

Background

In rural sub-Saharan Africa, traditional healers conduct “injections” (rubbing herbs into small cuts into a patients back, arms, and chest) to increase its efficacy.

- In rural Mpumalanga Province, South Africa, 44% of healers claimed to actively participate in these treatments.
- The risk of HIV infection due to a single exposure to unbroken skin is low (0.3% after a percutaneous exposure and 0.09% after exposure of HIV-infected blood to non-intact-skin and mucous membranes); however, risk of repeated exposure to patient blood by traditional healers remains unknown.

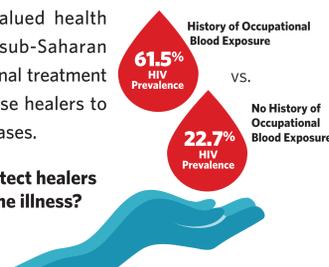
We undertook this study to determine whether healers are experiencing blood exposure on unprotected skin or if there is an increased risk of HIV infection associated with these exposures.



Are traditional healers at risk for HIV infection due to occupational blood exposure?

Healers are valued health providers in sub-Saharan Africa. Traditional treatment practices expose healers to infectious diseases.

How do we protect healers from bloodborne illness?



ODDS OF HIV INFECTION WHEN EXPOSED TO PATIENT BLOOD **5.9**

Methods

- 221 surveys and 213 HIV tests were conducted (8 healers refused testing) from a random sample of 280 traditional healers residing in Bushbuckridge Mpumalanga and all registered members of the Kukula organization. (Of the 59 not participating 5 had died, 4 had out-migrated and 50 were not found.)
- Demographic information, including time practicing traditional medicine, injection practices & exposures to blood (traditional injections, blood transfusions, tattoos, etc.) in the past week, month, and lifetime were collected from all healers.
- Healers also reported their involvement in polygamous relationships (local IRB did not allow us to ask questions about sexual activity as they felt it was inappropriate given the perception of healers as community elders).

Results

Demographics: Healers were mostly female (77.6%), older (54 years [IQR: 43-66]), had been practicing traditional medicine for 18 years (IQR: 7-32), and had low levels of education (1 years [IQR: 0-6]).

Blood exposure: 44% of healer reported conducting a injection to a patient; 26 healers (13%) reported exposure to blood on their bare skin, mouth, or eyes during their career, while 15 (8%) reported at least one blood exposure in the past month (median 2 exposures [IQR 1-3]).

HIV status of healers: Among healers who accepted study-associated testing, 28% tested HIV+; of those who received a positive result, 10 were newly diagnosed.

Blood Exposure and HIV infection:

- In bivariate analyses, HIV infection was not associated with gender ($p=0.72$), being in a polygamous relationship ($p=0.50$), receiving a blood transfusion ($p=0.20$), or age ($p=0.10$).
- HIV status was associated with blood exposure due to delivering an injection in past month ($p=0.001$) and ever experiencing a blood exposure due to delivering an injection ($p<0.001$).
- Healers with a history of blood exposure had an HIV prevalence of 61.5% [IQR: 17-30%] (vs. 22.7% [IQR: 42-78%]).
- In multivariate analyses, HIV infection was associated with ever experiencing blood exposure (OR: 5.9, [CI: 2.4 - 14.7]) after controlling for gender, age, education level, and years practicing as a traditional healer. With every additional blood exposure reported in the past month, healers are 1.68 [IQR: 1.01- 2.84] times more likely to be HIV infected ($p=0.048$).

Conclusions

- Among traditional healers in rural South Africa, blood exposure was significantly associated with testing HIV+.
- Interventions to educate traditional healers on the risk of blood exposure and provide appropriate PPE are urgently required to prevent HIV acquisition amongst this neglected high risk group.

