

Additional file 1: Fragility, conflict, and natural disaster exposures of the areas of the 2 participating hospitals

Study site	Surrounding Areas	Fragile State Index classification in 2019 and 2020 (from the most fragile to the most stable over 178 states)(8,9)	Conflict-related events /month during the duration of the participants' pregnancies (1,2)	Conflict-related deaths/year/100 000 persons during the duration of the participants' pregnancies* (1,2)	Natural disaster events during the duration of the participant's pregnancies(3)	Flooding number of events and duration during the duration of the participant's pregnancies(4)
CAR study site	Bangui	6 th (high alert)	4.3	5.7*	Flooding	5 flooding episodes Mean duration: 1.1 hours/month
Nigeria study site	Jigawa State	14 th (alert)	1.3	0.1	Flooding Lassa fever	14 flooding episodes Mean duration: 64.1 hours/month
	Yobe State		3.8	2.5*	Flooding	20 flooding episodes Mean duration: 11.6 hours/month
	Katsina State		13.4	2.2*	Flooding Yellow fever	12 flooding episodes Mean duration: 18.3 hours/month
	Bauchi State		1.2	0.1	Flooding Lassa fever Yellow fever	16 flooding episodes Mean duration: 29 hours/month
	Kano State		1.5	0.02	Flooding Lassa fever Yellow fever	33 flooding episodes Mean duration: 59.8 hours/month

* Setting with medium-intensity conflict according to the World Bank (2 to 10 deaths/year/100 000 population)(7).

Methodology used to identify the study settings' exposure to conflict and natural disaster:

To describe the exposure to conflict and natural disaster in both settings with comparable data, we extracted data from international independent databases. For each study context (Bangui, Jigawa State and its neighbors States: Yobe, Katsina, Bauchi and Kano), we extracted 1) the number of conflict events in the Armed Conflict Location and Event Data (ACLED) database(1,2); 2) the natural disaster events in the international disaster database(3); 3) the number and duration of flooding events in the global flood monitor(4). The ACLED database collects location, actors, fatalities and date information on all reported political violence and protest events daily(1,2). The international disaster database lists the disasters that happened during defined periods(3). The global flood monitor detects, in real-time, regions with enhanced flood-related Twitter activity and classifies these as flood events(4). The data were extracted for the duration of the pregnancies of the women included in the study. Population data of Bangui(5) and the Northern Nigeria States(6) were also used. The mean number of hours of flooding/months, number of conflict-events/month and number of deaths/year/100 000 persons were computed using Excel software. Settings with 2 to 10 deaths/year/100 000 population are classified as setting with medium-intensity conflict by the World Bank(7).

Study settings' exposure to conflict and natural disaster

During the duration of the pregnancies of the women included in the CAR study site (April 2019 to January 2020), Bangui suffered an average of 4.3 conflict-related events/month causing 5.7 deaths/year/100 000 persons classifying them as medium-intensity conflict-affected settings(7). In addition, during the same period, Bangui suffered from 5 episodes of floods that last an average of 1,1 hour/month. (cf. table appendix 5)

During the duration of the pregnancies of the women included in the Nigeria study site (August 2019 to July 2021), Jigawa State endured an average of 1.3 conflict-related events/month causing 0.1 deaths/year/100 000 persons. The neighboring States of Yobe and Katsina suffered respectively an average of 3.8 and 13.4 conflict-related events/month causing respectively 2.5 and 2.2 deaths/year/100 000 population, classifying them as medium-intensity conflict-affected settings(7). While Jigawa State experienced less conflict-related events than Bangui, it had to deal with more natural disaster events. Between August 2019 and July 2021, it faced one Lassa fever outbreak and 14 episodes of intense flooding that last an average of 64,1 hours/month. (cf. table appendix 5)

References:

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