

The aftermath of civil war. Thousands lost limbs during wartime violence in Sierra Leone. Freetown beaches regularly host amputee football matches.

Reconciliation in Sierra Leone

Short, low-cost interventions can help communities to recover from civil war

By Katherine Casey¹ and Rachel Glennerster²

have been 259 armed conflicts in 159 locations (1). Sierra Leone's civil war began 25 years ago, at a time when roughly 25% of all countries worldwide were experiencing civil war (2). How can individuals and groups recover from such violent conflicts? On page 787 of this issue, Cilliers *et al.* (3) provide rigorous evidence on the efficacy of one postwar reconciliation strategy that was implemented in 100 communities in Sierra Leone (4).

Large-scale efforts are crucial in light of the large numbers of individuals and broad swaths of territory frequently affected by civil war. They are also daunting given the limited resources available in poor countries that are too often hosts to conflict (see the figure). When the Sierra Leone conflict ended in 2002, only one psychiatrist and two trained psychiatric nurses resided in the entire country (5).

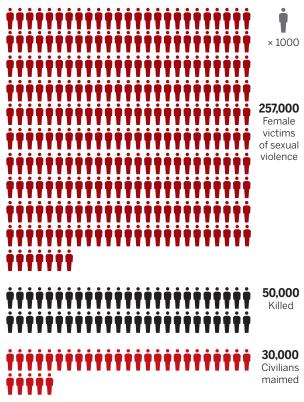
Community-driven reconstruction/development (CDR/D) is one of the most popular postconflict investments. Communities are given grants to invest in a project of their

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Trauma versus treatment

Estimates for victims of war violence come from Project Ploughshares cited in UNDP (*16*). Health data show patients receiving any mental health services in 2009, from WHO (*15*).

Victims of violence in Sierra Leone's civil war



Limited mental health provision

choosing but must do so in an open and participatory way in an effort to promote inclusive decision-making, trust, and social capital. Randomized evaluations of this approach in Sierra Leone (5), Liberia (6), and Democratic Republic of Congo (7) have generally found that CDR/D can be effective in improving infrastructure but not in promoting trust, raising contributions to public goods, or changing the way communities interact. These findings raised concerns about whether change in social capital-or the norms and networks undergirding civic engagement (8)-was possible over a period of 3 to 4 years (the typical length of these interventions).

Sierra Leone. During these public ceremonies, which were facilitated by a nongovernmental organization, victims spoke about the war violence that they had experienced, and perpetrators sought forgiveness. Using a randomized control trial, the authors find that these events increased measures of social cohesion, including participation in community groups, the strength of social networks, and contributions to public goods. At the same time, they find negative impacts on individual mental health: Revisiting war atrocities worsened measures of anxiety, posttraumatic stress disorder, and depression. Both positive and negative effects persisted for more than 2 vears after the ceremonies.

The positive communitylevel response to reconciliation ceremonies resonates with broader indicators of the capacity for recovery in Sierra Leone. Gross domestic product doubled in the decade after the restoration of peace (9). Multiparty democracy and local government were restored, and the National Electoral Commission oversaw multiple free and fair elections, including the peaceful transfer of presidential power from the

incumbent to the main opposition party in 2007. Although conflict can sunder local societal bonds, it can also force communities into self-reliance. Analysis of national survey data suggests that individuals whose households experienced greater war-related violence participate more frequently in community meetings and groups (*10*).

2000

People

treated

for mental

disorder

The war in Sierra Leone was not fought along ethnic lines, and levels of civilian abuse were no higher across than within ethnic groups (*11*). This makes it quite distinct from the conflicts in South Africa and Rwanda, which were followed by more intensive national-level truth and reconciliation efforts. Caution is thus warranted in considering whether such "light-touch" ceremonies would be as effective in promoting community reconciliation after ethnic conflict.

Other postconflict research has focused on preventing further violence. Here, relatively short interventions can also change people's behavior in meaningful ways. For example, combinations of cash grants, employment opportunities, and cognitive behavioral therapy (CBT) were successful in reducing violent and illicit behavior among criminally involved men in Liberia (*12, 13*). The largest effects were found for CBT followed by \$200 grants, which reduced engagement in violence up to 50% for a year. Many participants in these studies were involved in Liberia's civil war, which coincided and had many commonalities with that in neighboring Sierra Leone.

The estimated negative effects of reconciliation ceremonies on individual mental health documented by Cilliers et al. are cause for alarm and concern. It is unclear what alternative approaches might work better in poor countries. This lack of knowledge is mainly due to the low levels of resources devoted to mental health provision in the developing world: Public expenditure on mental health is less than \$2 per capita in low- and middle-income countries, compared with more than \$50 in high-income countries (14). World Health Organization estimates suggest that less than 1% of the more than 400,000 people suffering mental health disorders in Sierra Leone have received treatment (15). Let this be our call to action.

REFERENCES AND NOTES

- 1. T. Pettersson, P. Wallensteen, J. Peace Res. 52, 536 (2015).
- 2. J. Fearon, D. Laitin, Am. Polit. Sci. Rev. 97, 75 (2003).
- 3. J. Cilliers, O. Dube, B. Siddiqi, Science 352, 787 (2016).
- 4. J. Asare, L. Jones, Brit. Med. J. 331, 720 (2005).
- K. Casey, R. Glennerster, E. Miguel, Q. J. Econ. 127, 1755 (2012).
- 6. J. Fearon, M. Humphreys, J. Weinstein, *Am. Polit. Sci. Rev.* **109**, 450 (2015).
- M. Humphreys, R. Sanchez de la Sierra, P. van der Windt, "Social Engineering in the Tropics: Null Evidence from a Grassroots Democratization Experiment in East Congo," working paper, 2015; see www.columbia.edu/~mh2245/ papers1/20150519%20HSW.pdf.
- 8. R. Putnam, J. Democr. 6, 65 (1995).
- International Monetary Fund, World Economic Outlook Database, October 2015.
- 10. J. Bellows, E. Miguel, J. Public Econ. 93, 1144 (2009).
- M. Humphreys, J. M. Weinstein, Am. Polit. Sci. Rev. 100, 429 (2006).
- C. Blattman, J. Annan, "Can employment reduce lawlessness and rebellion? A field experiment with high-risk men in a fragile state," World Bank Policy Research Working Paper No. 7648, 2015.
- C. Blattman, J. Jamison, M. Sheridan, "Reducing crime and violence: Experimental evidence on adult noncognitive investments in Liberia," working paper, 2015; http://ssrn. com/abstract=2622220.
- World Health Organization, *Mental Health Atlas* (WHO, Geneva, 2014).
- WHO, proMIND: Profiles on Mental Health in Development: Sierra Leone (WHO, Geneva, 2012).
- United Nations Development Program, "Evaluation of UNDP support to conflict-affected countries" (UNDP, New York, 2006).

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