

Referrals & Determinant Factors of a National School Health Campaign in Lebanon on Children Aged between 3 & 12 years-old

Peter HABCHY et al.

Supplementary materials:

Table S1A. Associations between referrals & sociodemographic data and other factors

Referrals		Any referral N (%)		Referral for abnormal growth N (%)		Referral for abnormal vision N (%)		Referral for mental health problem N (%)		Referral for abnormal oral exam N (%)		Referral for uncom- plete Vaccination N (%)	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Sociodemographic data													
Nationality	Lebanese	3357 (50.2)	3325 (49.8)	6303 (94.3)	379 (5.7)	5762 (86.2)	920 (13.8)	6569 (98.3)	113 (1.7)	5482 (82.0)	1200 (18.0)	4522 (74.3)	1561 (25.7)
	Syrian	309 (64.4)	171 (35.6)	437 (91.0)	43 (9.0)	449 (93.5)	31 (6.5)	474 (98.8)	6 (1.3)	425 (88.5)	55 (11.5)	373 (78.5)	102 (21.5)
	Palestinian	6 (75.0)	2 (25)	8 (100.0)	0 (0.0)	7 (87.5)	1 (12.5)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	6 (75.0)	2 (25.0)
	Other	4 (28.6)	10 (71.4)	12 (85.7)	2 (14.3)	11 (78.6)	3 (21.4)	13 (92.9)	1 (7.1)	10 (71.4)	4 (28.6)	8 (61.5)	5 (38.5)
		p*		p*		p*		NS		p*		NS	
Gender	Male	1830 (52.4)	1661 (47.6)	3289 (94.2)	202 (5.8)	3059 (87.6)	432 (12.4)	3429 (98.2)	62 (1.8)	2890 (82.8)	601 (17.2)	2390 (74.7)	809 (25.3)
	Female	1846 (50.0)	1847 (50.0)	3471 (94.0)	222 (6.0)	3170 (85.8)	523 (14.2)	3635 (98.4)	58 (1.6)	3035 (82.2)	658 (17.8)	2519 (74.5)	861 (25.5)
		p*		NS		p*		NS		NS		NS	
Age	3-6 years	1589 (59.8)	1068 (40.2)	2561 (96.4)	96 (3.6)	2515 (94.7)	142 (5.3)	2622 (98.7)	35 (1.3)	2282 (85.9)	375 (14.1)	1899 (79.8)	482 (20.2)
	7-9 years	1104 (47.9)	1201 (52.1)	2136 (92.7)	169 (7.3)	1924 (83.5)	381 (16.5)	2271 (98.5)	34 (1.5)	1851 (80.3)	454 (19.7)	1624 (74.1)	569 (25.9)
	10-12 years	983 (44.2)	1239 (55.8)	2063 (92.8)	159 (7.2)	1790 (80.6)	432 (19.4)	2171 (97.7)	51 (2.3)	1792 (80.6)	430 (19.4)	1386 (69.1)	619 (30.9)
		p*		p*		p*		p*		p*		p*	
BMI	Underweight	1064 (55.2)	862 (44.8)	1794 (93.1)	132 (6.9)	1687 (87.6)	239 (12.4)	1892 (98.2)	34 (1.8)	1604 (83.3)	322 (16.7)	1369 (77.7)	392 (22.3)
	Normal weight	1522 (52.9)	1354 (47.1)	2745 (95.4)	131 (4.6)	2552 (88.7)	324 (11.3)	2838 (98.7)	38 (1.3)	2387 (83.0)	489 (17.0)	1960 (74.6)	669 (25.4)
	Overweight	1090 (45.8)	1292 (54.2)	2221 (93.2)	161 (6.8)	1990 (83.5)	392 (16.5)	2334 (98.0)	48 (2.0)	1934 (81.2)	44 (18.8)	1580 (72.2)	609 (27.8)
		p*		p*		p*		NS		NS		p*	
Governorate	Beirut	93 (31.6)	201 (68.4)	269 (91.5)	25 (8.5)	245 (83.3)	49 (16.7)	293 (99.7)	1 (0.3)	222 (75.5)	72 (24.5)	187 (64.0)	105 (36.0)
	Mount Lebanon	653 (48.6)	692 (51.4)	153 (90.0)	17 (10.0)	152 (89.4)	18 (10.6)	148 (87.1)	22 (12.9)	127 (74.7)	43 (25.3)	101 (61.2)	64 (38.8)
	North/Akkar	673 (55.9)	532 (44.1)	1125 (93.4)	80 (6.6)	1103 (91.5)	102 (8.5)	1196 (99.3)	9 (0.7)	1093 (90.7)	112 (9.3)	760 (71.4)	305 (28.6)
	Beqaa/Baalbek	1855 (54.8)	1527 (45.2)	3201 (94.6)	181 (5.4)	2869 (84.8)	513 (15.2)	3334 (98.6)	48 (1.4)	2710 (80.1)	672 (19.9)	2405 (81.5)	547 (18.5)
	South	976 (45.8)	1157 (54.2)	2012 (94.3)	121 (5.7)	1860 (87.2)	273 (12.8)	2093 (98.1)	40 (1.9)	1773 (83.1)	360 (16.9)	1456 (69.2)	649 (30.8)
		p*		p*		p*		p*		p*		p*	
School type	Public	1194 (48.7)	1257 (51.3)	2264 (92.4)	187 (7.6)	2181 (89.0)	270 (11.0)	2407 (98.2)	44 (1.8)	2029 (82.8)	422 (17.2)	1543 (63.9)	873 (36.1)
	Private	2482 (52.4)	2251 (47.6)	4496 (95.0)	237 (5.0)	4048 (85.5)	685 (14.5)	4657 (98.4)	76 (1.6)	3896 (82.3)	837 (17.7)	3366 (80.9)	797 (19.1)
		p*		p*		p*		NS		NS		p*	
Family income	No income	138 (49.8)	139 (50.2)	261 (94.2)	16 (5.8)	235 (84.8)	42 (15.2)	275 (99.3)	2 (0.7)	231 (83.4)	46 (16.6)	184 (70.5)	77 (29.5)
	<100\$	567 (46.1)	664 (53.9)	1128 (91.6)	103 (8.4)	1071 (87.0)	160 (13.0)	1212 (98.5)	19 (1.5)	958 (77.8)	273 (22.2)	754 (67.6)	361 (32.4)
	100-300\$	165 (49.7)	167 (50.3)	312 (94.0)	20 (6.0)	288 (86.7)	44 (13.3)	325 (97.9)	7 (2.1)	263 (79.2)	69 (20.8)	215 (72.1)	83 (27.9)
	300-600\$	422 (46.8)	480 (53.2)	859 (95.2)	43 (4.8)	741 (82.2)	161 (17.8)	889 (98.6)	13 (1.4)	730 (80.9)	172 (19.1)	613 (73.1)	226 (26.9)
	600-900\$	100 (44.1)	127 (55.9)	223 (98.2)	4 (1.8)	181 (79.7)	46 (20.3)	221 (97.4)	6 (2.6)	193 (85.0)	34 (15.0)	162 (80.6)	39 (19.4)
	>900\$	12 (44.4)	15 (55.6)	26 (96.3)	1 (3.7)	22 (81.5)	5 (18.5)	27 (100.0)	0 (0.0)	25 (92.6)	2 (7.4)	19 (73.1)	7 (26.9)
		NS		p*		p*		NS		p*		p*	
Mother's occupa- tion	No work	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)
	Housewife	1114 (49.5)	1137 (50.5)	2103 (93.4)	148 (6.6)	1935 (86.0)	316 (14.0)	2216 (98.4)	35 (1.6)	1819 (80.8)	432 (19.2)	1487 (71.8)	583 (28.2)
	Student	12 (75.0)	4 (25.0)	16 (100.0)	0 (0.0)	13 (81.3)	3 (18.8)	16 (100.0)	0 (0.0)	15 (93.8)	1 (6.3)	10 (76.9)	3 (23.1)
	Employed	292 (49.6)	297 (50.4)	567 (96.3)	22 (3.7)	491 (83.4)	98 (16.6)	574 (97.5)	15 (2.5)	494 (83.9)	95 (16.1)	437 (81.8)	97 (18.2)
	Self-employed	68 (50.7)	66 (49.3)	125 (93.3)	9 (6.7)	117 (87.3)	17 (12.7)	133 (99.3)	1 (0.7)	111 (82.8)	23 (17.2)	85 (69.7)	37 (30.3)
	Unemployed	44 (50.0)	44 (50.0)	86 (97.7)	2 (2.3)	77 (87.5)	11 (12.5)	87 (98.9)	1 (1.1)	77 (87.5)	11 (12.5)	58 (69.0)	26 (31.0)
	Retired	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)
	Disabled	1 (50.0)	1 (50.0)	2 (100.0)	0 (0.0)	1 (50.0)	1 (50.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)
	Health field	47 (61.8)	29 (38.2)	75 (98.7)	1 (1.3)	70 (92.1)	6 (7.9)	76 (100.0)	0 (0.0)	69 (90.8)	7 (9.2)	56 (81.2)	13 (18.8)
	Other	14 (42.4)	19 (57.6)	33 (100.0)	0 (0.0)	29 (87.9)	4 (12.1)	31 (93.9)	2 (6.1)	26 (78.8)	7 (21.2)	21 (72.4)	8 (27.6)
		p*		NS		NS		NS		NS		p*	
Father's occupa- tion	No work	7 (87.5)	1 (12.5)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	7 (87.5)	1 (12.5)
	Housewife	3 (60.0)	2 (40.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	4 (80.0)	1 (20.0)	3 (60.0)	2 (40.0)
	Student	9 (81.8)	2 (18.2)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	8 (80.0)	2 (20.0)
	Employed	693 (51.5)	652 (48.5)	1277 (94.9)	68 (5.1)	1157 (86.0)	188 (14.0)	1321 (98.2)	24 (1.8)	1102 (81.9)	243 (18.1)	940 (78.0)	265 (22.0)

	Self-employed Unemployed Retired Disabled Health field Other	507 (45.7) 117 (54.9) 58 (49.2) 11 (64.7) 23 (65.7) 122 (52.1)	603 (54.3) 96 (45.1) 60 (50.8) 6 (35.3) 12 (34.3) 112 (47.9)	1036 (93.3) 203 (95.3) 111 (94.1) 16 (94.1) 33 (94.3) 219 (93.6)	74 (6.7) 10 (4.7) 7 (5.9) 1 (5.9) 2 (5.7) 15 (6.4)	946 (85.2) 183 (85.9) 97 (82.2) 16 (94.1) 32 (91.4) 202 (86.3)	164 (14.8) 30 (14.1) 21 (17.8) 1 (5.9) 3 (8.6) 32 (13.7)	1091 (98.3) 211 (99.1) 115 (97.5) 17 (100.0) 35 (100.0) 231 (98.7)	19 (1.7) 2 (0.9) 3 (2.5) 0 (0.0) 0 (0.0) 3 (1.3)	910 (82.0) 185 (86.9) 90 (76.3) 14 (82.4) 32 (91.4) 179 (76.5)	200 (18.0) 28 (13.1) 28 (23.7) 3 (17.6) 3 (8.6) 55 (23.5)	708 (67.9) 145 (72.1) 79 (79.0) 13 (76.5) 30 (88.2) 157 (71.4)	335 (32.1) 56 (27.9) 21 (21.0) 4 (23.5) 4 (11.8) 63 (28.6)
		p*		NS		NS		NS		p*		p*	
Mother's level of educa- tion	No education	30 (41.1)	43 (58.9)	67 (91.8)	6 (8.2)	61 (83.6)	12 (16.4)	73 (100.0)	0 (0.0)	53 (72.6)	20 (27.4)	42 (60.9)	27 (39.1)
	Primary	184 (46.1)	215 (53.9)	362 (90.7)	37 (9.3)	351 (88.0)	48 (12.0)	392 (98.2)	7 (1.8)	312 (78.2)	87 (21.8)	249 (64.8)	135 (35.2)
	Complementary	346 (47.9)	376 (52.1)	674 (93.4)	48 (6.6)	626 (86.7)	96 (13.3)	707 (97.9)	15 (2.1)	588 (81.4)	134 (18.6)	456 (69.2)	203 (30.8)
	Secondary	336 (47.7)	369 (52.3)	661 (93.8)	44 (6.2)	574 (81.4)	131 (18.6)	691 (98.0)	14 (2.0)	565 (80.1)	140 (19.9)	472 (73.4)	171 (26.6)
	Undergraduate	235 (53.9)	201 (46.1)	421 (96.6)	15 (3.4)	376 (86.2)	60 (13.8)	432 (99.1)	4 (0.9)	362 (83.0)	74 (17.0)	321 (81.5)	73 (18.5)
	University graduate	497 (54.8)	410 (45.2)	873 (96.3)	34 (3.7)	793 (87.4)	114 (12.6)	893 (98.5)	14 (1.5)	773 (85.2)	134 (14.8)	654 (79.2)	172 (20.8)
		p*		p*		p*		NS		p*		p*	
Father's level of educa- tion	No education	77 (58.3)	55 (41.7)	124 (93.9)	8 (6.1)	121 (91.7)	11 (8.3)	130 (98.5)	2 (1.5)	116 (87.9)	16 (12.1)	84 (68.9)	38 (31.1)
	Primary	283 (47.8)	309 (52.2)	538 (90.9)	54 (9.1)	519 (87.7)	73 (12.3)	582 (98.3)	10 (1.7)	474 (80.1)	118 (19.9)	375 (67.9)	177 (32.1)
	Complementary	435 (45.5)	520 (54.5)	882 (92.4)	73 (7.6)	810 (84.8)	145 (15.2)	936 (98.0)	19 (2.0)	759 (79.5)	196 (20.5)	606 (69.0)	272 (31.0)
	Secondary	351 (49.9)	352 (50.1)	676 (96.2)	27 (3.8)	576 (81.9)	127 (18.1)	690 (98.2)	13 (1.8)	580 (82.5)	123 (17.5)	490 (78.1)	137 (21.9)
	Undergraduate	152 (53.7)	131 (46.3)	273 (96.5)	10 (3.5)	249 (88.0)	34 (12.0)	280 (98.9)	3 (1.1)	227 (80.2)	56 (19.8)	207 (80.2)	51 (19.8)
	University graduate	261 (57.6)	192 (42.4)	445 (98.2)	8 (1.8)	399 (88.1)	54 (11.9)	449 (99.1)	4 (0.9)	395 (87.2)	58 (12.8)	339 (79.4)	88 (20.6)
		p*		p*		p*		NS		p*		p*	
Other factors													
Medical history	No	838 (49.4)	858 (50.6)	1603 (94.5)	93 (5.5)	1449 (85.4)	247 (14.6)	1658 (97.8)	38 (2.2)	1364 (80.4)	332 (19.6)	1155 (74.7)	392 (25.3)
	Yes	831 (49.3)	853 (50.7)	1568 (93.1)	116 (6.9)	1452 (86.2)	232 (13.8)	1664 (98.8)	20 (1.2)	1385 (82.2)	299 (17.8)	1096 (70.9)	449 (29.1)
		NS		NS		NS		p*		NS		p*	
Ongoing treat- ment	No	1400 (49.2)	1444 (50.8)	2661 (93.6)	183 (6.4)	2434 (85.6)	410 (14.4)	2790 (98.1)	54 (1.9)	2334 (82.1)	510 (17.9)	1888 (72.5)	717 (27.5)
	Yes	240 (49.3)	247 (50.7)	469 (96.3)	18 (3.7)	430 (88.3)	57 (11.7)	480 (98.6)	7 (1.4)	384 (78.9)	103 (21.1)	341 (76.5)	105 (23.5)
		NS		p*		NS		NS		NS		NS	
Child visit to the pediatrician/doctor	No	291 (42.9)	388 (57.1)	632 (93.1)	47 (6.9)	562 (82.8)	117 (17.2)	664 (97.8)	15 (2.2)	548 (80.7)	131 (19.3)	435 (70.4)	183 (29.6)
	Yes	1330 (50.8)	1288 (49.2)	2466 (94.2)	152 (5.8)	2270 (86.7)	348 (13.3)	2572 (98.2)	46 (1.8)	2139 (81.7)	479 (18.3)	1772 (73.7)	631 (26.3)
		p*		NS		p*		NS		NS		NS	
Previous child visit to the psy- chologist	No	1608 (50.3)	1588 (49.7)	3008 (94.1)	188 (5.9)	2751 (86.1)	445 (13.9)	3147 (98.5)	49 (1.5)	2618 (81.9)	578 (18.1)	2163 (73.6)	777 (26.4)
	Yes	62 (43.4)	81 (56.6)	135 (94.4)	8 (5.6)	113 (79.0)	30 (21.0)	138 (96.5)	5 (3.5)	115 (80.4)	28 (19.6)	89 (68.5)	41 (31.5)
		NS		NS		p*		NS		NS		NS	

p* = p < 0.05

NS = Non-significant p value > 0.05

Table S1B. Associations between referrals & sociodemographic data and other factors

Referrals		Referral for abnormal vital signs N (%)		Referral for atypical skin lesions (signs of abuse) N (%)		Referral for infectious skin lesions N (%)		Referral for abnormal posture N (%)		Referral for abnormal heart auscultation N (%)	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Sociodemographic factors											
Nationality	Lebanese	6469 (96.9)	207 (3.1)	6645 (99.4)	37 (0.6)	6572 (98.4)	110 (1.6)	6567 (98.3)	115 (1.7)	6606 (98.9)	76 (1.1)
	Syrian	468 (97.9)	10 (2.1)	474 (98.8)	6 (1.3)	474 (98.8)	6 (1.3)	475 (99.0)	5 (1.0)	476 (99.2)	4 (0.8)
	Palestinian	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)
	Other	13 (92.9)	1 (7.1) NS	14 (100.0)	0 (0.0) NS	12 (85.7)	2 (14.3) p*	14 (100.0)	0 (0.0) NS	14 (100.0)	0 (0.0) NS
Gender	Male	3391 (97.2)	98 (2.8)	3467 (99.3)	24 (0.7)	3448 (98.8)	43 (1.2)	3450 (98.8)	41 (1.2)	3453 (98.9)	38 (1.1)
	Female	3567 (96.7)	120 (3.3) NS	3674 (99.5)	19 (0.5) NS	3618 (98.0)	75 (2.0) p*	3614 (97.9)	79 (2.1) p*	3651 (98.9)	42 (1.1) NS
Age	3-6 years	2588 (97.5)	66 (2.5)	2641 (99.4)	16 (0.6)	2610 (98.2)	47 (1.8)	2635 (99.2)	22 (0.8)	2622 (98.7)	35 (1.3)
	7-9 years	2238 (97.2)	64 (2.8)	2288 (99.3)	17 (0.7)	2259 (98.0)	46 (2.0)	2257 (97.9)	48 (2.1)	2280 (98.9)	25 (1.1)
	10-12 years	2132 (96.0)	88 (4.0) p*	2212 (99.5)	10 (0.5) NS	2197 (98.9)	25 (1.1) NS	2172 (97.7)	50 (2.3) p*	2202 (99.1)	20 (0.9) NS
BMI	Underweight	1895 (98.4)	31 (1.6)	1916 (99.5)	10 (0.5)	1904 (98.9)	22 (1.1)	1907 (99.0)	19 (1.0)	1904 (98.9)	22 (1.1)
	Normal weight	2784 (96.9)	88 (3.1)	2864 (99.6)	12 (0.4)	2828 (98.3)	48 (1.7)	2825 (98.2)	51 (1.8)	2844 (98.9)	32 (1.1)
	Overweight	2542 (95.8)	99 (4.2) p*	2361 (99.1)	21 (1.9) NS	2334 (98.0)	48 (2.0) NS	2332 (97.9)	50 (2.1) p*	2356 (98.9)	26 (1.1) NS
Governorate	Beirut	276 (93.9)	18 (6.1)	291 (99.0)	3 (1.0)	278 (94.6)	16 (5.4)	292 (99.3)	2 (0.7)	288 (98.0)	6 (2.0)
	Mount Lebanon	159 (93.5)	11 (6.5)	167 (98.2)	3 (1.8)	162 (95.3)	8 (4.7)	160 (94.1)	10 (5.9)	168 (98.8)	2 (1.2)
	North/Akkar	1162 (96.7)	40 (3.3)	1193 (99.0)	12 (1.0)	1180 (97.9)	25 (2.1)	1189 (98.7)	16 (1.3)	1183 (98.2)	22 (1.8)
	Beqaa/Baalbek	3281 (97.1)	98 (2.9)	3367 (99.6)	15 (0.4)	3327 (98.4)	55 (1.6)	3332 (98.5)	50 (1.5)	3356 (99.2)	26 (0.8)
	South	2080 (97.6)	51 (2.4) p*	2123 (99.5)	10 (0.5) p*	2119 (99.3)	14 (0.7) p*	2091 (98.0)	42 (2.0) p*	2109 (98.9)	24 (1.1) p*
School type	Public	2334 (95.3)	114 (4.7)	2430 (99.1)	21 (0.9)	2395 (97.7)	56 (2.3)	2421 (98.8)	30 (1.2)	2419 (98.7)	32 (1.3)
	Private	4624 (97.8)	104 (2.2) p*	4711 (99.5)	22 (0.5) p*	4671 (98.7)	62 (1.3) p*	4643 (98.1)	90 (1.9) p*	4685 (99.0)	48 (1.0) NS
Family income	No income	267 (96.4)	10 (3.6)	276 (99.6)	1 (0.4)	273 (98.6)	4 (1.4)	270 (97.5)	7 (2.5)	274 (98.9)	3 (1.1)
	<100\$	1169 (95.2)	59 (4.8)	1223 (99.4)	8 (0.6)	1205 (97.9)	26 (2.1)	1211 (98.4)	20 (1.6)	1217 (98.9)	14 (1.1)
	100-300\$	324 (97.9)	7 (2.1)	329 (99.1)	3 (0.9)	323 (97.3)	9 (2.7)	325 (97.9)	7 (2.1)	329 (99.1)	3 (0.9)
	300-600\$	881 (97.7)	21 (2.3)	898 (99.6)	4 (0.4)	887 (98.3)	15 (1.7)	883 (97.9)	19 (2.1)	891 (98.8)	11 (1.2)
	600-900\$	222 (97.8)	5 (2.2)	225 (99.1)	2 (0.9)	222 (97.8)	5 (2.2)	225 (99.1)	2 (0.9)	226 (99.6)	1 (0.4)
	>900\$	26 (96.3)	1 (3.7) p*	26 (96.3)	1 (3.7) NS	27 (100.0)	0 (0.0) NS	25 (92.6)	2 (7.4) NS	27 (100.0)	0 (0.0) NS
Mother's occupation	No work	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)
	Housewife	2168 (96.4)	81 (3.6)	2237 (99.4)	14 (0.6)	2219 (98.6)	32 (1.4)	2208 (98.1)	43 (1.9)	2230 (99.1)	21 (0.9)

	Student	16 (100.0)	0 (0.0)	16 (100.0)	0 (0.0)	16 (100.0)	0 (0.0)	15 (93.8)	1 (6.3)	16 (100.0)	0 (0.0)
	Employed	571 (97.1)	17 (2.9)	584 (99.2)	5 (0.8)	574 (97.5)	15 (2.5)	580 (98.5)	9 (1.5)	582 (98.8)	7 (1.2)
	Self-employed	130 (97.7)	3 (2.3)	134 (100.0)	0 (0.0)	132 (98.5)	2 (1.5)	132 (98.5)	2 (1.5)	131 (97.8)	3 (2.2)
	Unemployed	88 (100.0)	0 (0.0)	87 (98.9)	1 (1.1)	86 (97.7)	2 (2.3)	88 (100.0)	0 (0.0)	88 (100.0)	0 (0.0)
	Retired	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)
	Disabled	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)
	Health field	76 (100.0)	0 (0.0)	76 (100.0)	0 (0.0)	74 (97.4)	2 (2.6)	74 (97.4)	2 (2.6)	75 (98.7)	1 (1.3)
	Other	31 (93.9)	2 (6.1) NS	33 (100.0)	0 (0.0) NS	30 (90.9)	3 (9.1) NS	33 (100.0)	0 (0.0) p*	32 (97.0)	1 (3.0) NS
Father's occupation	No work	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	7 (87.5)	1 (12.5)
	Housewife	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)
	Student	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)
	Employed	1311 (97.6)	32 (2.4)	1338 (99.5)	7 (0.5)	1325 (98.5)	20 (1.5)	1328 (98.7)	17 (1.3)	1333 (99.1)	12 (0.9)
	Self-employed	1075 (96.8)	35 (3.2)	1103 (99.4)	7 (0.6)	1091 (98.3)	19 (1.7)	1083 (97.6)	27 (2.4)	1100 (99.1)	10 (0.9)
	Unemployed	205 (96.2)	8 (3.8)	212 (99.5)	1 (0.5)	211 (99.1)	2 (0.9)	210 (98.6)	3 (1.4)	209 (98.1)	4 (1.9)
	Retired	106 (89.8)	12 (10.2)	115 (97.5)	3 (2.5)	117 (99.2)	1 (0.8)	115 (97.5)	3 (2.5)	118 (100.0)	0 (0.0)
	Disabled	17 (100.0)	0 (0.0)	16 (94.1)	1 (5.9)	17 (100.0)	0 (0.0)	17 (100.0)	0 (0.0)	17 (100.0)	0 (0.0)
	Health field	35 (100.0)	0 (0.0)	35 (100.0)	0 (0.0)	33 (94.3)	2 (5.7)	35 (100.0)	0 (0.0)	34 (97.1)	1 (2.9)
	Other	221 (94.8)	12 (5.2) p*	234 (100.0)	0 (0.0) p*	228 (97.4)	6 (2.6) NS	230 (98.3)	4 (1.7) NS	231 (98.7)	3 (1.3) NS
Mother's level of education	No education	70 (95.9)	3 (4.1)	73 (100.0)	0 (0.0)	71 (97.3)	2 (2.7)	73 (100.0)	0 (0.0)	73 (100.0)	0 (0.0)
	Primary	381 (96.0)	16 (4.0)	394 (98.7)	5 (1.3)	391 (98.0)	8 (2.0)	393 (98.5)	6 (1.5)	394 (98.7)	5 (1.3)
	Complementary	699 (96.8)	23 (3.2)	718 (99.4)	4 (0.6)	704 (97.5)	18 (2.5)	707 (97.9)	15 (2.1)	715 (99.0)	7 (1.0)
	Secondary	680 (96.6)	24 (3.4)	702 (99.6)	3 (0.4)	696 (98.7)	9 (1.3)	693 (98.3)	12 (1.7)	697 (98.9)	8 (1.1)
	Undergraduate	420 (96.3)	16 (3.7)	433 (99.3)	3 (0.7)	429 (98.4)	7 (1.6)	424 (97.2)	12 (2.8)	433 (99.3)	3 (0.7)
	University graduate	885 (97.7)	21 (2.3) NS	902 (99.4)	5 (0.6) NS	895 (98.7)	12 (1.3) NS	895 (98.7)	12 (1.3) NS	896 (98.8)	11 (1.2) NS
Father's level of education	No education	128 (97.0)	4 (3.0)	130 (98.5)	2 (1.5)	129 (97.7)	3 (2.3)	130 (98.5)	2 (1.5)	131 (99.2)	1 (0.8)
	Primary	578 (97.6)	14 (2.4)	587 (99.2)	5 (0.8)	582 (98.3)	10 (1.7)	578 (97.6)	14 (2.4)	585 (98.8)	7 (1.2)
	Complementary	915 (96.0)	38 (4.0)	950 (99.5)	5 (0.5)	937 (98.1)	18 (1.9)	938 (98.2)	17 (1.8)	945 (99.0)	10 (1.0)
	Secondary	681 (97.0)	21 (3.0)	698 (99.3)	5 (0.7)	695 (98.9)	8 (1.1)	693 (98.6)	10 (1.4)	696 (99.0)	7 (1.0)
	Undergraduate	274 (96.8)	9 (3.2)	281 (99.3)	2 (0.7)	278 (98.2)	5 (1.8)	278 (98.2)	5 (1.8)	280 (98.9)	3 (1.1)
	University graduate	439 (96.9)	14 (3.1) NS	453 (100.0)	0 (0.0) NS	446 (98.5)	7 (1.5) NS	447 (98.7)	6 (1.3) NS	450 (99.3)	3 (0.7) NS
Other factors											
Medical history	No	1640 (96.8)	54 (3.2)	1685 (99.4)	11 (0.6)	1655 (97.6)	41 (2.4)	1660 (97.9)	36 (2.1)	1675 (98.8)	21 (1.2)
	Yes	1625 (96.5)	59 (3.5) NS	1671 (99.2)	13 (0.8) NS	1662 (98.7)	22 (1.3) p*	1654 (98.2)	30 (1.8) NS	1665 (98.9)	19 (1.1) NS
Ongoing treatment	No	2756 (96.9)	88 (3.1)	2825 (99.3)	19 (0.7)	2788 (98.0)	56 (2.0)	2789 (98.1)	55 (1.9)	2811 (98.8)	33 (1.2)
	Yes	473 (97.3)	13 (2.7) NS	487 (100.0)	0 (0.0) NS	477 (97.9)	10 (2.1) NS	479 (98.4)	8 (1.6) NS	481 (98.8)	6 (1.2) NS
Child visit to the pediatrician/doctor	No	652 (96.2)	26 (3.8)	667 (98.2)	12 (1.8)	660 (97.2)	19 (2.8)	663 (97.6)	16 (2.4)	670 (98.7)	9 (1.3)
	Yes	2543 (97.1)	75 (2.9) NS	2611 (99.7)	7 (0.3) p*	2571 (98.2)	47 (1.8) NS	2572 (98.2)	46 (1.8) NS	2589 (98.9)	29 (1.1) NS
Previous child visit to the psychologist	No	3091 (96.8)	101 (3.2)	3177 (99.4)	19 (0.6)	3138 (98.2)	58 (1.8)	3143 (98.3)	53 (1.7)	3163 (99.0)	33 (1.0)
	Yes	137 (95.8)	6 (4.2) NS	141 (98.6)	2 (1.4) NS	142 (99.3)	1 (0.7) NS	140 (97.9)	3 (2.1) NS	143 (100.0)	0 (0.0) NS

p* = p < 0.05

NS = Non-significant p value > 0.05

Table S1C. Associations between referrals & sociodemographic data and other factors

Referrals		Referral for abnormal lung auscultation N (%)		Referral for enlarged node or/and organ N (%)		Referral for abnormal ear exam N (%)		Referral for signs of early puberty N (%)		Referral for abnormal neurological findings N (%)	
		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Nationality	Lebanese	6601 (98.8)	81 (1.2)	6632 (99.3)	50 (0.7)	6383 (95.5)	299 (4.5)	6626 (99.3)	49 (0.7)	6638 (99.3)	44 (0.7)
	Syrian	478 (99.6)	2 (0.4)	480 (100.0)	0 (0.0)	467 (97.3)	13 (2.7)	474 (99.6)	2 (0.4)	479 (99.8)	1 (0.2)
	Palestinian	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)
	Other	14 (100.0)	0 (0.0) NS	14 (100.0)	0 (0.0) NS	14 (100.0)	0 (0.0) NS	14 (100.0)	0 (0.0) NS	14 (100.0)	0 (0.0) NS
Gender	Male	3450 (98.8)	41 (1.2)	3462 (99.2)	29 (0.8)	3340 (95.7)	151 (4.3)	3452 (99.1)	33 (0.9)	3468 (99.3)	23 (0.7)
	Female	3651 (98.9)	42 (1.1) NS	3672 (99.4)	21 (0.6) NS	3532 (95.6)	161 (4.4) NS	3670 (99.5)	18 (0.5) p*	3671 (99.4)	22 (0.6) NS
Age	3-6 years	2602 (97.9)	55 (2.1)	2635 (99.2)	22 (0.8)	2501 (94.1)	156 (5.9)	2640 (99.4)	17 (0.6)	2635 (99.2)	22 (0.8)
	7-9 years	2288 (99.3)	17 (0.7)	2293 (99.5)	12 (0.5)	2238 (97.1)	67 (2.9)	2270 (98.5)	34 (1.5)	2294 (99.5)	11 (0.5)
	10-12 years	2211 (99.5)	11 (0.5) p*	2206 (99.3)	16 (0.7) NS	2133 (96.0)	89 (4.0) p*	2212 (100.0)	0 (0.0) p*	2210 (99.5)	12 (0.5) NS
BMI	Underweight	1913 (99.3)	13 (0.7)	1911 (99.2)	15 (0.8)	1853 (96.2)	73 (3.8)	1910 (99.2)	15 (0.8)	1918 (99.6)	8 (0.4)
	Normal weight	2827 (98.3)	49 (1.7)	2854 (99.2)	22 (0.8)	2739 (95.2)	137 (4.8)	2846 (99.2)	24 (0.8)	2852 (99.2)	24 (0.8)
	Overweight	2361 (99.1)	21 (0.9) p*	2369 (99.5)	13 (0.5) NS	2280 (95.7)	102 (4.3) NS	2366 (99.5)	12 (0.5) NS	2369 (99.5)	13 (0.5) NS
Governorate	Beirut	291 (99.0)	3 (1.0)	291 (99.0)	3 (1.0)	258 (87.8)	36 (12.2)	288 (98.0)	6 (2.0)	292 (99.3)	2 (0.7)
	Mount Lebanon	170 (100.0)	0 (0.0)	170 (100.0)	0 (0.0)	167 (98.2)	3 (1.8)	167 (98.8)	2 (1.2)	168 (98.8)	2 (1.2)
	North/Akkar	1192 (98.9)	13 (1.1)	1202 (99.8)	3 (0.2)	1167 (96.8)	38 (3.2)	1197 (99.5)	6 (0.5)	1197 (99.3)	8 (0.7)
	Beqaa/Baalbek	3344 (98.9)	38 (1.1)	3343 (98.8)	39 (1.2)	3202 (94.7)	180 (5.3)	3348 (99.0)	33 (1.0)	3360 (99.3)	22 (0.7)
	South	2104 (98.6)	29 (1.4) NS	2128 (99.8)	5 (0.2) p*	2078 (97.4)	55 (2.6) p*	2122 (99.8)	4 (0.2) p*	2122 (99.5)	11 (0.5) NS
School type	Public	2427 (99.0)	24 (1.0)	2440 (99.6)	11 (0.4)	2382 (97.2)	69 (2.8)	2424 (99.3)	17 (0.7)	2436 (99.4)	15 (0.6)
	Private	4674 (98.8)	59 (1.2) NS	4694 (99.2)	39 (0.8) NS	4490 (94.9)	243 (5.1) p*	4698 (99.3)	34 (0.7) NS	4703 (99.4)	30 (0.6) NS
Family income	No income	273 (98.6)	4 (1.4)	275 (99.3)	2 (0.7)	261 (94.2)	16 (5.8)	275 (100.0)	0 (0.0)	275 (99.3)	2 (0.7)
	<100\$	1214 (98.6)	17 (1.4)	1215 (98.7)	16 (1.3)	1165 (94.6)	66 (5.4)	1221 (99.3)	8 (0.7)	1224 (99.4)	7 (0.6)
	100-300\$	328 (98.8)	4 (1.2)	329 (99.1)	3 (0.9)	316 (95.2)	16 (4.8)	331 (99.7)	1 (0.3)	327 (98.5)	5 (1.5)
	300-600\$	894 (99.1)	8 (0.9)	901 (99.9)	1 (0.1)	859 (95.2)	43 (4.8)	887 (98.3)	15 (1.7)	898 (99.6)	4 (0.4)

	600-900\$	222 (97.8)	5 (2.2)	223 (98.2)	4 (1.8)	212 (93.4)	15 (6.6)	225 (99.1)	2 (0.9)	226 (99.6)	1 (0.4)
	>900\$	26 (96.3)	1 (3.7) NS	27 (100.0)	0 (0.0) p*	27 (100.0)	0 (0.0) NS	27 (100.0)	0 (0.0) p*	27 (100.0)	0 (0.0) NS
Mother's occupation	No work	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)	3 (100.0)	0 (0.0)
	Housewife	2223 (98.8)	1137 (50.5)	2234 (99.2)	148 (6.6)	2138 (95.0)	316 (14.0)	2232 (99.3)	35 (1.6)	2239 (99.5)	432 (19.2)
	Student	16 (100.0)	4 (25.0)	16 (100.0)	0 (0.0)	16 (100.0)	3 (18.8)	16 (100.0)	0 (0.0)	16 (100.0)	1 (6.3)
	Employed	582 (98.8)	297 (50.4)	584 (99.2)	22 (3.7)	561 (95.2)	98 (16.6)	582 (98.8)	15 (2.5)	583 (99.0)	95 (16.1)
	Self-employed	133 (99.3)	66 (49.3)	134 (100.0)	9 (6.7)	125 (93.3)	17 (12.7)	133 (99.3)	1 (0.7)	134 (100.0)	23 (17.2)
	Unemployed	87 (98.9)	44 (50.0)	87 (98.9)	2 (2.3)	86 (97.7)	11 (12.5)	86 (97.7)	1 (1.1)	88 (100.0)	11 (12.5)
	Retired	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)	9 (100.0)	0 (0.0)
	Disabled	2 (100.0)	1 (50.0)	2 (100.0)	0 (0.0)	2 (100.0)	1 (50.0)	2 (100.0)	0 (0.0)	2 (100.0)	0 (0.0)
	Health field	74 (97.4)	29 (38.2)	74 (97.4)	1 (1.3)	74 (97.4)	6 (7.9)	76 (100.0)	0 (0.0)	76 (100.0)	7 (9.2)
	Other	33 (100.0)	19 (57.6) p*	33 (100.0)	0 (0.0) NS	32 (97.0)	4 (12.1) NS	33 (100.0)	2 (6.1) NS	33 (100.0)	7 (21.2) NS
Father's occupation	No work	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)	8 (100.0)	0 (0.0)
	Housewife	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)	4 (80.0)	1 (20.0)	5 (100.0)	0 (0.0)	5 (100.0)	0 (0.0)
	Student	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)	11 (100.0)	0 (0.0)
	Employed	1324 (98.4)	21 (1.6)	1329 (98.8)	16 (1.2)	1274 (94.7)	71 (5.3)	1331 (99.0)	14 (1.0)	1334 (99.2)	11 (0.8)
	Self-employed	1097 (98.8)	13 (1.2)	1103 (99.4)	7 (0.6)	1053 (94.9)	57 (5.1)	1098 (99.1)	10 (0.9)	1107 (99.7)	3 (0.3)
	Unemployed	211 (99.1)	2 (0.9)	213 (100.0)	0 (0.0)	203 (95.3)	10 (4.7)	213 (100.0)	0 (0.0)	212 (99.5)	1 (0.5)
	Retired	118 (100.0)	0 (0.0)	118 (100.0)	0 (0.0)	113 (95.8)	5 (4.2)	118 (100.0)	0 (0.0)	116 (98.3)	2 (1.7)
	Disabled	17 (100.0)	0 (0.0)	17 (100.0)	0 (0.0)	16 (94.1)	1 (5.9)	16 (94.1)	1 (5.9)	17 (100.0)	0 (0.0)
	Health field	35 (100.0)	0 (0.0)	35 (100.0)	0 (0.0)	33 (94.3)	2 (5.7)	34 (97.1)	1 (2.9)	35 (100.0)	0 (0.0)
	Other	231 (98.7)	3 (1.3) NS	233 (99.6)	1 (0.4) NS	227 (97.0)	7 (3.0) NS	234 (100.0)	0 (0.0) NS	234 (100.0)	0 (0.0) NS
Mother's level of education	No education	73 (100.0%)	0 (0.0)	73 (100.0)	0 (0.0)	69 (94.5)	4 (5.5)	73 (100.0)	0 (0.0)	73 (100.0)	0 (0.0)
	Primary	397 (99.5%)	2 (0.5)	394 (98.7)	5 (1.3)	376 (94.2)	23 (5.8)	399 (100.0)	0 (0.0)	397 (99.5)	2 (0.5)
	Complementary	717 (99.3%)	5 (0.7)	717 (99.3)	5 (0.7)	694 (96.1)	28 (3.9)	717 (99.4)	4 (0.6)	718 (99.4)	4 (0.6)
	Secondary	696 (98.7%)	9 (1.3)	701 (99.4)	4 (0.6)	676 (95.9)	29 (4.1)	694 (98.7)	9 (1.3)	701 (99.4)	4 (0.6)
	Undergraduate	423 (97.0%)	13 (3.0)	431 (98.9)	5 (1.1)	408 (93.6)	28 (6.4)	431 (98.9)	5 (1.1)	435 (99.8)	1 (0.2)
	University graduate	897 (98.9%)	10 (1.1) p*	901 (99.3)	6 (0.7) NS	863 (95.1)	44 (4.9) NS	899 (99.1)	8 (0.9) NS	899 (99.1)	8 (0.9) NS
Father's level of education	No education	131 (99.2)	1 (0.8)	132 (100.0)	0 (0.0)	129 (97.7)	3 (2.3)	131 (99.2)	1 (0.8)	132 (100.0)	0 (0.0)
	Primary	586 (99.0)	6 (1.0)	587 (99.2)	5 (0.8)	558 (94.3)	34 (5.7)	585 (99.2)	5 (0.8)	587 (99.2)	5 (0.8)
	Complementary	941 (98.5)	14 (1.5)	950 (99.5)	5 (0.5)	912 (95.5)	43 (4.5)	949 (99.4)	6 (0.6)	951 (99.6)	4 (0.4)
	Secondary	694 (98.7)	9 (1.3)	699 (99.4)	4 (0.6)	667 (94.9)	36 (5.1)	698 (99.3)	5 (0.7)	699 (99.4)	4 (0.6)
	Undergraduate	275 (97.2)	8 (2.8)	278 (98.2)	5 (1.8)	269 (95.1)	14 (4.9)	281 (99.3)	2 (0.7)	281 (99.3)	2 (0.7)
	University graduate	452 (99.8)	1 (0.2) NS	448 (98.9)	5 (1.1) NS	428 (94.5)	25 (5.5) NS	446 (98.5)	7 (1.5) NS	451 (99.6)	2 (0.4) NS
Other factors											
Medical history	No	1673 (98.6)	23 (1.4)	1683 (99.2)	13 (0.8)	1601 (94.4)	95 (5.6)	1680 (99.2)	14 (0.8)	1679 (99.0)	17 (1.0)
	Yes	1665 (98.9)	19 (1.1) NS	1672 (99.3)	12 (0.7) NS	1621 (96.3)	63 (3.7) p*	1668 (99.2)	13 (0.8) NS	1674 (99.4)	10 (0.6) NS
Ongoing treatment	No	2802 (98.5)	42 (1.5)	2823 (99.3)	21 (0.7)	2724 (95.8)	120 (4.2)	2819 (99.4)	18 (0.6)	2824 (99.3)	20 (0.7)
	Yes	479 (98.4)	8 (1.6) NS	480 (98.6)	7 (1.4) NS	463 (95.1)	24 (4.9) NS	483 (99.2)	4 (0.8) NS	484 (99.4)	3 (0.6) NS
Child visit to the pediatrician/doctor	No	667 (98.2)	12 (1.8)	676 (99.6)	3 (0.4)	645 (95.0)	34 (5.0)	672 (99.4)	4 (0.6)	674 (99.3)	5 (0.7)
	Yes	2580 (98.5)	38 (1.5) NS	2593 (99.0)	25 (1.0) NS	2508 (95.8)	110 (4.2) NS	2596 (99.3)	18 (0.7) NS	2600 (99.3)	18 (0.7) NS
Previous child visit to the psychologist	No	3155 (98.7)	41 (1.3)	3170 (99.2)	26 (0.8)	3042 (95.2)	154 (4.8)	3169 (99.3)	23 (0.7)	3179 (99.5)	17 (0.5)
	Yes	143 (100.0)	0 (0.0) NS	143 (100.0)	0 (0.0) NS	134 (93.7)	9 (6.3) NS	140 (97.9)	3 (2.1) NS	140 (97.9)	3 (2.1%) p*

p* = p < 0.05

NS = Non-significant p value > 0.05