

Supplementary material

Table S1. Newborn hearing screening in North-Rhine, screened and recruited in the North-Rhine Hearing Screening Centre for the years 2007 – 2016. LTF: lost to follow-up, FU: follow-up, CR: coverage rate.

<i>Year</i>	Live births in region	Birthing/ DSFC centers participating	Newborns eligible for screening* (%)	Newborns participated (CR in %)	Parental refusal (%)	FU2/Referral rate (%)	LTF (%)
<i>Total</i>	NA	NA	NA	368463 (98.7%)	1504 (0.4%)	12461 (3.4%)	3656 (1.0%)
<i>2007</i>	80828	6 / 5	1153 (1.4%)	1131 (98%)	9 (0.8%)	59 (5.2%)	Data not available
<i>2008</i>	80840	36 / 7	11593 (14.3%)	11165 (96.3%)	73 (0.6%)	325 (2.9%)	212 (1.8%)
<i>2009</i>	78149	56 / 16	32252 (41.3%)	31659 (98.2%)	10 (0.03%)	1293 (4.1%)	658 (2.0%)
<i>2010</i>	80107	61 / 23	37437 (46.7%)	36798 (98.3%)	109 (0.3%)	873 (2.4%)	608 (1.6%)
<i>2011</i>	77987	60 / 29	39087 (50.1%)	38540 (98.6%)	149 (0.4%)	1126 (2.9%)	444 (1.1%)
<i>2012</i>	79566	64 / 30	41307 (51.9%)	40796 (98.8%)	154 (0.3%)	1363 (3.3%)	311 (0.8%)
<i>2013</i>	79732	62 / 33	42912 (53.8%)	42441 (98.9%)	150 (0.3%)	1332 (3.1%)	422 (1.0%)
<i>2014</i>	84736	69 / 38	46060 (54.3%)	45585 (98.9%)	227 (0.4%)	1510 (3.3%)	364 (0.8%)
<i>2015</i>	87499	68 / 37	50327 (57.5%)	49741 (98.8%)	308 (0.6%)	1688 (3.4%)	368 (0.7%)
<i>2016</i>	94749	69 / 39	54379 (57.4%)	53969 (99.2%)	230 (0.4%)	2110 (3.9%)	261 (0.5%)

* Newborns born at the participating birth centers and gynecological clinics

Table S2. Newborn hearing screening at University Children’s hospital for the years 2007-2016 with Benchmark indicators 1, 2, 3 an assessment within 4 months), NA: not applicable

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Total population screened	1436	1501	1487	1574	1765	2057	2081	2323	2194	2546	18964
(Births in the university hospital + Transfers)	1152+ 284	1244+ 257	1212+ 275	1337+ 237	1435+ 330	1494+ 563	1693+ 388	1845+ 478	1809+ 385	2106+ 440	15327+ 3637
Newborns referred to S2 or FU1 at DSFC	59	256	289	253	226	209	251	268	298	259	2368
No. of newborns receiving S2/FU1	6/53	141/115	33/265	26/227	40/186	23/186	11/240	7/261	4/294	9/250	300/2068
Benchmark indicator 1* (%)	4.2	34.9	88.6	92.3	95.6	99.1	97.4	99.3	99.0	99.9	NA
Newborns sent for FU2 which is Referral rate.	9	74	80	76	80	92	133	151	124	120	939
Benchmark indicator 2 (%)	0.6	4.9	5.4	4.4	4.5	4.5	6.4	6.5	5.7	4.7	5.0
Newborns who received F2 within 3 months.	4	42	48	43	33	57	94	107	84	89	601
Benchmark indicator 3 (%)	44.4	56.8	60.0	56.6	41.3	62.0	70.7	70.9	67.7	74.2	64.0
Newborns who received F2 within 4 months.	4	44	56	55	47	66	104	117	104	103	700
(%)	44.4	59.5	70.0	72.4	58.6	71.7	78.2	77.4	83.8	85.8	

*Benchmark 1: newborns completing ‘screening’ (S1 and S2) by 30 days