A Tale of Two Countries: The Life Expectancy Gap Between the United States and the United Kingdom

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Foreword

Today, the United States lags other high-income countries in many measures of health and well-being, including life expectancy. In the immediate aftermath of the 2024 election, a longstanding question has become timely again: Why has the U.S. fallen behind in health?

This report offers a point of comparison: the United Kingdom. Forty years ago, babies born in the U.S. and the U.K. could expect to live to the same age. Today, however, life expectancy is several years shorter on our side of the Atlantic Ocean.

What's going on? In a new analysis of 2023 data from the U.S. and England and Wales, this report finds that differences in four preventable causes of death can explain the entire 2.7-year gap in life expectancy: cardiovascular disease, overdose, motor vehicle crashes, and gun violence. Each of these kills Americans at a substantially higher rate—particularly younger Americans.

This report also addresses what to do. Informed by evidence and inspired by successes in the United Kingdom and at home, Johns Hopkins faculty are putting forward a series of ideas to help close the life expectancy gap. These measures would build on existing momentum in some areas and bring about long-overdue progress in others.

Working in and with communities to understand and solve problems using data and evidence is the essence of public health. It's the pathway to a healthier nation.

It's also at the core of the Bloomberg American Health Initiative—what we stand for, now more than ever before.

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Why Compare Life Expectancy in the United States and the United Kingdom?

The United States and the United Kingdom share a common language, cultural and economic ties, and much more. Both are high-income countries with large urban centers, aging populations, sizable immigrant communities, declining rates of smoking, and economies that rely heavily on the service sector (Table 1). Political commentators have also noticed similarities in political movements across the Atlantic Ocean.¹

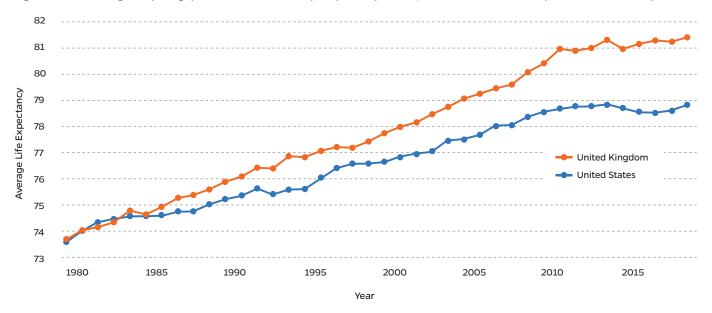
METRIC	U.S.	U.K.
Urbanization ²	83%	85%
Percent of economy from service sector ³	76.7%	72.8%
Percent immigrants ⁴	14.3%	14%
Median age⁵	38.9	40.8
Smoking rate, 18 and over ⁶	11.5%	11.9%

Table 1: Selected Similarities Between U.S. and U.K.

Forty years ago, the United States and United Kingdom shared something else—life expectancy. In 1984, babies born in both countries, on average, could expect to live to age 75. Around this time, however, life expectancy in the two countries began to diverge such that by a decade later, in 1994, while the U.S. life expectancy had increased to 76, the United Kingdom's had grown to 77.

The longevity gap continued to grow, so that by 2019, before the pandemic, a baby born in the United Kingdom would expect to live 81.4 years, more than 2.5 years longer than the 78.8 years in the United States (Figure 1). The gap grew even as concern has risen in the United Kingdom about slow gains in life expectancy.⁷ As mortality increased substantially in both countries during the pandemic and then began to recover, a large gap between the two countries remained.

Figure 1: United Kingdom (orange) versus United States (blue) life expectancy at birth, 1980 to 2019 (Source: World Bank).



This gap extends across gender,⁸ race,⁹ and socioeconomic status. In March 2023, John Burn-Murdock of the *Financial Times* found that U.S. mortality is greater than mortality in England across the income spectrum.¹⁰

No one factor explains the divergence of health between the two countries. The United States is on the whole a wealthier country, but with more income inequality. An important demographic difference between the two countries is the percentage of people who belong to minoritized racial and ethnic groups (42% in the U.S. vs 18% in the U.K.). The United States also experiences higher rates of obesity¹¹ and more incarceration,¹² which are both associated with greater rates of illness (Table 2).

Table 2: Selected Differences Between the United States and United Kingdom

METRIC	U.S.	U.K.
Income ¹³	\$51,147	\$33,049
Income inequality ¹⁴	41%	32%
Racial and ethnic diversity ¹⁵	42%	18%
Obesity rates ¹⁶	40%	26%
Incarceration rates ¹⁷	0.61%	0.14%

There are also differences in policy. The United States is the only high-income country that does not guarantee access to health care to its citizens; 26 million Americans are uninsured and face greater risks of preventable disease and early death.¹⁸ The United Kingdom provides its citizens with enrollment in the National Health Service, which offers access to comprehensive care without charge at the point of care.¹⁹ However, the National Health Service has faced a series of crises in recent years characterized by long waiting lists and labor unrest.²⁰

In this report, we analyzed recently released, preliminary data from the U.S. National Center for Health Statistics and the U.K. Office for National Statistics to assess life expectancy differences for 2023 for the first time. U.K. data includes England and Wales, but not Scotland or Northern Ireland. Our goal was to understand the major causes of death that explain the difference in life expectancy between the two countries.

Examining the Life Expectancy Gap After the Pandemic

This report aims to understand differences in life expectancy between the United States and the United Kingdom, focusing on both overall trends and specific patterns by gender and race/ethnicity. By examining the most common causes of death in each country—such as heart disease, cancer, and injuries from motor vehicle crashes or violence—we sought to uncover the main factors contributing to gaps in life expectancy.

To accomplish these aims, we obtained all-cause and cause-specific mortality data for the United States from CDC WONDER and comparable data from England and Wales from U.K. Office for National Statistics, which were the data available for this analysis.²¹ For England and Wales, data from 2023 are final, while the U.S. data remain provisional. England and Wales represent about 90% of the population of the United Kingdom.

Using these mortality data, we estimated overall and gender-specific life expectancy for the U.S. and England and Wales. For the United States, we also estimated racial/ethnic-specific life expectancy for the following groups: non-Hispanic white, Hispanic, non-Hispanic Black, non-Hispanic Asian, and non-Hispanic American Indian/Alaska Native. The estimates presented in this report may differ slightly from official national statistics, as our calculations rely on publicly available data that suppress death and population counts for individuals aged ≥85. To analyze factors contributing to the life expectancy gap between the U.S. and England/Wales, we used Arriga's decomposition method²² to break down the contributions of specific causes of death to the overall life expectancy difference. We categorized the following mutually exclusive causes based on ICD-10 codes: cardiovascular disease, cancer, drug overdose, firearm-related homicide and suicide, motor vehicle crashes, COVID-19, and a residual category covering all other causes.

We also compared age-adjusted mortality rates between the U.S. and England/Wales across three age groups—under 25, 25–64, and 65 and older—within each cause category used in the decomposition.

When breaking down life expectancy by cause, the contributions for each cause add up to 100%. Positive contributions widen the gap, while negative contributions narrow it.

The life expectancy analysis was conducted by Alison Gemmill, PhD, assistant professor in the Department of Population, Family, and Reproductive Health at the Johns Hopkins Bloomberg School of Public Health. MHS candidate Helena Gebremichael provided research assistance.

Preventable Causes Explain Why People Die Younger in the United States

In 2023, the overall life expectancy in the United States was 78.6 years, compared to 81.3 years in England and Wales, a gap of 2.7 years. This gap is much larger for men (3.4 years: 75.9 vs. 79.3) than for women (1.9 years: 81.3 vs. 83.2).

1. Cardiovascular Disease: 57% of the Gap

Cardiovascular disease—including preventable heart attacks and stroke—are the leading cause of death in the United States, killing more than 1 million Americans each year.²³ An estimated 60% of U.S. adults are expected to be affected by 2050.²⁴ These conditions also disproportionately kill more Americans at younger ages than people in the United Kingdom, where fewer than 150,000 people die of cardiovascular disease annually.

In 2023, the U.S. age-adjusted death rate from these causes was 240.0 per 100,000 population, 38% greater than the rate of 173.5 in England and Wales. The disparity in cardiovascular death is the single largest contributor to the gap in life expectancy between the United States and the United Kingdom, representing 57% of the difference.

2. Drug Overdose: 32% of the Gap

More than 1 million Americans have died of overdose since the year 2000, part of a national overdose crisis that, while showing initial signs of abating, still claims more than 100,000 lives in the United States each year.²⁵ Overdose rates are highest for indigenous and Black Americans.²⁶

The overdose crisis in the U.S. is far more severe than in the U.K., where fewer than 6,000 people died in England and Wales from drug overdose in 2023.²⁷ In 2023, the age-adjusted death rate from overdose in the U.S. was 31.6 per 100,000 population, more than three times the 9.3 rate in England and Wales. The difference in drug overdose represents 32% of the overall life expectancy gap.

3. Firearm-Related Homicide and Suicide: 20% of the Gap

Gun-related homicide and suicide in the United States increased 34% from 2014²⁸ to 2023;²⁹ in 2023, more than 45,000 people³⁰ died from these causes. Since 2017, gun-related injuries have surpassed³¹ motor vehicle crashes as the leading cause of death among children, adolescents, and young adults. In the past decade (2014–2023), the gun death rate among this age group nearly doubled.

Guns continue to disproportionately impact Black children and teens (ages 1–17). They were nearly 17 times as likely to die by gun homicide compared to their white counterparts in 2023. The gun suicide rate among Black older teens and young adults (ages 15–19) surpassed the rate among their white counterparts for the second consecutive year. In the past decade, the gun suicide rate among Black older teens and young adults (ages 15–19) has tripled.

In 2023, the age-adjusted death rate from firearmrelated homicide and suicide in the United States was 13.3 deaths per 100,000 population. By contrast, the rate in England and Wales is 0.1, with only 90 individuals dying from firearm-related causes in 2023.

Firearms are associated with about 1 in 2 teen suicides, which are elevated in the United States, with rates highest among indigenous youth and rising particularly rapidly among Black youth.^{32, 33} For teen suicide overall (ages 15–19), the ageadjusted death rate in the U.S. is 10.0 per 100,000 population (49% firearm), compared to the rate of 5.79 (0% firearm) in England and Wales. The difference in firearm-related mortality represents 20% of the gap in life expectancy.

4. Motor Vehicle Crashes: 17% of the Gap

Every day in the United States, about 125 people die from motor vehicle crashes, with a total of 45,973 deaths in 2023. Non-fatal injuries associated with crashes are responsible for medical costs of \$430 billion.³⁴

There is a large gap in deaths from motor vehicle crashes in the United States compared to England and Wales, where 1,320 people died from these causes. In 2023, the age-adjusted rate of death from motor vehicle accidents in the United States was 13.3 per 100,000 population, six times the rate of 2.2. This gap is responsible for 17% of the difference in life expectancy in England and Wales.

5. COVID and Cancer: Negative Contribution to the Gap

The United States experienced a higher death rate from COVID than England and Wales during the early years of the pandemic, but this difference faded by 2023. The age-adjusted COVID death rate was 12.0 per 100,000 population in the United States, compared to 13.8 in the United Kingdom, representing less than one percent of the gap.

Americans are substantially less likely to die of cancer than people in England and Wales, with age-adjusted death rates 147.2 per 100,000 population versus 186.1. Lower cancer-related death rates in the U.S. reduce the life expectancy gap by 26%, partially offsetting the gap caused by higher mortality from other causes. Lower rates of death from cancer in the United States may reflect earlier death from cardiovascular disease taking lives before a diagnosis of cancer may be made. It may also reflect earlier diagnosis or more effective treatment for cancer in the United States.

Preventable Causes of Death Are Even More Salient Among Young People in the U.S.

For each of the major preventable causes of death, the gaps are larger for Americans under age 65 years of age (Table 3). For example, for drug overdose, the rates are 4.5 times higher in the United States for people under 25 years of age, compared to only three times higher for people over age 65. Firearm-related homicide and suicide rates are 485.9 times higher in the United States for people under 25 years of age, compared to 34.6 times higher for people over age 65. The relative increase in cardiovascular disease and motor vehicle crashes is greatest among Americans ages 25–64.

Table 3: Increase in Death Rates in the U.S. Relative to England and Wales by Age Group

CAUSE OF DEATH	RELATIVE INCREASE IN U.S. DEATH RATE FOR PEOPLE UNDER 25	RELATIVE INCREASE IN U.S. DEATH RATE FOR PEOPLE 25-64	RELATIVE INCREASE IN U.S. DEATH RATE FOR PEOPLE 65 AND OVER
Cardiovascular disease	1.3	1.7	1.3
Drug overdose	4.5	3.4	3.0
Firearm-related homicide and suicide	485.9	129.0	34.6
Motor vehicle crashes	5.6	7.2	4.7

How Racial and Ethnic Disparities in the U.S. Relate to the Life Expectancy Gap

On average, life expectancy in the United States is 78.6 years versus 81.3 years in England and Wales, an overall 2.7-year difference. By race and ethnicity, white Americans (78.5 years), Black Americans (74.2 years), and non-Hispanic American Indian and Alaska Natives (70.1) have a lower life expectancy. Non-Hispanic Asian Americans (87.5 years) and Hispanic Americans (82.1 years), on average, have a higher life expectancy.

Closing the Life Expectancy Gap Between the United States and United Kingdom

Experts at the Johns Hopkins Bloomberg School of Public Health reviewed these data, considering policy differences between the United States and United Kingdom, and commented on key actions for closing these gaps.

1. Reduce Cardiovascular Disease Through Clinical and Population-Based Strategies

Cardiovascular disease accounts for 57% of the overall life expectancy gap between the United States and the United Kingdom. While country-level differences appear to emerge around 1985 (see Figure 1), the driving forces related to cardiovascular disease were likely in effect for decades before, starting early in life and socially patterned by the determinants of health.

The eight key risk factors and behaviors for the development of cardiovascular disease are suboptimal diet, sedentary lifestyle, tobacco use, overweight/obesity, hyperlipidemia (such as high cholesterol), elevated blood pressure (hypertension), diabetes, and insufficient sleep.³⁵ Of these, evidence indicates that the U.S. has a lower-quality diet,³⁶ less physical activity,³⁷ more obesity,³⁸ more hypertension (but also a higher rate of blood pressure control),³⁹ greater intake of sodium (linked to hypertension),⁴⁰ and more diabetes.⁴¹

Progress on these factors requires targeted clinical as well as population-based strategies.

The most expeditious and the highest return on clinical investment will come from interventions that dramatically increase control of hypertension and hyperlipidemia. For these two risk factors, there are widely available, effective, safe, and inexpensive medications. However, unlike the British National Health Service, which offers broad access to primary health services, the U.S. health care delivery system is poorly designed and does not provide meaningful financial incentives to optimally deliver treatment equitably and at scale. Innovations in health system financing and increased focus on primary health care are needed to effectively reach the populations at large and especially to meet the needs of those most affected, who include low-income, underserved, and marginalized populations and the large number of individuals without health insurance. Care delivery systems linked to community-based interventions such as those that involve use of community health workers—should be widely implemented and rigorously evaluated.⁴²

Complementing clinical actions, public health strategies that address the causes of suboptimal cardiovascular health and emphasize equity in outcomes will likely have the most enduring impact. These include reducing sodium in the diet (in part by the use of low-sodium salts and by the FDA moving forward with a sodium reduction program⁴³); ensuring safe and easily accessible opportunities for physical activity; providing greater access to affordable and nutritious food; driving down smoking rates across population groups; and supporting communities in achieving goals of optimal weight. A pillar of these efforts should be a focus on children, to prevent cardiovascular disease from developing in the first place.

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2. Reduce Overdoses by Dispensing Methadone in Pharmacies and Treating Addiction in Jails and Prisons

The United States and United Kingdom face some of the same challenges of national drug policy: both have been criticized for overly criminalizing drugs and both have been reluctant to embrace certain harm-reduction strategies, including overdose-prevention sites, that are associated with fewer overdoses.

There are two areas where the U.K.'s approach can inform that of the United States: dispensing of methadone by pharmacies and treatment of people with opioid-use disorder while incarcerated.

Dispensing of Methadone

Methadone is a first-line treatment for opioid use disorder, as the medication helps patients with core symptoms like craving and withdrawal, and reduces risk of overdose by half compared to treatment without medication.⁴⁴ In the United Kingdom, patients with opioid-use disorder can access methadone at community pharmacies. U.K. pharmacy treatment protocols allow for any clinician to prescribe methadone.⁴⁵ They indicate that early in treatment, patients should be observed taking methadone in the clinic, but that patients should gradually be allowed longer periods of take-home medication.

With very few exceptions, in the United States, methadone treatment can only be dispensed through special clinics known as opioid treatment programs. While these sites are a good option for many patients, they are limited in their geographic reach, often inconvenient for patients, and reduce flexibility that could help patients who need to engage in work and other activities. Pharmacybased methadone has been shown to be feasible in small-scale trials,⁴⁶ but expanding methadone access in community pharmacies would require federal legislation.

The Modernizing Opioid Treatment Access Act represents one bipartisan approach to expanding methadone to pharmacies under the supervision of specialized addiction medicine clinicians.⁴⁷ Seeking alternative sites to provide methadone treatment can reach more patients and ultimately save more lives in the United States.

Treatment While Incarcerated

The United Kingdom applies the same health care standards to incarcerated populations that they do to the general population under the National Health Service. While there are recognized gaps in services and transitional care, the health care system provides treatment to tens of thousands of people a year while incarcerated, about half of those for opioid use disorder, with about 4 in 5 receiving pharmacological therapy.⁴⁸ This treatment is associated with fewer overdoses and reduced criminal recidivism.^{49, 50}

In the United States, it remains relatively rare for effective treatment to be provided to people for opioid-use disorder in jails and prisons. A recent survey of U.S. jails found that less than half of all facilities ever provide medication treatment, and often this is only to continue treatment started before incarceration.⁵¹ There are some important ongoing efforts to expand access, including state legislation requiring jails and prisons to use medications; grants from the Department of Justice; new waiver options for state Medicaid programs to cover treatment prior to release; and a new regulation from the Substance Abuse and Mental Health Services Administration facilitating methadone access. Following the example of the Rhode Island Department of Corrections, which comprehensively covers all effective medications, these treatments could save thousands of lives.⁵² Accelerating these and other efforts to provide routine access to effective treatment is likely to reduce overdose and improve other health outcomes.

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3. Reduce Gun Homicides and Suicide Deaths by Implementing Firearm Licensing Laws and Extreme Risk Protection Orders

The United Kingdom has some of the most stringent gun policies in the world, which contribute to its notably low rates of gun-related homicides and suicides compared to other developed countries.53,54 In the United Kingdom, firearms policy is based on the fact that gun ownership is a privilege, not a right.⁵⁵ This approach has allowed the United Kingdom to successfully regulate the availability of and easy access to firearms. These policies include limiting access to handguns and prohibiting military style weapons. In addition to prohibiting certain types of weapons, individuals must apply for a firearm or shotgun certificate to possess, buy, or acquire firearms, and demonstrate a good reason for ownership. Applicants must also undergo comprehensive background checks⁵⁵ that include criminal records, mental health evaluations, and home inspections to ensure safe storage.56

The United States is not able to adopt U.K. policies strictly limiting gun ownership because the Constitution includes a right to keep and bear arms. The Supreme Court has recently issued a series of opinions attempting to clarify the parameters of the second amendment, and is an area of emerging law. However, there are broadly popular measures that studies show are effective at reducing gun violence and are likely to withstand constitutional challenges. These policies include:

Firearm Purchaser Licensing

These laws, which are also called permit-topurchase laws, require an individual to apply for and obtain a license before purchasing a firearm. They aim to prevent people with a history of violence, those at risk for future violence or selfharm, and gun traffickers from obtaining firearms. These laws are associated with reductions⁵⁷ in the diversion of guns for use in crime and substantial population-wide reductions in homicides,⁵⁸ fatal mass shootings,⁵⁹ suicides,⁶⁰ and a 28% lower rate⁶¹ of shootings by police. Permit-to-purchase laws are supported by more than 70% of U.S. adults, including more than 60% of gun owners.⁶²

Extreme Risk Protection Orders

An extreme risk protection order, or ERPO, is a civil court order that temporarily restricts firearm access to an individual who is behaving dangerously or presents a high risk of harm to themself or others. By authorizing the temporary removal of firearms and prohibiting the individual from purchasing, possessing, or accessing firearms while the order is in effect, ERPOs provide a critical opportunity to intervene to prevent gun violence, including mass violence, homicide, and suicide.

The best available evidence on the impact of these laws suggests that for every 17 to 23 orders issued, one death by suicide is prevented.^{63, 64} Legislatures in 21 states and the District of Columbia have passed ERPO bills into law.⁶⁵ But to maximize their life-saving potential, they must be implemented fully and equitably. Recent federal legislation provides \$750 million for implementation of these initiatives and other crisis intervention initiatives.⁶⁶

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4. Reduce Teen Suicides by Building a National Community Mental Health Infrastructure

In the United Kingdom, as in the United States, there is broad recognition of a crisis in mental health affecting youth, and there are major challenges in access to care.⁶⁷ The central coordination and oversight of specialist youth mental health services by the National Health Service creates the opportunity for service standards, uniform referral procedures, and tracking of access to services. In this model, access is via a local Child and Adolescent Mental Health Services team, streamlining how youth and their families can access mental health services. A national strategy for mental health has facilitated systematic focus on increasing access and integrating services across multiple sectors.⁶⁸

This includes major expansions of prevention and early intervention services in school, though regional variation remains.⁶⁹ Integrated communitybased youth service hubs, which provide mental health, medical, community, and social services in one setting, have been successfully implemented in the United Kingdom, Ireland, Australia, and Canada, and can form a model for the United States.⁷⁰

The United States can reduce teen suicides by building a national community mental health infrastructure that mirrors the national infrastructure for crisis counseling and referral now provided by calling 988. The U.S. mental health care system is a patchwork of services that are often difficult to navigate, with costly services, a lack of providers, and long wait times. Youth and their families increasingly rely on the emergency department, the only service consistently available on a walk-in basis, to address mental health concerns. Emergency department visits for mental health concerns doubled from 2011 to 2020, with the largest increase for suicide-related visits, however, less than 20% of patients saw a mental health professional during their visit.⁷¹

Now that the United States has invested in crisis counseling via 988 to provide immediate support that may prevent the need for an ED visit, there is an opportunity to invest in comprehensive ongoing mental health care services that are easy to access in every community, including rural and historically underserved areas. A specific model worthy of more sustained and greater funding is the model of Certified Community Behavioral Health Centers, which hold promise as a "onestop shop" for access to mental health care.⁷²

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5. Reduce Motor Vehicle Crashes by Implementing Intelligent Speed Adaptation, Advanced Impaired Driving Technology, and Hazard Perception Testing

The United Kingdom has put in place several important policies to reduce motor vehicle deaths. These include stronger policies and enforcement on key issues such as speeding, alcohol-impaired driving, and driver licensing. For over 30 years, the United Kingdom has required a speed limiter for heavy commercial vehicles. This year, all new passenger vehicles sold in the United Kingdom will have intelligent speed adaptation, a system that helps drivers by advising them of the speed limit and warning them if they exceed the limit. The European Transport Safety Council estimates that intelligent speed adaptation will reduce total fatalities in the European Union by 20% when fully implemented.

The U.K. also enforces harsh penalties for impaired driving, including automatic suspensions and heavy fines, and conducts random breath testing. The rate of road deaths involving a driver with blood alcohol concentration over 0.08% in the U.K. was 18% in 2022, while in the U.S. it was 32%. The U.K. was also one of the first countries in the world to include a hazard perception test as part of a rigorous system of driver examination and licensing. The introduction of hazard perception was associated with a significant reduction in crashes among new drivers.

The U.S. could reduce motor vehicle crash deaths by nearly half, saving more than 18,000 lives a year, by adopting three new policies:

Intelligent Speed Adaptation

In the United States, speed is a factor in over 25% of crash deaths. Eliminating crash deaths due to speeding can be done through mandating intelligent speed adaptation for all new passenger vehicles. If the United States could expect the rate of savings predicted by the European Transport Safety Council, this could save over 8,000 lives each year when fully implemented.

Advanced Impaired Driving Prevention Technology

To reduce impaired driving deaths, the U.S. Department of Transportation should quickly implement the congressional mandate for advanced impaired driving prevention technology as required by the Infrastructure Investment and Jobs Act of 2021. This federal standard will require that all new vehicles have impairment prevention technology. Distinct from alcohol ignition interlocks, vehicle impairment prevention technology will be passive and preventative rather than punitive. The technology can automatically detect whether a driver is above the legal limit and prevent a drunk driver from operating the vehicle. When fully implemented, impairment prevention could eliminate one in four crash deaths, equivalent to about 10,000 lives saved per year. Public support for impairment detection systems is high, with majority of U.S. adults wanting the technology to be standard in all new vehicles.

Hazard Perception Testing

Hazard perception testing and training should be required for all new drivers through the licensing system, to better prepare them for the challenges of driving. Research underway at Johns Hopkins University is advancing this process in the U.S.

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Conclusion

In 1984, babies born in the United Kingdom and babies born in United States shared the same life expectancy. In 2023, babies born in the United Kingdom could expect to live substantially longer. Major drivers of this difference are preventable causes of death: heart disease, overdose, gun-related homicide and suicide, and motor vehicle crashes. Understanding and addressing these causes—using policies and programs based on evidence—is the path to longer life expectancy and a healthier United States of America.

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