

**Supplementary table 1: Causes of neonatal deaths and cause specific mortality rates during different periods of the study in Navrongo HDSS: 1996-2012**

	Period			
	1996-1999	2000-2003	2004-2007	2008-2012
Number of live births	N=16,430	N=16,390	N=15,359	N=19,252
% vaccinated with BCG in 1 <sup>st</sup> week of life	19% (2,087/16,340)	26% (2,584/16,390)	37% (4,861/15,359)	66% (11,428/19,252)
<b>Cause of neonatal deaths (week 2-4)</b>	<b>Cause-specific mortality rate per 1000 live births (deaths/N)</b>			
Infections	9.7 (159/16430)	8.4 (137/16390)	4.6 (70/15359)	2.5 (48/19252)
Birth injury	0.1 (2/16430)	0.1 (2/16390)	0.1 (2/15359)	0.3 (6/19252)
Prematurity	1.4 (23/16430)	0.6 (10/16390)	0.5 (8/15359)	0.5 (9/19252)
other disorders	0.2 (4/16430)	0.5 (8/16390)	0.9 (14/15359)	1.1 (21/19252)
infanticide	1.2 (20/16430)	0.6 (10/16390)	0.6 (9/15359)	0.1 (1/19252)
Undetermined	1.1 (18/16430)	1.7 (28/16390)	2 (31/15359)	0.4 (8/19252)
<b>Cause of all neonatal deaths (0-28 days)</b>				
Infections	15.6 (257/16430)	13.5 (221/16390)	6.5 (100/15359)	4.6 (89/19252)
Birth injury	5.5 (91/16430)	4 (65/16390)	4.1 (63/15359)	3.6 (69/19252)
Prematurity	7.9 (130/16430)	8.3 (136/16390)	4.2 (65/15359)	2.3 (45/19252)
other disorders	0.8 (13/16430)	1.3 (21/16390)	2 (30/15359)	3.4 (66/19252)
infanticide	1.6 (27/16430)	1 (17/16390)	0.7 (10/15359)	0.1 (2/19252)
Undetermined	3.8 (62/16430)	4.3 (71/16390)	4.6 (71/15359)	1.2 (24/19252)