

Supplementary Online Content

Mokdad AH, Dwyer-Lindgren L, Fitzmaurice C, et al. Trends and patterns of disparities in cancer mortality among US counties, 1980-2014. *JAMA*. doi:10.1001/jama.2016.20324

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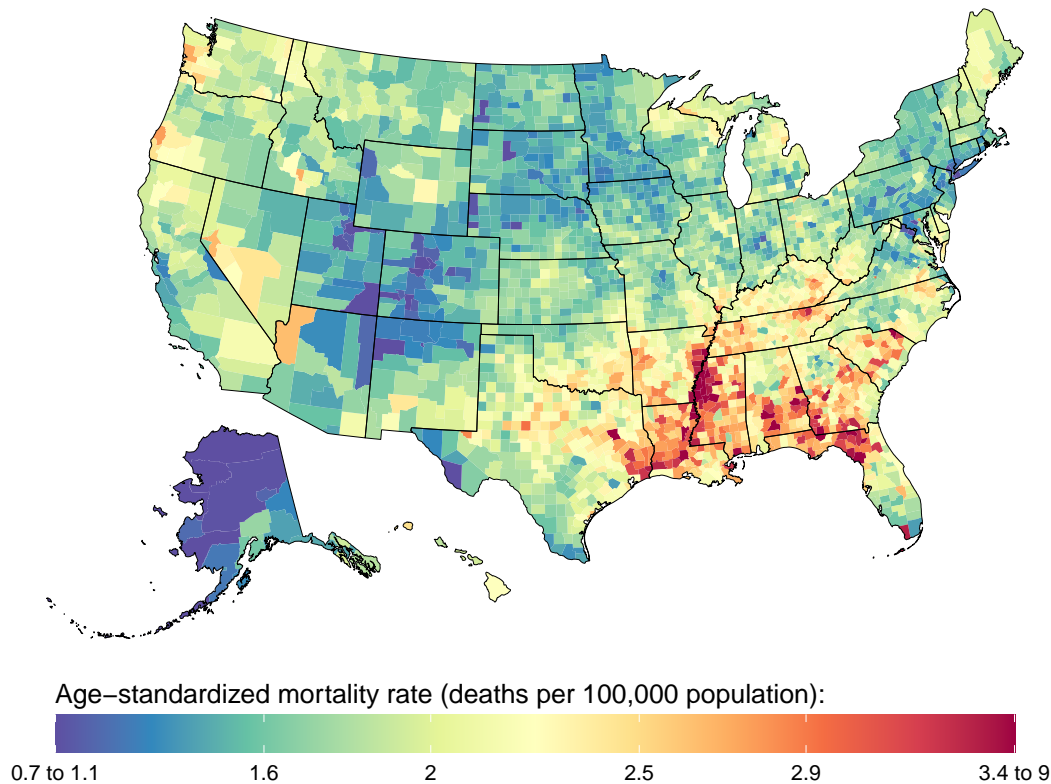
This supplementary material has been provided by the authors to give readers additional information about their work.

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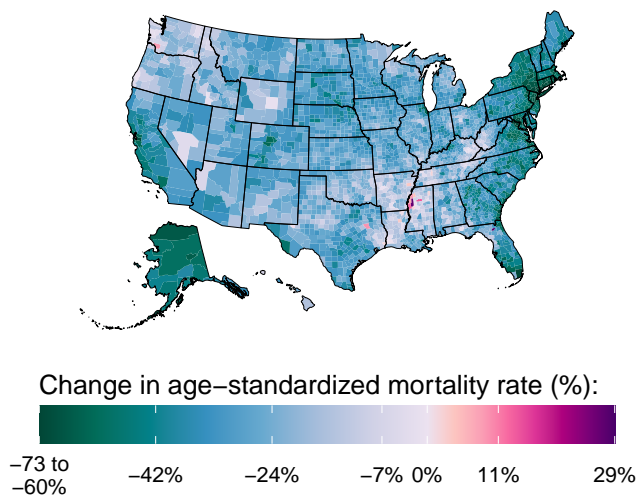
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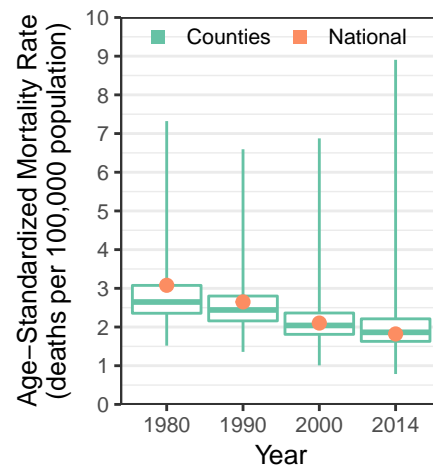
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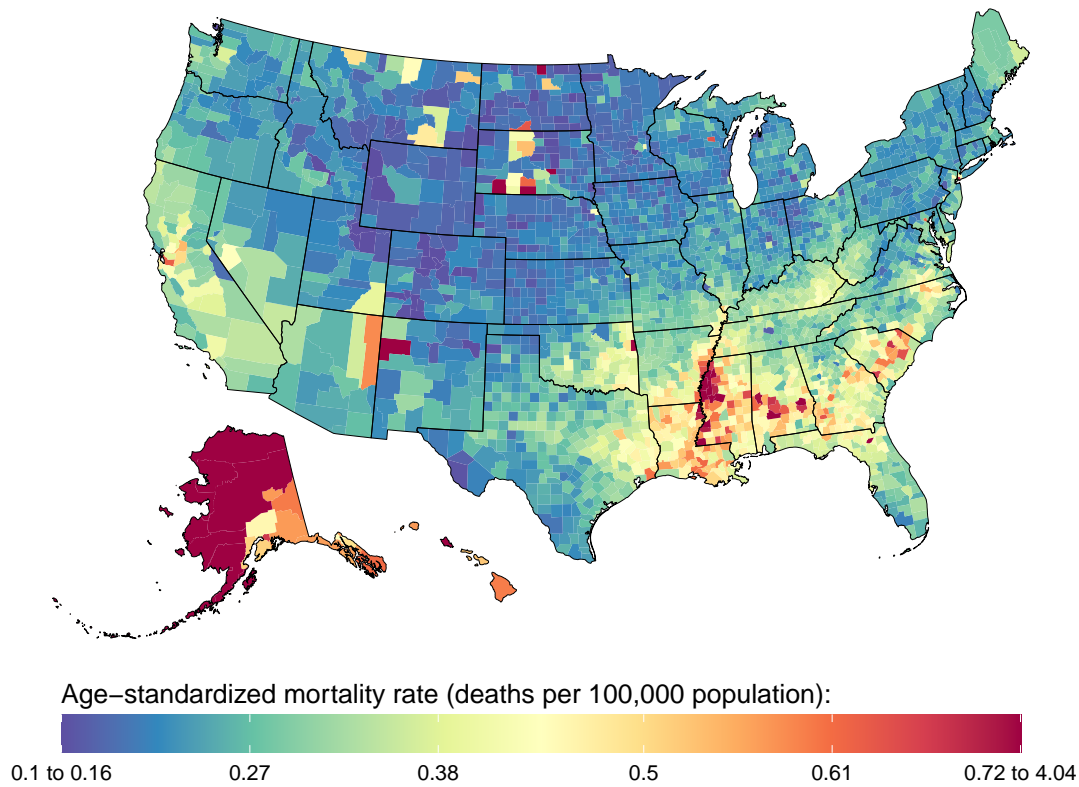


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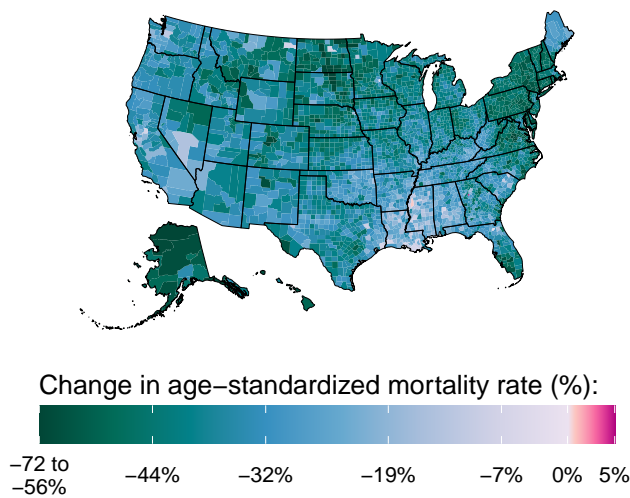


eFigure 1: County-level mortality from lip and oral cavity cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 1st percentile, but not at the 99th percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

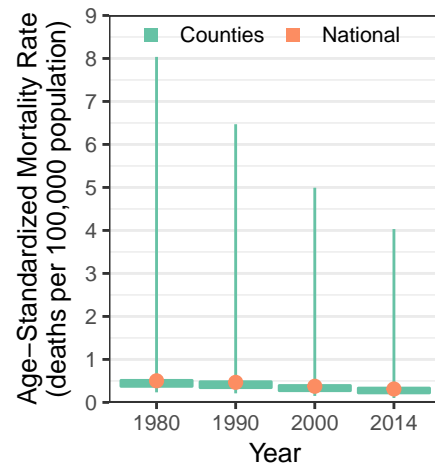
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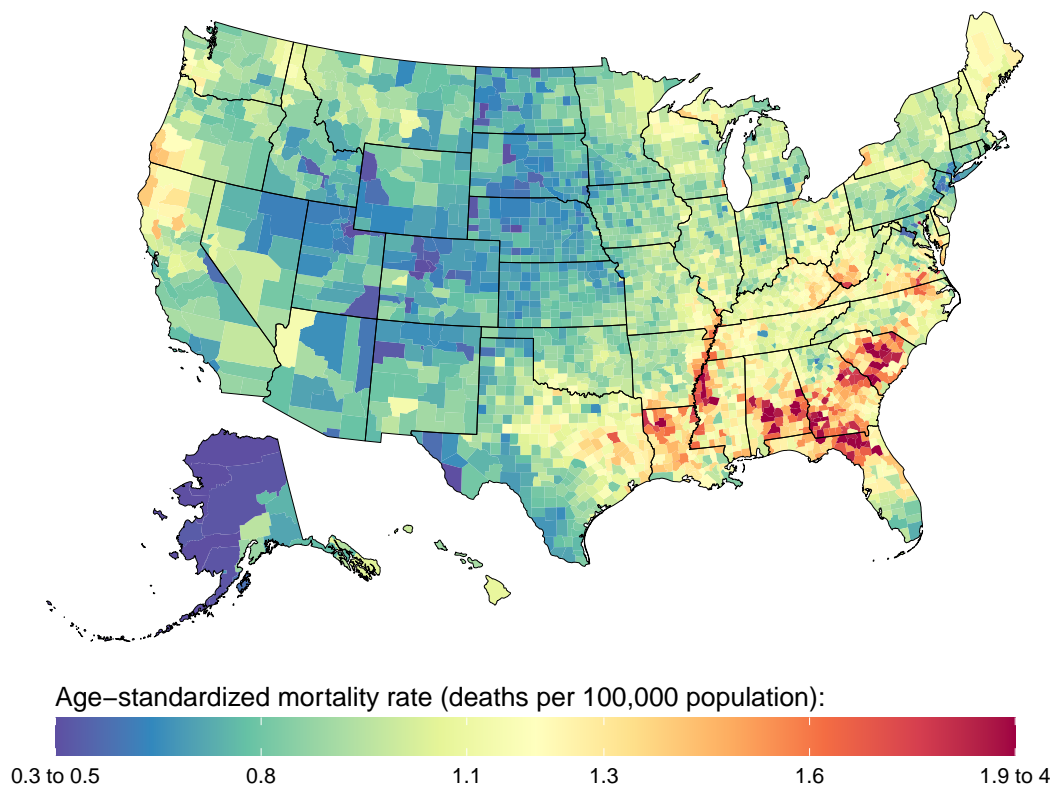


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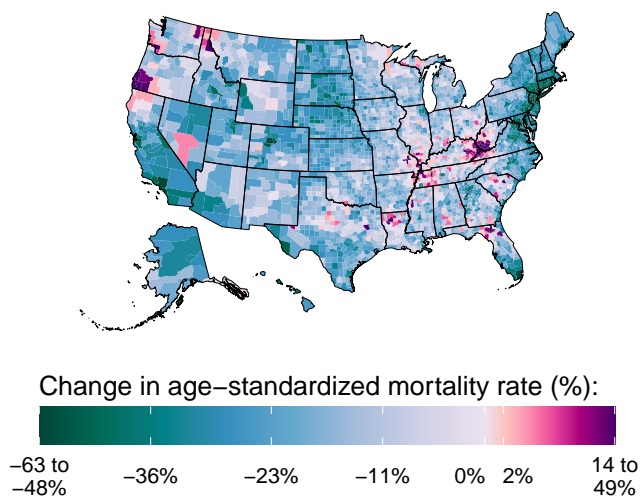


eFigure 2: County-level mortality from nasopharynx cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 1st percentile, but not at the 99th percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

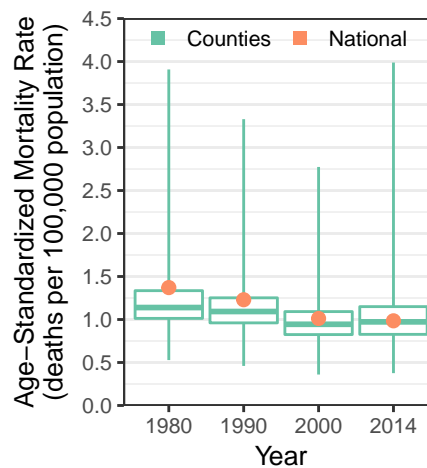
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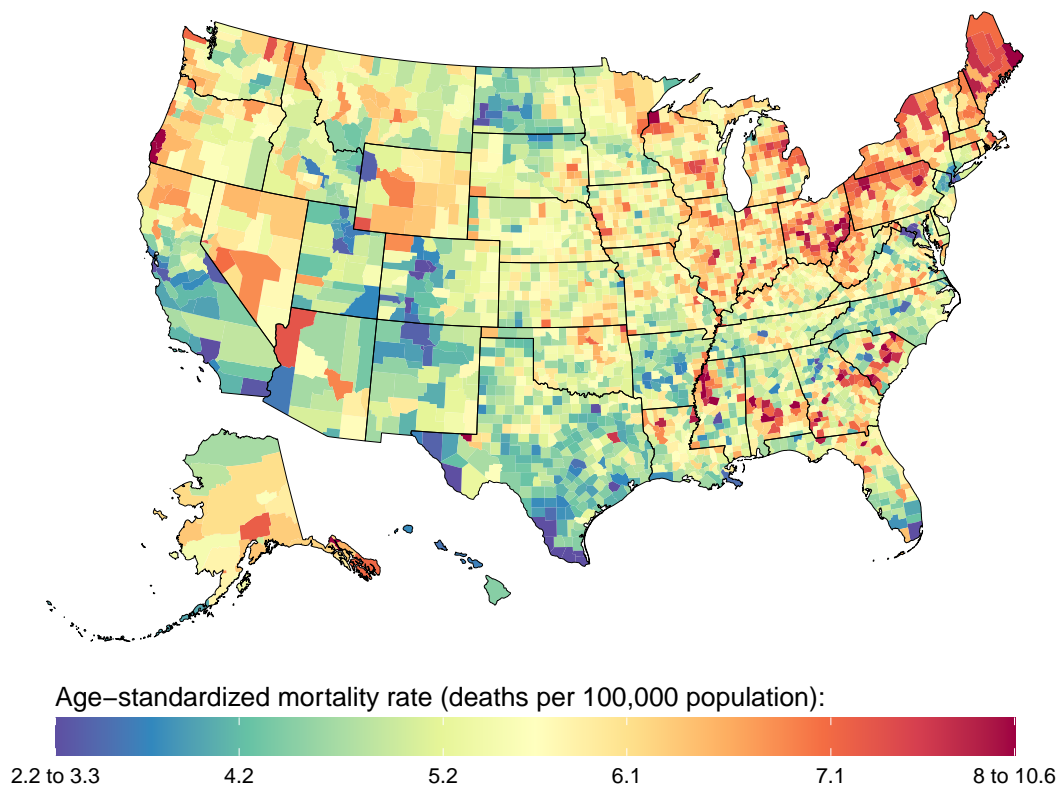


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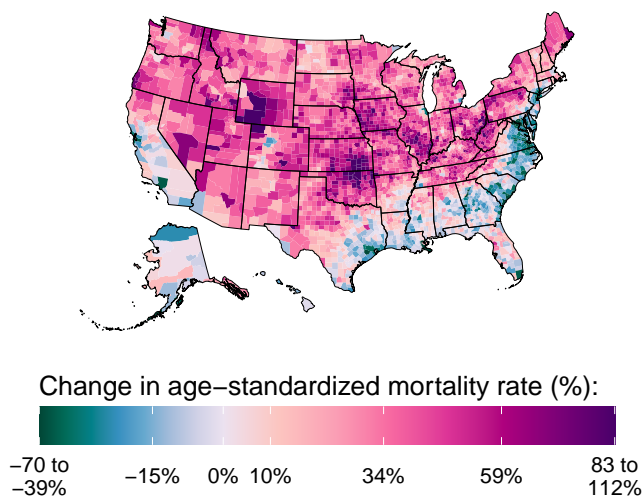


eFigure 3: County-level mortality from other pharynx cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

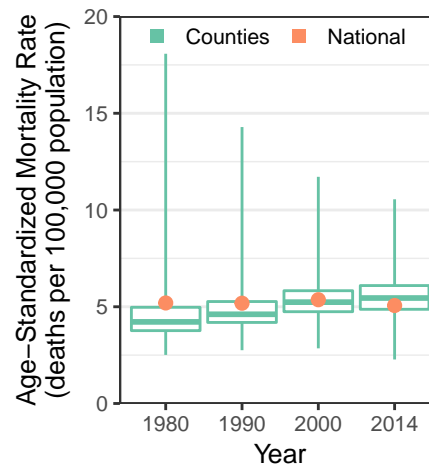
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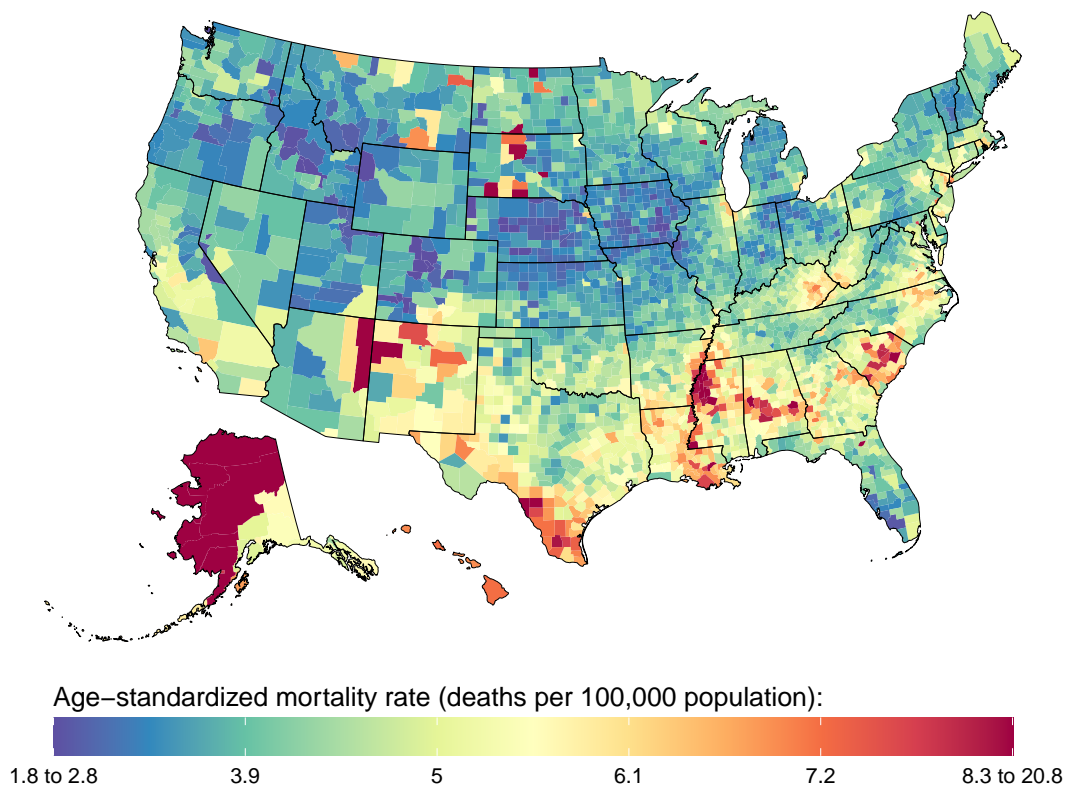


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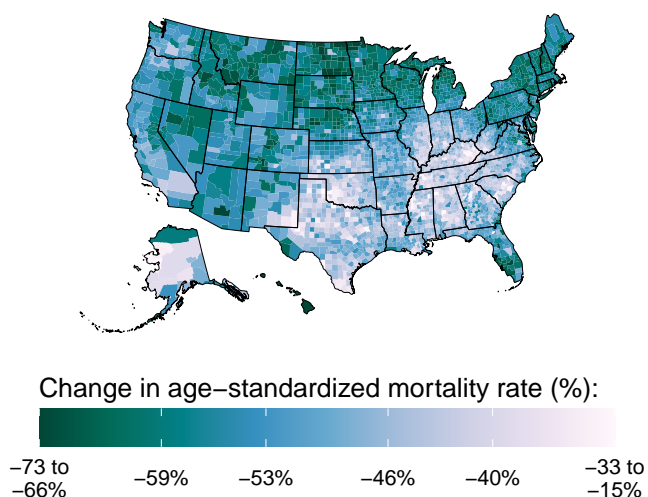


eFigure 4: County-level mortality from esophageal cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

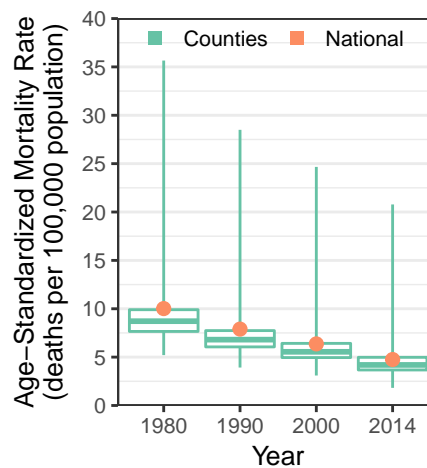
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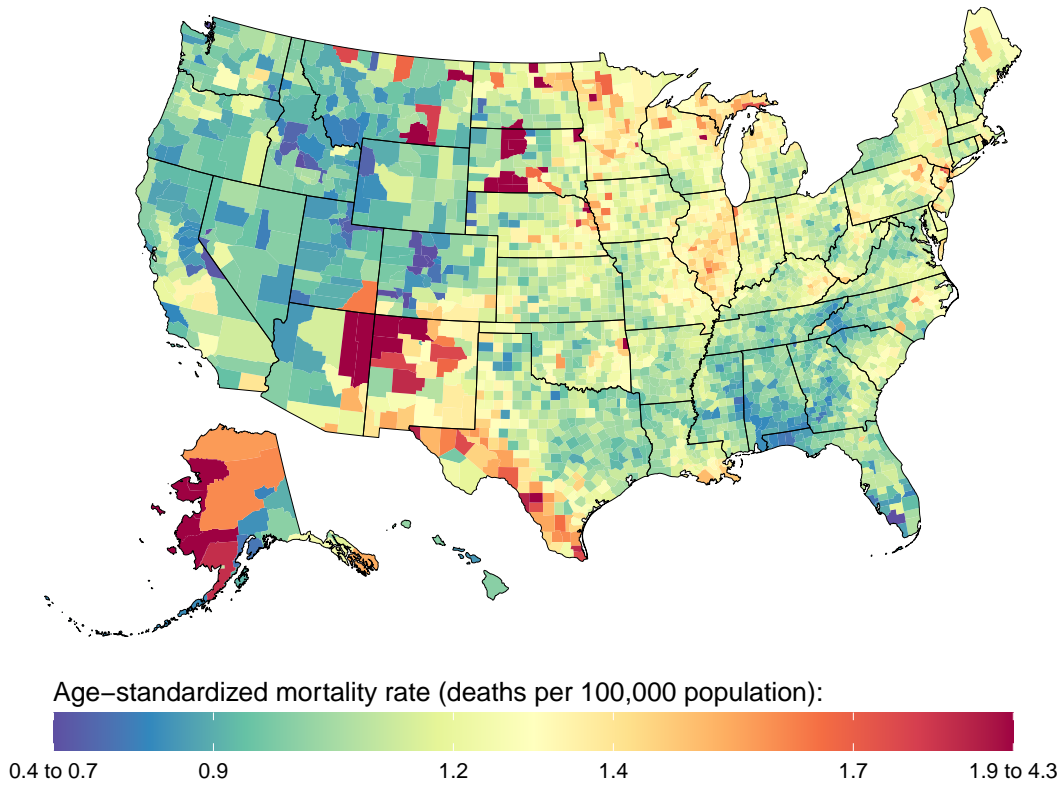


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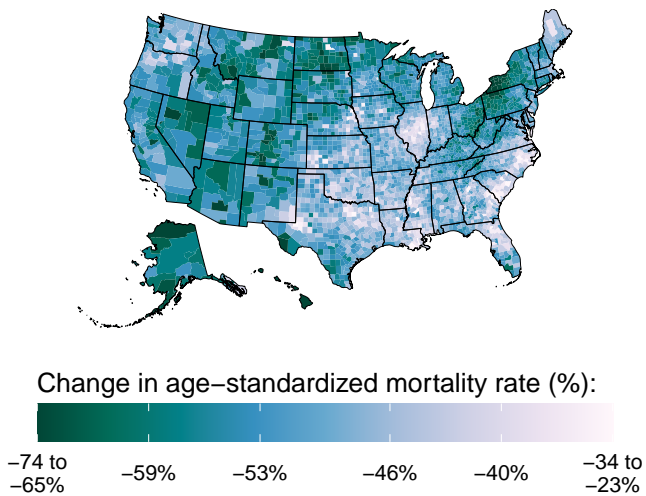


eFigure 5: County-level mortality from stomach cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

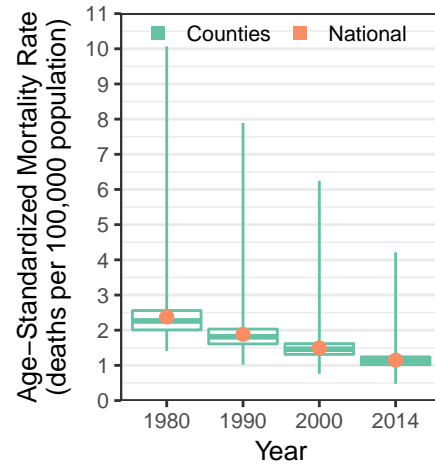
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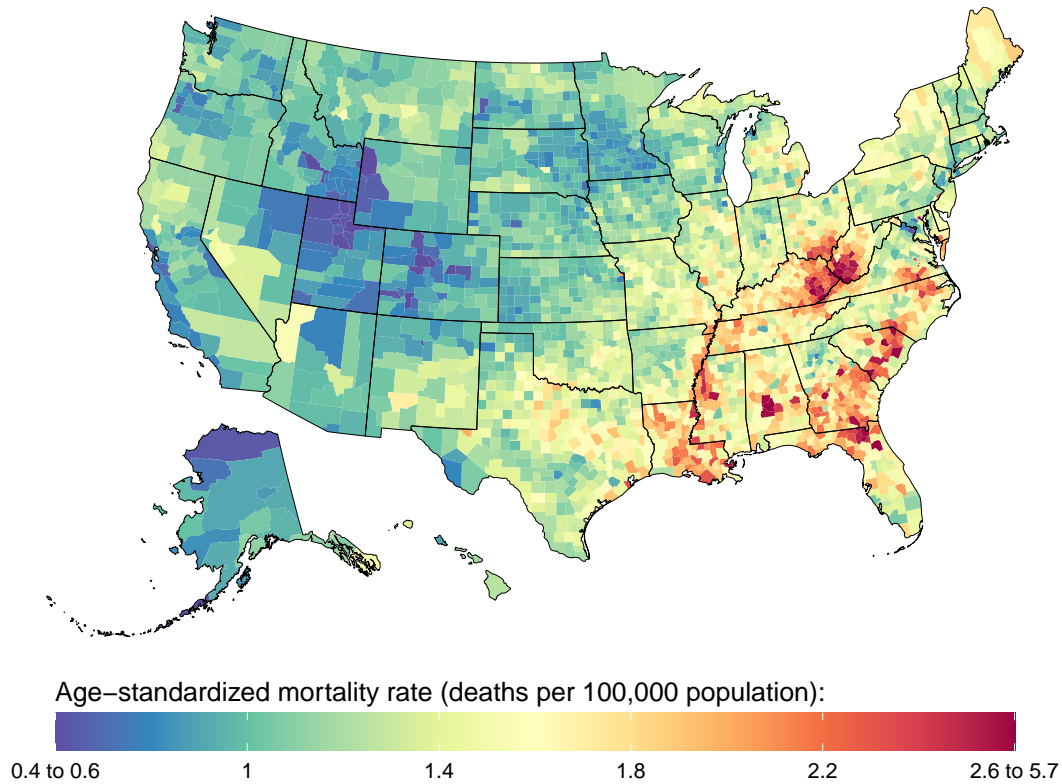


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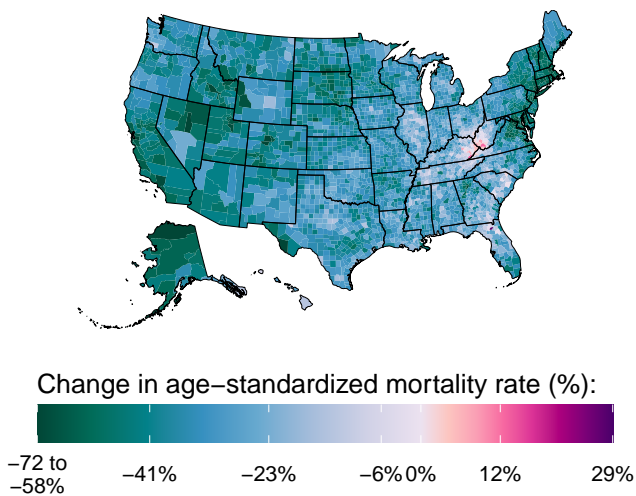


eFigure 6: County-level mortality from gallbladder and biliary tract cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

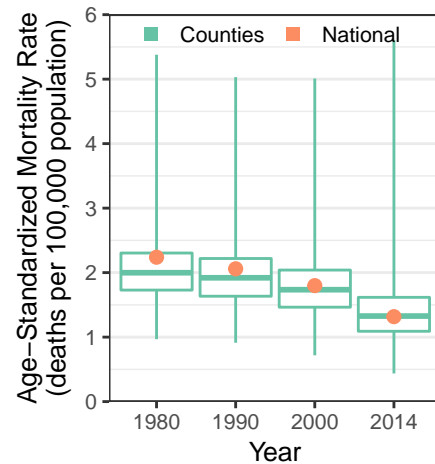
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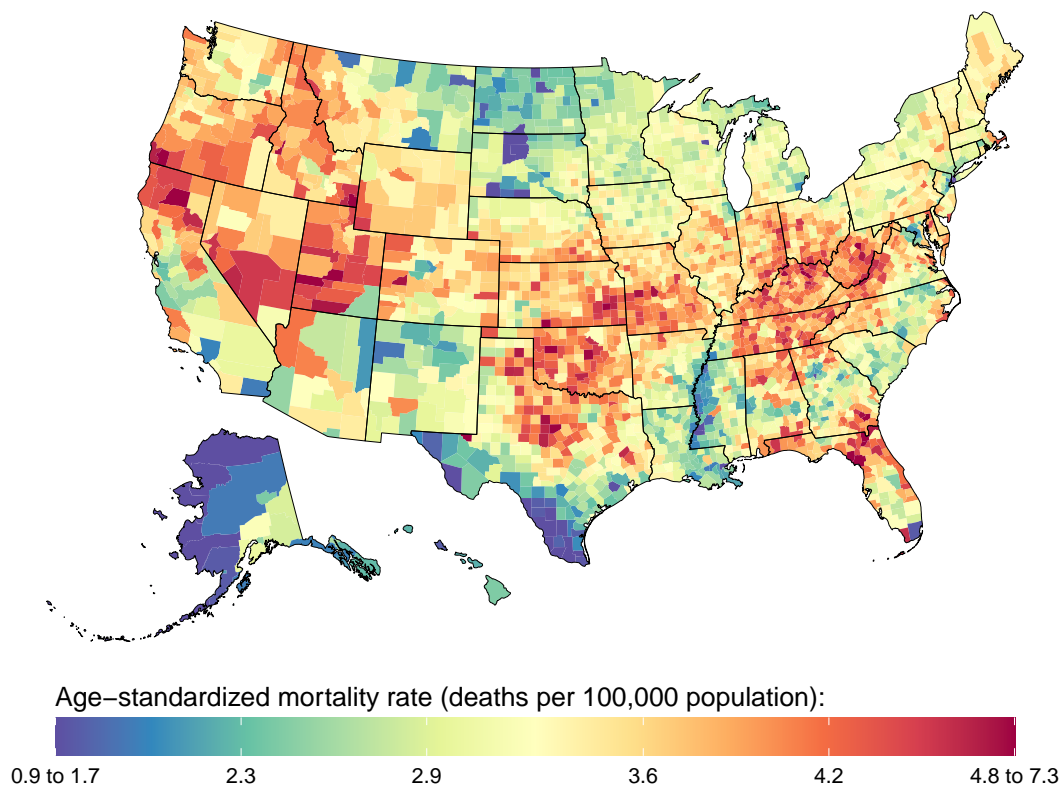


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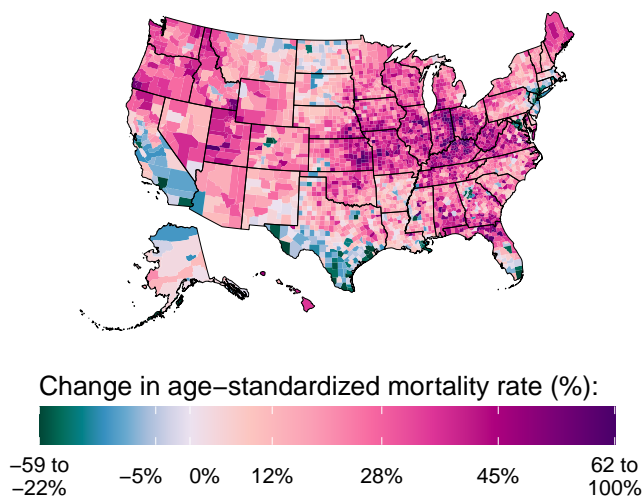


eFigure 7: County-level mortality from larynx cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 1st percentile, but not at the 99th percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

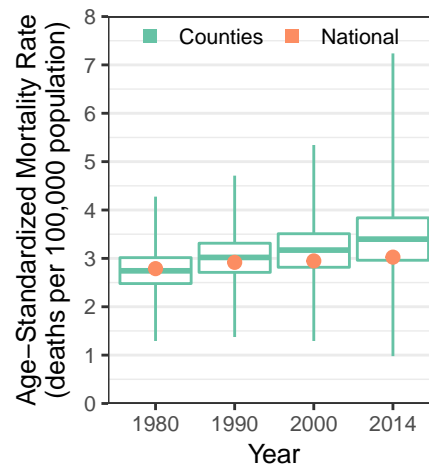
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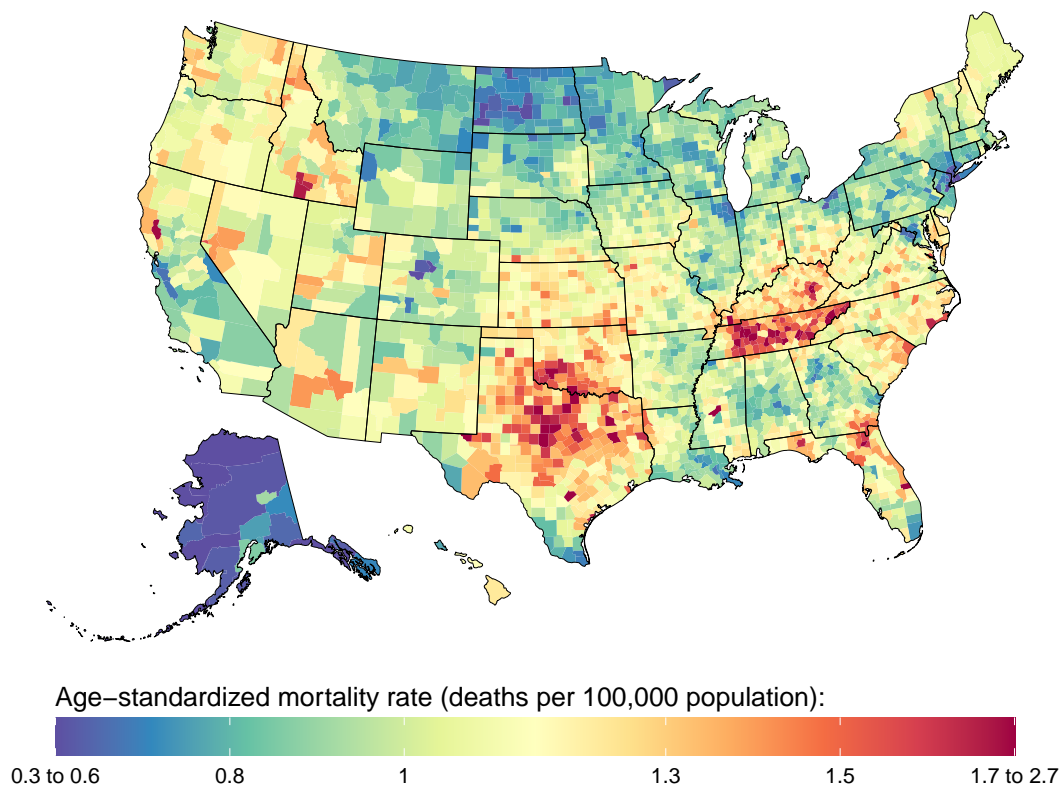


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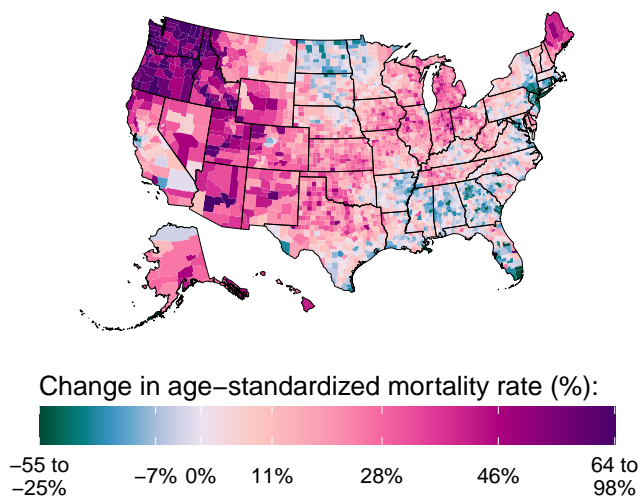


eFigure 8: County-level mortality from malignant skin melanoma. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

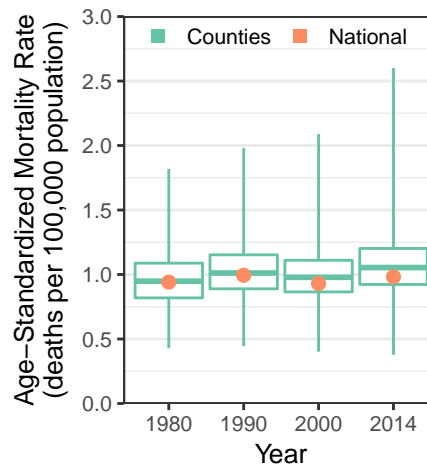
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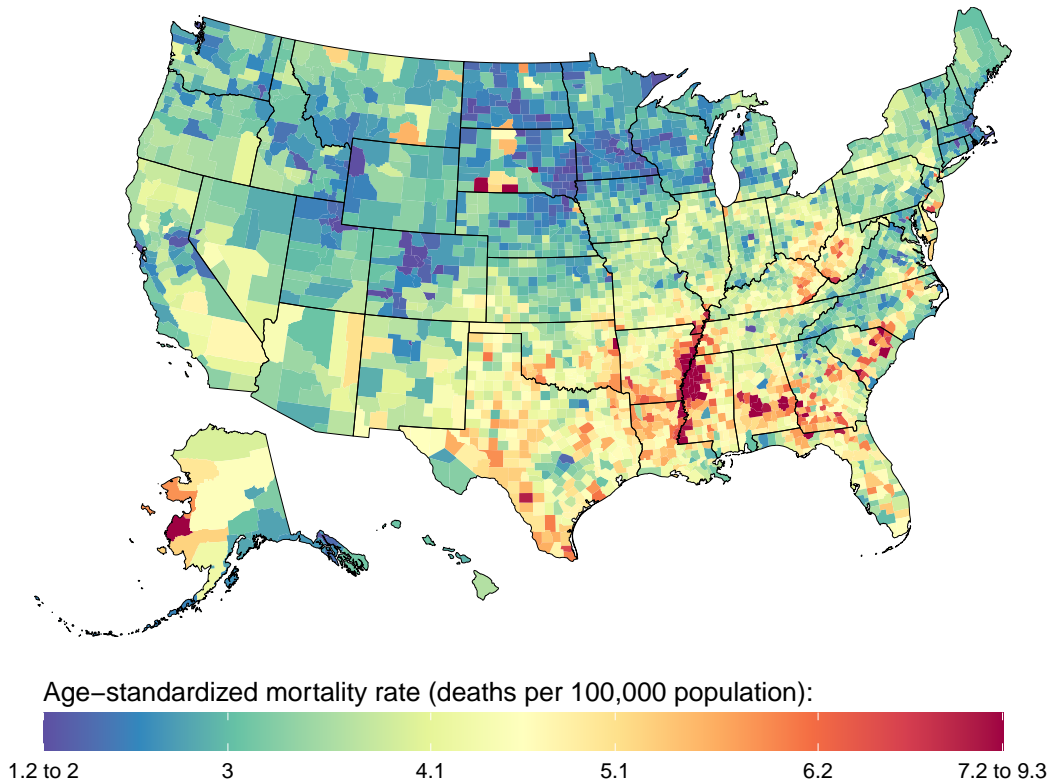


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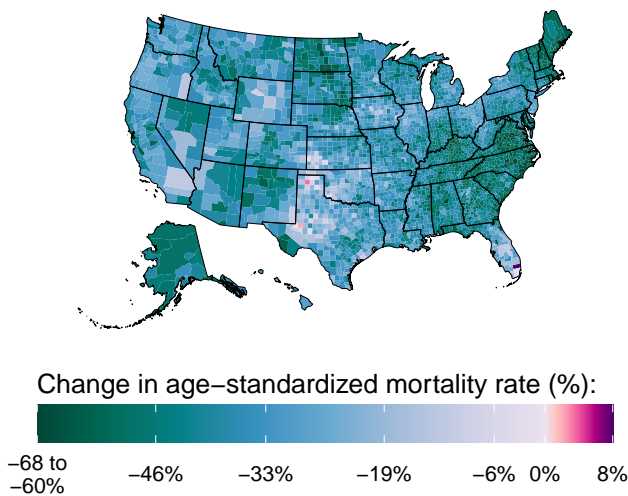


eFigure 9: County-level mortality from non-melanoma skin cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

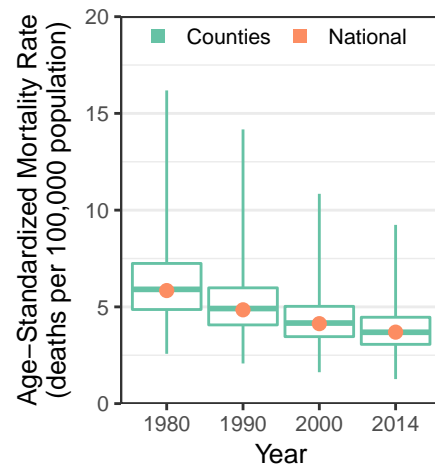
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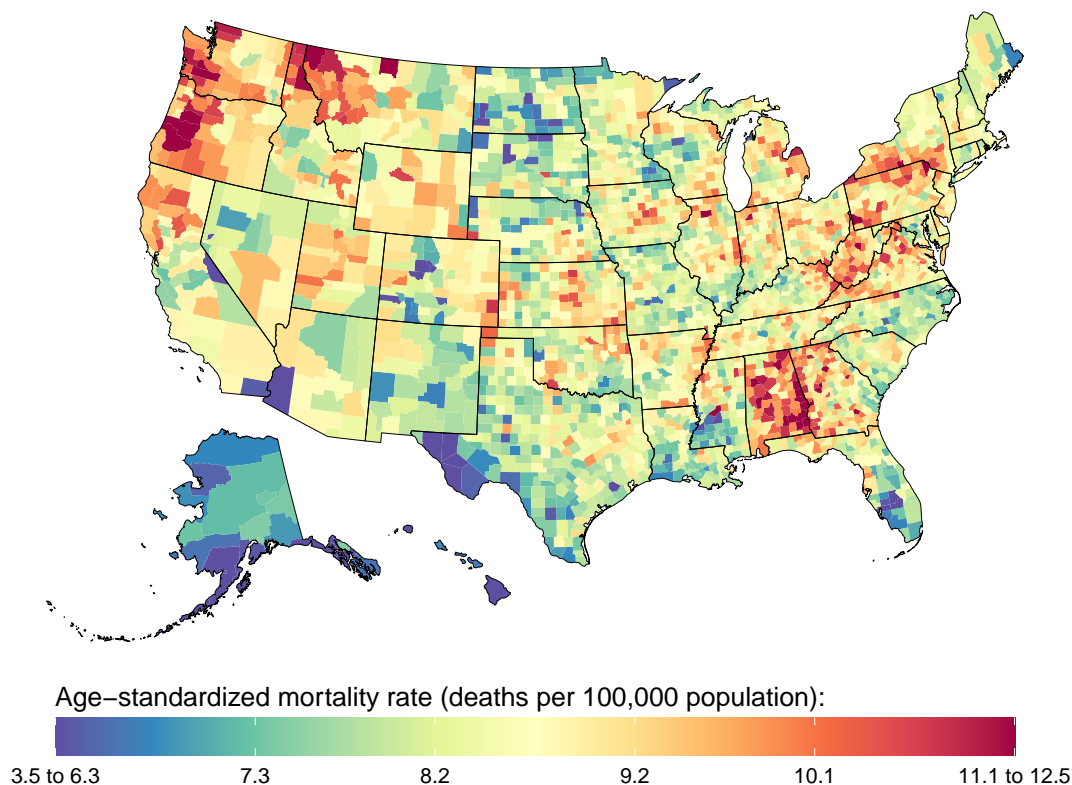


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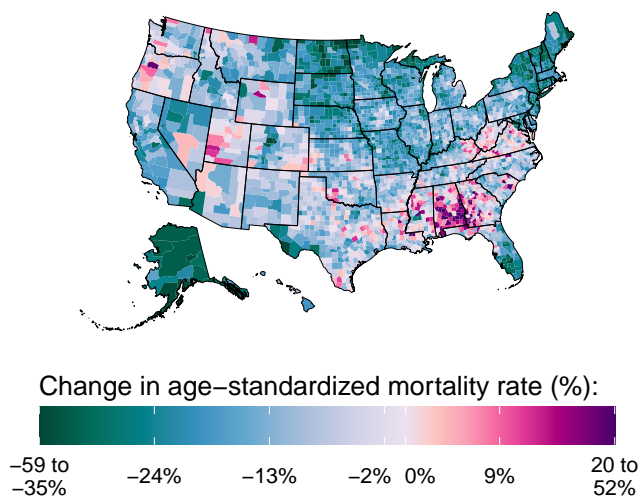


eFigure 10: County-level mortality from cervical cancer (females only). [A] Age-standardized mortality rate for females in 2014; [B] Relative change in the age-standardized mortality rate for females between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 1st percentile, but not at the 99th percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

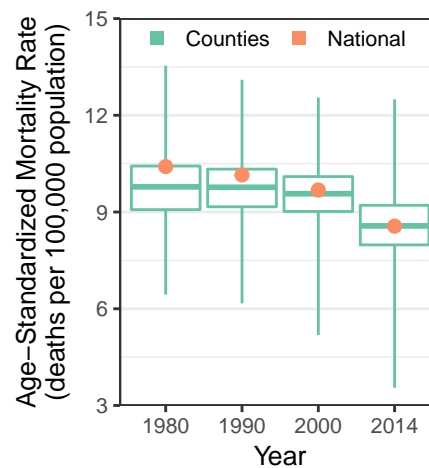
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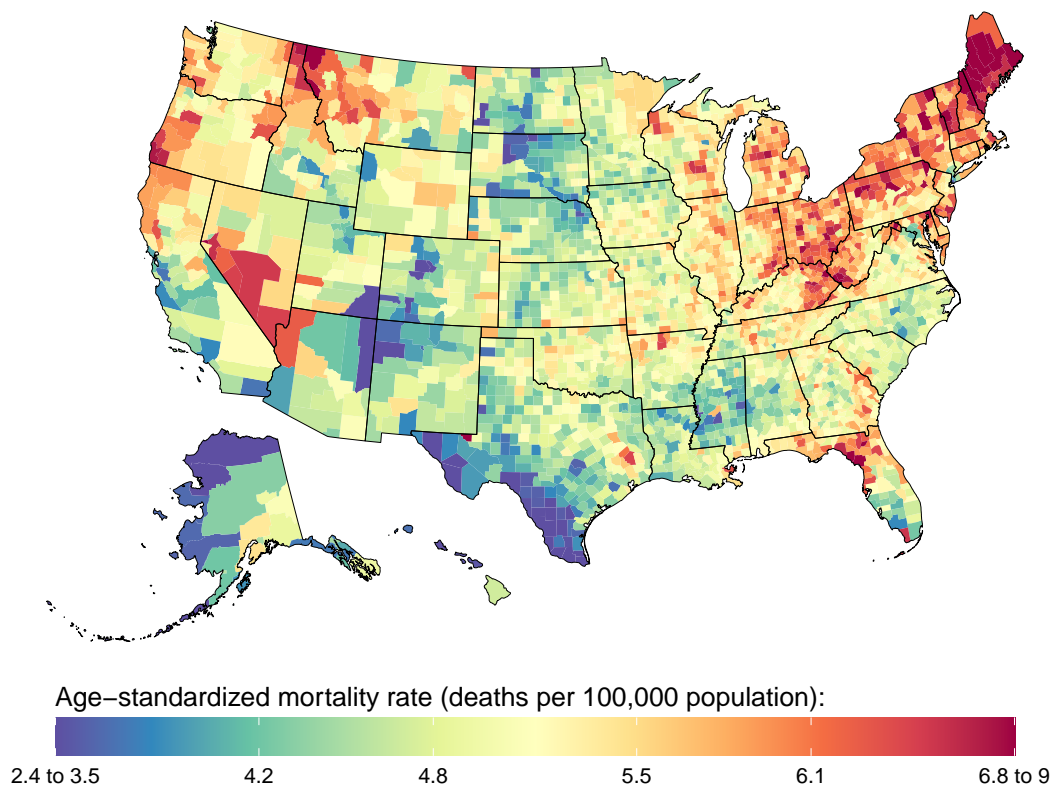


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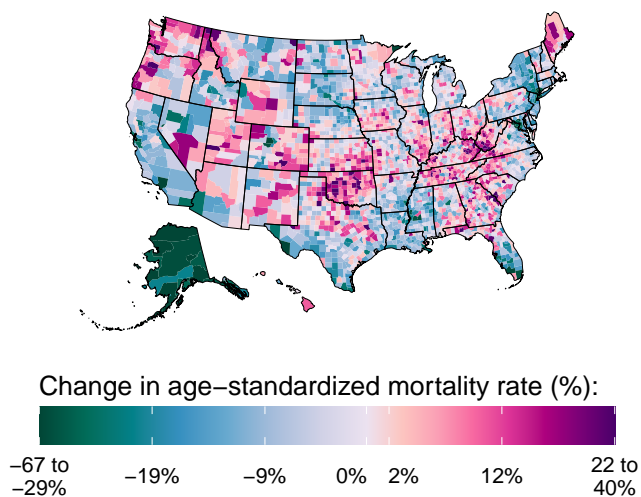


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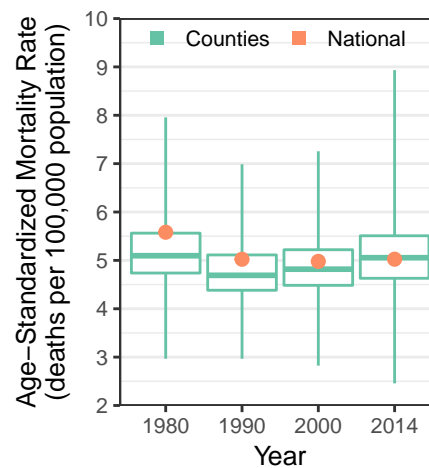
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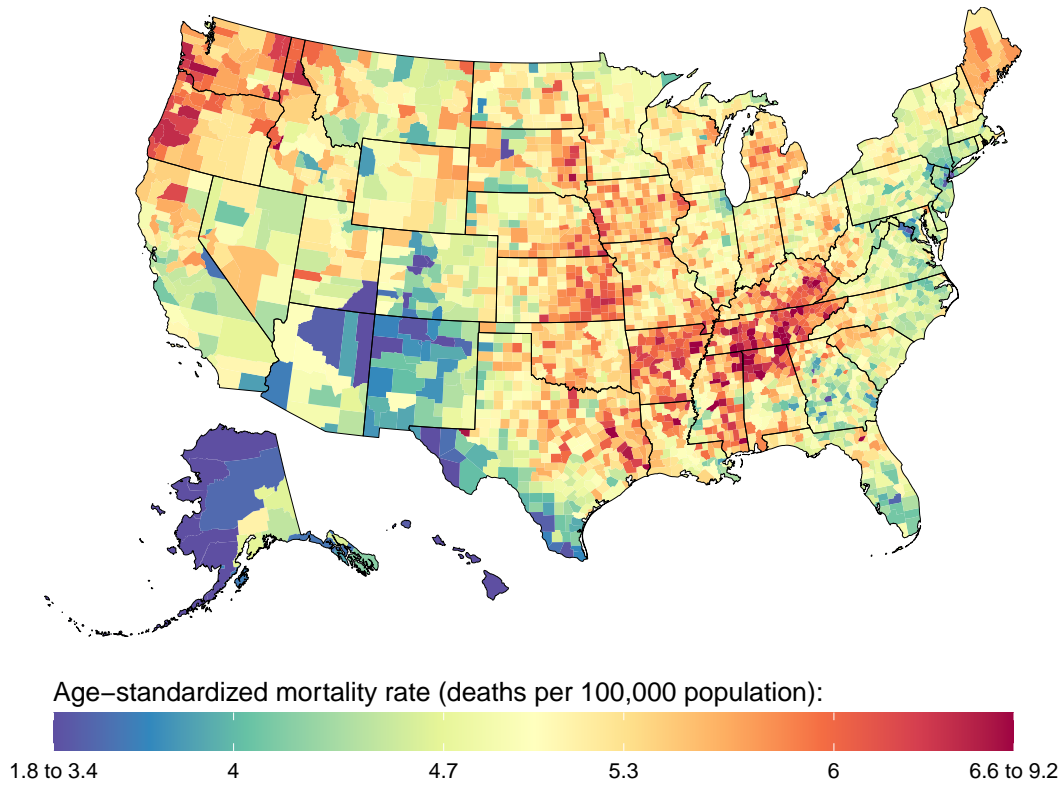


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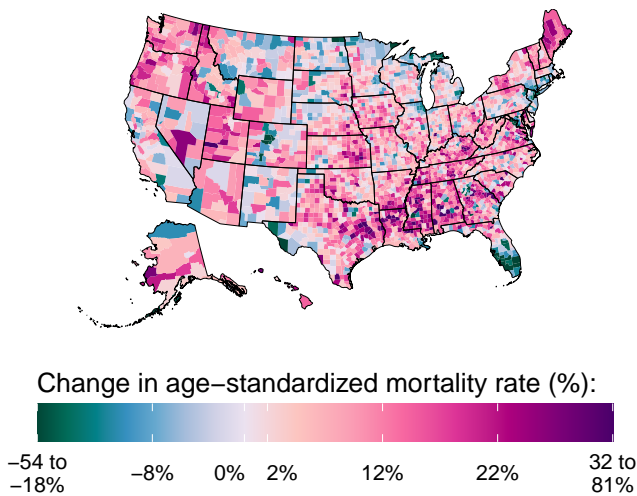


eFigure 12: County-level mortality from bladder cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

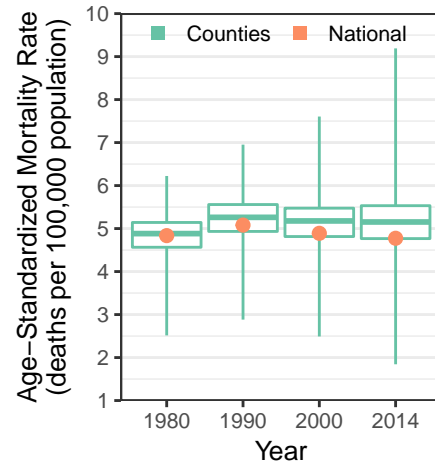
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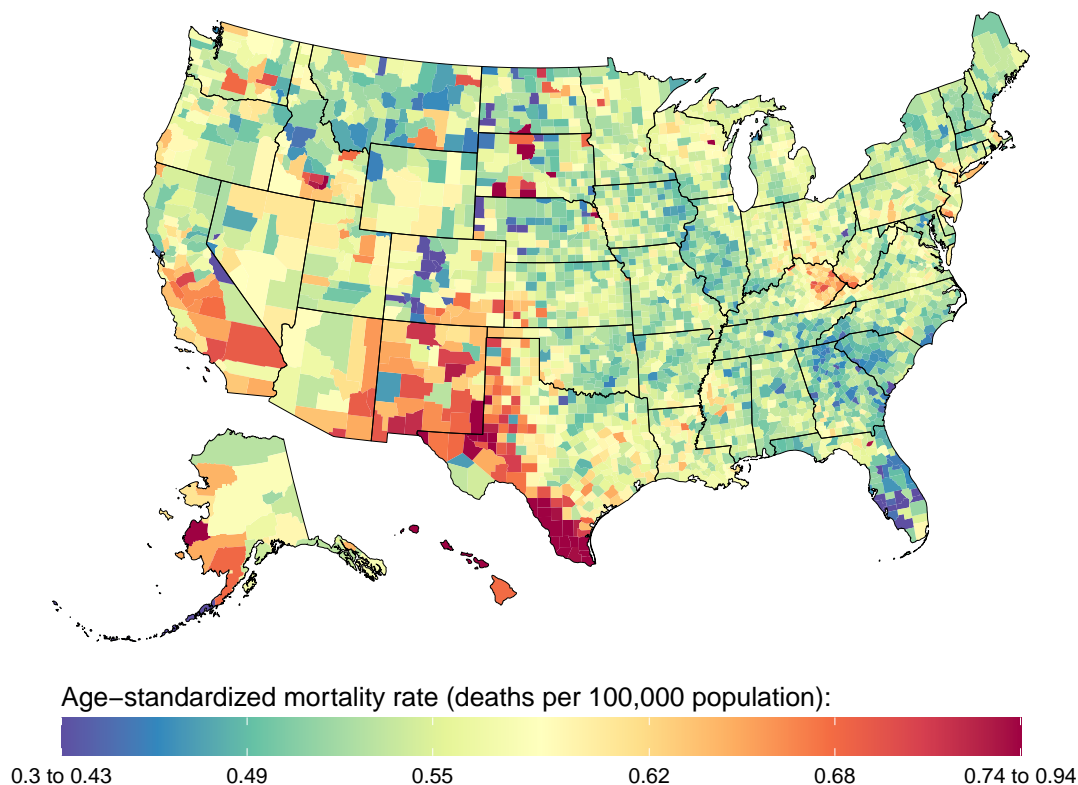


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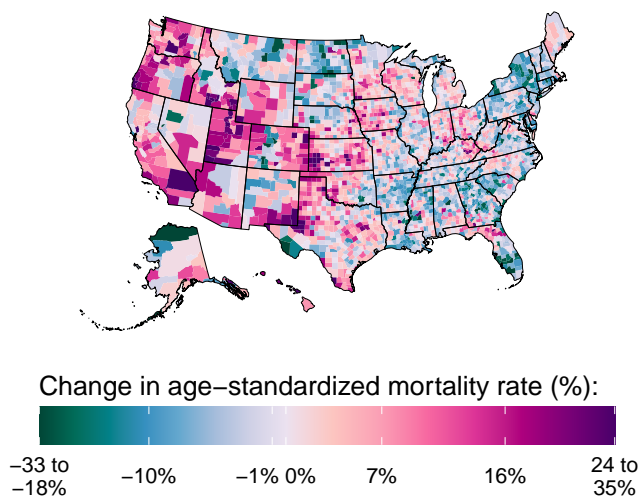


eFigure 13: County-level mortality from brain and nervous system cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

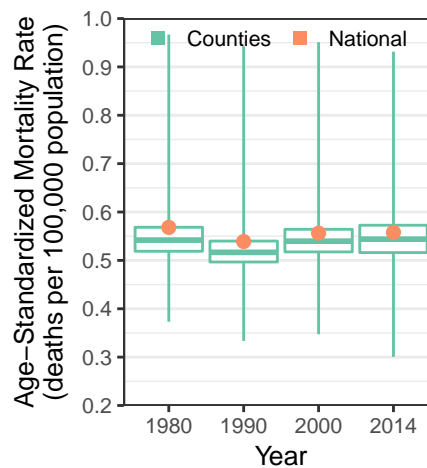
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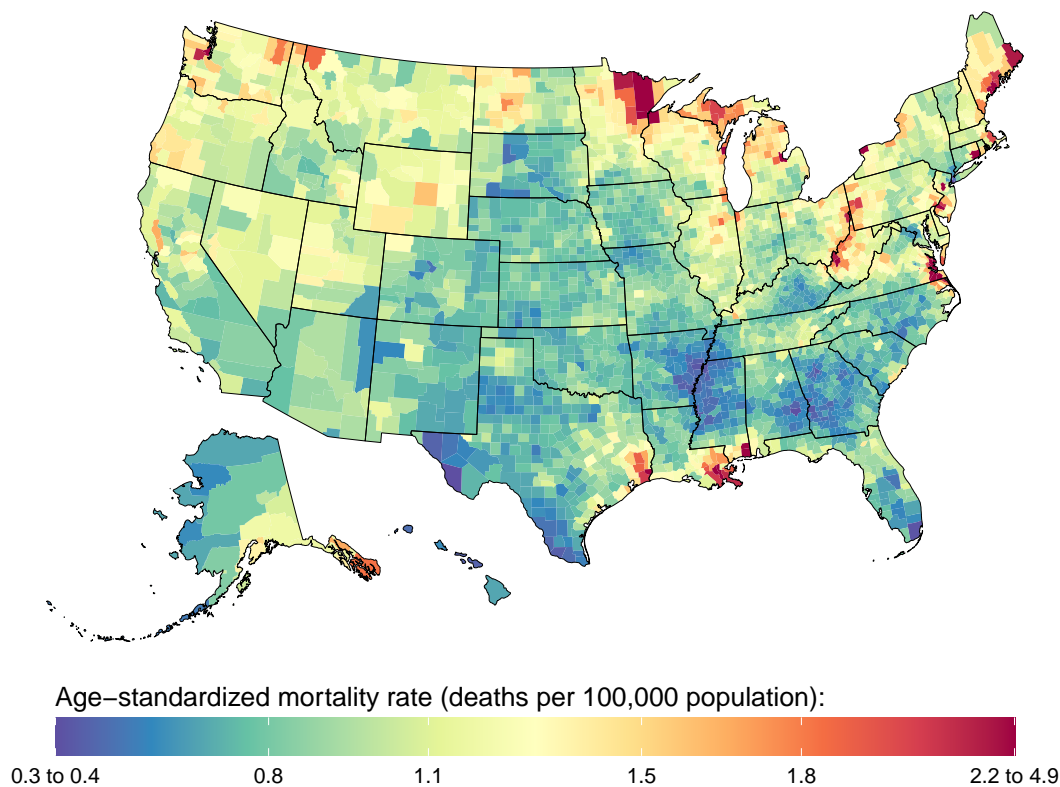


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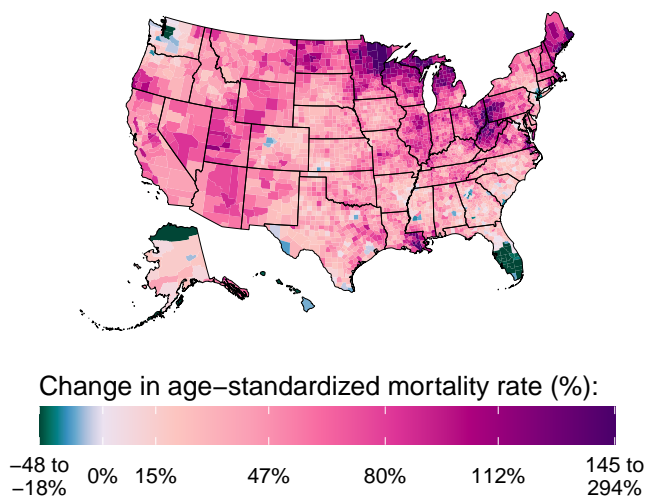


eFigure 14: County-level mortality from thyroid cancer. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

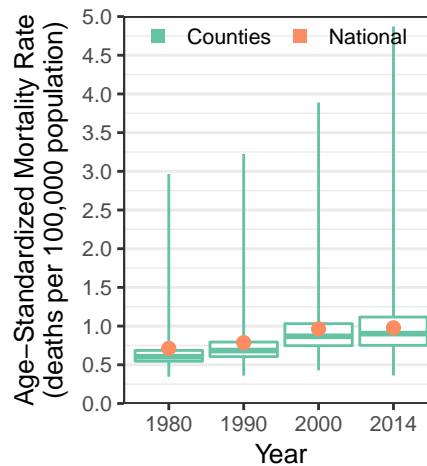
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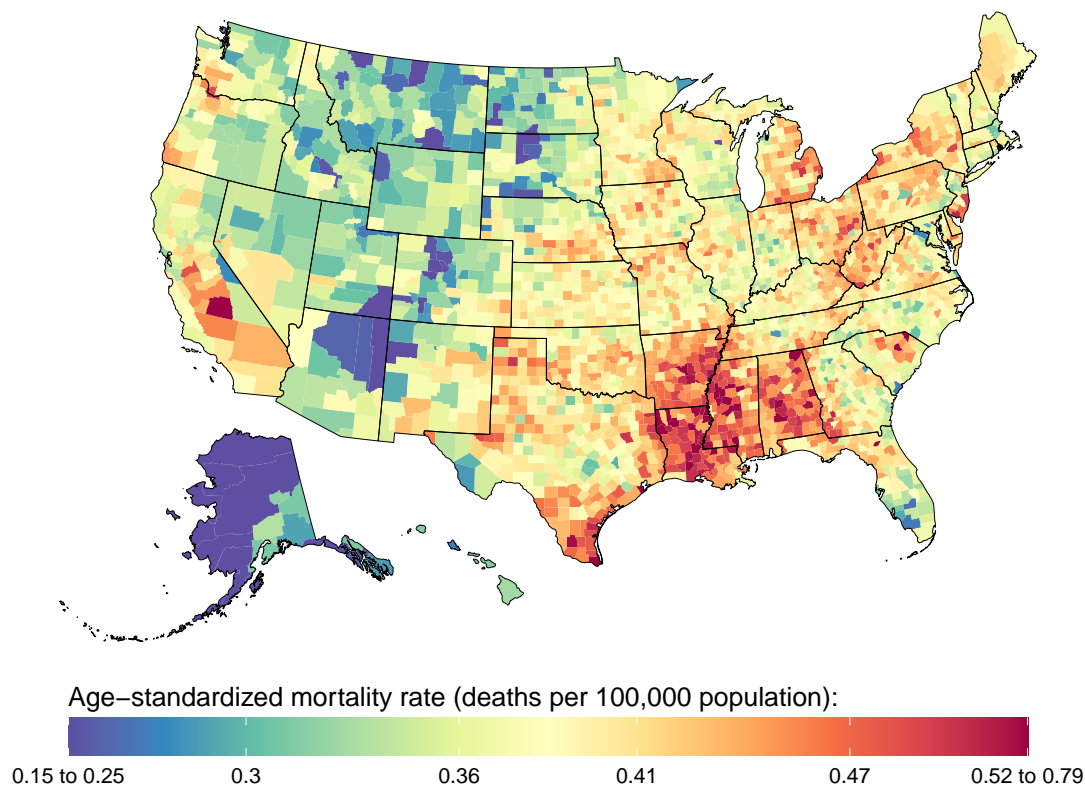


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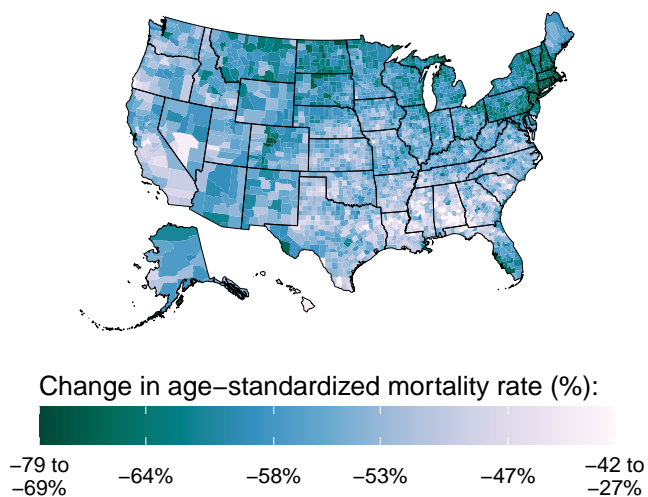


eFigure 15: County-level mortality from mesothelioma. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

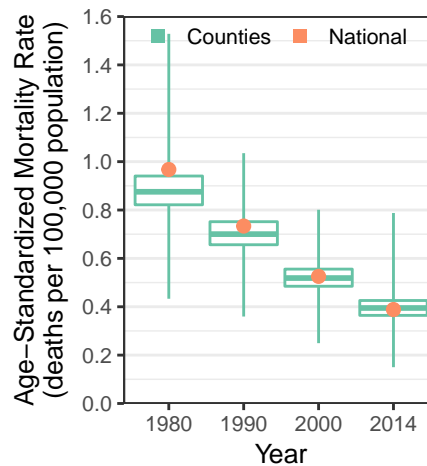
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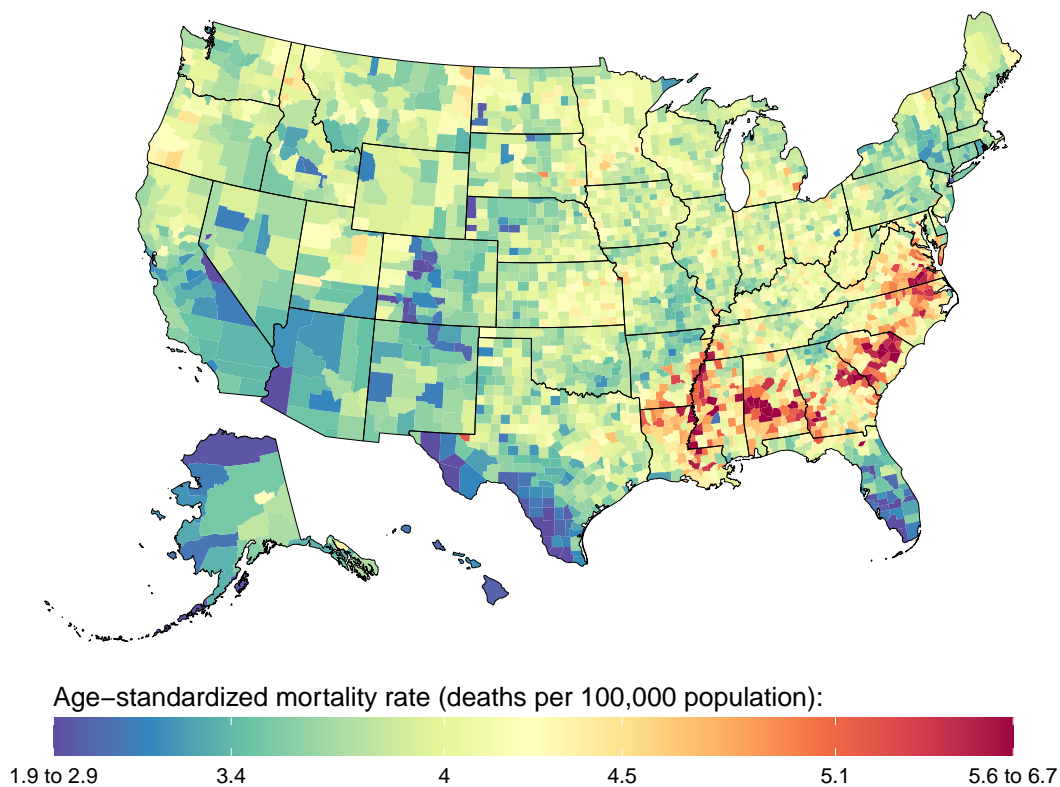


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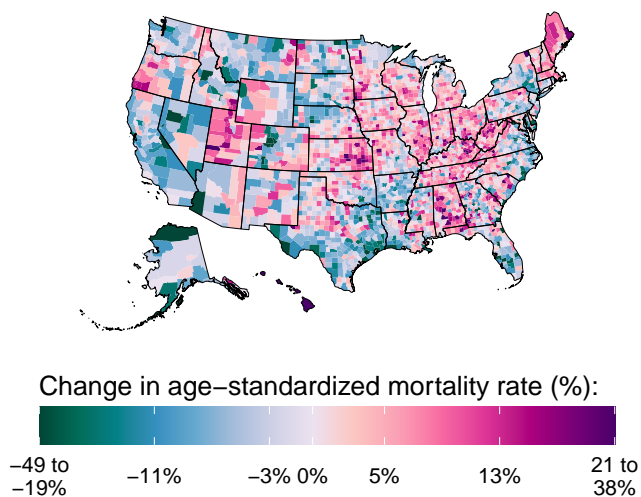


eFigure 16: County-level mortality from Hodgkin lymphoma. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

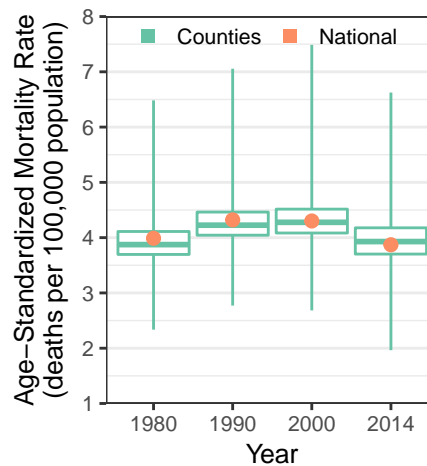
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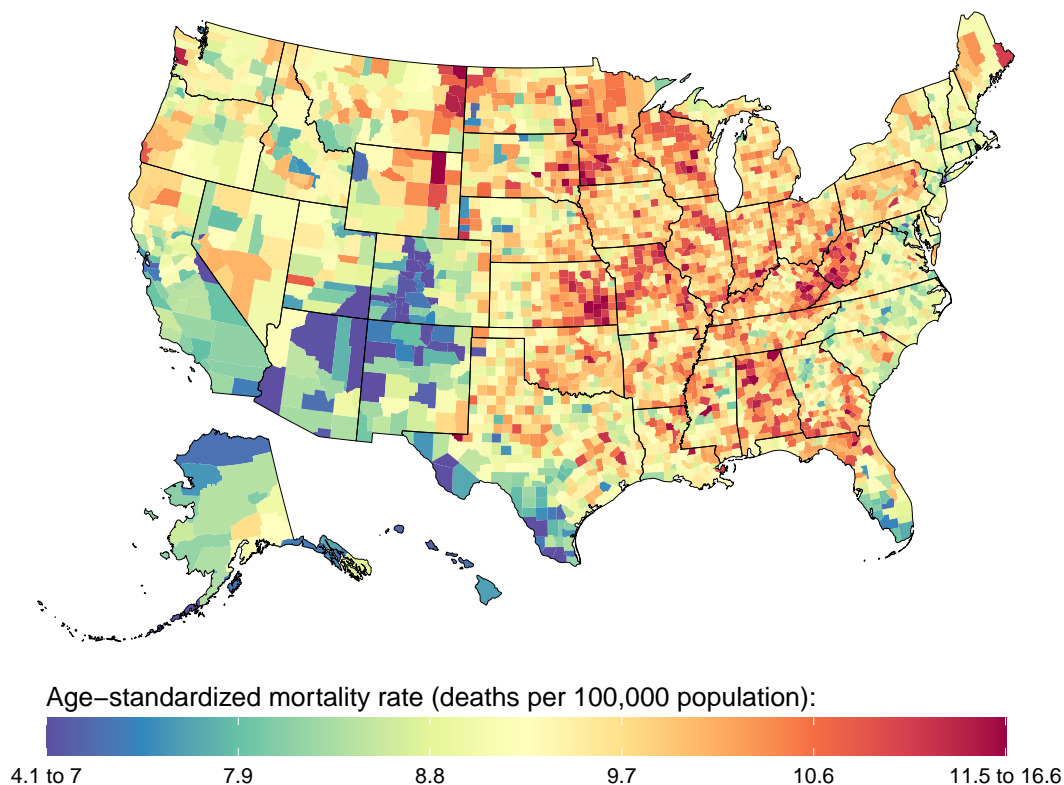


[C]

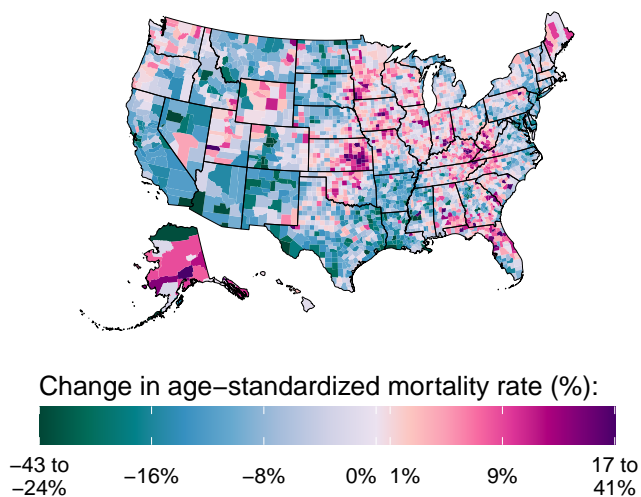


eFigure 17: County-level mortality from multiple myeloma. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

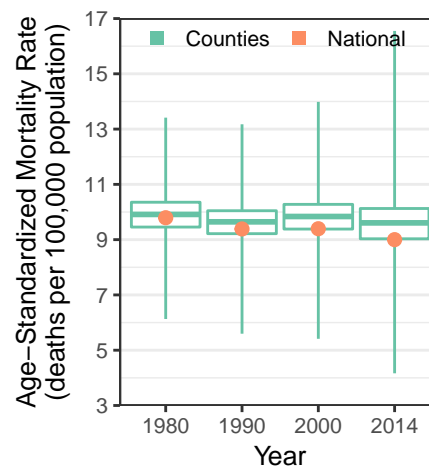
[A]



[B]

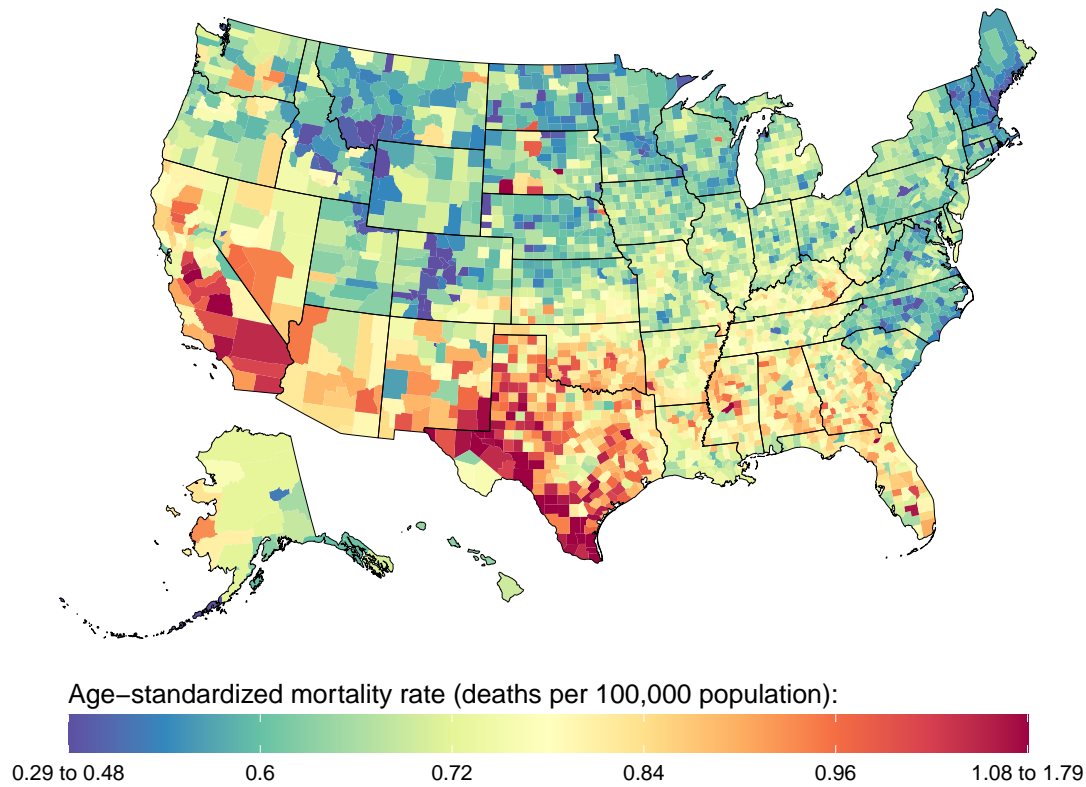


[C]

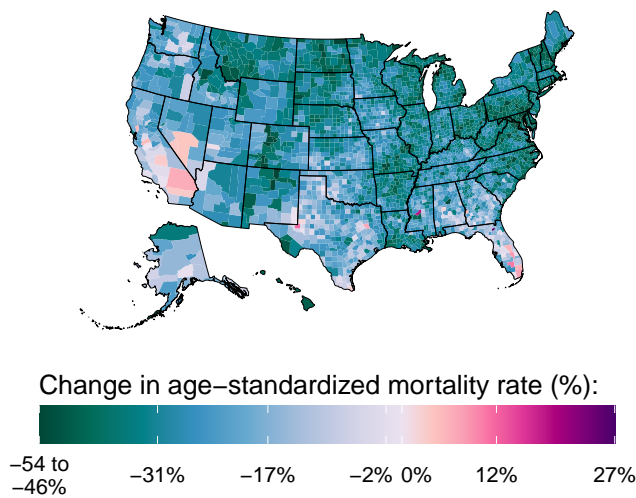


eFigure 18: County-level mortality from leukemia. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

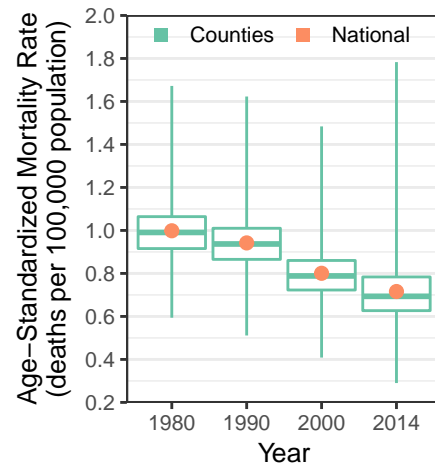
[A]



[B]

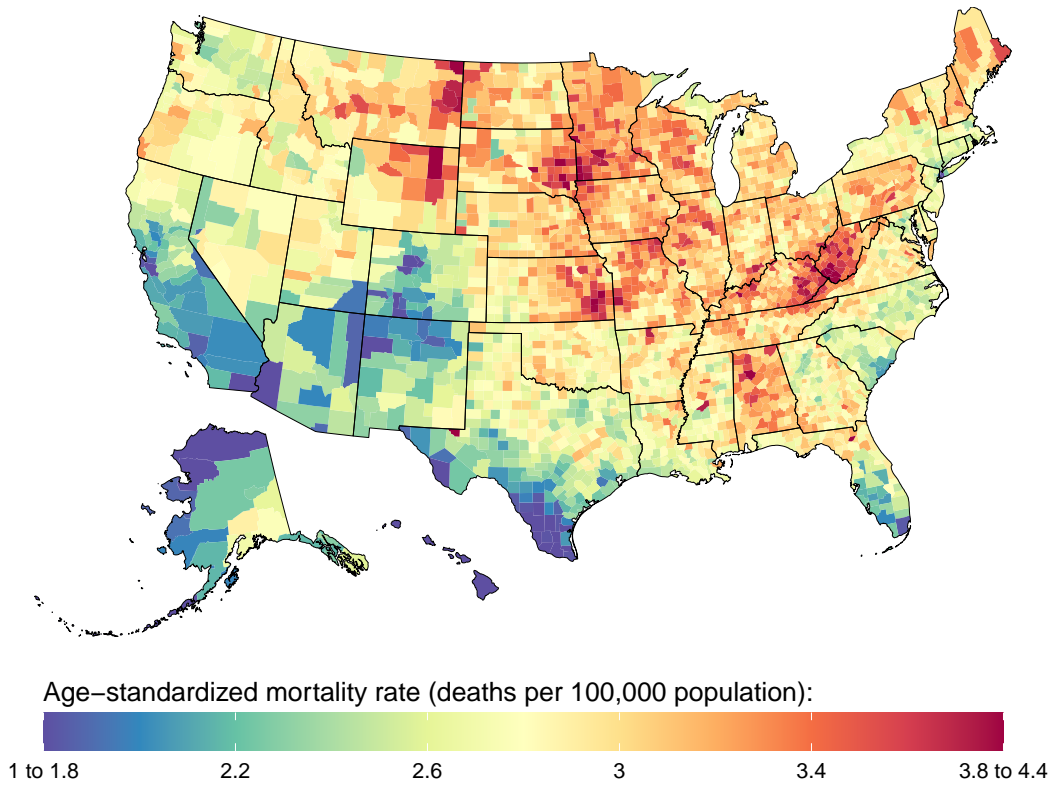


[C]

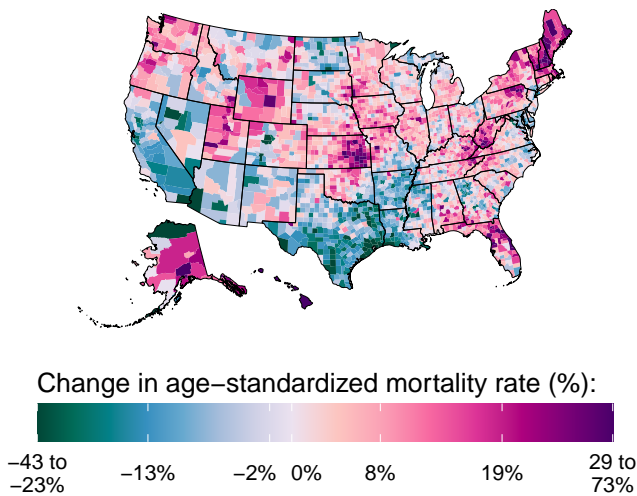


eFigure 19: County-level mortality from acute lymphoid leukemia. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 1st percentile, but not at the 99th percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

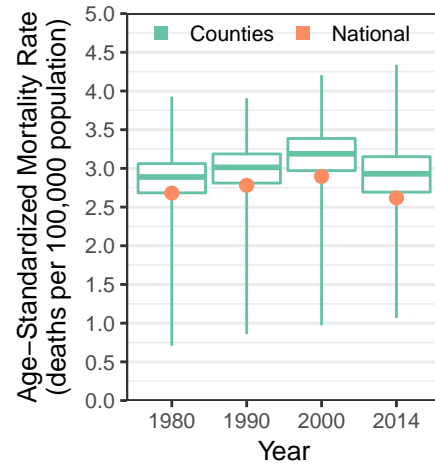
[A]



[B]

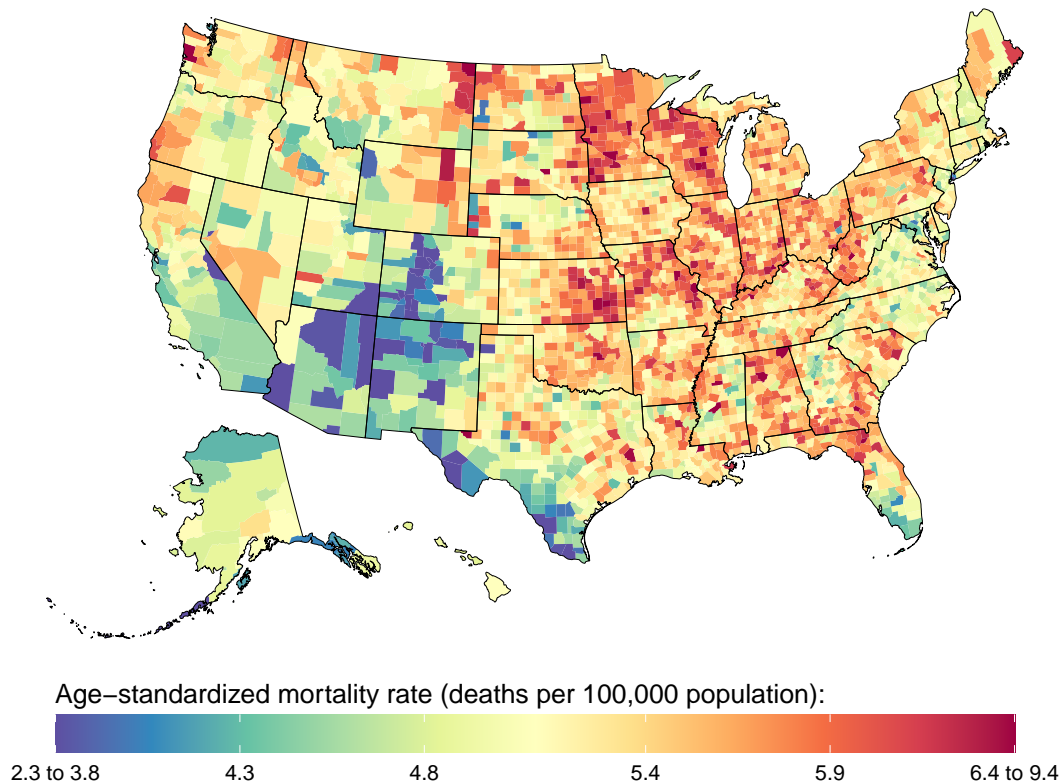


[C]

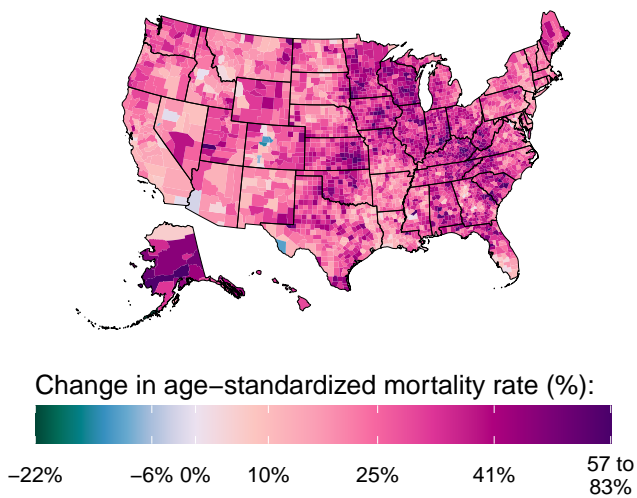


eFigure 20: County-level mortality from chronic lymphoid leukemia. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

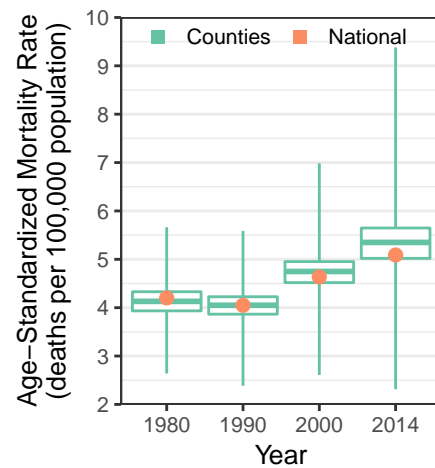
[A]



[B]

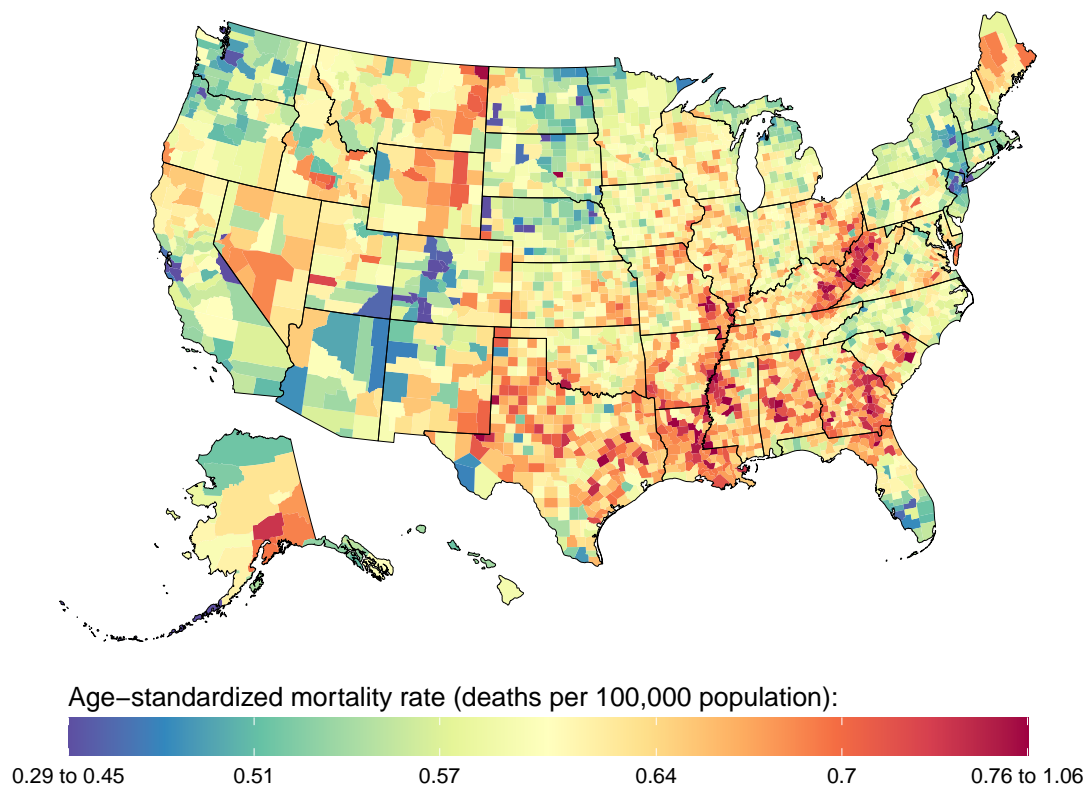


[C]

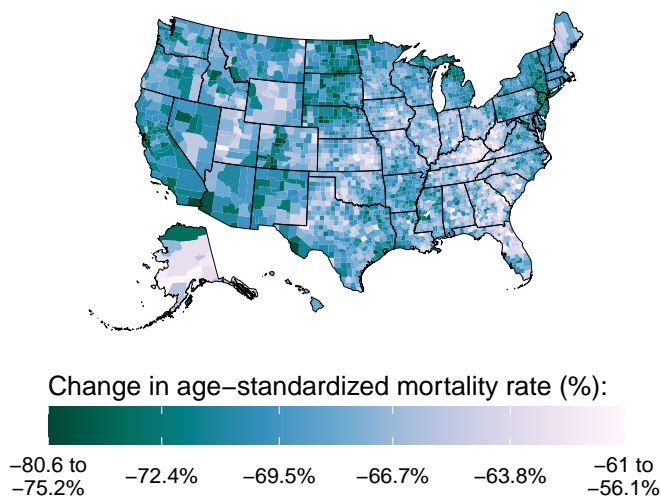


eFigure 21: County-level mortality from acute myeloid leukemia. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panel [A], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [B], the color scale is similarly truncated at the 99th percentile, but not at the 1st percentile, to avoid combining counties with decreases in the mortality rate and counties with increases in the mortality rate into a single group. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

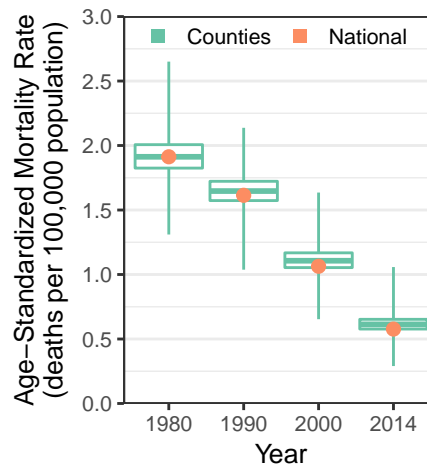
[A]



[B]

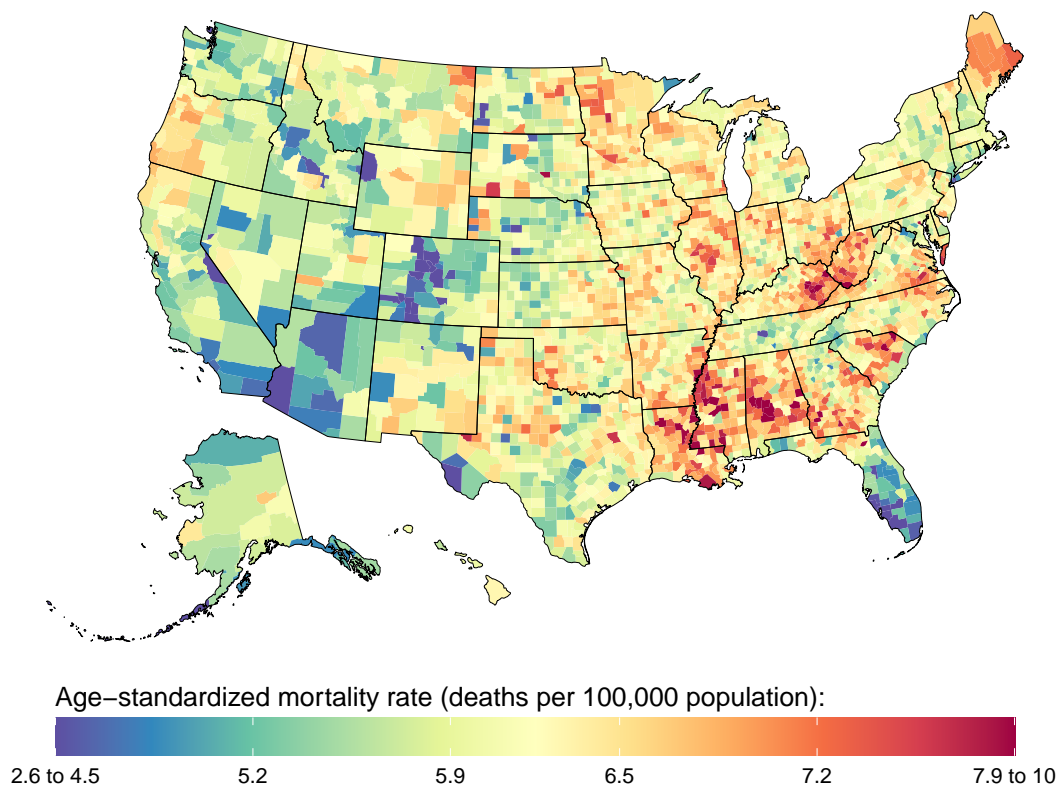


[C]

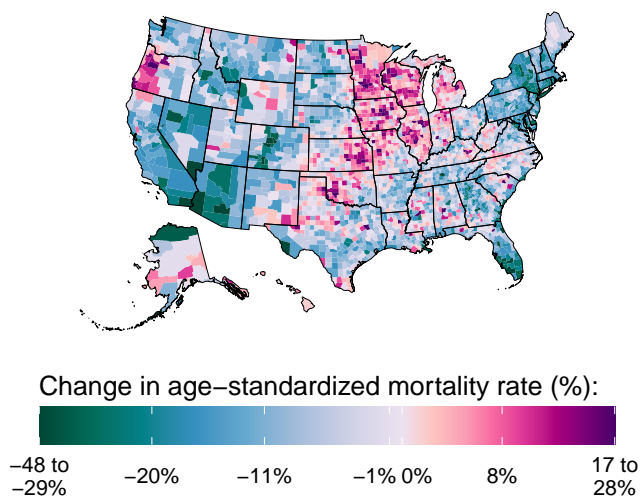


eFigure 22: County-level mortality from chronic myeloid leukemia. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

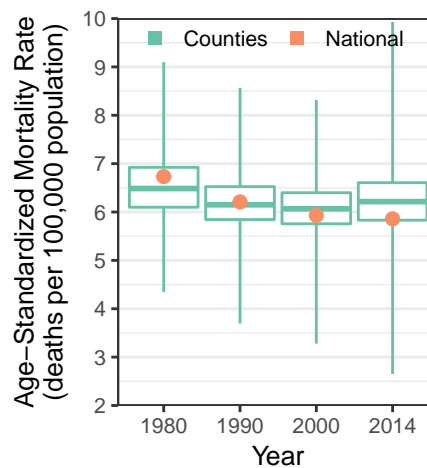
[A]



[B]



[C]



eFigure 23: County-level mortality from other neoplasms. [A] Age-standardized mortality rate for both sexes combined in 2014; [B] Relative change in the age-standardized mortality rate for both sexes combined between 1980 and 2014; [C] Age-standardized mortality rate in 1980, 1990, 2000, and 2014. In panels [A] and [B], the color scale is truncated at approximately the 1st and 99th percentile as indicated by the range given in the color scale. In panel [C], the boxes indicate the 25th, 50th, and 75th percentile across all counties while the lines indicate the full range across counties and the dots indicate the national-level rate.

eTables

eTable 1: Data sources used for covariates.

eTable 2: GBD cause list and associated ICD9 and ICD10 codes.

eTable 3: Five-year relative survival, 1973-2013, by age group.

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death.

eTable 1: Data sources used for covariates.

Data Sources	Data Processing
Percent of the population age 25 and older who have completed high school	
1980 census [1]; 1990 census [2]; 2000 census [3]; 2009-2014 ACS [4-9]	Linear interpolation was used fill in intermediate years between data sources. The rate of change calculated between 2007 and 2012 was applied to fill in estimates for 2013 and 2014.
Percent of the population who are Hispanic	
1980 census [10]; 1990-2014 NCHS Bridged Race Files [11-13]	Linear interpolation was used to fill in intermediate years between data sources.
Percent of the population who are Black and some other race	
1980-1989 Census Bureau Intercensal County Estimates by Age, Sex, and Race [14]; 1990-2014 NCHS Bridged Race Files [11-13]	Linear interpolation was used to fill in intermediate years between data sources.
Percent of land area in a Native American reservation	
2013 Cartographic Boundary File, State-County for United States [15]; AIANNH Areas National Shapefile [16]	Geographic boundaries of AIANNH Areas were intersected with county boundaries using ArcGIS. The area of the intersection and the area of the county were calculated using an Albers Equal Area Conic projection. The proportion of the land area that is in a reservation was generated by dividing the area of the reservation by the total area in each county.
Household Median Income	
1980 census [17]; 1989, 1993, 1995-2014 Small Area Income and Poverty Estimates [18]; 1980-2014 Bureau of Labor Statistics, Consumer Price Index [19]	Data were adjusted for inflation using the consumer price index, and linear interpolation was used to generate values between observed data points. Income was then log-transformed.
Population Density	
1980-1989 Census Bureau Intercensal County Estimates by Age, Sex, and Race [14]; 1990-2014 NCHS Bridged Race Files [11-13]; 2013 Cartographic Boundary File, State-County for United States [15]	The area of each county was calculated using an Albers Equal Area Conic projection. The total population of each county was divided by the total area of the county, and was then log-transformed.

- [1] Missouri Census Data Center. 1980 Census Summary Tape File 3, Table NT48A. MCDC Data Archive (Uexplore/Dexter). <http://mcdc2.missouri.edu/applications/uexplore.shtml>. Accessed April 22, 2013.
- [2] Minnesota Population Center. 1990 Census Summary Tape File 3, Table P057. National Historical Geographic Information System: Version 2.0. Minneapolis, MN: University of Minnesota 2011. <http://www.nhgis.org>. Accessed July 18, 2013.
- [3] U.S. Census Bureau. 2000 Census Summary Tape File 3, Table DP2; using American FactFinder; <http://factfinder2.census.gov>. Accessed April 18, 2013.
- [4] U.S. Census Bureau. American Community Survey, 2009 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed April 17, 2013.
- [5] U.S. Census Bureau. American Community Survey, 2010 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed April 17, 2013.
- [6] U.S. Census Bureau. American Community Survey, 2011 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed April 17, 2013.
- [7] U.S. Census Bureau. American Community Survey, 2012 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed December 18, 2013.
- [8] U.S. Census Bureau. American Community Survey, 2013 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed December 23, 2014.
- [9] U.S. Census Bureau. American Community Survey, 2014 American Community Survey 5-Year Estimates, Table S1501; using American FactFinder; <http://factfinder2.census.gov>. Accessed December 8, 2015.
- [10] Minnesota Population Center. 1980 Census Summary Tape File 1, Table NT8. National Historical Geographic Information System: Version 2.0. Minneapolis, MN: University of Minnesota 2011. <http://www.nhgis.org>. Accessed January 13, 2016.
- [11] National Center for Health Statistics, Centers for Disease Control and Prevention, US Census Bureau. United States Bridged-Race Intercensal Population Estimates 1990-1999. Hyattsville, United States: National Center for Health Statistics, Centers for Disease Control and Prevention, 2004. Accessed November 21, 2011.
- [12] National Center for Health Statistics, Centers for Disease Control and Prevention, US Census Bureau. United States Bridged-Race Intercensal Population Estimates 2000-2009. Hyattsville, United States: National Center for Health Statistics, Centers for Disease Control and Prevention, 2012. Accessed October 30, 2012.
- [13] National Center for Health Statistics, Centers for Disease Control and Prevention, United States Census Bureau. United States Vintage 2014 Bridged-Race Postcensal Population Estimates 2010-2014. Hyattsville, United States: National Center for Health Statistics, Centers for Disease Control and Prevention, 2015. Accessed December 18, 2015.
- [14] U.S. Census Bureau. Intercensal County Estimates by Age, Sex, Race: 1980-1989. <http://www.census.gov/popest/data/counties/asrh/1980s/PE-02.html>. Accessed January 8, 2015.
- [15] U.S. Census Bureau. TIGER/Line Shapefile, 2013 Cartographic Boundary File, State-County for United States, 1:20,000,000. <https://catalog.data.gov/dataset/2013-cartographic-boundary-file-state-county-for-united-states-1-20000000>. Accessed February 2, 2015.
- [16] U.S. Census Bureau. TIGER/Line Shapefile, 2012, Series Information File for the Nation, Current Amer-

ican Indian/Alaska Native/Native Hawaiian Areas (AIANNH) National Shapefile. <http://catalog.data.gov/dataset/tiger-line-shapefile-2012-series-information-file-for-the-nation-current-american-indian-alaska>. Accessed February 10, 2015.

[17] Minnesota Population Center. Summary Tape File 3, Table NT69. National Historical Geographic Information System: Version 2.0. Minneapolis, MN: University of Minnesota 2011. <http://www.nhgis.org>. Accessed November 12, 2015.

[18] U.S. Census Bureau. Small Area Income and Poverty Estimates. <https://www.census.gov/did/www/saipe/data/statecounty/data/index.html>. Accessed December 28, 2015.

[19] U.S. Bureau of Labor Statistics. Consumer Price Index: All Urban Consumers History, All Items 1913-2015. <http://www.bls.gov/data/>. Accessed March 24, 2015.

eTable 2: GBD cause list and associated ICD9 and ICD10 codes.

Cause	Level	ICD9	ICD10
Communicable, maternal, neonatal, and nutritional diseases	1	001-001.9, 002.0-030.9, 032-034.9, 036-036.40, 036.5, 036.8-037.9, 039-039.4, 039.8-040, 040.1-041.09, 042-066.9, 070-070.21, 070.3-070.31, 070.4-070.43, 070.49-070.53, 070.59-074.1, 074.20, 074.3-075.9, 078.4-078.7, 079-079.7, 080-083.9, 084.0-084.5, 084.7-084.9, 085.0, 086-088.9, 090-101.6, 104-104.9, 120-124.9, 125.4-125.9, 127-127.1, 128-129.0, 136-136.29, 137-139.0, 244.2, 260-263.9, 265-269.9, 280.1-280.8, 281.0-281.9, 320.0-320.89, 321-323.9, 381-383.9, 390-390.9, 392, 392.9, 461-461.9, 464.0, 464.01, 464.11-464.2, 464.21, 464.31-464.4, 464.8-464.9, 466-469, 470.0, 475-475.9, 476.9, 480-482.89, 483.0-483.9, 484.0-484.7, 487-489, 613-614.9, 630-636.92, 638-638.92, 640-679.14, 716.0-716.09, 730.4-730.6, 760-760.64, 760.8-768, 768.2-770, 770.1-775, 775.4-779.34, 779.6-779.89, 787.91	A00-A00.9, A01.0-A14, A15-A28.9, A30-A30.9, A32-A39.4, A39.8-A39.9, A48.1-A48.2, A48.4-A48.52, A49.1, A50-A58, A60-A60.9, A63-A63.8, A65-A65.0, A68-A70, A74, A74.8-A75.9, A77-A96.9, A98-A98.8, B00-B06.9, B10-B10.89, B15-B17.9, B19-B27.99, B29.4, B33-B33.1, B33.3-B33.8, B47-B48.8, B50-B53.8, B55.0, B56-B57.5, B60-B60.8, B63, B65-B67.99, B69-B72.0, B74.3-B75, B77-B77.9, B83-B83.8, B90-B92, B94.1-B94.2, B95-B95.5, D50.1-D50.8, D51-D52.0, D52.8-D53.9, D64.3, D86.81, E00-E02, E40-E46.9, E51-E61.9, E63-E64.0, E64.2-E64.9, F07.1, G00.0-G00.8, G03-G03.8, G04-G05.8, G14-G14.6, H70-H70.93, I00, I02, I02.9, I98.0-I98.1, J01-J01.91, J02.0, J03.0-J03.01, J04.0, J05-J05.0, J05.11, J09-J15.8, J16-J16.9, J20-J21.9, J36-J36.0, K67.0-K67.8, K74.7-K74.8, K93.0, M03.1, M12.1-M12.19, M49.0-M49.1, M73.0-M73.1, M89.6-M89.69, N70-N71.9, N73-N74.8, N96, N98-N98.9, O00-O07.9, O09-O16.9, O20-O26.93, O28-O36.93, O40-O48.1, O60-O77.9, O80-O92.79, O96-P04.2, P04.5-P05.9, P07-P15.9, P19-P22.9, P23.0-P23.4, P24-P29.9, P35-P37.2, P37.5-P39.9, P50-P61.9, P70, P70.3-P72.9, P74-P78.9, P80-P81.9, P83-P84, P90-P94.9, P96, P96.3-P96.4, P96.8-P96.89, R19.7
HIV/AIDS and tuberculosis	2	010-019.9, 042-044.9, 137-137.9, 138.0-138.9, 730.4-730.6	A10-A14, A15-A19.9, B20-B24.9, B90-B90.9, K67.3, K93.0, M49.0, P37.0
Tuberculosis	3-4	010-019.9, 137-137.9, 138.0-138.9, 730.4-730.6	A10-A14, A15-A19.9, B90-B90.9, K67.3, K93.0, M49.0, P37.0
HIV/AIDS	3	042-044.9	B20-B24.9
HIV/AIDS - Tuberculosis	4		B20.0
HIV/AIDS resulting in other diseases	4	042.0-042.9, 043.0-043.9, 044.1-044.9	B20.1-B23.9, B24.0
Diarrhea, lower respiratory, and other common infectious diseases	2	001-001.9, 002.0-009.9, 032-033.9, 036-036.40, 036.5, 036.8-037.9, 047-049.9, 052-053.9, 055-055.9, 062-064.9, 073.0-073.6, 139.0, 320.0-320.89, 321-323, 323.1, 323.4-323.9, 381-383.9, 461-461.9, 464.0, 464.01, 464.11-464.2, 464.21, 464.31-464.4, 464.8-464.9, 466-469, 470.0, 475-475.9, 476.9, 480-482.89, 483.0-483.9, 484.0-484.4, 484.6-484.7, 487-489, 771.3, 787.91	A00-A00.9, A01.0-A09.9, A33-A37.91, A39-A39.4, A39.8-A39.9, A48.1, A70, A83-A87.9, B01-B02.9, B05-B05.9, B94.1, D86.81, F07.1, G00.0-G00.8, G03-G03.8, G04-G05.8, H70-H70.93, J01-J01.91, J04.0, J05-J05.0, J05.11, J09-J15.8, J16-J16.9, J20-J21.9, J36-J36.0, P23.0-P23.4, P35.8, R19.7
Diarrheal diseases	3-4	001-001.9, 003-006.9, 007.4-007.8, 008.01-008.02, 008.04, 008.2-009.9, 787.91	A00-A00.9, A02-A04.1, A04.3, A04.5-A07, A07.2-A07.4, A08-A09.9, R19.7
Intestinal infectious diseases	3	002.0-002.9, 007-007.3, 007.9-008.00, 008.03, 008.09-008.1	A01.0-A01.4, A04.2, A04.4, A07.0-A07.1, A07.8-A07.9
Typhoid fever	4	2	A01.0-A01.09
Paratyphoid fever	4	002.1-002.9	A01.1-A01.4
Other intestinal infectious diseases	4	007-007.3, 007.9-008.00, 008.03, 008.09-008.1	A04.2, A04.4, A07.0-A07.1, A07.8-A07.9
Lower respiratory infections	3-4	073.0-073.6, 466-469, 470.0, 480-482.89, 483.0-483.9, 484.1-484.2, 484.6-484.7, 487-489	A48.1, A70, J09-J15.8, J16-J16.9, J20-J21.9, P23.0-P23.4
Upper respiratory infections	3-4	461-461.9, 464.0, 464.01, 464.11-464.2, 464.21, 464.31-464.4, 464.8-464.9, 475-475.9, 476.9	J01-J01.91, J04.0, J05-J05.0, J05.11, J36-J36.0
Otitis media	3-4	381-383.9	H70-H70.93
Meningitis	3	036-036.40, 036.5, 036.8-036.9, 047-049.9, 320.0-320.89, 321-322.9	A39-A39.4, A39.8-A39.9, A87-A87.9, D86.81, G00.0-G00.8, G03-G03.8

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Pneumococcal meningitis	4	320.1	G00.1
H influenzae type B meningitis	4	320	G00.0
Meningococcal meningitis	4	036-036.40, 036.5, 036.8-036.9	A39-A39.4, A39.8-A39.9
Other meningitis	4	047-049.9, 320.2-320.89, 321-322.9	A87-A87.9, D86.81, G00.2-G00.8, G03-G03.8
Encephalitis	3-4	062-064.9, 139.0, 323, 323.4-323.9	A83-A86.4, B94.1, F07.1, G04-G05.8
Diphtheria	3-4	032-032.9	A36-A36.9
Whooping cough	3-4	033-033.9, 484.3-484.4	A37-A37.91
Tetanus	3-4	037-037.9, 771.3	A33-A35.0
Measles	3-4	055-055.9, 323.1, 484.0	B05-B05.9
Varicella and herpes zoster	3-4	052-053.9	B01-B02.9, P35.8
Neglected tropical diseases and malaria	2	030-030.9, 060-061.8, 065-066.9, 071-071.9, 080, 080.2-083.9, 084.0-084.5, 084.7-084.9, 085.0, 086-088.9, 120-124.9, 125.4-125.9, 127-127.1, 128-129.0	A30-A30.9, A68-A68.9, A69.2-A69.9, A75-A75.9, A77-A79.9, A82-A82.9, A90-A96.9, A98-A98.8, B33.0-B33.1, B50-B53.8, B55.0, B56-B57.5, B60-B60.8, B65-B67.99, B69-B72.0, B74.3-B75, B77-B77.9, B83-B83.8, B92, P37.1
Malaria	3-4	084.0-084.5, 084.7-084.9	B50-B53.8
Chagas disease	3-4	086-086.2, 086.9	B57-B57.5
Leishmaniasis	3	85	B55.0
Visceral leishmaniasis	4	85	B55.0
African trypanosomiasis	3-4	086.3-086.5	B56-B56.9
Schistosomiasis	3-4	120-120.9	B65-B65.9
Cysticercosis	3-4	123.1	B69-B69.9
Cystic echinococcosis	3-4	122-122.4, 122.8-122.9	B67-B67.4, B67.8-B67.99
Dengue	3-4	061-061.8	A90-A91.9
Yellow fever	3-4	060-060.9	A95-A95.9
Rabies	3-4	071-071.9	A82-A82.9
Intestinal nematode infections	3	127	B77-B77.9
Ascariasis	4	127	B77-B77.9
Ebola	3-4		A98.4
Other neglected tropical diseases	3-4	065-066.9, 080, 080.2-083.9, 087-088.9, 122.5-122.7, 123-123.0, 123.2-124.9, 125.4-125.9, 127, 127.1, 128-129.0	A68-A68.9, A69.2-A69.9, A75-A75.9, A77-A79.9, A92-A94.0, A96-A96.9, A98-A98.3, A98.5-A98.8, B33.0-B33.1, B60-B60.8, B67.5-B67.7, B70-B72.0, B74.3-B75, B83-B83.8, P37.1
Maternal disorders	2	630-636.92, 638-638.92, 640-679.14	N96, N98-N98.9, O00-O07.9, O09-O16.9, O20-O26.93, O28-O36.93, O40-O48.1, O60-O77.9, O80-O92.79, O96-O99.91
Maternal hemorrhage	3-4	640-641.93, 661-661.93, 665, 666-666.9	O20-O20.9, O43.2-O43.239, O44-O46.93, O62-O62.9, O67-O67.9, O70, O72-O72.3
Maternal sepsis and other maternal infections	3-4	659.3-659.33, 670-670.9	O23-O23.93, O85-O86.89, O91-O91.23
Maternal hypertensive disorders	3-4	642-642.94	O10-O16.9
Maternal obstructed labor and uterine rupture	3-4	652-653.93, 660-660.93, 665.0-665.34	O32-O33.9, O64-O66.9, O71-O71.9
Maternal abortion, miscarriage, and ectopic pregnancy	3-4	630-636.92, 638-638.92, 646.3-646.33	N96, O00-O07.9
Indirect maternal deaths	3-4	646-646.24, 646.4-649.9, 674-674.94	O24-O25.3, O98-O99.91
Late maternal deaths	3-4		O96-O97.9
Maternal deaths aggravated by HIV/AIDS	3-4		
Other maternal disorders	3-4	643-645.23, 650-651.93, 654-659.23, 659.4-659.93, 662-664.94, 665.4-665.94, 667-669.94, 671-673.9, 675-679.14	N98-N98.9, O09-O09.93, O21-O22.93, O26-O26.93, O28-O31.8, O34-O36.93, O40-O43.199, O43.8-O43.93, O47-O48.1, O60-O61.9, O63-O63.9, O68-O69.9, O70.0-O70.9, O73-O77.9, O80-O84.9, O87-O90.9, O92-O92.79
Neonatal disorders	2	760-760.64, 760.8-768, 768.2-770, 770.1-771, 771.4-775, 775.4-779.34, 779.6-779.89	P00-P04.2, P04.5-P05.9, P07-P15.9, P19-P22.9, P24-P29.9, P36-P36.9, P38-P39.9, P50-P61.9, P70, P70.3-P72.9, P74-P78.9, P80-P81.9, P83-P84, P90-P94.9, P96, P96.3-P96.4, P96.8-P96.89
Neonatal preterm birth complications	3-4	761.0-761.1, 765-765.9, 769-769.9, 770.2-770.9, 776.6, 777.5-777.6	P01.0-P01.1, P07-P07.39, P22-P22.9, P25-P28.9, P61.2, P77-P77.9

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Neonatal encephalopathy due to birth asphyxia and trauma	3-4	761.7-763.9, 767-768, 768.2-768.9, 770.1-770.18, 772.1-772.9, 779.0-779.2	P01.7, P02-P03.9, P10-P15.9, P20-P21.9, P24-P24.9, P90-P91.9
Neonatal sepsis and other neonatal infections	3-4	771.4-771.9	P36-P36.9, P38-P39.9
Hemolytic disease and other neonatal jaundice	3-4	773-774.9	P55-P59.9
Other neonatal disorders	3-4	760-760.64, 760.8-761, 761.2-761.6, 764-764.99, 766-766.9, 770, 771, 772-772.0, 775, 775.4-776.5, 776.7-777.4, 777.7-779, 779.3-779.34, 779.6-779.89	P00-P01, P01.2-P01.6, P01.8-P01.9, P04-P04.2, P04.5-P05.9, P08-P09, P19-P19.9, P29-P29.9, P50-P54.9, P60-P61.1, P61.3-P61.9, P70, P70.3-P72.9, P74-P76.9, P78-P78.9, P80-P81.9, P83-P84, P92-P94.9, P96, P96.3-P96.4, P96.8-P96.89
Nutritional deficiencies	2	244.2, 260-263.9, 265-269.9, 280.1-280.8, 281.0-281.9, 716.0-716.09	D50.1-D50.8, D51-D52.0, D52.8-D53.9, D64.3, E00-E02, E40-E46.9, E51-E61.9, E63-E64.0, E64.2-E64.9, M12.1-M12.19
Protein-energy malnutrition	3-4	260-263.9	E40-E46.9, E64.0
Iodine deficiency	3-4	244.2	E00-E02
Iron-deficiency anemia	3-4	280.1-280.8	D50.1-D50.8, D64.3
Other nutritional deficiencies	3-4	265-269.9, 281.0-281.9, 716.0-716.09	D51-D52.0, D52.8-D53.9, E51-E61.9, E63-E64, E64.2-E64.3, M12.1-M12.19
Other communicable, maternal, neonatal, and nutritional diseases	2	020-029, 034-034.9, 039-039.4, 039.8-040, 040.1-041.09, 045-046.9, 050-051.9, 054-054.9, 056-059.9, 070-070.21, 070.3-070.31, 070.4-070.43, 070.49-070.53, 070.59-070.9, 072-073, 073.7-074.1, 074.20, 074.3-075.9, 078.4-078.7, 079-079.7, 080.0, 090-101.6, 104-104.9, 136-136.29, 138, 139, 323.0-323.02, 323.2-323.3, 390-390.9, 392, 392.9, 484.5, 613-614.9, 771.0-771.2	A20-A28.9, A32-A32.9, A38-A38.9, A48.2, A48.4-A48.52, A49.1, A50-A58, A60-A60.9, A63-A63.8, A65-A65.0, A69-A69.1, A74, A74.8-A74.9, A80-A81.9, A88-A89.9, B00-B00.9, B03-B04, B06-B06.9, B10-B10.89, B15-B17.9, B19-B19.9, B25-B27.99, B29.4, B33, B33.3-B33.8, B47-B48.8, B63, B91, B94.2, B95-B95.5, G14-G14.6, I00, I02, I02.9, I98.0-I98.1, J02.0, J03.0-J03.01, K67.0-K67.2, K67.8, K74.7-K74.8, M03.1, M49.1, M73.0-M73.1, M89.6-M89.69, N70-N71.9, N73-N74.8, P35-P35.3, P35.9, P37, P37.2, P37.5-P37.9
Sexually transmitted diseases excluding HIV	3	054.1, 090-099.9, 613-614.9	A50-A58, A60-A60.9, A63-A63.8, B63, I98.0, K67.0-K67.2, M03.1, M73.0-M73.1, N70-N71.9, N73-N74.8
Syphilis	4	090-097.9	A50-A53.9, I98.0, K67.2, M03.1, M73.1
Chlamydial infection	4	099, 099.1-099.6	A55-A56.8, K67.0
Gonococcal infection	4	098-098.9	A54-A54.9, K67.1, M73.0
Other sexually transmitted diseases	4	099.0, 099.8-099.9	A57-A58, A63-A63.8
Hepatitis	3-4	070-070.21, 070.3-070.31, 070.4-070.43, 070.49-070.53, 070.59-070.9	B15-B17.9, B19-B19.9, B94.2, P35.3
Other infectious diseases	3-4	020-029, 034-034.9, 039-039.4, 039.8-040, 040.1-041.09, 045-046.9, 050-051.9, 054-054.0, 054.10-054.9, 056-059.9, 072-073, 073.7-074.1, 074.20, 074.3-075.9, 078.4-078.7, 079-079.7, 080.0, 100-101.6, 104-104.9, 136-136.29, 138, 139, 323.0-323.02, 323.2-323.3, 390-390.9, 392, 392.9, 484.5, 771.0-771.2	A20-A28.9, A32-A32.9, A38-A38.9, A48.2, A48.4-A48.52, A49.1, A65-A65.0, A69-A69.1, A74, A74.8-A74.9, A80-A81.9, A88-A89.9, B00-B00.9, B03-B04, B06-B06.9, B10-B10.89, B25-B27.99, B29.4, B33, B33.3-B33.8, B47-B48.8, B91, B95-B95.5, G14-G14.6, I00, I02, I02.9, I98.1, J02.0, J03.0-J03.01, K67.8, K74.7-K74.8, M49.1, M89.6-M89.69, P35-P35.2, P35.9, P37, P37.2, P37.5-P37.9
Non-communicable diseases	1	035-035.9, 036.41-036.43, 036.6, 070.22-070.23, 070.32-070.33, 070.44, 070.54, 074.2, 074.21-074.23, 102-103.9, 133-133.6, 135-135.9, 136.6, 140-148.9	A39.5-A39.53, A46-A46.0, A66-A67.9, B18-B18.9, B33.2-B33.24, B86, C0-C13.9, C15-C25.9, C3-C34.92, C37-C38.8, C4-C41.9, C43-C45.9

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Non-communicable diseases (continued)	1	150-158.9, 160-164.9, 170-175.9, 180-183.8, 184.0-184.4, 184.8, 185-186.9, 187.1-187.8, 188-188.9, 189.0-189.8, 190-194.8, 200-208.92, 209.0-209.17, 209.21-209.27, 209.31-209.57, 209.61, 209.63-209.67, 210.0-210.9, 211.0-211.8, 212.0-212.8, 213-213.9, 217-220.9, 221.0-221.8, 222.0-222.8, 223.0-223.89, 224-228.9, 229.0, 229.8, 230.1-230.8, 231.0-231.2, 232-232.9, 233.0-233.2, 233.31-233.32, 233.4-233.5, 233.7, 234.0-234.8, 235.0, 235.4, 235.6-235.8, 236.0-236.2, 236.4-236.5, 236.7, 236.91-237.3, 237.5-237.9, 238.0-238.5, 239.2-239.4, 239.6, 240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 250-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 282-284.9, 286-286.5, 286.7-289.7, 290-292.9, 294.1-295.95, 303-303.93, 304.0-304.83, 305-305.93, 307.1, 307.51, 307.54, 327.2-327.8, 330-331.2, 331.5-337.9, 340-341.9, 345-345.91, 349-349.8, 353.6-353.9, 356-356.9, 357.0-357.7, 358-359.9, 376.0-376.1, 391-391.9, 392.0, 393-398.99, 402-404.93, 410-414.9, 416.1, 417-417.9, 420-423, 423.1-425.9, 427-427.32, 427.6-427.89, 429.0-429.1, 430-435.9, 437.0-437.2, 437.4-437.8, 441-443.9, 446-457.9, 459, 459.1-459.39, 470, 470.9-474.9, 476-476.1, 477-479, 490-504.9, 506-506.9, 508-509, 515, 516-517.8, 518.6-518.7, 518.9, 519.0-519.4, 530-536.1, 536.4-536.49, 537-537.6, 537.8-537.84, 538-543.9, 550-553.6, 555-558.9, 560-560.39, 560.8-560.9, 562-562.13, 564-564.7, 565-566.9, 569.0-569.44, 569.5-569.71, 569.84-569.85, 571-571.9, 572.3-572.9, 573.0-573.4, 573.8-577.9, 579-583.9, 585-585.9, 588-590.9, 592-593.89, 594-599.69, 599.8-599.89, 601-602.9, 604-604.99, 608.2-608.24, 610-610.9, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.81, 680-689, 694-695.59, 707-707.9, 710-711.99, 714-714.33, 714.8-714.9, 728.86, 728.88, 730.1-730.19, 732-732.9, 733.0-733.19, 740-749.04, 749.2-758.9, 759.0-759.89, 760.7-760.79	C47-C54.9, C56-C57.8, C58-C58.0, C60-C63.8, C64-C67.9, C68.0-C68.8, C69-C75.8, C81-C86.6, C88-C96.9, D00.00-D00.2, D01.0-D01.3, D02.0-D02.3, D03-D06.9, D07.0-D07.2, D07.4-D07.5, D09.0, D09.2-D09.3, D09.8, D10.0-D10.7, D11-D12.9, D13.0-D13.7, D14.0-D14.32, D15-D16.9, D22-D27.9, D28.0-D28.7, D29.0-D29.8, D30.0-D30.8, D31-D36, D36.1-D36.7, D37.01-D37.5, D38.0-D38.5, D39.1-D39.2, D39.8, D40.0-D40.8, D41.0-D41.8, D42-D43.9, D44.0-D44.8, D45-D45.9, D47-D47.0, D47.2-D47.9, D48.0-D48.62, D49.2-D49.4, D49.6, D49.81, D52.1, D55-D58.9, D59.0-D59.3, D59.5-D59.6, D60-D61.9, D63.1, D64.0, D64.4, D66-D67, D68.0-D69.8, D70-D75.89, D76-D78.89, D86-D86.8, D86.82-D86.9, D89-D89.3, E03-E07.1, E09-E14.9, E15.0, E16.0-E16.9, E20-E34.8, E36-E36.8, E65-E68, E70-E85.29, E87.71, E88-E89.9, F00-F03.91, F06.2, F10-F16.99, F18-F29.9, F50.0-F50.5, G10-G13.8, G20-G26.0, G30-G31.9, G35-G37.9, G40-G41.9, G45-G46.8, G47.3-G47.39, G61-G61.9, G70-G73.7, G90-G90.9, G93.7, G95-G95.9, G97-G97.9, H05.0-H05.119, I01-I01.9, I02.0, I05-I09.9, I11-I13.9, I20-I25.9, I27.1, I28-I28.8, I30-I31.1, I31.8-I43.9, I47-I48.92, I51.0-I51.5, I60-I61.9, I62.0-I62.03, I63-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.7, I68.0-I68.2, I69.0-I69.398, I70.2-I70.799, I71-I73.9, I77-I89.9, I91.9, I95.2-I95.3, I97-I98, I98.2, I98.9, J30-J35.9, J37-J47.9, J60-J63.8, J65-J68.9, J70-J70.9, J82, J84-J84.9, J91-J92.9, J95-J95.9, K20-K29.91, K31-K31.89, K35-K38.9, K40-K46.9, K50-K52.9, K55-K62.9, K63.5, K64-K64.9, K66.8, K67, K68-K68.9, K70-K70.9, K71.3-K71.51, K71.7, K72.1-K74.69, K74.9, K75.2-K77.8, K80-K83.9, K85-K86.9, K90-K91.9, K92.8-K92.89, K94-K95.89, L00-L05.92, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.95, L93-L93.2
Non-communicable diseases (continued)	1	775.0-775.3, 779.4-779.5, 780.57, 780.59, 780.62-780.63, 786.03, 787.1, 788.0, 790.2-790.22, 790.3, 798-798.0, E850-E850.29, E850.9-E854.39, E860-E860.19	L97-L98.499, M00-M03.0, M03.2-M03.6, M05-M09.8, M30-M36.8, M40-M43.19, M65-M65.08, M71.0-M71.19, M80-M82.8, M86.3-M86.49, M87-M87.19, M88-M89.09, M89.5-M89.59, M89.7-M89.9, N00-N08.8, N10-N12.9, N14-N16.8, N18-N18.9, N20-N23.0, N25-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.04, N45-N45.9, N49-N49.9, N60-N60.99, N65-N65.1, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9, N84.0-N84.1, N87-N87.9, N99-N99.9, P04.3-P04.49, P70.0-P70.2, P96.0-P96.2, P96.5, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q87.89, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8, R50.2, R50.82-R50.83, R73-R73.9, R78.0-R78.5, R95, X45-X45.9

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Neoplasms	2	140-148.9, 150-158.9, 160-164.9, 170-175.9, 180-183.8, 184.0-184.4, 184.8, 185-186.9, 187.1-187.8, 188-188.9, 189.0-189.8, 190-194.8, 200-208.92, 209.0-209.17, 209.21-209.27, 209.31-209.57, 209.61, 209.63-209.67, 210.0-210.9, 211.0-211.8, 212.0-212.8, 213-213.9, 217-217.8, 219.0, 220-220.9, 221.0-221.8, 222.0-222.8, 223.0-223.89, 224-228.9, 229.0, 229.8, 230.1-230.8, 231.0-231.2, 232-232.9, 233.0-233.2, 233.31-233.32, 233.4-233.5, 233.7, 234.0-234.8, 235.0, 235.4, 235.6-235.8, 236.1-236.2, 236.4-236.5, 236.7, 236.91-237.3, 237.5-237.9, 238.0-238.5, 239.2-239.4, 239.6, 569.0, 569.43-569.44, 569.84-569.85, 610-610.9	C0-C13.9, C15-C25.9, C3-C34.92, C37-C38.8, C4-C41.9, C43-C45.9, C47-C54.9, C56-C57.8, C58-C58.0, C60-C63.8, C64-C67.9, C68.0-C68.8, C69-C75.8, C81-C86.6, C88-C96.9, D00.00-D00.2, D01.0-D01.3, D02.0-D02.3, D03-D06.9, D07.0-D07.2, D07.4-D07.5, D09.0, D09.2-D09.3, D09.8, D10.0-D10.7, D11-D12.9, D13.0-D13.7, D14.0-D14.32, D15-D16.9, D22-D24.9, D26.0, D27-D27.9, D28.0-D28.1, D28.7, D29.0-D29.8, D30.0-D30.8, D31-D36, D36.1-D36.7, D37.01-D37.5, D38.0-D38.5, D39.1-D39.2, D39.8, D40.0-D40.8, D41.0-D41.8, D42-D43.9, D44.0-D44.8, D45-D45.9, D47-D47.0, D47.2-D47.9, D48.0-D48.62, D49.2-D49.4, D49.6, D49.81, K31.7, K62.0-K62.1, K63.5, N60-N60.99, N84.0-N84.1, N87-N87.9
Lip and oral cavity cancer	3-4	140-145.9, 210.0-210.6, 235.0	C0-C08.9, D00.00-D00.07, D10.0-D10.5, D11-D11.9, D37.01-D37.04, D37.09
Nasopharynx cancer	3-4	147-147.9, 210.7-210.9	C11-C11.9, D00.08, D10.6, D37.05
Other pharynx cancer	3-4	146-146.9, 148-148.9	C09-C10.9, C12-C13.9, D10.7
Esophageal cancer	3-4	150-150.9, 211.0, 230.1	C15-C15.9, D00.1, D13.0
Stomach cancer	3-4	151-151.9, 209.23, 209.63, 211.1, 230.2	C16-C16.9, D00.2, D13.1, D37.1
Colon and rectum cancer	3-4	153-154.9, 209.1-209.17, 209.5-209.57, 211.3-211.4, 230.3-230.6	C18-C21.9, D01.0-D01.3, D12-D12.9, D37.3-D37.5
Liver cancer	3-4	155-155.9, 211.5	C22-C22.9, D13.4
Gallbladder and biliary tract cancer	3-4	156-156.9, 209.25-209.27, 209.65-209.67	C23-C24.9, D13.5
Pancreatic cancer	3-4	157-157.9, 211.6-211.7	C25-C25.9, D13.6-D13.7
Larynx cancer	3-4	161-161.9, 212.1, 231.0, 235.6	C32-C32.9, D02.0, D14.1, D38.0
Tracheal, bronchus, and lung cancer	3-4	162-162.9, 209.21, 209.61, 212.2-212.3, 231.1-231.2, 235.7	C33-C34.92, D02.1-D02.3, D14.2-D14.32, D38.1
Malignant skin melanoma	3-4	172-172.9	C43-C43.9, D03-D03.9, D22-D23.9, D48.5
Non-melanoma skin cancer	3	173-173.99, 222.4, 232-232.9, 238.2	C44-C44.99, D04-D04.9, D49.2
Non-melanoma skin cancer (squamous-cell carcinoma)	4	173-173.99, 222.4, 232-232.9, 238.2	C44-C44.99, D04-D04.9, D49.2
Breast cancer	3-4	174-175.9, 217-217.8, 233.0, 238.3, 239.3, 610-610.9	C50-C50.929, D05-D05.92, D24-D24.9, D48.6-D48.62, D49.3, N60-N60.99
Cervical cancer	3-4	180-180.9, 219.0, 233.1	C53-C53.9, D06-D06.9, D26.0
Uterine cancer	3-4	182-182.8, 233.2	C54-C54.9, D07.0-D07.2, N87-N87.9
Ovarian cancer	3-4	183-183.0, 220-220.9, 236.2	C56-C56.9, D27-D27.9, D39.1-D39.12
Prostate cancer	3-4	185-185.9, 222.2, 236.5	C61-C61.9, D07.5, D29.1, D40.0
Testicular cancer	3-4	186-186.9, 222.0, 222.3, 236.4	C62-C62.92, D29.2-D29.8, D40.1-D40.8
Kidney cancer	3-4	189.0-189.1, 209.24, 209.64, 223.0-223.1, 236.91	C64-C65.9, D30.0-D30.12, D41.0-D41.12
Bladder cancer	3-4	188-188.9, 223.3, 233.7, 236.7, 239.4	C67-C67.9, D09.0, D30.3, D41.4-D41.8, D49.4
Brain and nervous system cancer	3-4	191-192.9	C70-C72.9
Thyroid cancer	3-4	193-193.9, 226-226.9	C73-C73.9, D09.3, D09.8, D34-D34.9, D44.0
Mesothelioma	3-4	158.9, 163-163.9, 212.4	C45-C45.9
Hodgkin lymphoma	3-4	201-201.98	C81-C81.99
Non-Hodgkin lymphoma	3-4	200-200.9, 202-202.98	C82-C86.6, C96-C96.9
Multiple myeloma	3-4	203-203.9	C88-C90.9
Leukemia	3	204-208.92	C91-C95.92
Acute lymphoid leukemia	4	204.0-204.02	C91.0-C91.02
Chronic lymphoid leukemia	4	204.1-204.12	C91.1-C91.12
Acute myeloid leukemia	4	205.0-205.02, 205.3-205.32, 206.0-206.02, 207.0	C92.0-C92.02, C92.3-C92.62, C93.0-C93.02, C94.0-C94.02, C94.2-C94.22, C94.4-C94.5
Chronic myeloid leukemia	4	205.1-205.12, 206.1-206.12, 207.1	C92.1-C92.12

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Other neoplasms	3-4	152-152.9, 158-158.8, 160-160.9, 164-164.9, 170-171.9, 181-181.9, 182.9, 183.2-183.8, 184.0-184.4, 184.8, 187.1-187.8, 189.2-189.8, 190-190.9, 194-194.8, 209.0-209.03, 209.22, 209.31-209.43, 211.2, 211.8, 212.0, 212.5-212.8, 213-213.9, 221.0-221.8, 222.1, 222.8, 223.2, 223.8-223.89, 224-225.9, 227-228.9, 229.0, 229.8, 230.7-230.8, 233.31-233.32, 233.4-233.5, 234.0-234.8, 235.4, 235.8, 236.1, 236.99-237.3, 237.5-237.9, 238.0-238.1, 238.4-238.5, 239.2, 239.6, 569.0, 569.43-569.44, 569.84-569.85	C17-C17.9, C3-C31.9, C37-C38.8, C4-C41.9, C47-C5, C51-C52.9, C57-C57.8, C58-C58.0, C60-C60.9, C63-C63.8, C66-C66.9, C68.0-C68.8, C69-C7, C74-C75.8, D07.4, D09.2-D09.22, D13.2-D13.39, D14.0, D15-D16.9, D28.0-D28.1, D28.7, D29.0, D30.2-D30.22, D30.4-D30.8, D31-D33.9, D35-D36, D36.1-D36.7, D37.2, D38.2-D38.5, D39.2, D39.8, D41.2-D41.3, D42-D43.9, D44.1-D44.8, D45-D45.9, D47-D47.0, D47.2-D47.9, D48.0-D48.4, D49.6, D49.81, K31.7, K62.0-K62.1, K63.5, N84.0-N84.1
Cardiovascular diseases	2	036.41-036.43, 036.6, 074.2, 074.21-074.23, 391-391.9, 392.0, 393-398.99, 402-402.91, 410-414.9, 417-417.9, 420-423, 423.1-425.9, 427-427.32, 427.6-427.89, 429.0-429.1, 430-435.9, 437.0-437.2, 437.5-437.8, 441-443.9, 447-454.9, 456, 456.3-457.9, 459, 459.1-459.39	A39.5-A39.53, B33.2-B33.24, D86.85, G45-G46.8, I01-I01.9, I02.0, I05-I09.9, I11-I11.9, I20-I25.9, I28-I28.8, I30-I31.1, I31.8-I43.9, I47-I48.92, I51.0-I51.5, I60-I61.9, I62.0-I62.03, I63-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.6, I68.0-I68.2, I69.0-I69.398, I70.2-I70.799, I71-I73.9, I77-I83.93, I86-I89.9, I91.9, I98
Rheumatic heart disease	3-4	391-391.9, 392.0, 393-398.99	I01-I01.9, I02.0, I05-I09.9
Ischemic heart disease	3-4	410-414.9	I20-I25.9
Cerebrovascular disease	3	430-435.9, 437.0-437.2, 437.5-437.8	G45-G46.8, I60-I61.9, I62.0-I62.03, I63-I63.9, I65-I66.9, I67.0-I67.3, I67.5-I67.6, I68.1-I68.2, I69.0-I69.398
Ischemic stroke	4	433-435.9, 437.0-437.1, 437.5-437.8	G45-G46.8, I63-I63.9, I65-I66.9, I67.2-I67.3, I67.5-I67.6, I69.3-I69.398
Hemorrhagic stroke	4	430-432.9, 437.2	I60-I61.9, I62.0-I62.03, I67.0-I67.1, I68.1-I68.2, I69.0-I69.298
Hypertensive heart disease	3-4	402-402.91	I11-I11.9
Cardiomyopathy and myocarditis	3-4	036.43, 036.6, 074.23, 422-422.99, 425-425.9, 429.0-429.1	A39.52, B33.2-B33.24, D86.85, I40-I43.9, I51.4-I51.5
Atrial fibrillation and flutter	3-4	427.3-427.32	I48-I48.92
Aortic aneurysm	3-4	441-441.9	I71-I71.9
Peripheral vascular disease	3-4	443.0-443.9	I70.2-I70.799, I73-I73.9
Endocarditis	3-4	036.42, 074.22, 421-421.9, 424.9-424.91	A39.51, I33-I33.9, I38-I39.9
Other cardiovascular and circulatory diseases	3-4	036.41, 074.2, 074.21, 417-417.9, 420-420.99, 423, 423.1-424.8, 424.99, 427-427.2, 427.6-427.89, 442-443, 447-454.9, 456, 456.3-457.9, 459, 459.1-459.39	A39.5-A39.50, A39.53, I28-I28.8, I30-I31.1, I31.8-I32.8, I34-I37.9, I47-I47.9, I51.0-I51.3, I68.0, I72-I72.9, I77-I83.93, I86-I89.9, I91.9, I98
Chronic respiratory diseases	2	135-135.9, 136.6, 327.2-327.8, 470, 470.9-474.9, 476-476.1, 477-479, 490-504.9, 506-506.9, 508-509, 515, 516-517.8, 518.6, 518.9, 519.1-519.4, 780.57, 786.03	D86-D86.2, D86.89-D86.9, G47.3-G47.39, J30-J35.9, J37-J47.9, J60-J63.8, J65-J68.9, J70-J70.1, J70.8-J70.9, J82, J84-J84.9, J91-J92.9
Chronic obstructive pulmonary disease	3-4	490-492.9, 494-494.9, 496-499	J40-J44.9, J47-J47.9
Pneumoconiosis	3	500-504.9	J60-J63.8, J65-J65.0, J92.0
Silicosis	4	502-502.9, 503.0, 503.9	J62-J62.9
Asbestosis	4	501	J61-J61.0, J92.0
Coal workers pneumoconiosis	4	500-500.9, 501.0-501.9	J60-J60.0
Other pneumoconiosis	4	503, 503.1, 504-504.9	J63-J63.8, J65-J65.0
Asthma	3-4	493-493.92	J45-J46.9
Interstitial lung disease and pulmonary sarcoidosis	3-4	135-135.9, 136.6, 515, 516-516.9	D86-D86.2, D86.89-D86.9, J84-J84.9
Other chronic respiratory diseases	3-4	327.2-327.8, 470, 470.9-474.9, 476-476.1, 477-479, 495-495.9, 506-506.9, 508-509, 517-517.8, 518.6, 518.9, 519.1-519.4, 780.57, 786.03	G47.3-G47.39, J30-J35.9, J37-J39.9, J66-J68.9, J70-J70.1, J70.8-J70.9, J82, J91-J92, J92.9
Cirrhosis and other chronic liver diseases	2-4	070.22-070.23, 070.32-070.33, 070.44, 070.54, 456.0-456.21, 571-571.9, 572.3-572.9, 573.0-573.3, 573.8-573.9	B18-B18.9, I85-I85.9, I98.2, K70-K70.9, K71.3-K71.51, K71.7, K72.1-K74.69, K74.9, K75.8-K76.0, K76.6-K76.7, K76.9

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Digestive diseases	2	455-455.9, 530-536.1, 537-537.6, 537.8-537.84, 538, 540-543.9, 550-551.1, 551.3-552.1, 552.3-553.6, 555-558.9, 560-560.39, 560.8-560.9, 562-562.13, 564-564.1, 564.5-564.7, 565-566.9, 569.1-569.42, 569.5, 569.7-569.71, 573.4, 574-577.9, 579-579.2, 579.4-579.9, 787.1	I84-I84.9, K20-K29.91, K31-K31.6, K31.8-K31.89, K35-K38.9, K40-K42.9, K44-K46.9, K50-K52.9, K55-K62, K62.2-K62.6, K62.8-K62.9, K64-K64.9, K66.8, K67, K68-K68.9, K75.2-K75.4, K76.1-K76.5, K76.8-K76.89, K77-K77.8, K80-K83.9, K85-K86.9, K90-K90.9, K92.8-K92.89, M09.1
Peptic ulcer disease	3-4	531-534.91	K25-K28.9, K31, K31.1-K31.6, K31.8, K31.82-K31.89
Gastritis and duodenitis	3-4	535-535.9	K29-K29.91
Appendicitis	3-4	540-542.9	K35-K37.9, K38.3-K38.9
Paralytic ileus and intestinal obstruction	3-4	560-560.39, 560.8-560.9	K56-K56.9
Inguinal, femoral, and abdominal hernia	3-4	550-551.1, 551.3-552.1, 552.3-553.03, 553.6	K40-K42.9, K44-K46.9
Inflammatory bowel disease	3-4	555-556.9, 558-558.9, 569.5	K50-K52.9, M09.1
Vascular intestinal disorders	3-4	557-557.9	K55-K55.9
Gallbladder and biliary diseases	3-4	574-576.9	K80-K83.9
Pancreatitis	3-4	577-577.9, 579.4	K85-K86.9
Other digestive diseases	3-4	455-455.9, 530-530.9, 536-536.1, 537-537.6, 537.8-537.84, 538, 543-543.9, 553.1-553.3, 562-562.13, 564-564.1, 564.5-564.7, 565-566.9, 569.1-569.42, 569.7-569.71, 573.4, 579-579.2, 579.8-579.9, 787.1	I84-I84.9, K20-K24, K31.0, K31.81-K31.819, K38-K38.2, K57-K62, K62.2-K62.6, K62.8-K62.9, K64-K64.9, K66.8, K67, K68-K68.9, K75.2-K75.4, K76.1-K76.5, K76.8-K76.89, K77-K77.8, K90-K90.9, K92.8-K92.89
Neurological disorders	2	290-290.9, 294.1-294.9, 330-331.2, 331.5-337.9, 340-341.9, 345-345.91, 349, 349.2-349.8, 353.6-353.9, 356-356.9, 357.0-357.1, 357.3-357.4, 357.7, 358-359.9, 728.86, 728.88, 775.2	F00-F03.91, G10-G13.8, G20-G21.0, G21.2-G24, G24.1-G25.0, G25.2-G25.3, G25.5, G25.8-G26.0, G30-G31.1, G31.8-G31.9, G35-G37.9, G40-G41.9, G61-G61.9, G70-G72, G72.2-G73.7, G90-G90.9, G95-G95.9, M33-M33.99
Alzheimer disease and other dementias	3-4	290-290.9, 294.1-294.9, 331-331.2	F00-F03.91, G30-G31.1, G31.8-G31.9
Parkinson disease	3-4	332-332.9	G20-G21.0, G21.2-G22.0
Epilepsy	3-4	345-345.91	G40-G41.9
Multiple sclerosis	3-4	340-340.9	G35-G35.9
Motor neuron disease	3-4	335-335.29, 335.8-335.9	G12.2-G12.9
Other neurological disorders	3-4	330-330.9, 331.5-331.9, 333-334.9, 335.3, 336-337.9, 341-341.9, 349, 349.2-349.8, 353.6-353.9, 356-356.9, 357.0-357.1, 357.3-357.4, 357.7, 358-359.9, 728.86, 728.88, 775.2	G10-G12.1, G13-G13.8, G23-G24, G24.1-G25.0, G25.2-G25.3, G25.5, G25.8-G26.0, G36-G37.9, G61-G61.9, G70-G72, G72.2-G73.7, G90-G90.9, G95-G95.9, M33-M33.99
Mental and substance use disorders	2	291-292.9, 295-295.95, 303-303.93, 304.0-304.83, 305-305.93, 307.1, 307.51, 307.54, 357.5, 760.7-760.79, 780.59, 790.3, E850-E850.29, E850.9-E854.39, E860-E860.19	F06.2, F10-F16.99, F18-F29.9, F50.0-F50.5, G31.2, G72.1, P04.3-P04.49, P96.1, Q86.0, R78.0-R78.5, X45-X45.9
Schizophrenia	3-4	295-295.95	F06.2, F20-F23.9, F25-F29.9
Alcohol use disorders	3-4	291-291.9, 303-303.93, 305.0-305.03, 357.5, 790.3, E860-E860.19	F10-F10.99, G31.2, G72.1, P04.3, Q86.0, R78.0, X45-X45.9
Drug use disorders	3	292-292.9, 304.0-304.83, 305, 305.1-305.93, 760.7-760.79, E850-E850.29, E850.9-E854.39	F11-F16.99, F18-F19.99, P04.4-P04.49, P96.1, R78.1-R78.5
Opioid use disorders	4	304.0-304.03, 305.5-305.53, E850.0-E850.29	F11-F11.99, P96.1, R78.1
Cocaine use disorders	4	304.2-304.23, 305.6-305.63	F14-F14.99, R78.2
Amphetamine use disorders	4	304.4-304.43, 305.7-305.73	F15-F15.99
Other drug use disorders	4	292-292.9, 304.1-304.13, 304.5-304.83, 305, 305.1-305.13, 305.3-305.43, 305.8-305.93	F13-F13.99, F16-F16.99, F18-F19.99, R78.3-R78.5
Eating disorders	3	307.1, 307.51, 307.54	F50.0-F50.5
Anorexia nervosa	4	307.1, 307.54	F50.0-F50.1
Bulimia nervosa	4	307.51	F50.2-F50.5

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Diabetes, urogenital, blood, and endocrine diseases	2	218-219, 219.1-219.9, 236.0, 240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 250-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 282-284.9, 286-286.5, 286.7-289.7, 349.0-349.1, 357.2, 357.6, 403-404.93, 518.7, 519.0-519.09, 536.4-536.49, 539-539.9, 551.2-551.29, 552.2-552.29, 564.2-564.4, 569.6-569.69, 579.3, 580-583.9, 585-585.9, 588-590.9, 592-593.89, 594-599.69, 599.8-599.89, 601-602.9, 604-604.99, 608.2-608.24, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.81, 775.0-775.1, 775.3, 779.4-779.5, 780.62-780.63, 788.0, 790.2-790.22	D25-D26, D26.1-D26.9, D28.2, D52.1, D55-D58.9, D59.0-D59.3, D59.5-D59.6, D60-D61.9, D63.1, D64.0, D64.4, D66-D67, D68.0-D69.8, D70-D75.89, D76-D78.89, D86.8, D86.82-D86.84, D86.86-D86.87, D89-D89.3, E03-E07.1, E09-E14.9, E15.0, E16.0-E16.9, E20-E34.8, E36-E36.8, E65-E68, E70-E85.29, E87.71, E88-E89.9, G21.1-G21.19, G24.0-G24.09, G25.1, G25.4, G25.6-G25.79, G72.0, G93.7, G97-G97.9, I12-I13.9, I95.2-I95.3, I97-I97.9, I98.9, J70.2-J70.5, J95-J95.9, K43-K43.9, K62.7, K91-K91.9, K94-K95.89, M87.1-M87.19, N00-N08.8, N10-N12.9, N14-N16.8, N18-N18.9, N20-N23.0, N25-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.04, N45-N45.9, N49-N49.9, N65-N65.1, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9, N99-N99.9, P70.0-P70.2, P96.2, P96.5, R50.2, R50.82-R50.83, R73-R73.9
Diabetes mellitus	3-4	250-250.39, 250.5-250.99, 357.2, 775.0-775.1, 790.2-790.22	E10-E10.11, E10.3-E11.1, E11.3-E12.1, E12.3-E13.11, E13.3-E14.1, E14.3-E14.9, P70.0-P70.2, R73-R73.9
Acute glomerulonephritis	3-4	580-580.9	N00-N01.9
Chronic kidney disease	3	250.4-250.49, 403-404.93, 581-583.9, 585-585.9, 589-589.9	D63.1, E10.2-E10.29, E11.2-E11.29, E12.2, E13.2-E13.29, E14.2, I12-I13.9, N02-N08.8, N15.0, N18-N18.9
Chronic kidney disease due to diabetes mellitus	4	250.4-250.49	E10.2-E10.29, E11.2-E11.29, E12.2, E13.2-E13.29, E14.2
Chronic kidney disease due to hypertension	4	403-404.93	I12-I13.9
Chronic kidney disease due to glomerulonephritis	4	581-583.9	N03-N06.9
Chronic kidney disease due to other causes	4	589-589.9	N02-N02.9, N07-N08.8, N15.0
Urinary diseases and male infertility	3	588-588.9, 590-590.9, 592-593.89, 594-596.81, 596.89-598.1, 598.8-599.69, 599.8-599.89, 601-602.9, 604-604.99, 608.2-608.24, 788.0	N10-N12.9, N15, N15.1-N16.8, N20-N23.0, N25-N32.0, N32.3-N32.4, N34-N34.3, N36-N36.9, N39-N39.2, N41-N41.9, N44-N44.04, N45-N45.9, N49-N49.9
Interstitial nephritis and urinary tract infections	4	590-590.9, 595-595.9, 597-597.9, 599.0	N10-N12.9, N15, N15.1-N16.8, N30-N30.91, N34-N34.3, N39.0-N39.2
Urolithiasis	4	592-592.9, 594-594.9, 788.0	N20-N23.0
Other urinary diseases	4	588-588.9, 593-593.89, 596-596.81, 596.89-596.9, 598-598.1, 598.8-599, 599.1-599.69, 599.8-599.89, 601-602.9, 604-604.99, 608.2-608.24	N25-N29.8, N31-N32.0, N32.3-N32.4, N36-N36.9, N39, N41-N41.9, N44-N44.04, N45-N45.9, N49-N49.9
Gynecological diseases	3	218-219, 219.1-219.9, 236.0, 256.4, 617-618.9, 620-620.9, 621.4-621.9, 622.3-622.7, 629-629.81	D25-D26, D26.1-D26.9, D28.2, E28.2, N72-N72.0, N75-N77.8, N80-N81.9, N83-N83.9
Uterine fibroids	4	218-219, 219.1-219.9, 236.0	D25-D26, D26.1-D26.9, D28.2
Polycystic ovarian syndrome	4	256.4	E28.2
Endometriosis	4	617-617.9	N80-N80.9
Genital prolapse	4	618-618.9	N81-N81.9
Other gynecological diseases	4	620-620.9, 621.4-621.9, 622.3-622.7, 629-629.81	N72-N72.0, N75-N77.8, N83-N83.9
Hemoglobinopathies and hemolytic anemias	3	282-284.9	D55-D58.9, D59.1, D59.3, D59.5, D60-D61.9, D64.0, D64.4
Thalassemias	4	282.4-282.49	D56-D56.9
Sickle cell disorders	4	282.6-282.68	D57-D57.219, D57.4-D57.819
G6PD deficiency	4	282.2-282.3	D55-D55.2
Other hemoglobinopathies and hemolytic anemias	4	282-282.1, 282.69-284.9	D55.3-D55.9, D58-D58.9, D59.1, D59.3, D59.5, D60-D61.9, D64.0, D64.4

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Endocrine, metabolic, blood, and immune disorders	3-4	240-243.9, 244.0-244.1, 244.3-244.8, 245-246.9, 251-256.39, 256.8-259.9, 270-273.9, 275-276, 277-277.2, 277.4-277.9, 278.0-278.8, 286-286.5, 286.7-289.7, 349.0-349.1, 357.6, 518.7, 519.0-519.09, 536.4-536.49, 539-539.9, 551.2-551.29, 552.2-552.29, 564.2-564.4, 569.6-569.69, 579.3, 596.82-596.83, 598.2, 775.3, 779.4-779.5, 780.62-780.63	D52.1, D59.0, D59.2, D59.6, D66-D67, D68.0-D69.8, D70-D75.89, D76-D78.89, D86.8, D86.82-D86.84, D86.86-D86.87, D89-D89.3, E03-E07.1, E09-E09.9, E15.0, E16.0-E16.9, E20-E28.1, E28.3-E34.8, E36-E36.8, E65-E68, E70-E85.29, E87.71, E88-E89.9, G21.1-G21.19, G24.0-G24.09, G25.1, G25.4, G25.6-G25.79, G72.0, G93.7, G97-G97.9, I95.2-I95.3, I97-I97.9, I98.9, J70.2-J70.5, J95-J95.9, K43-K43.9, K62.7, K91-K91.9, K94-K95.89, M87.1-M87.19, N14-N14.4, N65-N65.1, N99-N99.9, P96.2, P96.5, R50.2, R50.82-R50.83
Musculoskeletal disorders	2	416.1, 437.4, 446-446.9, 695.4-695.59, 710-711.99, 714-714.33, 714.8-714.9, 730.1-730.19, 732-732.9, 733.0-733.19	I27.1, I67.7, L93-L93.2, M00-M03.0, M03.2-M03.6, M05-M09.0, M09.2-M09.8, M30-M32.9, M34-M36.8, M40-M43.19, M65-M65.08, M71.0-M71.19, M80-M82.8, M86.3-M86.49, M87-M87.09, M88-M89.09, M89.5-M89.59, M89.7-M89.9
Rheumatoid arthritis	3-4	714-714.33, 714.8-714.9	M05-M06.9, M08.0-M08.89
Other musculoskeletal disorders	3-4	416.1, 437.4, 446-446.9, 695.4-695.59, 710-711.99, 730.1-730.19, 732-732.9, 733.0-733.19	I27.1, I67.7, L93-L93.2, M00-M03.0, M03.2-M03.6, M07-M08, M08.9-M09.0, M09.2-M09.8, M30-M32.9, M34-M36.8, M40-M43.19, M65-M65.08, M71.0-M71.19, M80-M82.8, M86.3-M86.49, M87-M87.09, M88-M89.09, M89.5-M89.59, M89.7-M89.9
Other non-communicable diseases	2	035-035.9, 102-103.9, 133-133.6, 376.0-376.1, 680-689, 694-695.3, 707-707.9, 740-749.04, 749.2-758.9, 759.0-759.89, 798-798.0	A46-A46.0, A66-A67.9, B86, D86.3, H05.0-H05.119, L00-L05.92, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.95, L97-L98.499, P96.0, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q86, Q86.1-Q87.89, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8, R95
Congenital anomalies	3	740-749.04, 749.2-758.9, 759.0-759.89	P96.0, Q00-Q07.9, Q10.4-Q18.9, Q20-Q28.9, Q30-Q36, Q37-Q45.9, Q50-Q86, Q86.1-Q87.89, Q89-Q89.8, Q90-Q93.9, Q95-Q99.8
Neural tube defects	4	740-741.93, 742.0	Q00-Q01.9, Q05-Q05.9
Congenital heart anomalies	4	745-747.9	Q20-Q28.9
Cleft lip and cleft palate	4	749-749.04, 749.2-749.25	Q35-Q36, Q37-Q37.9
Down syndrome	4	758	Q90-Q90.9
Other chromosomal abnormalities	4	758, 758.1-758.6, 758.8-758.9	Q91-Q93.9, Q95-Q95.9, Q97-Q97.9, Q99-Q99.8
Other congenital anomalies	4	742, 742.1-744.9, 748-748.9, 749.6-757.9, 759.0-759.89	P96.0, Q02-Q04.9, Q06-Q07.9, Q10.4-Q18.9, Q30-Q34.9, Q38-Q45.9, Q50-Q86, Q86.1-Q87.89, Q89-Q89.8
Skin and subcutaneous diseases	3	035-035.9, 102-103.9, 133-133.6, 680-689, 694-695.3, 707-707.9	A46-A46.0, A66-A67.9, B86, D86.3, L00-L05.92, L08-L08.9, L10-L14.0, L51-L51.9, L88-L89.95, L97-L98.499
Cellulitis	4	681-682.9	L03-L03.91
Pyoderma	4	035-035.9, 102-103.9, 680-680.9, 683-689	A46-A46.0, A66-A67.9, L00-L02.93, L04-L05.92, L08-L08.9, L88, L97-L98.499
Decubitus ulcer	4	707-707.9	L89-L89.95
Other skin and subcutaneous diseases	4	694-695.3	D86.3, L10-L14.0, L51-L51.9
Sudden infant death syndrome	3-4	798-798.0	R95

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Injuries	1	E800-E800.3, E801-E801.3, E802-E802.3, E803-E803.3, E804-E804.3, E805-E805.3, E806-E806.3, E807-E807.3, E810.0-E810.7, E811.0-E811.7, E812.0-E812.7, E813.0-E813.7, E814.0-E814.7, E815.0-E815.7, E816.0-E816.7, E817.0-E817.7, E818.0-E818.7, E819.0-E819.7, E820.0-E820.7, E821.0-E821.7, E822.0-E822.7, E823.0-E823.7, E824.0-E824.7, E825.0-E825.7, E826.0-E826.4, E827.0-E827.4, E828.0-E828.4, E829.0-E829.4, E830-E838.9, E840-E849.9, E850.3-E850.89, E854.8, E856-E857.09, E860.2-E869.99, E870-E876.9, E878-E879.9, E880-E886.99, E888-E928.89, E929.1-E929.5, E930-E979.9, E990-E999.1	V00-V86.99, V87.2-V87.3, V88.2-V88.3, V90-V98.8, W00-W46.2, W49-W62.9, W64-W70.9, W73-W75.9, W77-W81.9, W83-W94.9, W97.9, W99-X06.9, X08-X39.9, X46-X47, X47.1-X47.8, X48-X48.9, X50-X54.9, X57-X58.9, X60-Y08.9, Y35-Y84.9, Y87.0-Y87.1, Y88-Y88.3, Y89.0-Y89.1
Transport injuries	2	E800-E800.3, E801-E801.3, E802-E802.3, E803-E803.3, E804-E804.3, E805-E805.3, E806-E806.3, E807-E807.3, E810.0-E810.7, E811.0-E811.7, E812.0-E812.7, E813.0-E813.7, E814.0-E814.7, E815.0-E815.7, E816.0-E816.7, E817.0-E817.7, E818.0-E818.7, E819.0-E819.7, E820.0-E820.7, E821.0-E821.7, E822.0-E822.7, E823.0-E823.7, E824.0-E824.7, E825.0-E825.7, E826.0-E826.4, E827.0-E827.4, E828.0-E828.4, E829.0-E829.4, E830-E838.9, E840-E849.9, E929.1	V00-V86.99, V87.2-V87.3, V88.2-V88.3, V90-V98.8
Road injuries	3	E800.3, E801.3, E802.3, E803.3, E804.3, E805.3, E806.3, E807.3, E810.0-E810.6, E811.0-E811.7, E812.0-E812.7, E813.0-E813.7, E814.0-E814.7, E815.0-E815.7, E816.0-E816.7, E817.0-E817.7, E818.0-E818.7, E819.0-E819.7, E820.0-E820.6, E821.0-E821.6, E822.0-E822.7, E823.0-E823.7, E824.0-E824.7, E825.0-E825.7, E826.0-E826.1, E826.3-E826.4, E827.0, E827.3-E827.4, E828.0, E828.4, E829.0-E829.4	V01-V04.99, V06-V80.929, V82-V82.9, V87.2-V87.3
Pedestrian road injuries	4	E811.7, E812.7, E813.7, E814.7, E815.7, E816.7, E817.7, E818.7, E819.7, E822.7, E823.7, E824.7, E825.7, E826.0, E827.0, E828.0, E829.0	V01-V04.99, V06-V09.9
Cyclist road injuries	4	E800.3, E801.3, E802.3, E803.3, E804.3, E805.3, E806.3, E807.3, E810.6, E811.6, E812.6, E813.6, E814.6, E815.6, E816.6, E817.6, E818.6, E819.6, E820.6, E821.6, E822.6, E823.6, E824.6, E825.6, E826.1	V10-V19.9
Motorcyclist road injuries	4	E810.2-E810.3, E811.2-E811.3, E812.2-E812.3, E813.2-E813.3, E814.2-E814.3, E815.2-E815.3, E816.2-E816.3, E817.2-E817.3, E818.2-E818.3, E819.2-E819.3, E820.2-E820.3, E821.2-E821.3, E822.2-E822.3, E823.2-E823.3, E824.2-E824.3, E825.2-E825.3	V20-V29.9
Motor vehicle road injuries	4	E810.0-E810.1, E811.0-E811.1, E812.0-E812.1, E813.0-E813.1, E814.0-E814.1, E815.0-E815.1, E816.0-E816.1, E817.0-E817.1, E818.0-E818.1, E819.0-E819.1, E820.0-E820.1, E821.0-E821.1, E822.0-E822.1, E823.0-E823.1, E824.0-E824.1, E825.0-E825.1	V30-V79.9, V87.2-V87.3

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Other road injuries	4	E810.4-E810.5, E811.4-E811.5, E812.4-E812.5, E813.4-E813.5, E814.4-E814.5, E815.4-E815.5, E816.4-E816.5, E817.4-E817.5, E818.4-E818.5, E819.4-E819.5, E820.4-E820.5, E821.4-E821.5, E822.4-E822.5, E823.4-E823.5, E824.4-E824.5, E825.4-E825.5, E826.3-E826.4, E827.3-E827.4, E828.4, E829.4	V80-V80.929, V82-V82.9
Other transport injuries	3-4	E800-E800.2, E801-E801.2, E802-E802.2, E803-E803.2, E804-E804.2, E805-E805.2, E806-E806.2, E807-E807.2, E810.7, E820.7, E821.7, E826.2, E827.2, E828.2, E830-E838.9, E840-E849.9, E929.1	V00-V00.898, V05-V05.99, V81-V81.9, V83-V86.99, V88.2-V88.3, V90-V98.8
Unintentional injuries	2	E850.3-E850.89, E854.8, E856-E857.09, E860.2-E869.99, E870-E876.9, E878-E879.9, E880-E886.99, E888-E906.99, E910-E928.89, E929.2-E929.5, E930-E949.9	W00-W46.2, W49-W62.9, W64-W70.9, W73-W75.9, W77-W81.9, W83-W94.9, W97.9, W99-X06.9, X08-X32.9, X39-X39.9, X46-X47, X47.1-X47.8, X48-X48.9, X50-X54.9, X57-X58.9, Y38.9-Y84.9, Y88-Y88.3
Falls	3-4	E880-E886.99, E888-E888.9, E929.3	W00-W19.9
Drowning	3-4	E910-E910.99	W65-W70.9, W73-W74.9
Fire, heat, and hot substances	3-4	E890-E899.09, E924-E924.99, E929.4	X00-X06.9, X08-X19.9
Poisonings	3-4	E850.3-E850.89, E854.8, E856-E857.09, E860.2-E869.99, E929.2	X46-X47, X47.1-X47.8, X48-X48.9
Exposure to mechanical forces	3	E913-E913.19, E916-E922.99, E928.1-E928.7	W20-W38.9, W40-W43.9, W45.0-W45.2, W46-W46.2, W49-W52, W75-W75.9
Unintentional firearm injuries	4	E922-E922.99, E928.7	W32-W34.9
Unintentional suffocation	4	E913-E913.19	W75-W75.9
Other exposure to mechanical forces	4	E916-E921.99, E928.1-E928.6	W20-W31.9, W35-W38.9, W40-W43.9, W45.0-W45.2, W46-W46.2, W49-W52
Adverse effects of medical treatment	3-4	E870-E876.9, E878-E879.9, E930-E949.9	Y38.9-Y84.9, Y88-Y88.3
Animal contact	3	E905-E906.99	W52.0-W62.9, W64-W64.9, X20-X29.9
Venomous animal contact	4	E905-E905.99	X20-X29.9
Non-venomous animal contact	4	E906-E906.99	W52.0-W62.9, W64-W64.9
Foreign body	3	E911-E912.09, E913.8-E915.09	W44-W45, W45.3-W45.9, W78-W80.9, W83-W84.9
Pulmonary aspiration and foreign body in airway	4	E911-E912.09, E913.8-E913.99	W78-W80.9, W83-W84.9
Foreign body in other body part	4	E914-E915.09	W44-W45, W45.3-W45.9
Environmental heat and cold exposure	3-4	E900-E902.99, E926-E926.99, E929.5	W88-W94.9, W97.9, W99-W99.9, X30-X32.9, X39-X39.9
Other unintentional injuries	3-4	E903-E904.99, E913.2-E913.39, E923-E923.99, E925-E925.99, E927-E928.09, E928.8-E928.89	W39-W39.9, W77-W77.9, W81-W81.9, W85-W87.9, X50-X54.9, X57-X58.9
Self-harm and interpersonal violence	2	E950-E969	X60-Y08.9, Y87.0-Y87.1
Self-harm	3-4	E950-E959	X60-X84.9, Y87.0
Interpersonal violence	3	E960-E969	X85-Y08.9, Y87.1
Assault by firearm	4	E965-E965.4	X93-X94.0, X94.3-X94.7, X94.9-X95.9, X96.5
Assault by sharp object	4	E966	X99-X99.9
Assault by other means	4	E960-E964, E965.5-E965.9, E967-E969	X85-X92.9, X94.1-X94.2, X94.8, X96-X96.4, X96.6-X98.9, Y00-Y08.9, Y87.1
Forces of nature, war, and legal intervention	2	E907-E909.9, E970-E979.9, E990-E999.1	X33-X38.9, Y35-Y38.893, Y89.0-Y89.1
Exposure to forces of nature	3-4	E907-E909.9	X33-X38.9
Collective violence and legal intervention	3-4	E970-E979.9, E990-E999.1	Y35-Y38.893, Y89.0-Y89.1

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Garbage Code		000-000.9, 002, 031-031.9, 038-038.9, 039.6, 040.0, 041.1-041.9, 067-069, 076-078.3, 078.8-078.9, 079.8-079.99, 084, 084.6, 085, 085.1-085.9, 089-089.9, 105-119, 125-125.3, 126-126.9, 127.2-127.9, 130-132.9, 133.8-134.9, 136.3-136.5, 136.8-136.9, 139.1-139.9, 149-149.9, 159-159.9, 165-169, 176-179.9, 183.9-184, 184.5, 184.9, 187, 187.9, 189, 189.9, 194.9-199.9, 209, 209.2-209.20, 209.29-209.30, 209.6-209.60, 209.62, 209.69-210, 211, 211.9-212, 212.9, 214-216.9, 221, 221.9-222, 222.9-223, 223.9, 229, 229.1, 229.9-230.0, 230.9-231, 231.8-231.9, 233, 233.3-233.30, 233.39, 233.6, 233.9-234, 234.9-235, 235.1-235.3, 235.5, 235.9-236, 236.3, 236.6, 236.9-236.90, 237.4, 238, 238.6-239.1, 239.5, 239.7-239.9, 244, 244.9, 247-249.91, 264-264.9, 274-274.9, 276.0-276.9, 277.3-277.39, 278, 279-280.0, 280.9-281, 285-285.9, 286.6, 289.8-289.9, 293-294.0, 296-302.9, 304, 304.9-304.93, 306-307.0, 307.2-307.50, 307.52-307.53, 307.59-320, 320.9, 324-327.19, 328-329, 331.3-331.4, 338-339.89, 342-344.9, 346-348.9, 349.81-353.5, 354-355.9, 357, 357.8-357.9, 360-376, 376.10-380.9, 384-389.9, 399-401.9, 405-409.4, 415-416.0, 416.2-416.9, 418-419.9, 423.0, 426-426.9, 427.4-427.5, 427.9-429, 429.2-429.9, 436-437, 437.3, 437.9-440.9, 444-445.89, 458-458.9, 459.0, 459.5-460.9, 462-464, 464.00, 464.1-464.10, 464.20, 464.3-464.30, 464.5-464.51, 465-465.9, 482.9-483, 484, 484.8-486.9, 505-505.9, 507-507.9, 510-514.9, 515.0-515.9, 518-518.53, 518.8-518.89, 519, 519.8-529.9, 536.2-536.3, 536.8-536.9, 537.7, 537.89-537.9, 544-549, 553.8-553.9, 559-559.0, 560.4-560.7, 561, 562.2-563, 564.8-564.9, 567-569, 569.49, 569.79-569.83, 569.86-570.9, 572-572.2, 573	A01, A14.9, A29, A31-A31.9, A40-A45.9, A47-A48.0, A48.3, A48.8-A49.02, A49.2-A49.9, A59-A59.9, A61-A62, A64-A64.0, A71-A73, A74.0, A76, A97, A99-A99.0, B07-B09, B11-B14, B28-B29, B30-B32.4, B34-B46.9, B49-B49.9, B54-B55, B55.1-B55.9, B58-B59.9, B61-B62, B64, B68-B68.9, B73-B74.2, B76-B76.9, B78-B82.9, B83.9-B85.4, B87-B89, B93-B94.0, B94.8-B94.9, B95.6-B99.9, C14-C14.9, C26-C29, C35-C36, C39-C39.9, C42, C46-C46.9, C55-C55.9, C57.9, C59-C6, C63.9, C68, C68.9, C75.9-C80.9, C87, C97-D00.0, D01, D01.4-D02, D02.4-D02.9, D07, D07.3-D07.39, D07.6-D09, D09.1-D09.19, D09.7, D09.9-D10, D10.9, D13, D13.9-D14, D14.4, D17-D21.9, D28, D28.9-D29, D29.9-D30, D30.9, D36.0, D36.9-D37.0, D37.6-D38, D38.6-D39.0, D39.7, D39.9-D40, D40.9-D41, D41.9, D44, D44.9, D46-D46.9, D47.1, D48, D48.7-D49.1, D49.5, D49.7-D49.8, D49.89-D50.0, D50.9, D54, D59, D59.4, D59.8-D59.9, D62-D63.0, D63.8-D64, D64.1-D64.2, D64.8-D65.9, D68, D69.9, D75.9, D79-D85, D87-D88, D89.8-D99, E07.8-E08.9, E15, E16, E17-E19, E34.9-E35.8, E37-E39, E47-E50.9, E62, E64.1, E69, E85.3-E87.70, E87.79-E87.99, E90-E998, F04-F06.1, F06.3-F07.0, F07.2-F09.9, F17-F17.9, F30-F50, F50.8-G00, G00.9-G02.8, G03.9, G06-G09.9, G15-G19, G27-G29, G32-G34, G38-G39, G42-G44.89, G47-G47.29, G47.4-G60.9, G62-G69, G74-G89.4, G91-G93.6, G93.8-G94.8, G96-G96.9, G98-H05, H05.12-H69.93, H71-H99, I00.0, I03-I04, I10-I10.9, I14-I19, I26-I27.0, I27.2-I27.9, I28.9-I29.9, I31.2-I31.4, I44-I46.9, I49-I51, I51.6-I59, I62, I62.1-I62.9, I64-I64.9, I67, I67.4, I67.8-I68

eTable 2: GBD cause list and associated ICD9 and ICD10 codes (continued).

Cause	Level	ICD9	ICD10
Garbage Code (continued)		573.5, 578-578.9, 584-584.9, 586-587.9, 591-591.9, 593.9, 599.7-599.72, 599.9-600.91, 603-603.9, 605-608.1, 608.3-609, 611-612.1, 615-616.9, 619-619.9, 621-621.35, 622-622.2, 622.8-628.9, 629.89-629.9, 637-637.92, 639-639.9, 690-693.9, 695.8-706.9, 708-709.9, 712-713.8, 714.4, 715-716, 716.1-728.85, 728.87, 728.89-730.09, 730.2-730.39, 730.7-731.9, 733, 733.2-739.9, 749.1-749.14, 759, 759.9, 770.0, 779.9-780.56, 780.58, 780.6-780.61, 780.64-786.02, 786.04-787.04, 787.2-787.9, 787.99-788, 788.1-790.1, 790.29, 790.4-797.9, 798.1-E80, E800.8-E800.9, E801.8-E801.9, E802.8-E802.9, E803.8-E803.9, E804.8-E804.9, E805.8-E805.9, E806.8-E806.9, E807.8-E810, E810.8-E811, E811.8-E812, E812.8-E813, E813.8-E814, E814.8-E815, E815.8-E816, E816.8-E817, E817.8-E818, E818.8-E819, E819.8-E820, E820.8-E821, E821.8-E822, E822.8-E823, E823.8-E824, E824.8-E825, E825.8-E826, E826.8-E827, E827.8-E828, E828.8-E829, E829.8-E83, E839, E85, E855-E855.99, E858-E859, E87, E877, E88, E887-E887.09, E928.9-E929.0, E929.8-E929.9, E980-E989	I68.8-I69, I69.4-I70.1, I70.8-I70.92, I74-I76, I90, I92-I95.1, I95.8-I96.9, I98.4-I98.8, I99-J00.0, J02, J02.8-J03, J03.8-J04, J04.1-J04.31, J05.1-J05.10, J06-J08, J15.9, J17-J19.6, J22-J29, J48-J59, J64-J64.9, J69-J69.9, J71-J81.9, J83, J85-J90.9, J93-J94.9, J96-K19, K30, K31.9-K34, K39, K47-K49, K53-K54, K63-K63.4, K63.8-K63.9, K65-K66.1, K66.9, K69, K71-K71.2, K71.6, K71.8-K72.01, K75-K75.1, K78-K79, K84, K87-K89, K92-K92.2, K92.9-K93, K93.1-K93.8, K96-K99, L06-L07, L09, L15-L50.9, L52-L87.9, L90-L92.9, L94-L96, L98.5-L99.8, M04, M10-M12.09, M12.2-M29, M37-M39, M43.2-M49, M49.2-M64, M65.1-M71, M71.2-M73, M73.8-M79.9, M83-M86.29, M86.5-M86.9, M87.2-M87.9, M89.1-M89.49, M90-M99.9, N09, N13-N13.9, N17-N17.9, N19-N19.9, N24, N32.1-N32.2, N32.8-N33.8, N35-N35.9, N37-N38, N39.3-N40.9, N42-N43.42, N44.1-N44.8, N46-N48.9, N50-N59, N61-N64.9, N66-N69, N78-N79, N82-N82.9, N84, N84.2-N86, N88-N95.9, N97-N97.9, O08-O08.9, O17-O19, O27, O37-O39, O49-O59, O78-O79, O93-O95.9, P06, P16-P18, P23, P23.5-P23.9, P30-P34.2, P37.3-P37.4, P40-P49, P62-P69, P73, P79, P82, P85-P89, P96.9-P99.9, Q08-Q10.3, Q19, Q29, Q36.0-Q36.9, Q46-Q49, Q88, Q89.9, Q94, Q99.9-R19.6, R19.8-R50.1, R50.8-R50.81, R50.84-R72.9, R74-R78, R78.6-R94.8, R95.0-T71.161, T71.163-U03, U05-U99, V87-V87.1, V87.4-V88.1, V88.4-V89.9, V99-V99.0, W47-W48, W63, W71-W72, W76-W76.9, W82, W95-W97, W98, X07, X40-X44.9, X47.0, X47.9, X49-X49.9, X55-X56, X59-X59.9, Y09-Y34.9, Y85-Y87, Y87.2, Y89, Y89.9

eTable 3: Five-year relative survival, 1973-2013, by age group.*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
Neoplasms								
All	48.2 (48.0-48.4)	49.4 (49.2-49.6)	52.6 (52.4-52.8)	58.4 (58.2-58.6)	61.5 (61.4-61.7)	64.4 (64.3-64.5)	65.6 (65.6-65.7)	67.0 (66.8-67.1)
0-14 years	55.8 (54.0-57.6)	64.0 (62.3-65.7)	68.6 (67.0-70.1)	74.3 (72.9-75.6)	77.2 (76.1-78.3)	79.1 (78.3-79.8)	82.0 (81.4-82.7)	83.0 (82.2-83.8)
15-64 years	54.1 (53.8-54.3)	55.0 (54.8-55.3)	57.5 (57.3-57.8)	61.3 (61.1-61.6)	66.6 (66.4-66.8)	70.9 (70.8-71.0)	72.5 (72.4-72.6)	73.7 (73.6-73.9)
≥65 years	41.8 (41.4-42.1)	43.8 (43.5-44.1)	48.1 (47.8-48.4)	56.0 (55.8-56.3)	57.1 (56.9-57.3)	58.2 (58.0-58.3)	58.4 (58.2-58.5)	59.4 (59.2-59.6)
Lip and oral cavity cancer								
All	61.5 (60.1-62.9)	61.0 (59.7-62.3)	63.1 (61.8-64.4)	62.2 (60.9-63.4)	63.0 (61.9-64.1)	63.1 (62.2-63.9)	65.0 (64.3-65.7)	66.4 (65.5-67.3)
0-14 years	81.3 (52.4-93.6)	92.9 (58.8-99.0)	85.8 (61.9-95.2)	81.1 (56.9-92.5)	95.7 (83.2-98.9)	94.3 (82.8-98.2)	92.5 (83.9-96.6)	95.3 (85.9-98.5)
15-64 years	64.1 (62.5-65.7)	63.7 (62.1-65.2)	64.9 (63.3-66.5)	64.1 (62.5-65.7)	67.6 (66.2-68.9)	67.8 (66.8-68.8)	69.7 (68.8-70.5)	70.7 (69.7-71.7)
≥65 years	57.4 (54.9-59.9)	57.1 (54.8-59.3)	60.9 (58.6-63.1)	59.8 (57.7-61.9)	57.4 (55.5-59.2)	56.5 (55.0-58.0)	58.1 (56.8-59.4)	60.0 (58.4-61.6)
Nasopharynx cancer								
All	38.0 (33.6-42.3)	43.4 (39.2-47.4)	49.1 (44.9-53.1)	49.6 (45.8-53.2)	59.1 (56.1-62.0)	56.7 (54.3-59.1)	58.5 (56.3-60.5)	62.7 (60.1-65.2)
0-14 years	60.1 (31.8-79.8)	43.5 (16.3-68.2)	84.7 (51.1-96.0)	70.7 (43.2-86.7)	76.6 (48.8-90.6)	79.0 (60.9-89.5)	85.5 (71.8-92.9)	80.2 (64.8-89.3)
15-64 years	40.6 (35.6-45.5)	48.7 (43.9-53.4)	51.7 (46.8-56.4)	55.6 (51.1-59.9)	65.4 (62.0-68.6)	61.6 (58.8-64.2)	63.4 (61.0-65.6)	68.0 (65.1-70.7)
≥65 years	27.4 (19.0-36.5)	27.5 (20.0-35.4)	40.1 (31.9-48.2)	33.9 (27.1-40.9)	40.3 (34.1-46.4)	40.4 (35.3-45.5)	40.0 (35.3-44.6)	43.1 (37.1-48.9)
Other pharynx cancer								
All	29.1 (26.9-31.4)	31.6 (29.6-33.7)	30.8 (28.9-32.8)	35.7 (33.6-37.7)	42.5 (40.7-44.3)	49.7 (48.4-51.1)	57.0 (55.9-58.1)	61.1 (59.8-62.4)
0-14 years	-	33.5 (0.9-77.7)	66.7 (5.4-94.5)	100.0	100.0	50.0 (0.6-91.0)	100.0	-
15-64 years	32.2 (29.4-34.9)	33.7 (31.1-36.2)	34.4 (31.8-36.9)	39.6 (36.9-42.2)	48.0 (45.7-50.3)	57.6 (56.0-59.2)	62.8 (61.6-64.0)	66.7 (65.3-68.1)
≥65 years	24.0 (20.4-27.7)	28.1 (24.7-31.7)	25.4 (22.3-28.6)	30.4 (27.2-33.5)	33.8 (30.8-36.7)	33.5 (31.2-35.9)	42.0 (39.8-44.2)	45.9 (43.1-48.6)
Esophageal cancer								

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
All	4.8 (4.0-5.7)	5.8 (5.0-6.7)	8.6 (7.7-9.6)	11.4 (10.4-12.5)	12.6 (11.7-13.6)	15.4 (14.6-16.1)	17.3 (16.6-18.0)	18.2 (17.3-19.1)
0-14 years	-	-	-	100.0	-	100.0	0.0	-
15-64 years	5.5 (4.4-6.8)	5.9 (4.8-7.1)	9.9 (8.4-11.4)	13.2 (11.6-14.9)	15.5 (14.1-17.1)	17.8 (16.7-19.0)	19.7 (18.7-20.7)	20.0 (18.8-21.3)
≥65 years	3.9 (2.9-5.2)	5.7 (4.5-7.1)	7.5 (6.3-8.9)	10.0 (8.7-11.5)	10.5 (9.4-11.7)	13.5 (12.5-14.5)	15.3 (14.4-16.2)	16.6 (15.3-17.9)
Stomach cancer								
All	14.6 (13.8-15.5)	16.7 (15.8-17.5)	17.5 (16.6-18.4)	20.6 (19.7-21.5)	21.8 (21.0-22.7)	24.1 (23.4-24.8)	27.4 (26.8-28.0)	31.3 (30.5-32.1)
0-14 years	-	-	100.0	50.0 (0.6-91.1)	100.0	72.7 (37.1-90.3)	87.5 (38.6-98.2)	61.4 (21.4-85.7)
15-64 years	16.6 (15.2-17.9)	18.6 (17.2-20.1)	20.1 (18.7-21.7)	22.2 (20.7-23.7)	23.6 (22.3-24.9)	27.2 (26.2-28.3)	30.6 (29.7-31.5)	34.4 (33.3-35.6)
≥65 years	13.6 (12.5-14.7)	15.6 (14.5-16.8)	16.2 (15.0-17.3)	19.8 (18.7-21.0)	20.9 (19.8-21.9)	22.3 (21.4-23.1)	25.1 (24.3-25.9)	28.9 (27.8-30.1)
Colon and rectum cancer								
All	48.8 (48.2-49.4)	52.3 (51.8-52.9)	57.4 (56.8-57.9)	60.5 (60.0-61.0)	60.5 (60.1-61.0)	63.5 (63.1-63.8)	64.7 (64.4-65.0)	64.9 (64.5-65.3)
0-14 years	100.0	92.3 (56.6-98.9)	50.0 (0.6-91.0)	66.7 (5.4-94.6)	44.7 (15.8-70.3)	68.5 (42.8-84.5)	74.1 (44.6-89.5)	89.2 (61.4-97.4)
15-64 years	52.2 (51.4-53.1)	56.2 (55.4-57.0)	59.9 (59.1-60.7)	62.9 (62.2-63.7)	62.8 (62.2-63.5)	67.0 (66.6-67.5)	69.1 (68.7-69.5)	68.9 (68.4-69.4)
≥65 years	46.8 (46.0-47.6)	50.2 (49.5-51.0)	56.2 (55.5-56.9)	59.4 (58.8-60.1)	59.6 (59.0-60.2)	61.5 (61.0-62.0)	61.6 (61.2-62.1)	61.4 (60.8-62.0)
Liver cancer								
All	3.5 (2.6-4.5)	3.3 (2.5-4.2)	5.5 (4.7-6.5)	5.6 (4.9-6.4)	7.1 (6.5-7.7)	11.5 (11.0-12.1)	15.8 (15.3-16.3)	17.5 (16.9-18.1)
0-14 years	27.6 (14.9-41.9)	34.4 (19.9-49.4)	62.3 (48.5-73.5)	55.5 (42.8-66.4)	55.7 (44.9-65.2)	58.3 (50.8-65.1)	70.2 (64.2-75.4)	80.3 (75.0-84.5)
15-64 years	4.0 (2.8-5.6)	3.8 (2.6-5.2)	5.7 (4.4-7.2)	6.6 (5.4-7.9)	8.2 (7.2-9.2)	14.9 (14.0-15.7)	19.0 (18.3-19.7)	20.4 (19.7-21.2)
≥65 years	2.0 (1.1-3.2)	1.7 (1.0-2.7)	3.0 (2.1-4.1)	3.2 (2.4-4.1)	5.0 (4.3-5.8)	6.9 (6.3-7.6)	10.1 (9.4-10.7)	11.7 (10.8-12.6)
Gallbladder and biliary tract cancer								
All	8.7 (7.1-10.6)	10.2 (8.4-12.0)	12.9 (10.9-15.0)	14.0 (12.1-16.2)	13.7 (12.0-15.6)	14.7 (13.3-16.3)	17.5 (16.2-18.9)	18.7 (17.0-20.4)
0-14 years	-	-	-	-	-	-	100.0	-

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
15-64 years	9.7 (6.7-13.4)	12.7 (9.4-16.6)	17.8 (13.8-22.2)	16.9 (13.1-21.2)	16.5 (13.3-20.1)	17.3 (14.8-20.0)	20.7 (18.4-23.0)	23.4 (20.6-26.3)
≥65 years	8.5 (6.5-10.7)	9.3 (7.4-11.4)	11.1 (8.9-13.5)	13.0 (10.7-15.5)	12.6 (10.6-14.8)	13.6 (11.9-15.5)	15.8 (14.2-17.5)	16.2 (14.1-18.3)
Pancreatic cancer								
All	2.6 (2.2-3.0)	2.7 (2.4-3.1)	3.1 (2.8-3.5)	4.1 (3.7-4.5)	4.3 (3.9-4.6)	5.1 (4.8-5.4)	6.0 (5.8-6.3)	8.0 (7.6-8.4)
0-14 years	-	0.0	100.0	66.9 (19.4-90.6)	100.0	75.1 (31.4-93.1)	71.5 (25.8-92.0)	75.2 (38.6-91.8)
15-64 years	3.6 (3.0-4.4)	3.9 (3.3-4.6)	4.5 (3.8-5.3)	6.7 (5.8-7.6)	7.0 (6.3-7.8)	8.3 (7.8-8.9)	9.3 (8.8-9.8)	12.0 (11.3-12.7)
≥65 years	1.9 (1.5-2.4)	2.0 (1.6-2.4)	2.4 (2.0-2.9)	2.8 (2.4-3.3)	3.0 (2.6-3.3)	3.4 (3.1-3.7)	4.1 (3.8-4.3)	5.4 (5.0-5.9)
Larynx cancer								
All	65.5 (63.7-67.3)	66.3 (64.6-67.9)	66.5 (64.8-68.1)	65.0 (63.4-66.6)	63.9 (62.4-65.4)	61.3 (60.1-62.4)	60.4 (59.3-61.4)	61.7 (60.3-63.0)
0-14 years	-	-	-	-	100.0	-	100.0	100.0
15-64 years	69.2 (67.1-71.2)	69.9 (67.9-71.8)	68.3 (66.3-70.3)	67.9 (65.9-69.9)	65.3 (63.3-67.1)	63.3 (61.8-64.7)	62.3 (61.0-63.5)	62.2 (60.6-63.8)
≥65 years	58.7 (55.1-62.0)	60.8 (57.7-63.6)	64.2 (61.4-66.9)	61.8 (59.2-64.3)	62.6 (60.2-64.9)	58.9 (57.0-60.7)	58.0 (56.3-59.7)	60.9 (58.7-63.1)
Tracheal, bronchus, and lung cancer								
All	11.9 (11.5-12.2)	12.8 (12.5-13.2)	12.9 (12.6-13.2)	13.4 (13.1-13.7)	14.2 (13.9-14.4)	14.7 (14.5-14.9)	16.3 (16.1-16.4)	18.0 (17.7-18.2)
0-14 years	83.3 (27.3-97.5)	100.0	60.0 (12.6-88.2)	100.0	66.8 (19.4-90.5)	65.3 (42.4-81.0)	75.1 (56.2-86.7)	83.0 (63.1-92.7)
15-64 years	14.0 (13.5-14.5)	15.7 (15.2-16.2)	15.7 (15.2-16.2)	15.9 (15.5-16.4)	17.2 (16.7-17.6)	18.0 (17.6-18.3)	19.4 (19.1-19.8)	20.9 (20.5-21.3)
≥65 years	9.4 (8.9-9.8)	9.9 (9.5-10.4)	10.6 (10.2-11.0)	11.7 (11.3-12.1)	12.4 (12.1-12.7)	12.8 (12.6-13.0)	14.4 (14.2-14.6)	16.3 (16.0-16.6)
Malignant skin melanoma								
All	79.7 (78.4-80.8)	82.5 (81.5-83.4)	86.3 (85.5-87.1)	88.7 (88.0-89.4)	89.6 (89.0-90.2)	90.9 (90.5-91.3)	91.2 (90.9-91.6)	91.6 (91.1-92.0)
0-14 years	84.7 (64.0-94.0)	100.0	80.8 (62.0-90.9)	97.1 (80.4-99.6)	91.4 (78.4-96.8)	93.0 (86.8-96.3)	97.3 (93.4-98.9)	95.0 (89.7-97.6)
15-64 years	81.9 (80.7-83.1)	85.1 (84.1-86.0)	87.6 (86.8-88.4)	90.3 (89.7-91.0)	91.3 (90.8-91.8)	92.5 (92.1-92.8)	92.9 (92.6-93.2)	92.8 (92.4-93.1)
≥65 years	70.9 (67.1-74.4)	72.7 (69.7-75.5)	82.5 (80.0-84.6)	84.4 (82.4-86.2)	85.6 (84.0-87.0)	87.3 (86.2-88.3)	87.7 (86.9-88.5)	89.4 (88.3-90.4)

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
Breast cancer								
All	74.1 (73.6-74.6)	75.1 (74.6-75.6)	79.5 (79.0-79.9)	84.9 (84.5-85.3)	86.5 (86.2-86.8)	88.8 (88.6-89.0)	89.1 (89.0-89.3)	89.7 (89.4-89.9)
0-14 years	-	100.0	-	100.0	100.0	100.0	100.0	100.0
15-64 years	74.8 (74.2-75.4)	75.3 (74.8-75.9)	79.1 (78.6-79.6)	83.9 (83.4-84.2)	86.0 (85.7-86.3)	88.7 (88.5-88.9)	89.6 (89.4-89.8)	89.8 (89.6-90.1)
≥65 years	73.1 (72.1-74.1)	74.9 (74.0-75.8)	80.1 (79.3-80.8)	86.4 (85.7-87.0)	87.3 (86.7-87.9)	89.0 (88.6-89.4)	88.4 (88.0-88.8)	89.5 (89.0-90.0)
Cervical cancer								
All	67.9 (66.6-69.2)	66.9 (65.5-68.2)	67.4 (66.0-68.7)	70.1 (68.8-71.3)	71.0 (70.0-72.1)	70.8 (69.9-71.6)	68.6 (67.8-69.4)	66.3 (65.4-67.3)
0-14 years	100.0	75.0 (12.8-96.1)	100.0	100.0	100.0	100.0	100.0	100.0
15-64 years	73.4 (72.0-74.7)	72.7 (71.3-74.1)	73.6 (72.2-75.0)	75.6 (74.3-76.8)	74.8 (73.8-75.9)	75.6 (74.7-76.4)	72.8 (72.0-73.6)	70.4 (69.4-71.4)
≥65 years	49.9 (46.7-53.0)	48.9 (45.7-52.0)	46.7 (43.4-49.9)	48.6 (45.4-51.7)	54.8 (51.8-57.6)	49.2 (46.9-51.5)	48.0 (45.8-50.2)	46.3 (43.4-49.1)
Uterine cancer								
All	87.3 (86.6-88.0)	82.5 (81.7-83.3)	82.6 (81.7-83.4)	84.0 (83.2-84.8)	83.6 (82.9-84.3)	83.3 (82.7-83.8)	82.9 (82.4-83.3)	82.7 (82.2-83.2)
0-14 years	-	0.0	0.0	-	100.0	100.0	100.0	-
15-64 years	92.8 (92.1-93.4)	89.1 (88.3-89.9)	88.9 (87.9-89.8)	88.4 (87.5-89.3)	88.7 (87.9-89.4)	88.2 (87.6-88.7)	87.7 (87.3-88.2)	86.6 (86.0-87.1)
≥65 years	75.9 (74.2-77.5)	73.3 (71.7-74.8)	76.4 (75.0-77.8)	80.1 (78.7-81.4)	78.6 (77.4-79.7)	76.9 (75.9-77.8)	75.1 (74.1-75.9)	76.1 (75.0-77.2)
Ovarian cancer								
All	36.2 (34.9-37.4)	37.7 (36.5-38.9)	38.8 (37.6-39.9)	39.8 (38.7-40.9)	42.6 (41.6-43.6)	44.0 (43.3-44.8)	44.3 (43.6-45.0)	47.2 (46.3-48.1)
0-14 years	83.4 (68.2-91.7)	86.7 (68.3-94.8)	88.9 (73.1-95.7)	94.9 (81.0-98.7)	91.3 (80.2-96.3)	95.5 (89.5-98.1)	92.6 (87.3-95.8)	98.6 (94.2-99.7)
15-64 years	43.6 (42.0-45.1)	47.5 (46.0-49.1)	49.8 (48.3-51.4)	53.7 (52.2-55.2)	55.3 (54.0-56.6)	56.8 (55.8-57.7)	56.5 (55.6-57.4)	59.9 (58.8-61.1)
≥65 years	22.0 (20.1-23.9)	22.3 (20.6-24.1)	24.1 (22.6-25.8)	23.8 (22.3-25.3)	27.8 (26.4-29.1)	27.8 (26.8-28.9)	27.5 (26.6-28.5)	29.6 (28.3-30.9)
Prostate cancer								
All	65.7 (64.9-66.6)	70.8 (70.1-71.6)	75.9 (75.3-76.6)	90.7 (90.3-91.1)	96.1 (95.8-96.4)	98.9 (98.6-99.1)	98.9 (98.7-99.0)	98.6 (98.4-98.8)
0-14 years	0.0	33.4 (0.9-77.5)	33.4 (4.6-67.6)	100.0	83.4 (27.2-97.5)	70.1 (32.8-89.3)	57.3 (28.4-78.1)	58.9 (21.7-83.3)

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
15-64 years	71.2 (69.6-72.6)	75.8 (74.5-77.0)	78.0 (76.9-79.1)	90.5 (89.9-91.2)	97.0 (96.6-97.3)	98.7 (98.5-98.9)	99.0 (98.8-99.1)	99.0 (98.8-99.2)
≥65 years	64.2 (63.1-65.2)	69.4 (68.5-70.3)	75.4 (74.6-76.2)	90.8 (90.2-91.3)	95.7 (95.3-96.1)	99.0 (98.6-99.2)	98.9 (98.6-99.1)	98.2 (97.8-98.5)
Testicular cancer								
All	79.8 (77.7-81.8)	90.6 (89.1-91.9)	92.8 (91.6-93.8)	95.4 (94.5-96.2)	95.1 (94.3-95.7)	95.5 (94.9-96.0)	95.0 (94.5-95.5)	95.5 (95.0-96.0)
0-14 years	78.0 (58.6-89.0)	97.1 (76.9-99.7)	100.0	94.5 (78.7-98.7)	96.2 (84.2-99.1)	97.8 (89.6-99.6)	94.8 (88.5-97.7)	100.0
15-64 years	80.6 (78.4-82.5)	91.0 (89.6-92.2)	93.1 (92.0-94.1)	95.4 (94.5-96.1)	95.3 (94.6-96.0)	95.8 (95.3-96.3)	95.1 (94.6-95.5)	95.6 (95.1-96.1)
≥65 years	47.8 (26.9-66.0)	69.3 (46.6-83.9)	71.3 (52.7-83.7)	94.9 (70.7-99.2)	75.8 (61.3-85.5)	70.0 (57.3-79.6)	90.0 (76.2-96.0)	84.9 (74.4-91.4)
Kidney cancer								
All	49.2 (47.6-50.7)	51.1 (49.6-52.5)	54.6 (53.3-55.9)	58.8 (57.6-59.9)	61.0 (60.0-61.9)	65.0 (64.3-65.6)	71.1 (70.6-71.6)	74.4 (73.9-75.0)
0-14 years	75.0 (67.8-80.9)	79.9 (73.9-84.6)	83.2 (77.6-87.5)	91.3 (86.9-94.2)	87.8 (84.0-90.7)	88.8 (85.9-91.1)	88.1 (85.4-90.3)	92.0 (89.1-94.2)
15-64 years	52.6 (50.6-54.5)	56.0 (54.1-57.8)	61.4 (59.7-63.0)	63.7 (62.2-65.1)	66.2 (65.0-67.4)	71.0 (70.2-71.8)	76.6 (76.0-77.1)	79.3 (78.6-79.9)
≥65 years	42.9 (40.3-45.4)	43.1 (40.8-45.3)	46.1 (44.1-48.1)	52.3 (50.5-54.1)	54.1 (52.6-55.6)	57.1 (56.0-58.1)	63.7 (62.8-64.6)	67.5 (66.4-68.5)
Bladder cancer								
All	71.5 (70.4-72.5)	75.1 (74.1-76.1)	77.1 (76.2-78.0)	79.1 (78.2-79.9)	79.2 (78.5-80.0)	78.0 (77.5-78.6)	77.8 (77.3-78.2)	77.0 (76.4-77.6)
0-14 years	80.0 (50.0-93.1)	86.3 (31.6-98.1)	83.5 (27.0-97.5)	91.8 (53.5-98.8)	83.4 (27.1-97.5)	75.2 (52.8-88.1)	86.3 (62.8-95.4)	82.2 (53.9-94.0)
15-64 years	81.3 (80.0-82.5)	85.4 (84.3-86.5)	85.5 (84.4-86.5)	86.2 (85.2-87.2)	87.0 (86.1-87.8)	85.4 (84.8-86.1)	84.1 (83.5-84.7)	83.2 (82.5-84.0)
≥65 years	64.7 (63.1-66.2)	68.4 (67.0-69.8)	71.9 (70.6-73.2)	75.3 (74.1-76.5)	75.4 (74.4-76.4)	74.2 (73.5-75.0)	74.4 (73.8-75.1)	73.9 (73.0-74.7)
Brain and nervous system cancer								
All	20.8 (19.6-22.0)	23.9 (22.8-25.1)	26.8 (25.7-27.9)	29.6 (28.5-30.6)	31.8 (30.9-32.8)	32.7 (32.0-33.4)	33.8 (33.2-34.4)	33.7 (33.0-34.4)
0-14 years	51.6 (47.5-55.5)	57.0 (53.1-60.8)	62.8 (59.1-66.2)	63.8 (60.6-66.8)	70.5 (67.9-73.0)	71.2 (69.3-73.0)	73.5 (71.8-75.1)	72.7 (70.7-74.5)
15-64 years	21.5 (20.0-23.0)	26.8 (25.3-28.3)	32.1 (30.6-33.6)	35.9 (34.4-37.4)	37.3 (36.0-38.6)	38.1 (37.1-39.0)	39.5 (38.7-40.4)	39.8 (38.8-40.9)

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
≥65 years	3.1 (2.1-4.3)	4.4 (3.4-5.6)	4.0 (3.1-5.0)	5.2 (4.2-6.2)	5.9 (5.0-6.9)	5.6 (4.9-6.3)	6.8 (6.2-7.5)	7.1 (6.3-8.0)
Thyroid cancer								
All	91.1 (89.9-92.1)	92.7 (91.7-93.7)	93.7 (92.7-94.5)	94.3 (93.5-95.0)	95.1 (94.5-95.7)	96.4 (96.0-96.7)	97.5 (97.3-97.8)	98.1 (97.8-98.4)
0-14 years	100.0	100.0	97.8 (83.5-99.7)	100.0	98.5 (88.6-99.8)	97.1 (92.3-98.9)	99.1 (95.7-99.8)	99.6 (97.3-100.0)
15-64 years	96.3 (95.3-97.0)	97.1 (96.3-97.8)	96.9 (96.2-97.5)	97.7 (97.1-98.2)	97.8 (97.3-98.1)	98.3 (98.0-98.6)	98.8 (98.6-99.0)	99.2 (98.9-99.3)
≥65 years	59.1 (53.6-64.1)	68.2 (63.2-72.7)	75.6 (71.1-79.4)	76.7 (72.9-80.1)	80.9 (77.9-83.6)	85.3 (83.3-87.1)	90.2 (88.9-91.3)	92.6 (91.1-93.9)
Mesothelioma								
All	9.4 (6.9-12.4)	6.9 (5.1-9.1)	6.3 (4.7-8.2)	7.4 (5.8-9.2)	7.2 (5.9-8.8)	8.0 (6.9-9.2)	8.5 (7.4-9.6)	9.1 (7.6-10.8)
0-14 years	-	-	0.0	-	-	100.0	-	-
15-64 years	12.6 (8.9-17.0)	10.9 (7.7-14.8)	11.1 (7.9-14.9)	11.8 (8.6-15.4)	12.2 (9.3-15.6)	16.6 (13.9-19.4)	14.4 (12.2-16.9)	16.9 (13.4-20.7)
≥65 years	4.6 (2.0-8.7)	3.3 (1.7-5.8)	3.1 (1.7-5.0)	5.0 (3.5-7.1)	4.9 (3.5-6.6)	4.0 (3.0-5.1)	5.7 (4.7-6.9)	5.8 (4.4-7.5)
Hodgkin lymphoma								
All	68.6 (66.8-70.4)	72.1 (70.4-73.8)	78.0 (76.4-79.4)	80.7 (79.3-82.0)	83.0 (81.8-84.1)	83.6 (82.7-84.5)	85.0 (84.2-85.7)	86.6 (85.7-87.4)
0-14 years	82.9 (76.5-87.7)	86.7 (80.2-91.2)	89.4 (83.2-93.5)	91.1 (85.6-94.6)	94.3 (90.1-96.8)	94.7 (91.9-96.6)	96.8 (94.8-98.0)	97.1 (94.5-98.5)
15-64 years	74.8 (72.9-76.6)	79.1 (77.4-80.7)	82.8 (81.3-84.3)	85.6 (84.2-86.8)	87.1 (86.0-88.2)	88.3 (87.4-89.1)	90.1 (89.4-90.8)	90.8 (90.0-91.6)
≥65 years	29.2 (24.2-34.3)	28.3 (23.5-33.2)	38.3 (32.6-44.0)	45.4 (40.0-50.7)	48.0 (42.8-53.0)	48.5 (44.7-52.2)	50.7 (47.6-53.8)	57.1 (53.3-60.6)
Non-Hodgkin lymphoma								
All	45.3 (44.1-46.5)	48.7 (47.6-49.7)	51.7 (50.8-52.7)	50.3 (49.4-51.1)	53.9 (53.2-54.5)	63.5 (63.0-64.0)	68.7 (68.3-69.1)	71.2 (70.7-71.7)
0-14 years	45.4 (38.4-52.1)	57.4 (50.1-64.0)	70.1 (63.5-75.7)	74.4 (67.9-79.8)	82.0 (77.3-85.7)	83.0 (79.9-85.7)	87.9 (85.3-90.1)	90.4 (88.1-92.4)
15-64 years	53.8 (52.2-55.3)	58.1 (56.7-59.5)	60.0 (58.7-61.2)	54.4 (53.4-55.5)	58.3 (57.5-59.2)	71.7 (71.1-72.3)	76.3 (75.8-76.8)	78.7 (78.1-79.2)
≥65 years	34.8 (33.0-36.7)	38.0 (36.3-39.6)	42.4 (41.0-43.9)	45.0 (43.7-46.3)	47.9 (46.8-49.0)	54.2 (53.4-55.0)	60.3 (59.6-61.0)	62.9 (62.0-63.7)
Multiple myeloma								

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
All	23.4 (21.8-25.0)	26.6 (25.1-28.2)	27.3 (25.9-28.8)	28.6 (27.3-30.0)	31.8 (30.7-33.0)	35.2 (34.4-36.1)	43.5 (42.7-44.3)	49.8 (48.7-50.8)
0-14 years	-	0.0	-	-	-	-	100.0	-
15-64 years	28.9 (26.4-31.4)	32.5 (30.0-34.9)	36.4 (34.0-38.9)	37.5 (35.2-39.8)	41.3 (39.4-43.2)	48.7 (47.3-50.1)	56.5 (55.3-57.6)	62.7 (61.3-64.1)
≥65 years	19.5 (17.6-21.6)	22.7 (20.8-24.7)	22.0 (20.3-23.8)	23.7 (22.1-25.4)	26.2 (24.7-27.6)	26.2 (25.1-27.3)	33.7 (32.7-34.7)	39.6 (38.1-41.0)
Leukemia								
All	34.0 (32.9-35.1)	36.3 (35.3-37.4)	40.2 (39.2-41.2)	44.5 (43.6-45.5)	47.5 (46.7-48.3)	51.0 (50.4-51.7)	57.2 (56.7-57.8)	60.1 (59.4-60.7)
0-14 years	47.9 (44.7-51.0)	60.4 (57.2-63.5)	64.2 (61.2-67.0)	74.4 (72.0-76.7)	76.9 (75.0-78.7)	81.7 (80.3-83.0)	84.3 (83.1-85.3)	86.1 (84.8-87.2)
15-64 years	35.1 (33.5-36.7)	38.5 (36.9-40.0)	42.6 (41.1-44.2)	46.9 (45.5-48.4)	51.9 (50.6-53.1)	58.0 (57.1-58.8)	64.0 (63.2-64.7)	67.6 (66.8-68.4)
≥65 years	30.3 (28.6-32.0)	30.2 (28.6-31.7)	33.8 (32.3-35.4)	36.8 (35.4-38.2)	37.3 (36.1-38.6)	38.4 (37.4-39.3)	45.1 (44.2-45.9)	47.1 (46.0-48.2)
Acute lymphoid leukemia								
All	39.2 (36.3-42.2)	50.5 (47.6-53.3)	51.6 (49.0-54.2)	56.8 (54.5-59.1)	62.2 (60.3-64.1)	64.0 (62.5-65.3)	66.1 (64.9-67.3)	68.1 (66.7-69.4)
0-14 years	55.7 (51.8-59.4)	68.7 (65.2-72.0)	72.8 (69.6-75.7)	81.1 (78.6-83.4)	83.8 (81.9-85.5)	86.9 (85.6-88.2)	89.0 (87.9-90.0)	90.5 (89.2-91.7)
15-64 years	15.2 (11.3-19.7)	25.7 (21.2-30.5)	27.1 (23.1-31.2)	31.3 (27.5-35.2)	36.0 (32.7-39.3)	38.0 (35.6-40.4)	42.7 (40.6-44.8)	47.2 (44.7-49.7)
≥65 years	5.0 (1.6-11.3)	7.6 (3.3-14.3)	5.7 (2.3-11.2)	3.8 (1.5-7.6)	7.4 (4.2-11.7)	6.2 (3.9-9.3)	11.9 (9.0-15.2)	15.5 (11.5-20.1)
Chronic lymphoid leukemia								
All	67.0 (64.7-69.2)	66.3 (64.1-68.3)	71.2 (69.3-73.1)	73.8 (72.0-75.5)	74.9 (73.4-76.4)	78.4 (77.2-79.5)	81.1 (80.1-81.9)	82.5 (81.2-83.6)
0-14 years	0.0	-	-	-	100.0	0.0	75.0 (12.7-96.1)	-
15-64 years	78.0 (75.0-80.7)	76.9 (74.0-79.4)	80.4 (77.7-82.7)	81.6 (79.2-83.8)	83.5 (81.5-85.3)	87.8 (86.5-89.0)	90.0 (89.0-90.9)	91.5 (90.1-92.6)
≥65 years	60.2 (57.0-63.3)	59.8 (56.8-62.6)	66.2 (63.5-68.8)	69.6 (67.1-72.0)	70.3 (68.2-72.3)	72.8 (71.1-74.3)	75.7 (74.4-77.0)	76.8 (75.0-78.5)
Acute myeloid leukemia								
All	6.2 (5.2-7.2)	7.9 (6.9-9.0)	10.0 (8.8-11.2)	13.3 (12.1-14.5)	17.4 (16.3-18.5)	19.6 (18.8-20.5)	23.8 (23.0-24.6)	27.4 (26.4-28.3)
0-14 years	19.3 (13.1-26.3)	25.8 (18.5-33.7)	29.9 (22.2-37.9)	43.4 (35.8-50.8)	46.3 (40.1-52.3)	58.4 (53.8-62.8)	64.3 (60.2-68.1)	67.2 (62.8-71.1)

eTable 3: Five-year relative survival, 1973-2013, by age group (continued).*

Age	Relative 5-year Survival (%)							
	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002	2003-2007	2008-2013
15-64 years	7.8 (6.4-9.5)	11.5 (9.8-13.5)	16.2 (14.2-18.3)	21.8 (19.6-24.0)	28.7 (26.8-30.7)	32.9 (31.4-34.4)	38.5 (37.1-39.8)	43.2 (41.6-44.7)
≥65 years	2.7 (1.7-3.9)	2.7 (1.8-3.9)	2.2 (1.4-3.2)	2.9 (2.1-3.9)	3.8 (3.0-4.7)	4.2 (3.6-4.9)	5.4 (4.8-6.1)	6.8 (5.9-7.8)
Chronic myeloid leukemia								
All	21.1 (18.8-23.5)	25.8 (23.3-28.3)	24.1 (21.8-26.5)	31.7 (29.3-34.0)	36.1 (34.1-38.2)	49.9 (48.2-51.6)	61.5 (60.0-63.0)	66.4 (64.6-68.1)
0-14 years	31.3 (11.4-53.8)	26.4 (9.6-47.0)	37.2 (19.6-54.7)	47.4 (28.4-64.3)	43.0 (26.5-58.4)	71.6 (59.1-81.0)	68.1 (57.6-76.6)	79.5 (69.4-86.5)
15-64 years	27.4 (24.0-30.8)	32.1 (28.6-35.6)	34.2 (30.7-37.8)	40.8 (37.4-44.1)	49.6 (46.7-52.3)	69.0 (66.8-71.0)	80.0 (78.4-81.5)	83.2 (81.4-85.0)
≥65 years	13.4 (10.3-16.8)	18.7 (15.3-22.4)	13.5 (10.8-16.4)	21.7 (18.6-25.0)	21.0 (18.4-23.7)	27.6 (25.2-30.0)	38.2 (35.8-40.5)	41.5 (38.3-44.7)

*Five-year relative survival is a measure of the net survival from cancer in the absence of other diseases for at least five years after diagnosis and is expressed as a percent. Numbers in parentheses are 95% uncertainty intervals. Five-year relative survival estimates are from: Surveillance, Epidemiology, and End Results (SEERS) Program. SEER*Stat Database: Incidence - SEER 18 Regs Research Data + Hurricane Katrina Impacted Louisiana Cases, Nov 2015 Sub (1973-2013 Varying). National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch; 2016. <http://seer.cancer.gov/>.

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death.

Rank	County	Rate*
Neoplasms		
1	Summit County, Colorado	70.7 (63.2-79.0)
2	Pitkin County, Colorado	81.9 (73.0-91.0)
3	Eagle County, Colorado	94.3 (86.0-103.9)
4	Presidio County, Texas	103.5 (93.0-114.7)
5	Hinsdale County, Colorado	110.3 (90.7-133.4)
6	San Miguel County, Colorado	113.6 (98.4-130.5)
7	Aleutians East Borough, Aleutians West Census Area, Alaska	116.1 (94.5-138.7)
8	Los Alamos County, New Mexico	118.4 (107.5-129.4)
9	Billings County, North Dakota	120.3 (99.4-145.0)
10	Grand County, Colorado	121.3 (109.9-133.0)
3,101	Lee County, Kentucky	317.3 (289.7-345.1)
3,102	Harlan County, Kentucky	319.8 (299.7-341.4)
3,103	Perry County, Kentucky	322.8 (302.7-345.0)
3,104	Anderson County, Texas	323.2 (305.3-341.3)
3,105	Owsley County, Kentucky	323.3 (293.9-354.5)
3,106	Marlboro County, South Carolina	324.0 (304.2-345.1)
3,107	Breathitt County, Kentucky	329.1 (306.0-355.8)
3,108	Powell County, Kentucky	337.4 (309.7-367.4)
3,109	Madison County, Mississippi	363.0 (345.2-382.5)
3,110	Union County, Florida	503.1 (464.9-545.4)
	Difference between highest and lowest county	611.4%
Tracheal, bronchus, and lung cancer		
1	Summit County, Colorado	10.7 (9.2-12.3)
2	Pitkin County, Colorado	13.3 (11.5-15.4)
3	Cache County, Utah	13.7 (12.4-15.2)
4	Presidio County, Texas	16.2 (13.6-19.0)
5	Eagle County, Colorado	16.3 (14.4-18.6)
6	Utah County, Utah	18.1 (16.8-19.4)
7	Madison County, Idaho	18.7 (16.4-21.2)
8	Los Alamos County, New Mexico	19.2 (16.7-21.8)
9	McKinley County, New Mexico	19.3 (17.5-21.4)
10	Summit County, Utah	19.9 (17.6-22.4)
3,101	Harlan County, Kentucky	133.9 (124.1-144.4)
3,102	Gallatin County, Kentucky	135.1 (120.0-151.3)
3,103	Lee County, Kentucky	138.0 (124.4-152.1)
3,104	Owsley County, Kentucky	140.2 (124.7-156.9)
3,105	Leslie County, Kentucky	140.8 (126.8-155.8)
3,106	McCreary County, Kentucky	143.6 (131.4-156.3)
3,107	Breathitt County, Kentucky	144.4 (131.5-158.4)
3,108	Perry County, Kentucky	149.0 (137.3-161.5)
3,109	Powell County, Kentucky	150.8 (136.5-166.0)
3,110	Union County, Florida	231.2 (209.2-256.8)
	Difference between highest and lowest county	2060.5%
Colon and rectum cancer		
1	Summit County, Colorado	8.1 (7.0-9.3)
2	Pitkin County, Colorado	9.3 (8.1-10.7)
3	Eagle County, Colorado	10.9 (9.7-12.2)
4	Presidio County, Texas	12.8 (11.0-14.9)
5	San Miguel County, Colorado	13.8 (11.6-16.2)
6	Hinsdale County, Colorado	13.9 (11.3-17.1)
7	San Juan County, Washington	14.0 (12.5-15.6)
8	Collier County, Florida	14.0 (13.2-14.9)
9	Marin County, California	14.2 (13.3-15.2)
10	Blaine County, Idaho	14.3 (12.7-15.8)

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death (continued).

Rank	County	Rate*
3,101	Bethel Census Area, Alaska	41.7 (35.0-48.6)
3,102	Phillips County, Arkansas	42.2 (38.9-45.6)
3,103	Sharkey County, Mississippi	42.4 (38.0-47.5)
3,104	Anderson County, Texas	42.9 (39.5-46.3)
3,105	Bolivar County, Mississippi	45.4 (41.8-49.1)
3,106	Northwest Arctic Borough, Alaska	46.5 (38.9-53.8)
3,107	Madison County, Mississippi	47.0 (43.9-50.3)
3,108	Nome Census Area, Alaska	49.5 (42.8-56.6)
3,109	Kusilvak Census Area, Alaska	52.7 (44.5-61.0)
3,110	Union County, Florida	58.4 (52.0-65.2)
	Difference between highest and lowest county	622.1%
Breast cancer		
1	Summit County, Colorado	5.2 (4.2-6.4)
2	Aleutians East Borough, Aleutians West Census Area, Alaska	6.2 (4.4-8.4)
3	Pitkin County, Colorado	6.4 (5.1-7.7)
4	Eagle County, Colorado	6.8 (5.8-8.2)
5	San Miguel County, Colorado	7.6 (5.9-9.6)
6	Presidio County, Texas	8.0 (6.5-9.8)
7	Mono County, California	8.1 (6.8-9.6)
8	Glades County, Florida	8.2 (7.0-9.8)
9	Grand County, Colorado	8.2 (6.9-10.0)
10	Campbell County, South Dakota	8.3 (6.5-10.5)
3,101	Bolivar County, Mississippi	23.8 (21.0-27.9)
3,102	Sharkey County, Mississippi	24.0 (20.2-28.8)
3,103	Humphreys County, Mississippi	24.5 (21.2-29.6)
3,104	Wilcox County, Alabama	24.6 (21.5-28.8)
3,105	Washington County, Mississippi	25.2 (22.6-29.3)
3,106	Petersburg City, Virginia	25.4 (22.7-29.8)
3,107	Madison Parish, Louisiana	26.0 (22.5-30.8)
3,108	Coahoma County, Mississippi	26.4 (23.3-30.9)
3,109	Holmes County, Mississippi	27.2 (23.8-31.8)
3,110	Madison County, Mississippi	29.5 (26.6-34.2)
	Difference between highest and lowest county	463.1%
Prostate cancer		
1	Summit County, Colorado	5.5 (4.1-8.4)
2	Aleutians East Borough, Aleutians West Census Area, Alaska	5.6 (3.5-9.3)
3	Northwest Arctic Borough, Alaska	6.1 (4.2-10.1)
4	Presidio County, Texas	6.5 (4.7-10.3)
5	Starr County, Texas	6.5 (5.0-10.2)
6	North Slope Borough, Alaska	6.7 (4.6-10.9)
7	Rockland County, New York	6.8 (5.6-10.7)
8	Williamson County, Texas	6.8 (5.6-10.8)
9	San Francisco County, California	6.9 (5.7-10.8)
10	Kusilvak Census Area, Alaska	6.9 (4.9-11.4)
3,101	Holmes County, Mississippi	19.7 (15.7-29.5)
3,102	Hampton County, South Carolina	19.9 (16.1-30.2)
3,103	Wilcox County, Alabama	20.0 (15.6-30.2)
3,104	Coahoma County, Mississippi	20.0 (16.2-30.6)
3,105	Perry County, Alabama	20.4 (16.1-30.7)
3,106	Phillips County, Arkansas	21.6 (17.4-32.3)
3,107	Sharkey County, Mississippi	21.8 (16.8-32.5)
3,108	Macon County, Alabama	22.4 (18.1-33.1)
3,109	Loving County, Texas	23.7 (14.6-40.4)
3,110	Madison County, Mississippi	24.0 (19.6-36.3)
	Difference between highest and lowest county	338%

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death (continued).

Rank	County	Rate*
Pancreatic cancer		
1	Summit County, Colorado	5.7 (5.0-6.5)
2	Pitkin County, Colorado	6.5 (5.7-7.3)
3	Presidio County, Texas	7.4 (6.4-8.4)
4	Eagle County, Colorado	7.4 (6.6-8.3)
5	Aleutians East Borough, Aleutians West Census Area, Alaska	7.7 (6.1-9.6)
6	Hinsdale County, Colorado	8.1 (6.5-9.9)
7	San Miguel County, Colorado	8.4 (7.1-9.8)
8	Mono County, California	8.5 (7.6-9.4)
9	Hidalgo County, Texas	8.6 (8.1-9.1)
10	La Paz County, Yuma County, Arizona	8.8 (8.2-9.4)
3,101	Petersburg City, Virginia	18.4 (16.9-20.1)
3,102	Hopewell City, Virginia	18.5 (16.7-20.5)
3,103	Sunflower County, Mississippi	18.6 (17.1-20.2)
3,104	Avoyelles Parish, Louisiana	18.8 (17.3-20.2)
3,105	East Carroll Parish, Louisiana	19.0 (16.9-21.2)
3,106	Saint Landry Parish, Louisiana	19.1 (17.7-20.5)
3,107	Coahoma County, Mississippi	19.2 (17.7-20.7)
3,108	Holmes County, Mississippi	19.3 (17.7-21.1)
3,109	Madison County, Mississippi	20.5 (19.2-22.0)
3,110	Union County, Florida	22.8 (20.4-25.4)
	Difference between highest and lowest county	298.3%
Uterine cancer		
1	Summit County, Colorado	0.8 (0.6-1.0)
2	Aleutians East Borough, Aleutians West Census Area, Alaska	0.8 (0.5-1.1)
3	Pitkin County, Colorado	0.9 (0.7-1.1)
4	Storey County, Nevada	1.0 (0.7-1.3)
5	Bristol Bay Borough, Alaska	1.0 (0.6-1.6)
6	San Miguel County, Colorado	1.0 (0.8-1.3)
7	Santa Rosa County, Florida	1.0 (0.8-1.2)
8	Glasscock County, Texas	1.0 (0.7-1.4)
9	North Slope Borough, Alaska	1.1 (0.7-1.4)
10	Mono County, California	1.1 (0.9-1.3)
3,101	Lenoir County, North Carolina	3.5 (2.9-4.0)
3,102	Marlboro County, South Carolina	3.5 (2.9-4.0)
3,103	Allendale County, South Carolina	3.5 (2.8-4.1)
3,104	Portsmouth City, Virginia	3.5 (2.9-4.1)
3,105	Bronx County, New York	3.6 (3.1-3.9)
3,106	District of Columbia, District of Columbia	3.6 (3.1-4.0)
3,107	Baltimore City, Maryland	3.7 (3.1-4.1)
3,108	Philadelphia County, Pennsylvania	3.8 (3.2-4.1)
3,109	Edgecombe County, North Carolina	3.9 (3.2-4.4)
3,110	Williamsburg County, South Carolina	4.0 (3.4-4.7)
	Difference between highest and lowest county	419.2%
Kidney cancer		
1	Summit County, Colorado	2.1 (1.7-2.6)
2	Pitkin County, Colorado	2.3 (1.9-2.8)
3	New York County, New York	2.5 (2.3-2.8)
4	Eagle County, Colorado	2.7 (2.2-3.2)
5	Queens County, New York	2.9 (2.7-3.1)
6	Collier County, Florida	2.9 (2.6-3.3)
7	Arlington County, Virginia	2.9 (2.5-3.4)
8	Kings County, New York	2.9 (2.7-3.2)
9	Hinsdale County, Colorado	3.0 (2.3-3.8)

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death (continued).

Rank	County	Rate*
10	San Francisco County, California	3.0 (2.7-3.3)
3,101	Oglala Lakota County, South Dakota	8.4 (6.6-10.4)
3,102	Anderson County, Texas	8.5 (7.2-9.9)
3,103	Todd County, South Dakota	8.5 (6.5-10.7)
3,104	Dewey County, South Dakota	8.7 (6.7-10.9)
3,105	Thurston County, Nebraska	8.7 (7.0-10.6)
3,106	Union County, Florida	8.7 (6.7-10.8)
3,107	Menominee County, Wisconsin	8.7 (6.5-11.5)
3,108	Sioux County, North Dakota	9.1 (6.6-12.1)
3,109	Loving County, Texas	9.5 (6.3-13.6)
3,110	Buffalo County, South Dakota	9.7 (7.0-12.9)
	Difference between highest and lowest county	355.6%
Liver cancer		
1	Summit County, Colorado	2.3 (1.7-3.1)
2	Pitkin County, Colorado	2.4 (1.8-3.3)
3	Eagle County, Colorado	3.0 (2.2-3.9)
4	Hinsdale County, Colorado	3.1 (2.2-4.3)
5	Billings County, North Dakota	3.2 (2.1-4.6)
6	McPherson County, Nebraska	3.3 (2.2-4.8)
7	Routt County, Colorado	3.3 (2.5-4.2)
8	San Miguel County, Colorado	3.3 (2.3-4.7)
9	Wayne County, Nebraska	3.5 (2.5-4.5)
10	Steele County, North Dakota	3.5 (2.3-4.9)
3,101	Jim Hogg County, Texas	14.1 (10.2-19.2)
3,102	Jim Wells County, Texas	14.2 (11.4-17.6)
3,103	Webb County, Texas	14.3 (12.1-16.5)
3,104	Brooks County, Texas	14.6 (10.9-18.5)
3,105	Duval County, Texas	15.1 (11.7-19.1)
3,106	Kusilvak Census Area, Alaska	15.1 (9.4-22.2)
3,107	Maverick County, Texas	16.1 (12.9-19.7)
3,108	Zavala County, Texas	16.9 (12.8-21.7)
3,109	Union County, Florida	23.6 (16.9-32.0)
3,110	Anderson County, Texas	37.6 (30.7-44.3)
	Difference between highest and lowest county	1546.1%
Testicular cancer		
1	Gwinnett County, Georgia	0.1 (0.0-0.1)
2	Pitkin County, Colorado	0.1 (0.0-0.1)
3	Summit County, Colorado	0.1 (0.0-0.1)
4	Fayette County, Georgia	0.1 (0.0-0.1)
5	Collin County, Texas	0.1 (0.0-0.1)
6	Loudoun County, Virginia	0.1 (0.0-0.1)
7	Clayton County, Georgia	0.1 (0.0-0.1)
8	Los Alamos County, New Mexico	0.1 (0.0-0.1)
9	Hinds County, Mississippi	0.1 (0.0-0.1)
10	Douglas County, Colorado	0.1 (0.0-0.1)
3,101	Kenedy County, Texas	0.3 (0.1-0.5)
3,102	Tuscola County, Michigan	0.3 (0.2-0.4)
3,103	Jim Hogg County, Texas	0.3 (0.2-0.4)
3,104	Brooks County, Texas	0.3 (0.2-0.4)
3,105	Tulare County, California	0.3 (0.2-0.4)
3,106	Stanislaus County, California	0.3 (0.2-0.4)
3,107	Imperial County, California	0.3 (0.2-0.4)
3,108	Willacy County, Texas	0.3 (0.2-0.5)
3,109	Cameron County, Texas	0.3 (0.2-0.5)
3,110	Union County, Florida	0.7 (0.4-1.0)
	Difference between highest and lowest county	1015.7%

eTable 4: Counties with the lowest and highest age-standardized mortality rate in 2014, by cause of death (continued).

Rank	County	Rate*
Non-Hodgkin lymphoma		
1	Summit County, Colorado	3.9 (3.2-4.7)
2	Aleutians East Borough, Aleutians West Census Area, Alaska	4.0 (2.5-5.8)
3	Pitkin County, Colorado	4.2 (3.4-5.2)
4	Hinsdale County, Colorado	4.7 (3.6-6.1)
5	Presidio County, Texas	4.9 (3.7-6.3)
6	Eagle County, Colorado	5.2 (4.3-6.2)
7	San Miguel County, Colorado	5.4 (4.1-6.7)
8	Mineral County, Colorado	5.4 (4.0-7.0)
9	Los Alamos County, New Mexico	5.5 (4.4-6.9)
10	Mono County, California	5.5 (4.6-6.6)
3,101	Terrebonne Parish, Louisiana	11.2 (9.4-13.3)
3,102	Bartholomew County, Indiana	11.2 (9.6-13.2)
3,103	Madison County, Mississippi	11.2 (9.5-13.2)
3,104	Harrison County, Ohio	11.3 (9.3-13.6)
3,105	Nicholas County, Kentucky	11.3 (9.1-14.0)
3,106	Fayette County, Indiana	11.3 (9.4-13.4)
3,107	Powell County, Kentucky	11.4 (9.2-14.1)
3,108	McLean County, Kentucky	11.5 (9.4-14.2)
3,109	Hopkins County, Kentucky	11.6 (9.6-14.0)
3,110	Union County, Florida	15.8 (12.4-20.5)
Difference between highest and lowest county		306.3%

*Rates are given in deaths per 100,000 population. Numbers in parentheses indicate 95% uncertainty intervals. All rates are for both sexes combined.