Risk and Civil Violence: A Disaggregated Analysis for Africa

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Using geo-referenced panel data for Africa we investigate the role of temporary health shocks, related to the risk of malaria epidemics, for out-brakes of civil violence. We identify peaks in malaria risk at the cell level following closely the malaria epidemiology literature. We concentrate attention to periods that are (unusually) suitable for malaria out-brakes in areas with low to intermediate malaria exposure (or prevalence) where the population has low genetic and acquired immunities. In these areas weather conditions suitable for outbreaks are less frequent, but, compared to high prevalence areas, the impact of these adverse health shocks are amplified and also affect adults. For their nature malaria threats are limited in time and space can be predicted using geo-referenced weather data from satelite re-analysis at monthly panel data frequencies. We exploit within cell variability overtime both at the yearly and monthly frequencies which also allows to control for cellXyear specific determinants of civil conflicts and account for seasonal patterns of violence within the year. The results document that unusual malaria suitable months increase the likelihood of civil violence only in cells with low to intermediate malaria exposure. The results are robust to several checks including spatial econometrics techniques.