**Epidemiology and Infection**

**Article title**

Using record linkage to examine testing patterns for respiratory viruses among children born in Western Australia

**Author names**

F. J. LIM, C. C. BLYTH, A. D. KEIL, N. DE KLERK, H. C. MOORE

**Supplementary Material**

Supplementary Table S1 - Yearly changes in testing rates per 1000 child-years with 95% confidence intervals by age groups in non-Aboriginal children

Supplementary Table S2 - Yearly changes in testing rates per 1000 child-years with 95% confidence intervals by age groups in Aboriginal children

Supplementary Table S3 - Yearly changes in frequency of virus detection from nasal/NP specimens by age groups

**Supplementary Table S1 – Yearly changes in testing rates per 1000 child-years with 95% confidence intervals by age groups in non-Aboriginal children**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year of specimen collection** | **<1 month** | | | **1-5 months** | | | **6-23 months** | | | **2-9 years** | | |
| **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** |
| 2000 | 263 | 135.1 | (119.3-152.5) | 882 | 90.6 | (84.8-96.8) | 1344 | 37.6 | (35.6-39.6) | 694 | 11.7 | (10.9-12.6) |
| 2001 | 330 | 171.8 | (153.8-191.4) | 928 | 96.6 | (90.5-103.1) | 1398 | 39.9 | (37.9-42.1) | 831 | 10.0 | (9.4-10.7) |
| 2002 | 506 | 266.9 | (244.1-291.2) | 1369 | 144.4 | (136.9-152.3) | 1838 | 53.2 | (50.8-55.7) | 1325 | 12.5 | (11.8-13.2) |
| 2003 | 463 | 244.8 | (223.0-268.2) | 1169 | 123.6 | (116.6-130.9) | 1653 | 48.5 | (46.1-50.8) | 1305 | 10.1 | (9.6-10.7) |
| 2004 | 619 | 316.0 | (291.6-341.9) | 1676 | 171.1 | (163.0-179.5) | 1824 | 53.3 | (50.8-55.8) | 1548 | 10.1 | (9.6-10.7) |
| 2005 | 579 | 285.1 | (262.4-309.3) | 1211 | 119.3 | (112.6-126.2) | 1677 | 47.8 | (45.5-50.2) | 1590 | 9.1 | (8.7-9.6) |
| 2006 | 533 | 246.2 | (225.7-268.0) | 1311 | 121.1 | (114.6-127.8) | 1367 | 37.4 | (35.4-39.4) | 1250 | 6.7 | (6.4-7.1) |
| 2007 | 510 | 222.4 | (203.5-242.6) | 1115 | 97.3 | (91.6-103.1) | 1799 | 46.2 | (44.0-48.3) | 1586 | 8.5 | (8.1-8.9) |
| 2008 | 674 | 284.1 | (263.1-306.4) | 1303 | 109.8 | (104.0-116.0) | 1967 | 47.6 | (45.5-49.7) | 1587 | 8.4 | (8.0-8.8) |
| 2009 | 655 | 274.3 | (253.7-296.2) | 1336 | 111.9 | (106.0-118.1) | 2398 | 56.5 | (54.3-58.8) | 2861 | 14.9 | (14.4-15.5) |
| 2010 | 608 | 249.3 | (229.9-269.9) | 1471 | 120.6 | (114.5-127.0) | 2262 | 52.6 | (50.5-54.8) | 2311 | 11.8 | (11.3-12.2) |
| 2011 | 659 | 266.5 | (246.5-287.7) | 1463 | 118.3 | (112.3-124.6) | 2574 | 58.8 | (56.5-61.1) | 2951 | 14.6 | (14.1-15.1) |
| 2012 | 710 | 275.7 | (255.8-296.8) | 1627 | 126.4 | (120.3-132.7) | 2827 | 63.5 | (61.1-65.8) | 3510 | 16.8 | (16.3-17.4) |
| **Total** | **7109** | **250.8** | **(245.0-256.7)** | **16,861** | **119.0** | **(117.2-120.8)** | **24,928** | **49.9** | **(49.3-50.5)** | **23,349** | **11.3** | **(11.2-11.5)** |

**Supplementary Table S2 – Yearly changes in testing rates per 1000 child-years with 95% confidence intervals by age groups in Aboriginal children**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year of specimen collection** | **<1 month** | | | **1-5 months** | | | **6-23 months** | | | **2-9 years** | | |
| **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** | **n** | **Rate** | **(95% CI)** |
| 2000 | 29 | 198.4 | (132.9-284.9) | 156 | 213.4 | (181.3-249.7) | 250 | 95.5 | (84.0-108.1) | 71 | 17.5 | (13.7-22.0) |
| 2001 | 52 | 356.7 | (266.4-467.7) | 205 | 281.2 | (244.0-322.4) | 317 | 121.8 | (108.8-136.0) | 98 | 16.9 | (13.8-20.6) |
| 2002 | 62 | 414.4 | (317.7-531.3) | 290 | 387.7 | (344.4-435.0) | 330 | 126.4 | (113.1-140.8) | 145 | 19.3 | (16.3-22.7) |
| 2003 | 60 | 424.6 | (324.0-546.5) | 288 | 407.6 | (361.9-457.5) | 317 | 118.7 | (106.0-132.5) | 123 | 13.3 | (11.1-15.9) |
| 2004 | 94 | 639.1 | (516.5-782.1) | 367 | 499.0 | (449.3-552.8) | 361 | 138.8 | (124.9-153.9) | 162 | 14.7 | (12.5-17.1) |
| 2005 | 84 | 543.7 | (433.7-673.2) | 294 | 380.6 | (338.4-426.7) | 359 | 136.5 | (122.8-151.4) | 130 | 10.2 | (8.5-12.1) |
| 2006 | 88 | 539.8 | (432.9-665.0) | 243 | 298.1 | (261.8-338.0) | 249 | 90.6 | (79.7-102.5) | 153 | 11.2 | (9.5-13.1) |
| 2007 | 57 | 339.8 | (257.4-440.2) | 185 | 220.6 | (189.9-254.7) | 265 | 90.9 | (80.3-102.5) | 179 | 12.9 | (11.1-14.9) |
| 2008 | 72 | 441.7 | (345.6-556.3) | 237 | 290.8 | (255.0-330.3) | 302 | 100.3 | (89.3-112.3) | 148 | 10.4 | (8.8-12.3) |
| 2009 | 103 | 625.4 | (510.5-758.5) | 284 | 344.9 | (306.0-387.4) | 346 | 118.2 | (106.1-131.3) | 396 | 27.5 | (24.8-30.3) |
| 2010 | 70 | 440.8 | (343.6-556.9) | 251 | 316.1 | (278.2-357.7) | 309 | 105.6 | (94.1-118.0) | 242 | 16.5 | (14.5-18.8) |
| 2011 | 91 | 567.5 | (456.9-696.8) | 260 | 324.3 | (286.1-366.2) | 337 | 116.9 | (104.7-130.0) | 275 | 18.5 | (16.4-20.8) |
| 2012 | 82 | 497.5 | (395.7-617.6) | 325 | 394.4 | (352.7-439.7) | 411 | 142.8 | (129.3-157.3) | 348 | 23.2 | (20.8-25.8) |
| **Total** | **944** | **465.7** | **(436.5-496.4)** | **3385** | **334.0** | **(322.8-345.5)** | **4153** | **115.3** | **(111.8-118.8)** | **2470** | **16.4** | **(15.7-17.0)** |

**Supplementary Table S3 - Yearly changes in frequency of virus detection from nasal/NP specimens by age groups**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Year of specimen collection** | **<6 months** | | | **6-23 months** | | | **2-9 years** | | |
| **n** | **%** | **(95% CI)** | **n** | **%** | **(95% CI)** | **n** | **%** | **(95% CI)** |
| 2000 | 457 | 37.8 | (35.0-40.6) | 533 | 36.1 | (33.6-38.6) | 228 | 34.3 | (30.7-38.0) |
| 2001 | 387 | 30.2 | (27.7-32.8) | 437 | 29.9 | (27.6-32.3) | 182 | 27.6 | (24.2-31.2) |
| 2002 | 660 | 33.9 | (31.8-36.0) | 810 | 42.0 | (39.8-44.2) | 440 | 41.0 | (38.1-44.1) |
| 2003 | 525 | 31.0 | (28.8-33.2) | 685 | 39.1 | (36.8-41.4) | 380 | 37.3 | (34.3-40.3) |
| 2004 | 673 | 27.5 | (25.8-29.3) | 734 | 37.1 | (35.0-39.3) | 303 | 25.3 | (22.8-27.8) |
| 2005 | 564 | 30.7 | (28.6-32.9) | 602 | 33.5 | (31.4-35.8) | 362 | 30.7 | (28.0-33.4) |
| 2006 | 610 | 35.1 | (32.9-37.4) | 550 | 39.0 | (36.5-41.6) | 259 | 30.6 | (27.5-33.8) |
| 2007 | 469 | 31.7 | (29.4-34.2) | 596 | 34.1 | (31.8-36.3) | 363 | 34.4 | (31.5-37.3) |
| 2008 | 657 | 35.6 | (33.4-37.8) | 793 | 40.8 | (38.6-43.0) | 464 | 40.5 | (37.6-43.4) |
| 2009 | 560 | 29.9 | (27.8-32.0) | 857 | 36.3 | (34.3-38.3) | 996 | 40.9 | (38.9-42.9) |
| 2010 | 684 | 35.5 | (33.3-37.6) | 947 | 42.6 | (40.6-44.7) | 723 | 42.8 | (40.4-45.2) |
| 2011 | 653 | 34.1 | (32.0-36.3) | 937 | 37.9 | (36.0-39.9) | 836 | 37.3 | (35.3-39.3) |
| 2012 | 859 | 38.7 | (36.7-40.8) | 1187 | 43.5 | (41.6-45.4) | 1345 | 49.9 | (48.0-51.8) |
| **Total** | **7758** | **33.1** | **(32.5-33.7)** | **9668** | **38.2** | **(37.6-38.8)** | **6881** | **38.4** | **(37.7-39.1)** |