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## Utah's Invisible Workforce: The Economic Contributions and Health Impacts of Family Caregiving

As the need for family caregiving is expected to grow over the next decade, there are concerns about the mental and physical toll it places on Utah's caregivers.

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# Utah's Invisible Workforce: The Economic Contributions and Health Impacts of Family Caregiving 

## Analysis in Brief

About 1 in 5 Utahns (more than 400,000 Utah adults) care for a family member or friend with a serious health problem or disability, providing $\$ 5.1$ billion worth of services annually. By 2030, there may be more than 100,000 additional Utah family caregivers, as the need for caregiving grows along with a growing and aging population. Utah's family caregivers, particularly those with children at home, have worse mental and physical health outcomes compared to peer-group noncaregivers. These two findings combine to suggest more Utah adults will require time, resources, and mental and physical health support to provide care to family members or friends with health problems or disabilities.

The Number of Family Caregivers is Expected to Increase as Utah's Population Ages and Grows, 2015-2030


Note: Data are unavailable for Utah in 2018; count shown for 2018 is an estimate. Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

Utah's Family Caregivers are More Likely to Report Poor Health Outcomes Compared to their Non-Caregiving Peers, 2015-2020


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## Key Findings

- Currently, 1 in 5 Utah adults $(436,000)$ provide informal (primarily unpaid) care to family members or friends with health problems or disabilities.
- The need for family caregivers is expected to grow faster than the overall population in Utah. By 2030, it is estimated that 115,000 additional Utahns will be family caregivers-an increase of nearly $30 \%$ over the next decade. The projected increase in the number of caregivers is based on expected population growth in older age groups and the growing prevalence of health difficulties among Utahns.
- The care that Utah caregivers offer today is valued at \$5.1 billion and is projected to exceed $\mathbf{\$ 6 . 5}$ billion in 2030. This valuation is based on the amount it would cost to replace the services family caregivers provide with paid professional care.
- Nearly 1 in 5 Utahns age 35-54 serve as a caregiver, many of whom could also be raising families and working part- or full-time.
- Family caregivers provide care in a wide variety of contexts. Family caregivers support children with health problems or disabilities (12\%), spouses/live-in partners (16.5\%), parents (35.1\%), other relatives (22.3\%) as well as nonfamily members (13.1\%). Almost 1 in 4 family caregivers provide care to a family member or friend experiencing older age, frailty, or dementia.
- The amount of time spent providing family care can be significant. About 40\% of Utah's family caregivers provided care equivalent to a part-time or full-time job. Almost 1 in 3 family caregivers has provided family care for at least 5 years.
- Family caregiving negatively impacts the health and well-being of caregivers. Family caregivers are more likely to report poor mental health than their peer group of non-caregivers. These caregivers are also more likely to report recent episodes of poor physical health compared to their non-caregiver peers. In many cases, the negative impact is worse for caregivers with children age 18 or under living at home.


## Overview of Utah's Family Caregivers

More than 400,000 Utah adults care for a family member or friend with a serious health problem or disability, providing $\$ 5.1$ billion worth of services as of 2020 . This report examines the impact of informal (primarily unpaid) caregiving on the health of Utah's family caregivers and the growing need for family caregivers in Utah over the next decade. ${ }^{1}$ This report was prepared for the Family Caregiving Collaborative, an interdisciplinary organization led by the College of Nursing at the University of Utah.

The need for family caregivers in Utah is likely to grow faster than the state's population over the next decade, as the proportion of the state's older-age population increases. The number of Utahns with health difficulties is also projected to increase, likely requiring comparable increases in family caregiving support. The report also demonstrates that family caregivers experience worse physical and mental health outcomes compared to peer-group non-caregivers. The projected increase in family caregivers means more Utah adults may require time, resources, and mental and physical health support to provide care to family members or friends with health problems or disabilities.

This section summarizes the demographics of Utah's family caregivers and the circumstances of the care they provide.

The projected increase in family caregivers means more Utah adults may require time, resources, and mental and physical health support to provide care to family members or friends with health problems or disabilities.

Nearly one in five Utahns age 35-54 serve as a caregiver, many of whom could also be raising families and working part- or full-time.

## Data and Definitions

Data on caregiving is provided by the Behavioral Risk Factor Surveillance System (BRFSS), a large national survey organized by the U.S. Centers for Disease Control and Prevention (CDC), and carried out by state health departments. Some BRFSS survey questions are asked of all interviewees, while others are part of topic-specific modules that states may elect to ask their residents. The questions pertaining to caregiving are part of the "Caregiver" module. This module has been available to states since 2015, and Utah has participated in it every year except 2018.

Table 1: Prevalence of Utah Family Caregiving by Demographic Group, 2015-2020

| Age | $18-34$ | Prevalence |
| :--- | :--- | :--- |
|  | $35-54$ | $15.6 \%(14.4 \%-16.8 \%)$ |
|  | $55-64$ | $19.3 \%(18.2 \%-20.4 \%)$ |
|  | $65+$ | $26.9 \%(25.1 \%-28.6 \%)$ |
| Sex | Female | $22.4 \%(21.1 \%-23.7 \%)$ |
|  | Male | $22.5 \%(21.5 \%-23.4 \%)$ |
|  | Rural | $16.4 \%(15.5 \%-17.3 \%)$ |
|  | Urban | $22.8 \%(19.6 \%-26.0 \%)$ |
| Race | Minority | $19.2 \%(18.2 \%-20.1 \%)$ |
|  | Non-Minority | $15.1 \%(13.5 \%-16.6 \%)$ |

Note: $95 \%$ confidence intervals are shown in parentheses.
Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

6 Our country is facing a growing demand for family caregivers and the wide range of care services they provide to care recipients. Family caregivers often go unrecognized and thus are unsupported in maintaining their health and well-being. Indeed, family caregiving is acknowledged to be an impending public health crisis for our nation and Utah is not exempt.

The \$5.1 billion worth of services caregivers provide depends on a healthy "workforce." Should this growing number of caregivers be unable to sustain care due to compromised mental or physical health, the costs of these unfulfilled services will be felt across our bealth care system.

[^1]
# "The typical family caregiver is 49, female, taking care of her widowed mother, and juggling her career and family." 

-Women's Institute for a Secure Retirement, 2019

## Who are Utah's Caregivers?

One of the nine questions included in the Caregiver module allows the interviewee to indicate if they are a family caregiver: "During the past 30 days, did you provide regular care or assistance to a friend or family member who has a health problem or disability?" ${ }^{2}$ Projecting the survey sample results onto the state's population indicates that about 19\% of Utah adults (436,000 Utahns) were informal (primarily unpaid) family caregivers in 2020. ${ }^{3,4}$

Table 1 shows the prevalence of caregiving by demographic group. Caregiving is provided by individuals of all ages and generally increases with age. Of note, nearly one in five Utahns age 35-54 serve as a caregiver, many of whom could also be raising families and working part- or full-time. Females are significantly more likely than males to identify as caregivers ( $22.5 \%$ vs. $16.4 \%$ ). Residents of rural Utah counties are more likely to identify as family caregivers than residents of urban Utah counties, potentially because of increased access to paid professional caregiving in urban areas. Non-minorities are more likely to identify as family caregivers than minorities ( $20.6 \%$ vs. $15.1 \%$ ). In general, these numbers are likely an underrepresentation, as not all persons who engage in caregiving identify as a "caregiver." Instead, many see themselves as simply fulfilling the roles and responsibilities of being a family member, friend, or neighbor. This is especially common among certain ethnic groups in which collectivism and familism is a cultural norm (Harvath et al., 2020; Pinquart \& Sörensen, 2005).

## "2019 data from AARP and NAC [National

 Alliance for Caregiving] shows that a third (31 percent) of all caregivers of adults reported it was "very difficult" or "somewhat difficult."This difficulty is universal, across all age groups under 75, all genders, and all income groups, among other variables."
—Marshall, 2021

Figure 1: Relationship between Utah Family Caregivers and Care Recipients, 2015-2020


Note: Error bars represent 95\% confidence intervals.
Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

## Caregiving Contexts

The BRFSS Caregiver module also provides information on the relationship between Utah family caregivers and care recipients. Figure 1 shows that about one in three family caregivers provide care for a parent or in-law, one in six for a spouse or live-in partner, and about one in eight for a child (the remainder provide care for other relatives or friends/non-relatives).
Family caregivers provide care for a variety of diverse health conditions and disabilities. Table 2 shows the major health problems of family care recipients in Utah. About 15\%, or 66,090, of caregivers report "old age / infirmity / frailty" as the major general health problem of those to whom they provide care. About $8 \%$, or 33,000 , of Utah's caregivers indicate cognitive concerns, such as Alzheimer's or dementia, as the top specific health problem of their care recipient. Other top specific concerns include mental health (reported by $7 \%$, or 30,000 caregivers), cancer ( $6 \%$, or 26,000 caregivers), developmental disabilities ( $6 \%$, or 25,000 caregivers), heart disease / hypertension / stroke (5.5\%, or 24,000 caregivers), and diabetes ( $5 \%$, or 22,000 caregivers). The remainder, about one in three caregivers, indicated "other" or declined to indicate the recipient's health problem.
> " High intensity of care impacts caregiver health and the caregiving role in multiple domains; new clinical and policy approaches are needed to mitigate risks and ensure adequate support."
> -Bell et al., 2019

Table 2: Major Health Problems of the Care Recipients, 2015-2020

| Problem | Prevalence | Count |
| :---: | :---: | :---: |
| Old age / infirmity / frailty | 15.4\% | 66,090 |
| Alzheimer's disease, dementia or other cognitive impairment disorder | 7.8\% | 33,447 |
| Injuries, including broken bones | 7.6\% | 32,654 |
| Mental illnesses, such as anxiety, depression, or schizophrenia | 6.9\% | 29,713 |
| Cancer | 6.1\% | 26,072 |
| Developmental disabilities such as autism, Down's Syndrome, and spina bifida | 5.8\% | 24,941 |
| Heart disease, hypertension, stroke | 5.5\% | 23,718 |
| Diabetes | 5.1\% | 21,929 |
| Arthritis / rheumatism | 2.6\% | 11,269 |
| Chronic respiratory conditions such as emphysema or COPD | 2.3\% | 9,859 |
| Other organ failure or diseases such as kidney or liver problems | 2.0\% | 8,562 |
| Substance abuse or addiction disorders | 0.5\% | 1,972 |
| Asthma | 0.4\% | 1,635 |
| Human Immunodeficiency Virus Infection (H.I.V.) | 0.0\% | 212 |
| Other / don't know / refused | 32.1\% | 137,780 |

Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

## A sizable segment of Utah's caregiver

 population ( $8 \%$, or 35,000 caregivers) provides both high-intensity (at least 40 hours per week) and long-duration (at least 5 years) care.A caregiver's experience can vary by care intensity and duration of care. As shown in Table 3, about one in six Utah family caregivers provides care for at least 40 hours per week. Almost $40 \%$ spend the equivalent of a part-time or full-time job (9+ hours per week) in caregiving activities. Nearly $30 \%$ have provided care for at least 5 years. A sizable segment of Utah's caregiver population ( $8 \%$, or 35,000 caregivers) provides both high-intensity (at least 40 hours per week) and long-duration (at least 5 years) care. Most caregivers help with household tasks (82.4\%), such as cooking, cleaning the living space, or managing finances. Nearly half provide personal care (48.1\%), which may include bathing, dressing, feeding, or providing medication.

Table 3: Family Caregiving by the Context of Care, 2015-2020

| Context | Prevalence |  | Count |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Est. | 95\% Cl | Est. | 95\% Cl |
| Up to 8 hours per week | 61.7\% | 59.9\%-63.5\% | 265,249 | 257,446-273,053 |
| 9-19 hours per week | 13.6\% | 12.3\%-14.9\% | 58,482 | 53,023-63,941 |
| 20-39 hours per week | 8.3\% | 7.3\%-9.2\% | 35,635 | 31,514-39,757 |
| 40 hours or more | 16.4\% | 15.0\%-17.8\% | 70,487 | 64,483-76,491 |
| Less than 30 days | 20.2\% | 18.7\%-21.7\% | 86,951 | 80,505-93,397 |
| 1 month to less than 6 months | 14.9\% | 13.5\%-16.3\% | 64,103 | 58,097-70,108 |
| 6 months to less than 2 years | 17.3\% | 15.9\%-18.6\% | 74,168 | 68,267-80,069 |
| 2 years to less than 5 years | 18.0\% | 16.6\%-19.3\% | 77,166 | 71,202-83,129 |
| 5 or more years | 29.7\% | 28.0\%-31.4\% | 127,467 | 120,169-134,764 |
| 5 or more years and 40 hours or more | 8.2\% | 7.1\%-9.2\% | 35,213 | 30,681-39,745 |
| Alzheimer's Disease or Dementia | 7.8\% | 6.8\%-8.7\% | 33,447 | 29,359-37,535 |
| Cancer | 6.1\% | 5.2\%-7.0\% | 26,072 | 22,152-29,992 |
| COPD | 2.3\% | 1.7\%-2.9\% | 9,859 | 7,443-12,275 |
| Diabetes | 5.1\% | 4.1\%-6.1\% | 21,929 | 17,745-26,114 |
| Personal Care | 48.1\% | 46.3\%-50.0\% | 206,773 | 198,809-214,738 |
| Household Tasks | 82.4\% | 81.0\%-83.8\% | 354,267 | 348,336-360,199 |

Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

This report provides projections of the growing need for family caregiving in Utah through 2030 by examining population growth, trends in serious health difficulties, and the related value of care. These projections combine the Kem C. Gardner Policy Institute's long-term Utah population projections (Hollingshaus et al., 2022) with trends in the rates of serious health difficulties that may require caregiving.

Several features of Utah's expected population growth over the next 10 years are particularly relevant for projecting trends in family caregiving. First, Utah's population is expected to grow by almost 600,000 by 2030. From this alone, one can anticipate an increased need for caregiving. Second, the share of Utah's population age 65+ is expected to increase, from 12\% in 2020 to $15 \%$ in 2030 (from $9 \%$ in 2010). Third, the share of those age 65 and over will continue to be larger-and increase-in rural counties ( $13.7 \%$ in 2020 to $17.5 \%$ in 2030) than in urban counties ( $10.9 \%$ in 2020 to $14.1 \%$ in 2030). These expected changes in the size and demographic composition of Utah's population are incorporated into the projections of family caregiving. The projections also reflect trends in the rate of health difficulties by demographic group.

The projections show that the number of family caregivers in Utah will increase by approximately 115,000 over the next decade, from 436,000 in 2020 to 552,000 in 2030. This is a faster rate of increase than the overall Utah population ( $26 \%$ for Utah's family caregivers vs. $18 \%$ for the overall Utah population).

As noted above, family caregivers perform a valuable service but are typically not paid. One way to quantify the value of these services is to calculate the cost to replace them with paid professional caregivers. This calculation shows that Utah's family caregivers provided $\$ 5.1$ billion worth of services in 2020 . The value of family caregiving is expected to increase by $\$ 1.5$ billion by 2030 as the need for family caregiving continues to grow.

> The projections show that the number of family caregivers in Utah will increase by approximately 115,000 over the next decade

## Projection Methods

With older age groups set to claim a larger share of Utah's population over time, the need for caregiving is expected to grow. The approach used to project this growing need for family caregiving in Utah is described below. It combines the Gardner Institute's long-term population projections with projections of the prevalence of health difficulties that may signal a need for caregiving. This is analyzed for different demographic groups in order to account for expected changes in the demographic composition of the population (e.g., Utah's population ages), as well as potential variation in the prevalence of health difficulties across the same groups (e.g., older age groups are more likely to report health difficulties).

Persons with health difficulties are identified using data from the American Community Survey (ACS), based on an affirmative response to any of the following questions (Ruggles et al., 2022):

1. Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions?
2. Does this person have serious difficulty walking or climbing stairs?
3. Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?
4. Does this person have difficulty dressing or bathing?
5. Is this person deaf or does he/she have serious difficulty hearing? Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?
"States do not have an adequate supply of direct care workers to meet the needs of older adults and people with disabilities. Funding family caregiver supports and services, especially Medicaid consumer-directed programs, can be an effective policy strategy to expand workforce capacity to enable people to live in the community."
—National Academy for State Health Policy, 2022

Table 4: Prevalence of Health Difficulties by Demographic Group, 2015-2020

|  |  | Prevalence |
| :---: | :---: | :---: |
| Age | 0-9 | 2.2\% (1.9\%-2.4\%) |
|  | 10-14 | 4.7\% (4.2\%-5.1\%) |
|  | 15-19 | 6.8\% (6.3\%-7.3\%) |
|  | 20-24 | 7.1\% (6.5\%-7.6\%) |
|  | 25-29 | 6.6\% (6.1\%-7.2\%) |
|  | 30-34 | 6.9\% (6.3\%-7.5\%) |
|  | 35-39 | 6.9\% (6.3\%-7.5\%) |
|  | 40-44 | 7.7\% (7.1\%-8.4\%) |
|  | 45-49 | 9.1\% (8.4\%-9.9\%) |
|  | 50-54 | 11.3\% (10.5\%-12.1\%) |
|  | 55-59 | 14.9\% (14.0\%-15.8\%) |
|  | 60-64 | 17.7\% (16.7\%-18.7\%) |
|  | 65-69 | 20.2\% (19.0\%-21.5\%) |
|  | 70-74 | 25.9\% (24.5\%-27.4\%) |
|  | 75-79 | 35.8\% (33.8\%-37.8\%) |
|  | 80+ | 59.3\% (57.5\%-61.1\%) |
| Sex | Female | 11.2\% (11.0\%-11.5\%) |
|  | Male | 11.8\% (11.5\%-12.1\%) |
| Area | Rural | 13.3\% (12.8\%-13.7\%) |
|  | Urban | 11.0\% (10.8\%-11.3\%) |

Note: $95 \%$ confidence intervals shown in parentheses.
Source: U.S. Census Bureau, American Community Survey (data) and the Kem C. Gardner Policy Institute (analysis).

## Projections of Health Difficulties

Between 2015 and 2020, 11.5\% of the Utah population indicated a health difficulty. As shown in Table 4, the rate of health difficulties is strongly related to age and increases sharply at around age 50. About 7\% of Utah's population age 20-30 indicate a health difficulty. By age 60, the prevalence has increased to about 20\%. Three-fifths of Utah's population age 80+ report health difficulties. This suggests that as Utah's population ages, the overall rate of health difficulties, and the need for caregiving, will increase. Combined with the expected increase in Utah's overall population, it is projected that the number of Utah's family caregivers will increase at a faster rate than Utah's population. As Table 4 also shows, the rate of health difficulties is similar between males and females (though the difference is statistically significant), and somewhat higher for rural populations.

The rate of health difficulties is projected separately for each combination of age, sex, and area (64 demographic groups in all). ${ }^{5}$ Multiplying these group-specific rates by the projected population for the same group yields the expected number of persons in that demographic group who have health difficulties. The sum of these counts across the 64 groups indicates the total number of persons expected to have health difficulties in Utah.

Figure 2 shows the overall projected number of persons with health difficulties in Utah from 2021-2030. The number is projected to increase from about 344,000 persons in 2020 to

Figure 2: Historical and Projected Number of Utahns with Significant Health Difficulties, 2005-2030


Source: U.S. Census Bureau, American Community Survey (data) and the Kem C. Gardner Policy Institute (analysis).

400,000 by 2030.
Table 5 shows the historical and projected number and share of persons with health difficulties, disaggregated by rural and urban areas. The prevalence of health difficulties is consistently higher in rural areas. A simple analysis suggests that differences in demographic composition (age and sex) between urban and rural areas accounts for about one-third of this difference.

## Projections of Utah Family Caregiving

Utah has one of the highest ratios of family caregivers to persons with health difficulties (1.36). Other states have ratios that run from 0.85 (Montana) to 1.52 (Maryland). Utah's high rate may reflect a preference for family caregiving (rather than paid/ formal care), or a lack of available professional caregivers such as nursing and home health aides. This ratio is used to project the number of future family caregivers from the projected number of Utahns with significant health difficulties.

Table 6 shows the historical and projected prevalence of health difficulties and number of family caregivers that would be required to meet this need. It also shows the annual number of hours spent providing family caregiving and the economic value of these hours. The economic value represents the cost of providing care if these hours ( 832 per year, per caregiver, on average) had to be replaced with professional caregivers. The replacement cost is estimated using average wages for Home Health and Personal Care Aides and Maid and Housekeeping Cleaners (as in Rabarison et al., 2018). These wages were $\$ 14$ per hour in 2021. ${ }^{6}$ Based on projected population growth and the increase in health care difficulties, the value of family caregiving services in Utah is estimated to exceed $\$ 6.5$ billion in 2030. ${ }^{7.8}$ This compares to $\$ 4.2$ billion in 2015 , an increase of $55 \%$.

Table 5: Historical and Projected Number and Rate of Utahns with Significant Health Difficulties, Rural and Urban, 2005-2030

| Year | Rural |  |  | Urban |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Population | Pop. with Health Difficulties | Rate of Health Difficulties | Total Population | Pop. with Health Difficulties | Rate of Health Difficulties |
| 2005 | 487,076 | 61,321 | 12.6\% | 1,970,643 | 198,312 | 10.1\% |
| 2006 | 496,975 | 62,900 | 12.7\% | 2,028,532 | 206,994 | 10.2\% |
| 2007 | 509,695 | 61,814 | 12.1\% | 2,088,051 | 213,280 | 10.2\% |
| 2008 | 523,314 | 55,188 | 10.5\% | 2,139,715 | 189,647 | 8.9\% |
| 2009 | 535,682 | 55,927 | 10.4\% | 2,187,739 | 195,755 | 8.9\% |
| 2010 | 543,511 | 53,522 | 9.8\% | 2,229,156 | 191,482 | 8.6\% |
| 2011 | 550,772 | 59,491 | 10.8\% | 2,271,318 | 196,197 | 8.6\% |
| 2012 | 558,127 | 61,813 | 11.1\% | 2,309,277 | 214,189 | 9.3\% |
| 2013 | 563,144 | 63,727 | 11.3\% | 2,342,877 | 224,199 | 9.6\% |
| 2014 | 568,047 | 60,529 | 10.7\% | 2,378,942 | 231,755 | 9.7\% |
| 2015 | 575,703 | 65,796 | 11.4\% | 2,428,088 | 238,728 | 9.8\% |
| 2016 | 582,996 | 68,611 | 11.8\% | 2,479,388 | 246,242 | 9.9\% |
| 2017 | 590,973 | 67,154 | 11.4\% | 2,531,504 | 248,272 | 9.8\% |
| 2018 | 598,990 | 65,255 | 10.9\% | 2,577,351 | 251,061 | 9.7\% |
| 2019 | 604,453 | 66,944 | 11.1\% | 2,626,655 | 236,849 | 9.0\% |
| 2020 | 610,214 | 77,142 | 12.6\% | 2,674,610 | 267,353 | 10.0\% |
| Projected |  |  |  |  |  |  |
| 2021 | 620,321 | 66,753 | 10.8\% | 2,723,231 | 257,345 | 9.4\% |
| 2022 | 628,462 | 68,866 | 11.0\% | 2,774,893 | 264,646 | 9.5\% |
| 2023 | 637,776 | 70,580 | 11.1\% | 2,827,963 | 271,793 | 9.6\% |
| 2024 | 646,554 | 72,346 | 11.2\% | 2,881,678 | 278,982 | 9.7\% |
| 2025 | 654,244 | 73,963 | 11.3\% | 2,935,311 | 286,136 | 9.7\% |
| 2026 | 659,612 | 75,407 | 11.4\% | 2,988,337 | 293,236 | 9.8\% |
| 2027 | 666,977 | 77,146 | 11.6\% | 3,040,388 | 300,616 | 9.9\% |
| 2028 | 674,498 | 78,920 | 11.7\% | 3,091,310 | 308,068 | 10.0\% |
| 2029 | 681,964 | 80,738 | 11.8\% | 3,141,083 | 315,475 | 10.0\% |
| 2030 | 689,264 | 82,608 | 12.0\% | 3,189,897 | 322,916 | 10.1\% |

Source: U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).
Table 6: Health Difficulties and Caregiving, 2015-2030

| Year | Total Population | Health Difficulties |  | Persons | Family Caregiving |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Persons | Prevalence |  | Hours | Economic Value |
| 2015 | 3,003,791 | 304,524 | 10.1\% | 449,827 | 374,256,208 | \$4,248,738,242 |
| 2016 | 3,062,384 | 314,853 | 10.3\% | 379,196 | 315,490,996 | \$3,747,140,796 |
| 2017 | 3,122,477 | 315,426 | 10.1\% | 423,789 | 352,592,178 | \$4,420,060,276 |
| 2018 | 3,176,342 | 316,316 | 10.0\% |  | not available |  |
| 2019 | 3,231,108 | 303,792 | 9.4\% | 460,115 | 382,815,524 | \$5,262,190,301 |
| 2020 | 3,284,823 | 344,495 | 10.5\% | 436,341 | 363,035,963 | \$5,134,400,308 |
| Projected |  |  |  |  |  |  |
| 2021 | 3,343,552 | 324,098 | 9.7\% | 440,773 | 366,722,945 | \$5,235,877,183 |
| 2022 | 3,403,355 | 333,512 | 9.8\% | 453,577 | 377,375,860 | \$5,387,973,899 |
| 2023 | 3,465,739 | 342,373 | 9.9\% | 465,628 | 387,402,156 | \$5,531,124,066 |
| 2024 | 3,528,231 | 351,328 | 10.0\% | 477,806 | 397,534,876 | \$5,675,793,706 |
| 2025 | 3,589,554 | 360,099 | 10.0\% | 489,734 | 407,458,941 | \$5,817,484,287 |
| 2026 | 3,647,948 | 368,643 | 10.1\% | 501,354 | 417,126,863 | \$5,955,517,788 |
| 2027 | 3,707,365 | 377,762 | 10.2\% | 513,756 | 427,445,106 | \$6,102,836,228 |
| 2028 | 3,765,808 | 386,987 | 10.3\% | 526,303 | 437,883,961 | \$6,251,876,713 |
| 2029 | 3,823,047 | 396,213 | 10.4\% | 538,850 | 448,322,866 | \$6,400,917,898 |
| 2030 | 3,879,162 | 405,524 | 10.5\% | 551,512 | 458,858,235 | \$6,551,336,354 |

Note: Economic value is the amount it would cost to replace the services provided by family caregivers with paid professional caregivers providing similar services. The estimates of value shown in this table are inflation-adjusted to 2021. For years 2015-2021, inflation-adjusted actual wages are used; for years 2022-2030 inflation-adjusted wage rates are held at the same value as in 2021.
Source: U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis)..

## Effects of Caregiving on Utah's Family Caregivers

With the expected increase in family caregiving in the state over the next 10 years, it is important to understand any negative impacts of caregiving. This section assesses the impacts of caregiving on the mental, physical, and healthy behaviors of Utah's family caregivers. Impacts are estimated as the difference in health outcomes between family caregivers and comparison groups of non-caregivers. Statistical matching is used to construct these comparison groups, ensuring that differences in outcomes between caregivers and non-caregivers are not simply the result of systematic differences in age, sex, or educational attainment (among other characteristics).
In general, this analysis finds that family caregiving is consistently associated with negative mental health impacts. Caregivers also report statistically different and worse physical health outcomes compared to non-caregivers. Healthy behavior effects are more mixed.
It is important to note that providing care to a family member or friend may be particularly stressful for caregivers with children age 18 or under living at home. As such, a separate analysis is presented that estimates the impact of caregiving on the mental, physical, and healthy behaviors for both caregivers with and without children age 18 or under living at home. About $43 \%$ of Utah's family caregivers have children age 18 or under living at home.
The main results for each category of health outcome are summarized below. Figure 3 shows the estimated impacts for caregivers overall, while Figure 4 shows impacts separately for caregivers with and without children age 18 or under living at home.

## Mental Health

Utah's family caregivers are more likely to report poor mental health outcomes than peer-group non-caregivers. Caregivers are 6 percentage points more likely to report depression, 4 percentage points more likely to report difficulty concentrating or remembering, 7 percentage points more likely to report poor mental health days during the prior month, and 9 percentage points more likely to report at least 10 poor mental health days.
> "This increase in numbers and concerning mental health effects has implications not only for the health of caregivers but also for the health and health care costs related to the care recipient."

—Ankuda et al., 2017

- Utah's family caregivers are more likely to report poor mental health outcomes than peer-group noncaregivers.
- The adverse mental health effects of caregiving are greater for family caregivers with children living at home.
- Utah's family caregivers also tend to report worse physical health outcomes than their non-caregiver peers, although the differences are somewhat less pronounced than for mental health.
- As with mental health, the differences in physical health outcomes between caregivers and peer-group non-caregivers are greater for caregivers with children at home.

■ The effects of caregiving on healthy behaviors are mixed.

- However, as with mental and physical health, caregivers with children at home tend to experience worse healthy behavior outcomes than caregivers without children at home.
> "More Americans (23\%) say caregiving has made their own health worse up from 17\% in 2015."
> —AARP and the National Alliance for Caregiving, 2020

The adverse mental health effects of caregiving are greater for family caregivers with children living at home. These caregivers are 11 percentage points more likely to report depression, 5 percentage points more likely to report difficulty concentrating or remembering, 13 percentage points more likely to report poor mental health days during the prior month, and 15 percentage points more likely to report at least 10 such days (relative to their non-caregiver peers with children at home). The corresponding figures for family caregivers without children at home are substantially smaller and not statistically different from zero.

## Physical and General Health

Utah's family caregivers also tend to report worse physical health outcomes than their non-caregiver peers, although the differences are somewhat less pronounced than for mental health. Caregivers are 10 percentage points more likely to report days during the past month in which their physical health
was poor or fair (as opposed to good, very good, or excellent). On the other hand, caregivers are only slightly more likely (2 percentage points) to report 10 or more poor or fair physical health days. Caregivers are not more likely to report worse (selfassessed) general health than their non-caregiver peers.

As with mental health, the differences in physical health outcomes between caregivers and peer-group non-caregivers are greater for caregivers with children at home. These caregivers are 12 percentage points more likely than peergroup non-caregivers to report at least one day during the past month in which their physical health was poor or fair; for caregivers without children at home, the corresponding figure is 7 percentage points. Caregivers with children at home are 4 percentage points more likely to report 10 or more days of poor or fair physical health.

## Healthy Behaviors

The effects of caregiving on healthy behaviors are mixed. While caregivers are more likely than peer-group non-caregivers to identify as a current smoker (a difference of 3 percentage points), and more likely to report being overweight or obese (9 percentage points), they are also more likely to report recreational exercise (8 percentage points) and to have had a routine medical checkup in the past year ( 9 percentage points). There are no statistically significant differences in rates of heavy or binge drinking between caregivers and peer non-caregivers. These findings generally align with several national studies of family caregivers (Secinti et al., 2021, 2022; Trivedi et al., 2014).

## $43 \%$ of Utah's family caregivers have children age 18 or under living at home.

However, as with mental and physical health, caregivers with children at home tend to experience worse healthy behavior outcomes than caregivers without children at home. Family Caregivers with children at home are 6 percentage points more likely to be a current smoker than peer-group non-caregivers; the corresponding figure for caregivers without children at home is 1 percentage point. Similarly, caregivers with children at home are 15 percentage points more likely to be overweight or obese (compared to 5 percentage points for caregivers without children at home) and 7 percentage points more likely to engage in binge drinking (caregivers without children at home are 6 percentage points less likely to engage in binge drinking). And although both groups of caregivers are more likely to exercise and get routine medical checkups than their non-caregiver peer groups, these positive associations to caregiving are smaller for caregivers with children at home. Neither group of caregivers engages in heavy drinking at a greater rate than their peer-groups of noncaregivers. In the Caregiver module, binge drinking is defined as consuming at least 4 (women) or 5 (men) alcoholic drinks during a single occasion, while heavy drinking is defined as consuming at least 7 (women) or 14 (men) drinks during a one-week period.

Figures 3 and 4 illustrate these differences. Positive values represent worse outcomes for caregivers relative to peer noncaregivers.

Figure 3: Differences in Health Outcomes between Family Caregivers and Peer Non-Caregivers, 2015-2020


Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

Figure 4: Differences in Health Outcomes between Family Caregivers and Peer Non-Caregivers, by Presence of Children 18 and under Living at Home, 2015-2020

Mental Health


Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

The above results pertain to caregivers in any context. The appendix contains analogous estimates for caregivers performing care in each of the caregiving contexts shown in Table 3.

## Methods and Definitions Regarding Caregivers and Non-Caregiving Peers

Caregivers differ from non-caregivers in a number of ways that may have an effect on health outcomes. As shown in Table 7, caregivers are more likely than non-caregivers to be older, to be female, to live in a rural county, and to identify as a racial/ ethnic majority. Beyond these characteristics, there are also differences in educational attainment (caregivers are more likely to hold a college degree), marital status (caregivers are more likely to be married), and the presence of chronic conditions, such as cancer, diabetes, or COPD (caregivers are more likely to have these conditions).

These caregiver/non-caregiver differences tend to be larger for more intense forms of caregiving (such as providing care for more hours or a longer period of time, or providing care for recipients with dementia or cancer).

It is important to note, however, that since caregiving is self-reported, some part of these differences could simply reflect differences in how likely some groups are to identify as a caregiver, even if the groups actually have similar chances of performing the core tasks of caregiving (Harvath et al., 2020; Pinquart \& Sörensen, 2005).

As used in Trivedi (2014), statistical matching (Ho et al., 2007; Stuart, 2010) is used to adjust for differences in these background characteristics. This involves finding non-caregivers who are otherwise observationally similar to each caregiver in the sample and assessing the differences in their outcomes. In this way,

Table 7: Prevalence of Demographic Characteristics by Family Caregiver Status, 2015-2020

|  |  | Caregivers | Non-Caregivers |
| :--- | :---: | :---: | :---: |
| Age | $18-34$ | $29.8 \%(27.9 \%-31.7 \%)$ | $38.9 \%(38.0 \%-39.9 \%)$ |
|  | $35-54$ | $33.3 \%(31.6 \%-35.0 \%)$ | $33.5 \%(32.7 \%-34.4 \%)$ |
|  | $55-64$ | $18.5 \%(17.2 \%-19.8 \%)$ | $12.2 \%(11.6 \%-12.7 \%)$ |
|  | $65+$ | $18.4 \%(17.3 \%-19.6 \%)$ | $15.4 \%(14.9 \%-15.9 \%)$ |
| Sex | Female | $58.2 \%(56.4 \%-60.0 \%)$ | $48.5 \%(47.6 \%-49.4 \%)$ |
|  | Rural | $6.6 \%(5.5 \%-7.6 \%)$ | $5.3 \%(4.9 \%-5.8 \%)$ |
|  | Minority | $15.6 \%(14.1 \%-17.2 \%)$ | $21.3 \%(20.5 \%-22.2 \%)$ |

Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).
systematic differences between caregivers and non-caregivers that are likely to influence health outcomes (e.g., that caregivers tend to be older) are eliminated, or at least reduced.

Caregivers are matched to non-caregivers based on similarity in age (5-year age groups), sex, marital status, educational attainment (less than high school, high school only, some college but no degree, and at least a Bachelor's degree), race/ ethnicity (white non-Hispanic or not), and existing chronic conditions (zero, one, two, three, or four of the following conditions: arthritis, asthma, cancer other than skin cancer, COPD, heart attack, coronary heart disease, stroke, kidney disease, or diabetes).

For most cases, caregivers are exactly matched to noncaregivers with these same characteristics. For the remainder, cases are matched using the estimated propensity score (as used in Trivedi et al., 2014). The stratified matching strategy recommended by Green \& Stuart (2014) is used for the analyses segmented by rural/urban status and whether children under age 18 are present in the home.

Health outcomes are evaluated for caregivers and their matching non-caregivers for each caregiving context shown in Table 3. The outcomes fall into three broad categories: mental health, physical health, and healthy behaviors. The BRFSS question corresponding to each outcome is shown in italics below.

## Mental Health

1. Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?
2. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
3. (Ever told) (you had) a depressive disorder (including depression, major depression, dysthymia, or minor depression)?

## Physical Health

1. Would you say that in general your health is: (1) excellent (2) very good (3) good (4) fair (5) poor
2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

Healthy Behaviors

1. Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks for men or 4 or more drinks for women on an occasion? The behavior is defined as "Binge Drinking" if the number of times is at least one.
2. Heavy drinkers (adult men having more than 14 drinks per week and adult women having more than 7 drinks per week).
3. Adults who have a body mass index greater than 25.00 (Overweight or Obese)
4. Four-level smoker status: Everyday smoker, Someday smoker, Former smoker, Non-smoker
5. About how long has it been since you last visited a doctor for a routine checkup? [A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.]
6. During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

## Conclusion

The number of family caregivers in Utah is expected to grow to over 551,000 individuals by 2030. This outpaces the state's general population growth, largely in response to Utah's aging population and the projected increase in health care difficulties individuals in the state are expected to experience over time. The informal (primarily unpaid) care that Utah caregivers offer today is valued at $\$ 5.1$ billion and is projected to exceed $\$ 6.5$ billion in 2030. Nearly $40 \%$ of the Utah caregiving population spend the equivalent of a part- or full-time job in caregiving activities and almost $30 \%$ of caregivers have provided care to a family member or friend for at least 5 years.

The projected increase in family caregivers means more Utah adults may require time, resources, and mental and physical health support to provide care to family members or friends with health problems or disabilities. Although individual caregiving experiences can vary, caregiving often places a substantial toll on caregivers' health and well-being. Utah family caregivers report worse mental and physical health as compared to peer-group non-caregivers. In many cases, the negative impact is worse for caregivers with children age 18 or under living at home. Close to one in five Utahns age 3554 serve as a caregiver, many of whom could also be raising families and working part or full-time.

This appendix provides estimates of the effect of caregiving on the health of Utah's family caregivers that are specific to the context of care.

Table 8 shows the estimated differences in health care outcomes between family caregivers and peer-group non-caregivers (the "risk difference" for the various outcomes) for each context listed in Table 3. These are directly analogous to the results presented in Figure 3, but are context-specific. For each context, caregivers in that context are compared to peer-group non-caregivers formed through matching (as described in the report).

Table 9 shows differences in effects between caregivers with and caregivers without children age 18 and under living
at home; this table is similar to Figure 4, but context-specific (although limited to intensity). In all cases, caregivers (of a particular context) with (without) children age 18 or under living at home are matched to peer-group non-caregivers with (without) children under age 18 living at home.

Table 10 shows differences in effects between caregivers living in rural areas and caregivers living in urban areas. Rural (urban) caregivers are matched to peer-group rural (urban) non-caregivers. Because urban and rural status is only known for the years 2019 and 2020, and because the rural subsample is small in any case, these estimates have a great deal of statistical noise and are not presented in the main body of this report.

Table 8: Health Effects of Caregiving on Caregivers, 2015-2020


## All Family Caregivers

| Any Days Mental Health Not Good | $7.14 \%$ | $2.3 \%-11.9 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $8.54 \%$ | $6.3 \%-10.8 \%$ |
| Depression | $6.20 \%$ | $3.1 \%-9.0 \%$ |
| Difficulty Concentrating or Remembering | $3.81 \%$ | $2.2 \%-5.3 \%$ |
| Any Days Physical Health Not Good | $9.76 \%$ | $6.1 \%-13.2 \%$ |
| More than 10 Days Physical Health Not Good | $2.46 \%$ | $0.4 \%-4.4 \%$ |
| General Health No Better than Fair | $0.40 \%$ | $-1.7 \%-2.4 \%$ |
| No Exercise | $-7.97 \%$ | $-13.2 \%-3.2 \%$ |
| No Checkup Last Year | $-9.34 \%$ | $-14.3 \%-5.1 \%$ |
| Current Smoker | $3.24 \%$ | $2.1 \%-4.4 \%$ |
| Overweight or Obese | $8.93 \%$ | $4.1 \%-13.9 \%$ |
| Heavy Drinking | $-0.58 \%$ | $-2.0 \%-0.7 \%$ |
| Binge Drinking | $1.76 \%$ | $-4.1 \%-6.9 \%$ |

Family Caregivers Providing 9+ Hours per Week of Care

| Any Days Mental Health Not Good | $8.96 \%$ | $4.9 \%-12.8 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.79 \%$ | $6.6 \%-13.2 \%$ |
| Depression | $6.42 \%$ | $2.6 \%-9.9 \%$ |
| Difficulty Concentrating or Remembering | $5.46 \%$ | $3.2 \%-8.0 \%$ |
| Any Days Physical Health Not Good | $5.43 \%$ | $1.7 \%-9.3 \%$ |
| More than 10 Days Physical Health Not Good | $2.74 \%$ | $0.3 \%-5.0 \%$ |
| General Health No Better than Fair | $0.48 \%$ | $-2.3 \%-3.1 \%$ |
| No Exercise | $-4.81 \%$ | $-8.0-1.8 \%$ |
| No Checkup Last Year | $-9.15 \%$ | $-13.2 \%-5.4 \%$ |
| Current Smoker | $4.65 \%$ | $2.9 \%-6.5 \%$ |
| Overweight or Obese | $10.46 \%$ | $6.3 \%-14.6 \%$ |
| Heavy Drinking | $-1.64 \%$ | $-3.5 \%-0.1 \%$ |
| Binge Drinking | $-2.79 \%$ | $-10.0 \%-4.1 \%$ |



Family Caregivers Providing 20+ Hours per Week of Care

| Any Days Mental Health Not Good | $9.70 \%$ | $5.3 \%-14.3 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $8.38 \%$ | $5.5 \%-11.4 \%$ |
| Depression | $6.52 \%$ | $2.1 \%-10.7 \%$ |
| Difficulty Concentrating or Remembering | $3.15 \%$ | $0.5 \%-5.8 \%$ |
| Any Days Physical Health Not Good | $3.78 \%$ | $-0.5 \%-8.1 \%$ |
| More than 10 Days Physical Health Not Good | $0.54 \%$ | $-2.5 \%-3.6 \%$ |
| General Health No Better than Fair | $-0.43 \%$ | $-3.4 \%-2.8 \%$ |
| No Exercise | $-2.54 \%$ | $-6.2 \%-1.1 \%$ |
| No Checkup Last Year | $-7.83 \%$ | $-12.2 \%-3.7 \%$ |
| Current Smoker | $5.21 \%$ | $3.2 \%-7.5 \%$ |
| Overweight or Obese | $10.87 \%$ | $5.9 \%-15.9 \%$ |
| Heavy Drinking | $-1.40 \%$ | $-4.1 \%-0.7 \%$ |
| Binge Drinking | $4.88 \%$ | $-2.5 \%-11.8 \%$ |

## Family Caregivers Providing 40+ Hours per Week of Care

| Any Days Mental Health Not Good | $7.13 \%$ | $1.5 \%-12.5 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.78 \%$ | $6.1 \%-13.5 \%$ |
| Depression | $4.29 \%$ | $-0.4 \%-9.1 \%$ |
| Difficulty Concentrating or Remembering | $3.43 \%$ | $0.2 \%-6.5 \%$ |
| Any Days Physical Health Not Good | $1.67 \%$ | $-3.4 \%-6.6 \%$ |
| More than 10 Days Physical Health Not Good | $0.73 \%$ | $-2.3 \%-3.9 \%$ |
| General Health No Better than Fair | $-0.29 \%$ | $-3.9 \%-3.1 \%$ |
| No Exercise | $-1.02 \%$ | $-5.1 \%-2.6 \%$ |
| No Checkup Last Year | $-9.27 \%$ | $-14.1 \%-4.5 \%$ |
| Current Smoker | $6.00 \%$ | $3.3 \%-8.9 \%$ |
| Overweight or Obese | $10.52 \%$ | $4.8 \%-16.3 \%$ |
| Heavy Drinking | $-3.22 \%$ | $-7.3 \%-0.3 \%$ |
| Binge Drinking | $4.49 \%$ | $-3.9 \%-12.8 \%$ |

Table 8: Health Effects of Caregiving on Caregivers, 2015-2020 (Continued)

|  | Risk <br> Difference | $95 \%$ Cl |
| :--- | ---: | ---: | | Family Caregivers Providing Less than $\mathbf{3 0}$ days of Care |  |  |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.30 \%$ | $2.6 \%-15.5 \%$ |
| Depression | $7.35 \%$ | $3.6 \%-11.2 \%$ |
| Difficulty Concentrating or Remembering | $3.24 \%$ | $0.9 \%-5.7 \%$ |
| Any Days Physical Health Not Good | $14.41 \%$ | $9.7 \%-19.3 \%$ |
| More than 10 Days Physical Health Not Good | $4.06 \%$ | $1.2 \%-7.0 \%$ |
| General Health No Better than Fair | $0.69 \%$ | $-2.1 \%-3.4 \%$ |
| No Exercise | $-16.24 \%$ | $-23.4 \%-9.9 \%$ |
| No Checkup Last Year | $-14.34 \%$ | $-20.6 \%-8.1 \%$ |
| Current Smoker | $0.60 \%$ | $-1.1 \%-2.2 \%$ |
| Overweight or Obese | $4.77 \%$ | $-1.3 \%-11.1 \%$ |
| Heavy Drinking | $-0.49 \%$ | $-1.9 \%-0.7 \%$ |
| Binge Drinking | $5.02 \%$ | $-3.7 \%-13.3 \%$ |



Family Caregivers Providing 2 to 5 Years of Care

| Any Days Mental Health Not Good | $4.08 \%$ | $-0.9 \%-8.7 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $4.44 \%$ | $1.2 \%-8.0 \%$ |
| Depression | $1.23 \%$ | $-3.0 \%-5.4 \%$ |
| Difficulty Concentrating or Remembering | $1.08 \%$ | $-1.6 \%-3.7 \%$ |
| Any Days Physical Health Not Good | $5.44 \%$ | $1.0 \%-9.8 \%$ |
| More than 10 Days Physical Health Not Good | $0.29 \%$ | $-2.7 \%-3.3 \%$ |
| General Health No Better than Fair | $0.44 \%$ | $-2.7 \%-3.3 \%$ |
| No Exercise | $-2.11 \%$ | $-6.4 \%-1.7 \%$ |
| No Checkup Last Year | $-5.93 \%$ | $-10.8 \%-0.9 \%$ |
| Current Smoker | $3.01 \%$ | $0.8 \%-5.5 \%$ |
| Overweight or Obese | $7.98 \%$ | $2.6 \%-13.3 \%$ |
| Heavy Drinking | $-4.44 \%$ | $-8.2 \%-1.6 \%$ |
| Binge Drinking | $-7.52 \%$ | $-16.4 \%-1.2 \%$ |

## Family Caregivers Providing 1 to 6 Months of Care

| Any Days Mental Health Not Good | $9.81 \%$ | $1.7 \%-17.8 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $14.62 \%$ | $8.9 \%-20.2 \%$ |
| Depression | $6.14 \%$ | $-0.3 \%-12.2 \%$ |
| Difficulty Concentrating or Remembering | $7.50 \%$ | $4.4 \%-10.8 \%$ |
| Any Days Physical Health Not Good | $6.90 \%$ | $-0.1 \%-13.6 \%$ |
| More than 10 Days Physical Health Not Good | $0.67 \%$ | $-3.3 \%-4.3 \%$ |
| General Health No Better than Fair | $0.74 \%$ | $-2.8 \%-4.1 \%$ |
| No Exercise | $-9.13 \%$ | $-18.0 \%-1.8 \%$ |
| No Checkup Last Year | $-13.52 \%$ | $-21.6 \%-5.4 \%$ |
| Current Smoker | $5.52 \%$ | $3.1 \%-8.5 \%$ |
| Overweight or Obese | $10.69 \%$ | $3.0 \%-18.6 \%$ |
| Heavy Drinking | $-0.47 \%$ | $-3.4 \%-2.1 \%$ |
| Binge Drinking | $-1.66 \%$ | $-15.4 \%-12.1 \%$ |

Family Caregivers Providing 6 Months to 2 Years of Care

| Any Days Mental Health Not Good | $7.94 \%$ | $2.4 \%-13.8 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.77 \%$ | $6.5 \%-13.2 \%$ |
| Depression | $6.39 \%$ | $2.8 \%-10.2 \%$ |
| Difficulty Concentrating or Remembering | $2.27 \%$ | $-0.2 \%-4.8 \%$ |
| Any Days Physical Health Not Good | $9.70 \%$ | $5.1 \%-14.1 \%$ |
| More than 10 Days Physical Health Not Good | $6.16 \%$ | $3.5 \%-8.9 \%$ |
| General Health No Better than Fair | $0.80 \%$ | $-2.2 \%-3.6 \%$ |
| No Exercise | $-9.00 \%$ | $-14.4 \%-4.0 \%$ |
| No Checkup Last Year | $-10.36 \%$ | $-16.0 \%-4.6 \%$ |
| Current Smoker | $1.57 \%$ | $-0.2 \%-3.5 \%$ |
| Overweight or Obese | $8.60 \%$ | $2.9 \%-14.5 \%$ |
| Heavy Drinking | $1.42 \%$ | $-0.4 \%-3.4 \%$ |
| Binge Drinking | $9.38 \%$ | $1.6 \%-16.7 \%$ |

## Family Caregivers Providing 5+ Years of Care

| Any Days Mental Health Not Good | $4.76 \%$ | $-0.3 \%-9.4 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $7.98 \%$ | $4.8 \%-11.2 \%$ |
| Depression | $8.79 \%$ | $5.4 \%-12.3 \%$ |
| Difficulty Concentrating or Remembering | $5.21 \%$ | $2.6 \%-7.8 \%$ |
| Any Days Physical Health Not Good | $11.07 \%$ | $7.0 \%-15.2 \%$ |
| More than 10 Days Physical Health Not Good | $1.90 \%$ | $-0.9 \%-4.8 \%$ |
| General Health No Better than Fair | $-1.04 \%$ | $-4.2 \%-2.0 \%$ |
| No Exercise | $-5.92 \%$ | $-10.5 \%-1.9 \%$ |
| No Checkup Last Year | $-6.49 \%$ | $-11.5 \%-1.7 \%$ |
| Current Smoker | $4.80 \%$ | $2.7 \%-7.0 \%$ |
| Overweight or Obese | $9.24 \%$ | $3.9 \%-14.7 \%$ |
| Heavy Drinking | $0.17 \%$ | $-1.5 \%-1.7 \%$ |
| Binge Drinking | $3.87 \%$ | $-3.2 \%-10.4 \%$ |

## Family Caregivers Providing 5+ Years and 40+ Hours per Week of Care

| Any Days Mental Health Not Good | $2.25 \%$ | $-4.4 \%-8.9 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $2.79 \%$ | $-2.4 \%-8.0 \%$ |
| Depression | $6.13 \%$ | $-0.1 \%-12.3 \%$ |
| Difficulty Concentrating or Remembering | $2.05 \%$ | $-2.9 \%-7.2 \%$ |
| Any Days Physical Health Not Good | $0.08 \%$ | $-6.0 \%-6.4 \%$ |
| More than 10 Days Physical Health Not Good | $-1.55 \%$ | $-6.6 \%-3.6 \%$ |
| General Health No Better than Fair | $-2.55 \%$ | $-7.4 \%-2.2 \%$ |
| No Exercise | $-4.40 \%$ | $-9.7 \%-0.6 \%$ |
| No Checkup Last Year | $-10.79 \%$ | $-16.7 \%-4.9 \%$ |
| Current Smoker | $5.21 \%$ | $1.1 \%-9.7 \%$ |
| Overweight or Obese | $6.63 \%$ | $0.1 \%-13.6 \%$ |
| Heavy Drinking | $-4.19 \%$ | $-8.1 \%-1.2 \%$ |
| Binge Drinking | $8.91 \%$ | $-2.3 \%-21.3 \%$ |

Table 8: Health Effects of Caregiving on Caregivers, 2015-2020 (Continued)

|  | Risk <br> Difference | $9.95 \%$ Cl |
| :--- | ---: | ---: |


| Family Caregivers Providing Care to Recipient with Cancer |  |  |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $10.97 \%$ | $6.5 \%-15.7 \%$ |
| Depression | $9.51 \%$ | $3.6 \%-15.5 \%$ |
| Difficulty Concentrating or Remembering | $3.13 \%$ | $0.6 \%-6.1 \%$ |
| Any Days Physical Health Not Good | $13.73 \%$ | $6.9 \%-20.3 \%$ |
| More than 10 Days Physical Health Not Good | $-1.43 \%$ | $-6.2 \%-3.0 \%$ |
| General Health No Better than Fair | $-1.02 \%$ | $-5.2 \%-2.7 \%$ |
| No Exercise | $-13.57 \%$ | $-23.5 \%-5.2 \%$ |
| No Checkup Last Year | $-11.08 \%$ | $-19.6 \%-2.7 \%$ |
| Current Smoker | $4.27 \%$ | $1.9 \%-7.3 \%$ |
| Overweight or Obese | $15.47 \%$ | $7.1 \%-24.1 \%$ |
| Heavy Drinking | $0.46 \%$ | $-3.9 \%-4.5 \%$ |
| Binge Drinking | $-1.45 \%$ | $-15.0 \%-12.0 \%$ |

Family Caregivers Providing Care to Recipient with COPD

| Any Days Mental Health Not Good | $4.04 \%$ | $-9.9 \%-17.4 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.85 \%$ | $1.0 \%-19.9 \%$ |
| Depression | $15.69 \%$ | $8.2 \%-23.8 \%$ |
| Difficulty Concentrating or Remembering | $8.33 \%$ | $2.9 \%-15.6 \%$ |
| Any Days Physical Health Not Good | $15.87 \%$ | $4.1 \%-27.9 \%$ |
| More than 10 Days Physical Health Not Good | $-4.10 \%$ | $-12.8 \%-3.3 \%$ |
| General Health No Better than Fair | $-0.18 \%$ | $-8.8 \%-7.5 \%$ |
| No Exercise | $-20.34 \%$ | $-36.9 \%-5.7 \%$ |
| No Checkup Last Year | $-8.97 \%$ | $-22.7 \%-5.6 \%$ |
| Current Smoker | $1.61 \%$ | $-4.1 \%-7.3 \%$ |
| Overweight or Obese | $13.36 \%$ | $-0.2 \%-26.9 \%$ |
| Heavy Drinking | $-5.75 \%$ | $-12.1 \%-1.6 \%$ |
| Binge Drinking | $-23.10 \%$ | $-43.2 \%-2.2 \%$ |

Family Caregivers Providing Care to Recipient with Alzheimer's or Dementia

| Any Days Mental Health Not Good | $6.34 \%$ | $-2.1 \%-14.1 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $6.87 \%$ | $1.8 \%-12.2 \%$ |
| Depression | $2.26 \%$ | $-3.2 \%-7.6 \%$ |
| Difficulty Concentrating or Remembering | $2.38 \%$ | $-1.0 \%-5.7 \%$ |
| Any Days Physical Health Not Good | $11.32 \%$ | $5.1 \%-17.6 \%$ |
| More than 10 Days Physical Health Not Good | $1.69 \%$ | $-2.4 \%-5.6 \%$ |
| General Health No Better than Fair | $-2.85 \%$ | $-7.7 \%-1.3 \%$ |
| No Exercise | $-9.60 \%$ | $-18.0 \%-2.1 \%$ |
| No Checkup Last Year | $-11.06 \%$ | $-19.4 \%-2.8 \%$ |
| Current Smoker | $2.35 \%$ | $-0.1 \%-5.7 \%$ |
| Overweight or Obese | $4.94 \%$ | $-3.3 \%-13.2 \%$ |
| Heavy Drinking | $0.61 \%$ | $-1.8 \%-3.5 \%$ |
| Binge Drinking | $-4.34 \%$ | $-15.3 \%-5.7 \%$ |

Risk
Difference
95\% Cl

Family Caregivers Providing Care to Recipient with Diabetes

| Any Days Mental Health Not Good | $-0.70 \%$ | $-9.2 \%-7.8 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $11.81 \%$ | $5.8 \%-18.3 \%$ |
| Depression | $18.43 \%$ | $11.6 \%-25.7 \%$ |
| Difficulty Concentrating or Remembering | $9.47 \%$ | $3.9 \%-16.1 \%$ |
| Any Days Physical Health Not Good | $7.47 \%$ | $0.2 \%-14.9 \%$ |
| More than 10 Days Physical Health Not Good | $11.09 \%$ | $5.6 \%-17.8 \%$ |
| General Health No Better than Fair | $5.70 \%$ | $0.1 \%-11.7 \%$ |
| No Exercise | $-11.06 \%$ | $-18.8 \%-3.6 \%$ |
| No Checkup Last Year | $-15.41 \%$ | $-23.5 \%-7.8 \%$ |
| Current Smoker | $3.65 \%$ | $-1.8 \%-9.6 \%$ |
| Overweight or Obese | $-4.44 \%$ | $-12.8 \%-3.6 \%$ |
| Heavy Drinking | $1.48 \%$ | $-0.2 \%-3.8 \%$ |
| Binge Drinking | $36.51 \%$ | $21.2 \%-50.6 \%$ |

Family Caregiver Providing Help with Household Tasks

| Any Days Mental Health Not Good | $7.48 \%$ | $3.1 \%-11.7 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $9.21 \%$ | $6.8 \%-11.6 \%$ |
| Depression | $6.91 \%$ | $3.7 \%-9.8 \%$ |
| Difficulty Concentrating or Remembering | $4.13 \%$ | $2.5 \%-5.8 \%$ |
| Any Days Physical Health Not Good | $8.61 \%$ | $4.9 \%-12.1 \%$ |
| More than 10 Days Physical Health Not Good | $2.99 \%$ | $1.1 \%-4.9 \%$ |
| General Health No Better than Fair | $0.97 \%$ | $-1.1 \%-3.0 \%$ |
| No Exercise | $-8.09 \%$ | $-12.3 \%-4.2 \%$ |
| No Checkup Last Year | $-7.98 \%$ | $-12.3 \%-3.8 \%$ |
| Current Smoker | $3.46 \%$ | $2.2 \%-4.9 \%$ |
| Overweight or Obese | $9.07 \%$ | $4.4 \%-14.0 \%$ |
| Heavy Drinking | $-0.29 \%$ | $-1.8 \%-1.0 \%$ |
| Binge Drinking | $3.70 \%$ | $-2.3 \%-9.5 \%$ |

## Family Caregiver Managing Personal Care

| Any Days Mental Health Not Good | $7.75 \%$ | $3.1 \%-12.4 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $10.23 \%$ | $7.7 \%-12.8 \%$ |
| Depression | $7.38 \%$ | $3.9 \%-10.6 \%$ |
| Difficulty Concentrating or Remembering | $3.92 \%$ | $2.0 \%-5.9 \%$ |
| Any Days Physical Health Not Good | $9.74 \%$ | $6.0 \%-13.3 \%$ |
| More than 10 Days Physical Health Not Good | $2.24 \%$ | $0.1 \%-4.3 \%$ |
| General Health No Better than Fair | $-0.20 \%$ | $-2.5 \%-2.1 \%$ |
| No Exercise | $-7.70 \%$ | $-12.1 \%-3.7 \%$ |
| No Checkup Last Year | $-7.34 \%$ | $-12.0 \%-2.7 \%$ |
| Current Smoker | $3.33 \%$ | $2.0 \%-4.8 \%$ |
| Overweight or Obese | $10.93 \%$ | $6.2 \%-15.8 \%$ |
| Heavy Drinking | $-1.26 \%$ | $-3.1 \%-0.2 \%$ |
| Binge Drinking | $3.65 \%$ | $-2.2 \%-9.3 \%$ |

Source: U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

Table 9: Health Effects of Caregiving on Caregivers, by Presence of Children under 18 Living at Home, 2015-2020

|  | Risk <br> Difference | $95 \% \mathrm{Cl}$ |
| :--- | :---: | :---: |

## All Family Caregivers

|  | Any Days Mental Health Not Good | 12.80\% | 7.3\%-18.4\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 15.50\% | 12.7\%-18.2\% |
|  | Depression | 10.50\% | 6.9\%-14.2\% |
|  | Difficulty Concentrating or Remembering | 4.80\% | 2.5\%-7.1\% |
|  | Any Days Physical Health Not Good | 12.30\% | 7.3\%-17.2\% |
|  | More than 10 Days Physical Health Not Good | 3.60\% | 1.3\%-5.7\% |
|  | General Health No Better than Fair | -2.40\% | -5.2\%-0.2\% |
|  | No Exercise | -3.30\% | -7.1\%-0.1\% |
|  | No Checkup Last Year | -0.60\% | -5.7\%-4.9\% |
|  | Current Smoker | 5.70\% | 4.0\%-7.4\% |
|  | Overweight or Obese | 15.10\% | 8.8\%-21.0\% |
|  | Heavy Drinking | -0.20\% | -2.8\%-1.9\% |
|  | Binge Drinking | 6.90\% | -0.6\%-14.1\% |


|  | Any Days Mental Health Not Good | 3.80\% | -1.4\%-8.6\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 1.70\% | -1.6\%-5.0\% |
|  | Depression | 3.40\% | -0.2\%-7.1\% |
|  | Difficulty Concentrating or Remembering | 1.70\% | -0.6\%-3.9\% |
|  | Any Days Physical Health Not Good | 7.00\% | 3.0\%-10.8\% |
|  | More than 10 Days Physical Health Not Good | 2.00\% | -0.7\%-4.5\% |
|  | General Health No Better than Fair | 1.80\% | -1.0\%-4.3\% |
|  | No Exercise | -9.10\% | -14.9\%-4.0\% |
|  | No Checkup Last Year | -12.00\% | -17.4\%-7.2\% |
|  | Current Smoker | 0.90\% | -0.7\%-2.4\% |
|  | Overweight or Obese | 5.30\% | 0.1\%-10.7\% |
|  | Heavy Drinking | -1.60\% | -2.9\%-0.3\% |
|  | Binge Drinking | -5.90\% | -12.9\%-1.0\% |


|  | Risk <br> Difference | $95 \% \mathrm{Cl}$ |
| :--- | :---: | :---: |

Family Caregivers Providing 9+ Hours per Week of Care

|  | Any Days Mental Health Not Good | 13.20\% | 6.9\%-19.3\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 19.30\% | 15.2\%-23.9\% |
|  | Depression | 13.10\% | 8.2\%-18.7\% |
|  | Difficulty Concentrating or Remembering | 5.60\% | 1.3\%-10.0\% |
|  | Any Days Physical Health Not Good | 7.10\% | 1.1\%-12.9\% |
|  | More than 10 Days Physical Health Not Good | 4.30\% | 1.2\%-7.5\% |
|  | General Health No Better than Fair | -1.50\% | -5.7\%-2.5\% |
|  | No Exercise | -2.00\% | -5.8\%-1.6\% |
|  | No Checkup Last Year | -4.50\% | -10.6\%-1.8\% |
|  | Current Smoker | 7.30\% | 4.2\%-10.8\% |
|  | Overweight or Obese | 20.20\% | 13.8\%-26.3\% |
|  | Heavy Drinking | -0.30\% | -4.1\%-2.8\% |
|  | Binge Drinking | -1.20\% | -11.0\%-8.2\% |


|  | Any Days Mental Health Not Good | 6.20\% | 1.2\%-11.2\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 2.00\% | -2.7\%-6.3\% |
|  | Depression | 0.70\% | -4.2\%-5.7\% |
|  | Difficulty Concentrating or Remembering | 3.40\% | 0.5\%-6.4\% |
|  | Any Days Physical Health Not Good | 5.60\% | 0.8\%-10.3\% |
|  | More than 10 Days Physical Health Not Good | 2.90\% | -0.5\%-6.4\% |
|  | General Health No Better than Fair | 2.10\% | -1.2\%-5.4\% |
|  | No Exercise | -6.30\% | -10.8\%-2.0\% |
|  | No Checkup Last Year | -12.40\% | -17.4\%-7.8\% |
|  | Current Smoker | 1.90\% | -0.4\%-4.3\% |
|  | Overweight or Obese | 6.50\% | 1.3\%-11.6\% |
|  | Heavy Drinking | -3.40\% | -5.6\%-1.5\% |
|  | Binge Drinking | -3.70\% | -13.9\%-6.5\% |

Table 9: Health Effects of Caregiving on Caregivers, by Presence of Children under 18 Living at Home, 2015-2020 (Continued)

|  | Risk <br> Difference | $95 \% \mathrm{Cl}$ |
| :--- | :---: | :---: |


|  | Risk <br> Difference | $95 \%$ Cl |
| :--- | :---: | :---: |

Family Caregivers Providing 20+ Hours per Week of Care

|  | Any Days Mental Health Not Good | 10.80\% | 3.9\%-18.1\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 16.30\% | 11.4\%-21.6\% |
|  | Depression | 13.70\% | 7.6\%-20.0\% |
|  | Difficulty Concentrating or Remembering | 2.90\% | -1.8\%-7.8\% |
|  | Any Days Physical Health Not Good | 2.20\% | -4.7\%-8.8\% |
|  | More than 10 Days Physical Health Not Good | 2.00\% | -1.8\%-5.6\% |
|  | General Health No Better than Fair | -2.10\% | -7.4\%-2.6\% |
|  | No Exercise | -2.70\% | -7.6\%-1.9\% |
|  | No Checkup Last Year | -7.10\% | -14.4\%-0.3\% |
|  | Current Smoker | 7.90\% | 4.3\%-11.9\% |
|  | Overweight or Obese | 20.50\% | 13.0\%-27.9\% |
|  | Heavy Drinking | -1.50\% | -6.7\%-2.8\% |
|  | Binge Drinking | 14.20\% | 4.1\%-24.7\% |
|  | Any Days Mental Health Not Good | 10.60\% | 5.9\%-15.3\% |
|  | More than 10 Days Mental Health Not Good | 4.30\% | 0.4\%-8.2\% |
|  | Depression | 1.40\% | -3.1\%-5.9\% |
|  | Difficulty Concentrating or Remembering | 2.70\% | -0.8\%-6.2\% |
|  | Any Days Physical Health Not Good | 5.40\% | 0.3\%-10.1\% |
|  | More than 10 Days Physical Health Not Good | 2.30\% | -1.6\%-6.0\% |
|  | General Health No Better than Fair | 1.20\% | -2.5\%-5.0\% |
|  | No Exercise | -0.10\% | -4.3\%-4.1\% |
|  | No Checkup Last Year | -10.70\% | -15.9\%-5.8\% |
|  | Current Smoker | 2.30\% | -0.4\%-5.2\% |
|  | Overweight or Obese | 6.20\% | 1.2\%-11.2\% |
|  | Heavy Drinking | -2.20\% | -4.8\%-0.0\% |
|  | Binge Drinking | 2.30\% | -6.7\%-11.4\% |

Family Caregivers Providing 40+ Hours per Week of Care

|  | Any Days Mental Health Not Good | 3.70\% | -4.5\%-12.0\% |
| :---: | :---: | :---: | :---: |
|  | More than 10 Days Mental Health Not Good | 15.10\% | 9.7\%-21.3\% |
|  | Depression | 8.70\% | 0.4\%-16.8\% |
|  | Difficulty Concentrating or Remembering | 3.90\% | -0.7\%-8.3\% |
|  | Any Days Physical Health Not Good | 0.20\% | -7.7\%-8.0\% |
|  | More than 10 Days Physical Health Not Good | 0.00\% | -4.4\%-4.2\% |
|  | General Health No Better than Fair | 0.90\% | -4.2\%-6.1\% |
|  | No Exercise | -3.60\% | -9.6\%-2.3\% |
|  | No Checkup Last Year | -7.70\% | -16.8\%-0.8\% |
|  | Current Smoker | 8.80\% | 3.9\%-14.5\% |
|  | Overweight or Obese | 21.20\% | 11.9\%-29.7\% |
|  | Heavy Drinking | -5.60\% | -15.8\%-0.4\% |
|  | Binge Drinking | 11.80\% | 0.6\%-24.5\% |
|  | Any Days Mental Health Not Good | 13.10\% | 7.6\%-18.5\% |
|  | More than 10 Days Mental Health Not Good | 7.40\% | 2.8\%-12.1\% |
|  | Depression | 1.30\% | -4.0\%-6.4\% |
|  | Difficulty Concentrating or Remembering | 3.40\% | -1.0\%-7.6\% |
|  | Any Days Physical Health Not Good | 4.40\% | -1.2\%-9.9\% |
|  | More than 10 Days Physical Health Not Good | 4.60\% | 0.0\%-9.2\% |
|  | General Health No Better than Fair | 0.30\% | -4.1\%-4.8\% |
|  | No Exercise | 2.50\% | -2.4\%-7.3\% |
|  | No Checkup Last Year | -13.60\% | -19.5\%-7.8\% |
|  | Current Smoker | 3.00\% | -1.3\%-7.3\% |
|  | Overweight or Obese | 2.60\% | -3.1\%-8.2\% |
|  | Heavy Drinking | -2.70\% | -7.0\%-0.4\% |
|  | Binge Drinking | 6.70\% | -4.6\%-18.0\% |

Source: U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

Table 10: Health Effects of Caregiving on Caregivers, by Urban and Rural Status, 2019-2020

|  | Risk Difference | Cl |
| :---: | :---: | :---: |
| Rural |  |  |
| Any Days Mental Health Not Good | -0.52\% | -9.4\%-8.3\% |
| More than 10 Days Mental Health Not Good | 4.34\% | -3.4\%-12.4\% |
| Depression | 1.45\% | -6.1\%-9.1\% |
| Difficulty Concentrating or Remembering | 0.16\% | -7.6\%-7.8\% |
| Any Days Physical Health Not Good | 3.46\% | -4.4\%-10.7\% |
| More than 10 Days Physical Health Not Good | 4.95\% | -0.9\%-11.8\% |
| General Health No Better than Fair | 12.45\% | 6.7\%-19.2\% |
| No Exercise | -3.86\% | -10.4\%-2.2\% |
| No Checkup Last Year | 11.80\% | 4.1\%-19.7\% |
| Current Smoker | 6.04\% | 0.9\%-13.6\% |
| Overweight or Obese | -2.99\% | -12.1\%-5.8\% |
| Heavy Drinking | 4.12\% | -0.2\%-11.0\% |
| Binge Drinking | 12.00\% | -7.0\%-30.2\% |


|  | Risk <br> Difference | CI |
| :--- | ---: | :---: |

Urban

| Any Days Mental Health Not Good | $6.31 \%$ | $2.9 \%-10.2 \%$ |
| :--- | ---: | ---: |
| More than 10 Days Mental Health Not Good | $0.79 \%$ | $-2.9 \%-4.3 \%$ |
| Depression | $-1.59 \%$ | $-5.2 \%-1.9 \%$ |
| Difficulty Concentrating or Remembering | $-0.24 \%$ | $-3.5 \%-2.9 \%$ |
| Any Days Physical Health Not Good | $0.74 \%$ | $-2.9 \%-4.4 \%$ |
| More than 10 Days Physical Health Not Good | $0.06 \%$ | $-2.9 \%-2.9 \%$ |
| General Health No Better than Fair | $-2.95 \%$ | $-6.1 \%-0.1 \%$ |
| No Exercise | $-3.95 \%$ | $-6.6 \%-1.6 \%$ |
| No Checkup Last Year | $2.23 \%$ | $-1.0 \%-5.6 \%$ |
| Current Smoker | $1.35 \%$ | $-0.1 \%-2.9 \%$ |
| Overweight or Obese | $0.96 \%$ | $-2.6 \%-4.7 \%$ |
| Heavy Drinking | $-1.09 \%$ | $-2.9 \%-0.4 \%$ |
| Binge Drinking | $-6.84 \%$ | $-13.6 \%-0.1 \%$ |

Note: Urban and rural status is only available for 2019-forward.
Source: U.S. Census Bureau, U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

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## Endnotes

1. Data availability limits our assessment to adults. Children likely provide significant family caregiving as well, but we are unable to quantify such caregiving in the way we can for adults.
2. As with all the survey data presented in this report, It is important to keep in mind that family caregiving is self-reported. It would be more accurate to say "about 19\% of Utah adults identify as family caregivers," rather than "about 19\% of Utah adults are family caregivers."This is especially relevant if, for example, some groups are less likely to identify as a caregiver even if they are performing tasks ordinarily associated with caregiving. Although in the remainder of the report we will often use the "are" language, it may be important to keep this caveat in mind.
3. BRFSS is a complex survey design that requires the use of sample weights in order to accurately project results from the survey sample onto the population. All BRFSS estimates presented in this report incorporate these weights, which CDC provides as part of the public-use BRFSS dataset.
4. The number of Utah family caregivers for other years is shown in Figure 6.
5. The rate for each group is modeled as $Y_{g, t}=\alpha_{g}+\phi_{g} Y_{g, t-1}+\beta_{g} t+u_{g, t}$ where $Y_{g, t}$ is the natural logarithm of the rate of health difficulties at time $t$ for demographic group $g ; \alpha_{g}, \phi_{g}$, and $\beta_{g}$ are group-specific parameters, and $u_{g, t}$ is the error term. There are 64 demographic groups. Because there are only 16 observations for each demographic group (annual, from 2005-2020), the direct estimators of the group-specific parameters have low precision. One way to ameliorate this is to pool observations from broader demographic groups (e.g. assuming the parameters are the same for all five year age groups in the broad age group 30-59). An approach in this vein is discussed by Frees (2006) in the context of forecasting labor force participation rates. We use a method of Lee \& Griffiths (1979), which likewise has the effect of increasing precision in the groupspecific parameters. As expected, group-level projections using this method are less extreme than those using direct estimates, although the overall rate is
very similar using either approach. An alternative version using the logit transformation of rates instead of the natural log results in very similar projections, even at the group level. For many groups, the year 2020 shows a sharp jump. The projections shown in this report omit 2020 from the fitting of the above equation; an alternative version that does not omit 2020 results in projections of health difficulties that are about 2\% higher by 2030 than those shown here.
6. Utah's average hourly wages in 2021 were similar for Home Health and Personal Care Aides (\$14.56) and Maids and Housekeeping Cleaners (\$13.75). The (weighted) average hourly wage in 2021, with weights accounting for the number of persons employed in each occupation, is \$14.28.
7. As noted, Utah's ratio of family caregivers to persons with health difficulties is one of the highest in the country. If, instead, Utah had the same ratio as Indiana (1.0), but with the need for caregiving unchanged, then approximately 80,000 hours of caregiving hours would need to be filled by professional caregivers each year; amounting to around \$1 billion in annual wages. As professional caregiving provides approximately $10 \%-20 \%$ as many hours as Utah's family caregivers, meeting this additional need would require doubling or tripling Utah's current professional caregiver workforce.
8. The projected number of family caregivers shown in Table 6 is feasible at recent rates of family caregiving. Applying Utah's age- and sex-specific rates of family caregiving from 2020, or average rates over 2015-2020, to the corresponding segments of Utah's projected population 2021-2030 yields slightly more family caregivers than the projected number of family caregivers shown in Table 6 (1\%-2\% more at 2020 rates; 5\%-6\% more at average $2015-2020$ rates). The projected number of family caregivers implies a small increase in the overall rate of family caregiving, owing to the aging of Utah's population and higher rates of caregiving for older age groups.

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[^0]:    Source: U.S. Centers for Disease Control and Prevention (data) and the Kem C. Gardner Policy Institute (analysis).

[^1]:    -Lee Ellington PhD, Director, Family Caregiving Collaborative, University of Utah.

