# Family Planning During and After the West African Ebola Crisis:

## *An analysis of impact using routine service data*

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## Introduction

The West African Ebola outbreak of 2013-2016 caused over 11,000 deaths[1] and devastated the already fragile health systems of Liberia, Sierra Leone, and Guinea. During the crisis, staffing shortages, quarantines, interruptions to supply chain, health facility closures, and fear of health facilities and workers resulted in significant disruptions to the provision and utilization of a range of health services, including inpatient health services and surgery[2], malaria treatment[3], vaccinations[4], obstetric care[4,5], and family planning[4,5,6]. A study of the impact of Ebola on reproductive health care in one district in Guinea found a 50% decline in family planning visits during the height of the crisis[6]. Prior to the crisis, Liberia[7] and Sierra Leone[8] had seen gains in expanding contraceptive prevalence while Guinea's prevalence remained low and relatively constant[9]. Understanding the impact of the crisis on family planning provision is essential for future efforts to expand access to contraception in these countries and better safeguard against negative impacts of future crises.

## Materials and methods

Complex emergencies, like the West African Ebola crisis, can devastate a health system long after the immediate crisis ends. Our research sets out to answer two questions:

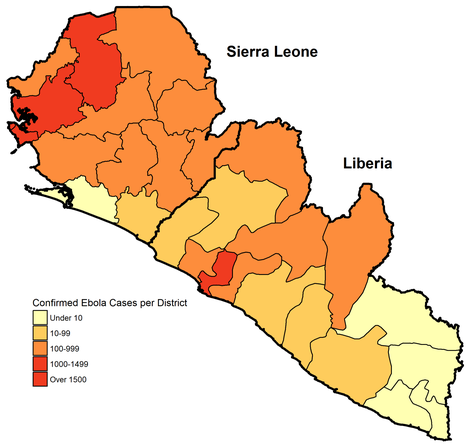
- How much did family planning provision decrease during the Ebola crisis?
- Did the Ebola crisis have a lasting negative impact on family planning provision?

We examine monthly provision of family planning services from 6 months before the first Ebola case in each country to 24 months after the last case of the main outbreak. Weekly numbers of new confirmed Ebola cases over the time frame are taken from the World Health Organization (World Health Organization 2016b). Sierra Leone and Liberia collect electronic, routine data (henceforth referred to as service statistics) on family planning monthly. Both countries use the District Health Information System (DHIS2). Guinea's electronic data collection began in 2015, and is not included in this analysis.

In the analysis of service statistics, we include contraceptive implants, injectables, oral contraceptive pills, and condoms, which make up more than 95% of contraceptive use in both countries. We convert commodities into Couple Years of Protection (CYPs). We only report data that was entered into the DHIS2 system. Condoms and pills provided through shops and smaller, private providers are not included in this data.

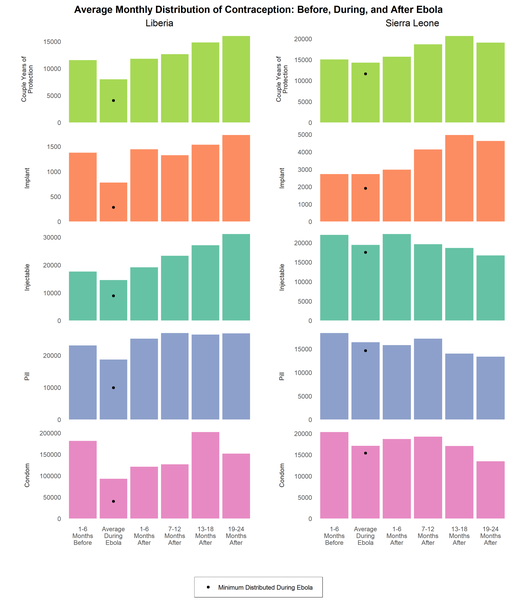
## Results

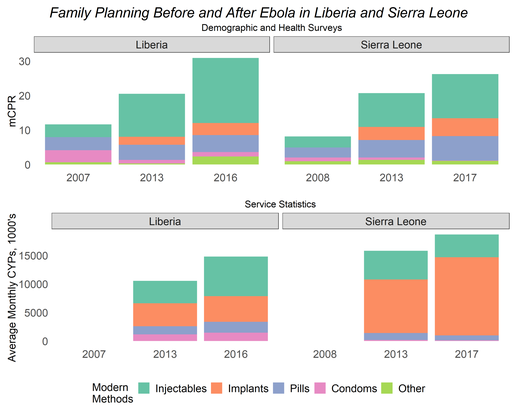
During the Ebola crisis in Liberia, August 2014 marked the lowest level of family planning service provision, with the equivalent of 4,054 CYPs distributed, a 65% reduction compared to the six-month average before the first Ebola case. Between June and July 2014 (when the number of cases increased from 78 to 193), CYPs declined by 33%, then from July to August experienced another 44% decline, while the number of Ebola cases rose to 874. On average, during the whole of the Ebola crisis in Liberia, there was a monthly distribution of 7,999 CYPs, a decline of 31% from the 6-month period prior.




In Sierra Leone, the lowest level of family planning service provision was seen in December 2014 (November 2014 saw the record number of Ebola cases), when 11,602 CYPs were distributed, a 23% decline from the 6-month period prior to the first case of Ebola. Over the 16 months of the Ebola epidemic in Sierra Leone, on average CYPs were only 5% lower than before the Ebola epidemic. This average decline is relatively small because family planning service provision returned to pre-Ebola levels by May 2015, 3 months before the last Ebola case was recorded.

Liberia had fewer cases of Ebola than Sierra Leone, though suffered a more severe impact to its family planning provisions. Both countries recovered quickly following the last Ebola cases, and while Liberia grew in each successive 6-month period, Sierra Leone saw declines in method provisions over time, and at 19-24 months distributed fewer CYPs than at 13-18 months.




Overall, the surveys collected after Ebola confirm the results found for service statistics: both Liberia and Sierra Leone have made progress in family planning commodity distribution, but Liberia is moving at a faster pace than Sierra Leone.

## Conclusions

The rapid return of contraceptive services to pre-Ebola levels in most regions are encouraging. During and immediately following the outbreak, there were concerns about the long-term impact of the crisis on provision of family planning services after the Ebola outbreak ended. This study indicates that the family planning health sector can recover (and continue to improve) following a significant disruption and is a lesson in resilience. It is possible that this rapid recovery of contraceptive distribution was driven by the influx of funding and effort that comes with emergency response, or the result of a rush of women back to healthcare facilities for family planning services once the perceived risk had declined. However, this recovery was not sustained in Sierra Leone, and could indicate deeper, longer lasting damage to service delivery systems.

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