

Table S1. Association between phenotypes of singleton newborn and parents characteristics, risky exposures and reproductive history in 2018-2019.

Features	Birth Defects (N=77)				Preterm Birth (N=305)				Low Birth Weight (N = 113)			
	Ca/Nc	OR	95%CI	p	Ca/Nc	OR	95%CI	p	Ca/Nc	OR	95%CI	p
Parents characteristics												
<i>Mother age (year)</i>				0.034				0.506				0.921
< 20	7/477	Ref	-		36/431	Ref	-		13/415	Ref	-	
20-29	44/3008	1.0	0.45 – 2.2		196/2783	0.84	0.58 – 1.2		72/2698	0.85	0.47 – 1.6	
30-39	18/930	1.3	0.55 – 3.2		69/851	0.97	0.64 – 1.5		23/823	0.89	0.45 – 1.8	
≥ 40	6/90	4.5	1.5 – 13.8		4/85	0.56	0.20 – 1.6		3/82	1.2	0.33 – 4.2	
<i>Mother education</i>				0.461				0.360				0.063
No school /primary	15/747	Ref	-		56/681	Ref	-		26/652	Ref	-	
Secondary or more	61/3783	0.80	0.45 – 1.4		249/3492	0.87	0.64 – 1.2		87/3387	0.64	0.41 – 1.0	
<i>Working mother</i>				0.491				0.185				0.265
No	70/4298	Ref	-		285/3962	Ref	-		105/3839	Ref	-	
Yes	5/219	1.4	0.56 – 3.5		20/199	1.4	0.87 – 2.2		8/188	1.6	0.75 – 3.2	
<i>Primiparity</i>				0.871				0.409				0.122
No	52/3098	Ref	-		201/2864	Ref	-		70/2783	Ref	-	
Yes	25/1431	1.0	0.64 – 1.7		102/1309	1.1	0.87 – 1.4		43/1256	1.4	0.93 – 2.0	
<i>Previous children with birth defects</i>				0.600				0.095				n.e.
No	76/4495	Ref	-		299/4143	Ref	-		113/4009	Ref	-	
Yes	1/33	1.8	0.24 – 13.3		5/28	2.5	0.95 – 6.5		0/28	n.e.	n.e.	
<i>Birth defects in the mother's family</i>				0.527				0.061				0.185
No	72/4404	Ref	-		291/4062	Ref	-		112/3931	Ref	-	
Yes	3/123	1.5	0.46 – 4.8		14/109	1.8	1.0 – 3.2		1/106	0.33	0.05 – 2.4	
<i>Father age (year)</i>				0.062				0.922				0.370
< 29	36/2498	Ref	-		170/2299	Ref	-		63/2225	Ref	-	
30-39	25/1602	1.1	0.65 – 1.8		110/1476	1.0	0.79 – 1.3		42/1425	1.0	0.70 – 1.5	
≥ 40	13/397	2.3	1.2 – 4.3		25/367	0.92	0.60 – 1.4		6/360	0.59	0.26 – 1.4	
<i>Father education</i>				0.684				0.093				0.161
No school/primary	21/1189	Ref	-		93/1086	Ref	-		36/1044	Ref	-	
Secondary or more	53/3338	0.90	0.54 – 1.5		212/3085	0.80	0.62 – 1.0		77/2993	0.75	0.50 – 1.1	
<i>Father chronic diseases</i>				0.061				0.685				n.e.
No	72/4507	Ref	-		303/4152	Ref	-		113/4018	Ref	-	
Yes	2/22	5.7	1.3- 24.7		2/20	1.4	0.32 – 5.9		0/2	n.e.	n.e.	
<i>Birth defects in the father family</i>				0.199				0.746				0.531
No	70/4407	Ref	-		296/4061	Ref	-		111/3929	Ref	-	
Yes	4/120	2.1	0.75 – 5.8		9/110	1.1	0.56 – 2.2		2/108	0.66	0.16 – 2.7	
<i>Parents consanguinity</i>				0.283				0.149				0.964
No	38/2732	Ref	-		170/2528	Ref	-		68/2448	Ref	-	
Cousin	13/660	1.4	0.75 – 2.7		44/608	1.1	0.76 – 1.5		16/588	0.98	0.56 – 1.7	
Relative	23/1122	1.5	0.87 – 2.5		90/1024	1.3	1.0 – 1.7		29/990	1.1	0.68 – 1.6	

Delivery features												
<i>Infant sex</i>												
Male	36/2339	Ref	-	0.441	177/2144	Ref	-	0.024	41/2095	Ref	-	0.003
Female	40/2174	1.2	0.76 – 1.9		127/2015	0.76	0.60 – 0.97		68/1934	1.8	1.2 – 2.7	
<i>Gestational diabetes</i>												
No	73/4292	Ref	-	0.276	282/3959	Ref	-	0.082	102/3836	Ref	-	0.043
Yes	2/237	0.50	0.12 – 2.0		23/213	1.5	0.97 – 2.4		11/202	2.0	1.1 – 3.9	
<i>Type of delivery</i>												
Vaginal	56/3562	Ref	-	0.218	213/3304	Ref	-	< 0.001	70/3216	Ref	-	< 0.001
Cesarean	21/964	1.4	0.83 – 2.3		93/864	1.7	1.3 – 2.2		43/818	2.4	1.6 – 3.6	
<i>In vitro fertilization</i>												
No	76/4493	Ref	-	0.734	301/4140	Ref	-	0.214	110/4009	Ref	-	0.092
Yes	1/41	1.4	0.20 – 10.6		5/36	1.9	0.74 – 4.9		3/33	3.3	1.0 – 11.0	
Residence features												
<i>Residence area</i>												
North	11/669	Ref	-	0.584	48/616	Ref	-	< 0.001	10/603	Ref	-	0.158
Gaza	62/3723	1.0	0.54 – 1.9		229/3447	0.85	0.62 – 1.2		100/3330	1.8	0.94 – 3.5	
Middle	4/134	1.8	0.57 – 5.8		27/107	3.2	1.9 – 5.4		3/103	1.8	0.48 – 6.5	
<i>House hit in 2014</i>												
No	57/3513	Ref	-	0.853	216/3254	Ref	-	0.007	89/3150	Ref	-	0.919
Yes	14/912	0.95	0.52 – 1.7		80/825	1.5	1.1 – 1.9		22/798	0.98	0.61 – 1.6	
<i>Nearby house hit in 2014</i>												
No	47/3583	Ref	-	0.004	230/3305	Ref	-	0.148	96/3191	Ref	-	0.159
Yes	25/903	2.1	1.3 – 3.4		71/829	1.2	0.93 – 1.6		17/810	0.70	0.41 – 1.2	
<i>Rubble use after 2014</i>												
No	25/1708	Ref	-	0.483	125/1533	Ref	-	0.143	45/1476	Ref	-	0.482
Yes	49/2818	1.2	0.73 – 1.9		180/2637	0.84	0.66 – 1.1		68/2560	0.87	0.59 – 1.3	
<i>House near a sewage</i>												
No	66/4165	Ref	-	0.388	276/3841	Ref	-	0.313	107/3714	Ref	-	0.280
Yes	8/359	1.4	0.67 – 3.0		29/327	1.2	0.83 – 1.8		6/320	0.65	0.28 – 1.5	
<i>House near a garbage</i>												
No	73/4336	Ref	-	0.164	296/3989	Ref	-	0.236	109/3859	Ref	-	0.671
Yes	1/188	0.32	0.04 – 2.3		9/179	0.68	0.34 – 1.3		4/175	0.81	0.29 – 2.2	
<i>House near agricultural activities</i>												
No	65/3600	Ref	-	0.062	229/3327	Ref	-	0.055	94/3217	Ref	-	0.353
Yes	9/926	0.54	0.27 – 1.1		76/843	1.3	1.0 – 1.7		19/819	0.79	0.48 – 1.3	
<i>House near factories</i>												
No	66/4411	Ref	-	< 0.001	298/4062	Ref	-	0.749	113/3928	Ref	-	n.e.
Yes	8/115	4.6	2.2 – 9.9		7/108	0.88	0.41 – 1.9		0/108	n.e.	n.e.	

Lifestyle exposures											
<i>Folic acid during pregnancy</i>				n.e.					n.e.		
No	0/12	Ref	-		0/12	Ref	-		0/12	Ref	-
Yes	71/4299	n.e.	n.e.		297/3955	n.e.	n.e.		105/3830	n.e.	n.e.
<i>Mother fish consumption</i>				0.479					0.317		
No	13/659	Ref	-		50/595	Ref	-		10/582	Ref	-
Yes	61/3866	0.80	0.44 – 1.5		255/3574	0.85	0.62 – 1.2		103/3453	1.7	0.90 – 3.3
<i>Parents use of fertilizers</i>				0.386					0.048		
No	60/3879	Ref	-		250/3586	Ref	-		96/3473	Ref	-
Yes	13/638	1.3	0.72 – 2.4		55/575	1.4	1.0 – 1.9		17/554	1.1	0.66 – 1.9

Ca/Nc = Cases / Non-cases; n.e. = not evaluable.