

eTable 1. Rates and rate ratios in NHIS and the general population by year, weighted and unweighted, by sex

| Men only | | | | | |
|------------|----------------------------------|----------------------------|----------------------------|---------------------------|--|
| Year | Population rate, unweighted (CI) | NHIS rate, unweighted (CI) | NHIS rate, weighted (CI) | Rate ratio, weighted (CI) | |
| 1990 | 2135.83 (2135.82, 2135.85) | 1797.96 (1764.71, 1831.21) | 1781.85 (1763.27, 1800.43) | 0.834 (0.822, 0.845) | |
| 1991 | 2044.2 (2044.17, 2044.23) | 1723.77 (1682.16, 1765.37) | 1717.98 (1692.64, 1743.32) | 0.841 (0.824, 0.857) | |
| 1992 | 1956.2 (1956.18, 1956.23) | 1698.17 (1651.96, 1744.38) | 1693.71 (1668.68, 1718.73) | 0.86 (0.844, 0.877) | |
| 1993 | 1872.57 (1872.55, 1872.6) | 1635.84 (1589.72, 1681.96) | 1624.94 (1599.47, 1650.42) | 0.868 (0.85, 0.886) | |
| 1994 | 1785.73 (1785.71, 1785.75) | 1577.32 (1540.35, 1614.3) | 1569.61 (1546.62, 1592.61) | 0.878 (0.861, 0.894) | |
| 1995 | 1702.1 (1702.09, 1702.11) | 1525.77 (1489.35, 1562.19) | 1523.11 (1500.83, 1545.39) | 0.893 (0.874, 0.911) | |
| 1996 | 1622.76 (1622.74, 1622.77) | 1411.26 (1361.13, 1461.39) | 1414.57 (1384.23, 1444.91) | 0.867 (0.842, 0.891) | |
| 1997 | 1545.78 (1545.77, 1545.8) | 1376.13 (1332.95, 1419.3) | 1373.18 (1348.77, 1397.59) | 0.885 (0.865, 0.905) | |
| 1998 | 1465.56 (1465.55, 1465.57) | 1297.66 (1258.67, 1336.66) | 1286.55 (1264.68, 1308.43) | 0.876 (0.856, 0.896) | |
| 1999 | 1396.35 (1396.33, 1396.37) | 1227.85 (1189.71, 1265.98) | 1205.34 (1181.66, 1229.01) | 0.866 (0.844, 0.887) | |
| 2000 | 1321.15 (1321.14, 1321.16) | 1194.76 (1161, 1228.51) | 1173.5 (1152.56, 1194.44) | 0.889 (0.868, 0.91) | |
| 2001 | 1250.8 (1250.78, 1250.81) | 1101.37 (1062.77, 1139.96) | 1086.36 (1063.35, 1109.38) | 0.865 (0.84, 0.889) | |
| 2002 | 1183.58 (1183.57, 1183.59) | 1034.5 (996.26, 1072.74) | 1028.89 (1006.02, 1051.77) | 0.866 (0.842, 0.889) | |
| 2003 | 1119.44 (1119.43, 1119.45) | 982.19 (940.74, 1023.64) | 960.1 (936.29, 983.9) | 0.857 (0.829, 0.886) | |
| 2004 | 1058.2 (1058.19, 1058.22) | 893.18 (842.74, 943.62) | 882.62 (854.29, 910.95) | 0.831 (0.797, 0.866) | |
| 2005 | 1004.58 (1004.57, 1004.6) | 869.39 (816.52, 922.25) | 843.44 (814.52, 872.37) | 0.843 (0.806, 0.88) | |
| 2006 | 950.06 (950.04, 950.07) | 765.81 (710.28, 821.35) | 776.18 (745.77, 806.59) | 0.822 (0.781, 0.864) | |
| 2007 | 901.01 (901, 901.02) | 729 (680.71, 777.28) | 716.34 (688.92, 743.77) | 0.798 (0.759, 0.838) | |
| 2008 | 855.94 (855.92, 855.95) | 705.16 (643.67, 766.65) | 695.43 (660.98, 729.89) | 0.815 (0.764, 0.867) | |
| 2009 | 810.62 (810.6, 810.63) | 619.51 (563.07, 675.96) | 670.12 (630.84, 709.4) | 0.824 (0.762, 0.887) | |
| Women only | | | | | |
| Year | Population rate, unweighted (CI) | NHIS rate, unweighted (CI) | NHIS rate, weighted (CI) | Rate ratio, weighted (CI) | |
| 1990 | 1448.67 (1448.65, 1448.68) | 1295.86 (1266.45, 1325.26) | 1276.44 (1255.28, 1297.59) | 0.882 (0.867, 0.898) | |
| 1991 | 1387.59 (1387.58, 1387.6) | 1226.79 (1203.09, 1250.5) | 1219.17 (1203.64, 1234.69) | 0.879 (0.868, 0.891) | |
| 1992 | 1326.4 (1326.39, 1326.41) | 1191.31 (1164.77, 1217.85) | 1173.58 (1156.63, 1190.53) | 0.885 (0.872, 0.899) | |
| 1993 | 1268.27 (1268.26, 1268.28) | 1139.44 (1113.45, 1165.42) | 1127.98 (1108.57, 1147.39) | 0.89 (0.874, 0.907) | |
| 1994 | 1207.8 (1207.79, 1207.81) | 1126.19 (1105.13, 1147.24) | 1117.26 (1102.8, 1131.73) | 0.925 (0.912, 0.938) | |
| 1995 | 1148.82 (1148.81, 1148.83) | 1056.61 (1033.14, 1080.08) | 1057.03 (1038.77, 1075.29) | 0.921 (0.905, 0.938) | |
| 1996 | 1091.84 (1091.83, 1091.85) | 988.02 (948.2, 1027.83) | 970.91 (943.61, 998.21) | 0.889 (0.863, 0.915) | |
| 1997 | 1035.54 (1035.52, 1035.55) | 952.34 (921.95, 982.74) | 937.89 (915.43, 960.36) | 0.907 (0.884, 0.929) | |
| 1998 | 980.15 (980.14, 980.16) | 913.77 (877.54, 949.99) | 901.95 (878.14, 925.77) | 0.921 (0.896, 0.947) | |
| 1999 | 928.87 (928.86, 928.88) | 829.51 (797.75, 861.27) | 834.54 (815.03, 854.04) | 0.9 (0.878, 0.922) | |
| 2000 | 874.93 (874.92, 874.94) | 781.28 (743.76, 818.81) | 776.82 (748.6, 805.04) | 0.889 (0.855, 0.922) | |
| 2001 | 824.69 (824.68, 824.7) | 721.16 (681.29, 761.03) | 702.44 (675.52, 729.35) | 0.853 (0.819, 0.887) | |
| 2002 | 776.61 (776.6, 776.62) | 694.94 (665.49, 724.38) | 681.31 (660.54, 702.09) | 0.878 (0.85, 0.906) | |
| 2003 | 731.3 (731.29, 731.31) | 654.64 (614.58, 694.7) | 630.47 (610.71, 650.24) | 0.865 (0.829, 0.901) | |
| 2004 | 688.91 (688.91, 688.92) | 581.92 (552.37, 611.47) | 569.2 (549.99, 588.42) | 0.827 (0.792, 0.861) | |
| 2005 | 650.91 (650.9, 650.92) | 597.26 (564.73, 629.79) | 580.59 (563.97, 597.2) | 0.896 (0.862, 0.929) | |
| 2006 | 613.38 (613.37, 613.39) | 489.57 (436.92, 542.22) | 500.12 (468.83, 531.4) | 0.824 (0.758, 0.89) | |
| 2007 | 579.47 (579.46, 579.48) | 490.02 (448.21, 531.84) | 467.71 (445.22, 490.2) | 0.807 (0.758, 0.857) | |
| 2008 | 548.87 (548.86, 548.88) | 455.25 (413.61, 496.88) | 454.92 (426.67, 483.17) | 0.833 (0.767, 0.899) | |
| 2009 | 518.11 (518.1, 518.12) | 374.59 (329.29, 419.9) | 373.05 (347.04, 399.05) | 0.724 (0.66, 0.787) | |

eTable 2. Rate ratios comparing mortality rates in weighted NHIS and the general population by age and year.

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| 18-19 | 0.759 (0.754, 0.764) | 0.574 (0.569, 0.578) | 0.927 (0.92, 0.933) | 0.79 (0.784, 0.797) | 0.833 (0.826, 0.839) | 0.875 (0.868, 0.882) | 0.93 (0.923, 0.938) | 0.754 (0.747, 0.761) | 0.713 (0.707, 0.72) | 0.76 (0.754, 0.767) |
| 20-24 | 0.746 (0.743, 0.749) | 0.762 (0.759, 0.765) | 0.751 (0.748, 0.754) | 0.64 (0.637, 0.643) | 0.917 (0.913, 0.921) | 0.935 (0.93, 0.939) | 0.772 (0.768, 0.776) | 0.921 (0.916, 0.926) | 0.842 (0.837, 0.846) | 0.885 (0.88, 0.89) |
| 25-29 | 0.774 (0.772, 0.776) | 0.764 (0.761, 0.766) | 0.846 (0.843, 0.849) | 0.706 (0.704, 0.709) | 0.737 (0.735, 0.74) | 0.708 (0.705, 0.711) | 0.71 (0.706, 0.713) | 0.823 (0.819, 0.827) | 0.725 (0.722, 0.729) | 0.739 (0.735, 0.743) |
| 30-34 | 0.746 (0.744, 0.748) | 0.809 (0.807, 0.811) | 0.753 (0.751, 0.755) | 0.765 (0.762, 0.767) | 0.805 (0.803, 0.808) | 0.818 (0.816, 0.821) | 0.724 (0.722, 0.727) | 0.831 (0.828, 0.834) | 0.94 (0.936, 0.944) | 0.936 (0.933, 0.94) |
| 35-39 | 0.843 (0.842, 0.845) | 0.791 (0.789, 0.793) | 0.801 (0.8, 0.803) | 0.811 (0.809, 0.813) | 0.839 (0.837, 0.841) | 0.842 (0.84, 0.844) | 0.834 (0.832, 0.837) | 0.787 (0.785, 0.789) | 0.86 (0.858, 0.863) | 0.885 (0.882, 0.888) |
| 40-44 | 0.858 (0.856, 0.86) | 0.825 (0.823, 0.826) | 0.842 (0.84, 0.844) | 0.911 (0.909, 0.913) | 0.876 (0.874, 0.878) | 0.869 (0.867, 0.871) | 0.83 (0.828, 0.832) | 0.864 (0.862, 0.866) | 0.931 (0.928, 0.933) | 0.91 (0.907, 0.912) |
| 45-49 | 0.854 (0.853, 0.856) | 0.828 (0.827, 0.83) | 0.822 (0.82, 0.823) | 0.865 (0.863, 0.866) | 0.914 (0.913, 0.916) | 0.871 (0.869, 0.872) | 0.945 (0.943, 0.947) | 0.836 (0.835, 0.838) | 0.88 (0.878, 0.882) | 0.924 (0.922, 0.927) |
| 50-54 | 0.882 (0.881, 0.883) | 0.829 (0.828, 0.831) | 0.882 (0.88, 0.883) | 0.873 (0.871, 0.875) | 0.877 (0.875, 0.879) | 0.892 (0.89, 0.894) | 0.905 (0.903, 0.907) | 0.909 (0.907, 0.911) | 0.943 (0.941, 0.945) | 0.865 (0.863, 0.867) |
| 55-59 | 0.828 (0.827, 0.829) | 0.871 (0.87, 0.872) | 0.839 (0.838, 0.841) | 0.932 (0.931, 0.933) | 0.881 (0.88, 0.882) | 0.944 (0.943, 0.946) | 0.952 (0.951, 0.954) | 0.928 (0.926, 0.93) | 0.849 (0.847, 0.851) | 0.876 (0.874, 0.878) |
| 60-64 | 0.878 (0.877, 0.879) | 0.906 (0.905, 0.907) | 0.893 (0.891, 0.894) | 0.91 (0.908, 0.911) | 0.921 (0.92, 0.923) | 0.932 (0.931, 0.933) | 0.869 (0.867, 0.87) | 0.927 (0.925, 0.929) | 0.961 (0.959, 0.963) | 0.887 (0.886, 0.889) |
| 65-69 | 0.912 (0.911, 0.913) | 0.908 (0.907, 0.909) | 0.916 (0.915, 0.917) | 0.941 (0.94, 0.942) | 0.933 (0.932, 0.934) | 0.96 (0.958, 0.961) | 0.879 (0.878, 0.88) | 0.917 (0.916, 0.919) | 0.938 (0.936, 0.939) | 0.925 (0.924, 0.927) |
| 70-74 | 0.869 (0.868, 0.87) | 0.877 (0.876, 0.878) | 0.882 (0.881, 0.883) | 0.858 (0.857, 0.859) | 0.922 (0.921, 0.923) | 0.897 (0.896, 0.898) | 0.831 (0.83, 0.832) | 0.926 (0.925, 0.927) | 0.89 (0.889, 0.891) | 0.891 (0.89, 0.893) |
| 75-79 | 0.837 (0.836, 0.838) | 0.852 (0.851, 0.853) | 0.903 (0.902, 0.904) | 0.87 (0.869, 0.871) | 0.912 (0.911, 0.913) | 0.909 (0.908, 0.91) | 0.92 (0.918, 0.921) | 0.887 (0.886, 0.888) | 0.865 (0.864, 0.866) | 0.851 (0.85, 0.852) |
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| 18-19 | 0.884 (0.876, 0.892) | 0.907 (0.898, 0.915) | 0.721 (0.713, 0.728) | 1.237 (1.225, 1.25) | 0.891 (0.881, 0.901) | 0.85 (0.839, 0.861) | 1.165 (1.15, 1.18) | 1.65 (1.628, 1.671) | 0.501 (0.491, 0.512) | 0.931 (0.912, 0.95) |
| 20-24 | 0.897 (0.892, 0.902) | 0.784 (0.779, 0.788) | 0.655 (0.65, 0.659) | 0.756 (0.751, 0.762) | 0.807 (0.801, 0.813) | 0.917 (0.911, 0.924) | 0.646 (0.64, 0.652) | 0.941 (0.932, 0.949) | 0.534 (0.527, 0.54) | 1.166 (1.153, 1.179) |
| 25-29 | 0.874 (0.869, 0.878) | 0.566 (0.562, 0.569) | 0.751 (0.746, 0.756) | 0.637 (0.632, 0.641) | 0.944 (0.937, 0.95) | 1.012 (1.005, 1.019) | 0.562 (0.557, 0.567) | 0.738 (0.731, 0.745) | 0.754 (0.746, 0.762) | 0.234 (0.23, 0.238) |
| 30-34 | 0.782 (0.779, 0.786) | 0.859 (0.855, 0.863) | 0.779 (0.775, 0.783) | 0.711 (0.707, 0.716) | 0.613 (0.608, 0.617) | 0.755 (0.749, 0.76) | 0.736 (0.73, 0.742) | 0.723 (0.717, 0.73) | 1.049 (1.04, 1.059) | 0.507 (0.5, 0.514) |
| 35-39 | 0.859 (0.856, 0.862) | 0.762 (0.759, 0.765) | 0.877 (0.874, 0.881) | 0.876 (0.872, 0.88) | 0.887 (0.882, 0.891) | 0.826 (0.822, 0.831) | 0.863 (0.857, 0.868) | 1.011 (1.004, 1.017) | 0.781 (0.774, 0.787) | 0.801 (0.793, 0.809) |
| 40-44 | 0.849 (0.847, 0.852) | 0.802 (0.8, 0.805) | 0.901 (0.898, 0.904) | 0.756 (0.753, 0.759) | 0.612 (0.609, 0.614) | 0.605 (0.602, 0.608) | 0.533 (0.531, 0.536) | 0.779 (0.774, 0.783) | 0.659 (0.655, 0.664) | 0.66 (0.655, 0.666) |
| 45-49 | 0.925 (0.922, 0.927) | 0.811 (0.809, 0.813) | 0.872 (0.869, 0.874) | 0.859 (0.857, 0.862) | 1.018 (1.014, 1.021) | 0.952 (0.949, 0.955) | 0.848 (0.844, 0.851) | 0.722 (0.719, 0.725) | 0.74 (0.737, 0.744) | 0.669 (0.665, 0.673) |
| 50-54 | 0.922 (0.92, 0.924) | 0.876 (0.874, 0.878) | 0.861 (0.858, 0.863) | 1.009 (1.006, 1.011) | 0.81 (0.807, 0.812) | 0.964 (0.961, 0.967) | 0.944 (0.941, 0.947) | 0.936 (0.932, 0.939) | 1.072 (1.067, 1.076) | 1.035 (1.03, 1.04) |
| 55-59 | 0.894 (0.892, 0.896) | 0.86 (0.858, 0.862) | 0.923 (0.921, 0.925) | 0.893 (0.891, 0.896) | 0.766 (0.764, 0.768) | 0.954 (0.952, 0.957) | 1.048 (1.045, 1.051) | 0.88 (0.877, 0.883) | 0.901 (0.898, 0.905) | 0.773 (0.77, 0.777) |
| 60-64 | 0.925 (0.924, 0.927) | 0.868 (0.866, 0.87) | 0.872 (0.87, 0.874) | 0.891 (0.889, 0.893) | 0.778 (0.776, 0.78) | 0.873 (0.871, 0.876) | 0.906 (0.903, 0.909) | 0.671 (0.668, 0.673) | 0.754 (0.751, 0.756) | 0.824 (0.821, 0.828) |
| 65-69 | 0.874 (0.873, 0.876) | 0.915 (0.913, 0.916) | 0.908 (0.906, 0.91) | 0.884 (0.882, 0.886) | 0.886 (0.884, 0.888) | 0.905 (0.903, 0.908) | 0.816 (0.813, 0.818) | 0.814 (0.812, 0.816) | 0.94 (0.937, 0.943) | 0.723 (0.72, 0.725) |
| 70-74 | 0.896 (0.895, 0.898) | 0.896 (0.895, 0.898) | 0.864 (0.862, 0.865) | 0.832 (0.831, 0.834) | 0.831 (0.829, 0.833) | 0.867 (0.865, 0.869) | 0.809 (0.807, 0.811) | 0.802 (0.8, 0.804) | 0.822 (0.819, 0.824) | 0.75 (0.748, 0.753) |
| 75-79 | 0.887 (0.886, 0.888) | 0.84 (0.839, 0.842) | 0.864 (0.863, 0.865) | 0.824 (0.823, 0.826) | 0.842 (0.84, 0.843) | 0.784 (0.783, 0.786) | 0.706 (0.704, 0.708) | 0.753 (0.751, 0.754) | 0.706 (0.704, 0.708) | 0.791 (0.789, 0.794) |

Table 3. Rate ratios comparing mortality rates in men and women in NHIS and the general population by year, weighted

| Year | NHIS Rate ratio, weighted (CI) | Population rate ratio, weighted (CI) |
|--------------|---------------------------------------|---------------------------------------------|
| 1990 | 0.702 (0.684, 0.72) | 0.661 (0.651, 0.672) |
| 1991 | 0.693 (0.676, 0.709) | 0.662 (0.651, 0.673) |
| 1992 | 0.679 (0.665, 0.693) | 0.662 (0.651, 0.674) |
| 1993 | 0.681 (0.664, 0.698) | 0.662 (0.651, 0.674) |
| 1994 | 0.696 (0.678, 0.714) | 0.662 (0.65, 0.674) |
| 1995 | 0.683 (0.665, 0.701) | 0.662 (0.65, 0.673) |
| 1996 | 0.678 (0.656, 0.701) | 0.661 (0.649, 0.672) |
| 1997 | 0.676 (0.655, 0.697) | 0.659 (0.648, 0.671) |
| 1998 | 0.695 (0.67, 0.719) | 0.658 (0.647, 0.67) |
| 1999 | 0.686 (0.664, 0.708) | 0.656 (0.644, 0.667) |
| 2000 | 0.654 (0.626, 0.682) | 0.653 (0.642, 0.664) |
| 2001 | 0.641 (0.618, 0.664) | 0.651 (0.64, 0.662) |
| 2002 | 0.658 (0.631, 0.684) | 0.648 (0.637, 0.659) |
| 2003 | 0.655 (0.62, 0.689) | 0.645 (0.634, 0.657) |
| 2004 | 0.639 (0.6, 0.678) | 0.643 (0.632, 0.655) |
| 2005 | 0.685 (0.649, 0.721) | 0.64 (0.629, 0.652) |
| 2006 | 0.645 (0.591, 0.698) | 0.638 (0.626, 0.65) |
| 2007 | 0.648 (0.602, 0.695) | 0.636 (0.624, 0.648) |
| 2008 | 0.652 (0.583, 0.721) | 0.634 (0.622, 0.646) |
| 2009 | 0.556 (0.494, 0.618) | 0.633 (0.621, 0.644) |
| Total | 0.678 (0.67, 0.686) | 0.657 (0.653, 0.661) |

eTable 4. Rate ratios comparing death rates in blacks and whites in NHIS and the general population by year, weighted

| Year | NHIS Rate ratio, weighted (CI) | Population rate ratio, weighted (CI) |
|--------------|---------------------------------------|---------------------------------------------|
| 1990 | 1.238 (1.163, 1.313) | 1.431 (1.35, 1.511) |
| 1991 | 1.195 (1.119, 1.27) | 1.435 (1.353, 1.516) |
| 1992 | 1.298 (1.217, 1.378) | 1.435 (1.353, 1.517) |
| 1993 | 1.291 (1.213, 1.37) | 1.442 (1.361, 1.523) |
| 1994 | 1.396 (1.3, 1.492) | 1.445 (1.366, 1.524) |
| 1995 | 1.46 (1.354, 1.567) | 1.446 (1.368, 1.525) |
| 1996 | 1.383 (1.265, 1.501) | 1.447 (1.369, 1.525) |
| 1997 | 1.417 (1.312, 1.521) | 1.448 (1.372, 1.523) |
| 1998 | 1.417 (1.306, 1.529) | 1.452 (1.38, 1.525) |
| 1999 | 1.494 (1.38, 1.608) | 1.454 (1.384, 1.524) |
| 2000 | 1.366 (1.263, 1.469) | 1.451 (1.383, 1.52) |
| 2001 | 1.494 (1.381, 1.607) | 1.449 (1.381, 1.517) |
| 2002 | 1.302 (1.173, 1.431) | 1.447 (1.381, 1.513) |
| 2003 | 1.767 (1.608, 1.926) | 1.446 (1.38, 1.511) |
| 2004 | 1.438 (1.277, 1.599) | 1.443 (1.38, 1.506) |
| 2005 | 1.529 (1.408, 1.65) | 1.441 (1.38, 1.501) |
| 2006 | 1.241 (1.066, 1.416) | 1.437 (1.379, 1.494) |
| 2007 | 1.426 (1.249, 1.602) | 1.434 (1.38, 1.487) |
| 2008 | 1.267 (1.016, 1.517) | 1.427 (1.376, 1.477) |
| 2009 | 1.206 (0.966, 1.446) | 1.426 (1.378, 1.473) |
| Total | 1.362 (1.334, 1.391) | 1.441 (1.421, 1.462) |