

# COUNTY-TOWNSHIP-VILLAGE ALLIED INTERVENTION

## Evidence-Informed Structural Intervention

### INTERVENTION DESCRIPTION

#### Goal of Intervention

- Reduced sex and injection drug risk behaviors

#### Target Population

- Female sex workers (FSWs) and persons who use drugs (PWUD) in Longzhou County, Guangxi, China

#### Brief Description

*In the County-Township-Village Allied Intervention*, the Longzhou County, China Center for Disease Control and Prevention (CDC), township hospitals, and village clinics collaborate to prevent HIV in the county. The role of Longzhou County's CDC is to provide support, training, and equipment (e.g., educational materials, refrigerators, centrifuges) to township hospitals and village clinics. Township hospitals serve as mediators by organizing village clinic trainings and providing oversight to these clinics. Village clinics are responsible for carrying out face-to-face HIV/AIDS education, conducting baseline surveys with individuals at risk for HIV (i.e., FSWs and PWUDs), and implementing quarterly HIV/AIDS education campaigns for all village residents. Village clinics also offer free condoms to all villagers and recommend HIV counseling and testing at township hospitals or the Longzhou County CDC.

#### Theoretical Basis

None reported

#### Intervention Duration

- Ongoing

#### Intervention Settings

- Longzhou County CDC, township hospitals, village clinics, and village households

#### Deliverer

- Staff at the Longzhou County CDC, township hospitals, and village clinics

#### Delivery Methods

- HIV/AIDS education campaigns
- Risk-reduction supplies (e.g., condoms)
- Trainings

**Structural Components**

- Access
  - Increased access to condoms and HIV/AIDS educational materials
- Capacity building – Provider/supervisor training
  - Trained staff at the Longzhou County CDC, township hospitals, and village clinics on HIV/AIDS education activities, data collection, and HIV education campaigns

**INTERVENTION PACKAGE INFORMATION**

**An intervention package is not available at this time.** For intervention materials, please contact **Hao Liang**, Guangxi Key Laboratory of AIDS Prevention and Treatment, and Guangxi Universities Key Laboratory of Prevention, and Control of Highly Prevalent Disease School of Public Health & Life Science Institute, Guangxi Medical University, 22 Shuangyong Road, Nanning 530021, Guangxi, China.

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**EVALUATION STUDY AND RESULTS****Study Location Information**

The original evaluation study was conducted in Longzhou County, Guangxi, China between 2012 and 2014.

**Key Intervention Effects**

- Increased condom use at last commercial sex
- Increased condom use for all commercial sex in the previous month
- Increased condom use for all commercial sex in the last year
- Decreased injection drug use

**Recruitment Settings**

- Not applicable—study participants (i.e., FSWs and PWUD) were identified from the Longzhou County CDC database

**Eligibility Criteria**

FSWs and PWUD were eligible if they had a fixed residence in Longzhou County; spoke either Mandarin or the local dialect; were willing to participate in the study; and had records in the Longzhou County CDC database with complete demographic information.

**Study Sample**

The County-Township-Village Allied Intervention study sample of 785 FSWs and 775 PWUD characterized by the following:

- FSWs:
  - 6% < 25 years old, 91% 25-50 years old, 3% > 50 years old
  - 95% completed junior middle school or lower, 5% completed senior high school or higher
- PWUD:
  - 96% ≤ 46 years old or younger, 4% > 46 years old

- 96% male, 4% female
- 21% completed primary school or lower, 68% completed junior middle school, 11% completed senior high school or higher

### Assignment Method

- Not applicable

### Comparison

FSWs and PWUD receiving the intervention during 2012—2014 were compared to those who received the standard comparison during 2009—2011. In the comparison, the Longzhou County CDC solely facilitated all of the HIV prevention work for the whole county, including epidemiological investigations, HIV voluntary counseling and testing, methadone treatment, condom promotion program, needle exchange program, and public education campaigns (e.g., posters, distributing education brochures, and various campaigns on World AIDS Day).

### Relevant Outcomes Measured

*For FSWs:*

- Condom use was measured as:
  - Using a condom at last commercial sex, and
  - Using a condom for all commercial sex in the last month

*For PWUD:*

- Injection drug use was measured as any injecting drug use in the last month
- Needle sharing was measured as any needle sharing in the last month
- Condom use was measured as:
  - Using a condom use for each commercial sex in the last year, and
  - Using condoms with a regular sex partner for each sex in the last year

### Participant Retention

Because participant retention is not a criterion for the Structural Interventions chapter, the Prevention Research Synthesis project does not evaluate that information.

### Significant Findings on Relevant Outcomes

- Among FSWs, a significantly greater proportion of those in the intervention arm reported using condoms at last commercial sex than those in the comparison arm (99.5% vs. 96.9%,  $\chi^2=15.2$ ,  $p < 0.001$ ).
  - There were also significant effects for using condoms at last commercial sex among:
    - FSW in the Han ethnic group ( $\chi^2=12.85$ ,  $p < 0.001$ )
    - FSW in the Guangxi province ( $\chi^2=13.8$ ,  $p < 0.001$ )
- Among FSWs, a significantly greater proportion of those in the intervention arm reported using condoms for all commercial sex in the last month than those in the comparison arm (96.8% vs. 72.1%,  $\chi^2=186.20$ ,  $p < 0.001$ ).
  - There were also significant effects for using condoms for all commercial sex in the last month among:
    - FSW in the Han ethnic group ( $\chi^2=173.37$ ,  $p < 0.001$ )
    - FSW in the Guangxi province ( $\chi^2=177.62$ ,  $p < 0.001$ )
- Among PWUD, a significantly smaller proportion of those in the intervention arm reported injecting drugs in the last month than those in the comparison arm (64.3% vs. 93.0%,  $\chi^2=158.27$ ,  $p < 0.001$ ).

- There were also significant effects for injection drug use in the last month among PWUD having a regular sex partner ( $\chi^2=157.14$ ,  $p < 0.001$ ).
- Among PWUD, a significantly greater proportion of those in the intervention arm reported using condoms for all commercial sex in the last year than those in the comparison arm (76.1% vs. 14.1%,  $\chi^2=61.46$ ,  $p < 0.001$ ).
  - There were also significant effects for using condoms for all commercial sex in the last year among PWUD with a regular sex partner(s) ( $\chi^2=53.00$ ,  $p < 0.001$ ).

### **Strengths**

- None identified

### **Considerations**

#### *Additional significant positive findings on non-relevant outcomes*

- Among PWUD, a significantly smaller proportion of those intervention arm reported having commercial sex in the last year than those in the comparison arm (5.9% vs. 17.2%,  $\chi^2=47.52$ ,  $p < 0.001$ ).
  - There were also significant effects for having commercial sex in the last year among PWUD with a regular sex partner(s) ( $\chi^2=43.4$ ,  $p < 0.001$ ).

#### *Non-significant findings on relevant outcomes*

- Among PWUD, there were no significant differences in needle sharing in the last month between participants in the intervention arm and those in the comparison arm ( $p = 0.262$ ).

#### *Implementation-related Findings*

- Based on the cost-effectiveness analysis, the intervention yielded the number of avoided infections as 502, and the cost of each avoided HIV infection was \$2579.68 USD. Additionally, the intervention restored each disability-adjusted life year loss costing an average of \$124.26 USD.

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## REFERENCES AND CONTACT INFORMATION

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