Web Appendix

Table A1: Example conflict classification for Afghanistan and Sudan. Cells highlighted in green show individual years in which the country would be classified as non-conflict while cells in red show years in which they would be classified as conflict. Overall conflict status for each decade is given at bottom of table

| Battle-related death r | Battle-related death rate per 1,000,000 population | | | | | | | | | |
|------------------------|--|-------------|----------------|-------|-------|----------------|------|-------|--|--|
| Year | Sudan | Afghanistan | _ | | | | | | | |
| 1990 | 215.2 | 120.7 | 2000 | 104.3 | 260.5 | 2010 | 29.4 | 244.0 | | |
| 1991 | 63.0 | 254.1 | 2001 | 122.0 | 177.7 | 2011 | 39.9 | 249.9 | | |
| 1992 | 49.9 | 305.8 | 2002 | 70.5 | 1.4 | 2012 | 37.7 | 251.8 | | |
| 1993 | 41.8 | 246.5 | 2003 | 67.9 | 28.6 | 2013 | 16.1 | 253.6 | | |
| 1994 | 14.4 | 552.6 | 2004 | 108.6 | 29.5 | 2014 | 22.7 | 376.9 | | |
| 1995 | 41.5 | 322.6 | 2005 | 5.2 | 64.9 | 2015 | 32.7 | 511.5 | | |
| 1996 | 92.3 | 178.3 | 2006 | 31.7 | 182.8 | 2016 | 33.2 | 517.1 | | |
| 1997 | 146.0 | 348.0 | 2007 | 6.7 | 257.1 | 2017 | 3.2 | 532.1 | | |
| 1998 | 188.1 | 331.6 | 2008 | 18.1 | 207.2 | | | | | |
| 1999 | 52.9 | 238.6 | 2009 | 10.5 | 227.9 | | | | | |
| Decade average | 90.5 | 289.9 | Decade average | 54.5 | 143.8 | Decade average | 26.9 | 367.1 | | |

Conflict status

Conflict

Conflict

Conflict status

Conflict

Conflict

Conflict

Conflict

Conflict status

Note: Countries in **bold** suffered severe conflict (i.e. BRD rate of >40 deaths per million population), else moderate (i.e. BRD rate of 10-40 deaths per million population)

Supplemental material

| | Period 2010-2017 |
|--------------------------|---|
| Country | Battle-related death rate per 1,000,000 individuals |
| Afghanistan | 367.1 |
| Central African Republic | 12.2 |
| Iraq | 190.4 |
| Libya | 92.2 |
| Mali | 13.6 |
| Nigeria | 11.5 |
| Pakistan | 13.5 |
| Somalia | 130.4 |
| South Sudan | 49.9 |
| Sudan | 26.9 |
| Syria | 1757.0 |
| Turkey | 10.7 |
| Ukraine | 17.5 |
| Yemen | 82.6 |

Table A3: Number of countries classified as conflict and non-conflict for each year 1990-2017 based on annual battle-related death rate of at least 10 per million individuals

| Year | Non-conflict | Conflict | Year | Non-conflict | Conflict |
|------|--------------|----------|------|--------------|----------|
| 1990 | 115 | 20 | 2004 | 126 | 9 |
| 1991 | 113 | 22 | 2005 | 129 | 6 |
| 1992 | 113 | 22 | 2006 | 125 | 10 |
| 1993 | 118 | 17 | 2007 | 129 | 6 |
| 1994 | 116 | 19 | 2008 | 124 | 11 |
| 1995 | 119 | 16 | 2009 | 126 | 9 |
| 1996 | 119 | 16 | 2010 | 128 | 7 |
| 1997 | 119 | 16 | 2011 | 124 | 11 |
| 1998 | 115 | 20 | 2012 | 121 | 14 |
| 1999 | 115 | 20 | 2013 | 124 | 11 |
| 2000 | 115 | 20 | 2014 | 120 | 15 |
| 2001 | 119 | 16 | 2015 | 117 | 18 |
| 2002 | 123 | 12 | 2016 | 121 | 14 |
| 2003 | 124 | 11 | 2017 | 122 | 13 |
| | | | | | |

Table A4: Number of countries classified as conflict and non-conflict for each decade 1990-2017 based on mean battle-related death rate of at least 10 per million individuals per decade

| Decade | Non-conflict | Conflict |
|-----------|--------------|----------|
| 1990-1999 | 100 | 35 |
| 2000-2009 | 117 | 18 |
| 2010-2017 | 121 | 14 |

Figure A1: Relative inequalities in under-5 mortality rates in conflict and non-conflict countries by wealth (left) and rurality (right), 2010-2018 * p < 0.05, ** p < 0.01, *** p < 0.001, *** p < 0.0001

Note: Since under-5 mortality is an adverse outcome, a greater negative number indicates more inequality favouring the poorest or rural populations (i.e. these groups experience higher death rates); rurality is presented on a separate axis (right) measuring relative inequalities using the ratio of coverage between urban and rural estimates.

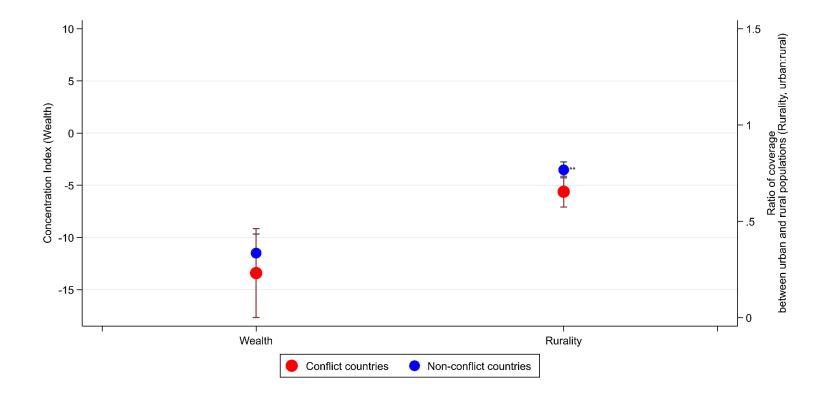
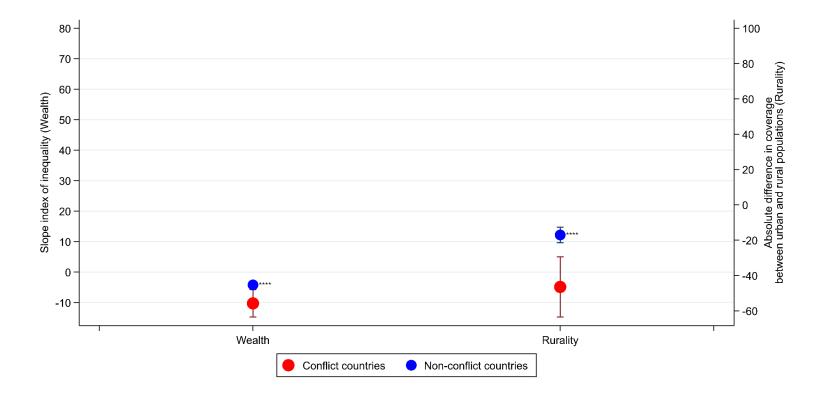


Figure A2: Absolute inequalities in under-5 mortality rates in conflict and non-conflict countries by wealth (left) and rurality (right), 2010-2018 *p < 0.05, **p < 0.01, ***p < 0.001, ***p < 0.001

Note: Since under-5 mortality is an adverse outcome, a greater negative number indicates more inequality favouring the poorest or rural populations (i.e. these groups experience higher death rates); rurality is presented on a separate axis (right) measuring absolute inequalities via gaps in coverage; under-5 mortality data by maternal education was not available.



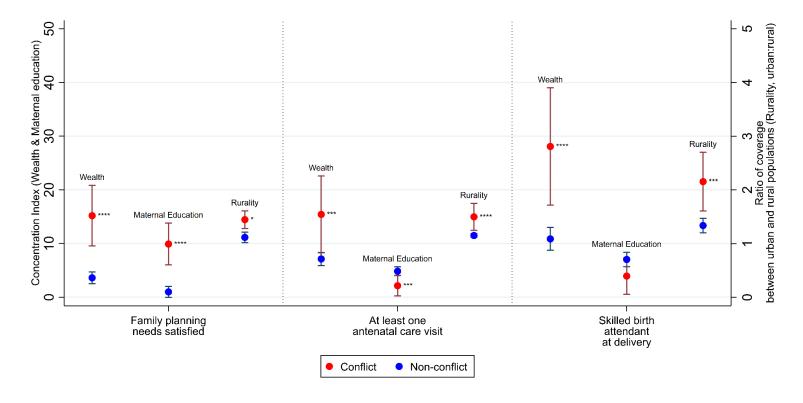
Supplemental material

| | Family Planning Needs Satisfied | At least 1 antenat al care visit | Skilled birth attendant at delivery | Exclusive breastfeedin g (0-5 months) | Early initiation of breastfeedin g | Protected against neonatal tetanus | Postnatal care of newborn within 2 days of birth | DPT vaccination | Measles vaccination | Careseeking for pneumonia | Careseeking for diarrhea |
|------------------------|--|--|---|--|---|------------------------------------|---|--------------------|------------------------|---------------------------------|-----------------------------|
| Wealth Inequ | alities | | | | | | | | | | |
| Mean in non-conflict | 13.42 | 33.02 | 41.82 | -5.18 | -2.76 | 12.33 | 10.43 | 20.41 | 19.40 | 21.63 | 13.94 |
| Mean in conflict | 34.27 | 53.55 | 69.45 | 6.64 | 2.37 | 33.69 | 28.39 | 48.51 | 44.20 | 9.96 | 8.50 |
| Overall mean | 16.03 | 35.25 | 44.81 | -2.93 | -1.81 | 14.87 | 13.47 | 25.61 | 23.99 | 19.46 | 13.03 |
| Non-conflict country n | 78 | 51 | 51 | 48 | 80 | 66 | 79 | 76 | 76 | 75 | 65 |
| Conflict country n | 12 | 7 | 7 | 7 | 13 | 12 | 13 | 13 | 13 | 13 | 9 |
| p-value | <0.0001 | 0.0107 | 0.0001 | 0.0004 | 0.0541 | 0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0005 | 0.1344 |
| Maternal Edu | cation Inequa | alities | | | | | | | | | |
| Mean in non-conflict | 3.09 | 35.41 | 45.20 | -1.02 | -0.76 | 16.30 | 19.68 | 25.86 | 24.66 | 15.74 | 13.54 |
| Mean in conflict | 29.32 | 59.16 | 76.49 | 5.90 | -1.65 | 38.67 | 20.97 | 45.15 | 43.73 | 7.54 | 13.55 |
| Overall mean | 6.43 | 38.04 | 48.66 | 0.31 | -0.93 | 19.00 | 19.90 | 29.48 | 28.24 | 14.19 | 13.54 |
| Non-conflict country n | 75 | 49 | 49 | 76 | 78 | 64 | 46 | 74 | 74 | 71 | 64 |
| Conflict country n | 12 | 7 | 7 | 13 | 13 | 12 | 7 | 13 | 13 | 13 | 9 |
| p-value | <0.0001 | 0.0029 | 0.0001 | 0.0704 | 0.7896 | 0.0004 | 0.8143 | <0.0001 | 0.0002 | 0.0091 | 0.9983 |

| | Family Planning Needs Satisfied | At least 1 antenat al care visit | Skilled birth attendant at delivery | Exclusive breastfeedin g (0-5 months) | Early initiation of breastfeedin g | Protected against neonatal tetanus | Postnatal care of newborn within 2 days of birth | DPT vaccination | Measles vaccination | Careseeking for pneumonia | Careseeking for diarrhea |
|------------------------|--|--|---|--|---|---|---|--------------------|------------------------|---------------------------------|-----------------------------|
| Rurality Inequ | ualities | | | | | | | | | | |
| Mean in non-conflict | 4.79 | 10.92 | 16.73 | -3.32 | -0.32 | 3.99 | 7.96 | 5.08 | 4.76 | 9.58 | 5.15 |
| Mean in conflict | 14.54 | 25.83 | 36.28 | 2.54 | -0.51 | 14.17 | 11.58 | 19.87 | 18.34 | -0.04 | 0.45 |
| Overall mean | 6.00 | 12.53 | 18.85 | -2.21 | -0.36 | 5.19 | 8.57 | 7.82 | 7.27 | 7.78 | 4.36 |
| Non-conflict country n | 78 | 51 | 51 | 79 | 81 | 67 | 48 | 77 | 77 | 69 | 65 |
| Conflict country n | 12 | 7 | 7 | 13 | 13 | 12 | 7 | 13 | 13 | 13 | 9 |
| p-value | p<0.0001 | 0.0001 | 0.0003 | 0.0006 | 0.8868 | p<0.0001 | 0.2319 | p<0.0001 | p<0.0001 | 0.0001 | 0.0505 |

Figure A3: Relative inequalities in reproductive and maternal health interventions in conflict and non-conflict countries, 2010-2018 * p < 0.05, ** p < 0.01, *** p < 0.001, *** p < 0.0001

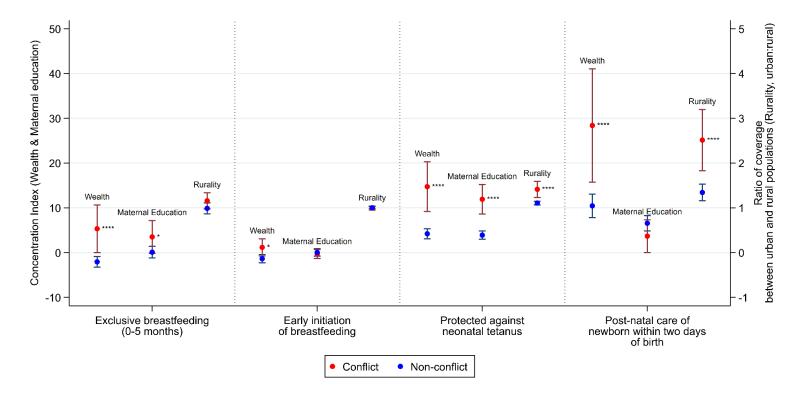
Note: p-values show comparison of mean CIX / ratio (for rurality) in conflict vs. non-conflict countries



Note: Larger, positive SII value signals greater inequalities between poorest and richest ("Wealth") or least and most educated ("Maternal Education"). Larger, positive ratio signals greater inequalities between urban and rural mothers ("Rurality")

Figure A4: Relative inequalities in breastfeeding and newborn health in conflict and non-conflict countries, 2010-2018 * p < 0.05, ** p < 0.01, *** p < 0.001, *** p < 0.0001

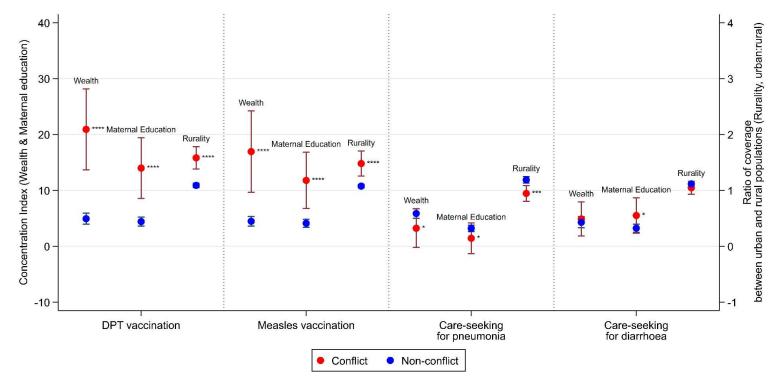
Note: p-values show comparison of mean CIX / ratio (for rurality) in conflict vs. non-conflict countries



Note: Larger, positive SII value signals greater inequalities between poorest and richest ("Wealth") or least and most educated ("Maternal Education"). Larger, positive ratio signals greater inequalities between urban and rural mothers ("Rurality")

Figure A5: Relative inequalities in preventative and curative measures of childhood diseases in conflict and non-conflict countries, 2010-2018 * p < 0.05, ** p < 0.01, *** p < 0.001, **** p < 0.0001

Note: p-values show comparison of mean CIX / ratio (for rurality) in conflict vs. non-conflict countries



Note: Larger, positive SII value signals greater inequalities between poorest and richest ("Wealth") or least and most educated ("Maternal Education"). Larger, positive ratio signals greater inequalities between urban and rural mothers ("Rurality")