HIV and AIDS in fishing communities: a public health issue but also a fisheries development and management concern

THE ISSUE
In the past decade, it has become evident that AIDS-related illness and mortality are devastatingly high in some fishing communities.45

A synthesis of surveys conducted since 1992 in ten low- or middle-income countries in Africa, Asia and Latin America for which data were available (Brazil, Cambodia, the Democratic Republic of the Congo, Honduras, Indonesia, Kenya, Malaysia, Myanmar, Thailand and Uganda) shows that, in all except one (Brazil), HIV prevalence rates among fishermen or in fishing communities are between 4 and 14 times higher than the national average prevalence rate for adults aged 15 to 49. These considerable rates of HIV infection place fisherfolk among groups more usually identified as being at high risk; they are greater than those for other mobile populations such as truck drivers and the military in all countries (again except for Brazil) for which relative data are available.46 Because fisherfolk are numerous compared with people in other subpopulations with high HIV prevalence, such as injecting drug users, military personnel and prisoners, the number of fisherfolk likely to be HIV positive may be very high, making them a priority for support for prevention, treatment and care programmes for HIV and AIDS.

Available estimates of HIV prevalence and reports of illness and death from AIDS-related conditions are based either on surveys of fishermen or of fishing communities in general. Prevalence rates for the many women working in fishing communities have not been assessed but are likely to be similar or even higher, given that men and women living and working in the same communities share a similar risk environment and are also often linked through sexual networks. In some African fishing communities, for example, women fish traders and fishermen are linked both occupationally and sexually through so-called “sex for fish” transactions, where informal contracts between fishermen selling to female fish traders include the exchange of sexual services instead of, or supplementary to, the exchange of money. Furthermore, the subordinate economic and social position of women in many countries increases their vulnerability.

Vulnerability to HIV and AIDS stems from complex, interdependent causes that may include the mobility of many fisherfolk, the time fishers and fish traders spend away from home, their access to daily cash income in an overall context of poverty and vulnerability, their demographic profile (they are often young and sexually active) and the ready availability of commercial sex in many fishing ports. Also significant are cultural factors related to fishing as a high-risk, low-status and uncomfortable occupation, which lead to high-risk sexual behaviour practices.47 Many of these causes make fisherfolk not only vulnerable to HIV and AIDS but also more likely to miss out on access to prevention, treatment and care.48 Exposure to water-borne diseases and to malaria, along with poor sanitation and limited access to medical care, also combine to increase susceptibility to infection. These proximate risk factors are all related to underlying poverty, insecurity and marginalization affecting both women and men in many fishing communities. The proportion of people infected with HIV in a fishing community, and the impacts of AIDS-related morbidity and mortality in that community, will depend on the extent to which the above factors occur and on how they combine to increase vulnerability.49

As fisheries become more integrated into the global economy and labour market, the probability increases that mobile fisherfolk become a “bridge” population, linking areas of high and low prevalence.50 In Walvis Bay, Namibia, for example, visiting Asian and European fishermen, most of whom have received little advice on sexual health risks, frequently establish relationships with Namibian sex workers, or become involved in other forms of “transactional sex”.51

It is important to stress that AIDS in fishing communities is not a phenomenon exclusive to one region. Indeed, in terms of the overall dimension of the epidemic, and
taking into account differences in the size of fishing populations between continents, it is likely that more fisherfolk in South and Southeast Asia are infected with HIV than in Africa.\textsuperscript{22}

**Impacts of HIV and AIDS and implications for fisheries management and development**

Although reports of high prevalence of HIV and incidence of AIDS-related illness have been reported sporadically in the literature from around the world since the early days of the AIDS epidemic, this issue has only recently become a prominent concern in fisheries management and development, so there is limited formal survey information and economic analysis of its impact on the sector. However, a considerable body of evidence on the impacts of HIV and AIDS, both from other rural production sectors and from work on poverty analysis in fishing communities, does exist and can be summarized as follows:\textsuperscript{23}

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### Table 1: Estimated HIV prevalence and number of people infected among subpopulations considered at higher than average risk for HIV in two African and two Asian countries

<table>
<thead>
<tr>
<th>Country</th>
<th>HIV Prevalence</th>
<th>Number of People Infected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya (5.7%)</td>
<td>4.8%</td>
<td>30,500</td>
</tr>
<tr>
<td>Uganda (4.1%)</td>
<td>13.5%</td>
<td>24,000</td>
</tr>
<tr>
<td>Thailand (1.5%)</td>
<td>2.3%</td>
<td>25,400</td>
</tr>
<tr>
<td>Indonesia (0.1%)</td>
<td>1.3%</td>
<td>26,800</td>
</tr>
</tbody>
</table>

**Notes:**

1. Average national prevalence rates for sexually active adults.
2. For fisherfolk, the estimated number of people infected is calculated using HIV prevalence data from epidemiological surveys of either fishing villages or individual fishers, multiplied by the estimated number of fisherfolk (fishery sector workers) according to national or FAO statistics. Details of methods used and data for six other countries are available in E. Kissling, E.H. Allison, J.A. Seeley, S. Russell, M. Bachmann, S.D. Musgrave and S. Heck. 2005. Fisherfolk are among groups most at risk of HIV: cross-country analysis of prevalence and numbers infected. AIDS, 19(17): 1939–1946.
Box 10

What makes women in fishing communities vulnerable to HIV/AIDS?

Women in fishing communities play important roles in fish processing and marketing activities. They also undertake many of the non-fishing, income-generating activities that compensate for the seasonality and day-to-day variability of fishing and related activities. As well as funding and performing most childcare and household tasks, women also often assume responsibility for family food security, health, social and education expenses.

Inequities that contribute to women’s vulnerability to HIV/AIDS may include a combination of the following: 1

- Traditional gender roles and low levels of education constrain women’s participation in community-level management structures and processes.
- Women in fishing communities sometimes occupy low-margin competitive activities such as small-scale fish trading and alcohol manufacture and sale, in which sex is used as part of the exchange (transactional sex and “sex for fish”).
- Women are often sexually active at an earlier age than men and may be biologically more susceptible to infection.
- Women may lack negotiating power on safer sex practices.
- Legislation related to women’s rights, when it exists, is poorly enforced.
- Men often control decision-making, both within the family economy and concerning access to natural resources, savings and credit, education, and to social and political networks.

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- **Individual fishers and fish workers** with AIDS-related illnesses have a declining ability to engage in physically demanding labour, such as fishing or mobile trading and transport. Those who are ill experience job loss, stigmatization and isolation.

- **Fishing households** affected by AIDS have reduced income, spend any savings on medical care, sell productive assets (such as fishing equipment) and withdraw their children from school. Their poverty deepens, their food security decreases and their vulnerability increases.

- **Fishing fleets, firms, agencies and communities** experience loss of labour and expertise, making them less efficient. AIDS can have divisive impacts on communities, corroding trust and social cohesion and therefore the capacity for collective action. High levels of illness reduce individual time horizons, undermining commitment to shared long-term goals such as community fishery management and development projects. For fisheries departments, firms and agencies, long periods of illness of their staff and the purchase of anti-retroviral therapies can be very costly.

- **Fisheries management and development** are stifled in countries where many fishers and fishery managers (including community leaders) become ill. This, in turn, reduces management capacity, decreases productivity and efficiency, leads
to increased pressure on more physically accessible inshore resources and diverts fishery development resources into HIV prevention and AIDS mitigation efforts. The overall impacts point to an increased incidence of poverty and levels of vulnerability in small-scale fisheries and reduced likelihood of sustainable exploitation of resources whereby responsible fishing targets may be compromised.

- The rural economy, directly and indirectly linked to the fishery sector, is also affected:
  - Revenue generated by individuals from their fishery-related activities that would have been invested back into the fishery or other economic activities (land, livestock, business enterprises), or spent on services that keep cash in circulation in rural markets, is instead diverted to meeting the expenses of illness in the household.
  - Health services are burdened by the costs of dealing with AIDS-related illness, deflecting resources from other health needs, such as maternal and child care and malaria treatment.
  - Local governments faced with the costs of AIDS may therefore reduce resources for other service needs. Moreover, working time is redirected towards assisting affected colleagues and attending funerals.

- Population-level impacts can arise because many fishing populations are highly mobile. Men shift between landing sites and local markets on a daily and seasonal basis. Fish processors, traders and transporters – both men and women – move among landing sites, regional and national markets and fish processing factories. Other service providers – including sex workers – move with them. These movements and networks are likely to play a part in the transmission of infection between high-prevalence subpopulations and those currently at lower risk. Lack of access to services and traditional social support networks in fishing villages means that people living with AIDS who are too ill to work have to return to their “home” communities to be cared for. This has implications for the spread of HIV and increases the number of people experiencing the impact of AIDS.

- Food security is also jeopardized, as AIDS may reduce the ability of fishing communities to supply fish and fish products to those low-income groups who are dependent on fish as the only affordable source of animal protein and micronutrients. These are crucial nutritional elements for child development and also for increasing the efficiency of HIV/AIDS treatments.

POSSIBLE SOLUTIONS

The fisheries sector is an important contributor to development and to national economies. Fisheries have links with services and other industries and make a substantial contribution to GDP, employment, nutrition and revenue generation. Supporting and promoting sectoral development will help reduce the spread and impacts of the epidemic both within the sector and within the population in general. Preventing infection with HIV and the onset of AIDS will help to maintain and enhance the sector’s contribution to poverty reduction and food security and to reduce the risks of HIV transmission in fisheries-dependent regions.

One important task is to invest in preventing infection with HIV in fishing communities. This can be achieved by addressing (largely male) risk behaviour, which is thought to be related to occupational risk factors, social factors related to mobility and, more generally, to the social, political and economic marginalization of many fisherfolk.

A second important – and related – task is to address women’s higher vulnerability to HIV arising from gendered socio-economic disadvantages in many societies. Inequalities in men’s and women’s access to and ownership of assets, income-earning opportunities, power relations and negotiation of sexual relationships need to be addressed as a priority in fishing communities. Such efforts require novel partnerships
between donors, fishery agencies and health agencies, and within and between communities themselves.\textsuperscript{56}

All over the world, the impoverishment and marginalization of small-scale fisherfolk increases their vulnerability to the diseases of poverty, including AIDS. Reducing poverty in fishing communities will also address many of the conditions that put fisherfolk at risk of being infected with HIV. Recent guidelines for improving the contribution of the small-scale fishery sector to poverty reduction\textsuperscript{57} provide an appropriate framework for national governments to respond to poverty in fishing communities.

**RECENT ACTIONS**

Until recently, initiatives responding to AIDS in the fisheries sector were fragmented and working in isolation, largely at the community and project levels and lacking in national policy support and access to global funds to combat AIDS. Moreover, these initiatives relied on approaches developed for farming or urban communities that often proved inappropriate and/or ineffective for fishing communities. This situation is changing and higher-level policy responses involving national governments, international organizations, donors and NGOs working in both the fishery and health sectors are beginning to respond to the information that is reaching them from fishing communities and the external organizations who work closely with them.

For example, an International Workshop on Responding to HIV and AIDS in the Fishery Sector in Africa was held in Lusaka, Zambia, in February 2006. The workshop was organized by the WorldFish Center and sponsored by the International Organization for Migration, FAO and the Swedish International Development Agency. It was co-hosted by the Government of Zambia through the Ministry of Agriculture and Cooperatives and the National AIDS Council. Ninety participants attended from 13 countries in Africa and from international organizations. They represented government agencies in the fisheries and health sectors, research institutions and civil society organizations active in working with fishing communities. The purpose of the workshop was to enable professionals and organizations working in response to HIV and AIDS in African fisheries to share experiences, appraise the efficacy of their approaches and identify actions in research and development that will further improve their impact. The workshop reviewed and compared research findings and approaches applied in response to HIV and AIDS in fishing communities and the wider fishery sector, identified good practice examples for wider application, identified next steps in development and research to scale up these examples and initiated a network of practitioners in Africa for capacity building, scaling-up and further development of approaches.\textsuperscript{58}

At the national level, the Department of Fisheries Resources in Uganda, responding to reports of the devastating impact of HIV and AIDS on the country’s fishing communities, has recently published a strategy to ensure that the sector receives an appropriate allocation of government and donor resources.\textsuperscript{59}

The importance of recognition at the national and international policy levels is also illustrated by a project in the Congo where AIDS-affected fishing communities at Pointe Noire work in partnership with the National AIDS Control Programme, which is supported by the Global Fund for AIDS, TB and Malaria. This has allowed funding of community-led initiatives for HIV/AIDS prevention, treatment, care and mitigation.\textsuperscript{60}

Elsewhere, the South Pacific Commission was among the first to recognize and respond to the problem of high incidence of HIV in fishing communities.\textsuperscript{61}

**OUTLOOK**

The differential in HIV prevalence between fisherfolk and the general population is likely to persist for several years, unless there is a major response to include fisherfolk in populations identified as being at risk. So far, although individual governments and some UN agencies have responded, there has been no acknowledgement of fisherfolk
Box 11

The FAO strategy on chronic diseases

The HIV/AIDS pandemic and major debilitating diseases, notably malaria and tuberculosis, have a major impact on nutrition, food security and rural livelihoods. FAO's mandate relates directly to the Millennium Development Goals of significantly reducing the number of people who live in extreme poverty and extreme hunger. These goals can only be achieved if considerable attention is focused on combating the diseases associated with poverty. AIDS is one such “disease of poverty”, and addressing its impacts has become an important part of FAO's core mission to help meet the Millennium Development Goals related to poverty and hunger.

FAO has recently been making efforts to bring agriculture and food security to the centre of the fight against killer diseases. In 2005, 23 out of 27 FAO divisions implemented one or more activities on HIV/AIDS. In early 2004, the Organization approved the Priority Area for Interdisciplinary Action (PAIA) on AIDS to strengthen intra- and interagency collaboration in responding to AIDS and other diseases.

Through its normative and operational work and through strengthened partnerships, FAO aims to contribute to:

- preventing further transmission of HIV/AIDS and other poverty-related diseases through addressing structural problems of rural livelihoods that are drivers of poverty and vulnerability to the diseases of poverty;
- improving the quality of life of people living with HIV/AIDS and associated infections through advice on good nutrition, nutritional support, protection of property rights, access to investment opportunities and elimination of stigma;
- mitigating the impact of poverty-related diseases through support in formulating enabling agricultural/rural development sector policies, plans and programmes and strengthening institutional capacity as part of the wider social and economic development strategy.


as a “neglected group at higher risk” by the Joint United Nations Programme on HIV/AIDS (UNAIDS). Unless UNAIDS acknowledges the epidemic among fisherfolk in this way, it is unlikely that global, coordinated action resulting in significant lowering of prevalence of HIV in fishing communities will take place. Although prevention efforts targeted at sex workers will help reduce the transmission of HIV in client populations (including fishermen), this is not likely to be enough to reduce the high risks of HIV transmission within fishing communities because transactional sex, not sex work, is one potential major route of transmission (e.g. in Zambian inland fisheries).