|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 1. Sociodemographic characteristics of specific childhood cancer types and controls, birth years 1988-2011** | | | | | | | | | | | | |
|  | **Controls n (%)** | **Leukemia**  **n (%)** | **ALL n (%)** | **AML n (%)** | **Astrocytomas n (%)** | **Intracranial & intraspinal embryonal brain tumors n (%)** | **Germ cell tumors n (%)** | **Hepatoblastoma n (%)** | **Neuroblastoma n (%)** | **Retinoblastoma n (%)** | **Rhabdomyosarcoma n (%)** | **Wilms’ tumor n (%)** |
| **n** | 270147 | 5034 | 4101 | 706 | 990 | 709 | 445 | 337 | 1378 | 741 | 463 | 1052 |
| **Child sex** |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 137903 (51.1) | 2761 (54.9) | 2273 (55.4) | 365 (51.7) | 534 (53.9) | 431 (60.8) | 254 (57.1) | 202 (59.9) | 770 (55.9) | 407 (54.9) | 279 (60.3) | 497 (47.2) |
| Female | 132244 (49.0) | 2273 (45.2) | 1828 (44.6) | 341 (48.3) | 456 (46.1) | 278 (39.2) | 191 (42.9) | 135 (40.1) | 608 (44.1) | 334 (45.1) | 184 (39.7) | 555 (52.8) |
| **Maternal age at birth** |  |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 28520 (10.6) | 470 (9.3) | 382 (9.3) | 72 (10.2) | 95 (9.6) | 76 (10.7) | 53 (11.9) | 45 (13.4) | 131 (9.5) | 71 (9.6) | 39 (8.4) | 103 (9.8) |
| 20-29 | 140146 (51.9) | 2512 (49.9) | 2076 (50.6) | 337 (47.7) | 498 (50.3) | 367 (51.8) | 217 (48.8) | 137 (40.7) | 690 (50.1) | 402 (54.3) | 240 (51.8) | 514 (48.9) |
| 30-34 | 62952 (23.3) | 1206 (24.0) | 985 (24.0) | 159 (22.5) | 249 (25.2) | 161 (22.7) | 105 (23.6) | 83 (24.6) | 366 (26.6) | 162 (21.9) | 117 (25.3) | 294 (28.0) |
| 35+ | 38479 (14.2) | 845 (16.8) | 658 (16.0) | 138 (19.6) | 148 (15.0) | 105 (14.8) | 70 (15.7) | 72 (21.4) | 191 (13.9) | 106 (14.3) | 67 (14.5) | 140 (13.3) |
| Missing | 50 (0.02) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.1) |
| **Father’s age** |  |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 10331 (3.8) | 160 (3.2) | 132 (3.2) | 22 (3.1) | 31 (3.1) | 27 (3.8) | 13 (2.9) | 10 (3.0) | 43 (3.1) | 24 (3.2) | 16 (3.5) | 34 (3.2) |
| 20-29 | 111645 (41.3) | 2033 (40.4) | 1670 (40.7) | 283 (40.1) | 394 (39.8) | 288 (40.6) | 182 (40.9) | 136 (40.4) | 536 (38.9) | 291 (39.3) | 185 (40.0) | 446 (42.4) |
| 30-34 | 64765 (24.0) | 1251 (24.9) | 1046 (25.5) | 155 (22.0) | 254 (25.7) | 192 (27.1) | 105 (23.6) | 85 (25.2) | 366 (26.6) | 178 (24.0) | 110 (23.8) | 252 (24.0) |
| 35+ | 65683 (24.3) | 1347 (26.8) | 1058 (25.8) | 210 (29.8) | 254 (25.7) | 156 (22.0) | 116 (26.1) | 90 (26.7) | 362 (26.3) | 212 (28.6) | 125 (27.0) | 265 (25.2) |
| Missing | 17723 (6.6) | 243 (4.8) | 195 (4.8) | 36 (5.1) | 57 (5.8) | 46 (6.5) | 29 (6.5) | 16 (4.8) | 71 (5.2) | 36 (4.9) | 27 (5.8) | 55 (5.2) |
| **Mother race/ethnicity** |  |  |  |  |  |  |  |  |  |  |  |  |
| White non-Hispanic | 94660 (35.0) | 1782 (35.4) | 1460 (35.6) | 242 (34.3) | 506 (51.1) | 304 (42.9) | 142 (31.9) | 113 (33.5) | 652 (47.3) | 235 (31.7) | 181 (39.1) | 449 (42.7) |
| Hispanic of any race | 123975 (45.9) | 2480 (49.3) | 2044 (49.8) | 325 (46.0) | 335 (33.8) | 302 (42.6) | 190 (42.7) | 169 (50.2) | 484 (35.1) | 348 (50.0) | 192 (41.5) | 438 (41.6) |
| Other/not specified | 51512 (19.1) | 772 (15.3) | 597 (14.6) | 139 (19.7) | 149 (15.1) | 103 (14.5) | 113 (25.4) | 55 (16.3) | 242 (17.6) | 158 (21.3) | 90 (19.4) | 165 (15.7) |
| **Father’s race/ethnicity** |  |  |  |  |  |  |  |  |  |  |  |  |
| White non-Hispanic | 83101 (30.8) | 1703 (33.8) | 1437 (35.0) | 201 (28.5) | 442 (44.7) | 267 (37.7) | 121 (27.2) | 99 (29.4) | 556 (40.4) | 218 (29.4) | 172 (37.2) | 400 (38.0) |
| Hispanic of any race | 117684 (43.6) | 2347 (46.6) | 1933 (47.1) | 307 (43.5) | 329 (33.2) | 288 (40.6) | 181 (40.7) | 162 (48.1) | 454 (33.0) | 336 (45.3) | 177 (38.2) | 413 (39.3) |
| Other/not specified | 69362 (25.7) | 984 (19.6) | 731 (17.8) | 198 (28.1) | 219 (22.1) | 154 (21.7) | 143 (32.1) | 76 (22.6) | 368 (26.7) | 187 (25.2) | 114 (24.6) | 239 (22.7) |
| **Maternal Education**a |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 or less years | 29283 (12.4) | 568 (13.0) | 457 (12.9) | 79 (12.7) | 73 (8.6) | 65 (10.6) | 58 (14.4) | 40 (12.9) | 95 (7.7) | 71 (10.3) | 42 (10.7) | 86 (9.8) |
| 9-11 years | 42758 (18.1) | 738 (16.9) | 609 (17.2) | 97 (15.5) | 124 (14.5) | 123 (20.1) | 70 (17.4) | 51 (16.5) | 180 (14.6) | 132 (19.2) | 62 (15.7) | 133 (15.1) |
| 12 years | 65640 (27.8) | 1274 (29.3) | 1027 (29.1) | 196 (31.4) | 248 (29.0) | 156 (25.5) | 116 (28.9) | 88 (28.5) | 358 (29.1) | 197 (28.6) | 112 (28.4) | 285 (32.4) |
| 13 to 15 years | 47105 (19.9) | 835 (19.2) | 673 (19.1) | 119 (19.1) | 197 (23.1) | 113 (18.4) | 74 (18.4) | 43 (13.9) | 259 (21.0) | 143 (20.8) | 75 (19.0) | 181 (20.6) |
| 16 or more years | 47137 (20.0) | 868 (19.9) | 709 (20.1) | 123 (19.7) | 203 (23.8) | 147 (24.0) | 73 (18.2) | 81 (26.2) | 312 (25.4) | 133 (19.3) | 92 (23.4) | 184 (20.9) |
| Missing | 4411 (1.9) | 73 (1.7) | 57 (1.6) | 10 (1.6) | 9 (1.1) | 9 (1.5) | 11 (2.7) | 6 (1.9) | 27 (2.2) | 12 (1.7) | 11 (2.8) | 11 (1.3) |
| **Paternal Education**a |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 or less years | 29845 (12.6) | 596 (13.7) | 476 (13.5) | 85 (13.6) | 80 (9.4) | 59 (9.6) | 51 (12.7) | 36 (11.7) | 103 (8.4) | 78 (11.3) | 33 (8.4) | 87 (9.9) |
| 9-11 years | 33292 (14.1) | 603 (13.8) | 483 (13.7) | 96 (15.4) | 86 (10.1) | 69 (11.3) | 49 (12.2) | 43 (13.9) | 143 (11.6) | 99 (14.4) | 61 (15.5) | 114 (13.0) |
| 12 years | 65536 (27.7) | 1210 (27.8) | 980 (27.8) | 177 (28.4) | 244 (28.6) | 171 (27.9) | 111 (27.6) | 80 (25.9) | 364 (29.6) | 202 (29.4) | 112 (28.4) | 273 (31.0) |
| 13 to 15 years | 39220 (16.6) | 705 (16.2) | 584 (16.5) | 90 (14.4) | 162 (19.0) | 125 (20.4) | 64 (15.9) | 55 (17.8) | 229 (18.6) | 111 (16.1) | 72 (18.3) | 161 (18.3) |
| 16 or more years | 48540 (20.5) | 938 (21.5) | 765 (21.7) | 133 (21.3) | 228 (26.7) | 140 (22.8) | 87 (21.6) | 71 (23.0) | 306 (24.9) | 149 (21.7) | 85 (21.6) | 180 (20.5) |
| Missing | 19901 (8.4) | 304 (7.0) | 244 (6.9) | 43 (7.0) | 54 (6.3) | 49 (8.0) | 40 (10.0) | 24 (7.8) | 86 (7.0) | 49 (7.1) | 31 (7.9) | 65 (7.4) |
| **Source of payment for prenatal care**a |  |  |  |  |  |  |  |  |  |  |  |  |
| Private | 116717 (49.4) | 2340 (53.7) | 1927 (54.6) | 317 (50.8) | 510 (59.7) | 337 (55.0) | 208 (51.7) | 163 (52.8) | 717 (58.3) | 354 (51.5) | 217 (55.1) | 486 (55.2) |
| Medi-Cal/other governmental/self-pay | 116935 (49.5) | 1983 (45.5) | 1577 (44.7) | 306 (49.0) | 338 (39.6) | 271 (44.2) | 193 (48.0) | 145 (46.9) | 504 (40.9) | 328 (47.7) | 172 (43.7) | 389 (44.2) |
| Missing | 2682 (1.1) | 33 (0.8) | 28 (0.8) | 1 (0.2) | 6 (0.7) | 5 (0.8) | 1 (0.3) | 1 (0.3) | 10 (0.8) | 6 (0.9) | 5 (1.3) | 5 (0.6) |
| **Census-based SES** |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 (lowest) | 67375 (24.9) | 1210 (24.0) | 977 (23.8) | 174 (24.7) | 214 (21.6) | 153 (21.6) | 104 (23.4) | 79 (23.4) | 275 (20.0) | 178 (24.0) | 114 (24.6) | 244 (23.2) |
| 2 | 65424 (24.2) | 1253 (24.9) | 1024 (25.0) | 171 (24.2) | 239 (24.1) | 167 (23.6) | 120 (27.0) | 64 (19.0) | 332 (24.1) | 184 (24.8) | 112 (24.2) | 270 (25.7) |
| 3 | 59729 (22.1) | 1117 (22.2) | 923 (22.5) | 143 (20.3) | 212 (21.4) | 180 (25.4) | 91 (20.5) | 79 (23.4) | 331 (24.0) | 159 (21.5) | 105 (22.7) | 221 (21.0) |
| 4 | 42568 (15.8) | 803 (16.0) | 647 (15.8) | 126 (17.8) | 169 (17.1) | 120 (16.9) | 65 (14.6) | 57 (16.9) | 231 (16.8) | 132 (17.8) | 55 (11.9) | 174 (16.5) |
| 5 (highest) | 34279 (12.7) | 642 (12.8) | 523 (12.8) | 90 (12.8) | 156 (15.8) | 89 (12.6) | 65 (14.6) | 58 (17.2) | 205 (14.9) | 85 (11.5) | 77 (16.6) | 143 (13.6) |
| Missing | 772 (0.3) | 9 (0.2) | 7 (0.2) | 2 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 4 (0.3) | 3 (0.4) | 0 (0.0) | 0 (0.0) |

aCollected starting 1989

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Supplementary Table 2. Sociodemographic characteristics of specific childhood cancer types and controls, birth years 2006-2011** | | | | | | | | | | | | |
|  | **Controls n (%)** | **Leukemia**  **n (%)** | **ALL n (%)** | **AML n (%)** | **Astrocytomas n (%)** | **Intracranial & intraspinal embryonal brain tumors n (%)** | **Germ cell tumors n (%)** | **Hepatoblastoma n (%)** | **Neuroblastoma n (%)** | **Retinoblastoma n (%)** | **Rhabdomyosarcoma n (%)** | **Wilms’ tumor n (%)** |
| **N** | 51800 | 652 | 429 | 167 | 147 | 124 | 90 | 94 | 294 | 159 | 85 | 193 |
| **Child sex** |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 26560 (51.3) | 330 (50.6) | 222 (51.8) | 79 (47.3) | 80 (54.4) | 75 (60.5) | 58 (64.4) | 56 (59.6) | 148 (50.3) | 85 (53.5) | 48 (56.5) | 98 (50.8) |
| Female | 25,240 (48.7) | 322 (49.4) | 207 (48.3) | 88 (52.7) | 67 (45.6) | 49 (39.5) | 32 (35.6) | 38 (40.4) | 146 (49.7) | 74 (46.5) | 37 (43.5) | 95 (49.2) |
| **Maternal age at birth** |  |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 4783 (9.2) | 58 (8.9) | 35 (8.2) | 18 (10.8) | 12 (8.2) | 10 (8.1) | 9 (10.0) | 10 (10.6) | 26 (8.8) | 8 (5.0) | 7 (8.2) | 19 (9.8) |
| 20-29 | 25168 (48.6) | 300 (46.0) | 206 (48.0) | 76 (45.5) | 68 (46.3) | 53 (42.7) | 40 (44.4) | 36 (38.3) | 142 (48.3) | 85 (53.5) | 43 (50.6) | 98 (50.8) |
| 30-34 | 12675 (24.5) | 151 (23.2) | 102 (23.8) | 32 (19.2) | 36 (24.5) | 41 (33.1) | 18 (20.0) | 26 (27.7) | 78 (26.5) | 44 (27.7) | 22 (25.9) | 47 (24.4) |
| 35+ | 9165 (17.7) | 143 (21.9) | 86 (20.1) | 41 (24.6) | 31 (21.1) | 20 (16.1) | 23 (25.6) | 22 (23.4) | 48 (16.3) | 22 (13.8) | 13 (15.3) | 29 (15.0) |
| Missing | 9 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| **Father’s age** |  |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 1913 (3.7) | 21 (3.2) | 11 (2.6) | 8 (4.8) | 6 (4.1) | 6 (4.8) | 2 (2.2) | 2 (2.1) | 11 (3.7) | 3 (1.9) | 3 (3.5) | 6 (3.1) |
| 20-29 | 19398 (37.5) | 225 (34.5) | 153 (35.7) | 59 (35.3) | 57 (38.8) | 42 (33.9) | 32 (35.6) | 42 (44.7) | 106 (36.1) | 57 (35.9) | 34 (40.0) | 72 (37.3) |
| 30-34 | 12129 (23.4) | 159 (24.4) | 107 (24.9) | 39 (23.4) | 31 (21.1) | 41 (33.1) | 19 (21.1) | 21 (22.3) | 76 (25.9) | 34 (21.4) | 20 (23.5) | 46 (23.8) |
| 35+ | 14613 (28.2) | 203 (31.1) | 125 (29.1) | 52 (31.1) | 41 (27.9) | 27 (21.8) | 30 (33.3) | 24 (25.5) | 83 (28.2) | 53 (33.3) | 25 (29.4) | 54 (28.0) |
| Missing | 3747 (7.2) | 44 (6.8) | 33 (7.7) | 9 (5.4) | 12 (8.2) | 8 (6.5) | 7 (7.8) | 5 (5.3) | 18 (6.1) | 12 (7.6) | 3 (3.5) | 15 (7.8) |
| **Mother race/ethnicity** |  |  |  |  |  |  |  |  |  |  |  |  |
| White non-Hispanic | 14009 (27.0) | 186 (28.5) | 113 (26.3) | 53 (31.8) | 68 (46.3) | 40 (32.3) | 18 (20.0) | 21 (22.3) | 106 (36.1) | 34 (21.4) | 26 (30.6) | 66 (34.2) |
| Hispanic of any race | 26917 (52.0) | 356 (54.6) | 241 (56.2) | 86 (51.5) | 56 (38.1) | 61 (49.2) | 47 (52.2) | 50 (53.2) | 123 (41.8) | 86 (54.1) | 43 (50.6) | 99 (51.3) |
| Other/not specified | 10874 (20.1) | 110 (16.9) | 75 (17.5) | 28 (16.8) | 23 (15.7) | 23 (18.6) | 25 (27.8) | 23 (24.5) | 65 (22.1) | 39 (24.5) | 16 (18.8) | 28 (14.5) |
| **Father’s race/ethnicity** |  |  |  |  |  |  |  |  |  |  |  |  |
| White non-Hispanic | 6250 (12.1) | 113 (17.3) | 82 (19.1) | 24 (14.4) | 26 (17.7) | 19 (15.3) | 9 (10.0) | 7 (7.5) | 36 (12.2) | 13 (8.2) | 12 (14.1) | 21 (10.9) |
| Hispanic of any race | 24745 (47.8) | 320 (49.1) | 214 (49.9) | 77 (46.1) | 59 (40.1) | 57 (46.0) | 38 (42.2) | 47 (50.0) | 105 (35.7) | 85 (53.5) | 36 (42.4) | 94 (48.7) |
| Other/not specified | 20805 (40.2) | 219 (33.6) | 133 (31.0) | 66 (39.5) | 62 (42.2) | 48 (38.7) | 43 (47.8) | 40 (42.6) | 153 (52.0) | 61 (38.4) | 37 (43.5) | 78 (40.4) |
| **Maternal Education**a |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 or less years | 4523 (8.7) | 60 (9.2) | 40 (9.3) | 11 (6.6) | 9 (6.1) | 6 (4.8) | 12 (13.3) | 8 (8.5) | 15 (5.1) | 16 (10.1) | 5 (5.9) | 16 (8.3) |
| 9-11 years | 9906 (19.1) | 119 (18.3) | 81 (18.9) | 29 (17.4) | 24 (16.3) | 28 (22.6) | 20 (22.2) | 16 (17.0) | 46 (15.7) | 35 (22.0) | 16 (18.8) | 34 (17.6) |
| 12 years | 12271 (23.7) | 139 (21.3) | 92 (21.5) | 36 (21.6) | 37 (25.2) | 24 (19.4) | 23 (25.6) | 22 (23.4) | 67 (22.8) | 36 (22.6) | 26 (30.6) | 51 (26.4) |
| 13 to 15 years | 11269 (21.8) | 162 (24.9) | 103 (24.0) | 43 (25.8) | 37 (25.2) | 23 (18.6) | 21 (23.3) | 16 (17.0) | 63 (21.4) | 31 (19.5) | 17 (20.0) | 44 (22.8) |
| 16 or more years | 12149 (23.5) | 151 (23.2) | 99 (23.1) | 43 (25.8) | 37 (25.2) | 39 (31.5) | 11 (12.2) | 27 (28.7) | 86 (29.3) | 36 (22.6) | 16 (18.8) | 42 (21.8) |
| Missing | 1682 (3.3) | 21 (3.2) | 14 (3.3) | 5 (3.0) | 3 (2.0) | 4 (3.2) | 3 (3.3) | 5 (5.3) | 17 (5.8) | 5 (3.1) | 5 (5.9) | 6 (3.1) |
| **Paternal Education**a |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 or less years | 4876 (9.4) | 73 (11.2) | 45 (10.5) | 18 (10.8) | 10 (6.8) | 9 (7.3) | 8 (8.9) | 7 (7.5) | 16 (5.4) | 13 (8.2) | 5 (5.9) | 22 (11.4) |
| 9-11 years | 8465 (16.3) | 99 (15.2) | 66 (15.4) | 26 (15.6) | 17 (11.6) | 21 (16.9) | 20 (22.2) | 15 (16.0) | 39 (13.3) | 30 (18.9) | 15 (17.7) | 19 (9.8) |
| 12 years | 12471 (24.1) | 148 (22.7) | 96 (22.4) | 38 (22.8) | 44 (29.9) | 26 (21.0) | 21 (23.3) | 20 (21.3) | 72 (24.5) | 37 (23.3) | 25 (29.4) | 46 (23.8) |
| 13 to 15 years | 9286 (17.9 | 128 (19.6) | 85 (19.8) | 33 (19.8) | 26 (17.7) | 30 (24.2) | 9 (10.0) | 16 (17.0) | 65 (22.1) | 32 (20.1) | 17 (20.0) | 46 (23.8) |
| 16 or more years | 11116 (21.5) | 135 (20.7) | 89 (20.8) | 37 (22.2) | 33 (22.5) | 29 (23.4) | 19 (21.1) | 23 (24.5) | 67 (22.8) | 29 (18.2) | 15 (17.7) | 38 (19.7) |
| Missing | 5586 (10.8) | 69 (10.6) | 48 (11.2) | 15 (9.0) | 17 (11.6) | 9 (7.3) | 13 (14.4) | 13 (13.8) | 35 (11.9) | 18 (11.3) | 8 (9.4) | 22 (11.4) |
| **Source of payment for prenatal care**a |  |  |  |  |  |  |  |  |  |  |  |  |
| Private | 24107 (46.5) | 330 (50.6) | 219 (51.1) | 84 (50.3) | 82 (55.8) | 69 (55.7) | 43 (47.8) | 47 (50.0) | 154 (52.4) | 68 (42.3) | 41 (48.2) | 104 (53.9) |
| Medi-Cal/other governmental/self-pay | 27288 (52.7) | 317 (48.6) | 207 (48.3) | 83 (49.7) | 64 (43.5) | 55 (44.4) | 47 (52.2) | 47 (50.0) | 138 (46.9) | 90 (56.6) | 44 (51.8) | 88 (45.6) |
| Missing | 405 (0.8) | 5 (0.8) | 3 (0.7) | 0 (0.0) | 1 (0.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 2 (0.7) | 1 (0.6) | 0 (0.0) | 1 (0.5) |
| **Census-based SES** |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 (lowest) | 13690 (26.4) | 159 (24.4) | 103 (24.0) | 40 (24.0) | 35 (23.8) | 26 (21.0) | 29 (32.2) | 26 (27.7) | 58 (19.7) | 45 (28.3) | 21 (24.7) | 46 (23.8) |
| 2 | 12299 (23.7) | 167 (25.6) | 111 (25.9) | 39 (23.4) | 30 (20.4) | 25 (20.2) | 25 (27.8) | 19 (20.2) | 66 (22.5) | 30 (18.9) | 21 (24.7) | 60 (31.1) |
| 3 | 10395 (20.1) | 134 (20.6) | 94 (21.9) | 32 (19.2) | 29 (19.7) | 35 (28.2) | 16 (17.8) | 20 (21.3) | 70 (23.8) | 39 (24.5) | 23 (27.1) | 28 (14.5) |
| 4 | 8370 (16.2) | 115 (17.6) | 70 (16.3) | 38 (22.8) | 29 (19.7) | 20 (16.1) | 13 (14.4) | 15 (16.0) | 51 (17.4) | 30 (18.9) | 7 (8.2) | 33 (17.1) |
| 5 (highest) | 6819 (13.2) | 75 (11.5) | 50 (11.7) | 17 (10.2) | 24 (16.3) | 18 (14.5) | 7 (7.8) | 14 (14.9) | 49 (16.7) | 14 (8.8) | 13 (15.3) | 26 (13.5) |
| Missing | 227 (0.4) | 2 (0.3) | 1 (0.2) | 1 (0.6) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.6) | 0 (0.0) | 0 (0.0) |

aCollected starting 1989

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 3. Multiple Imputation analysis: Odds ratios and 95% CIs from logistic regression models for childhood cancers in relation to pre-pregnancy diabetes, gestational diabetes, pre-pregnancy BMI, and gestational weight gain** | | | | | | | | | | | | | | | | | | | | | | |
|  | **Leukemia** | | **ALL** | | **AML** | | **Astrocytomas** | | **Intracranial & intraspinal embryonal brain tumors** | | **Germ cell tumors** | | **Hepatoblastoma** | | **Neuroblastoma** | | **Retinoblastoma** | | **Rhabdomyosarcoma** | | **Wilms’ tumor** | |
|  | Crude ORa | OR  (95% CI)b, c | Crude ORa | OR  (95% CI)b, c | Crude ORa | OR  (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c | Crude ORa | OR (95% CI)b, c |
| ***Birth years 2007-2011*** | | | | | | | | | | | | | | | | | | | | | | |
| **Pre-pregnancy BMI** | | | | | | | | | | | | | | | | | | | | | | |
| <18.5 | 0.66 | 0.68 (0.33, 1.38) | 0.64 | 0.65 (0.26, 1.59) | 0.69 | 0.71 (0.22, 2.28) | 1.06 | 1.06 (0.38, 2.94) | 1.62 | 1.70 (0.60, 4.84) | 2.13 | 2.00 (0.79, 5.09) | 1.11 | 1.07 (0.33, 3.49) | 0.91 | 0.91 (0.42, 1.98) | 0.65 | 0.65 (0.16, 2.59) | 1.30 | 1.39 (0.35, 5.58) | 0.26 | 0.28 (0.04, 1.83) |
| 18.5-<25 | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref |
| 25-<30 | 1.26 | 1.26 (1.01, 1.58) | 1.20 | 1.20 (0.89, 1.61) | 1.11 | 1.12 (0.71, 1.75) | 1.12 | 1.24 (0.77, 1.98) | 0.93 | 0.91 (0.54, 1.54) | 0.90 | 0.96 (0.52, 1.77) | 0.78 | 0.80 (0.42, 1.51) | 0.98 | 1.05 (0.76, 1.45) | 1.42 | 1.33 (0.88, 2.01) | 0.93 | 0.93 (0.47, 1.83) | 0.80 | 0.80 (0.52, 1.24) |
| 30+ | 1.15 | 1.15 (0.89, 1.50) | 1.07 | 1.07 (0.75, 1.52) | 1.07 | 1.08 (0.64, 1.81) | 1.01 | 1.15 (0.68, 1.97) | 0.51 | 0.49 (0.23, 1.06) | 0.79 | 0.86 (0.41, 1.81) | 1.17 | 1.20 (0.66, 2.16) | 1.06 | 1.17 (0.82, 1.67) | 0.98 | 0.88 (0.51, 1.49) | 1.12 | 1.14 (0.55, 2.37) | 0.78 | 0.78 (0.48, 1.27) |
| **Gestational weight gain (IOM 2009 guidelines)** | | | | | | | | | | | | | | | | | | | | | | |
| Not enough weight | 0.90 | 0.90 (0.69, 1.17) | 0.76 | 0.76 (0.53, 1.08) | 1.45 | 1.43 (0.86, 2.41) | 1.18 | 1.25 (0.71, 2.20) | 1.03 | 1.06 (0.57, 2.00) | 1.20 | 1.18 (0.58, 2.42) | 0.84 | 0.83 (0.42, 1.64) | 0.75 | 0.79 (0.54, 1.16) | 0.85 | 0.83 (0.48, 1.46) | 0.81 | 0.85 (0.39, 1.88) | 0.89 | 0.92 (0.59, 1.45) |
| IOM recommended | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref | ref |
| Too much | 0.84 | 0.84 (0.67, 1.06) | 0.84 | 0.85 (0.64, 1.14) | 1.03 | 1.02 (0.63, 1.65) | 1.52 | 1.49 (0.92, 2.43) | 0.70 | 0.70 (0.43, 1.16) | 0.98 | 1.05 (0.53, 2.10) | 1.23 | 1.31 (0.76, 2.25) | 0.97 | 0.95 (0.70, 1.29) | 1.08 | 1.11 (0.73, 1.70) | 1.03 | 1.01 (0.53, 1.92) | 0.84 | 0.80 (0.55, 1.18) |

aAdjusted for the matching variable, year of birth

bAdjusted for year of birth, maternal/paternal race/ethnicity, maternal age

cAdjusted OR estimates were not calculated for categories with <5 exposed cases