CREATING A CULTURE OF HEALTH IN APPALACHIA DISPARITIES AND BRIGHT SPOTS

Key Findings APPALACHIAN REGION

MORTALITY

Heart Disease Deaths

- The Appalachian Region's heart disease mortality rate is 17 percent higher than the national rate.
- The regional average masks very high rates within parts of Appalachia. For example, in Central Appalachia, the heart disease mortality rate is 42 percent higher than the national rate, and 80 of the subregion's 82 counties have heart disease mortality rates higher than the national rate.
- The heart disease mortality rate for the Appalachian Region's rural counties is 27 percent higher than the rate for the Region's large metro counties.
- The heart disease mortality rate for the Appalachian Region's economically distressed counties is 29 percent higher than the rate for the Region's non-distressed counties.

Cancer Deaths

- The Appalachian Region's cancer mortality rate is 10 percent higher than the national rate.
- In 85 percent of Appalachian counties, cancer mortality rates are higher than the national average. In Central Appalachia, 81 of the subregion's 82 counties have cancer mortality rates higher than the national rate.
- The cancer mortality rate for the Appalachian Region's rural counties is 15 percent higher than for the Region's large metro counties.
- The cancer mortality rate for the Region's economically distressed counties is 20 percent higher than the rate for the Region's non-distressed counties.

Chronic Obstructive Pulmonary Disease Deaths

- The Appalachian Region's Chronic Obstructive Pulmonary Disease (COPD) mortality rate is 27 percent higher than the national rate.
- All five subregions in Appalachia have COPD mortality rates higher than the national rate. Northern Appalachia is the best-performing subregion, although the rate there is still eight percent higher than the national average.
- The COPD mortality rate for the Appalachian Region's rural counties is 55 percent higher than the rate for the Region's large metro counties.
- The COPD mortality rate for the Appalachian Region's economically distressed counties is 43 percent higher than the rate for the Region's non-distressed counties.

Injury Deaths

- The Appalachian Region's injury mortality rate is 33 percent higher the national rate.
- Although all five Appalachian subregions have injury mortality rates higher than the national average, the figure in Central Appalachia is especially high—more than double the national rate. All 82 counties in Central Appalachia have injury mortality rates higher than the nation as a whole. In South Central Appalachia, 84 of the subregion's 85 counties have injury mortality rates higher than the national rate.

- The injury mortality rate for the Appalachian Region's rural counties is 47 percent higher than the rate for the Region's large metro counties.
- The injury mortality rate for the Appalachian Region's economically distressed counties is 55 percent higher than the rate for the Region's non-distressed counties.

Stroke Deaths

- The Appalachian Region's stroke mortality rate is 14 percent higher than the national rate.
- Four of the five Appalachian subregions have stroke mortality rates markedly higher than the rate for the nation as a whole. Only Northern Appalachia has a rate on par with the nation.
- The stroke mortality rate for the Appalachian Region's rural counties is eight percent higher than the rate for the Region's large metro counties.
- The stroke mortality rate for the Appalachian Region's economically distressed counties is 14 percent higher than the rate for the Region's non-distressed counties.

Diabetes Deaths

- The Appalachian Region's diabetes mortality rate is 11 percent higher than the national rate.
- In North Central and Central Appalachia, diabetes mortality rates are 41 percent higher than the rate for the nation as a whole.
- There is an urban-rural divide in diabetes mortality rates throughout the Region, with rural areas reporting a rate 36 percent higher than the rate found in large metro areas.
- Economically distressed Appalachian counties report a diabetes mortality rate 33 percent higher than those counties classified as non-distressed.

Years of Potential Life Lost

- The rate for Years of Potential Life Lost—a broad measure of premature mortality from all causes—is 25 percent higher in the Appalachian Region than in the nation as a whole.
- Although all five subregions have YPLL rates higher than the national figure, performance in this indicator is particularly poor in Central Appalachia, where the rate is 69 percent higher than the national mark.
- The YPLL rate for the Appalachian Region's rural counties is 40 percent higher than the rate for the Region's large metro counties.
- The YPLL rate for the Appalachian Region's economically distressed counties is 42 percent higher than the rate for the Region's non-distressed counties.

MORBIDITY

Physically Unhealthy Days

- The average adult in the Appalachian Region reports feeling physically unhealthy 14 percent more often than the average American.
- With 5.1 physically unhealthy days per person per month, residents in Central Appalachia report feeling physically unhealthy 42 percent more often than the average American. This figure is the highest among the five Appalachian subregions.
- Residents living in the Appalachian Region's rural counties are 24 percent more likely to report feeling physically unhealthy than those living in the Region's large metro areas.

Residents living in the Appalachian Region's economically distressed counties are 25 percent more likely to report feeling physically unhealthy than those living in the Region's nondistressed counties.

Mentally Unhealthy Days

- The average resident in Appalachia reports feeling mentally unhealthy 14 percent more often than the average American.
- With 4.5 mentally unhealthy days per person per month, residents in both North Central and Central Appalachia report feeling mentally unhealthy 25 percent more often than the average American.
- Residents living in the Appalachian Region's rural counties are 10 percent more likely to report feeling mentally unhealthy than those living in the Region's large metro areas.
- Residents living in the Appalachian Region's economically distressed counties are 10 percent more likely to report feeling mentally unhealthy than those living in the Region's nondistressed counties.

HIV Prevalence

- The prevalence of HIV is 57 percent lower in the Appalachian Region than in the nation as a whole.
- Among the five subregions, Southern Appalachia has the highest HIV prevalence, a figure that is still 41 percent lower than the national average.
- There is an urban-rural divide in HIV rates in the Appalachian Region. Residents living in the Appalachian Region's large metro areas are more than twice as likely to have HIV as those living in the Region's rural areas.
- The Appalachian Region's economically non-distressed counties report HIV rates 57 percent higher than the rates reported by the Region's distressed counties.

Diabetes Prevalence

- The prevalence of diabetes in the Appalachian Region is 11.9 percent, a mark higher than the 9.8 percent experienced by the nation as a whole.
- All five subregions in Appalachia report a higher prevalence of diabetes than the national average, with Central Appalachia (13.5 percent) and North Central Appalachia (12.8 percent) reporting the highest percentages.
- There is an urban-rural divide in diabetes prevalence—13.0 percent of the residents in the Appalachian Region's rural counties have been diagnosed with the disease, compared to 10.5 percent of those living in the Region's metro areas.
- There is also a divide in diabetes prevalence based on economic status. The Appalachian Region's economically distressed counties report a mark of 13.7 percent, whereas the Region's non-distressed counties report 11.7 percent.

Obesity Prevalence

• The prevalence of adult obesity is 31.0 percent throughout the Appalachian Region, a mark higher than the 27.4 percent experienced in the nation as a whole.

- All five subregions throughout Appalachia report adult obesity percentages higher than the national average, with Central Appalachia (34.7 percent) and North Central Appalachia (33.4 percent) reporting the highest percentages.
- There is an urban-rural divide in adult obesity prevalence, with 33.1 percent of residents in the Appalachian Region's rural counties classified as obese, compared to 29.5 percent in the Region's large metro areas.
- Residents in the Appalachian Region's economically distressed counties are particularly prone to high percentages of adult obesity, with 34.7 percent of these residents classified as obese. This compares to 30.7 percent in the Region's non-distressed counties.

BEHAVIORAL HEALTH

Depression Prevalence

- The prevalence of depression among fee-for-service Medicare beneficiaries in the Appalachian Region is 16.7 percent, compared to 15.4 percent for the United States as a whole.
- The prevalence of depression among fee-for-service Medicare beneficiaries is the highest in both North Central and Central Appalachia, at approximately 19 percent.
- There is a small difference in depression prevalence among fee-for-service Medicare beneficiaries in the Appalachian Region's rural counties (16.9 percent) and large metro counties (15.6 percent).
- There is a slight difference in depression prevalence among fee-for-service Medicare beneficiaries in the Appalachian Region's economically distressed counties (17.6 percent) and non-distressed counties (16.6 percent).

Suicide Incidence

- The suicide rate in the Appalachian Region is 17 percent higher than the national rate.
- All five Appalachian subregions report suicide rates higher than the nation as a whole, with Central Appalachia reporting an incidence 31 percent higher than the national rate.
- Residents in the Appalachian Region's rural counties are 21 percent more likely to commit suicide than those living in the Region's large metro areas.
- Residents living in the Appalachian Region's economically distressed counties are 14 percent more likely to commit suicide than those living in the Region's non-distressed counties.

Excessive Drinking

- A lower percentage of adults in the Appalachian Region report excessive drinking (15.2 percent) than in the nation as a whole (17.7 percent).
- Four of the five Appalachian subregions have lower percentages of adults reporting excessive drinking than the nation as a whole. The lone subregion above the national mark is Northern Appalachia, and the difference is minor (17.8 percent in the subregion compared to 17.7 percent in the nation as a whole).
- Adults living in the Appalachian Region's rural counties report less excessive drinking (13.3 percent) than those living in the Region's large metro areas (17.3 percent).

 Adults living in the Appalachian Region's economically distressed counties report less excessive drinking (12.3 percent) than those living in the Region's non-distressed counties (15.4 percent).

Poisoning Deaths

- The poisoning mortality rate in the Appalachian Region is 37 percent higher than the national rate.
- All five Appalachian subregions have higher poisoning mortality rates than the national rate. The poisoning mortality rate in Central Appalachia is 146 percent higher than the nation as a whole.
- The poisoning mortality rate for the Appalachian Region's rural counties is 40 percent higher than the rate for the Region's large metro counties—and 76 percent higher than the national rate.
- The poisoning mortality rate for the Region's economically distressed counties is 63 percent higher than the rate for the Region's non-distressed counties—and more than double the national rate.

Opioid Prescription Rates

- Six percent of all Medicare prescription claims in the Appalachian Region are for opioids, compared to 5.3 percent for the United States as a whole.
- In four of the five Appalachian subregions, the percentage of Medicare prescriptions for opioids is above the national average. Northern Appalachia, at 4.8 percent, is the only subregion with Medicare opioid prescriptions below the national mark.
- There is no significant urban-rural divide in opioid prescription levels, as Appalachia's rural counties have opioid prescription claims of 5.8 percent of total claims, compared with 5.7 percent for the Region's large metro counties.
- The Appalachian Region's economically distressed counties have Medicare opioid prescription claims of 6.1 percent of total claims, compared with 6.0 percent for the Region's non-distressed counties.

CHILD HEALTH

Infant Mortality

- The infant mortality rate is 16 percent higher in the Appalachian Region than in the nation as a whole.
- With identical infant mortality rates of 7.4 per 1,000 births, the North Central, Central, and Southern Appalachian subregions have rates 21 percent higher than the national rate.
- There is an urban-rural divide in infant mortality, with the Appalachian Region's rural counties reporting an infant mortality rate 19 percent higher than the rate found in the Region's large metro areas.
- Economic status is also an indicator of infant mortality. The rate in the Appalachian Region's economically distressed counties is 19 percent higher than the rate found in the Region's non-distressed counties.

Low Birth Weight Incidence

- The incidence of low birth weight in Appalachia is 8.7 percent of all newborns, a percentage higher than the national average of 8.1 percent.
- Northern Appalachia, with a 7.8 percent incidence of low birth weight, performs better than the nation as a whole on this measure. The other four subregions all report percentages above the national average, with performance in Central Appalachia especially poor at 9.9 percent, a figure much higher than the national average of 8.1 percent.
- There is an urban-rural divide in low birth weight incidence, with the Appalachian Region's rural counties reporting a higher incidence (9.4 percent) than that found in the Region's large metro areas (8.2 percent).
- Economically distressed Appalachian counties report a low birth weight incidence of 10.2 percent, compared to the 8.6 percent in the Region's non-distressed counties.

Teen Birth Rate

- The teen birth rate in the Appalachian Region is 10 percent higher than the national rate.
- Central Appalachia has a teen birth rate 63 percent higher than the national rate.
- The Appalachian Region's rural counties have a teen birth rate 72 percent higher than the rate found in the Region's large metro areas.
- The Appalachian Region's economically distressed counties report a teen birth rate 61 percent higher than the Region's non-distressed counties.

COMMUNITY CHARACTERISTICS

Average Travel Time to Work

- The average travel time to work in the Appalachian Region is 24.8 minutes, which is comparable to the national average of 25.7 minutes.
- Three of the five Appalachian subregions have commute times roughly equal to the nation, and both Northern and South Central Appalachia have average commute times slightly lower than the national average.
- The average travel time to work for the Appalachian Region's rural counties is five minutes less than for the Region's large metro counties.
- The average travel time to work for the Appalachian Region's economically distressed counties is nearly one-and-a-half minutes longer than for the Region's non-distressed counties.

Grocery Store Availability

- There are 14 percent fewer grocery stores per 1,000 population in Appalachia than in the United States as a whole.
- Among the five subregions, only Central Appalachia has more grocery stores per 1,000 population than the national average. Southern Appalachia has the lowest rate in the Region, a figure 24 percent lower than the national mark.
- Rural areas throughout the Region have 41 percent more grocery stores per 1,000 population than large metro areas.
- Economically distressed counties in Appalachia have 28 percent more grocery stores per 1,000 population than non-distressed counties.

Student-Teacher Ratio

- The Appalachian Region's student-teacher ratio is 14.3, which is a lower (better) ratio than the national average of 16.5.
- There is little difference in the student-teacher ratios among the five Appalachian subregions, with values ranging from 13.6 to 15.0, all of which are lower (better) than the national mark.
- The Appalachian Region's student-teacher ratio in rural counties is 13.7, which is better than the 14.7 ratio in the Region's metro counties.
- The Appalachian Region's student-teacher ratio in economically distressed counties is 14.7, which is only slightly higher than the 14.3 in the Region's non-distressed counties.

LIFESTYLE

Physical Inactivity

- In the Appalachian Region, 28.4 percent of people report being physically inactive, a figure higher than the 23.1 percent reported for the United States as a whole.
- Physical inactivity in the Appalachian subregions range from 26.2 percent in Northern Appalachia to 33.8 percent in Central Appalachia, all of which are above the national average.
- There is an urban-rural divide in physical inactivity. In the Appalachian Region's rural counties, 31.8 percent of residents report being physically inactive, a figure much higher than the 25.2 percent reported in the Region's large metro areas.
- In the Appalachian Region's economically distressed counties, 33.9 percent of residents report being physically inactive, compared to 28.0 percent of residents in the Region's non-distressed counties.

Smoking

- Nearly 20 percent of all adults in the Appalachian Region report being cigarette smokers, a figure higher than the 16.3 percent at the national level.
- Smoking is an especially pronounced problem in Central Appalachia, where 25.2 percent of adults report being smokers.
- There is an urban-rural divide in smoking prevalence throughout the Appalachian Region. In the Region's rural counties, 22.5 percent of adults report being cigarette smokers, compared to just 17.3 percent of those living in large metro areas.
- In the Appalachian Region's economically distressed counties, 24.7 percent of adults are cigarette smokers, compared to 19.4 percent of residents in the Region's non-distressed counties.

Chlamydia Rate

- Chlamydia incidence in the Appalachian Region is 27 percent lower than the national average.
- All five subregions have lower chlamydia incidence than the nation as a whole, and Central Appalachia's rate is 52 percent lower than the national mark.
- Chlamydia incidence is 23 percent lower in the Appalachian Region's rural counties than the incidence in the Region's large metro counties.

• Economically non-distressed Appalachian counties report a 12 percent higher incidence of chlamydia than the Region's distressed counties.

HEALTH CARE SYSTEMS

Primary Care Physicians

- The supply of primary care physicians per 100,000 population in the Appalachian Region is 12 percent lower than the national average.
- Central Appalachia (33 percent lower) and Southern Appalachia (21 percent lower) both report a lower supply of primary care physicians than the national average.
- The supply of primary care physicians in the Appalachian Region's rural counties is 20 percent lower than the supply in the Region's large metro counties.
- The supply of primary care physicians in the Appalachian Region's economically distressed counties is 40 percent lower than the supply in the Region's non-distressed counties.

Mental Health Providers

- The supply of mental health providers per 100,000 population in the Appalachian Region is 35 percent lower than the national average.
- All five Appalachian subregions have a lower supply of mental health providers than the national average, with North Central Appalachia and Southern Appalachia both reporting figures approximately 50 percent lower than the national number.
- The two nonmetro adjacent classifications—those adjacent to large metro areas, as well as those adjacent to small metro areas—report the lowest mental health provider supplies in the Region, with supplies that are approximately 50 percent below the national average.
- The supply of mental health providers in the Appalachian Region's economically distressed counties is six percent lower than the supply in non-distressed counties.

Specialty Physicians

- The supply of specialty physicians per 100,000 population in the Appalachian Region is 28 percent lower than the national average.
- No Appalachian subregion matches the national average in terms of the supply of specialty physicians, and the supply in Central Appalachia is 65 percent lower than the national mark.
- The supply of specialty physicians in the Appalachian Region's rural counties is 57 percent lower than the supply in the Region's large metro counties.
- The supply of specialty physicians in the Appalachian Region's economically distressed counties is nearly 76 percent lower than the supply in the Region's non-distressed counties.

Dentists

- The supply of dentists per 100,000 population in the Appalachian Region is 26 percent lower than the national average.
- All five Appalachian subregions have a lower supply of dentists than the national average, and Central Appalachia's supply is 46 percent lower than the national average.
- The supply of dentists in the Appalachian Region's rural counties is 36 percent lower than the supply found in the Region's large metro counties.

The supply of dentists in the Appalachian Region's economically distressed counties is 43 percent lower than the supply found in the Region's non-distressed counties.

Uninsured Population

- The percentage of the population under age 65 that is uninsured in the Appalachian Region is 15.8 percent, which is slightly lower (better) than the national average of 16.8 percent.
- There is wide variation among the five Appalachian subregions' uninsured populations under age 65, with Northern Appalachia (11.6 percent) reporting a far lower percentage than Southern Appalachia (18.9 percent).
- The uninsured population under age 65 in rural counties in the Appalachian Region is 18.2 percent, compared with 14.7 percent in the Region's large metro counties.
- The uninsured population under age 65 in economically distressed counties in the Appalachian Region is 18.7 percent, compared with 15.6 percent in the Region's non-distressed counties.

Heart Disease Hospitalizations

- Hospitalization rates for heart disease in the Appalachian Region are 17 percent higher than the national average.
- All five Appalachian subregions have heart disease hospitalization rates higher than the national average, with Central Appalachia reporting a rate 47 percent higher than the national mark.
- The heart disease hospitalization rate in the Appalachian Region's rural counties is 13 percent higher than the rate in the Region's large metro counties.
- The heart disease hospitalization rate in the Appalachian Region's economically distressed counties is 20 percent higher than the rate in the Region's non-distressed counties.

Chronic Obstructive Pulmonary Disease Hospitalizations

- The COPD hospitalization rate in the Appalachian Region is 23 percent higher than the national average.
- All five subregions have COPD hospitalization rates above the national average, and the rate in Central Appalachia is 75 percent higher than the national mark.
- The COPD hospitalization rate in the Appalachian Region's rural counties is 39 percent higher than the rate in the Region's large metro counties.
- The COPD hospitalization rate in economically distressed counties throughout Appalachia is 42 percent higher than the rate in the Region's non-distressed counties.

QUALITY OF CARE

Electronic Prescribing

- Electronic prescribing is less common in the Appalachian Region (63.8 percent of prescriptions) than in the nation as a whole (65.8 percent).
- Use of electronic prescriptions is higher in North Central (68.5 percent) and Northern Appalachia (67.1 percent) than in the nation as a whole, while Central Appalachia (53.3 percent) lags far behind.

- There is an urban-rural divide in the use of electronic prescribing throughout the Region, with large metro areas (64.7 percent) and small metro areas (65.6 percent) reporting a higher rate than rural areas (60.6 percent).
- Health care providers in the Appalachian Region's economically non-distressed counties are more likely to utilize electronic prescribing than those in the Region's distressed counties (64.2 percent compared to 57.7 percent).

Mammogram Screenings

- The percentage of Medicare-covered women undergoing mammogram screenings in the Appalachian Region is comparable to the percentage at the national level. In the Region, 61.4 percent of Medicare-covered women ages 67 to 69 have had a recent mammogram, a number similar to the 62.1 percent reported in the nation as a whole.
- Mammogram screenings are not nearly as prevalent in Central Appalachia, where only 53.7 percent of Medicare-covered women ages 67 to 69 have had a recent screening.
- There is little difference in mammogram screening percentages of Medicare-covered women in terms of rurality in the Appalachian Region, with large metro areas (58.9 percent) and rural areas (57.3 percent) reporting similar figures.
- A county's economic status is an indicator of mammogram screening prevalence, with Medicare-covered women in the Appalachian Region's economically non-distressed counties (61.9) reporting a much higher screening percentage than the Region's distressed counties (53.9 percent).

Diabetes Monitoring

- Diabetes monitoring is slightly higher among Medicare patients in the Appalachian Region (85.9 percent) than among Medicare patients in the United States as a whole (84.7 percent).
- There is little variation in diabetes monitoring across the subregions, with the lowest figure (North Central, 84.3 percent) and the highest (South Central, 88.0) separated by less than four percentage points.
- There is not a clear urban-rural divide in diabetes monitoring, with all five rurality classifications reporting percentages between 84.9 percent and 86.4 percent.
- There is a marginal difference in diabetes monitoring percentages based on a county's economic status. The Appalachian Region's economically non-distressed counties (85.9 percent) and distressed counties (84.6 percent) report similar rates.

SOCIAL DETERMINANTS

Median Household Income

- The median household income in the Appalachian Region is 19 percent less than the national median.
- The median household income in all five Appalachian subregions is below the national figure. The median is especially low in Central Appalachia, where it is 38 percent less than the national median.
- There is a stark urban-rural divide in median household income throughout the Region, with rural households earning 34 percent less than those in the Region's large metro areas.

The median household income in the Appalachian Region's economically distressed counties is 30 percent less than that found in the Region's non-distressed counties.

Poverty

- The household poverty rate is 17.2 percent in the Appalachian Region, a figure slightly higher than the national rate of 15.6 percent.
- At 14.8 percent, Northern Appalachia is the only subregion reporting a household poverty rate less than the nation as a whole. Central Appalachia reports that nearly one-quarter of all households in the subregion are below the poverty line (24.9 percent).
- Poverty increases as the level of rurality increases. In the Appalachian Region's large metro counties, 13.6 percent of households are below the poverty line, while 23.0 percent of households in the Region's rural areas are below the poverty line.
- The poverty rate in the Appalachian Region's economically distressed counties is much higher (26.9 percent) than the poverty rate in the Region's non-distressed counties (16.5 percent).

Disability

- The percentage of people receiving disability benefits is higher in the Appalachian Region (7.3 percent) than in the United States as a whole (5.1 percent).
- All five Appalachian subregions report higher percentages of their populations receiving disability benefits than the nation as a whole, with Central Appalachia having a particularly high figure of 13.9 percent.
- There is a clear urban-rural divide in the receipt of disability benefits. Residents in the Appalachian Region's rural counties are more likely to receive benefits (11.2 percent) than residents in the Region's large metro areas (5.5 percent).
- In the Appalachian Region's economically distressed counties, 13.6 percent of residents receive disability benefits, compared to 6.9 percent living in the Region's non-distressed counties.

Education

- In the Appalachian Region, 57.1 percent of adults ages 25 to 44 have some type of postsecondary education, compared to 63.3 percent in the nation as a whole.
- Among the subregions, Central Appalachia (46.7 percent) has the lowest percentage of its population with some type of post-secondary education.
- There is an urban-rural divide in education throughout the Region. Adults in the Appalachian Region's large metro areas (65.1 percent) are more likely to have attended a post-secondary institution than those in the Region's rural areas (49.0 percent).
- The economic status of a county is an indicator of education levels throughout Appalachia. In the Region, 57.9 percent of adults living in economically non-distressed counties have attended a post-secondary institution, compared to just 45.0 percent of those living in distressed counties.

Social Associations

• The social association rate in Appalachia is 33 percent higher than the rate found in the nation as a whole.

- Social association rates are highest in Northern Appalachia (14.2 associations per 10,000 population) and South Central Appalachia (13.3 per 10,000). Only Central Appalachia (8.8 per 10,000) has a rate lower than the national figure.
- There is no clear urban-rural pattern in social association rates throughout Appalachia. The Appalachian Region's large metro counties (10.9 associations per 10,000 population) and its rural counties (11.8 per 10,000) both report rates lower than the Regional average, yet higher than the national average.
- The social association rate in the Appalachian Region's economically non-distressed counties is 28 percent higher than the rate found in the Region's distressed counties.

TRENDS

Years of Potential Life Lost

- Between 1989–1995 and 2008–2014, the YPLL¹ rate in the Appalachian Region improved (decreased) by 8 percent, while the United States as a whole experienced a much larger improvement (decrease) of 24 percent.
- During the 1989–1995 period, the YPLL rate in Appalachia was 2 percent higher than the rate in the United States overall, but by 2008–2014, the rate in the Region was 23 percent higher than the national rate—signifying a growing disparity.

Cancer Mortality

- Between 1989–1995 and 2008–2014, the cancer mortality rate in the Appalachian Region decreased by 14 percent, an improvement smaller than the 21 percent decline experienced by the United States as a whole.
- During the 1989–1995 period, the cancer mortality rate in Appalachia was only 1 percent higher than the rate in the United States overall, but by 2008–2014, the rate in the Region was 10 percent higher than the national rate—signifying a growing disparity.

Heart Disease Mortality

- Between 1989–1995 and 2008–2014, the heart disease mortality rate in the Appalachian Region decreased by 39 percent, an improvement slightly less than the 43 percent decline experienced by the United States as a whole.
- During the 1989–1995 period, the heart disease mortality rate in Appalachia was 10 percent higher than the rate in the United States overall, but by 2008–2014, the rate in the Region was 17 percent higher than the national rate—signifying a growing disparity.

Stroke Mortality

Between 1989–1995 and 2008–2014, the stroke mortality rates in the Appalachian Region declined by 35 percent, a smaller improvement than the 40 percent decrease experienced by the United States as a whole.

¹ The data for the 2008–2014 period differ slightly from the data used for the YPLL measure found in the Mortality domain of this report. To produce an accurate trend metric and standardize the variable for the two time periods, an algorithm from County Health Rankings was used to develop a comparison measure for the period of 1989–1995; the same was done for the recent time span, 2008–2014.

During the 1989–1995 period, the stroke mortality rate in Appalachia was only 4 percent higher than the rate in the United States overall, but by 2008–2014, the rate in the Region was 14 percent higher than the national rate—signifying a growing disparity.

Infant Mortality

- Between 1989–1995 and 2008–2014, the infant mortality rate in the Appalachian Region decreased by 19 percent, a smaller improvement than the 28 percent decrease experienced by the United States as a whole.
- During the 1989–1995 period, the infant mortality rate in Appalachia was only 4 percent higher than the rate in the United States overall, but by 2008–2014, the rate in the Region was 16 percent higher than the national rate—signifying a growing disparity.

Office-based Primary Care Physicians

- Between 1990 and 2013, the number of primary care physicians² per 100,000 population increased for both the Appalachian Region and the United States overall. The 31 percent increase in Appalachia is slightly greater than the 27 percent increase experienced at the national level, which indicates a slight improvement in the gap between the Region and the United States as a whole.
- In 1990, the supply of primary care physicians per 100,000 population in Appalachia was 16 percent lower than in the United States overall; in 2013, the supply in the Region was 13 percent lower—signifying a decreasing disparity.

Percentage of Households Living in Poverty

- Between 1995 and 2014, the household poverty rate in the Appalachian Region increased from 14.2 percent to 17.2 percent, whereas the nation as a whole went from 13.6 percent to 15.6 percent.
- In 1995, the household poverty rate in Appalachia was only 0.6 percentage points higher than the rate in the United States overall, but by 2014, the rate in the Region was 1.6 percentage points higher than the national rate—signifying a growing disparity.

Percentage of Adults with at least a High School Diploma

- Between 1990 and 2009–2013, the Appalachian Region experienced a large increase in the percentage of its population that had earned a high school diploma, increasing from 68.4 percent to 84.6 percent. The United States also experienced an increase over the same time period, going from 75.7 percent to 85.9 percent.
- The percentage of adults with a high school diploma in Appalachia was 7.3 percentage points lower than the percentage in the United States overall in 1990, but by 2013, the rate in the Region was just 1.3 percentage points lower—signifying a decreasing disparity.

² The data source for primary care physicians in the Trends section differs from the source used in the Health Care Systems domain. County Health Rankings, which began in 2010, is the source for the primary care physician measure in the Health Care Systems domain; the Area Health Resources Files (AHRF), which has county-level data on physician supply, are the source for the measure in the Trends section. The definitions in the two databases differ primarily on inclusion of General Obstetrics and Gynecology physicians (AHRF files include Ob/Gyn practitioners while County Health Rankings does not.