

POLICY CONVERSATIONS

Long-Term Consequences of Exposure to Armed Conflict

Infrastructure Services and Mental Health in Nepal

Based on peer-reviewed publications in JAMA and Addiction

Major Depressive Disorder (MDD) and **Alcohol Use Disorder (AUD)** are two of the most prevalent mental disorders in Nepal and worldwide. Policymakers face the universal challenge that treatment cannot keep up with demand. Armed conflicts worsen mental health, with lasting impacts on survivors and consequences that can last for years – even after armed conflict ends. **Data from the Chitwan Valley Family Study (CVFS) suggest that stakeholders addressing mental health in Nepal should screen for childhood exposure to violence during armed conflict and invest in preventative interventions that account for gender differences in these disorders at population scale.**

Childhood exposure to violence from conflict is a long-term, widespread issue. Understanding the impact of these experiences on people's future well-being is an important component for developing effective programs and policies.

The CVFS offers rare data for policymakers by following a representative sample of families from 1995 to the present, documenting mental health before, during, and after the armed conflict and allowing analyses based on participants' ages during the conflict. The CVFS design allows scientists to document differences by the participants' ages at the time the armed conflict occurred.

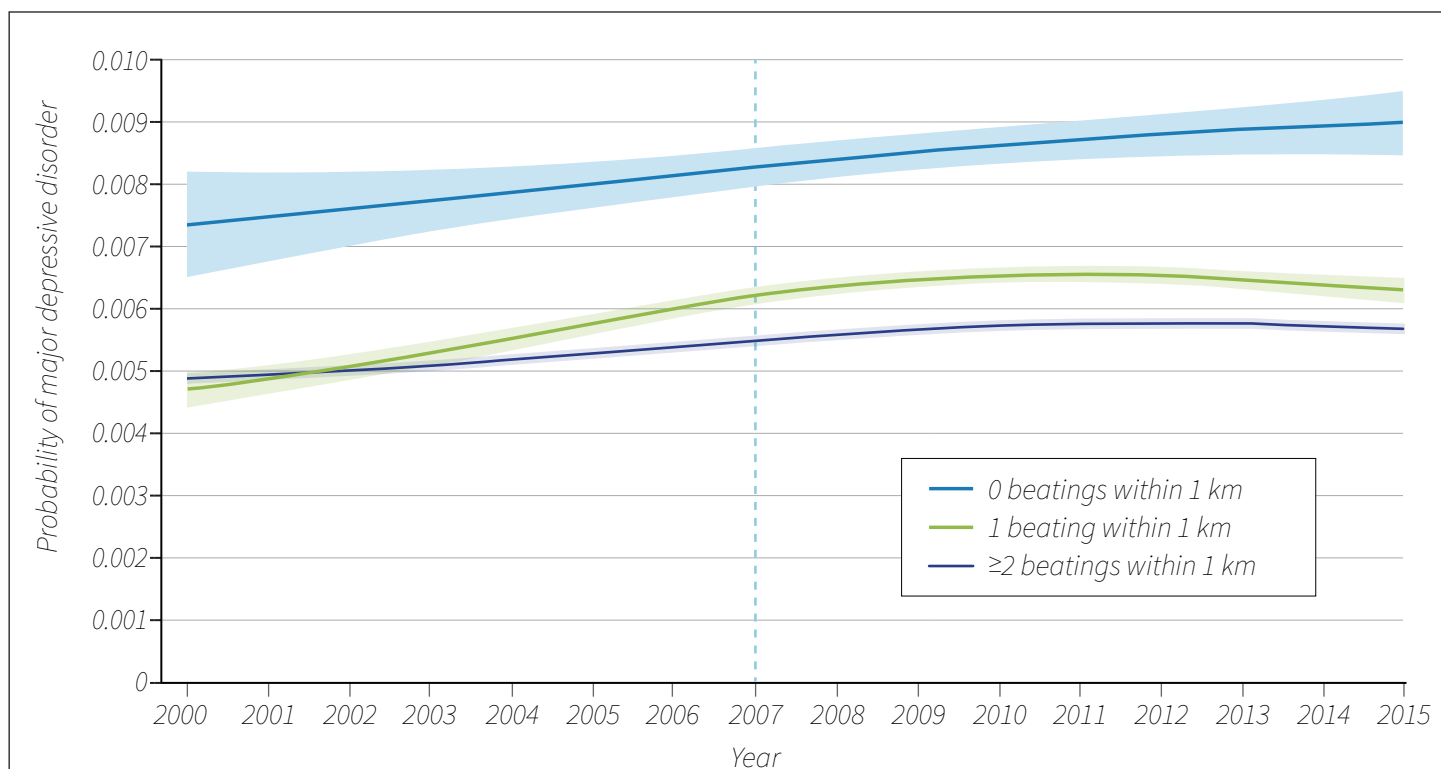
High Quality Measures

- The World Mental Health (WMH) consortium's Composite International Diagnostic Interview (CIDI): The CVFS created the Nepal-CIDI through a four-year process of language translation and cultural adaptation (Ghimire et al. 2013).
- Both survey-type "screeener" measures for multiple mental disorders and thorough measurement of symptoms and impairments to achieve general-population measurement of several mental disorders (Scott et al. 2021). These Nepal-CIDI measures identify symptoms so severe they mean the person meets criteria for a mental disorder.
- Measures clinically validated by specially trained psychiatric health care providers in Nepal to ensure their accuracy (Axinn et al. 2020).
- Longitudinal data: Ten years after Nepal's armed conflict ended, the CVFS used the Nepal-CIDI to measure the life histories of mental disorders among more than 10,000 CVFS participants aged 15-59 (in 2016-18) (Axinn et al. 2020).
- Measures of the location and timing of violent events within the CVFS study area, to document which neighborhoods had these events occur nearby and how many times these events occurred nearby.

Childhood Exposure to Violence

Analyses of the CVFS now carefully document the consequences of exposure to violent events from the armed conflict on two of the highest prevalence mental disorders in Nepal: Major Depressive Disorder (MDD) and Alcohol Use Disorder (AUD). One of the most common violent events during the armed conflict was severe beatings motivated by the conflict. The data show that exposure to beatings nearby a person's neighborhood significantly increases the rates of MDD and AUD after the armed conflict ended.

Perhaps most important, **these studies show that the negative consequences of exposure to violence in the neighborhood are mostly among those who were young children at the time of the armed conflict.** Those Nepalese who were aged 10 and younger during the armed conflict experience more severe consequences than those who were older. Nepali children who experienced multiple armed conflict-related beatings near their neighborhood were nearly twice as likely to suffer the onset of MDD after the armed conflict ended, compared to those who experienced no beatings near their neighborhood, (Benjet et al. 2020). Also important, these consequences of neighborhood-level exposure to violent beating events were independent of an individual's personal experiences of any beatings.



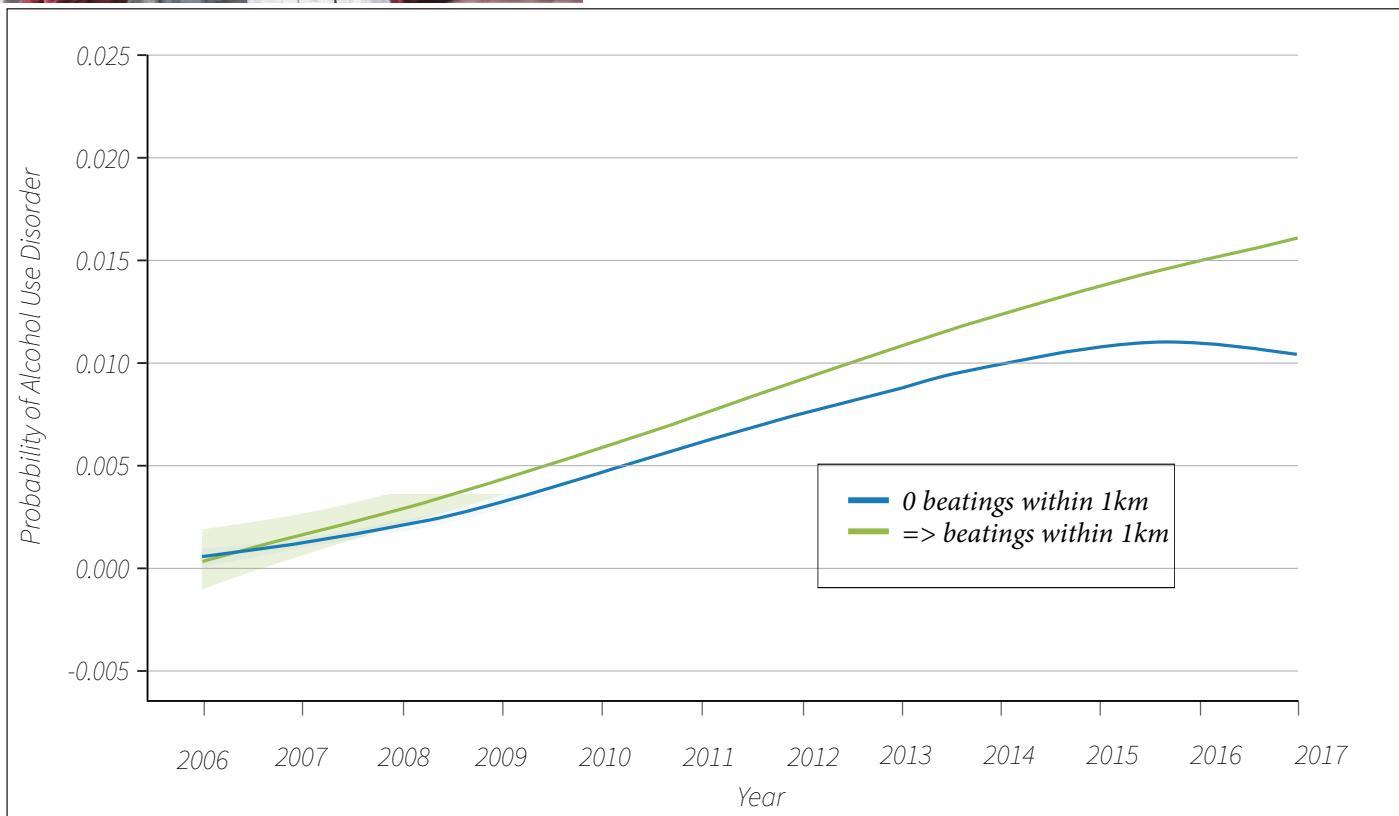
The occurrence of 2+ beatings within 1km was associated with incidence of MDD in those who were children at the start of the armed conflict.



Gendered Prevalence of MDD and AUD

The CVFS documents a similar result for the onset of AUD, which is experienced almost exclusively by males in Nepal. Nepali children who experienced armed conflict-related beatings near their neighborhood were 66% more likely to suffer the onset of AUD after the armed conflict ended (compared to those who experienced no beatings near their neighborhood, Bruffaerts et al. 2024). Again, these consequences of neighborhood-level exposure to violent beating events were independent of a individual's personal experiences of any beatings.

The prevalence of onset of both MDD and AUD vary dramatically by gender. Twenty percent of women and 5% of men in Nepal experience MDD, while 15% of men in Nepal and less than 1% of women experience AUD due to gendered alcohol use.



Estimated time-varying probability of transition to the onset of AUD (2006-2017) among those born between 1992 and 2001 (aged 4-13 in 2006).

Global Implications

Of course, exposure to violence is not limited to Nepal. In fact, many populations worldwide suffer some exposure to nearby violence, sometimes in the form of armed conflict. Motivated in part by these important findings from Nepal, the World Mental Health (WMH) consortium global team of scientists investigated the more general, worldwide

consequences of childhood exposure to armed conflict violence. Drawing on WMH data from countries in Africa, Europe, the Middle East, and South America, this team found that childhood exposure to armed conflict increased mental disorders and that the consequences last for decades (Axinn et al. 2023). Childhood exposure to armed conflict increases the odds of subsequent onset of a mental disorder across a wide range of mental disorders in many different settings.

Childhood exposure to armed conflict increases the likelihood of subsequent onset of a mental disorder across a wide range of mental disorders in many different settings.

(Axinn et al. 2023)

Policy Implications

These findings are important for guiding policy makers' actions for two key reasons:

- Mental disorders like MDD and AUD produce severe functional impairments, limiting the individual's ability to do many daily activities, including school, work or caring for others (children/elderly parents)
- Young adult onset of these disorders means the people affected will likely experience episodes of these disorders for decades

The findings suggest that Nepal should screen for childhood exposure to violence during armed conflict, take preventative steps to address mental disorders at population scale, and invest in preventative and protective interventions that account for gender differences in these disorders at population scale. Preventive and protective interventions following childhood exposure to armed conflict merit implementation wherever armed conflict occurs globally, since it increases the likelihood of subsequent onset of a wide range of mental disorders that cannot be effectively addressed by mental health treatment at scale.

References

Axinn, William G., Ronny Bruffaerts, Timothy L. Kessler, Rochelle Frounfelker, Sergio Aguilar-Gaxiola, Jordi Alonso, Brendan Bunting, José M. Caldas-de-Almedia, Graça Cardoso, Stephanie Chardoul, Wai Tat Chiu, Alfredo Cía, Oye Gureje, Elie G. Karam, Viviane Kovess-Masfety, Maria V. Petukhova, Marina Piazza, Jose Posada-Villa, Nancy A. Sampson, Kate M. Scott, Juan C. Stagnaro, Dan J. Stein, Yolanda Torres, David R. Williams, Ronald C. Kessler; WHO World Mental Health Survey Collaborators. 2023. "Findings From the World Mental Health Surveys of Civil Violence Exposure and its Association with Subsequent Onset and Persistence of Mental Disorders." *JAMA Network Open* 6(6):e2318919. doi: 10.1001/jamanetworkopen.2023.18919.

Axinn, William G., Stephanie Chardoul, Heather Gatny, Dirgha J. Ghimire, Jordan W. Smoller, Yang Zhang, and Kate M. Scott. 2020. "Using Life History Calendars to Improve Measurement of Lifetime Experience with Mental Disorders." *Psychological Medicine* 50(3):515-522. doi: 10.1017/S0033291719000394.

Benjet, Corina, William G. Axinn, Sabrina Hermsilla, Paul Schulz, Faith Cole, Laura Sampson, and Dirgha J. Ghimire. 2020. "Exposure to Armed Conflict in Childhood vs Older Ages and Subsequent Onset of Major Depressive Disorder." *JAMA Network Open* 3(11):e2019848. doi: 10.1001/jamanetworkopen.2020.19848.

Bruffaerts, Ronny, William G. Axinn, Dirgha J. Ghimire, Corina Benjet, Stephanie Chardoul, Kate M. Scott, Ronald C. Kessler, Paul Schulz, and Jordan W. Smoller. 2024. "Community Exposure to Armed Conflict and Subsequent Onset of Alcohol Use Disorder." *Addiction* 119(2):248-258. doi: 10.1111/add.16343.

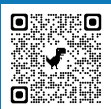
Ghimire, Dirgha J., Stephanie Chardoul, Ronald C. Kessler, William G. Axinn, and Bishnu P. Adhikari. 2013. "Modifying and Validating the Composite International Diagnostic Interview (CIDI) for Use in Nepal." *International Journal of Methods in Psychiatric Research* 22(1):71-81. doi: 10.1002/mpr.1375.

Scott, Kate M., Yang Zhang, Stephanie Chardoul, Dirgha J. Ghimire, Jordan W. Smoller, and William G. Axinn. 2021. "Resilience to Mental Disorders in a Low-Income, Non-Westernized Setting." *Psychological Medicine* 51(16):2825-2834. doi: 10.1017/s0033291720001464.



Institute for Social Research
Ann Arbor, Michigan, USA

WEBSITE | <https://cvfs.isr.umich.edu>



Contact Us

**Institute for Social and Environmental
Research - Nepal** Chitwan, Nepal

WEBSITE | <https://isernepal.org.np>

Email: iser.nepal@outlook.com

