

DYING

FOR COVERAGE

The Deadly Consequences of
Being Uninsured



**Dying for Coverage:
The Deadly Consequences of Being Uninsured**

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The number of uninsured Americans reached an all-time high in 2010, as nearly 50 million Americans went without health insurance for the entire year.¹ For many of these uninsured people, the consequences of going without coverage are dire. The uninsured frequently face medical debt or go without necessary care, and too many of them die prematurely.

In 2002, the Institute of Medicine released a groundbreaking report, *Care without Coverage: Too Little, Too Late*. This report estimated that, nationwide, 18,000 adults between the ages of 25 and 64 died in 2000 because they did not have health insurance.² Since then, the crisis of the uninsured has grown even larger. During the economic downturn, millions of Americans lost both their jobs and their health coverage, and rising health insurance premiums have priced many more out of coverage.

Thankfully, the new health care law can help stem the rising tide of the uninsured. Beginning in 2014, millions of Americans will be eligible for assistance with the cost of health coverage. In addition, insurance companies will no longer be able to deny coverage or charge higher premiums to people with pre-existing conditions. These measures, among others, will help reverse the growth in the number of uninsured Americans year after year.

The fate of the health care law, however, is now in question. The Supreme Court is currently reviewing the constitutionality of the law, and well-funded right-wing activists are intent upon securing its demise. If the law is struck down, the effects would be catastrophic. Without the law, the number of uninsured will continue to rise, and more Americans will face the adverse health and financial consequences associated with going uninsured. Millions will delay or forgo necessary care. Millions more will face unmanageable medical bills. And, worse still, many will die prematurely.

To estimate the number of Americans who are dying for lack of health coverage, Families USA applied the methodology developed by the Institute of Medicine to state-level population and mortality data. This is one measure of the great need for the Affordable Care Act. As our analysis shows, far too many Americans are, quite literally, dying for coverage.

Key Findings

- Across the nation, 26,100 people between the ages of 25 and 64 died prematurely due to a lack of health coverage in 2010 (Table 1). That works out to:
 - 2,175 people who died prematurely every month;
 - 502 people who died prematurely every week;
 - 72 people who died prematurely every day; or
 - Three every hour.
- Between 2005 and 2010, the number of people who died prematurely each year due to a lack of health coverage rose from 20,350 to 26,100 (Table 1).
- Between 2005 and 2010, the total number of people who died prematurely due to a lack of health coverage was 134,120 (Table 2).
- Each and every state sees residents die prematurely due to a lack of health insurance. In 2010, the number of premature deaths due to a lack of health coverage ranged from 28 in Vermont to 3,164 in California (Table 3).
- The five states with the most premature deaths due to uninsurance in 2010 were California (3,164 deaths), Texas (2,955 deaths), Florida (2,272 deaths), New York (1,247 deaths), and Georgia (1,161 deaths) (Table 3).

Table 1.

Deaths Due to a Lack of Health Coverage, 25- to 64-Year-Olds, 2005-2010

Year	Deaths Per Hour	Deaths Per Day	Deaths Per Week	Deaths Per Month	Total Deaths Due To Uninsurance
2005	2.3	56	391	1,696	20,350
2006	2.4	58	406	1,761	21,130
2007	2.4	57	397	1,721	20,660
2008	2.5	60	418	1,812	21,750
2009	2.8	66	464	2,011	24,130
2010	3.0	72	502	2,175	26,100

Source: Families USA calculations based on estimates by the Institute of Medicine.

Table 2.

Deaths Due to a Lack of Health Coverage, 25- to 64-Year-Olds, by State, 2005-2010

State	Total Deaths, 2005-2010	State	Total Deaths, 2005-2010
Alabama	2,668	Montana	483
Alaska	344	Nebraska	480
Arizona	3,417	Nevada	1,504
Arkansas	1,998	New Hampshire	339
California	16,285	New Jersey	2,980
Colorado	1,652	New Mexico	1,404
Connecticut	825	New York	6,481
Delaware	314	North Carolina	4,843
DC	290	North Dakota	179
Florida	12,336	Ohio	4,496
Georgia	5,624	Oklahoma	2,424
Hawaii	289	Oregon	1,687
Idaho	551	Pennsylvania	3,778
Illinois	4,946	Rhode Island	276
Indiana	2,458	South Carolina	2,927
Iowa	777	South Dakota	240
Kansas	875	Tennessee	3,483
Kentucky	2,298	Texas	15,435
Louisiana	3,346	Utah	687
Maine	398	Vermont	154
Maryland	2,075	Virginia	2,706
Massachusetts	*	Washington	2,069
Michigan	3,584	West Virginia	1,223
Minnesota	846	Wisconsin	1,204
Mississippi	2,289	Wyoming	248
Missouri	2,515	U.S. Total	134,120

Source: Families USA calculations based on estimates by the Institute of Medicine.

* Massachusetts data are not reportable because they do not reflect the state's health reform program.

Table 3.

Deaths Due to a Lack of Health Coverage, 25- to 64-Year-Olds, By State, 2010

State	Deaths Per Week	Deaths Per Month	Total Deaths, 2010
Alabama	10	43	512
Alaska	1	5	59
Arizona	12	52	621
Arkansas	8	33	394
California	61	264	3,164
Colorado	5	23	280
Connecticut	3	15	178
Delaware	1	5	56
District of Columbia	1	4	51
Florida	44	189	2,272
Georgia	22	97	1,161
Hawaii	1	4	50
Idaho	2	11	129
Illinois	19	84	1,012
Indiana	10	42	499
Iowa	3	15	177
Kansas	3	14	171
Kentucky	8	36	436
Louisiana	13	57	679
Maine	1	6	67
Maryland	8	33	398
Massachusetts	*	*	*
Michigan	15	64	763
Minnesota	4	16	193
Mississippi	9	39	470
Missouri	9	38	461
Montana	2	8	99
Nebraska	2	8	92

Table 3 cont'd.

Deaths Due to a Lack of Health Coverage, 25- to 64-Year-Olds, By State, 2010

State	Deaths Per Week	Deaths Per Month	Total Deaths, 2010
Nevada	6	27	320
New Hampshire	1	5	61
New Jersey	11	49	583
New Mexico	5	21	251
New York	24	104	1,247
North Carolina	18	78	931
North Dakota	1	3	36
Ohio	17	76	907
Oklahoma	9	38	452
Oregon	6	24	293
Pennsylvania	14	62	745
Rhode Island	1	5	56
South Carolina	12	52	625
South Dakota	1	4	46
Tennessee	12	53	633
Texas	57	246	2,955
Utah	2	11	126
Vermont	**	2	28
Virginia	11	48	574
Washington	8	35	419
West Virginia	4	19	223
Wisconsin	5	22	270
Wyoming	1	4	51
U.S. Total	502	2,175	26,100 ***

Source: Families USA calculations based on estimates by the Institute of Medicine.

*Massachusetts data are not reportable because they do not reflect the state's health reform program.

**One Vermonter dies every two weeks due to lack of health coverage.

*** Total does not add due to rounding.

Why Insurance Matters

The uninsured are less likely to have a usual source of care outside of the emergency room.

- Uninsured adults are five times less likely to have a regular source of care than the insured (55 percent versus 11 percent).³
- More than half (51 percent) of the uninsured adults who tried to find a new primary care doctor in the past three years reported that it was “somewhat difficult” or “very difficult,” with one in five (20 percent) responding that it was “very difficult.”⁴
- More than two in five uninsured adults (41 percent) reported that a doctor’s office or clinic from which they sought primary care would not accept them as a new patient.⁵

The uninsured often go without screenings and preventive care.

- Uninsured adults are nearly four times more likely than insured adults to delay or forgo getting a preventive care screening due to cost (36 percent versus 10 percent).⁶
- Uninsured women over the age of 50 were about half as likely to have gotten a mammogram in the past two years as insured women (42 percent versus 79 percent).⁷
- Lower-income uninsured people (those with incomes below 250 percent of the federal poverty level) aged 50 to 64 were five times less likely (10 percent versus 50 percent) than insured people in the same age group to have gotten a colon cancer screening in the past five years.⁸

The uninsured often delay or forgo needed medical care.

- Uninsured adults are more than six times as likely as privately insured adults to go without needed care due to cost (26 percent versus 4 percent).⁹
- Cancer patients without health insurance are more than five times more likely to delay or forgo cancer-related care because of medical costs than insured patients (27 percent versus 5 percent).¹⁰

Uninsured Americans are sicker and die earlier than those who have insurance.

- Uninsured adults are more likely to be diagnosed with a disease in an advanced stage. For example, uninsured women are substantially more likely to be diagnosed with advanced stage breast cancer than women with private insurance,¹¹ as are uninsured people with colorectal cancer.¹²
- Uninsured adults are at least 25 percent more likely to die prematurely than adults with private health insurance.¹³

The uninsured pay more for medical care.

- Uninsured patients are unable to negotiate the discounts on hospital and doctor charges that insurance companies do. As a result, uninsured patients are often charged more than 2.5 times what insured patients are charged for hospital services.¹⁴
- Three out of five uninsured adults (60 percent) under the age of 65 report having problems with medical bills or medical debt.¹⁵

Endnotes

¹ Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States: 2010* (Washington: U.S. Census Bureau, September 2011).

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⁴ Sara R. Collins, Ruth Robertson, Tracy Garber, and Michelle M. Doty, *The Income Divide in Health Care: How the Affordable Care Act Will Help Restore Fairness to the U.S. Health System* (New York: The Commonwealth Fund, February 2012).

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⁶ Sara R. Collins, Michelle M. Doty, Ruth Robertson, and Tracy Garber, *Help on the Horizon: How the Recession Has Left Millions of Workers without Health Insurance, and How Health Reform Will Bring Relief* (New York: The Commonwealth Fund, March 2011).

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¹¹ Daniel T. Farkas, Arie Greenbaum, Vinay Singhal, and John M. Cosgrove, "Effect of Insurance Status on the Stage of Breast and Colorectal Cancers in a Safety-Net Hospital," *The American Journal of Managed Care* 18, Special Issue no. 2 (May 2012): SP65-SP70; Michael Halpern, John Bian, Elizabeth Ward, Nicole Schrag, and Amy Chen, "Insurance Status and Stage of Cancer at Diagnosis among Women with Breast Cancer," *Cancer* 110, no. 2 (June 11, 2007): 403-411; Cathy J. Bradley, David Neumark, Lisa M. Shickle, and Nicholas Farrell, "Differences in Breast Cancer Diagnosis and Treatment: Experiences of Insured and Uninsured Women in a Safety Net Setting," *Inquiry* 45, no. 3 (Fall 2008): 323-339.

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¹⁴ Gerard Anderson, "From 'Soak the Rich' to 'Soak the Poor': Recent Trends in Hospital Pricing," *Health Affairs* 26, no. 3 (May/June 2007): 780-789.

¹⁵ Sara R. Collins, Michelle M. Doty, Ruth Robertson, and Tracy Garber, op. cit.

Methodology

To estimate the number of lives that are lost due to uninsurance among the working-age population in the United States, Families USA applied the methodology developed by the Institute of Medicine (IOM) in 2002 to current data.¹ This methodology was based on research that found that, after controlling for numerous factors, the absence of insurance coverage increases mortality by an average of 25 percent for adults aged 25-64.² In 2009, IOM issued a follow-up report that concluded that more recent research confirmed the earlier findings about the effect of insurance on mortality, explaining that “the body of evidence on the effects of uninsurance on adults’ health has strengthened considerably since 2002.”³

The original IOM report estimated mortality effects algebraically, solving for UD, the number of individuals who would have died if the entire population had health coverage. Its analysis began with the obvious fact that the total number of deaths in a population is the sum of deaths among the insured and deaths among the uninsured. The number of deaths among the insured can be represented as the product of (a) the percentage of the population with health coverage and (b) the number who would die if everyone had health coverage. The number of deaths among the uninsured is likewise the product of (a) the percentage of the population without health coverage and (b) the number of total deaths if everyone had health coverage, increased by 25 percent, based on the above-described finding that uninsurance increases mortality by 25 percent. Expressed algebraically:

let PI = the percentage of the population with insurance;

let PU = the percentage of the population without insurance;

let AD = the number of actual deaths; and

let UD = the number of deaths that would result if coverage were universal.

Accordingly:

$$AD = (UD * PI) + (UD * 1.25 * PU) = UD * (PI + (1.25 * PU))$$

As a result:

$$UD = AD / (PI + (1.25 * PU))$$

and the number of lives lost because of uninsurance is:

$$AD - UD.$$

Applying the IOM methodology to estimate the annual mortality effects of uninsurance within a given population of adults aged 25 through 64 thus requires the following three data points:

- The size of the population;
- The population's mortality rate, which, together with total population size, allows a calculation of the number of deaths; and
- The percentage of the population that is uninsured.

Like the IOM, Families USA applied this analysis to uninsured adults in four age groups: 25-34, 35-44, 45-54, and 55-64, using data for 2005 through 2010. The resulting mortality estimates were summed to show the overall number of deaths attributable to an absence of insurance coverage among adults aged 25-64.

For 2005 through 2010, Families USA determined the total number of adults within each 10-year age band and the percentage who lacked health coverage based on the U.S. Census Bureau's Current Population Survey (CPS) data. To calculate the number of deaths for a given year, we applied to each 10-year cohort the age-specific, state-specific annual mortality rate reported by the Centers for Disease Control and Prevention's National Center for Health Statistics. We used final mortality rate estimates through 2009. For 2010, we projected a mortality rate for each age group based on the average mortality rate among each age group for 2005 through 2009. We applied these same state-specific mortality rates to state estimates of population size and insurance status from the CPS.

For several reasons, this methodology underestimates the mortality effects of uninsurance:

- Our mortality estimates ignore the benefits of health insurance for individuals under 25 years of age. Even for children, recent research has shown that the absence of insurance increases mortality.⁴
- Like the IOM, we calculated the mortality effects of uninsurance within 10-year age bands rather than for all adults aged 25-64. This lowered our mortality estimates by more than 15 percent, according to the findings of observers who conclude that the alternative, higher mortality estimates are sounder, since the studies on which the IOM relied analyzed the effect of insurance on the entire population of adults aged 25-64, rather than on each 10-year cohort.⁵

- The IOM's finding that the absence of insurance raises mortality rates by 25 percent fails to account for the increasing effectiveness of health care in preserving health and saving lives. A study published by Harvard Medical School researchers late in 2009 that used more recent data found that the lack of health insurance now raises mortality rates by 40 percent.⁶ If we had applied the latter estimate of the impact of uninsurance on mortality, rather than the 25 percent figure used by the IOM, our mortality estimates would have increased substantially.

In short, our numbers are best viewed as conservative estimates of the general magnitude of lives lost because of uninsurance, rather than a precise and certain “body count.”

¹ Institute of Medicine, *Care without Coverage: Too Little, Too Late* (Washington: IOM, May 2002).

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⁴ One recent study found, after controlling for multiple factors, that in-hospital mortality rates were 60 percent higher for uninsured than insured children. Out of an estimated 38,649 hospital deaths among uninsured children over an 18-year period, 16,787 deaths, or 37.8 percent, may have been prevented by health insurance. Fizan Abdullah, Yiyi Zhang, Thomas Lardaro, Marissa Black, Paul M. Colombani, Kristin Chrouser, Peter J. Pronovost, and David C. Chang, “Analysis of 23 Million U.S. Hospitalizations: Uninsured Children Have Higher All-Cause In-Hospital Mortality,” *Journal of Public Health* 32, no. 2 (June 2010): 236–244, first published online on October 29, 2009; pp. 1–9.

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⁶ Andrew P. Wilper, Steffie Woolhandler, Karen E. Lasser, Danny McCormick, David H. Bor, and David U. Himmelstein, “Health Insurance and Mortality in U.S. Adults,” *American Journal of Public Health* 99, no. 12 (December 2009): 2,289–2,295.

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