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# Delays in Antiretroviral Therapy Initiation Among HIV-Positive Individuals: Results of the Positive Living with HIV Study

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# Reaching hard-to-reach migrants by letters: An HIV/AIDS awareness programme in Nepal

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## Abstract

We assessed the impact of an HIV/AIDS programme for Nepalese migrants to India that involved writing letters. The programme created opportunities for sending HIV/AIDS-related messages to the migrants in India, and encouraging them practicing safer sex. Initially, they received the messages only from the programme, but later from their colleagues, spouses or other family members. They discussed the messages in groups, disseminated them, and sought more knowledge in their destinations. These findings indicated that using letters could be an effective way to reach inaccessible migrants at their destinations, and help them to improve their HIV/AIDS-related knowledge, and safer sex practices.

*Keywords:* HIV/AIDS; Migration; Sexual behaviours; Letters; Diffusion of innovation; Nepal

## Introduction

International migration to India is common in impoverished far western Nepal. Doti, with a population of 207,066, is one such district. Approximately 50% of the households in Doti had at least one migrant worker in India (Poudel et al., 2004a). Mumbai, Punjab and Madras were their major destinations, where HIV prevalence among female sex workers (FSWs) is high. For example, 71% of the Mumbai FSWs were HIV positive in 1997 (Schwartlander et al., 2000).

In many countries, studies have demonstrated a link between migration and the spread of HIV infection and other sexually transmitted infections (STIs) (Decosas et al., 1995; Mabey and Mayaud, 1997; Entz et al., 2000; Lurie et al., 2003). Nepal is not an exception. The prevalence of HIV and syphilis is high among male migrant-returnees and non-migrants in Doti (Poudel et al., 2003), and their sexual behaviours are risky (Poudel et al., 2004b).

To prevent the spread of HIV/AIDS by the migrants, the United Nations Development Programme (UNDP) and the Nepalese National Centre for AIDS and STD Control (NCASC) jointly implemented HIV/AIDS projects in Doti from 1994 to 2001. During this period, we found it difficult to reach migrants who were away from home; few migrants were available while visiting home during local festivals.

Migrants may be highly marginalized while working in their destinations; they may have little or no access to HIV information, health services, legal or social protection, and means of HIV prevention such as condoms and treatment for STIs (UNAIDS, 2001, Wolffers et al., 2003). Such marginalization increases their vulnerability to HIV/STIs. Therefore, there is a need for innovative programmes for migrants that may reduce their vulnerability to HIV/STIs at their destinations.

In 1999, we initiated an HIV/AIDS awareness programme for Nepalese migrants in India that involved writing letters to them. The objective of this study was to assess the impact of the letters on Nepalese migrants in India. This paper presents the details of the HIV/AIDS awareness programme for Nepalese migrants in India and the findings from the qualitative research methods conducted among the participants. In particular, we show their knowledge of HIV/STIs, sexual behaviours and their interactions among colleagues after they received HIV/AIDS-related messages in India. We also discuss the policy implications of our results in targeting migrants at their destinations and offer the lessons that we learned from our work.

## Methods

### *Study area*

This study was conducted in Doti district. Doti consists of 50 village development committees (VDCs, minimum local government units of Nepal, each of which has 2000–5000 people) and one municipality, with a total population of 207,066 in 2001.

### *Intervention*

We designed our intervention based on the ‘Diffusion of Innovation’ model (Roger, 1983, 1995). According to Roger (1983), an innovation is “an idea, practice, or object that is perceived as new by an individuals or other unit of adoption.” Diffusion is “the process by which an innovation is communicated through certain channels over time among the members of the social system” (Roger, 1983). This process of diffusion involves five stages: innovation, dissemination, adoption, implementation, and maintenance (Oldenburg et al., 1997).

The focus of our intervention was to facilitate the innovation development (HIV/AIDS-related knowledge for Nepalese migrants in India) and its dissemination (transfer of innovation to the potential users). Whereas the focus of the evaluation of our intervention was adoption (migrants’ intentions to gain HIV/AIDS-related knowledge or practice safer sexual behaviours) and implementation (the actual practice of safer sexual behaviours). As the maintenance (long-term use of safer sexual behaviours) is beyond the scope of our study, we discuss it with the help of literature in discussion.

For the purpose of our intervention, we identified several migrants in India as the potential innovators to diffuse HIV/AIDS-related messages to their colleagues. Initially, we sent such messages to these migrants by letters. Based on migrants’ feedback and the findings of our concurrent study (Poudel et al., 2004a), we further refined such messages. For example, we added the messages to overcome the prevailing heuristic HIV prevention behaviours (Fisher and Fisher, 2000) among the migrants.

We disseminated HIV/AIDS-related messages to the migrants in India using variety of approaches. We describe the details of the *dissemination* procedure as below:

In Doti, no migration database existed in 1999. Therefore, we developed a database form and distributed it to 30 VDCs and 6 local non-governmental organizations (NGOs) requesting the addresses of migrants. The form consisted of the name, age, sex, mailing address of the migrants, and duration of stay at their destinations. Until June 1999, we obtained 1291 addresses of migrants from 29 VDCs (Table 1); majority of the migrants from Doti worked as watchman, hotel workers and factory workers in India (Poudel et al., 2004a; Poudel, 2001) and they have their addresses for the communication. All were male, 73% were 21–40-years old, and about 45% were at their destinations for 1–3 years.

We then prepared a letter to each migrant, with pamphlets containing HIV/AIDS-related messages. Each letter contained: (1) the weather, upcoming festivals, and political changes, (2) news about the emergence of HIV infection in Doti, (3) information about HIV/AIDS and other STIs, (4) requests that they and their colleagues avoid unprotected sex with FSWs, and (5) apologies for possible offence. We paid Rs. 12 (Nepali rupee: 1 US\$ = Rs. 68.65 in February 2000) per letter for postage. Mail was the only means of communication with these men, as there was no reliable phone or e-mail access in Doti. There was a practice among illiterate migrants to ask their literate colleagues or relatives to read their personal letters for them and sometimes to write responses. Therefore, we believed that the letters would be effective for the illiterate migrants, too.

Table 1  
Characteristics of migrants ( $n = 1291$ )

Characteristics	No.	%
Age (years)		
10–20	64	4.9
21–30	537	41.6
31–40	408	31.6
41–50	190	14.7
51–60	77	6.0
61–+	15	1.2
Destinations		
Mumbai	327	25.3
Punjab	306	23.7
Gujarat	131	10.2
Rajasthan	93	7.2
Madras	82	6.4
Delhi	74	5.7
Karnataka	70	5.4
Orrisa	64	5.0
Utter Pradesh	57	4.4
Kerala	46	3.6
Andhra Pradesh	25	1.9
Other Indian states <sup>a</sup>	16	1.2
Duration at destinations (months)		
0–6	76	5.9
7–12	303	23.5
13–36	582	45.1
37–60	141	10.9
60–+	189	14.6

<sup>a</sup>Other Indian states included Hariyana ( $n = 9$ ), Madhya Pradesh ( $n = 5$ ), Goa ( $n = 1$ ), and Himanchal Pradesh ( $n = 1$ ).

We sent similar letters to each man every 3 months, for a total of three times. We attached new reading materials in each mailing, and answered their questions in return letters. Twenty-one undelivered letters (1.6% of total) were returned after third mailing, which shows the majority has addresses for postal communication.

Since September 1999, we also approached the migrants during their vacations in Doti and sent similar materials and condoms with them when they returned to India. In two VDCs, migrants' spouses or other family members also sent HIV/AIDS-related messages, which we provided, to migrants whenever they sent personal letters.

### Participants

The participants of this study were the migrants who sent letters to us from India ( $n = 17$ ), and the returned migrants in Doti who either received our letters in India ( $n = 55$ ) or learned about HIV/AIDS and our letters from their colleagues in India ( $n = 18$ ). All of them were male.

### Data collection

The evaluation of the programme was done based on letters we received from the migrants in India, and on an interview survey. During November 1999–August 2000, we received 17 letters from the 17 migrants in India. In the letters, they wrote their feelings about the letters and asked their queries.

We interviewed 55 migrants who had received our letters in India. We interviewed 43 of these migrants when they visited our office in Doti in 2000 when they came back to Nepal on vacation. We interviewed 12 other migrants at their villages during our HIV/AIDS awareness workshops for the villagers. With the verbal consent, we asked these migrants what they thought of the letters and their impact on them.

Besides, we interviewed 18 other migrants in Doti who did not receive our letters but learned about it from their colleagues in India. We selected these migrants during our HIV/AIDS workshop in their villages, too. In the villages, we requested the local people to introduce some migrants who were back at home for vacation. These migrants introduced us their colleagues later.

The first author conducted each of the in-depth interviews in the private setting. The participants were invited for the interview voluntarily. The confidentiality of their information was assured. Other people were not allowed to join the interview. The interviewer recorded all the main points of the interview in his notebook.

### Data analysis

First, we examined all the letters and the transcripts of in-depth interviews and identified emergent themes that were the main focus of this study. Then, we categorized all the data under the appropriate themes. Finally, we compared and

discussed the issues raised by the participants with the help of the 'Diffusion of Innovation' model (Roger, 1983, 1995; Oldenburg et al., 1997).

### Results

Our data collection methods generated information relevant to many aspects of the research topic. In this paper, however, we present the findings that are related to the impact of the letters on our participants: participants' knowledge about HIV/STIs, information seeking, peer education, and their sexual behaviour in India. Within each of these topics, we describe the major issues raised by the participants.

#### *Knowledge of HIV/STIs*

All the participants who wrote us from India or we interviewed in Doti were happy to receive the letters and to learn about HIV/AIDS. A participant said, "...I heard about AIDS for the first time after I received a letter ... the letter encouraged me to learn more about AIDS..." Another participant said, "...the letter encouraged me to learn more about HIV prevention methods ... my friends and I frequently discussed the use of condoms and the ways to recognize HIV-positive women..."

The participants knew the major routes of HIV transmission. In our interview, all the 73 participants mentioned that HIV could be transmitted by sexual, transplacental, parenteral routes and by blood transfusion. They also knew that condom use could prevent HIV transmission.

The participants were also aware of STIs. All the participants in our interview said that they knew about *bhiringi* (syphilis) and *dhatu* (gonorrhoea) as these diseases were prevalent in their villages for long time. However, it was the first time for them to know the possible link between HIV and other STIs. A participant said, "...I thought having *bhiringi* is not a problem as it has treatment... I learned from the letter that it may increase the chances of HIV transmission..." Other participants had questions about the relationship between HIV and STIs.

#### *Information seeking*

Our letters stimulated the participants to seek for more knowledge about HIV/AIDS. During November 1999–August 2000, we received 17 letters from the migrants in India. In the letters, they expressed

their happiness with the mailings, and asked questions. For example, an 18-year old participant wrote "...I am falling in love with many girls in Gujarat... how do I know whether these girls have HIV?... What should I do to prevent HIV?..."

Most of the participants who visited our office in Doti asked their queries about HIV/AIDS. One participant said, "...there was something in the letter about the relationship between HIV and other STIs... I want to know more about it..." Another participant said, "...I thought HIV may be a serious form of *bhiringi*, is it true?..." Other participants were willing to learn about the signs and symptoms of AIDS and about the social contact with the people living with HIV/AIDS.

Some participants sought more information in India after they received letters. One participant said, "...I was restless after I received letter... I was also worried... I wanted to know more about how I know that someone has AIDS... same day I visited my friend with letters and asked him more questions..." All the participants in our interview mentioned that they did not know organizations giving HIV/AIDS-related education in their working areas.

#### *Peer education*

According to five participants living in Mumbai, some migrants discussed the contents of the letters, made copies, and distributed them to 30–40 other friends who did not receive them. They also invited these colleagues in the discussion and disseminated this message to others working nearby, they said.

An 47-year old illiterate participant said, "...I went to my friend after I received a letter and asked him to read it for me... showing this, I asked young migrants not to have sex there in Punjab..." Another 18 participants told us in Doti that they learned about HIV/AIDS or received condoms from their colleagues who brought these materials from Doti.

#### *Sexual behaviours in India*

The letters also encouraged the participants to practice safer sex in India. One participant said, "...none of us visited the brothels at least for several days after we received the letter ... Later, I used condom..." Another participant said, "...I bought some condoms after I received letter... used them whenever I needed..."

The news of HIV diagnosis and AIDS death made the participants worried and they stopped visiting brothels. A participant said, "...it was unbelievable to read that a Mumbai-returnee died of AIDS in the village..." Another participant said, "one of our colleagues who used to visit brothels more frequently was also tested HIV positive in Mumbai soon after we received the second letter... then, we talked about the contents of the letter again and stopped visiting brothels for several days..." One participant said that he first stopped visiting brothel for few weeks but later used the condoms and reduced the frequency of visiting brothels.

## Discussion

Our study highlighted the letter-writing programme as an effective approach in targeting migrants with HIV/AIDS-related messages at their destinations in various ways. First, writing letters to the participants created opportunities for HIV/AIDS-related education at their destinations and it helped them to improve their HIV/AIDS-related knowledge. Second, letters stimulated them to seek for more knowledge. Third, it encouraged the participants to teach their colleagues about HIV/AIDS. Finally, it caused the participants to practice safer sex.

The results of our study can be explained within the framework of the "Diffusion of Innovation" model (Roger, 1983, 1995; Oldenburg et al., 1997). After receiving HIV/AIDS-related messages by our letter, the participants accepted them and became interested to learn more about HIV/AIDS and practice safer sex. They disseminated the HIV/AIDS-related messages to their colleagues in India, discussed them among the colleagues, and some sought for more knowledge. It was also confirmed by the migrants who did not receive our letters in India. This is an important achievement because we were not able to reach these migrants with HIV/AIDS-related messages in their home villages as they were away from home and we were not able to collect the addresses of all migrants to send similar messages.

The participants' practice of safer sexual behaviours or the use of new knowledge in practice was another important achievement. Although we did not monitor their sexual behaviours for the long period, they reported their practice of safer sex after they had received our letter. As they were visiting

brothels before, the participants were scared with the news of AIDS deaths among their fellow Mumbai-returnees in the villages. This news together with their improved knowledge about HIV/AIDS, peer pressure, our answers to their questions in returning letters, or provision of condoms perhaps motivated them to stop visiting brothels in India or practice safer sex.

This study has some limitations. First, the study did not have baseline data on the participants' HIV/AIDS-related knowledge and sexual behaviours. Second, there was no way to confirm the participants' safer sex practices in India. What people say they do therefore may not be always what they actually do. Third, our own position working with a HIV project may cause a bias towards the participants' responses. Finally, we used the convenience sampling method to select the study participants. However, our participants might be more active than others or were the innovators or early adopters; hence they visited our office or sent letters. If so, they might have known the situation of their colleagues and represented them. After interview, they may work as peer educators and teach their colleagues about HIV/AIDS. Their colleagues who were in other stages (early majority, late majority or laggards) of adopter categorization (Roger, 1995) may need more time in adopting safer sex practices.

Despite such limitations, our result has policy implications in targeting migrants at their destinations. This is because the letters were found useful in improving at least some migrants' knowledge about HIV/AIDS, and their safer sex practices. We also observed a scaling-up effect with the spreading health information. As this approach has not been used in the past, it could be a new strategy for reaching these inaccessible migrants. Practically, the programme officers in the home villages can approach migrants on their vacation and send HIV/AIDS-related messages and condoms with them.

After we finished our project in 2001, several NGOs' HIV/AIDS programme officers in Doti approached the migrants and sent letters (Sharma, 2003). Through peer educators, the migrants at their home villages received HIV/AIDS-related materials and personal messages. Their colleagues also received these materials by mail in India. This suggests the work of these NGOs helped to sustain our achievements.

Through this programme, we learned two lessons. First, it was difficult to collect migrants' addresses

when we initiated this programme. However, once the people recognized its importance through our constant communication and rapport-making efforts, they started to give us more addresses. Consequently, we received more addresses from the migrants, their colleagues and relatives, and could approach more migrants. Next, we first used letters to reach migrants, but later used a variety of *dissemination* strategies, as the letters helped us to establish rapport with migrants and their families. Letters thus can be used as a good starting tool for improving communication with migrants who are away from home. The similar activities may be applied in many other settings in the rest of the world.

## References

- Decosas, J., Kane, F., Anarfi, J.K., Sodji, K.D., Wagner, H.U., 1995. Migration and AIDS. *Lancet* 346, 826–828.
- Entz, A.T., Ruffolo, V.P., Chinveschakitvanich, V., Soskolne, V., van Griensven, G.J.P., 2000. HIV-1 prevalence, HIV-1 subtypes and risk factors among fishermen in the gulf of Thailand and the Andaman sea. *AIDS* 14, 1027–1034.
- Fisher, J.D., Fisher, W.A., 2000. Theoretical approaches to individual-level change in HIV-risk behaviour. In: Peterson, J.L., DiClemente, R.J. (Eds.), *Handbook of HIV Prevention*. Plenum, New York, pp. 3–55.
- Lurie, M.N., Williams, B.G., Zuma, K., Mkaya-Mwamburi, D., Garnett, G.P., Sturm, A.W., Sweat, M.D., Gittelsohn, J., Abdool Karim, S.S., 2003. The impact of migration on HIV-1 transmission in South Africa: a study of migrant and nonmigrant men and their partners. *Sexually Transmitted Diseases* 30, 149–156.
- Mabey, D., Mayaud, P., 1997. Sexually transmitted diseases in mobile populations. *Genitourinary Medicine* 73, 18–22.
- Oldenburg, B., Hardcastle, D.M., Kok, G., 1997. Diffusion of innovation. In: Glanz, K., Lewis, F.M., Rimer, B.K. (Eds.), *Health Behaviour and Health Education: Theory, Research, and Practice*, second ed. Jossey-Bass, San Francisco, CA, pp. 270–286.
- Poudel, K.C., 2001. Sexual behaviours of Nepalese emigrants in India: a case study of returned migrants in Doti district of far western Nepal. Dissertation, Tribhuvan University, Kathmandu.
- Poudel, K.C., Okumura, J., Sherchand, J.B., Jimba, M., Murakami, I., Wakai, S., 2003. Mumbai disease in far western Nepal: HIV infection and syphilis among male migrant-returnees and non-migrants. *Tropical Medicine and International Health* 8, 933–939.
- Poudel, K.C., Jimba, M., Okumura, J., Sharma, M., Poudel-Tandukar, K., Wakai, S., 2004a. Migration in far western Nepal: a time bomb for a future HIV/AIDS epidemic? *Tropical Doctor* 34, 30–31.
- Poudel, K.C., Jimba, M., Okumura, J., Joshi, A.B., Wakai, S., 2004b. Migrants' risky sexual behaviours in India and at home in far western Nepal. *Tropical Medicine and International Health* 9, 897–903.
- Roger, E.M., 1983. *Diffusion of Innovations*. Free Press, New York.
- Roger, E.M., 1995. *Diffusion of Innovations*, fourth ed. Free Press, New York.
- Schwartzlander, B., Garnett, G., Walker, N., Anderson, R., 2000. AIDS in a new millennium. *Science* 289, 64–67.
- Sharma, N., 2003. HIV/AIDS awareness for migrant communities in the rural hills of Nepal. *Sexual Health Exchange* (2), 9–10.
- UNAIDS, 2001. *Population Mobility and AIDS: UNAIDS Technical Update*. UNAIDS, Geneva.
- Wolffers, I., Verghis, S., Marin, M., 2003. Migration, human rights, and health. *Lancet* 362, 2019–2020.