Supplementary Material

**Supplementary Table 1.** Prevalence, Death and DALYs of Alzheimer's disease and other dementias in 1990 and 2019 for both sexes and percentage change of age-standardized rates per 100000

|  |  |  |  |
| --- | --- | --- | --- |
|  | **1990** | **2019** | **Percentage change in age-standardized rates between 1990 and 2019** |
| **Counts****(95% UI)** | **Rate****(95% UI)** | **Counts****(95% UI)** | **Rate****(95% UI)** |
| **Prevalence** | **Male** | 1223516(1017657,1430125) | 497(417.3,576.5) | 4851110(4022835,5654001) | 663.9(555.7,769.5) | 0.34(0.30,0.37) |
| **Female** | 2122457(1782794,2472986) | 673.8(571.6,783.2) | 8292840(7000733,9619121) | 871.7(736.7,1012.6) | 0.29(0.26,0.33) |
| **Death** | **Male** | 30472(7013,87061) | 19.1(4.3,53.2) | 106005(24781,304485) | 20.3(4.8,57.4) | 0.06(-0.09,0.28) |
| **Female** | 62843(14311,177076) | 25.4(6,69.2) | 214710(51100,559556) | 24.9(6,64.5) | -0.02(-0.19,0.23) |
| **DALYs** | **Male** | 677668(275157,1647186) | 290.1(117.7,700.2) | 2223508(980860,5104972) | 321.3(141.1,744.4) | 0.11(-0.05,0.29) |
| **Female** | 1168325(480603,2728266) | 381.4(157.3,876.1) | 3753532(1720507,8054393) | 399.9(184.2,860.7) | 0.05(-0.12,0.26) |

**Supplementary Table 2 (A).** The prevalence cases and age-standardized prevalence of Alzheimer's disease and other dementias in 1990 and 2019 and its temporal trends from 1990 to 2019

|  |  |  |  |
| --- | --- | --- | --- |
| **Male** | **1990** | **2019** | **1990-2019** |
| **Ages** | **Prevalence cases****No. (95% UI)** | **ASPR per 1000000****No. (95% UI)** | **Prevalence cases** **No. (95% UI)** | **ASPR per 1000000****No. (95% UI)** | **EAPC in ASPR****No. (95% CI)** |
| **40-44** | 2632(1300,4279) | 7.5(3.7,12.1) | 3932(1939,6525) | 7.6(3.7,12.6) | 0.16(0.1,0.21) |
| **45-49** | 16257(10514,23003) | 59.6(38.5,84.3) | 39022(25059,55011) | 63.1(40.5,89) | 0.28(0.24,0.32) |
| **50-54** | 47384(33926,63387) | 187.3(134.1,250.5) | 132447(94265,175476) | 210.8(150,279.2) | 0.47(0.42,0.51) |
| **55-59** | 93314(70023,118945) | 409.6(307.4,522.1) | 237370(175824,302282) | 498.2(369,634.5) | 0.69(0.64,0.73) |
| **60-64** | 143315(110611,182887) | 785.4(606.2,1002.3) | 409584(313781,524257) | 1037.9(795.1,1328.4) | 0.87(0.81,0.92) |
| **65-69** | 182382(138575,232674) | 1355.5(1029.9,1729.2) | 646156(494553,818101) | 1870.4(1431.5,2368.1) | 0.91(0.81,1) |
| **70-74** | 210993(161764,272739) | 2413.2(1850.1,3119.4) | 782191(608986,990198) | 3353(2610.5,4244.7) | 0.89(0.78,0.99) |
| **75-79** | 228828(177683,292067) | 4660(3618.5,5947.9) | 901754(707273,1130504) | 6378.8(5003.1,7996.9) | 0.86(0.76,0.96) |
| **80-84** | 194115(149146,251187) | 8922.7(6855.6,11546) | 1004237(782816,1285689) | 11990.6(9346.9,15351.2) | 0.85(0.77,0.94) |
| **85-89** | 86606(66035,110614) | 14476.5(11037.9,18489.4) | 572455(439704,721386) | 19225.8(14767.4,24227.6) | 0.85(0.78,0.93) |
| **90-94** | 15153(11339,19323) | 21128.2(15809.6,26942.9) | 108194(84748,133898) | 28005.7(21936.6,34659.1) | 0.83(0.75,0.91) |
| **95 plus** | 2536(1919,3248) | 29577.2(22376.4,37887.5) | 13767(10805,17071) | 38061.3(29871.8,47196.4) | 0.68(0.58,0.78) |

**(B)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Female** | **1990** | **2019** | **1990-2019** |
| **Ages** | **Prevalence cases****No. (95% UI)** | **ASPR per 1000000****No. (95% UI)** | **Prevalence cases** **No. (95% UI)** | **ASPR per 1000000****No. (95% UI)** | **EAPC in ASPR****No. (95% CI)** |
| **40-44** | 2610(1305,4274) | 8.2(4.1,13.4) | 4134(2060,6787) | 8.3(4.1,13.6) | 0.17(0.13,0.22) |
| **45-49** | 16140(10432,22733) | 66.1(42.7,93.1) | 41811(26868,58648) | 70.2(45.1,98.5) | 0.29(0.25,0.32) |
| **50-54** | 47277(33865,62734) | 210.2(150.5,278.9) | 147158(104238,193725) | 236.4(167.4,311.1) | 0.45(0.41,0.49) |
| **55-59** | 95832(71275,122183) | 463.4(344.7,590.8) | 262392(193543,336801) | 556(410.1,713.6) | 0.62(0.56,0.67) |
| **60-64** | 156905(121074,201910) | 913.6(705,1175.7) | 455540(348682,580858) | 1165.3(892,1485.9) | 0.74(0.68,0.79) |
| **65-69** | 232986(177610,297928) | 1674.7(1276.7,2141.5) | 801560(616941,1021793) | 2236.7(1721.5,2851.3) | 0.77(0.68,0.86) |
| **70-74** | 322669(248852,416123) | 3190.6(2460.7,4114.7) | 1089425(853456,1392553) | 4441.6(3479.5,5677.4) | 0.8(0.67,0.93) |
| **75-79** | 422238(331271,540676) | 6495.9(5096.4,8318) | 1416611(1125797,1781879) | 9017.4(7166.2,11342.5) | 0.75(0.62,0.89) |
| **80-84** | 442891(343719,568633) | 12787.9(9924.5,16418.6) | 1796345(1405506,2282802) | 16800.5(13145.1,21350.1) | 0.63(0.52,0.75) |
| **85-89** | 272450(208677,342509) | 20651(15817.1,25961.3) | 1420429(1102945,1780797) | 25699.7(19955.5,32219.8) | 0.52(0.43,0.61) |
| **90-94** | 88771(68589,111264) | 29497.5(22791.1,36971.6) | 662713(526081,817110) | 35675.2(28320,43986.7) | 0.46(0.37,0.54) |
| **95 plus** | 21687(16849,27182) | 40414.5(31397.8,50654.2) | 194722(155836,235604) | 47450.7(37974.9,57413.1) | 0.36(0.27,0.44) |

**Supplementary Table 3 (A).** The number of deaths and age-standardized mortality rates of Alzheimer's disease and other dementias in 1990 and 2019 and its temporal trends from 1990 to 2019

|  |  |  |  |
| --- | --- | --- | --- |
| **Male** | **1990** | **2019** | **1990-2019** |
| **Age** | **Deaths****No. (95% UI)** | **ASMR per 1000000****No. (95% UI)** | **Deaths****No. (95% UI)** | **ASMR per 1000000****No. (95% UI)** | **EAPC in ASMR****No. (95% CI)** |
| **40-44** | 41(4,152) | 0.1(0,0.4) | 55(5,192) | 0.1(0,0.4) | -0.4(-0.45,-0.35) |
| **45-49** | 222(29,748) | 0.8(0.1,2.7) | 440(54,1441) | 0.7(0.1,2.3) | -0.43(-0.5,-0.35) |
| **50-54** | 562(92,1843) | 2.2(0.4,7.3) | 1223(193,3803) | 1.9(0.3,6.1) | -0.37(-0.48,-0.26) |
| **55-59** | 1269(230,3809) | 5.6(1,16.7) | 2439(447,7309) | 5.1(0.9,15.3) | -0.11(-0.25,0.03) |
| **60-64** | 2227(470,6346) | 12.2(2.6,34.8) | 4749(963,14531) | 12(2.4,36.8) | 0.19(0.05,0.33) |
| **65-69** | 3305(720,9765) | 24.6(5.4,72.6) | 8431(1808,25298) | 24.4(5.2,73.2) | 0.24(0.11,0.38) |
| **70-74** | 4266(936,12615) | 48.8(10.7,144.3) | 11512(2537,32696) | 49.4(10.9,140.2) | 0.27(0.14,0.4) |
| **75-79** | 5267(1165,16101) | 107.3(23.7,327.9) | 15590(3446,47192) | 110.3(24.4,333.8) | 0.34(0.2,0.47) |
| **80-84** | 7329(1643,21607) | 336.9(75.5,993.2) | 29420(6551,88274) | 351.3(78.2,1054) | 0.33(0.21,0.45) |
| **85-89** | 4669(1051,13546) | 780.4(175.7,2264.2) | 24612(5623,70736) | 826.6(188.8,2375.7) | 0.37(0.27,0.47) |
| **90-94** | 1088(250,3132) | 1517.2(349.2,4366.8) | 6421(1459,18019) | 1662.2(377.5,4664.1) | 0.55(0.44,0.65) |
| **95 plus** | 227(51,664) | 2650.6(592.9,7746.9) | 1112(257,3054) | 3073.6(709.8,8444.3) | 0.8(0.68,0.93) |

**(B)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Female** | **1990** | **2019** | **1990-2019** |
| **Age** | **Deaths****No. (95% UI)** | **ASMR per 1000000****No. (95% UI)** | **Deaths****No. (95% UI)** | **ASMR per 1000000****No. (95% UI)** | **EAPC in ASMR****No. (95% CI)** |
| **40-44** | 40(4,140) | 0.1(0,0.4) | 52(5,180) | 0.1(0,0.4) | -0.65(-0.7,-0.6) |
| **45-49** | 215(29,700) | 0.9(0.1,2.9) | 437(56,1474) | 0.7(0.1,2.5) | -0.67(-0.75,-0.59) |
| **50-54** | 565(93,1763) | 2.5(0.4,7.8) | 1320(203,4178) | 2.1(0.3,6.7) | -0.5(-0.59,-0.41) |
| **55-59** | 1323(242,3716) | 6.4(1.2,18) | 2787(502,8201) | 5.9(1.1,17.4) | -0.01(-0.17,0.14) |
| **60-64** | 2494(520,7230) | 14.5(3,42.1) | 5671(1175,16549) | 14.5(3,42.3) | 0.29(0.15,0.43) |
| **65-69** | 4203(902,12407) | 30.2(6.5,89.2) | 10725(2305,30657) | 29.9(6.4,85.5) | 0.26(0.14,0.38) |
| **70-74** | 6337(1375,17951) | 62.7(13.6,177.5) | 15149(3370,41723) | 61.8(13.7,170.1) | 0.2(0.1,0.3) |
| **75-79** | 9510(2082,27556) | 146.3(32,423.9) | 22306(5121,64009) | 142(32.6,407.4) | 0.14(0.04,0.25) |
| **80-84** | 16325(3659,47769) | 471.4(105.6,1379.3) | 48304(11265,133183) | 451.8(105.4,1245.6) | 0.01(-0.08,0.09) |
| **85-89** | 14019(3276,38760) | 1062.6(248.3,2937.9) | 56123(13169,144315) | 1015.4(238.3,2611.1) | -0.1(-0.15,-0.04) |
| **90-94** | 5944(1390,15927) | 1975.3(461.9,5292.2) | 36935(8858,94484) | 1988.3(476.9,5086.2) | 0.12(0.06,0.18) |
| **95 plus** | 1868(429,5024) | 3480.5(799.7,9361.9) | 14901(3605,39751) | 3631.1(878.4,9686.8) | 0.35(0.25,0.45) |

**Supplementary Table 4 (A).** The number of DALYs and age-standardized DALY rates of Alzheimer's disease and other dementias in 1990 and 2019 and its temporal trends from 1990 to 2019

|  |  |  |  |
| --- | --- | --- | --- |
| **Male** | **1990** | **2019** | **1990-2019** |
| **Age** | **DALYs****No. (95% UI)** | **Age-standardized DALY rate per 1000000****No. (95% UI)** | **DALYs** **No. (95% UI)** | **Age-standardized DALY rate per 1000000****No. (95% UI)** | **EAPC in age-standardized DALY rates****No. (95% CI)** |
| **40-44** | 2289(504,7493) | 6.5(1.4,21.2) | 3087(721,9660) | 5.9(1.4,18.6) | -0.32(-0.36,-0.27) |
| **45-49** | 11410(3138,33660) | 41.8(11.5,123.3) | 23554(6964,64529) | 38.1(11.3,104.4) | -0.28(-0.35,-0.22) |
| **50-54** | 26757(8514,73480) | 105.7(33.6,290.4) | 61927(21485,155708) | 98.5(34.2,247.8) | -0.17(-0.25,-0.08) |
| **55-59** | 52649(17550,135496) | 231.1(77,594.7) | 108319(40001,260360) | 227.4(84,546.5) | 0.08(-0.03,0.19) |
| **60-64** | 79423(29056,197442) | 435.3(159.2,1082.1) | 181943(69874,448886) | 461(177.1,1137.5) | 0.36(0.25,0.46) |
| **65-69** | 98907(36633,249412) | 735.1(272.3,1853.6) | 273747(109228,672372) | 792.4(316.2,1946.2) | 0.41(0.32,0.51) |
| **70-74** | 110612(45650,272820) | 1265.1(522.1,3120.3) | 327655(149816,748658) | 1404.6(642.2,3209.3) | 0.45(0.37,0.53) |
| **75-79** | 110777(47191,271907) | 2255.9(961,5537.3) | 357491(166293,824190) | 2528.8(1176.3,5830.1) | 0.49(0.41,0.57) |
| **80-84** | 117367(49184,284339) | 5394.9(2260.8,13069.9) | 505000(225545,1160657) | 6029.7(2693,13858.3) | 0.47(0.39,0.54) |
| **85-89** | 55773(22183,134813) | 9322.6(3708,22534.3) | 310788(133972,744491) | 10437.8(4499.4,25003.6) | 0.48(0.43,0.54) |
| **90-94** | 10073(3930,24612) | 14045.5(5479.7,34317.4) | 61985(26011,144793) | 16044.7(6732.9,37479.3) | 0.62(0.55,0.68) |
| **95 plus** | 1630(657,3973) | 19010.3(7663.4,46340.9) | 8013(3357,18131) | 22152.7(9281.3,50125.2) | 0.68(0.62,0.75) |

**(B)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Female** | **1990** | **2019** | **1990-2019** |
| **Age** | **DALYs****No. (95% UI)** | **Age-standardized DALY rate per 1000000****No. (95% UI)** | **DALYs** **No. (95% UI)** | **Age-standardized DALY rate per 1000000****No. (95% UI)** | **EAPC in age-standardized DALY rates****No. (95% CI)** |
| **40-44** | 2202(494,6796) | 6.9(1.5,21.2) | 2966(700,8718) | 6(1.4,17.5) | -0.51(-0.55,-0.47) |
| **45-49** | 11064(3086,31723) | 45.3(12.6,129.9) | 23704(7020,66663) | 39.8(11.8,112) | -0.48(-0.54,-0.42) |
| **50-54** | 26735(8469,72893) | 118.8(37.6,324) | 67006(23447,174206) | 107.6(37.7,279.8) | -0.27(-0.34,-0.21) |
| **55-59** | 54456(18328,132814) | 263.3(88.6,642.2) | 122205(43739,294582) | 258.9(92.7,624.2) | 0.14(0.02,0.25) |
| **60-64** | 88102(31670,223828) | 513(184.4,1303.3) | 212180(80752,510261) | 542.8(206.6,1305.3) | 0.39(0.3,0.49) |
| **65-69** | 125302(45778,321918) | 900.7(329.1,2313.9) | 343740(136471,813470) | 959.2(380.8,2269.9) | 0.39(0.32,0.46) |
| **70-74** | 164518(69674,389224) | 1626.8(688.9,3848.7) | 436318(202729,968590) | 1778.9(826.5,3948.9) | 0.38(0.34,0.42) |
| **75-79** | 199644(86925,468689) | 3071.4(1337.3,7210.6) | 523138(257302,1144427) | 3330(1637.8,7284.8) | 0.33(0.29,0.37) |
| **80-84** | 260799(111044,624283) | 7530.3(3206.3,18025.4) | 844871(395413,1839349) | 7901.7(3698.1,17202.7) | 0.18(0.15,0.22) |
| **85-89** | 167518(68842,389904) | 12697.4(5218,29553.7) | 717153(321112,1487906) | 12975.4(5809.9,26920.5) | 0.06(0.03,0.09) |
| **90-94** | 54724(22517,126148) | 18184(7482,41917.2) | 353794(156946,752516) | 19045.5(8448.7,40509.5) | 0.18(0.15,0.21) |
| **95 plus** | 13263(5347,30806) | 24715.7(9964.7,57406.2) | 106456(46358,234576) | 25941.8(11296.8,57162.7) | 0.27(0.21,0.33) |

**Supplementary Table 5.** Trends in age-standardized prevalence and age-standardized mortality among Chinese women, 1990-2044

|  |  |  |
| --- | --- | --- |
| **Year** | **Deaths** | **Prevalence** |
| **1990-1994** | 17.37 | 595.52 |
| **1995-1999** | 16.79 | 633.55 |
| **2000-2004** | 17.05 | 633.45 |
| **2005-2009** | 16.86 | 627.69 |
| **2010-2014** | 16.61 | 650.5 |
| **2015-2019** | 16.67 | 703.19 |
| **2020-2024** | 16.72 | 723.85 |
| **2025-2029** | 16.7 | 734.18 |
| **2030-2034** | 16.56 | 734.24 |
| **2035-2039** | 16.32 | 726.82 |
| **2040-2044** | 16.1 | 718.07 |