Supplemental Material 1. Model estimates for age-standardized incidence rates (ASIRs) (per 100,000 people) and cancer cases among 20 years and older population from the year 2020 to the year 2035 in AAPC-Joinpoint regression model

A. Model estimates for age-standardized incidence rates (ASIRs) (per 100,000 people)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **AAPC, %** | | **2020** | | | **2025** | | | **2030** | | | **2035** | | |
|  |  | **M** | **W** | **M** | **W** | **Total** | **M** | **W** | **Total** | **M** | **W** | **Total** | **M** | **W** | **Total** |
| **All cancer** | **C00-96** | **0.2** | **3.0** | **363.34** | **443.88** | **411.83** | **366.99** | **514.58** | **446.87** | **370.68** | **596.54** | **485.91** | **374.40** | **691.55** | **529.52** |
| Oral cavity, pharynx, Lip | C00-14 | 0.1 | 0.2 | 8.37 | 4.00 | 6.38 | 8.41 | 4.35 | 6.60 | 8.45 | 4.74 | 6.82 | 8.50 | 5.15 | 7.04 |
| MPL | C00-14, C32 | -1.4 | 0.8 | 11.00 | 4.13 | 7.90 | 10.25 | 4.31 | 7.63 | 9.56 | 4.47 | 7.35 | 8.93 | 4.66 | 7.10 |
| Aero-digestive | C00-C16, C18-20, C30-34 | -0.9 | 0.1 | 186.55 | 102.61 | 150.06 | 189.99 | 106.39 | 153.86 | 192.30 | 110.49 | 156.98 | 192.32 | 114.88 | 158.99 |
| Salivary | C07-08 | 2.1 | 3.6 | 1.15 | 1.27 | 1.22 | 1.28 | 1.52 | 1.41 | 1.42 | 1.81 | 1.61 | 1.57 | 2.16 | 1.85 |
| Pharynx | C10-14 | -1.1 | -1.5 | 2.70 | 0.59 | 1.74 | 2.55 | 0.55 | 1.65 | 2.41 | 0.51 | 1.57 | 2.28 | 0.47 | 1.49 |
| Nasopharynx | C11 | -0.8 | -1.4 | 1.18 | 0.41 | 0.81 | 1.13 | 0.39 | 0.78 | 1.09 | 0.36 | 0.74 | 1.05 | 0.34 | 0.71 |
| Esophagus | C15 | -2.9 | -1.6 | 5.54 | 0.71 | 3.41 | 4.81 | 0.66 | 3.02 | 4.17 | 0.61 | 2.66 | 3.61 | 0.57 | 2.34 |
| Stomach | C16 | -2.2 | -1.6 | 54.85 | 30.99 | 44.43 | 49.44 | 28.63 | 40.49 | 44.56 | 26.45 | 36.88 | 40.17 | 24.43 | 33.56 |
| Cardia | C16.0 | -0.4 | -0.4 | 2.89 | 1.10 | 2.10 | 2.83 | 1.08 | 2.08 | 2.77 | 1.07 | 2.05 | 2.72 | 1.04 | 2.01 |
| Non-cardia | C16.1-C16.6, C16.8 | -2.3 | 1.7 | 51.81 | 33.02 | 43.72 | 46.24 | 35.92 | 42.12 | 41.26 | 39.09 | 40.81 | 36.84 | 42.52 | 39.81 |
| Colorectal | C18-C20 | 2.1 | 1.7 | 52.08 | 38.10 | 46.27 | 58.36 | 41.65 | 51.43 | 65.38 | 45.54 | 57.17 | 73.25 | 49.79 | 63.52 |
| Liver | C22 | -3.2 | -2.7 | 31.45 | 11.04 | 22.01 | 27.00 | 9.72 | 19.10 | 23.18 | 8.54 | 16.56 | 19.90 | 7.52 | 14.36 |
| HCC | C22.0 | -3.0 | -2.9 | 25.55 | 7.30 | 17.01 | 22.05 | 6.33 | 14.78 | 19.01 | 5.49 | 12.82 | 16.40 | 4.76 | 11.13 |
| CC | C22.1 | 0.6 | 2.0 | 4.64 | 3.23 | 4.07 | 4.77 | 3.57 | 4.32 | 4.93 | 3.93 | 4.58 | 5.07 | 4.34 | 4.85 |
| Anus | C21 | -1.2 | 1.8 | 0.36 | 0.62 | 0.49 | 0.34 | 0.68 | 0.50 | 0.32 | 0.74 | 0.52 | 0.30 | 0.81 | 0.53 |
| Gallbladder | C23 | -1.5 | -0.8 | 2.74 | 4.19 | 3.48 | 2.55 | 4.03 | 3.28 | 2.36 | 3.89 | 3.10 | 2.19 | 3.74 | 2.92 |
| Biliary tract | C23-C24 | -0.2 | -0.1 | 9.01 | 9.43 | 9.42 | 8.93 | 9.56 | 9.44 | 8.84 | 9.72 | 9.45 | 8.75 | 9.86 | 9.45 |
| Pancreas | C25 | -0.1 | 2.4 | 10.39 | 10.48 | 10.58 | 10.38 | 11.80 | 11.16 | 10.38 | 13.29 | 11.79 | 10.38 | 14.96 | 12.48 |
| Nasal cavity/ PNS | C30-C31 | -0.7 | -0.4 | 0.80 | 0.57 | 0.70 | 0.77 | 0.56 | 0.68 | 0.75 | 0.54 | 0.65 | 0.72 | 0.53 | 0.64 |
| Larynx | C32 | -3.9 | -5.8 | 2.79 | 0.20 | 1.63 | 2.31 | 0.15 | 1.37 | 1.92 | 0.11 | 1.14 | 1.59 | 0.08 | 0.95 |
| Lung, Bronchus, Trachea | C33-C34 | -1.2 | 1.2 | 46.69 | 26.32 | 38.55 | 43.99 | 27.93 | 38.06 | 41.44 | 29.65 | 37.51 | 39.04 | 31.48 | 36.97 |
| Bone | C40-C41 | 0.4 | 1.1 | 0.93 | 0.89 | 0.91 | 0.96 | 0.94 | 0.96 | 0.98 | 0.99 | 0.98 | 1.00 | 1.05 | 1.01 |
| Melanoma | C43 | 1.5 | 3.1 | 0.99 | 1.05 | 1.03 | 1.07 | 1.23 | 1.15 | 1.16 | 1.43 | 1.29 | 1.25 | 1.67 | 1.44 |
| Non-melanoma, Skin | C44 | 4.7 | 6.2 | 7.89 | 10.85 | 9.40 | 9.93 | 14.66 | 12.22 | 12.49 | 19.79 | 15.89 | 15.72 | 26.74 | 20.68 |
| Mesothelioma | C45 | 2.9 | 2.8 | 0.36 | 0.15 | 0.27 | 0.42 | 0.17 | 0.31 | 0.48 | 0.20 | 0.36 | 0.56 | 0.22 | 0.42 |
| Kaposi sarcoma | C46 | 5.8 | 2.9 | 0.13 | 0.05 | 0.10 | 0.19 | 0.06 | 0.13 | 0.24 | 0.07 | 0.17 | 0.32 | 0.08 | 0.22 |
| Breast 1 | C50 | -0.7 | 5.9 | 0.26 | 105.30 | 51.97 | 0.25 | 138.29 | 67.22 | 0.25 | 181.59 | 86.86 | 0.24 | 238.45 | 112.14 |
| Premenopausal |  |  |  | 0.07 | 81.34 | 39.42 | 0.07 | 106.71 | 50.92 | 0.06 | 140.25 | 65.60 | 0.06 | 184.18 | 84.65 |
| Postmenopausal |  |  |  | 0.84 | 159.50 | 84.14 | 0.81 | 209.47 | 108.99 | 0.78 | 275.06 | 141.32 | 0.75 | 361.21 | 182.60 |
| Vulva | C51 | - | 2.2 | - | 0.61 | 0.61 | - | 0.68 | 0.68 | - | 0.76 | 0.76 | - | 0.84 | 0.84 |
| Vagina | C52 | - | -0.1 | - | 0.28 | 0.28 | - | 0.27 | 0.27 | - | 0.27 | 0.27 | - | 0.27 | 0.27 |
| Cervix uteri | C53 | - | -3.3 | - | 13.52 | 13.52 | - | 11.50 | 11.50 | - | 9.78 | 9.78 | - | 8.31 | 8.31 |
| Corpus uteri | C54 | - | 5.5 | - | 13.62 | 13.62 | - | 17.79 | 17.79 | - | 23.27 | 23.27 | - | 30.41 | 30.41 |
| Endometrium | C54.1 | - | 6.4 | - | 13.26 | 13.26 | - | 18.08 | 18.08 | - | 24.67 | 24.67 | - | 33.63 | 33.63 |
| Ovary | C56 | - | 2.1 | - | 13.26 | 13.26 | - | 11.88 | 11.88 | - | 13.04 | 13.04 | - | 14.33 | 14.33 |
| Penis | C60 | -2.7 | - | 0.22 | - | 0.22 | 0.19 | - | 0.19 | 0.17 | - | 0.17 | 0.14 | - | 0.14 |
| Prostate | C61 | 8.1 | - | 61.43 | - | 61.43 | 89.43 | - | 89.43 | 130.19 | - | 130.19 | 189.53 | - | 189.53 |
| Testis | C62 | 6.6 | - | 1.87 | - | 1.87 | 2.57 | - | 2.57 | 3.54 | - | 3.54 | 4.87 | - | 4.87 |
| Kidney | C64 | 4.3 | 4.9 | 14.03 | 6.83 | 10.65 | 16.37 | 8.67 | 12.83 | 21.38 | 11.02 | 16.60 | 26.39 | 13.99 | 20.67 |
| Kidney, renal pelvis, ureter | C64-C66 | 3.9 | 4.9 | 16.18 | 8.37 | 12.56 | 19.59 | 10.59 | 15.48 | 23.71 | 13.46 | 19.08 | 28.71 | 17.09 | 23.46 |
| Bladder | C67 | -0.8 | -0.9 | 9.05 | 2.45 | 6.20 | 8.70 | 2.40 | 6.06 | 8.36 | 2.35 | 5.90 | 8.03 | 2.30 | 5.73 |
| Brain and CNS | C70-C72 | 0.2 | 0.4 | 3.56 | 3.10 | 3.36 | 3.60 | 3.12 | 3.38 | 3.63 | 3.13 | 3.40 | 3.67 | 3.15 | 3.42 |
| Thyroid | C73 | 15.0 | 10.9 | 43.56 | 130.70 | 86.52 | 84.98 | 223.24 | 151.95 | 165.80 | 381.28 | 268.20 | 323.46 | 651.20 | 475.17 |
| Hodgkin lymphoma | C81 | 3.3 | 6.0 | 0.76 | 0.63 | 0.70 | 0.87 | 0.84 | 0.85 | 1.02 | 1.13 | 1.07 | 1.20 | 1.51 | 1.34 |
| Non-Hodgkin lymphoma | C82-C85, C96.3 | 1.7 | 2.6 | 9.06 | 7.71 | 8.51 | 9.76 | 8.73 | 9.36 | 10.53 | 9.88 | 10.30 | 11.34 | 11.17 | 11.31 |
| Multiple Myeloma | C90 | 2.5 | 3.9 | 2.56 | 2.67 | 2.65 | 2.90 | 3.24 | 3.10 | 3.28 | 3.93 | 3.62 | 3.71 | 4.75 | 4.22 |
| Leukemia | C91-C95 | 1.3 | 0.9 | 6.54 | 5.06 | 5.87 | 6.95 | 5.18 | 6.14 | 7.38 | 5.39 | 6.46 | 7.83 | 5.60 | 6.78 |

B. Model estimates for cancer cases

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **AAPC, %** | | **2020** | | | **2025** | | | **2030** | | | **2035** | | |
|  |  | **M** | **W** | **M** | **W** | **Total** | **M** | **W** | **Total** | **M** | **W** | **Total** | **M** | **W** | **Total** |
| **All cancer** | **C00-96** | **0.2** | **3.0** | **137,685** | **127,544** | **265,229** | **166,455** | **161,038** | **327,493** | **196,843** | **200,582** | **397,817** | **226,960** | **247,125** | **474,085** |
| Oral cavity, pharynx, Lip | C00-14 | 0.1 | 0.2 | 2,905 | 1,165 | 4,070 | 3,385 | 1,384 | 4,769 | 3,839 | 1,622 | 5,461 | 4,253 | 1,883 | 6,136 |
| MPL | C00-14, C32 | -1.4 | 0.8 | 4,022 | 1,220 | 5,242 | 4,413 | 1,391 | 5,804 | 4,708 | 1,564 | 6,272 | 4,893 | 1,742 | 6,635 |
| Aero-digestive | C00-C16, C18-20, C30-34 | -0.9 | 0.1 | 70,787 | 34,934 | 105,721 | 83,329 | 41,145 | 124,474 | 96,459 | 48,058 | 144,517 | 109,661 | 55,698 | 165,359 |
| Salivary | C07-08 | 2.1 | 3.6 | 329 | 320 | 649 | 414 | 403 | 817 | 511 | 498 | 1,009 | 614 | 612 | 1,226 |
| Pharynx | C10-14 | -1.1 | -1.5 | 977 | 164 | 1,141 | 1,083 | 163 | 1,246 | 1,167 | 162 | 1,329 | 1,232 | 157 | 1,389 |
| Nasopharynx | C11 | -0.8 | -1.4 | 338 | 109 | 447 | 352 | 107 | 459 | 357 | 104 | 461 | 355 | 101 | 456 |
| Esophagus | C15 | -2.9 | -1.6 | 2,350 | 259 | 2,609 | 2,480 | 275 | 2,755 | 2,538 | 284 | 2,822 | 2,522 | 288 | 2,810 |
| Stomach | C16 | -2.2 | -1.6 | 21,004 | 10,150 | 31,154 | 22,472 | 10,573 | 33,045 | 23,393 | 10,885 | 34,278 | 23,661 | 11,086 | 34,747 |
| Cardia | C16.0 | -0.4 | -0.4 | 1,145 | 364 | 1,509 | 1,361 | 403 | 1,764 | 1,568 | 442 | 2,010 | 1,755 | 483 | 2,238 |
| Non-cardia | C16.1-C16.6, C16.8 | -2.3 | 1.7 | 19,798 | 10,810 | 30,608 | 20,952 | 13,262 | 34,214 | 21,577 | 16,078 | 37,655 | 21,590 | 19,279 | 40,878 |
| Colorectal | C18-C20 | 2.1 | 1.7 | 20,087 | 13,293 | 33,380 | 26,850 | 16,575 | 43,425 | 34,982 | 20,412 | 55,394 | 44,405 | 24,898 | 69,303 |
| Liver | C22 | -3.2 | -2.7 | 11,624 | 4,006 | 15,648 | 11,636 | 4,087 | 15,723 | 11,361 | 4,107 | 15,468 | 10,836 | 4,068 | 14,904 |
| HCC | C22.0 | -3.0 | -2.9 | 9,181 | 2,579 | 11,760 | 9,104 | 2,570 | 11,674 | 8,805 | 2,524 | 11,329 | 8,320 | 2,442 | 10,762 |
| CC | C22.1 | 0.6 | 2.0 | 1,990 | 1,248 | 3,238 | 2,526 | 1,630 | 4,156 | 3,138 | 2,097 | 5,235 | 3,797 | 2,662 | 6,459 |
| Anus | C21 | -1.2 | 1.8 | 127 | 213 | 340 | 140 | 264 | 404 | 152 | 325 | 477 | 159 | 386 | 545 |
| Gallbladder | C23 | -1.5 | -0.8 | 1,241 | 1,625 | 2,866 | 1,445 | 1,855 | 3,301 | 1,636 | 2,083 | 3,719 | 1,820 | 2,306 | 4,126 |
| Biliary tract | C23-C24 | -0.2 | -0.1 | 4,086 | 3,748 | 7,834 | 5,065 | 4,531 | 9,596 | 6,116 | 5,382 | 11,498 | 7,238 | 6,311 | 13,549 |
| Pancreas | C25 | -0.1 | 2.4 | 4,235 | 3,936 | 8,171 | 5,132 | 5,202 | 10,334 | 6,085 | 6,810 | 12,895 | 7,033 | 8,781 | 15,814 |
| Nasal cavity/ PNS | C30-C31 | -0.7 | -0.4 | 271 | 176 | 447 | 302 | 192 | 495 | 327 | 209 | 536 | 346 | 225 | 571 |
| Larynx | C32 | -3.9 | -5.8 | 1,160 | 70 | 1,230 | 1,167 | 59 | 1,226 | 1,140 | 50 | 1,190 | 1,077 | 41 | 1,118 |
| Lung, Bronchus, Trachea | C33-C34 | -1.2 | 1.2 | 20,742 | 9,603 | 30,345 | 24,304 | 11,863 | 36,167 | 27,834 | 14,371 | 42,205 | 31,024 | 17,052 | 48,076 |
| Bone | C40-C41 | 0.4 | 1.1 | 222 | 222 | 444 | 241 | 246 | 487 | 260 | 272 | 532 | 278 | 300 | 578 |
| Melanoma | C43 | 1.5 | 3.1 | 358 | 353 | 711 | 453 | 467 | 920 | 567 | 614 | 1,181 | 695 | 796 | 1,491 |
| Non-melanoma, Skin | C44 | 4.7 | 6.2 | 3,297 | 4,364 | 7,661 | 5,116 | 6,996 | 12,112 | 7,762 | 11,039 | 18,801 | 11,564 | 17,393 | 28,957 |
| Mesothelioma | C45 | 2.9 | 2.8 | 147 | 53 | 200 | 203 | 70 | 273 | 282 | 89 | 371 | 371 | 111 | 482 |
| Kaposi sarcoma | C46 | 5.8 | 2.9 | 58 | 21 | 79 | 95 | 21 | 126 | 151 | 44 | 195 | 239 | 58 | 297 |
| Breast 1 | C50 | -0.7 | 5.9 | 106 | 27,195 | 27,301 | 125 | 36,730 | 36,855 | 145 | 48,583 | 48,728 | 162 | 63,037 | 63,199 |
| Premenopausal |  |  |  | 10 | 10,613 | 10,623 | 9 | 12,744 | 12,753 | 8 | 15,757 | 15,765 | 7 | 18,994 | 19,001 |
| Postmenopausal |  |  |  | 96 | 16,582 | 16,678 | 116 | 23,986 | 24,102 | 137 | 32,826 | 32,963 | 155 | 44,043 | 44,199 |
| Vulva | C51 | - | 2.2 | - | 203 | 203 | - | 256 | 256 | - | 317 | 317 | - | 390 | 390 |
| Vagina | C52 | - | -0.1 | - | 90 | 90 | - | 101 | 101 | - | 111 | 111 | - | 119 | 119 |
| Cervix uteri | C53 | - | -3.3 | - | 3,264 | 3,264 | - | 2,892 | 2,892 | - | 2,530 | 2,530 | - | 2,184 | 2,184 |
| Corpus uteri | C54 | - | 5.5 | - | 3,680 | 3,680 | - | 5,021 | 5,021 | - | 6,646 | 6,646 | - | 8,592 | 8,592 |
| Endometrium | C54.1 | - | 6.4 | - | 3,589 | 3,589 | - | 5,111 | 5,111 | - | 7,063 | 7,063 | - | 9,531 | 9,531 |
| Ovary | C56 | - | 2.1 | - | 3,590 | 3,590 | - | 3,412 | 3,412 | - | 3,898 | 3,898 | - | 4,374 | 4,374 |
| Penis | C60 | -2.7 | - | 66 | - | 66 | 67 | - | 67 | 68 | - | 68 | 69 | - | 69 |
| Prostate | C61 | 8.1 | - | 18,566 | - | 18,566 | 34,005 | - | 34,005 | 60,857 | - | 60,857 | 104,577 | - | 104,577 |
| Testis | C62 | 6.6 | - | 313 | - | 313 | 416 | 416 |  | 520 | - | 520 | 650 | - | 650 |
| Kidney | C64 | 4.3 | 4.9 | 4,459 | 2,079 | 6,569 | 5,944 | 2,905 | 8,849 | 8,551 | 3,995 | 12,546 | 11,372 | 5,433 | 16,805 |
| Kidney, renal pelvis, ureter | C64-C66 | 3.9 | 4.9 | 5,437 | 2,663 | 8,100 | 7,599 | 3,785 | 11,384 | 10,399 | 5,315 | 15,714 | 13,862 | 7,377 | 21,239 |
| Bladder | C67 | -0.8 | -0.9 | 3,963 | 945 | 4,908 | 4,731 | 1,092 | 5,823 | 5,527 | 1,240 | 6,767 | 6,302 | 1,394 | 7,696 |
| Brain and CNS | C70-C72 | 0.2 | 0.4 | 1,046 | 871 | 1,917 | 1,196 | 967 | 2,163 | 1,341 | 1,052 | 2,393 | 1,481 | 1,133 | 2,614 |
| Thyroid | C73 | 15.0 | 10.9 | 9,283 | 28,121 | 37,359 | 18,516 | 48,185 | 66,701 | 36,185 | 80,483 | 116,668 | 69,259 | 132,006 | 201,265 |
| Hodgkin lymphoma | C81 | 3.3 | 6.0 | 175 | 122 | 297 | 207 | 164 | 371 | 256 | 220 | 476 | 313 | 293 | 606 |
| Non-Hodgkin lymphoma | C82-C85, C96.3 | 1.7 | 2.6 | 2,990 | 2,324 | 5,314 | 3,755 | 2,928 | 6,683 | 4,627 | 3,658 | 8,285 | 5,594 | 4,499 | 10,093 |
| Multiple Myeloma | C90 | 2.5 | 3.9 | 1,048 | 957 | 2,005 | 1,438 | 1,345 | 2,783 | 1,925 | 1,868 | 3,793 | 2,498 | 2,541 | 5,039 |
| Leukemia | C91-C95 | 1.3 | 0.9 | 1,919 | 1,439 | 3,358 | 2,316 | 1,650 | 3,966 | 2,755 | 1,881 | 4,636 | 3,243 | 2,108 | 5,351 |

Abbreviation: M, Men; W, Women; MPL, Mouth, pharynx & larynx cancers; HCC, Hepatocellular carcinoma; CC, Cholangiocarcinoma; PNS, Peripheral Nervous System, CNS, Central Nervous System; NHL, Non-Hodgkin lymphoma

1. Definition of menopausal status: premenopausal (age <50) and postmenopausal (age ≥ 50).