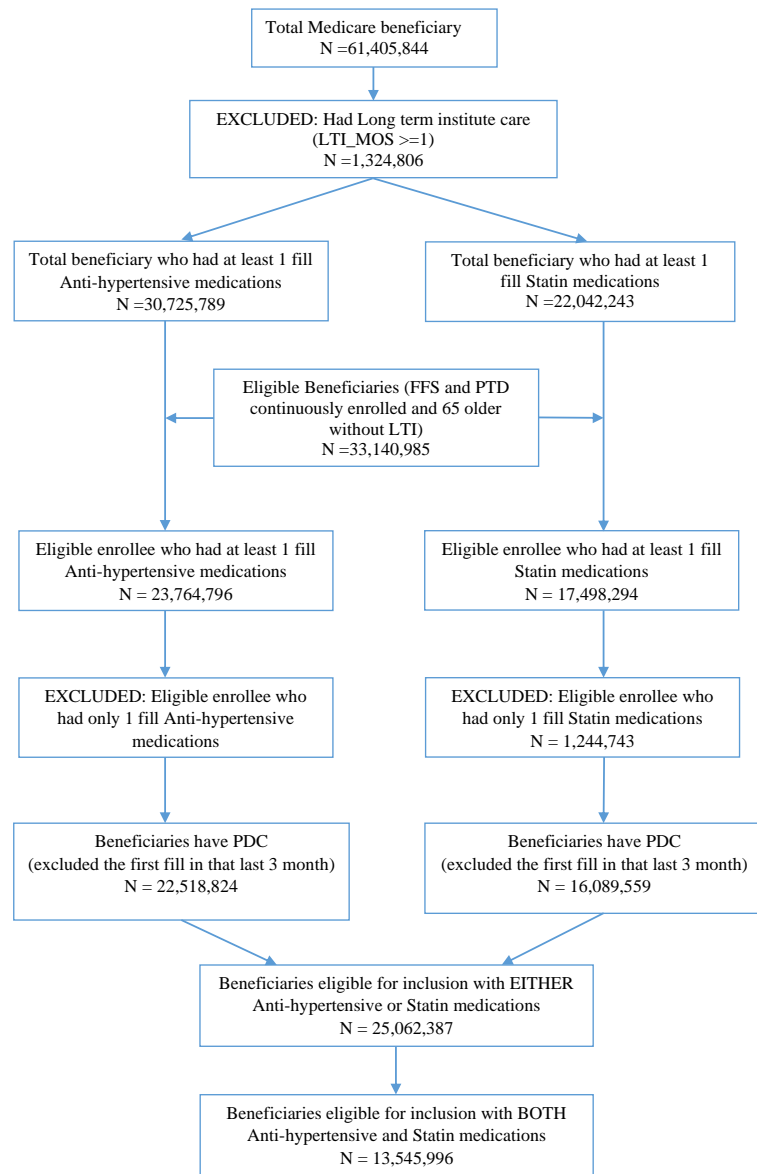


Supplemental Figure 1



Supplemental Table 1: Antihypertensive and statin medication adherence among Medicare Part D beneficiaries aged  $\geq 65$  years, by state and territory, United States, 2017

| State                     | Antihypertensive Medications |             | Statin medications |              | Antihypertensive + statin medications |              |
|---------------------------|------------------------------|-------------|--------------------|--------------|---------------------------------------|--------------|
|                           | Total (N)                    | Adherent(%) | Total (N)          | Adherent (%) | Total (N)                             | Adherent (%) |
| Alaska (AK)               | 15488                        | 72.8        | 10,090             | 78.4         | 5779.0                                | 66.48        |
| Alabama (AL)              | 374231                       | 74.3        | 248,323            | 80.4         | 145904                                | 67.12        |
| Arkansas (AR)             | 216773                       | 73.0        | 135,646            | 80.7         | 78837                                 | 66.60        |
| American Samoa (AS)       | 74                           | 59.5        | 56                 | 57.1         | 23                                    | 46.00        |
| Arizona (AZ)              | 450490                       | 75.2        | 317,380            | 81.2         | 175194                                | 68.30        |
| California (CA)           | 2368447                      | 76.4        | 1,773,413          | 81.9         | 1016633                               | 70.02        |
| Colorado (CO)             | 275803                       | 77.8        | 207,195            | 84.2         | 114056                                | 72.49        |
| Connecticut (CT)          | 268624                       | 80.6        | 201,364            | 84.0         | 122758                                | 73.75        |
| District of Columbia (DC) | 22840                        | 71.1        | 16,231             | 76.6         | 8881                                  | 64.25        |
| Delaware (DE)             | 78969                        | 79.4        | 61,542             | 83.3         | 37355                                 | 72.60        |
| Florida (FL)              | 1775589                      | 76.7        | 1,309,801          | 81.3         | 749812                                | 69.09        |
| Georgia (GA)              | 621983                       | 73.4        | 426,354            | 79.4         | 241691                                | 66.08        |
| Guam (GU)                 | 1728                         | 57.2        | 1,237              | 58.1         | 532                                   | 47.93        |
| Hawaii (HI)               | 94821                        | 79.2        | 76,477             | 84.1         | 46089                                 | 74.14        |
| Iowa (IA)                 | 252034                       | 82.7        | 182,268            | 87.2         | 118106                                | 77.29        |
| Idaho (ID)                | 102298                       | 78.2        | 67,089             | 84.2         | 39612                                 | 72.53        |
| Illinois (IL)             | 852739                       | 79.0        | 607,589            | 82.9         | 373754                                | 72.04        |
| Indiana (IN)              | 495147                       | 79.2        | 341,347            | 83.7         | 212849                                | 72.59        |
| Kansas (KS)               | 195071                       | 78.6        | 136,272            | 84.1         | 82261                                 | 72.46        |
| Kentucky (KY)             | 348114                       | 75.8        | 236,515            | 81.6         | 142764                                | 68.81        |
| Los Angeles (LA)          | 329380                       | 73.2        | 227,303            | 80.2         | 133919                                | 66.67        |
| Massachusetts (MA)        | 478614                       | 81.5        | 368,384            | 85.2         | 229639                                | 75.13        |
| Maryland (MD)             | 324785                       | 77.5        | 235,012            | 82.0         | 141320                                | 70.65        |
| Maine (ME)                | 111064                       | 82.5        | 82,949             | 86.9         | 52847                                 | 77.22        |

| State               | Antihypertensive medications |              | Statin medications |              | Antihypertensive+ Statin medications |              |
|---------------------|------------------------------|--------------|--------------------|--------------|--------------------------------------|--------------|
|                     | Total N                      | Adherent (%) | Total N            | Adherent (%) | Total N                              | Adherent (%) |
| Michigan (MI)       | 824917                       | 78.7         | 578,927            | 82.4         | 349824                               | 71.45        |
| Minnesota (MN)      | 385674                       | 83.2         | 286,650            | 87.7         | 183158                               | 78.11        |
| Missouri (MO)       | 464132                       | 78.0         | 315,710            | 83.4         | 192647                               | 71.58        |
| Mississippi(MS)     | 219475                       | 71.0         | 142,290            | 76.9         | 80528                                | 63.13        |
| Montana (MT)        | 69548                        | 79.3         | 44,673             | 84.1         | 26874                                | 73.41        |
| North Carolina (NC) | 746381                       | 75.8         | 513,213            | 80.4         | 297623                               | 68.02        |
| North Dakota (ND)   | 48231                        | 83.8         | 33,659             | 86.7         | 22270                                | 77.93        |
| Nebraska (NE)       | 129232                       | 80.3         | 89,119             | 85.3         | 55746                                | 74.44        |
| New Hampshire (NH)  | 90722                        | 82.6         | 68,708             | 86.4         | 43260                                | 76.92        |
| New Jersey (NJ)     | 624831                       | 78.2         | 455,308            | 81.5         | 272206                               | 70.65        |
| New Mexico (NM)     | 123792                       | 73.9         | 80,173             | 80.0         | 43380                                | 66.97        |
| Nevada(NV)          | 171227                       | 75.5         | 121,924            | 81.1         | 69144                                | 68.76        |
| New York (NY)       | 1420707                      | 78.0         | 1,043,561          | 81.2         | 624061                               | 70.62        |
| Ohio (OH)           | 942263                       | 78.8         | 662,305            | 83.2         | 408915                               | 72.15        |
| Oklahoma (OK)       | 247458                       | 73.5         | 159,936            | 81.3         | 92748                                | 66.92        |
| Oregon (OR)         | 296071                       | 78.7         | 211,520            | 85.0         | 126141                               | 73.71        |
| Pennsylvania (PA)   | 1091790                      | 79.4         | 778,464            | 83.4         | 476323                               | 72.64        |
| Puerto Rico (PR)    | 329106                       | 65.9         | 239,681            | 61.8         | 111415                               | 52.60        |
| Rhode Island (RI)   | 83644                        | 80.5         | 61,808             | 83.3         | 38279                                | 72.84        |
| South Carolina (SC) | 382534                       | 74.5         | 273,617            | 79.5         | 154933                               | 66.81        |
| South Dakota (SD)   | 60871                        | 81.7         | 40,012             | 85.6         | 25524                                | 76.12        |
| Tennessee (TN)      | 520617                       | 75.7         | 344,571            | 81.7         | 205563                               | 68.80        |
| Texas (TX)          | 1505978                      | 73.6         | 1,065,372          | 79.8         | 607218                               | 66.41        |
| Utah (UT)           | 122531                       | 75.6         | 88,540             | 82.3         | 48193                                | 69.48        |
| Virginia (VA)       | 488714                       | 77.6         | 350,184            | 82.2         | 209296                               | 70.54        |
| Virgin Islands (VI) | 6805                         | 52.0         | 3,363              | 48.5         | 1169                                 | 39.27        |
| Vermont (VT)        | 49053                        | 82.8         | 34,240             | 88.2         | 21977                                | 78.46        |

|                    |        |      |         |      |        |       |
|--------------------|--------|------|---------|------|--------|-------|
| Washington (WA)    | 397922 | 78.5 | 287,877 | 84.4 | 172753 | 73.06 |
| Wisconsin (WI)     | 427960 | 83.3 | 317,465 | 86.8 | 206402 | 77.53 |
| West Virginia (WV) | 159445 | 77.1 | 106,626 | 82.7 | 66150  | 70.47 |
| Wyoming (WY)       | 32087  | 76.9 | 20,226  | 83.6 | 11759  | 71.33 |

Supplemental Table 2: Antihypertensive and statin medication adherence among Medicare Part D beneficiaries aged  $\geq 65$  years, by state and territory, United States, 2017 county estimates.

| State | Antihypertensive medications |                    |                         | Statin medications     |                    |                         | Antihypertensive+ Statin medications |                    |                         |
|-------|------------------------------|--------------------|-------------------------|------------------------|--------------------|-------------------------|--------------------------------------|--------------------|-------------------------|
|       | County level estimates       |                    |                         | County level estimates |                    |                         | County level estimates               |                    |                         |
|       | Minimum % Adherent           | Maximum % Adherent | No. with Adherence >80% | Minimum % Adherent     | Maximum % Adherent | No. with Adherence >80% | Minimum % Adherent                   | Maximum % Adherent | No. with Adherence >80% |
| AK    | 25.7%                        | 83.7%              | 2                       | 36.0%                  | 91.7%              | 10                      | 20.8%                                | 78.6%              | 0                       |
| AL    | 67.0%                        | 77.1%              | 0                       | 72.4%                  | 83.8%              | 34                      | 60.1%                                | 70.6%              | 0                       |
| AR    | 64.5%                        | 78.4%              | 0                       | 73.5%                  | 84.7%              | 40                      | 55.2%                                | 73.2%              | 0                       |
| AS    | 59.5%                        | 59.5%              | 0                       | 57.1%                  | 57.1%              | 0                       | 46.0%                                | 46.0%              | 0                       |
| AZ    | 56.7%                        | 76.7%              | 0                       | 64.0%                  | 83.1%              | 5                       | 51.3%                                | 70.9%              | 0                       |
| CA    | 66.5%                        | 80.5%              | 4                       | 69.7%                  | 85.8%              | 43                      | 55.6%                                | 77.8%              | 0                       |
| CO    | 65.3%                        | 82.4%              | 5                       | 74.5%                  | 90.5%              | 56                      | 64.0%                                | 92.9%              | 1                       |
| CT    | 78.8%                        | 83.8%              | 7                       | 82.4%                  | 86.6%              | 8                       | 71.4%                                | 77.6%              | 0                       |
| DC    | 71.1%                        | 71.1%              | 0                       | 76.6%                  | 76.6%              | 0                       | 64.2%                                | 64.2%              | 0                       |
| DE    | 78.5%                        | 80.5%              | 1                       | 83.0%                  | 83.7%              | 3                       | 72.0%                                | 73.2%              | 0                       |
| FL    | 71.2%                        | 80.9%              | 1                       | 76.5%                  | 84.8%              | 47                      | 62.8%                                | 73.9%              | 0                       |
| GA    | 62.7%                        | 83.2%              | 1                       | 71.3%                  | 87.1%              | 56                      | 55.3%                                | 78.7%              | 0                       |
| GU    | 57.2%                        | 57.2%              | 0                       | 58.1%                  | 58.1%              | 0                       | 47.9%                                | 47.9%              | 0                       |
| HI    | 77.9%                        | 79.7%              | 0                       | 83.5%                  | 84.2%              | 4                       | 73.0%                                | 74.5%              | 0                       |
| IA    | 74.4%                        | 87.2%              | 89                      | 82.6%                  | 90.9%              | 99                      | 68.4%                                | 83.0%              | 12                      |
| ID    | 63.6%                        | 81.4%              | 4                       | 75.9%                  | 87.2%              | 37                      | 61.4%                                | 81.5%              | 1                       |
| IL    | 74.9%                        | 84.5%              | 60                      | 79.7%                  | 88.3%              | 98                      | 66.8%                                | 78.6%              | 0                       |
| IN    | 73.6%                        | 84.8%              | 41                      | 79.1%                  | 87.9%              | 90                      | 66.7%                                | 78.1%              | 0                       |
| KS    | 69.4%                        | 84.7%              | 28                      | 76.7%                  | 91.9%              | 95                      | 59.8%                                | 84.9%              | 4                       |
| KY    | 67.4%                        | 79.7%              | 0                       | 74.3%                  | 88.1%              | 83                      | 60.4%                                | 73.6%              | 0                       |

|    |       |       |    |       |       |     |       |       |    |
|----|-------|-------|----|-------|-------|-----|-------|-------|----|
| LA | 64.0% | 77.9% | 0  | 73.7% | 85.7% | 21  | 58.7% | 72.2% | 0  |
| MA | 78.3% | 82.3% | 11 | 82.4% | 86.5% | 14  | 72.0% | 76.3% | 0  |
| MD | 70.3% | 82.9% | 7  | 74.3% | 86.5% | 22  | 62.5% | 76.0% | 0  |
| ME | 80.0% | 84.6% | 15 | 85.2% | 89.6% | 16  | 74.5% | 79.9% | 0  |
| MI | 74.1% | 84.7% | 52 | 78.4% | 88.0% | 82  | 66.5% | 80.0% | 1  |
| MN | 80.4% | 87.8% | 87 | 81.8% | 91.7% | 87  | 70.6% | 83.8% | 17 |
| MO | 70.8% | 82.8% | 19 | 77.4% | 89.8% | 110 | 62.7% | 79.1% | 0  |
| MS | 62.5% | 75.6% | 0  | 65.0% | 81.1% | 3   | 49.6% | 67.6% | 0  |
| MT | 66.9% | 88.2% | 22 | 72.4% | 93.8% | 46  | 59.1% | 87.3% | 3  |
| NC | 68.2% | 80.2% | 1  | 72.6% | 86.1% | 59  | 58.3% | 74.5% | 0  |
| ND | 53.9% | 88.5% | 50 | 59.6% | 93.0% | 51  | 40.4% | 84.6% | 11 |
| NE | 71.3% | 84.4% | 41 | 77.4% | 92.0% | 87  | 55.8% | 82.8% | 3  |
| NH | 81.1% | 83.8% | 10 | 85.8% | 87.4% | 10  | 75.4% | 78.4% | 0  |
| NJ | 72.5% | 81.3% | 6  | 75.4% | 85.9% | 18  | 64.0% | 75.4% | 0  |
| NM | 65.1% | 78.3% | 0  | 67.2% | 83.5% | 11  | 48.3% | 71.5% | 0  |
| NV | 69.0% | 80.0% | 1  | 70.5% | 85.6% | 11  | 56.8% | 76.5% | 0  |
| NY | 71.7% | 84.4% | 49 | 75.3% | 88.5% | 58  | 63.9% | 79.7% | 0  |
| OH | 73.3% | 84.7% | 29 | 77.8% | 87.3% | 86  | 64.1% | 78.0% | 0  |
| OK | 67.0% | 79.5% | 0  | 73.6% | 85.6% | 55  | 56.4% | 76.0% | 0  |
| OR | 70.2% | 84.0% | 6  | 77.2% | 88.2% | 34  | 64.6% | 76.8% | 0  |
| PA | 73.2% | 82.7% | 37 | 78.0% | 87.0% | 66  | 66.1% | 77.2% | 0  |
| PR | 47.6% | 74.4% | 0  | 40.4% | 73.1% | 0   | 30.8% | 64.0% | 0  |
| RI | 80.0% | 82.6% | 5  | 82.7% | 85.5% | 5   | 72.3% | 74.7% | 0  |
| SC | 62.4% | 78.0% | 0  | 69.8% | 82.3% | 12  | 54.1% | 70.6% | 0  |
| SD | 40.6% | 88.3% | 45 | 51.2% | 91.3% | 55  | 34.3% | 83.3% | 8  |
| TN | 70.7% | 80.2% | 2  | 75.7% | 87.7% | 83  | 60.7% | 75.5% | 0  |
| TX | 60.0% | 81.3% | 2  | 65.3% | 89.5% | 137 | 50.1% | 77.0% | 0  |

|    |       |       |    |       |       |     |       |       |    |
|----|-------|-------|----|-------|-------|-----|-------|-------|----|
| UT | 61.4% | 83.6% | 2  | 71.4% | 85.3% | 23  | 57.3% | 76.3% | 0  |
| VA | 68.3% | 84.1% | 15 | 73.5% | 87.9% | 105 | 59.8% | 77.0% | 0  |
| VI | 51.1% | 58.0% | 0  | 46.9% | 60.9% | 0   | 38.3% | 52.9% | 0  |
| VT | 80.8% | 86.0% | 14 | 86.1% | 89.9% | 14  | 75.1% | 82.6% | 1  |
| WA | 70.3% | 81.1% | 3  | 76.5% | 88.4% | 35  | 63.5% | 75.9% | 0  |
| WI | 77.3% | 86.8% | 70 | 83.3% | 89.5% | 72  | 72.8% | 81.6% | 10 |
| WV | 71.6% | 82.3% | 2  | 77.9% | 86.7% | 53  | 64.0% | 78.9% | 0  |
| WY | 73.4% | 82.2% | 1  | 79.4% | 89.1% | 22  | 65.9% | 79.1% | 0  |

Abbreviations: State Abbreviations for State Names in Supplemental Table 2 are the same as in Supplemental Table 1 so, please refer to Supplemental Table 1 for State names. MP= Northern Mariana Islands

Supplemental Table 3. Mean proportion of days covered for antihypertensive and statin medications by beneficiary characteristics, Medicare Part D, 2017

| Participant Characteristics   | Total beneficiaries<br>N | Antihypertensive medications | Statin medications | Antihypertensive and Statin medications |                 |
|-------------------------------|--------------------------|------------------------------|--------------------|---|-----------------|
|                               |                          | Mean PDC                     | Mean PDC           | Antihypertensive Mean PDC               | Statin Mean PDC |
| Total                         | 25,062,387               | 22,518,824                   | 16,089,559         | 13,545,996                              |                 |
| Sex, by age (years)           |                          |                              |                    |   |                 |
| Female                        |                          |                              |                    |   |                 |
| 65–74                         | 7,004,430                | 0.87                         | 0.88               | 0.89                                    | 0.89            |
| 75–84                         | 5,127,363                | 0.87                         | 0.89               | 0.88                                    | 0.89            |
| ≥85                           | 2,433,298                | 0.87                         | 0.89               | 0.88                                    | 0.89            |
| Male                          |                          |                              |                    |   |                 |
| 65–74                         | 5,524,450                | 0.88                         | 0.90               | 0.89                                    | 0.90            |
| 75–84                         | 3,779,908                | 0.88                         | 0.90               | 0.89                                    | 0.90            |
| ≥85                           | 1,192,938                | 0.86                         | 0.90               | 0.87                                    | 0.90            |
| Race/Ethnicity                |                          |                              |                    |   |                 |
| White, Non-Hispanic           | 19,060,049               | 0.88                         | 0.90               | 0.89                                    | 0.90            |
| Black                         | 2,259,943                | 0.84                         | 0.85               | 0.85                                    | 0.85            |
| Asian/Pacific Islander        | 864,884                  | 0.88                         | 0.89               | 0.89                                    | 0.90            |
| American Indian/Alaska Native | 64,440                   | 0.81                         | 0.84               | 0.83                                    | 0.84            |
| Hispanic                      | 2,295,176                | 0.85                         | 0.85               | 0.86                                    | 0.86            |
| Other                         | 204,509                  | 0.87                         | 0.89               | 0.89                                    | 0.90            |
| Unknown                       | 313,386                  | 0.89                         | 0.90               | 0.90                                    | 0.91            |
| Income status                 |                          |                              |                    |   |                 |
| Standard                      | 20,451,812               | 0.88                         | 0.89               | 0.89                                    | 0.90            |
| LIS or Medicaid dual          | 4,610,575                | 0.85                         | 0.88               | 0.87                                    | 0.88            |



|  |            |      |      |      |      |
|--|------------|------|------|------|------|
| eligible   |            |      |      |      |      |
| Prescription medication plan type                  |            |      |      |      |      |
| FFS-PDP  | 13,183,329 | 0.87 | 0.89 | 0.88 | 0.90 |
| MA-PD  | 11,879,058 | 0.87 | 0.89 | 0.89 | 0.89 |
| Urban/Rural Classification                         |            |      |      |      |      |
| Metro  | 20,787,808 | 0.87 | 0.89 | 0.88 | 0.90 |
| Micro  | 2,468,380  | 0.87 | 0.89 | 0.89 | 0.90 |
| Rural  | 1,806,199  | 0.87 | 0.89 | 0.88 | 0.89 |
| Any fixed-dose combination use                     |            |      |      |      |      |
| No   | 958,782    | 0.87 | 0.87 | 0.89 | 0.89 |
| Yes  | 24,103,605 | 0.87 | 0.90 | 0.88 | 0.90 |
| Any mail order use                                 |            |      |      |      |      |
| No   | 19,933,072 | 0.87 | 0.88 | 0.88 | 0.89 |
| Yes  | 51,293,315 | 0.90 | 0.92 | 0.90 | 0.92 |
| Continuity of care for medication management proxy |            |      |      |      |      |
| 1 prescriber                                       | 14,044,693 | 0.89 | 0.89 | 0.90 | 0.90 |
| 2 prescribers                                      | 6,957,169  | 0.86 | 0.89 | 0.88 | 0.89 |
| ≥3 prescribers                                     | 4,060,525  | 0.84 | 0.89 | 0.85 | 0.88 |