

Maternal and Newborn Health Disparities

# Sierra Leone



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# Maternal and Newborn Health Disparities in Sierra Leone

## Key Facts

### Sierra Leone reference table

Demographic indicators		
Total population (thousands) <sup>1</sup>	2015	6,453
Total live births (thousands) <sup>1</sup>	2015	229
Total Fertility Rate (number of children per woman) <sup>1</sup>	2015	5
Adolescent birth rate (per 1,000 women 15-19) <sup>10</sup>	2011	131
Impact indicators		
Maternal mortality ratio (per 100,000 live births) <sup>4</sup>	2015	1,360
Average annual rate of MMR reduction between 1990 and 2015 (%) <sup>5</sup>	2015	3
Lifetime risk of maternal death: 1 in x <sup>4</sup>	2015	17
Stillbirth rate (per 1,000 total births) <sup>6</sup>	2015	24
Preterm birth rate (per 100 live births) <sup>7</sup>	2010	10
Under-five mortality rate (per 1,000 live births) <sup>3</sup>	2015	120
Under-five deaths that are newborn (%) <sup>3</sup>	2015	29
Neonatal mortality rate (per 1,000 live births) <sup>3</sup>	2015	35
Neonatal deaths (thousands) <sup>3</sup>	2015	8
Service Delivery		
Availability of EmONC Services (% of minimum acceptable level) <sup>8</sup>	2008	24
Physician density (per 1,000 population) <sup>9</sup>	2010	<0.1
Nurse and midwife density (per 1,000 population) <sup>9</sup>	2010	0.2

# Maternal and Newborn Health Disparities

## Sierra Leone

In 2015, 230,000 babies were born in Sierra Leone, or around 630 every day.<sup>1</sup>

Among young women (aged 20-24), 36 percent gave birth by age 18.<sup>2</sup>

Approximately 21 babies will die each day before reaching their first month<sup>3</sup>; 15 stillbirths occur every day.<sup>6</sup>

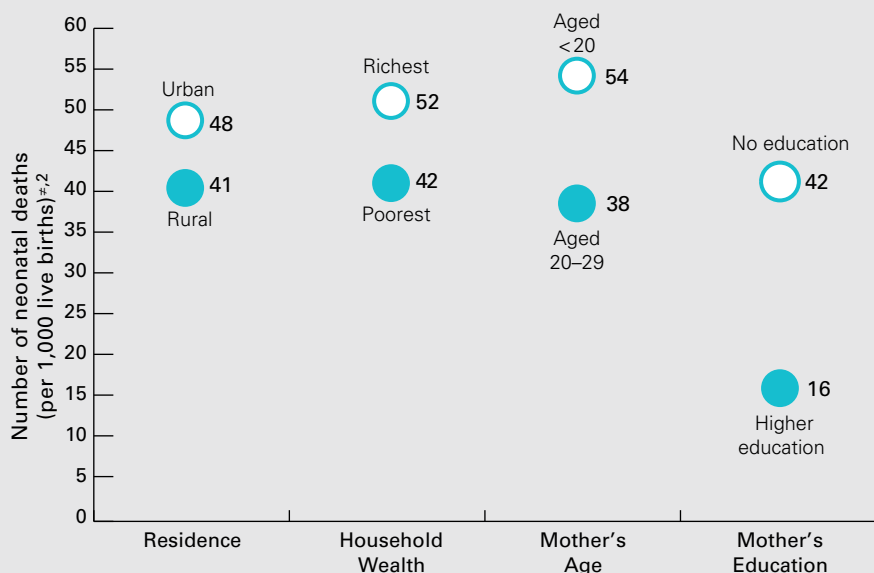
### Neonatal mortality rate:

Sierra Leone's neonatal mortality rate (NMR)<sup>4</sup> is 35 deaths per 1,000 live births.<sup>3</sup>

NMR\* in rural areas is 41 deaths per 1,000 live births and 48 deaths per 1,000 live births in urban areas for an urban-to-rural ratio of 1.2.<sup>2</sup>

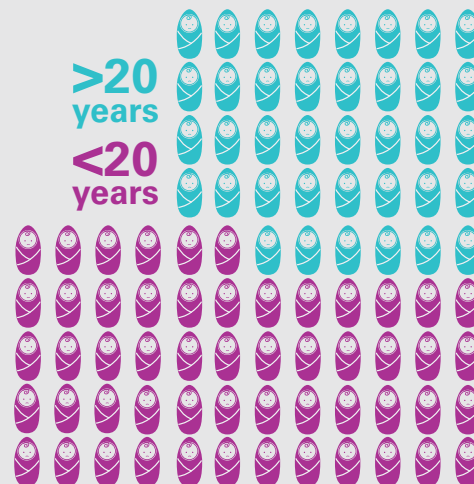
NMR\* among the poorest households is 42 neonatal deaths per 1,000 live births, compared to 52 deaths per 1,000 live births among the richest households.<sup>2</sup>

### Neonatal mortality rates, by background characteristics, 2013



### Neonatal mortality rate

for newborns with mothers:



The NMR for younger mothers (54 per 1,000 live births) is 1.4 times higher than for mothers aged 20-29 (38 per 1,000 live births).<sup>2</sup>

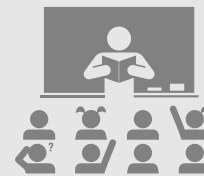
# 3 in 8

young women (aged 20-24) have given birth by age 18.<sup>2</sup>



Newborns with less educated mothers are

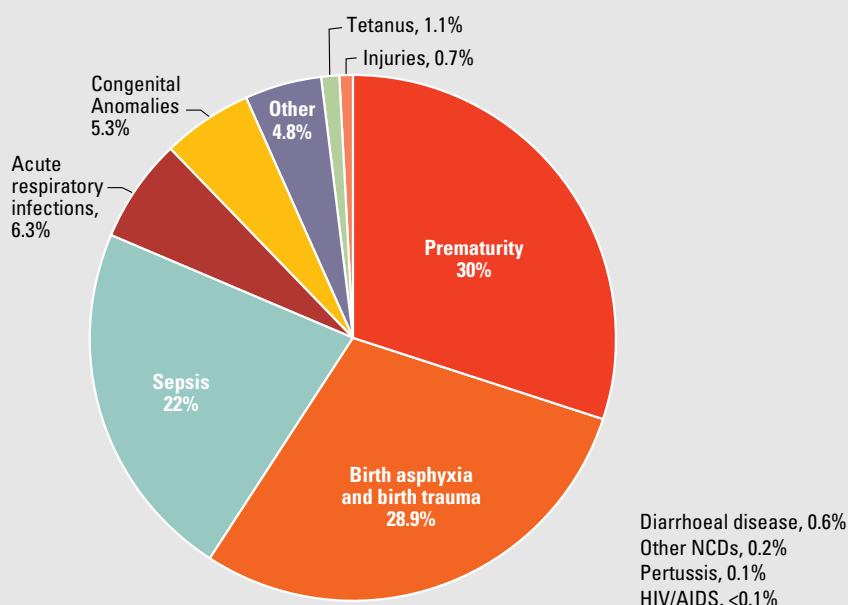
# 2.6x



more likely to die during the first month compared to those born to mothers with higher education.<sup>2</sup>

## Sierra Leone – Causes of Neonatal Mortality, 2015

In Sierra Leone, the main causes of neonatal deaths in 2015 were prematurity (30 percent), birth asphyxia (28.9 percent) and sepsis (22 percent).<sup>11</sup>



## Disparities in key maternal and newborn health interventions, Sierra Leone, 2013<sup>2</sup>

		Coverage – care for mothers					Postnatal care of mothers within 2 days (%)
		Demand for family planning satisfied by modern methods (%)	Antenatal care coverage at least 4 times (%) <sup>a</sup>	Skilled attendant at birth (%)	Institutional delivery (%)	Delivered by caesarean section (%)	
<b>Residence</b>	Urban	46.9	79.9	78.9	68.1	4.9	78.0
	Rural	32.6	74.6	53.2	49.7	2.2	70.9
Residence ratio (urban to rural)		1.4	1.1	1.5	1.4	2.2	1.1
<b>Household Wealth</b>	Richest	49.6	80.2	83.7	70.1	6.0	76.8
	Poorest	31.6	73.9	50.9	48.4	1.8	67.7
Household wealth ratio (richest to poorest)		1.6	1.1	1.6	1.4	3.3	1.1
<b>Mother's age</b>	Less than 20		77.8	64.6	57.4	2.3	72.3
	20-34		76.1	59.9	54.5	2.9	72.9
	35-49	37.6	73.8	52.5	49.9	3.5	72.3
<b>Mother's education</b>	No education	34.0	73.8	54.2	49.4	2.3	69.4
	Primary	42.4	78.2	63.0	57.5	3.6	77.7
	Secondary	44.2	73.0	78.4	70.8	3.9	79.1
	Higher	62.8	82.1	90.8	84.0	15.2	(86.3)
Mother's education ratio (highest to lowest)		1.8	1.1	1.7	1.7	6.6	1.2

## Maternal and newborn health coverage indicators

### By residence:<sup>2</sup>

- In rural areas, 75 percent of women made at least 4 antenatal care (ANC) visits, compared to 80 percent in urban areas.
- Coverage of skilled attendance at birth is 53 percent in rural areas, compared to 79 percent in urban areas.
- 36 percent of newborns in rural areas receive postnatal care (PNC) within 2 days after birth, compared to 47 percent in urban areas.

### By household wealth:<sup>2</sup>

- 80 percent of mothers among richest households made at least four ANC visits, compared to 74 percent of mothers from the poorest households.
- 51 percent of deliveries in the poorest households had a skilled attendant at birth, compared to 84 percent of deliveries among the richest households.
- 52 percent of newborns in the richest households receive PNC within 2 days after birth, compared to 32 percent among the poorest households.

**74%** of mothers in the poorest households have **4 Antenatal Care visits** compared to...



...**80%** of mothers in the richest households.

Coverage – care for newborns								Other	
Postnatal care of newborns within 2 days (%)	Newborn weighed at birth (%)	Early initiation of breast-feeding (%)	Exclusive breast-feeding (<6 months) (%)	BCG vaccine for newborn (%)	DPT 1 vaccination received (%)	Tetanus protection for newborns (%)	Birth registration (%)	Births by age 18 (%) <sup>a, #</sup>	
47.0	54.7	42.9		94.7	93.6	90.5	79.6	25.9	Urban
35.9	45.2	57.6		95.9	93.5	89.8	75.8	44.2	Rural
1.3	1.2	0.7		1.0	1.0	1.0	1.1	0.6	Residence ratio (urban to rural)
51.8	58.0	38.5		93.8	92.0	90.0	80.3	21.7	Richest
32.1	45.0	56.1		95.1	91.7	91.1	77.4	50.0	Poorest
1.6	1.3	0.7		1.0	1.0	1.0	1.0	0.4	Household wealth ratio (richest to poorest)
36.6	47.8					88.2			Less than 20
39.5	47.9					90.5			20-34
38.4	46.4					90.1			35-49
35.3	44.5	55.6		94.3	91.9	89.0		50.8	No education
45.6	46.7	54.1		98.2	97.3	90.3		44.2	Primary
43.9	60.2	48.4		98.2	96.1	93.4			Secondary
(57.8)	73.4	(36.8)				92.9			Higher
1.6	1.6	0.7				1.0			Mother's education ratio (highest to lowest)

Key for tables:

0-24 %

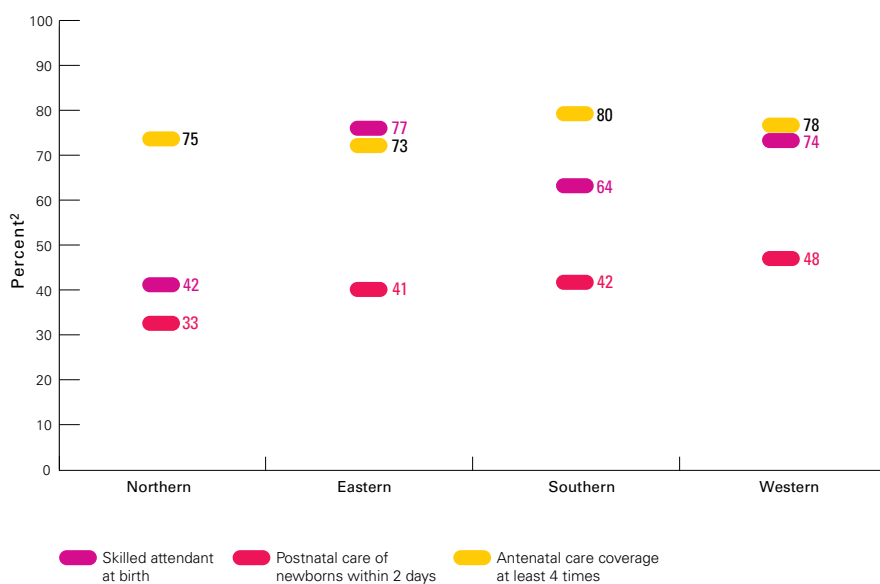
25-49 %

50-74 %

75-100%

Data not available

## Selected maternal and newborn health indicators, by region, 2013



## By mother's age:<sup>2</sup>



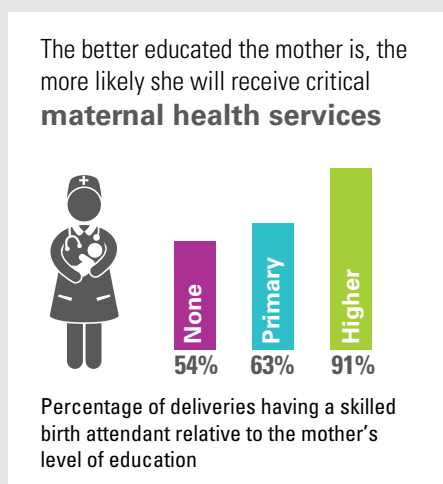
- 76 percent of mothers aged 20-34 made at least four ANC visits, compared to 78 percent among younger mothers (aged less than 20).
- Deliveries among mothers aged 20-34 and younger others have similar levels of skilled attendance at birth (60 percent and 65 percent, respectively).
- Their newborns receive low levels of postnatal care: 40 percent and 37 percent, respectively.

## Disparities in key maternal and newborn health interventions, Sierra Leone, 2013<sup>2</sup>

Coverage – care for mothers						
	Demand for family planning satisfied by modern methods (%)	Antenatal care coverage at least 4 times (%) <sup>a</sup>	Skilled attendant at birth (%)	Institutional delivery (%)	Delivered by caesarean section (%)	Postnatal care of mothers within 2 days (%)
<b>National estimate</b>	37.5	76.0	59.7	54.4	2.9	72.7
<b>Region</b>						
Eastern	37.8	73.2	77.0	72.8	1.5	80.3
Northern	31.6	74.5	41.5	37.1	2.8	67.0
Southern	39.5	80.4	64.0	60.4	2.9	74.2
Western	45.8	77.6	74.2	60.7	5.8	74.8
<b>Regional performance</b>						
Highest value	Western 45.8	Southern 80.4	Eastern 77.0	Eastern 72.8	Western 5.8	Eastern 80.3
Lowest value	Northern 31.6	Eastern 73.2	Northern 41.5	Northern 37.1	Eastern 1.5	Northern 67.0
Ratio (highest to lowest)	1.4	1.1	1.9	2.0	3.9	1.2

## By mother's education:<sup>2</sup>

- 82 percent of mothers with higher education made at least four ANC visits, compared to 74 percent of mothers with no education.
- 54 percent of deliveries among mothers with no education had a skilled attendant at birth, compared to 63 percent of deliveries among mothers with primary education and 91 percent of deliveries among mothers with higher education.
- 35 percent of newborns are checked within two days after birth if their mothers have no education, compared to 46 percent of mothers with a primary education and 58 percent of mothers who received higher education.



## By geographic region:<sup>2</sup>

- Southern saw the highest rate of antenatal care coverage (at least four visits) of 80 percent, compared to the lowest coverage of 73 percent in Eastern.
- The region with the highest coverage of skilled birth attendance is Eastern with 77 percent; the lowest coverage is Northern with 42 percent – a difference of nearly 2 times.
- Western has the highest coverage of PNC for newborns (within 2 days after birth) with 48 percent while Northern has the lowest coverage at 33 percent – a difference of nearly 1.5 times.

Coverage – care for newborns								Other	
Postnatal care of newborns within 2 days (%)	Newborn weighed at birth (%)	Early initiation of breast-feeding (%)	Exclusive breast-feeding (<6 months) (%)	BCG vaccine for newborn (%)	DPT 1 vaccination received (%)	Tetanus protection for newborns (%)	Birth registration (%)	Births by age 18 (%) <sup>a,#</sup>	
38.7	47.6	53.8	32.0	95.6	93.5	90.0	76.7	36.4	National estimate
40.7	60.3	30.5		98.1	95.3	93.4	76.7	42.3	Eastern
33.0	36.6	72.7		94.4	91.9	85.9	72.9	40.3	Northern
42.1	51.9	50.8		96.7	95.8	95.7	83.0	41.9	Southern
47.5	49.3	40.8		92.4	91.2	86.6	77.3	21.4	Western
Western	Eastern	Northern		Eastern	Southern	Southern	Southern	Eastern	Highest value
47.5	60.3	72.7		98.1	95.8	95.7	83.0	42.3	
Northern	Northern	Eastern		Western	Western	Northern	Northern	Western	Lowest value
33.0	36.6	30.5		92.4	91.2	85.9	72.9	21.4	
1.4	1.6	2.4		1.1	1.1	1.1	1.1	2.0	Ratio (highest to lowest)

Key for tables:

0-24 %

25-49 %

50-74 %

75-100%

Data not available

## Sources:

- 1 United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision.
- 2 Sierra Leone Demographic and Health Survey 2013 via the DHS Program STATcompiler. (<http://www.statcompiler.com>).\*
- 3 United Nations Inter-agency Group for Child Mortality Estimation (UNICEF, WHO, United Nations Population Division and the World Bank).
- 4 United Nations Maternal Mortality Estimation Inter-agency Group (WHO, UNICEF, UNFPA, United Nations Population Division and the World Bank).
- 5 Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.
- 6 Lawn JE, Blencowe H, Waiswa P, et al, for The Lancet Ending Preventable Stillbirths Series study group with The Lancet Stillbirth Epidemiology investigator group. Stillbirths: rates, risk factors, and acceleration towards 2030. Lancet 2016; published online Jan 18. [http://dx.doi.org/10.1016/S0140-6736\(15\)00837-5](http://dx.doi.org/10.1016/S0140-6736(15)00837-5).
- 7 Blencowe H, Cousens S, Oestergaard M, Chou D, Moller AB, Narwal R, Adler A, Garcia CV, Rohde S, Say L, Lawn JE. National, regional and worldwide estimates of preterm birth rates in the year 2010 with time trends since 1990 for selected countries: a systematic analysis and implications. The Lancet, June 9 2012, 379(9832): 2162-72.
- 8 Averting Maternal Death and Disability, United Nations Children's Fund, and United Nations Population Fund special data compilation, 2015.
- 9 Global Health Workforce Statistics database, World Health Organization, Geneva. (<http://www.who.int/hrh/statistics/hwfstats/>).
- 10 United Nations, Department of Economic and Social Affairs, Population Division (2015). 2015 Update for the MDG Database.
- 11 WHO-MCEE estimates for child causes of death, 2000-2015. ([http://www.who.int/healthinfo/global\\_burden\\_disease/estimates\\_child\\_cod\\_2015/](http://www.who.int/healthinfo/global_burden_disease/estimates_child_cod_2015/)).

## Notes:

- \* DHS data drawn from STATcompiler which employs standard indicator definitions to allow for comparability between countries and year. As such, data herein may not reflect data included in the final report. For further information please visit <http://goo.gl/jXJ5SW>. MICS data reflect final report figures where available.
- ^ Reference period: five years preceding the survey.
- a Data from UNICEF reanalysis of Sierra Leone Demographic and Health Survey 2013.
- ≠ Reference period: ten years preceding the survey.
- # Births by age 18 among 20-24 year olds.
- () Based on small denominators (typically 25-49 unweighted cases). No data based on fewer than 25 unweighted cases are displayed.