rehabilitation phases of the response, when grief and loss, crowded living conditions, ample free time (because of underemployment), and ready cash lead some people to engage in commercial sex and excessive alcohol consumption.
7. Traditional health-care providers should be trained to deliver sexual health messages, and sexual health counseling should be incorporated into trauma counseling sessions during a disaster response.
8. Aid providers should integrate HIV prevention into their contingency plans and disaster risk reduction programming.

CONCLUSION

The hypothesis that the tsunami and its aftermath increased the vulnerability of the affected populations to HIV and AIDS was borne out by the study. In the aftermath of disasters, government and non-governmental organizations are capable of responding swiftly and effectively to fulfill a variety of needs, but much more attention needs to be focused on HIV and AIDS prevention.

NOTES

- 1 Technical Evaluation Coalition, 2006.
- 2 Food and Agricultural Organization, 2001.
- 3 Piot, 2000.
- 4 UNDP, 2005.
- 5 WHO, 2006.
- 6 UNDP, 2005.
- 7 Tearfund Disaster Management Team, 2005.
- 8 Inter-Agency Support Unit of UN Office Thailand, 2005.
- 9 Smith, 2002.
- 10 IASC, 2004.
- 11 United Nations, 2001.
- 12 See en.wikipedia.org/wiki/Participatory_action_research for an explanation of action research.
- 13 These techniques are described on the World Bank's Poverty and Social Impact Analysis Web site <http://web.worldbank.org>.
- 14 Triangulation involves combining several research methods to study a single phenomenon, so that the weaknesses or biases of any single method or researcher are canceled out by the others.
- 15 National AIDS Control Organization, 2006

REFERENCES

- Food and Agricultural Organization. 2001. "Emergencies and HIV/AIDS: Exploring the Role of FAO and Mainstreaming HIV in the Organization's Emergency Response with a Priority focus on Sub-Saharan Africa," Rome: FAO.
- IASC. 2004. "The Need for HIV/AIDS Interventions in Emergency Settings." Available at data.unaids.org/Publications/External-Documents/IASC_EmergencyBrochure_en.pdf.
- Inter-Agency Support Unit of UN Office, Thailand. 2005. "Building Back Better in Thailand Tsunami-Affected Area." Available at www.un.or.th.
- Oxfam International and Save the Children-UK. 2002. "HIV/AIDS and Food Insecurity in Southern Africa." Available at www.sahims.net.
- Peter Piot. 2000. "HIV in Complex Emergencies. A Call for Action," Health in Emergencies; Issue No. 7. WHO, Geneva.
- Smith, A. 2002. "HIV and AIDS and Emergencies: Analysis and Recommendations for Practice," Humanitarian Practice Network, Overseas Development Institute. Available at www.odi.org.uk/hpg/papers/networkpaper038.pdf.
- Tearfund Disaster Management Team. 2005. "External Mainstreaming HIV and AIDS in Disasters Work Book." Available at tilz.tearfund.org.

Technical Evaluation Coalition. 2006. "Impact of the Tsunami Response on the Local and National Capacities." London: TEC.

UNDP. 2004. "Thailand's Response to HIV and AIDS: Progress and Challenges." Available at www.undp.org.

UNDP. 2005. AIDS Risk May Increase. Press note. Available at www.undp.org.

United Nations. 2001. "Global Crisis-Global action: Declaration of commitment on HIV/AIDS," resolution adopted by the General Assembly. Available at www.un.org/ga/aids/docs/aress262.pdf.

WHO. 2006. "Guidelines for HIV and AIDS Interventions in Emergency Situations." Available at www.who.int/3by5/publications/documents/en/iasc_guidelines.pdf.

WHO Report. 2006. "The Tsunami and After: WHO Role." Available at www.who.org.

ABOUT THE RESEARCHERS

Swasti (from a Sanskrit word that means 'well-being') is a health resource center working in the areas of HIV and AIDS and health sector management in Bangalore, India. Established in 2002 to address the need for social, technical and managerial resources in the health sector, Swasti was registered as a non-profit organization in 2004. Its goal is to mobilize communities to better address health care priorities and improve the efficiency and effectiveness of organizations in the health sector. Swasti combines cross-sectoral knowledge with gender and equity perspectives and management skills. Working with a range of organizations from grassroots community-based organizations to NGOs, bi-lateral and multi-lateral donors, government departments, and academic and corporate bodies, their multicultural team is committed to improving health outcomes of marginalized communities.

ABOUT OXFAM INTERNATIONAL

Oxfam International is a confederation of 13 organizations working together in more than 100 countries to find lasting solutions to poverty and injustice. With many of the causes of poverty global in nature, the 13 affiliate members of Oxfam International believe they can achieve greater impact through their collective efforts.

OXFAM INTERNATIONAL CONTACT INFORMATION

Oxfam America

226 Causeway Street, 5th Floor
Boston, MA 02114-2206, USA
+1 617 482 1211 (Toll-free 1 800 77 OXFAM)
E-mail: info@oxfamamerica.org
www.oxfamamerica.org

Oxfam Australia

132 Leicester Street, Carlton, Victoria 3053, Australia
Tel: +61 3 9289 9444
E-mail: enquire@oxfam.org.au
www.oxfam.org.au

Oxfam-in-Belgium

Rue des Quatre Vents 60, 1080 Brussels, Belgium
Tel: +32 2 501 6700
E-mail: oxfamsol@oxfamsol.be
www.oxfamsol.be

Oxfam Canada

250 City Centre Ave, Suite 400, Ottawa,
Ontario, K1R 6K7, Canada
Tel: +1 613 237 5236
E-mail: info@oxfam.ca
www.oxfam.ca

Oxfam France - Agir ici

104 rue Oberkampf, 75011 Paris, France
Tel: + 33 1 56 98 24 40.
E-mail: info@oxfamfrance.org
www.oxfamfrance.org

Oxfam Germany

Greifswalder Str. 33a, 10405 Berlin, Germany
Tel: +49 30 428 50621
E-mail: info@oxfam.de
www.oxfam.de

Oxfam GB

Oxfam House, John Smith Drive, Cowley,
Oxford, OX4 2JY, UK
Tel: +44 1865 473727
E-mail: enquiries@oxfam.org.uk
www.oxfam.org.uk

Oxfam International Secretariat

Suite 20, 266 Banbury Road, Oxford, OX2 7DL, UK
Tel: +44 1865 339100
Email: information@oxfaminternational.org.
Web site: www.oxfam.org

Oxfam Hong Kong

17/F., China United Centre, 28 Marble Road,
North Point, Hong Kong
Tel: +852 2520 2525
E-mail: info@oxfam.org.hk
www.oxfam.org.hk

Intermón Oxfam (Spain)

Roger de Llúria 15, 08010, Barcelona, Spain
Tel: +34 902 330 331
E-mail: info@intermonoxfam.org
www.intermonoxfam.org

Oxfam Ireland

Dublin Office, 9 Burgh Quay, Dublin 2, Ireland
Tel: +353 1 635 0422
Belfast Office, 115 North St, Belfast BT1 1ND, UK
Tel: +44 28 9023 0220
E-mail: communications@oxfamireland.org
www.oxfamireland.org

Oxfam New Zealand

PO Box 68357, Auckland 1145, New Zealand
Tel: +64 9 355 6500 (Toll-free 0800 400 666)
E-mail: oxfam@oxfam.org.nz
www.oxfam.org.nz

Oxfam Novib (Netherlands)

Mauritskade 9, Postbus 30919, 2500 GX,
The Hague, The Netherlands
Tel: +31 70 342 1621
E-mail: info@oxfamnovib.nl
www.oxfamnovib.nl

Oxfam Québec

2330 rue Notre Dame Ouest, bureau 200,
Montreal, Quebec, H3J 2Y2, Canada
Tel: +1 514 937 1614
E-mail: info@oxfam.qc.ca
www.oxfam.qc.ca

Oxfam International advocacy offices:

E-mail: advocacy@oxfaminternational.org

Washington: 1100 15th St., NW, Ste. 600, Washington, DC 20005-1759, USA

Tel: +1 202 496 1170.

Brussels: Rue Philippe le Bon 15, 1000 Brussels, Belgium

Tel: +322 502 0391.

Geneva: 15 rue des Savoises, 1205 Geneva, Switzerland

Tel: +41 22 321 2371.

New York: 355 Lexington Avenue, 3rd Floor, New York, NY 10017, USA

Tel: +1 212 687 2091.

Linked Oxfam organizations.

The following organizations are linked to Oxfam International:

Oxfam Japan Maruko bldg. 2F, 1-20-6, Higashi-Ueno, Taito-ku, Tokyo 110-0015, Japan

Tel: + 81 3 3834 1556. E-mail: info@oxfam.jp Web site: www.oxfam.jp

Oxfam Trust in India B - 121, Second Floor, Malviya Nagar, New Delhi, 1100-17, India

Tel: + 91 11 2667 3 763. E-mail: info@oxfamint.org.in Web site: www.oxfamint.org.in

Oxfam observer member.

The following organization is currently an observer member of Oxfam International, \ working towards possible full affiliation:

Fundación Rostros y Voces (México) Alabama No. 105 (esquina con Missouri),

Col. Napoles, C.P. 03810 Mexico, D.F.

Tel/Fax: + 52 55 5687 3002. E-mail: comunicacion@rostrosyvoces.org

Web site: www.rostrosyvoces.org

Oxfam International Tsunami Fund is a limited company number 5401107.

The registered office is Suite 20, 266 Banbury Road, Oxford, OX2 7DL