
A Research of Chinese Migration on Cross-Border and Its Potential Risk of HIV Infection in Yunnan

Xiaoliang LI
School of Public Health,
Kunming University of Medical Sciences

HIV/AIDS Epidemic in Yunnan

- **The first case was reported in 1987;**
- **146 persons were reported with HIV in 1989, all of them were drug users in the border area;**
- **From the year of 1989 to 2005, totally 2,150,584 persons were tested with HIV in Yunnan. 40,157 positive were found accumulatively, account for 28% of the total number reported in China;**

HIV/AIDS Epidemic in Yunnan

- **In 2005, 11,766 new HIV cases were reported, 977 developed AIDS, and 791 died;**
- **In 2005, among the registered HIV positive, 53.2% were infected through injecting drugs, 18.6% through sex, and 0.9% were through MTC transmission, 27.3% were unknown;**

General introduction of N town

- N town borders with Myanmar, and has a national border control station for routine registration of the people crossing the border;
- Border trade in N town began in 1996, and has been an important financial resources for the county;
- In every dry season (between October and April), people gather in N town.

Methodology for the research

- **Interviewee recruitment:** base on mapping and key informants interview, identify where the migration live, then, using snow-ball to get convenient sample;
- **Interview method:** Face to face interview by trained interviewers in questionnaire;
- **Size of sampling:** Totally, 1,049 persons were interviewed, and 1,025 questionnaire were used for data analysis.

Main Findings about demography

- **Gender:** Among 1, 025 interviewees, 67.2% are men, 32.8% are women;
- **Nationality:** 89.4% are Han, 2.3% are Dai and 1.9% are Jingpo;
- **Age:** Aaverage age is 31.68 ± 9.46 totally, 32.48 ± 9.56 for men, and 30.03 ± 9.04 for women.
- **Education:** Around 16.1% only received 6 years education, 47.1% received 9 years education;
- **Marriage:** 69.5% are married and 29.0% are unmarried. There are not difference between men and women.

Age distribution (N, %)

	Men		Women		Total	
0~	1	0.10	2	0.60	3	0.30
15~	59	8.60	41	12.20	100	9.80
20~	91	13.20	62	18.50	153	14.90
25~	123	17.90	66	19.60	189	18.50
30~	141	20.50	64	19.00	205	20.00
35~	124	18.00	53	15.80	177	17.30
40~	78	11.30	24	7.10	102	10.00
≥45	71	10.30	24	7.10	95	9.30
	688		336		1024	

Education level distribution by sex

	Men		Women		Total	
illiteracy	15	2.18%	22	6.57%	37	3.62%
≤6 year	146	21.19%	91	27.16%	237	23.14%
6--8 year	390	56.60%	181	54.03%	571	55.76%
9--11 year	109	15.82%	36	10.75%	145	14.16%
≥12 year	29	4.21%	5	1.49%	34	3.32%
total	689		335		1024	

Job distribution in original home-town by sex

	Men		Women		Total	
Farmer	162	23.51%	110	32.73%	272	26.53%
Worker	141	20.46%	21	6.25%	162	15.80%
Driver	128	18.58%	5	1.49%	133	12.98%
Self-employment	74	10.74%	87	25.89%	161	15.71%
Student	51	7.40%	18	5.36%	69	6.73%
Businessmen	44	6.39%	7	2.08%	51	4.98%
Jobless	24	3.49%	46	13.69%	70	6.83%
others	65	9.43%	42	12.50%	107	10.44%
	689		336		1025	

Job distribution after immigrating by sex

	Men		Women		Total	
Worker	243	35.26%	8	2.38%	251	24.49%
Driver	180	26.12%	4	1.19%	183	17.85%
Self-employment	114	16.55%	118	35.11%	232	22.63%
Businessmen	70	10.16%	8	2.38%	78	7.61%
Jobless	13	1.89%	98	29.17%	111	10.83%
Entertainment	6	0.87%	8	2.38%	14	1.37%
Sex worker	0	0.00%	54	16.07%	54	5.27%
others	63	9.14%	38	11.30%	101	9.86%
Total	689		336		1025	

Main Findings related immigrating pattern

- **Immigrants distribution:** Totally, migration are from 19 province and prefectures, 63.07% from neighboring prefectures of Yunnan Province, 36.93% from other provinces of China.
- **Immigrating pattern:** More women come N town with their family than men, men usually come with their old acquaintance.
- **Living pattern:** More men live alone themselves, and women more likely live with family.

The Patterns of immigrating from original home-town

	Men		Women		Total	
Acquaintance	254	37.62%	30	9.32%	284	28.49%
Alone	177	26.22%	65	20.19%	242	24.27%
Wife/husband	117	17.33%	180	55.90%	297	29.79%
colleague	77	11.40%	2	0.62%	79	7.92%
Parents	20	2.96%	14	4.35%	34	3.41%
Girl/boy friend	6	0.89%	7	2.17%	13	1.30%
others	24	3.56%	24	7.45%	48	4.81%
Total	675		322		997	

The living patterns of migration in N town

	Men	Women	Total
Alone	30.42%	8.31%	14.19%
Parents	24.10%	4.75%	3.20%
Wife/husband	21.54%	59.05%	35.86%
Girl/boy friend	17.17%	3.26%	2.20%
Family member	13.10%	15.73%	13.99%
Acquaintances	2.41%	5.34%	21.98%
Colleagues	2.26%	11.87%	18.28%
Others	1.66%	4.15%	2.90%

Main Findings about HIV infection risk

- **Risk assessment:** 96% men and women heard of AIDS, but 79.4% of them don't think they will infect with HIV;
- **Knowledge level of HIV/AIDS:** Average knowledge scores is only 6.44 (full core is 10), no difference between men and women; but the workers got very low knowledge level;

government official	8.02
entertainment	7.97
health professionals	7.69
businessmen	7.03
drivers	6.85
self-employment	6.7
workers	5.7

Correct answer about transmission of HIV

	Men	Women	Total
Receiving blood/blood products	83.6%	78.5%	81.8%
Sharing syringe and needles	82.2%	81.1%	81.8%
Having unprotected sex	80.0%	74.4%	78.1%
Pregnant women to baby	72.3%	74.7%	73.1%
Hand-shaking	69.0%	72.4%	70.2%
Having meal together	71.0%	65.4%	69.1%
Mosquito biting	31.7%	35.2%	32.9%
Breast milk feeding	28.7%	39.2%	32.3%

The feeling towards PLWHA (%)

	Men	Women	Total
I will avoid to touch them	28.4	26.7	27.8
I feel companion to them	15.3	11.2	13.9
I will treat them as usual	12.4	11.9	12.2
I will help them	9.4	7.4	8.7
I will comfort them	8.3	7.1	7.9
I don't care they are infected	7.4	6.5	7.1
I will treat them base on different situation	5.3	3.3	4.7
I will help them to seek treatment	4.2	5.0	4.5
I will look down them	3.0	2.4	2.8
I feel detesting them	1.6	0.5	1.2
I feel hostility to them	1.0	0.6	0.9

Sexual Behavior with different partner by gender

	Men	Women	Total
Fixed partner	88.70%	86.90%	88.10%
Temporary partner	8.34%	0.37%	6.00%
Commercial sex worker	7.30%	0.00%	5.50%

Fixed partner: wife or husband, girl friend or boy friend

Temporary partner: not wife/husband and girl friend/boy friend, but live together without paying money;

Sexual behavior with different partner by occupation (%)

	fixed partner	temporary partner	commercial sex worker
workers	84.4	9.6	7.0
drivers	92.3	5.9	7.9
businessman	97.0	14.1	5.1
self-employment	79.1	1.3	2.6
others	86.5	8.2	7.1

Men using condom in last year with different partners by occupations (%)

	fixed partner	temporary partner	commercial sex worker
workers	23.7	53.9	72.7
drivers	22.3	60.0	84.6
businessman	25.0	62.5	100.0
others	30.5	52.6	86.7

The reasons of not using condom with fixed partner

	Men	Women	Total
Not necessary	41.50%	22.10%	34.90%
Using other contraceptive	30.70%	55.80%	39.20%
Never used	9.00%	4.00%	7.30%
Self don't want to use	3.90%	0.00%	2.60%
Spouse doesn't want to use	0.30%	1.00%	0.50%
No condom in the hand	0.30%	1.00%	0.50%
Fail to buy	0.30%	1.00%	0.50%
Others	11.10%	9.50%	10.60%
No reasons	1.30%	2.00%	1.50%
refuse answer	1.80%	3.50%	2.40%

The reasons of not using condom with different partner among men

	temporary partner	sex worker
Not necessary	12/40	3/13
Using other contraceptive	1/40	0/13
Self don't want to use	9/40	4/13
Partner doesn't want to use	0/40	1/13
No condom in the hand	2/40	0/13
Others	7/40	3/13
refuse answer	9/40	2/13

The rate of using drug base on self-report

- 151 men and 10 women admitted they are drug users;
- The rate of using drug for men is 22.4%, and 3% for women.

Truck drivers	27.52%
workers	22.86%
businessmen	21.79%
Sex worker	11.11%
self-employment	5.83%
others	8.60%

Different drugs used by men and women

	Men		Women		Total	
Kaku	120/150	80.00%	7/10	70.00%	127/160	79.38%
Opium	20/150	13.00%	1/10	10.00%	21/160	13.13%
Heroin	7/150	4.70%	0/10	0.00%	7/160	4.37%
Ephedrine	0/150	0.00%	1/10	10.00%	1/160	0.63%
others	2/150	1.30%	1/10	10.00%	3/160	1.88%

Conclusions

- The characteristics of the migration in N town
 - Female immigrants are younger than male generally;
 - More than half migration are men;
 - More than half migration are married;
 - Most immigrants are farmers in their original home;
 - Women's education level is lower than men;
 - Immigrants not only come from neighboring prefectures but other provinces over China;

Conclusions

- The vulnerability to HIV for the migration in N town
 - People don't think AIDS is a kind disease they should take care;
 - The knowledge about STI/HIV/AIDS is low, especially for women;
 - Immigrating pattern and living pattern may influence people's risk;
 - There are no enough access to detail information about STI/HIV/AIDS prevention for the migration;

Conclusions

- The vulnerability to HIV for the migration in N town
 - The high risk behavior rate is different among different occupations group and sex group; Male workers, truck drivers and sex workers are more vulnerable than others;
 - Man take more risk behavior, and they may bring the virus to their wives and girl friends;
 - Unprotected sex between fixed partner is very common;