Arthritis


Analysis of 2021 Mississippi Behavioral Risk Factor Surveillance System (BRFSS) Data

June 27, 2023

## Table of Contents

Important Information ..... 2
Survey Questions for Each Topic in This Report ..... 3
Arthritis Prevalence ..... 4
Healthcare Provider-Recommended Physical Activity .....  6
Self-Management Education Participation. .....  8
Arthritis-Attributable Activity Limitations ..... 10
Arthritis-Attributable Work Limitations ..... 12
Severe Joint Pain ..... 14

## Important Information

## About BRFSS

- The Mississippi Behavioral Risk Factor Surveillance System (BRFSS) is conducted annually to monitor the prevalence of behaviors that contribute to the leading causes of morbidity and mortality among adults in our state.
- The 2021 Mississippi BRFSS was completed by 4,421 Mississippians aged 18 years or older.


## About This Report

- The estimates in this report are weighted to represent the adult population of Mississippi.
- Some estimates in this report are based on a numerator of fewer than 20 non-weighted respondents, which can result in wide confidence intervals and unreliable estimates. Use caution when interpreting and comparing these estimates. Unweighted counts for each estimate are included in each topic's respective data table.
- For BRFSS data, CDC recommends not interpreting percentages where the denominator is based upon fewer than 50 non-weighted respondents or the relative standard error (RSE) of the estimate is greater than $30 \%$. In the tables of this report, results replaced with a dash ( - ) indicate a sample size of less than 50 or an RSE greater than $30 \%$.
- The difference between two estimates is considered statistically significant (also stated as "significantly higher/lower" or "significant" in this report) if the $95 \%$ confidence intervals do not overlap.
- In this report, "Other Race" refers to adults who reported their race/ethnicity as anything other than White, Non-Hispanic (NH) or Black, NH.
- In the 2021 MS BRFSS, the numbers of responses for individual races and ethnicities contained in the "Other Race" demographic group (Table A, below) were too low to allow for meaningful estimates. To request additional race/ethnicity data, please submit a data request using MSDH's online form.

Table A. Races and Ethnicities Included in the "Other Races/Ethnicities" Demographic Group

| Race/Ethnicity | TOTAL 2021 SURVEY SAMPLE |  |  |
| :---: | :---: | :---: | :---: |
|  | Unweighted Total | Weighted Total | Weighted Percent |
| American Indian or Alaskan Native, Non-Hispanic | 29 | 17,686 | 0.78 |
| Asian, Non-Hispanic | 21 | 17,235 | 0.76 |
| Any race, Hispanic | 39 | 53,067 | 2.34 |
| Multiracial, Non-Hispanic | 18 | 19,757 | 0.87 |
| Native Hawaiian or Pacific Islander, Non-Hispanic | 4 | 2,960 | 0.13 |
| Other race, Non-Hispanic | 32 | 23,092 | 1.02 |
| Total "Other Races/Ethnicities" Demographic Group | 143 | 133,797 | 5.89 |

# Survey Questions for Each Topic in This Report (2021 MS BRFSS Survey) 

## - Arthritis Prevalence

- Has a doctor, nurse or other health professional ever told you that you had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia? (Asked of all respondents. From Core Section 8: Arthritis)
- Healthcare Provider-Recommended Physical Activity
- Has a doctor or other health professional ever suggested physical activity or exercise to help your arthritis or joint symptoms? (Asked only of respondents with arthritis. From Core Section 8: Arthritis)
- Self-Management Education Participation
- Have you ever taken an educational course or class to teach you how to manage problems related to your arthritis or joint symptoms? (Asked only of respondents with arthritis. From Core Section 8: Arthritis)
- Arthritis-Attributable Activity Limitations
- Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms? (Asked only of respondents with arthritis. From Core Section 8: Arthritis)


## - Arthritis-Attributable Work Limitations

- In the next question, we are referring to work for pay. Do arthritis or joint symptoms now affect whether you work, the type of work you do or the amount of work you do? (Asked only of respondents with arthritis. From Core Section 8: Arthritis)
- Severe Joint Pain
- Please think about the past 30 days, keeping in mind all of your joint pain or aching and whether or not you have taken medication. During the past 30 days, how bad was your joint pain on average on a scale of 0 to 10 where 0 is no pain and 10 is pain or aching as bad as it can be? (Asked only of respondents with arthritis. From Core Section 8: Arthritis)


## Arthritis Prevalence

## Overall

- Approximately 3 in 10 adults (30.6\%) reported ever being told by a doctor, nurse, or other health professional that they had arthritis.


## Sex (Figure 1.1)

- The percentage of having arthritis was significantly higher among women (33.7\%) compared to men (27.1\%).


## Race/Ethnicity (Figure 1.2)

- The percentage of having arthritis was significantly higher among White, Non-Hispanic (NH) adults (33.0\%) compared to adults of other races/ethnicities adults. The percentage among Black, NH adults (28.2\%) was not significantly different from that of White, NH adults or adults of other races/ethnicities.


## Age (Figure 1.3)

- The percentage of having arthritis increased as age increased and was significantly higher among adults aged 55-64 years (50.0\%) and 65+ years (55.0\%) compared to all examined younger age groups. (Note: The percentage for adults aged 18-24 years was suppressed due to low response.)


## Educational Attainment (Figure 1.4)

- The percentage of having arthritis increased as educational attainment decreased and was significantly higher among adults with less than a high school education (48.3\%) and adults whose highest level of education was high school graduation (30.7\%) compared to adults who graduated college (24.7\%).


## Annual Household Income (Figure 1.5)

- Overall, the percentage of having arthritis increased as annual household income decreased and was significantly higher among adults who earned less than $\mathbf{\$ 1 5 , 0 0 0}$ (37.0\%), \$15,000 to \$24,999 (42.8\%), and $\mathbf{\$ 2 5 , 0 0 0}$ to $\mathbf{\$ 3 4 , 9 9 9}$ (33.4\%) compared to adults who earned $\$ 75,000$ or more ( $22.0 \%$ ).


## Trend (Figure 1.6)

- The percentage of having arthritis increased from $30.0 \%$ in 2013 to $30.6 \%$ in 2021; however, the difference between the two estimates is not statistically significant.

| Figure 1.1. Percentage of Respondents <br> Ever Told They Have Arthritis by Sex |  |
| :---: | :---: |
| $27.1 \%$ | $33.7 \%$ |
| Male |  |

Figure 1.3. Percentage of Respondents Ever Told They Have Arthritis by Age


Figure 1.2. Percentage of Respondents
Ever Told They Have Arthritis by Race/Ethnicity


Figure 1.4. Percentage of Respondents Ever Told They Have Arthritis by Education Level


## Arthritis Prevalence (continued)

Figure 1.5. Percentage of Respondents Ever Told They Have Arthritis by Annual Household Income


Figure 1.6. 2013-2021 Trend of Respondents Ever Told They Have Arthritis

| 30.0\% | 29.2\% | 28.6\% | 31.3\% | 29.2\% | 32.2\% | 28.9\% | 30.4\% | 30.6\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 O |  |  |  |  |  |  |  |  |
| 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |

Table 1: Arthritis
Q: Ever told by a doctor, nurse, or other health professional that you had arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

| DEMOGRAPHIC GROUPS | RESPONDENTS |  | Yes |  |  | No |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | WEIGHTED | $N^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) |
|  |  |  |  |  |  |  |  |  |
| TOTAL | 4,400 | 2,255,532 | 1,674 | 30.6 | 28.9-32.2 | 2,726 | 69.4 | 67.8-71.1 |
|  |  |  |  |  |  |  |  |  |
| Male | 1,803 | 1,078,450 | 604 | 27.1 | 24.6-29.6 | 1,199 | 72.9 | 70.4-75.4 |
| Female | 2,597 | 1,177,082 | 1,070 | 33.7 | 31.4-36.0 | 1,527 | 66.3 | 64.0-68.6 |
|  |  |  |  |  |  |  |  |  |
| White, Non-Hispanic (NH) | 2,617 | 1,299,087 | 999 | 33.0 | 30.8-35.2 | 1,618 | 67.0 | 64.8-69.2 |
| Black, Non-Hispanic (NH) | 1,568 | 787,325 | 605 | 28.2 | 25.4-30.9 | 963 | 71.8 | 69.1-74.6 |
| Other Races/Ethnicities | 141 | 133,124 | 36 | 19.0 | 11.0-27.1 | 105 | 81.0 | 72.9-89.0 |
|  |  |  |  |  |  |  |  |  |
| 18-24 years | 277 | 283,716 | - | - | - | 269 | 96.7 | 93.8-99.6 |
| 25-34 years | 474 | 382,519 | 47 | 9.3 | 6.5-12.1 | 427 | 90.7 | 87.9-93.5 |
| 35-44 years | 510 | 357,485 | 90 | 16.9 | 13.1-20.7 | 420 | 83.1 | 79.3-86.9 |
| 45-54 years | 605 | 334,215 | 214 | 35.0 | 30.5-39.6 | 391 | 65.0 | 60.4-69.5 |
| 55-64 years | 853 | 361,815 | 416 | 50.0 | 45.8-54.2 | 437 | 50.0 | 45.8-54.2 |
| 65+ years | 1,613 | 507,619 | 881 | 55.0 | 51.9-58.1 | 732 | 45.0 | 41.9-48.1 |
|  |  |  |  |  |  |  |  |  |
| Less than H.S. | 441 | 330,925 | 241 | 48.3 | 42.2-54.3 | 200 | 51.7 | 45.7-57.8 |
| H.S. or G.E.D. | 1,291 | 683,923 | 531 | 30.7 | 27.7-33.7 | 760 | 69.3 | 66.3-72.3 |
| Some Post-H.S. | 1,270 | 771,604 | 451 | 26.2 | 23.5-29.0 | 819 | 73.8 | 71.0-76.5 |
| College Graduate | 1,381 | 461,840 | 443 | 24.7 | 22.0-27.4 | 938 | 75.3 | 72.6-78.0 |
|  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 319 | 178,472 | 167 | 37.0 | 30.2-43.9 | 152 | 63.0 | 56.1-69.8 |
| \$15,000-\$24,999 | 522 | 253,329 | 267 | 42.8 | 37.3-48.3 | 255 | 57.2 | 51.7-62.7 |
| \$25,000-\$34,999 | 597 | 318,923 | 244 | 33.4 | 28.6-38.2 | 353 | 66.6 | 61.8-71.4 |
| \$35,000-\$49,999 | 533 | 254,971 | 184 | 28.9 | 24.1-33.7 | 349 | 71.1 | 66.3-75.9 |
| \$50,000-\$74,999 | 558 | 286,528 | 180 | 25.8 | 21.4-30.2 | 378 | 74.2 | 69.8-78.6 |
| \$75,000+ | 849 | 459,138 | 228 | 22.0 | 18.5-25.5 | 621 | 78.0 | 74.5-81.5 |

(1) Unweighted number
(2) Weighted percent

Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator $<50$ or a relative standard error (RSE) $>30 \%$ are suppressed (indicated by dashes).

## Healthcare Provider-Recommended Physical Activity

## Overall

- Approximately 3 in 5 adults with arthritis (62.5\%) reported that a doctor or other health professional had ever suggested physical activity or exercise to help their arthritis or joint symptoms.


## Sex (Figure 2.1)

- The percentage of having physical activity suggested by a doctor was higher among women (64.9\%) compared to men (59.1\%). However, the difference was not statistically significant.


## Race/Ethnicity (Figure 2.2)

- The percentage of having physical activity suggested by a doctor was significantly higher among Black, NH adults (69.3\%) compared to White, NH adults (59.7\%). (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)


## Age (Figure 2.3)

- There were no significant differences in the percentage of having physical activity suggested by a doctor among age categories. (Note: The estimates for the 18-24 years and 25-34 years age groups were suppressed due to low response.)


## Educational Attainment (Figure 2.4)

- The percentage of having physical activity suggested by a doctor was significantly higher among adults who completed some college post-high school (69.0\%) and adults who graduated college (68.2\%) compared to adults who did not complete high school (54.8\%).


## Annual Household Income (Figure 2.5)

- There were no significant differences in the percentage of having physical activity suggested by a doctor among annual household income groups.


## Trend (Figure 2.6)

- The percentage of having physical activity suggested by a doctor increased significantly from $55.3 \%$ in 2013 to $68.5 \%$ in 2019 and then decreased significantly to $62.5 \%$ in 2021.


Figure 2.3. Percentage of Respondents with Arthritis Whose Doctor Suggested Exercise for Symptoms by Age



Figure 2.4. Percentage of Respondents with Arthritis Whose Doctor Suggested Exercise for Symptoms by Education Level


Healthcare Provider-Recommended Physical Activity (continued)

Figure 2.5. Percentage of Respondents with Arthritis Whose Doctor Suggested Exercise for Symptoms by Annual Household Income

| 68.4\% | 60.0\% | 65.7\% | 60.4\% | 63.9\% | 63.1\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Less <br> than | $\begin{aligned} & \$ 15,000 \\ & \text { to } \end{aligned}$ | $\begin{aligned} & \$ 25,000 \\ & \text { to } \end{aligned}$ | $\begin{aligned} & \$ 35,000 \\ & \text { to } \end{aligned}$ | $\begin{aligned} & \$ 50,000 \\ & \text { to } \end{aligned}$ | $\begin{gathered} \$ 75,000 \\ \text { or } \end{gathered}$ |
| \$15,000 | \$24,999 | \$34,999 | \$49,999 | \$74,999 | more |

Figure 2.6. 2013-2021 Trend of Doctors Suggesting Exercise for Arthritis Symptoms


Note: Data related to this topic were not collected in the 2015 and 2017 survey years.

| Q: Has a doctor | Table 2 <br> ther he | althcare professi arth | ider- <br> ever <br> or j |  | Physic ysical |  |  | your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEMOGRAPHIC | RES | ENTS |  | Yes |  |  | No |  |
| GROUPS | TOTAL | WEIGHTED | $\mathbf{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) | $\mathbf{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) |
|  |  |  |  |  |  |  |  |  |
| TOTAL | 1,655 | 681,203 | 1,043 | 62.5 | 59.5-65.4 | 612 | 37.5 | 34.6-40.5 |
|  |  |  |  |  |  |  |  |  |
| Male | 595 | 288,746 | 341 | 59.1 | 54.2-64.1 | 254 | 40.9 | 35.9-45.8 |
| Female | 1,060 | 392,457 | 702 | 64.9 | 61.1-68.7 | 358 | 35.1 | 31.3-38.9 |
|  |  |  |  |  |  |  |  |  |
| White, Non-Hispanic (NH) | 983 | 421,892 | 592 | 59.7 | 55.9-63.6 | 391 | 40.3 | 36.4-44.1 |
| Black, Non-Hispanic (NH) | 602 | 220,561 | 412 | 69.3 | 64.6-74.0 | 190 | 30.7 | 26.0-35.4 |
| Other Races/Ethnicities | 36 | 25,319 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |
| 18-24 years | 8 | 9,282 | - | - | - | - | - | - |
| 25-34 years | 47 | 35,579 | - | - | - | - | - | - |
| 35-44 years | 88 | 58,234 | 58 | 62.6 | 50.6-74.6 | 30 | 37.4 | 25.4-49.4 |
| 45-54 years | 211 | 114,511 | 130 | 60.1 | 52.2-68.0 | 81 | 39.9 | 32.0-47.8 |
| 55-64 years | 414 | 180,405 | 256 | 63.2 | 57.5-69.0 | 158 | 36.8 | 31.0-42.5 |
| 65+ years | 870 | 276,695 | 554 | 62.7 | 58.6-66.8 | 316 | 37.3 | 33.2-41.4 |
|  |  |  |  |  |  |  |  |  |
| Less than H.S. | 240 | 159,322 | 139 | 54.8 | 47.0-62.5 | 101 | 45.2 | 37.5-53.0 |
| H.S. or G.E.D. | 528 | 208,323 | 311 | 58.8 | 53.6-63.9 | 217 | 41.2 | 36.1-46.4 |
| Some Post-H.S. | 444 | 199,038 | 292 | 69.0 | 63.9-74.1 | 152 | 31.0 | 25.9-36.1 |
| College Graduate | 436 | 112,400 | 295 | 68.2 | 62.6-73.8 | 141 | 31.8 | 26.2-37.4 |
|  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 167 | 66,053 | 117 | 68.4 | 59.7-77.1 | 50 | 31.6 | 22.9-40.3 |
| \$15,000-\$24,999 | 263 | 107,512 | 163 | 60.0 | 52.6-67.3 | 100 | 40.0 | 32.7-47.4 |
| \$25,000-\$34,999 | 243 | 106,106 | 156 | 65.7 | 57.8-73.6 | 87 | 34.3 | 26.4-42.2 |
| \$35,000-\$49,999 | 181 | 72,974 | 109 | 60.4 | 51.2-69.6 | 72 | 39.6 | 30.4-48.8 |
| \$50,000-\$74,999 | 177 | 72,740 | 113 | 63.9 | 55.1-72.7 | 64 | 36.1 | 27.3-45.0 |
| \$75,000+ | 225 | 99,193 | 145 | 63.1 | 54.3-71.8 | 80 | 36.9 | 28.1-45.7 |
| (1) Unweighted number <br> (2) Weighted percent <br> Note: Denominator excludes respondents with do not know/refused/missing responses <br> Estimates with an unweighted denominator $<50$ or a relative standard error (RSE) $>30 \%$ are suppressed (indicated by dashes). |  |  |  |  |  |  |  |  |

## Self-Management Education Participation

## Overall

- Approximately 1 in 10 adults with arthritis (9.3\%) had ever taken an educational course or class to teach them how to manage problems related to their arthritis or joint symptoms.


## Sex (Figure 3.1)

- The percentage of ever taking an educational course related to managing arthritis was higher among women (10.1\%) compared to men (8.3\%). However, the difference was not statistically significant.


## Race/Ethnicity (Figure 3.2)

- The percentage of ever taking an educational course related to managing arthritis was higher among Black, NH adults (10.4\%) compared to White, NH adults (8.7\%). However, the difference was not statistically significant. (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)

Age (Figure 3.3)

- There were no significant differences in the percentage of ever taking an educational course related to managing arthritis among the examined age groups. (Note: The estimates for the 18-24, 25-34, and 35-44 years age groups were suppressed due to low response.)


## Educational Attainment (Figure 3.4)

- The percentage of ever taking an educational course related to managing arthritis increased as level of education increased. However, there were no significant differences in the percentage among education level groups.


## Annual Household Income (Figure 3.5)

- There were no significant differences in the percentage of ever taking an educational course related to managing arthritis among annual household income groups.


## Trend (Figure 3.6)

- The percentage of ever taking an educational course related to managing arthritis increased significantly from $8.2 \%$ in 2013 to $14.6 \%$ in 2019 and then decreased significantly to $9.3 \%$ in 2021.

| Figure 3.1. Percentage of Respondents <br> with Arthritis Who Took An Educational <br> Course by Sex |
| :---: |
| Male |

Figure 3.3. Percentage of Respondents with Arthritis Who Took An Educational Course by Age


Note: 18-24, 25-34, and 35-44 years age groups suppressed due to low response.

Figure 3.2. Percentage of Respondents with Arthritis Who Took An Educational Course by Race/Ethnicity


Figure 3.4. Percentage of Respondents with Arthritis Who Took An Educational Course by Education Level


## Self-Management Education Participation (continued)

Figure 3.5. Percentage of Respondents with Arthritis Who Took an Educational Course by Annual Household Income

| $13.4 \%$ | $6.5 \%$ | $4.4 \%$ | $10.2 \%$ | $10.3 \%$ | $11.9 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Less <br> than | $\$ 15,000$ <br> to | $\$ 25,000$ | to <br> to | $\$ 35,000$ | to |
| $\$ 15,000$ | $\$ 24,999$ | $\$ 34,999$ | $\$ 49,999$ | $\$ 50,000$ <br> to | $\$ 75,000$ <br> or |

Figure 3.6. 2013-2021 Trend of Taking an Educational Course for Managing Arthritis Symptoms


Note: Data related to this topic were not collected in the 2015 and 2017 survey years.

Table 3: Arthritis and Self-Management Education Participation
Q: Have you ever taken an educational course or class to teach you how to manage problems related to

## your arthritis or joint symptoms?

| DEMOGRAPHIC GROUPS | RESPONDENTS |  | Yes |  |  | No |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL | WEIGHTED | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) |
| TOTAL 1671 687839 164 93 $76-110$ 1507 907 890092.4 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Male | 604 | 292,460 | 54 | 8.3 | 5.6-10.9 | 550 | 91.7 | 89.1-94.4 |
| Female | 1,067 | 395,379 | 110 | 10.1 | 7.9-12.4 | 957 | 89.9 | 87.6-92.1 |
|  |  |  |  |  |  |  |  |  |
| White, Non-Hispanic (NH) | 999 | 428,823 | 91 | 8.7 | 6.6-10.8 | 908 | 91.3 | 89.2-93.4 |
| Black, Non-Hispanic (NH) | 602 | 220,266 | 65 | 10.4 | 7.3-13.6 | 537 | 89.6 | 86.4-92.7 |
| Other Races/Ethnicities | 36 | 25,319 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |
| 18-24 years | 8 | 9,282 | - | - | - | - | - | - |
| 25-34 years | 47 | 35,579 | - | - | - | - | - | - |
| 35-44 years | 90 | 60,450 | - | - | - | 78 | 89.4 | 82.6-96.3 |
| 45-54 years | 212 | 115,946 | 29 | 11.9 | 7.2-16.5 | 183 | 88.1 | 83.5-92.8 |
| 55-64 years | 416 | 180,965 | 48 | 11.1 | 7.5-14.7 | 368 | 88.9 | 85.3-92.5 |
| $65+$ years | 880 | 278,778 | 68 | 6.6 | 4.7-8.5 | 812 | 93.4 | 91.5-95.3 |
|  |  |  |  |  |  |  |  |  |
| Less than H.S. | 241 | 159,677 | 20 | 6.8 | 3.2-10.5 | 221 | 93.2 | 89.5-96.8 |
| H.S. or G.E.D. | 531 | 210,257 | 40 | 8.5 | 5.5-11.5 | 491 | 91.5 | 88.5-94.5 |
| Some Post-H.S. | 449 | 201,580 | 47 | 9.8 | 6.8-12.9 | 402 | 90.2 | 87.1-93.2 |
| College Graduate | 442 | 113,401 | 56 | 13.3 | 9.1-17.5 | 386 | 86.7 | 82.5-90.9 |
|  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 166 | 65,477 | 17 | 13.4 | 6.7-20.0 | 149 | 86.6 | 80.0-93.3 |
| \$15,000-\$24,999 | 266 | 108,100 | 24 | 6.5 | 3.3-9.7 | 242 | 93.5 | 90.3-96.7 |
| \$25,000-\$34,999 | 244 | 106,549 | 20 | 4.4 | 2.1-6.7 | 224 | 95.6 | 93.3-97.9 |
| \$35,000-\$49,999 | 184 | 73,766 | 20 | 10.2 | 5.2-15.2 | 164 | 89.8 | 84.8-94.8 |
| \$50,000-\$74,999 | 180 | 74,061 | 18 | 10.3 | 5.1-15.5 | 162 | 89.7 | 84.5-94.9 |
| \$75,000+ | 228 | 100,967 | 26 | 11.9 | 6.7-17.1 | 202 | 88.1 | 82.9-93.3 |

(1) Unweighted number
(2) Weighted percent

Note: Denominator excludes respondents with do not know/refused/missing responses
Estimates with an unweighted denominator $<50$ or a relative standard error (RSE) $>30 \%$ are suppressed (indicated by dashes).

## Arthritis-Attributable Activity Limitations

## Overall

- Approximately 4 in 10 adults with arthritis (44.8\%) reported that they were currently limited in any of their usual activities because of arthritis or joint symptoms.


## Sex (Figure 4.1)

- The percentage of being limited in usual activities was significantly higher among women (49.5\%) compared to men (38.4\%).


## Race/Ethnicity (Figure 4.2)

- The percentage of being limited in usual activities was higher among Black, NH adults (49.2\%) compared to White, NH adults (42.2\%). However, the difference was not statistically significant. (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)


## Age (Figure 4.3)

- There were no significant differences in the percentage of being limited in usual activities among the examined age groups. (Note: The estimates for the 18-24 years and 25-34 years age groups were suppressed due to low response.)


## Educational Attainment (Figure 4.4)

- The percentage of being limited in usual activities was significantly higher among adults who completed some college post-high school (49.1\%) compared to adults who graduated from college (36.8\%).


## Annual Household Income (Figure 4.5)

- The percentage of being limited in usual activities increased as annual household income decreased and was significantly higher among adults who earned less than $\mathbf{\$ 1 5 , 0 0 0}$ ( $66.5 \%$ ) and $\mathbf{\$ 1 5 , 0 0 0}$ to $\mathbf{\$ 2 4 , 9 9 9}$ (56.1\%) compared to adults who earned $\$ 50,000$ to $\$ 74,999$ ( $32.2 \%$ ) and $\$ 75,000$ or more (33.4\%).


## Trend (Figure 4.6)

- The percentage of being limited in usual activities decreased significantly from 2013 to 2021. The estimates for the years 2013 (56.3\%), 2015 (56.7\%), and 2017 (59.0\%) were each significantly higher than the estimates for 2019 (46.6\%) and 2021 (44.8\%).



## Arthritis-Attributable Activity Limitations (continued)

Figure 4.5. Percentage of Respondents with Arthritis-Attributable Activity Limitations by Annual Household Income


Figure 4.6. 2013-2021 Trend of Arthritis-Attributable Activity Limitations



## Arthritis-Attributable Work Limitations

## Overall

- Approximately 4 in 10 adults with arthritis (40.6\%) reported that their arthritis or joint symptoms currently affected whether they worked, the type of work they did, or the amount of work they did.


## Sex (Figure 5.1)

- The percentage of having work affected by arthritis was higher among women (41.3\%) compared to men (39.7\%). However, the difference was not statistically significant.


## Race/Ethnicity (Figure 5.2)

- The percentage of having work affected by arthritis was significantly higher among Black, NH adults (51.7\%) compared to White, NH adults (34.2\%). (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)


## Age (Figure 5.3)

- The percentage of having work affected by arthritis was significantly higher among adults aged 45-54 years (51.1\%) and 55-64 years ( $47.1 \%$ ) compared to adults aged $65+$ years ( $31.4 \%$ ). (Note: The estimates for the 18-24 years and 25-34 years age groups were suppressed due to low response.)


## Educational Attainment (Figure 5.4)

- The percentage of having work affected by arthritis increased as education level decreased; however, there were no significant differences in the percentage among education level groups.


## Annual Household Income (Figure 5.5)

- Overall, the percentage of having work affected by arthritis increased as annual household income decreased and was significantly higher among adults who earned less than $\$ \mathbf{1 5 , 0 0 0}(61.8 \%)$ and $\mathbf{\$ 1 5 , 0 0 0}$ to $\mathbf{\$ 2 4 , 9 9 9}$ (51.3\%) compared to adults who earned $\$ 35,000$ to $\$ 49,999$ ( $30.9 \%$ ) and $\$ 50,000$ to $\$ 74,999$ (27.3\%). In addition, the percentage among adults whose annual household income was less than $\mathbf{\$ 1 5 , 0 0 0}$ was significantly higher compared to adults who earned $\$ 75,000$ or more ( $36.4 \%$ ).


## Trend (Figure 5.6)

- The percentage of having work affected by arthritis or joint symptoms decreased from $44.1 \%$ in 2013 to $40.6 \%$ in 2021; however, the difference between the two estimates is not statistically significant.




Figure 5.4. Percentage of Respondents with Arthritis-Attributable Work Limitations by Education Level


## Arthritis-Attributable Work Limitations (continued)

Figure 5.5. Percentage of Respondents with Arthritis-Attributable Work Limitations by Annual Household Income

| 61.8\% | 51.3\% | 41.1\% | 30.9\% | 27.3\% | 36.4\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Less | \$15,000 | \$25,000 | \$35,000 | \$50,000 | \$75,000 |
| than | to | to | to | to | or |
| \$15,000 | \$24,999 | \$34,999 | \$49,999 | \$74,999 | more |

Figure 5.6. 2013-2021 Trend of Arthritis-Attributable Work Limitations
44.1\%
40.2\%
45.9\%
40.6\%
40.6\%

O
0
0
0

| Table 5: Arthritis-Attributable Work Limitations <br> Q: In the next question, we are referring to work for pay. Do arthritis or joint symptoms now affect whether you work, the type of work you do or the amount of work you do? |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEMOGRAPHIC GROUPS | RESPONDENTS |  | Yes |  |  | No |  |  |
|  | TOTAL | WEIGHTED | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) | $\mathbf{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) |
|  |  |  |  |  |  |  |  |  |
| TOTAL | 1,638 | 674,190 | 619 | 40.6 | 37.5-43.7 | 1,019 | 59.4 | 56.3-62.5 |
|  |  |  |  |  |  |  |  |  |
| Male | 593 | 286,489 | 221 | 39.7 | 34.7-44.7 | 372 | 60.3 | 55.3-65.3 |
| Female | 398 | 160,051 | 398 | 41.3 | 37.3-45.2 | 647 | 58.7 | 54.8-62.7 |
|  |  |  |  |  |  |  |  |  |
| White, Non-Hispanic (NH) | 976 | 418,393 | 320 | 34.2 | 30.5-37.9 | 656 | 65.8 | 62.1-69.5 |
| Black, Non-Hispanic (NH) | 594 | 217,645 | 270 | 51.7 | 46.3-57.0 | 324 | 48.3 | 43.0-53.7 |
| Other Races/Ethnicities | 35 | 25045 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |
| 18-24 years | 7 | 8,590 | - | - | - | - | - | - |
| 25-34 years | 47 | 35,579 | - | - | - | - | - | - |
| 35-44 years | 87 | 57,167 | 43 | 47.8 | 35.4-60.3 | 44 | 52.2 | 39.7-64.6 |
| 45-54 years | 211 | 113,866 | 109 | 51.1 | 43.0-59.2 | 102 | 48.9 | 40.8-57.0 |
| 55-64 years | 410 | 178,414 | 203 | 47.1 | 40.9-53.2 | 207 | 52.9 | 46.8-59.1 |
| $65+$ years | 858 | 273,735 | 238 | 31.4 | 27.2-35.5 | 620 | 68.6 | 64.5-72.8 |
|  |  |  |  |  |  |  |  |  |
| Less than H.S. | 239 | 158,635 | 99 | 43.6 | 35.8-51.4 | 140 | 56.4 | 48.6-64.2 |
| H.S. or G.E.D. | 520 | 206,582 | 213 | 42.5 | 37.2-47.8 | 307 | 57.5 | 52.2-62.8 |
| Some Post-H.S. | 437 | 193,467 | 176 | 41.1 | 35.4-46.9 | 261 | 58.9 | 53.1-64.6 |
| College Graduate | 434 | 112,583 | 127 | 31.8 | 26.2-37.4 | 307 | 68.2 | 62.6-73.8 |
|  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 163 | 64,128 | 91 | 61.8 | 52.9-70.8 | 72 | 38.2 | 29.2-47.1 |
| \$15,000-\$24,999 | 264 | 106,938 | 133 | 51.3 | 43.8-58.8 | 131 | 48.7 | 41.2-56.2 |
| \$25,000-\$34,999 | 239 | 104,908 | 93 | 41.1 | 32.5-49.6 | 146 | 58.9 | 50.4-67.5 |
| \$35,000-\$49,999 | 179 | 70,695 | 56 | 30.9 | 22.5-39.2 | 123 | 69.1 | 60.8-77.5 |
| \$50,000-\$74,999 | 178 | 73,626 | 47 | 27.3 | 19.0-35.6 | 131 | 72.7 | 64.4-81.0 |
| \$75,000+ | 225 | 100,121 | 69 | 36.4 | 27.5-45.4 | 156 | 63.6 | 54.6-72.5 |
| (1) Unweighted number <br> (2) Weighted percent <br> Note: Denominator excludes respondents with do not know/refused/missing responses <br> Estimates with an unweighted denominator $<50$ or a relative standard error (RSE) $>30 \%$ are suppressed (indicated by dashes). |  |  |  |  |  |  |  |  |

## Severe Joint Pain

## Overall

- On a pain scale of $0-10$, in which 10 is the worst pain...
- $21.8 \%$ of adults with arthritis reported their average joint pain to be a 3 or lower.
- $32.1 \%$ of adults with arthritis reported their average joint pain to be a 4 through 6 (moderate).
- $46.1 \%$ of adults with arthritis reported their average joint pain to be a 7 or higher (severe).


## Sex (Figure 6.1)

- The percentage of having severe joint pain was significantly higher among women (50.9\%) compared to men (39.5\%).


## Race/Ethnicity (Figure 6.2)

- The percentage of having severe joint pain was significantly higher among Black, NH adults (61.2\%) compared to White, NH adults (38.1\%). (Note: The percentage among adults of other races/ethnicities was suppressed due to low response.)


## Age (Figure 6.3)

- The percentage of having severe joint pain was significantly higher among adults aged 45-54 years ( $54.7 \%$ ) and $55-64$ years ( $56.3 \%$ ) compared to adults aged $65+$ years ( $38.3 \%$ ). (Note: The estimates for the 18-24 years and 25-34 years age groups were suppressed due to low response.)


## Educational Attainment (Figure 6.4)

- The percentage of having severe joint pain was significantly lower among adults who graduated from college ( $28.8 \%$ ) compared to adults of all lower education level groups.


## Annual Household Income (Figure 6.5)

- Overall, the percentage of having severe joint pain increased as annual household income decreased and was significantly higher among adults who earned less than $\mathbf{\$ 1 5 , 0 0 0}$ ( $75.1 \%$ ) compared to all higher annual household income groups.
- The percentage of having severe joint pain was significantly higher among adults who earned $\mathbf{\$ 1 5 , 0 0 0}$ to $\$ 24,999$ (55.7\%) compared to adults who earned $\$ 50,000$ to $\$ 74,999$ (28.8\%) and $\$ 75,000$ or more (30.2\%).


## Trend (Figure 6.6)

- The percentage of having severe joint pain increased from $43.7 \%$ in 2013 to $46.1 \%$ in 2021; however, there were no statistically significant differences between the estimates.

Figure 6.1. Percentage of Respondents by Average Joint Pain in Last 30 Days on a Scale of 0-10


## Severe Joint Pain (continued)

Figure 6.2. Percentage of Respondents with Arthritis and Severe Joint Pain by Sex


Figure 6.4. Percentage of Respondents with Arthritis and Severe Joint Pain by Age


Note: 18-24 and 25-34 years age groups suppressed due to low response.

Figure 6.3. Percentage of Respondents with Arthritis and Severe Joint Pain by Race/Ethnicity


Note: Other race/ethnicity group suppressed due to low response.

Figure 6.5. Percentage of Respondents with Arthritis and Severe Joint Pain by Education Level


Figure 6.6. Percentage of Respondents with Arthritis and Severe Joint Pain by Annual Household Income


Figure 6.7. 2013-2021 Trend of Severe Joint Pain


## Severe Joint Pain (continued)

| Table 5: Severe Joint Pain <br> Q: During the past 30 days, how bad was your joint pain on average on a scale of 0 to 10 where 0 is no pain and 10 is pain or aching as bad as it can be? |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DEMOGRAPHIC GROUPS | RESPONDENTS |  | Severe Pain |  |  | Moderate Pain or Less |  |  |
|  | TOTAL | WEIGHTED | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) | $\mathrm{N}^{(1)}$ | \% ${ }^{(2)}$ | C.I. (95\%) |
|  |  |  |  |  |  |  |  |  |
| TOTAL | 1,630 | 672,883 | 715 | 46.1 | 42.9-49.2 | 915 | 53.9 | 50.8-57.1 |
|  |  |  |  |  |  |  |  |  |
| Male | 584 | 283,508 | 207 | 39.5 | 34.4-44.6 | 377 | 60.5 | 55.4-65.6 |
| Female | 1,046 | 389,374 | 508 | 50.9 | 46.9-54.8 | 538 | 49.1 | 45.2-53.1 |
|  |  |  |  |  |  |  |  |  |
| White, Non-Hispanic (NH) | 975 | 417,449 | 343 | 38.1 | 34.2-41.9 | 632 | 61.9 | 58.1-65.8 |
| Black, Non-Hispanic (NH) | 588 | 217,793 | 337 | 61.2 | 56.0-66.3 | 251 | 38.8 | 33.7-44.0 |
| Other Races/Ethnicities | 36 | 25,319 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |
| 18-24 years | 8 | 9,282 | - | - | - | - | - | - |
| 25-34 years | 46 | 35,053 | - | - | - | - | - | - |
| 35-44 years | 90 | 60,450 | 36 | 39.9 | 28.0-51.8 | 54 | 60.1 | 48.2-72.0 |
| 45-54 years | 212 | 114,945 | 117 | 54.7 | 46.7-62.7 | 95 | 45.3 | 37.3-53.3 |
| 55-64 years | 407 | 176,369 | 224 | 56.3 | 50.2-62.4 | 183 | 43.7 | 37.6-49.8 |
| $65+$ years | 851 | 270,731 | 313 | 38.3 | 34.0-42.5 | 538 | 61.7 | 57.5-66.0 |
|  |  |  |  |  |  |  |  |  |
| Less than H.S. | 236 | 156,618 | 141 | 59.2 | 51.4-66.9 | 95 | 40.8 | 33.1-48.6 |
| H.S. or G.E.D. | 514 | 204,011 | 243 | 44.1 | 38.8-49.3 | 271 | 55.9 | 50.7-61.2 |
| Some Post-H.S. | 439 | 197,665 | 199 | 47.2 | 41.3-53.0 | 240 | 52.8 | 47.0-58.7 |
| College Graduate | 435 | 112,451 | 128 | 28.8 | 23.4-34.2 | 307 | 71.2 | 65.8-76.6 |
|  |  |  |  |  |  |  |  |  |
| Less than \$15,000 | 162 | 63,505 | 115 | 75.1 | 67.4-82.8 | 47 | 24.9 | 17.2-32.6 |
| \$15,000-\$24,999 | 263 | 106,577 | 149 | 55.7 | 48.2-63.2 | 114 | 44.3 | 36.8-51.8 |
| \$25,000-\$34,999 | 242 | 105,698 | 100 | 43.5 | 34.8-52.1 | 142 | 56.5 | 47.9-65.2 |
| \$35,000-\$49,999 | 179 | 71,344 | 72 | 40.2 | 31.0-49.4 | 107 | 59.8 | 50.6-69.0 |
| \$50,000-\$74,999 | 177 | 71,671 | 46 | 28.8 | 20.4-37.2 | 131 | 71.2 | 62.8-79.6 |
| \$75,000+ | 219 | 98,117 | 52 | 30.2 | 21.2-39.3 | 167 | 69.8 | 60.7-78.8 |
| (1) Unweighted number <br> (2) Weighted percent <br> Note: Denominator excludes respondents with do not know/refused/missing responses <br> Estimates with an unweighted denominator $<50$ or a relative standard error (RSE) $>30 \%$ are suppressed (indicated by dashes). |  |  |  |  |  |  |  |  |

