

Cumulative Medical Expenses After Age 70: Results from the AHEAD Sample in Health and Retirement Study (HRS)

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AHEAD Sample

- Born before 1924.
- First interviewed in 1993, so all respondents were at least 70 years old at the time of their first interview.
- Initial sample size # 8,335.
- Sample size for the study # 6,619 (dead members of the AHEAD cohort)
- After respondents die, there is an exit interview, most likely with the surviving spouse or children.
- The long panel allows to calculate the actual cumulative medical expenses incurred, as opposed to future projections based on various factors as done in most studies.

Out-of-Pocket (OOP) Medical Expenses

The following items are captured in OOP Medical Expenses

- Hospital Stays
- Nursing Home Stays
- Outpatient Surgery
- Doctor Visits
- Dental Services
- Prescription Drugs
- Home Health Care
- Other Health Services
- Hospice (exit interview only)

Note: Health Insurance expenses, and over-the-counter medicine expenses are NOT included.

Adjustment for Medical Inflation

Medical inflation adjustment done using Consumer Price Index for All Urban Consumers (1982-1984=100), Medical Care, Table: CPIMEDSL, Federal Reserve Bank of St. Louis

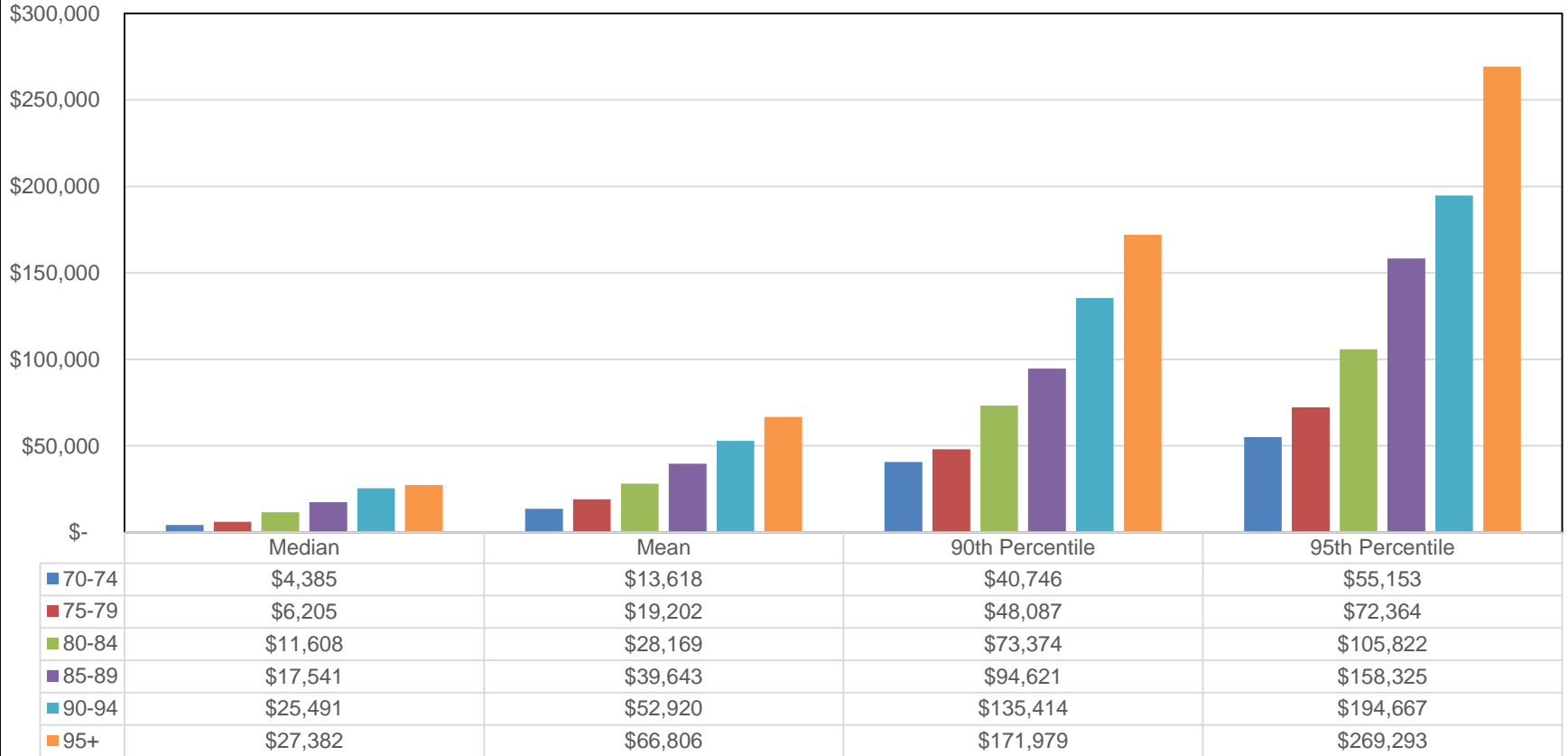
Takeaways

- For majority of people, out-of-pocket (OOP) medical expenses are moderate. But it could be very high for some.
 - ❑ Died at 95 or later: the cumulative median was \$27,000 but the 90th percentile was \$172,000.
 - ❑ Median annual expenses were nearly \$2,000. But the 95th percentile for annual expenses was about \$19,000.
- Nursing home expenses are the biggest contributor behind the highly skewed right tail of the distribution of OOP medical expenses .
 - ❑ Died 95 or later: Without nursing home expenses, the 90th percentile of the cumulative distribution dropped from \$172,000 to \$96,000.
- Not everyone who enters a nursing home incurs an OOP nursing home expense.
 - ❑ Nearly 46 percent of retirees reported having an overnight nursing home stay after age 70, but only 23 percent reported out-of-pocket expenses for a nursing home stay.
- Longer life also means higher probability of entering a nursing home.
 - ❑ While 15.3 percent of those who died between the ages of 70 and 74 reported an overnight nursing home stay, that number went up to 61 percent for those who died at or after the age of 95.

Takeaways (continued)

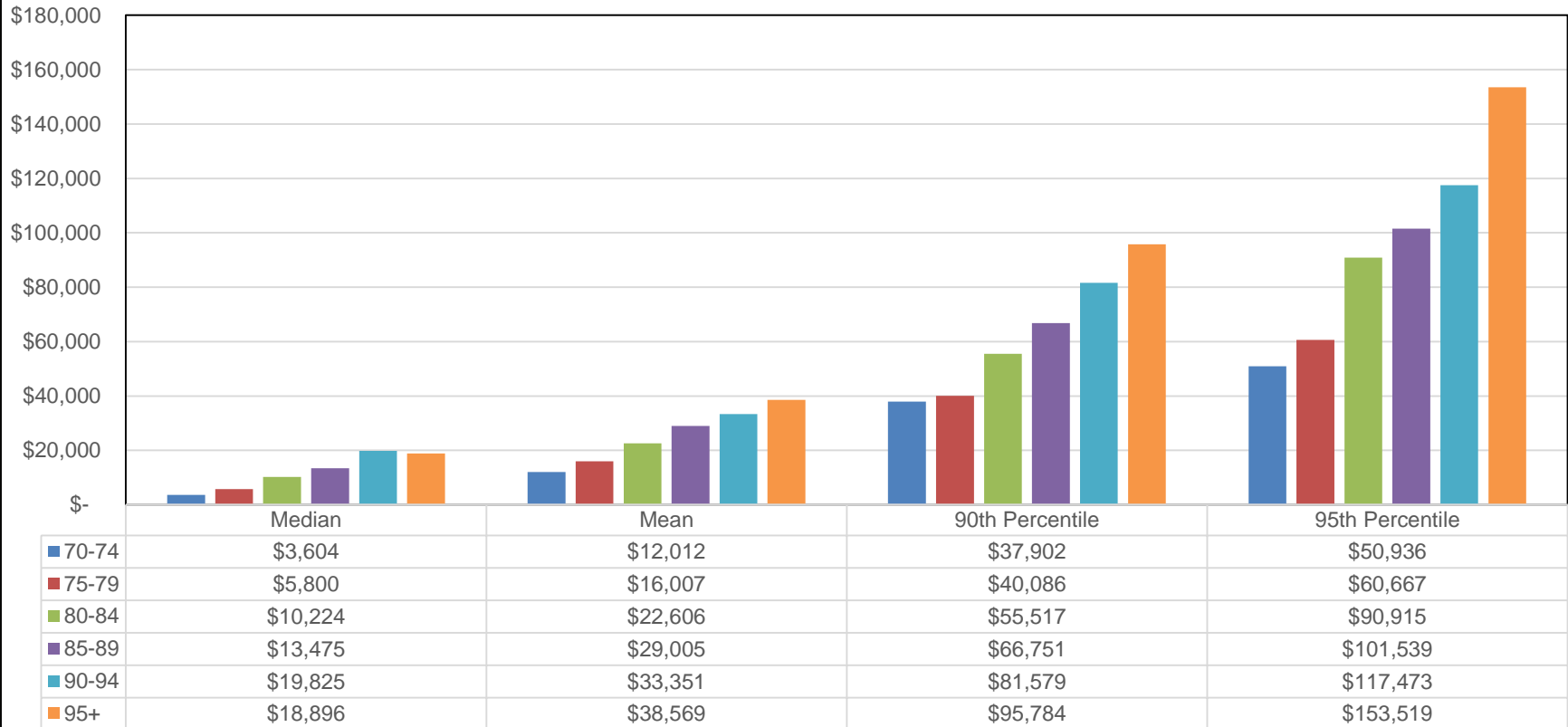
- Majority of people did not have any nursing home expense. But it could be very large for some.
 - ❑ Irrespective of age of death median nursing home expenses were zero.
 - ❑ But the 90th and 95th percentiles of nursing home expenses were \$87,000 and \$175,000 respectively.
 - ❑ Conditional on a nursing home entry, the 90th and 95th percentiles went up to \$182,000 and \$266,000 respectively.
- Women are much more likely to enter a nursing home than men.
 - ❑ 38 percent of men and 51 percent of women reported a nursing home stay after age 70.
- Women are also more likely to spend more on nursing home care than men.
 - ❑ Died 95 or later: 90th percentile for nursing home expenses were \$77,000 and \$99,000 for men and women respectively.

Figure 1
**Distribution of Cumulative Total Out-of-Pocket Medical Expenses (in 2015\$,
 adjusted for Medical Inflation) After Age 70, by Age of Death**



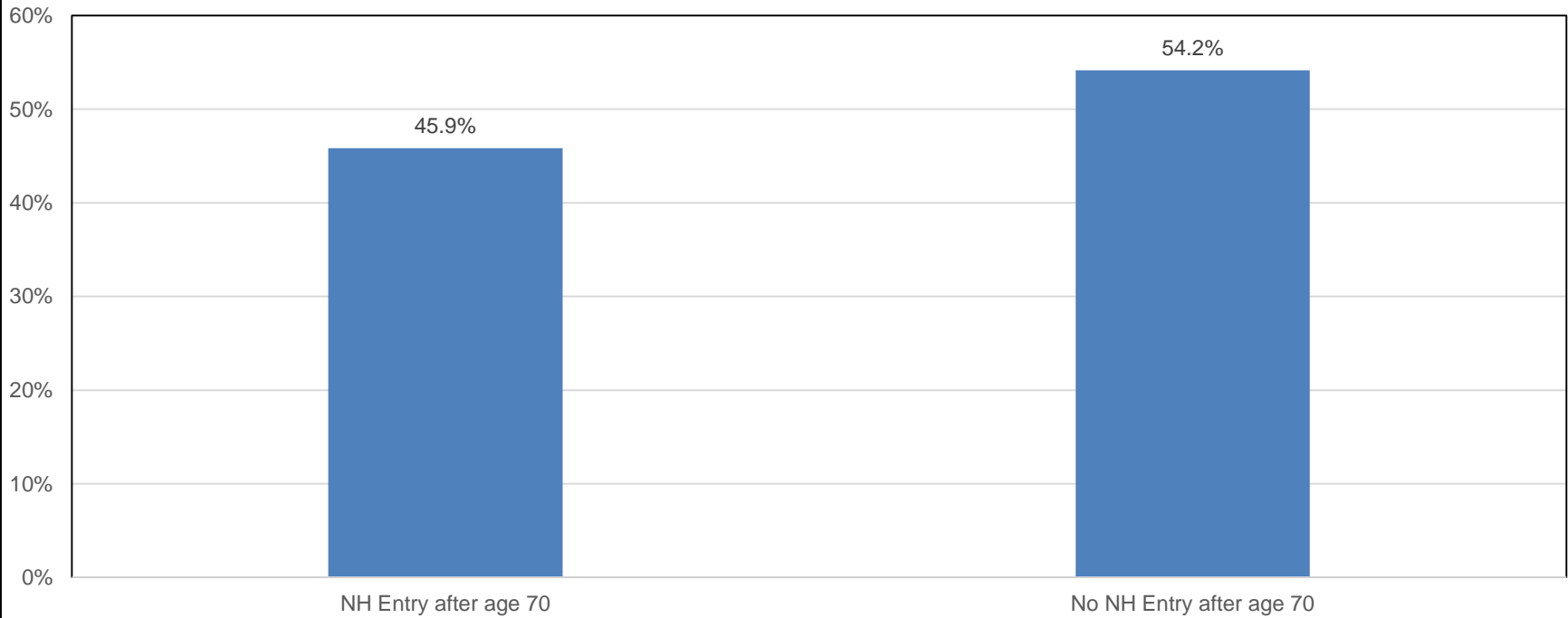
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 2
**Distribution of Cumulative Total Out-of-Pocket Medical Expenses (in 2015\$,
 adjusted for Medical Inflation) After Age 70, Without Out-of-Pocket Nursing
 Home Expenses, by Age of Death**



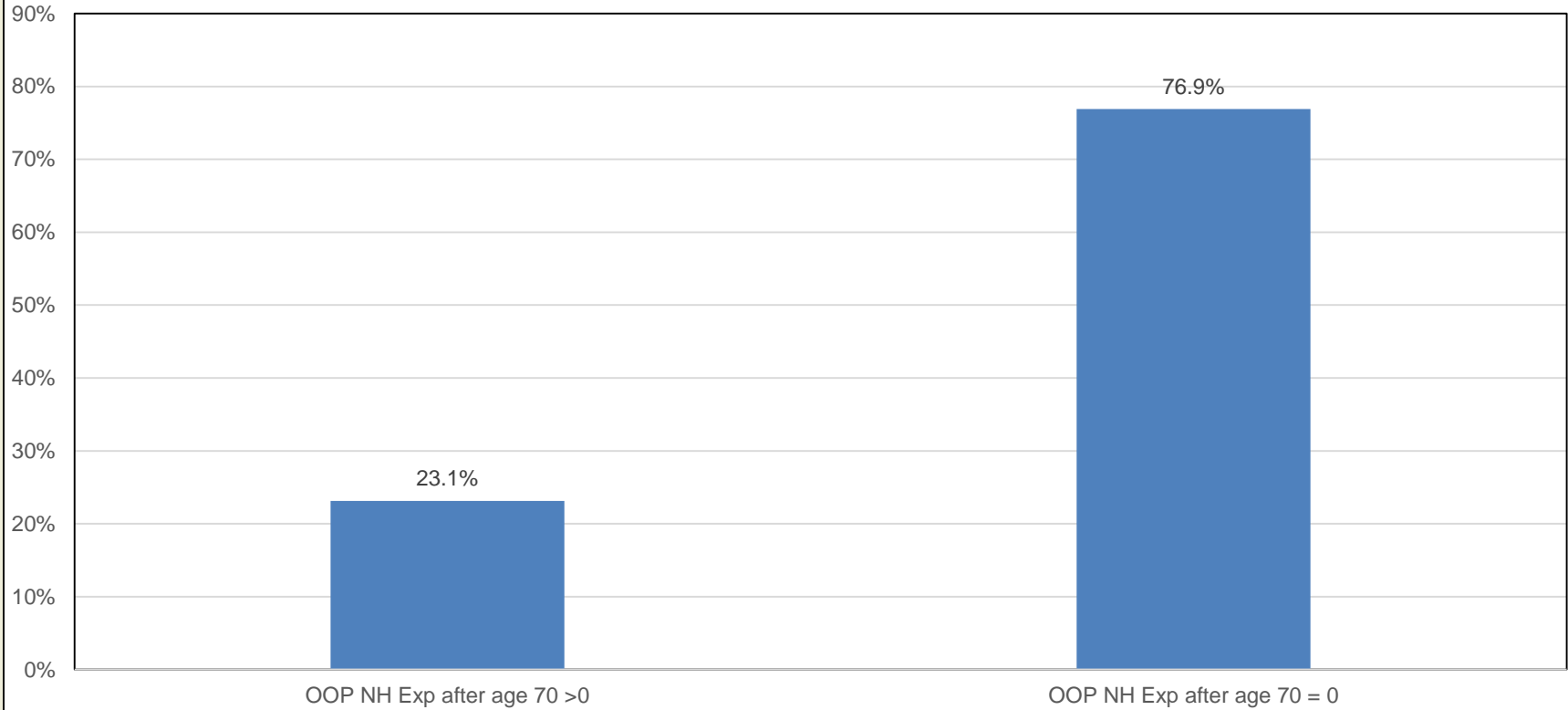
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 3
Percentage of Retirees With and Without an Overnight Nursing Home Stay After Age 70 Until Death



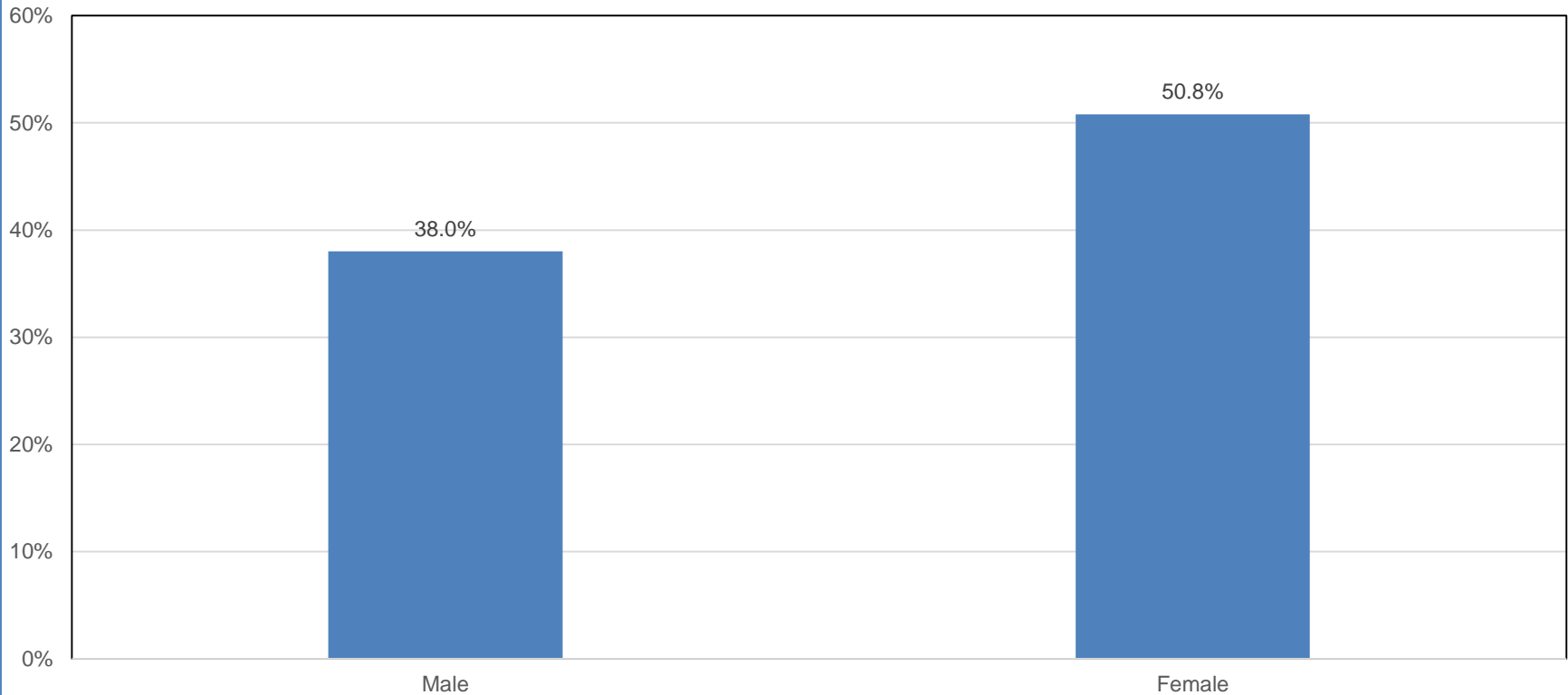
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 4
Percentage of Retirees With or Without a Non-Zero Out-of-Pocket Nursing Home Expense After Age 70 Until Death



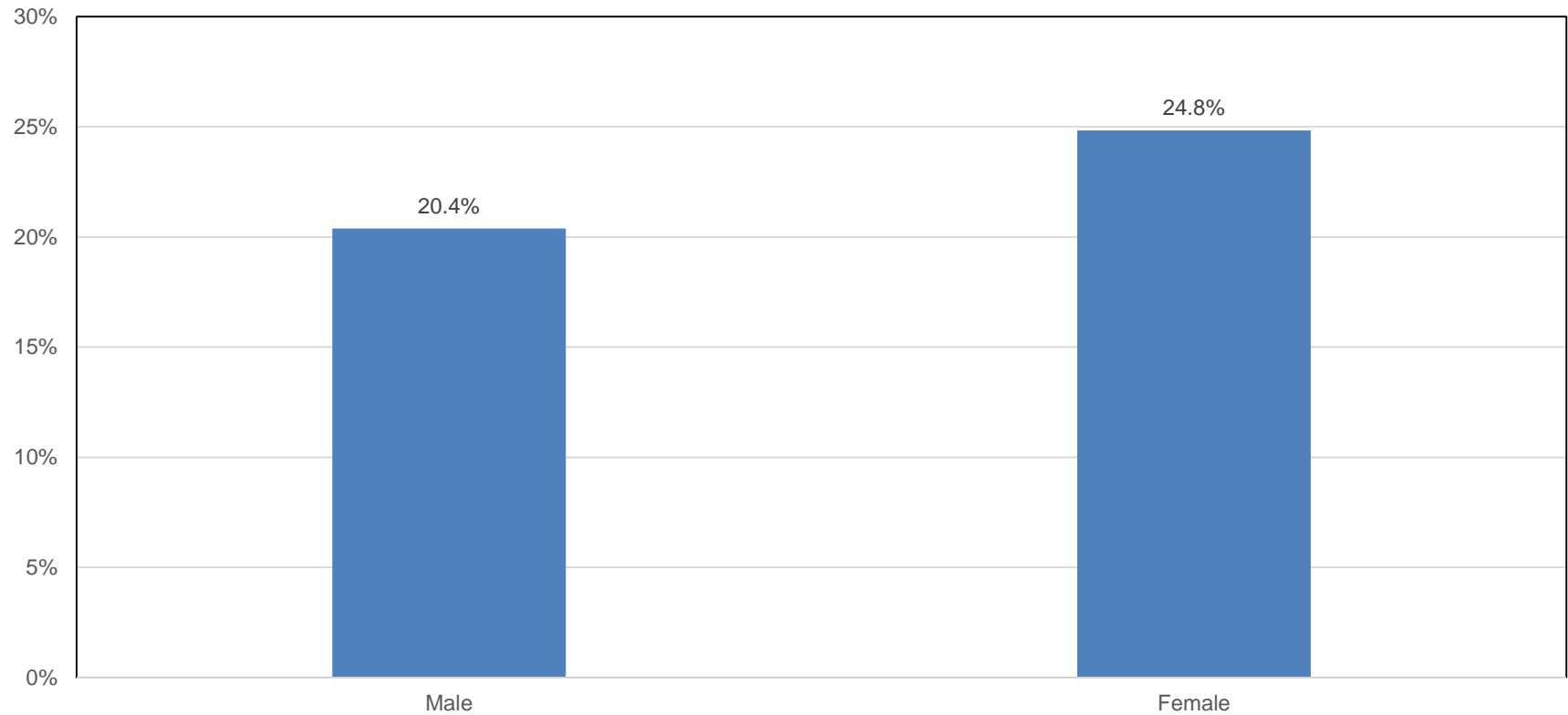
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 5
Percentage of Retirees With and Without an Overnight Nursing Home Stay
After Age 70 Until Death, By Gender



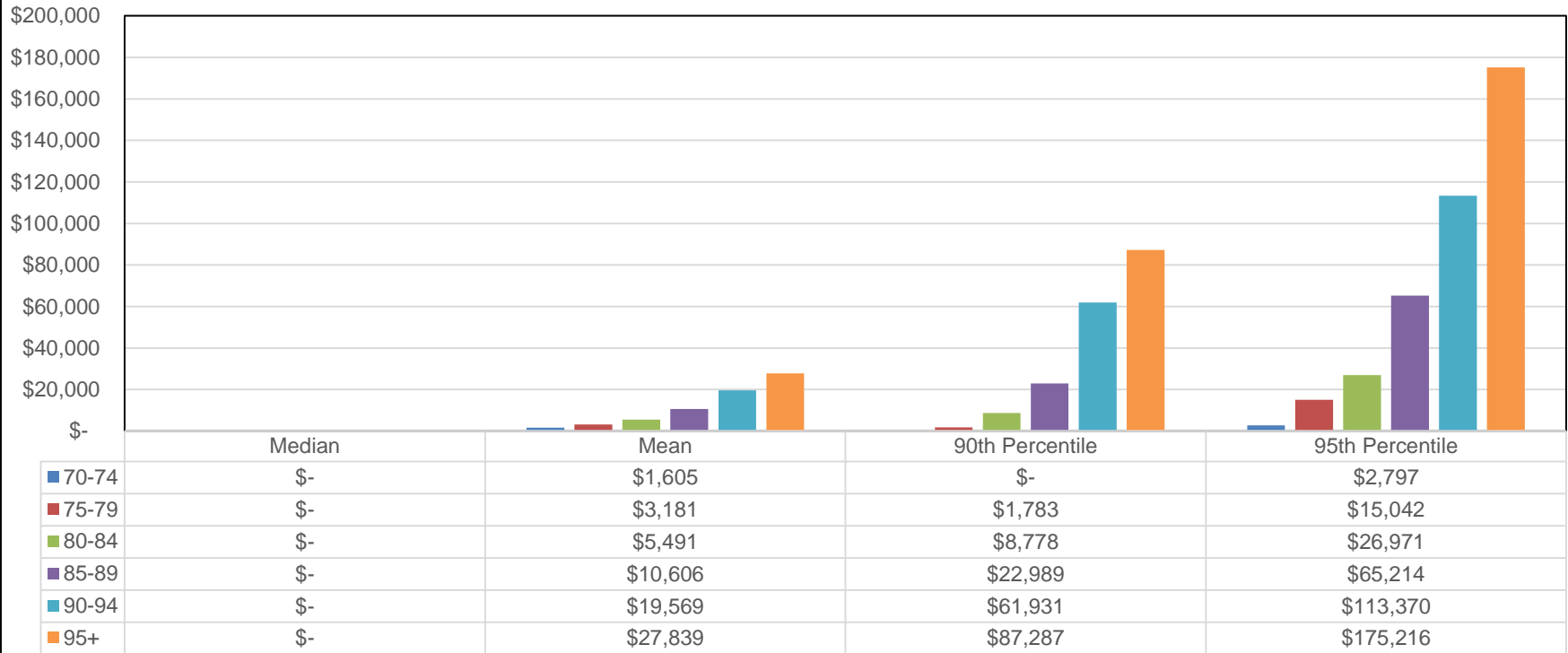
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 6
Percentage of Retirees With a Non-Zero Out-of-Pocket Nursing Home Expense After Age 70 Until Death, By Gender



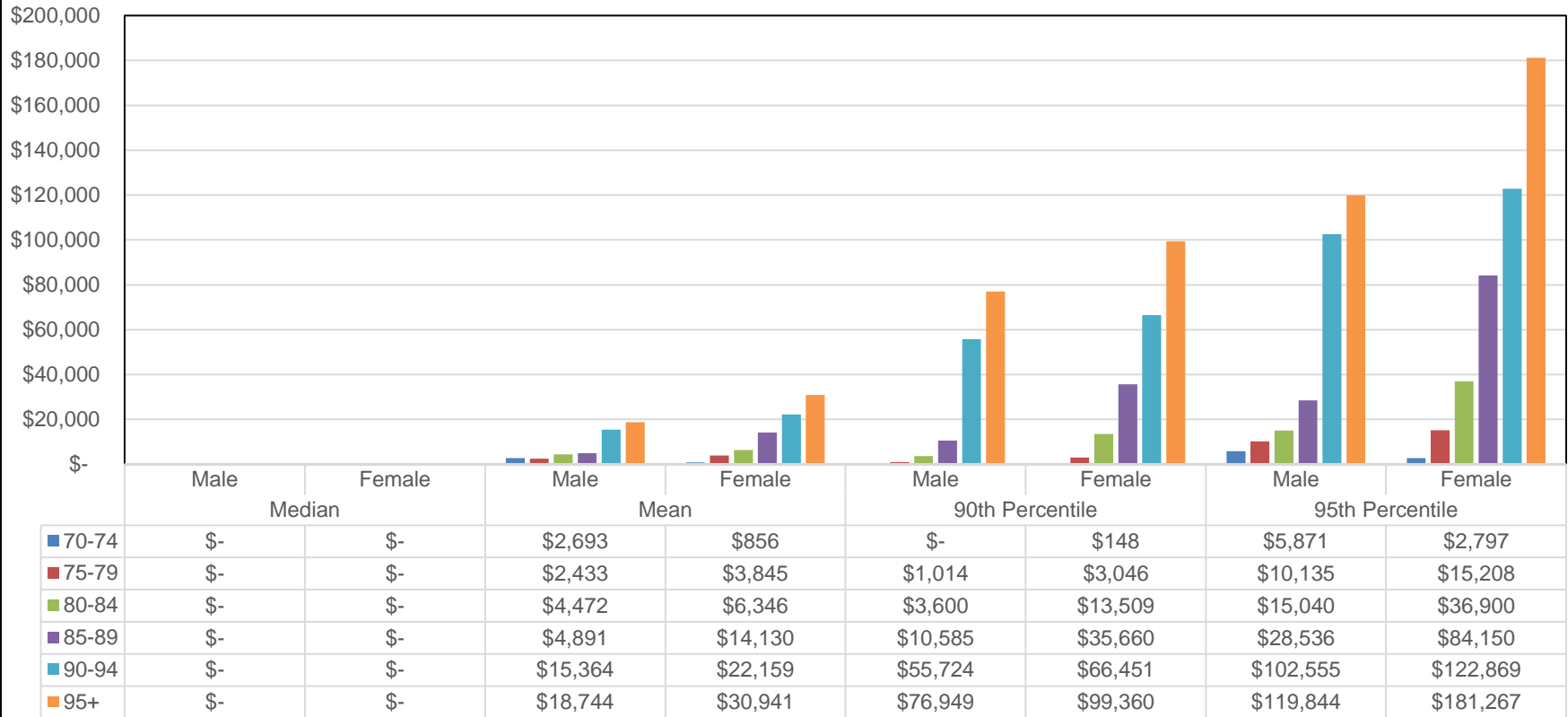
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 7
Distribution of Cumulative Total Out-of-Pocket Nursing Home Expenses (in 2015\$, adjusted for Medical Inflation) After Age 70, by Age of Death, NOT Conditional on Nursing Home Entry



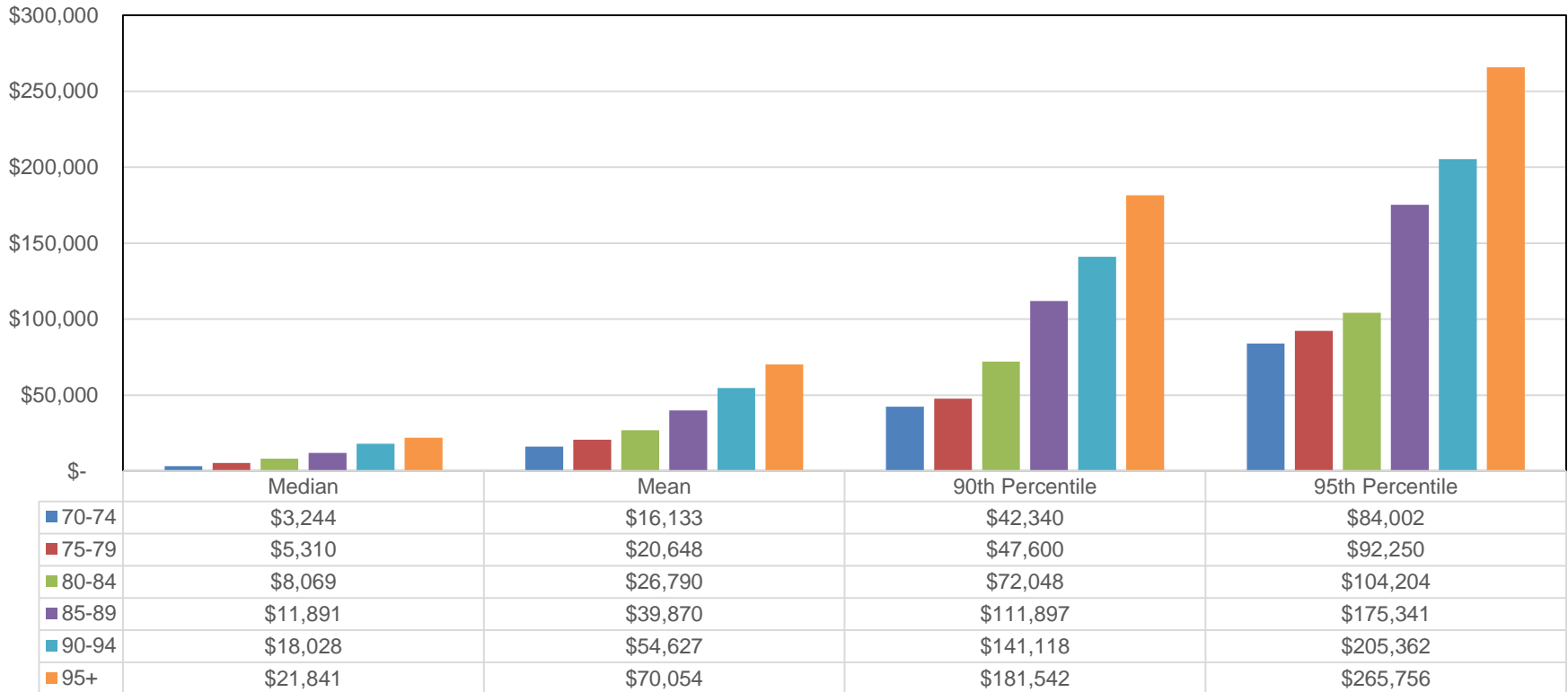
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 8
Distribution of Cumulative Total Out-of-Pocket Nursing Home Expenses (in 2015\$, adjusted for Medical Inflation) After Age 70, by Gender and Age of Death, NOT Conditional on Nursing Home Entry



Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 9
Distribution of Cumulative Total Out-of-Pocket Nursing Home Expenses (in 2015\$, adjusted for Medical Inflation) After Age 70, by Age of Death, Conditional on Nursing Home Entry



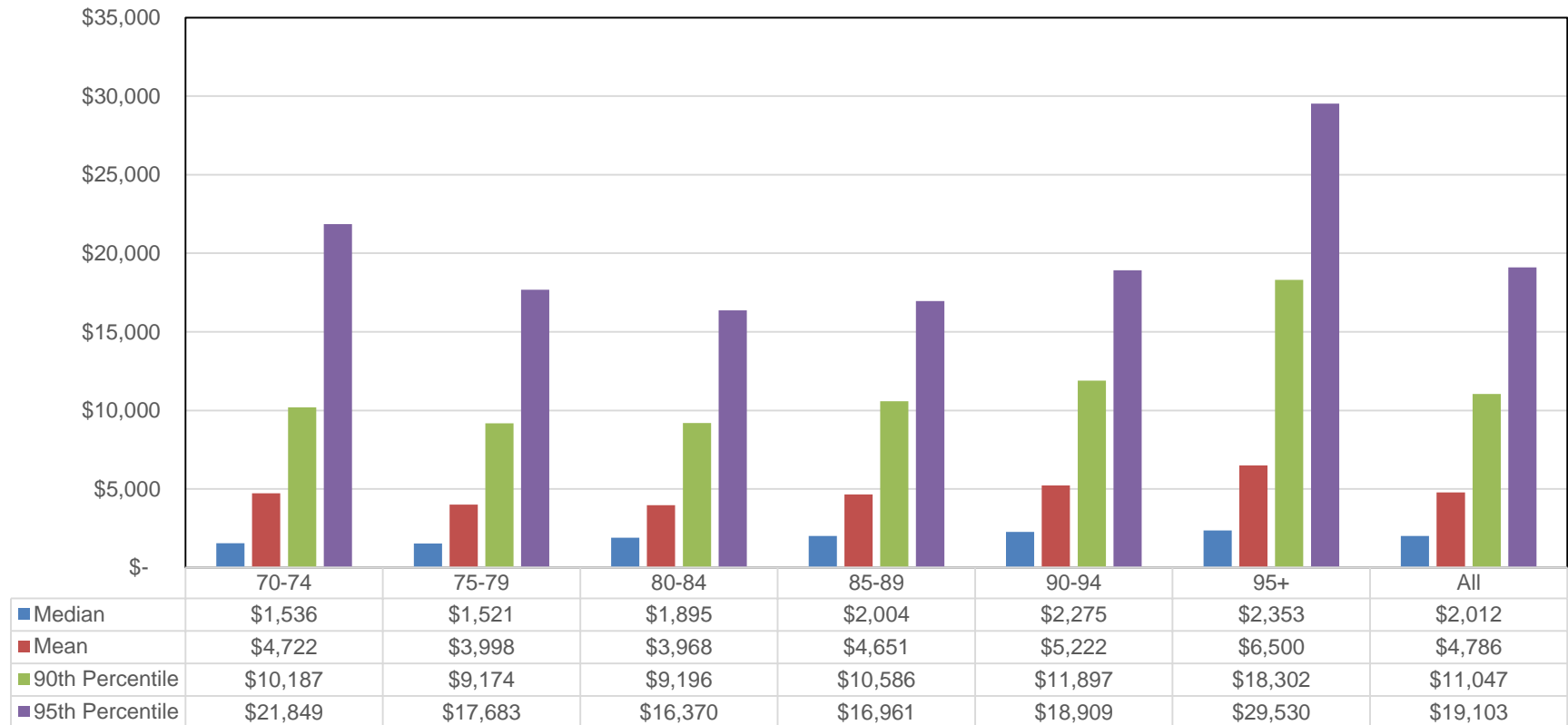
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Possible Underestimation of the Cumulative Out-of-Pocket Medical Expenses

- The aim of the study is to calculate the cumulative OOP medical expenses after age 70. But the numbers shown until now may not capture all OOP medical expenses incurred after age 70 for some members of the sample.
- Reason: For those members who were above 70 years old when first included in the survey, the expenses incurred between ages 70 and when they were included in the survey are missing.
- **The problem:** For someone included in the survey at age 75, who died say at age 79, the numbers capture OOP expenses over a 5-year period, but is interpreted as OOP expenses over a 10-year period.
- **Solution:** Calculate Average Annual OOP Medical Expenses for the years they were present in the survey.

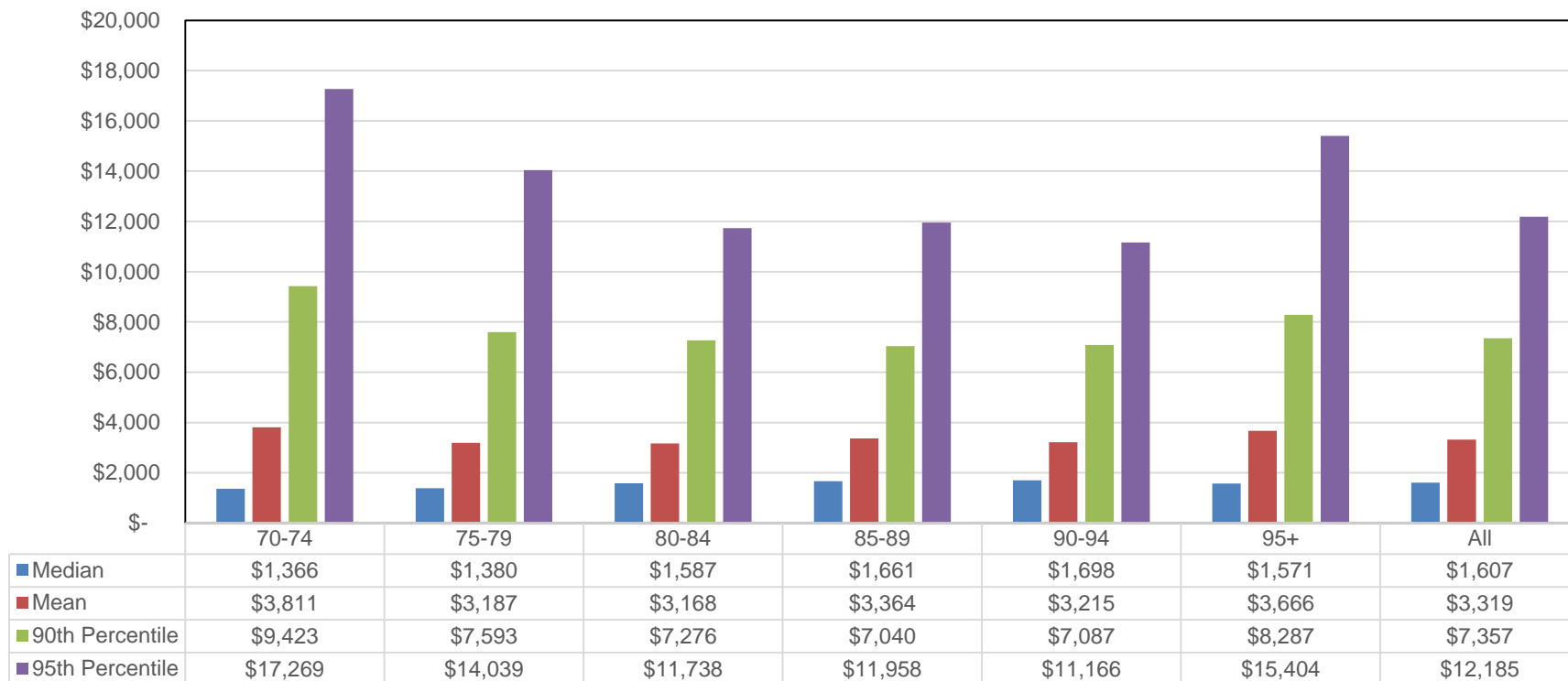
Note: This is not a significant issue for nursing home expenses as most of those expenses occur towards the end of life when they were already in the survey.

Figure 10
Distribution of Average Annual Out-of-Pocket Medical Expenses (in 2015\$, adjusted for Medical Inflation) After Age 70 until Death, by Age of Death



Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Figure 11
**Distribution of Average Annual Out-of-Pocket Medical Expenses (in 2015\$,
 adjusted for Medical Inflation) Without Nursing Home Expenses After Age 70
 until Death, by Age of Death**



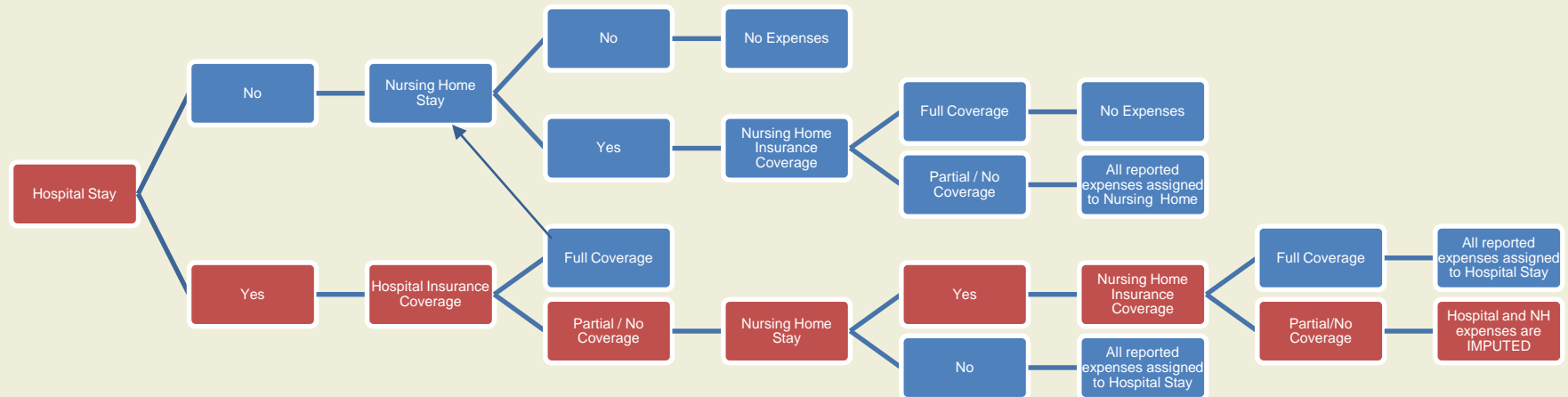
Source: Employee Benefit Research Institute estimates from the Health and Retirement Study (HRS).

Appendix

Issues in Separating Out Nursing Home Expenses

- The 1993 (first) interviews asked separately about out-of-pocket nursing home expenses.
- But all the surveys (both core and exit surveys) between 1995 and 2000 asked about the combined out-of-pocket expenses of hospital stays and nursing home stays.
- Fortunately, the survey also asked, separately, if people had overnight hospital stays and overnight nursing home stays.
- Also, information is available on whether the hospital stays and nursing home stays were fully/partially/not at all covered by insurance.
- All these information and an imputation method is used to calculated the nursing home expenses.

Calculating Nursing Home Expenses for 1995 – 2000 Surveys



Nursing Home Expense Imputations

- For those who had both overnight hospital and nursing home stays and report that both types of stays were either partially covered or not covered at all by insurance, Nursing Home expenses are calculated as follows
 - Step 1: Data from 2002 to 2014 was used to calculate the age and gender specific shares of nursing home expenses in combined hospital and nursing home expenses.
 - Step 2: These shares were used to impute the nursing home expenses for the years 1995 to 2000.