In the fall of 2006, Oxfam undertook a partnership with the Swasti Health Resource Center of Bangalore to study what impact the 2004 Indian Ocean tsunami may have had on the risk of contracting HIV in India’s coastal villages. The purpose of the research was to understand whether and why the tsunami and its aftermath led to an increase in vulnerability to HIV, with the goal of helping aid providers and communities understand how to minimize the risks in future disasters.

Looking below the radar

Much of the devastation caused by the tsunami was highly visible: 230,000 people dead, 1.7 million others homeless, countless homes and small businesses destroyed. Most of the aid pouring into the region in the first months understandably focused on immediate priorities: food, clothing, shelter, emergency medical care for the survivors, and preventing disease epidemics.

Yet the toll of the disaster also included outcomes that were less obvious, such as psychological trauma, alcoholism, and frayed relationships and institutions. Fearing that one of the less visible results of the tsunami might be a rise in HIV vulnerability and infection, Oxfam initiated an HIV-awareness program in coastal communities of India that were affected by the disaster.

“If aid providers don’t supply enough water or food or shelter after an emergency, it’s clear to everyone what’s wrong, but a rise in HIV risk after a disaster can go undetected until it’s too late,” says Michael Delaney, Oxfam’s director of humanitarian response.

But a lack of real evidence about the impact of sudden-onset emergencies on vulnerability to HIV has left troubling gaps in the knowledge of aid providers, which means that important decisions about how to prioritize HIV-prevention activities are left to hunches and guesswork. Oxfam therefore added a research component to its program by enlisting the help of Swasti to carry out a field study.

Vulnerability

Throughout this report, the term “vulnerability” refers not to the actual spread of HIV infection but to exposure to one or more major risk factors, primarily unprotected sex with nonregular partners, exposure to infected blood, sharing of infected needles, or virus transmission from mother to infant. Other factors that were considered include lack of knowledge about sexual health, the presence of other sexually transmitted infections (STIs) that can facilitate transmission of the HIV virus, limited access to effective health services, and alcohol consumption.

“We did not set out to determine actual rates of HIV infection in the villages,” explains Hari Krishna, an Oxfam disaster risk reduction specialist in India. “That would have revealed very little about the changes precipitated by the disaster and even less about how and why they took place.” Instead, research focused on how people felt their own HIV-related behavior had changed since the tsunami, and what brought about those changes.

Key findings

--- The risk of contracting HIV rose in 29 of 30 coastal villages surveyed in southern India.

--- The most significant factor was an increase in unprotected sex between nonregular partners.

--- Trauma and loss, lack of HIV education, crowded living conditions in temporary camps, lack of privacy for married couples, lack of employment, and relatively easy access to cash and alcohol all contributed to a spike in vulnerability.

--- Participatory action research proved an effective method of gathering information and reducing HIV vulnerability.
Gaining trust, gathering information

The Swasti field teams carried out studies in 30 communities in the five states most affected by the tsunami: Tamil Nadu, Andhra Pradesh, Kerala, the Union Territory of Puducherry (formerly Pondicherry), and the Andaman and Nicobar Islands. The communities reflected the diversity of the region and included both fishing and farming villages.

The researchers faced a significant challenge: how to elicit information from more than 1,100 people in rural villages, some of whom had "research fatigue," and most of whom were understandably reluctant to discuss sexual and drug-related issues with strangers. But the teams brought more than clipboards and hypotheses to the communities they visited: they also brought with them experience, empathy, cultural sensitivity, and valuable information for community members.

They first engaged with the village leadership and proceeded only after receiving their blessing. They tried to minimize their outsider status by, for example, familiarizing themselves ahead of time with the local slang for key words they would need to use in interviews. They also took time to make friends, sometimes through soccer games with village youth.

But in communities where discussion of sexual behavior is taboo, the research teams needed to go further to create a safe environment for participants, so they employed a survey tool Swasti had designed for that purpose, which they call the "polling booth." The polling booth is a simple device that provides a way for participants in a group setting to submit anonymous answers to survey questions.

“What we share in a polling booth is fact,” says S.K. Shashikala, a research participant. “In this process, there is no inhibition.”

Swasti’s findings

But while the research was successful, its findings were troubling: in 29 out of the 30 communities the Swasti team surveyed, vulnerability to HIV infection rose after the tsunami, largely as a result of an increase in unprotected sex with nonregular partners. Risks that predated the disaster combined with trauma, unfamiliar living conditions, increased migration, and a host of other factors to create a spike in vulnerability in the immediate aftermath of the tsunami.

Pre-existing misconceptions increased vulnerability

The deadly backdrop to the increase in HIV vulnerability was that many community members knew little about safe sex before the tsunami and had misconceptions about HIV. Many believed that condoms were useful only for preventing pregnancy, not disease, and that HIV could be contracted only from commercial sex workers.

Other factors that contributed to vulnerability before the tsunami included unprotected sex (often following alcohol consumption) and the long separations from spouses that are required by many to make a living in the coastal communities.

Disaster created new HIV risks

The tsunami and its aftermath precipitated increases in nearly all of the pre-existing risks and created new ones as well.

Unprotected sex

The biggest factor leaving coastal residents vulnerable to HIV infection was unprotected sex with nonregular partners. More than 20 percent of villagers reported having sex with someone other than their regular partner. During those encounters, fewer than 20 percent of the men and five percent of the women used condoms—primarily because condoms were unavailable or because at least one partner objected to their use. While unprotected sex took place before
the tsunami, study participants reported engaging in it more frequently after the tsunami because of many of the factors listed below.

**Crowded housing**
Crowded conditions in the temporary shelter communities were identified as a key factor contributing to increases in sexual activity with nonregular partners. Shelter design was also a factor: families were usually housed in small, single-room structures. The lack of privacy for marital sex sometimes led couples to seek sexual relationships outside their marriages. People living in temporary shelters generally believed that moving to permanent homes as soon as possible would solve many of their problems.

**Migration into communities**
The research teams learned that vulnerability varied widely in the areas they surveyed, from two percent in two villages in the Andaman Islands to nearly half the residents of a fishing community in Tamil Nadu. The villages with the lowest vulnerability figures were relatively more affluent and homogeneous, and they were geographically isolated and therefore not exposed to the widespread migration of people common on the mainland. The highest vulnerability was observed in temporary shelter communities, particularly in areas that hosted many transient workers.

**Migration out of communities**
In the aftermath of the tsunami, some fishermen were forced to travel as far as Malaysia in search of employment. The resulting long separations between husbands and wives often resulted in extramarital affairs.

**Trauma, alcohol, and cash**
In the absence of other forms of support, some villagers turned to sex and alcohol as ways of coping with their shock and grief. In some cases they adopted a fatalistic approach, indifferent to the health risks they ran by engaging in unprotected sex. After the tsunami, alcohol consumption reportedly rose in 29 of the 30 villages surveyed. This was due in part to the availability of cash as compensation for lost livelihoods. Cash payments also enabled some survivors to hire commercial sex workers, which resulted in an increase in unprotected sex with multiple partners.

**Erosion of traditional social structures**
Just as opportunities and motivations to engage in higher-risk sexual behavior increased, the massive death toll and the dispersing of communities into temporary camps eroded the social structures that traditionally curbed sexual activity outside of marriage. In one-third of the villages surveyed, the councils of elders reported seeing their influence slip away.

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**“Polling booth” yields answers to sensitive questions**
Eight women sit in a circle, each with a cardboard box in front of her to conceal the choice of cards she puts in a jar. Inside the circle stands a facilitator, who asks questions aimed at determining how vulnerable these women are to contracting HIV.

The equipment involved is simple: a jar, a cardboard box, and a stack of cards—green for yes and red for no. But with willing participants—and researchers who have earned their trust—this polling booth can be used to carry out the delicate task of eliciting honest answers to sensitive questions.

After the cards are collected, the participants tabulate and discuss the results. The facilitator might say, “Two people indicated that they use condoms and six said they don’t. Why might people in this village choose not to use condoms?” Such a question could launch a valuable discussion of community perceptions of condom use and the spread of HIV—with no one having to reveal his or her personal decision.

Developed by the Swasti Health Resource Center as an alternative to focus groups, the polling booth was an essential tool in Swasti’s study of HIV vulnerability.
Points of interest for aid providers

The Swasti study suggests a range of ways that aid providers can reduce—or unintentionally exacerbate—HIV vulnerability in the wake of a disaster. The following points may be of particular interest to the humanitarian community when designing and implementing programs and policies around emergency response and risk reduction:

> **HIV education saves lives.** When HIV education is inadequate, communities are particularly vulnerable to infection in times of emergency.

> **Communities make a difference.** Helping communities stay together when they move to temporary shelter settlements may help minimize the spread of HIV by keeping their social fabric more or less intact.

> **Privacy in shelters is important.** Temporary shelters that provide privacy for married couples may reduce pressure on disaster survivors to seek commercial sex workers and other nonregular sexual partners.

> **Shelter settlements can be risky.** Reducing HIV risks can be added to the list of reasons to move disaster survivors out of temporary shelters and into permanent housing as soon as possible.

> **Counseling and condoms are essential.** HIV vulnerability is likely to be reduced if pre- and post-disaster health services offered by nongovernmental organizations and traditional health care providers include sexual health counseling and provide privacy for consultations. Condoms, of course, should be readily accessible before and after disasters.

> **Timing matters.** For aid providers, the period between the emergency and rehabilitation phases of a disaster response—when trauma is still acute, living conditions are crowded, and unemployment is widespread—may be the most critical for HIV education programs and for ensuring that sexual health services are widely available.

> **More employment, less risk.** Helping to create local opportunities to earn a living soon after a disaster may reduce the HIV risks associated with long separations from regular partners.

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### Oxfam's humanitarian field studies

This brief is one in a series of reports that summarize research Oxfam began with its partners in India and Sri Lanka after the 2004 Indian Ocean tsunami to study the impact of the disaster and the response. The goals of Oxfam's humanitarian field studies program are to help strengthen the disaster response and risk reduction programs of Oxfam and other humanitarian aid providers and to improve accountability to those we aim to help.

To read more about Oxfam’s humanitarian field studies program, please visit www.oxfamamerica.org/fieldstudies.

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### Social stigma and lack of privacy in medical settings

The social stigma of contracting sexually transmitted infections prevented many people from seeking information, medical testing, or treatment for HIV or other STIs—thereby increasing vulnerability to infection. Doctors often prescribed medicine without giving any advice on preventive measures, since few post-tsunami health facilities offered any privacy to patients who might want to discuss their symptoms or concerns.

### Research in action

Rather than simply interviewing the villagers and then publishing results in an academic journal, the Swasti teams engaged immediately and directly with the participating communities to raise awareness about HIV prevention. The teams were able to correct many misconceptions about HIV and other sexually transmitted diseases, and they referred people to appropriate health care providers for testing or treatment. Long after their research was complete, the field staff continued to make themselves available to participants, providing them with referrals and information.

### Conclusion

The research findings from the Swasti study have provided useful contributions to the small body of existing research on the effect of sudden-onset disasters on HIV vulnerability. And while more studies on this topic are called for, the findings from this research give aid providers a new lens through which to review their emergency relief programs.

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