Family Planning During and After the Ebola Crisis

Evidence from Liberia and Sierra Leone
The West African Ebola outbreak of 2013-2016 caused over 11,000 deaths and devastated the already fragile health systems of Liberia, Sierra Leone, and Guinea.

Disruption of health services:
- Staffing shortages
- Quarantines
- Interruptions to supply chain,
- Health facility closures
- Fear of health facilities

Impacts on:
- Inpatient health services and surgeries (Bolkan et al 2014)
- Malaria treatment (Plucinski et al 2015)
- Vaccinations (Barden-O'Fallon et al 2015)
- Obstetric Care (Barden-O'Fallon et al 2015)
- Family Planning (Camara et al 2017)
Family Planning during the Ebola Crisis

- UN released a Gender Alert in February 2015 noting that reduced access to contraceptives as a result of the Ebola crisis would put women at an increased risk of unintended pregnancy
- Camara et al 2017 looked at one district in Guinea and found a 50% decline in family planning visits during the height of the crisis
Research Questions

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?
Data

- World Health Organization confirmed cases of Ebola
- District Health Information System 2 (DHIS2)
  - Liberia and Sierra Leone collect electronic, routine data (service statistics) on family planning provision
- Survey Data
  - Demographic Health Surveys (DHS), Malaria Indicator Surveys (MIS), Multiple Indicator Cluster Surveys (MICS)
Data: Contraception

- Injectables, implants, oral contraception, and condoms are over 95% of modern contraceptive use in both countries (excluding LAM)
- To discuss all methods simultaneously, we convert distribution numbers into Couple Years of Protection (CYPs)

<table>
<thead>
<tr>
<th>Method</th>
<th>CYPs</th>
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<tbody>
<tr>
<td>Injectable</td>
<td>$\frac{1}{4}$</td>
</tr>
<tr>
<td>Implant</td>
<td>3</td>
</tr>
<tr>
<td>Pills</td>
<td>$\frac{1}{15}$</td>
</tr>
<tr>
<td>Condom</td>
<td>$\frac{1}{120}$</td>
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</tbody>
</table>
Data

- National and subnational analysis
  - Liberia is divided into 15 counties
  - Sierra Leone is divided into 14 districts
- Timeframe

<table>
<thead>
<tr>
<th>0-5 Months After Last Ebola Case</th>
<th>6-11 Months After Last Ebola Case</th>
<th>12-17 Months After Last Ebola Case</th>
<th>18-23 Months After Last Ebola Case</th>
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<tbody>
<tr>
<td>Ebola Crisis</td>
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<tr>
<td>6 Months Before First Ebola Case</td>
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- Average before and after Ebola
- Average and maximum decline during Ebola
Family Planning Before Ebola in Liberia and Sierra Leone
Demographic and Health Surveys

Service Statistics

Average Monthly CYPs, 1,000's

Modern Methods
- Injectables
- Implants
- Pills
- Condoms
- Other

Liberia
- 2007 DHS: mCPR
- 2013 DHS: mCPR

Sierra Leone
- 2008 DHS: mCPR
- 2013 DHS: mCPR

2013
- Liberia: Average Monthly CYPs, 1,000's
- Sierra Leone: Average Monthly CYPs, 1,000's
Ebola in Liberia and Sierra Leone

Confirmed Ebola Cases per District:
- Under 10
- 10-99
- 100-999
- 1000-1499
- 1000-1499
- Over 1500
Family Planning during Ebola

Liberia

1-6 Months Before: 12000
Average During Ebola: 3000

Sierra Leone

1-6 Months Before: 15000
Average During Ebola: 5000

 Minimum During Ebola
Family Planning during Ebola: Subnational Variation
Family Planning after Ebola: Subnational

*Post Ebola: Contraceptive Distribution Recovery in Liberia and Sierra Leone*

- **6 Months after Last Ebola Case**
  - Sierra Leone
  - Liberia
  - WAU: Above

- **12 Months after Last Ebola Case**
  - Sierra Leone
  - Liberia
  - WAU: Below

- **24 Months after Last Ebola Case**
  - Sierra Leone
  - Liberia
  - WAU: Below

**Couple Years of Protection Distribution**
- Below Pre-Ebola Level
- Above Pre-Ebola Level
- 1000+ Cases of Ebola
Family Planning after Ebola: Subnational

- In at least one month, 28 out of 29 regions has higher level CYP distribution than before Ebola
- 14 regions saw higher CYP distribution the first month after Ebola ended than before Ebola
  - 24 out of 28 within the first 6 months
- However, 20 out of 28 regions saw decline after recovery to lower than pre-Ebola levels
Family Planning After Ebola: Survey Results

Surveys

Liberia
- 2013 DHS
- 2016 MIS

Sierra Leone
- 2013 DHS
- 2017 MICS

Service Statistics

Liberia
- 2013
- 2016

Sierra Leone
- 2013
- 2017

Average Monthly CYPs, 1,000's

- Modern Methods
- Injectables
- Implants
- Pills
- Condoms
- Other

- 2013
- 2016
- 2017

0
5000
10000
15000
Discussion

- Liberia experienced a greater decline in family planning use during the Ebola crisis compared to Sierra Leone.
- Dramatic declines in service provision in areas with relatively fewer cases of Ebola may illustrate the power of this fear and stigma in reducing utilization of health care services.
- Rapid return of family planning services is encouraging, and illustrates that the health sector can recover and continue to improve following a significant disruption.
- Liberia has continued rapid expansion of contraceptive distribution at a higher rate than Sierra Leone.
Post Ebola Health Financing

• Sierra Leone and Liberia began in similar positions before the epidemic, both having made significant strides in maternal and child health post-conflict

• Liberia has received $73 million MCH/FP funding and $58.5 million for basic healthcare from USAID
  • Sierra Leone received $25.5 million for MCH/FP and $8.4 for basic health care

• Liberia was one of the Global Financing Facility’s (GFF) 2nd wave quick starter countries, receiving $16 million through a GFF grant to catalyze investments in the health and nutrition of women, adolescents and girls
  • Sierra Leone was announced as a third wave country in 2017
Conclusion

- Liberia’s family planning sector disproportionately suffered during the Ebola crisis
  - Two years since it has made great strides towards restoring and growing contraceptive services.
- Sierra Leone had a greater number of Ebola cases, its family planning distribution did not decline as dramatically as Liberia’s.
  - However, based on service statistics and survey data, Sierra Leone has not seen as large of growth in contraceptive commodity distribution as Liberia in the recovery period.