**Online supplement**

**Table S1** Age and sex specific incidence of psoriasis and psoriatic arthritis in the CPRD

|  |  |  |  |
| --- | --- | --- | --- |
| Age at diagnosis | Males | Females | Overall |
| (years)  | **Person yrs** | **Cases** | **Incidence rate (per 1,000 person years) (CI95)** | **Person yrs** | **Cases** | **Incidence rate (per 1,000 person years) (CI95)** | **Person yrs** | **Cases** | **Incidence rate (per 1,000 person years) (CI95)** |
| Psoriasis in the general population |
| 18-29 | 4,275,694 | 6,723 | 1.57 | (1.54-1.61) | 3,924,512 | 7,569 | 1.93 | (1.88-1.97) | 8,200,206 | 14,292 | 1.74 | (1.71-1.77) |
| 30-39 | 4,374,190 | 7,413 | 1.70 | (1.66-1.73) | 4,258,964 | 7,756 | 1.82 | (1.78-1.86) | 8,633,154 | 15,169 | 1.76 | (1.73-1.79) |
| 40-49 | 4,779,220 | 8,114 | 1.70 | (1.66-1.74) | 4,618,630 | 7,309 | 1.58 | (1.55-1.62) | 9,397,850 | 15,423 | 1.64 | (1.62-1.67) |
| 50-59 | 4,200,873 | 7,984 | 1.90 | (1.86-1.94) | 4,118,142 | 8,234 | 2.00 | (1.96-2.04) | 8,319,015 | 16,218 | 1.95 | (1.92-1.98) |
| 60-69 | 3,309,535 | 7,153 | 2.16 | (2.11-2.21) | 3,406,359 | 7,383 | 2.17 | (2.12-2.22) | 6,715,894 | 14,536 | 2.16 | (2.13-2.20) |
| 70-79 | 2,175,131 | 4,286 | 1.97 | (1.91-2.03) | 2,593,053 | 5,078 | 1.96 | (1.91-2.01) | 4,768,184 | 9,364 | 1.96 | (1.92-2.04) |
| 80-89 | 971,104 | 1,527 | 1.57 | (1.50-1.65) | 1,609,663 | 2,329 | 1.45 | (1.39-1.51) | 2,580,767 | 3,856 | 1.49 | (1.45-1.54) |
| Overall | **24,085,747** | **43,200** | **1.79** | **(1.78-1.81)** | **24,529,323** | **45,658** | **1.86** | **(1.84-1.88)** | **48,615,070** | **88,858** | **1.83** | **(1.82-1.84)** |
| Psoriatic arthritis in the general population |
| 18-29 | 4,375,532 | 225 | 0.05 | (0.05-0.06) | 4,046,411 | 267 | 0.07 | (0.06-0.07) | 8,421,943 | 492 | 0.06 | (0.05-0.06) |
| 30-39 | 4,508,721 | 663 | 0.15 | (13.6-15.9) | 4,411,615 | 581 | 0.13 | (0.12-0.15) | 8,920,336 | 1,244 | 0.14 | (0.13-0.15) |
| 40-49 | 4,955,609 | 936 | 0.19 | (0.18-0.20) | 4,798,095 | 843 | 0.18 | (0.16-0.19) | 9,753,704 | 1,779 | 0.18 | (0.17-0.19) |
| 50-59 | 4,380,455 | 763 | 0.17 | (0.16-0.19) | 4,286,417 | 898 | 0.21 | (0.20-0.22) | 8,666,872 | 1,661 | 0.19 | (0.18-0.20) |
| 60-69 | 3,472,195 | 476 | 0.14 | (0.13-0.15) | 3,563,447 | 559 | 0.16 | (0.14-0.17) | 7,035,642 | 1,035 | 0.15 | (0.14-0.16) |
| 70-79 | 2,286,513 | 210 | 0.09 | (0.08-0.11) | 2,718,659 | 231 | 0.09 | (0.08-0.10) | 5,005,172 | 441 | 0.09 | (0.08-0.10) |
| 80-89 | 1,015,331 | 54 | 0.05 | (0.04-0.07) | 1,678,516 | 77 | 0.05 | (0.04-0.06) | 2,693,847 | 131 | 0.05 | (0.04-0.06) |
| Overall | **24,994,356** | **3,327** | **0.13** | **(0.13-0.14)** | **25,503,160** | **3,456** | **0.14** | **(0.13-0.14)** | **50,497,516** | **6,783** | **0.13** | **(0.13-0.14)** |
| Psoriatic arthritis within the incident psoriasis cohort |
| 18-29 | 25,185 | 67 | 2.66 | (2.02-3.30) | 26,578 | 52 | 1.96 | (1.42-2.49) | 51,763 | 119 | 2.30 | (1.89-2.71) |
| 30-39 | 36,541 | 150 | 4.11 | (3.45-4.76) | 39,060 | 105 | 2.69 | (2.17-3.20) | 75,600 | 255 | 3.37 | (2.96-3.79) |
| 40-49 | 47,763 | 213 | 4.46 | (3.86-5.06) | 45,772 | 148 | 3.23 | (2.71-3.75) | 93,535 | 361 | 3.86 | (3.46-4.26) |
| 50-59 | 47,786 | 171 | 3.58 | (3.04-4.11) | 47,007 | 176 | 3.74 | (3.19-4.30) | 94,793 | 347 | 3.66 | (3.28-4.05) |
| 60-69 | 46,661 | 103 | 2.21 | (1.78-2.63) | 48,433 | 127 | 2.62 | (2.17-3.08) | 95,094 | 230 | 2.42 | (2.11-2.73) |
| 70-79 | 31,270 | 28 | 0.90 | (0.56-1.23) | 35,853 | 31 | 0.86 | (0.56-1.17) | 67,123 | 59 | 0.88 | (0.65-1.10) |
| 80-89 | 12,045 | 7 | 0.58 | (0.15-1.01) | 18,635 | 9 | 0.48 | (0.17-0.80) | 30,681 | 16 | 0.52 | (0.27-0.78) |
| Overall | **247,251** | **739** | **2.99** | **(2.77-3.20)** | **261,338** | **648** | **2.48** | **(2.29-2.67)** | **508,589** | **1,387** | **2.73** | **(2.58-2.87)** |