**Identifying coronavirus risk population on Medicaid**

We selected everyone on Medicaid in 2018 with a date of birth valid gender code and valid zip or county code (excluding 6% of the total population). The population breakdown is in table 1 below.

Table 1 – Medicaid demographics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | NYC | | |  | Non NYC | | |
|  | All | Male | Female |  | All | Male | Female |
| All | 3,665,665 | 1,680,258 | 1,985,407 |  | 3,085,441 | 1,424,084 | 1,661,357 |
| Medicaid Only | 3,106,213 | 1,455,068 | 1,651,145 |  | 2,621,525 | 1,234,437 | 1,387,088 |
| 49 and below | 82.13% | 82.65% | 81.68% |  | 86.98% | 87.00% | 86.95% |
| 50-64 | 15.41% | 15.32% | 15.49% |  | 12.32% | 12.43% | 12.22% |
| 65-74 | 1.63% | 1.41% | 1.82% |  | 0.43% | 0.36% | 0.50% |
| 75 + | 0.81% | 0.60% | 0.99% |  | 0.25% | 0.19% | 0.31% |
|  |  |  |  |  |  |  |  |
| Medicaid Medicare | 559,452 | 225,190 | 334,262 |  | 463,916 | 189,647 | 274,269 |
| 49 and below | 8.29% | 10.71% | 6.65% |  | 20.50% | 25.64% | 16.95% |
| 50-64 | 18.76% | 21.33% | 17.03% |  | 28.11% | 32.56% | 25.03% |
| 65-74 | 38.86% | 40.05% | 38.06% |  | 25.58% | 25.02% | 25.96% |
| 75 + | 34.07% | 27.89% | 38.23% |  | 25.80% | 16.75% | 32.05% |

For the entire NYC population, we looked at their diagnoses in 2018, using the following CCS codes to define the conditions. We excluded those with only one diagnosis in the year.

Chronic Lung Condition: asthma (ccs=128) COPD or emphysema (CCS=127)

Chronic heart disease, including stroke, CAD, CHF and etc.

(ccs = 96, 97, 100 101, 103, 104, 105, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117)

AIDS/HIV (ccs=5)

Diabetes (ccs= 49, 50)

Cancer (CCS = 11-45, 47)

The prevalence of each condition and the number distribution of the conditions are included in table 2. In summary, 19% of the Medicaid only population in NYC have one or more listed chronic conditions, and 47% male and 48% female among age 50/+ (table 2). Specifically, among age 50/+, diabetes is the most prevalent at 29% male and 30% female, followed by heart diseases at 23% male and 21% female. **Since we only have the Medicaid claims data, the prevalence of the Medicaid/Medicare population is an underestimate**. Despite the underestimate, 48% of the total Medicaid/Medicare population in 2018 have one or more listed conditions.

Table 2 – Chronic disease prevalence among NYC Medicaid recipients in 2018

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | All NYC |  | Male | |  | Female |  |
|  |  |  | 49/- | 50/+ | | 49/- | 50/+ |
|  | 3,106,213 |  | 1,202,630 | 252,438 |  | 1,348,718 | 302,427 |
| Medicaid only |  |  |  |  |  |  |  |
| Chronic Lung Disease | 7.61% |  | 6.68% | 9.58% |  | 6.99% | 12.46% |
| Heart Disease | 6.77% |  | 3.46% | 22.82% |  | 3.61% | 20.62% |
| HIV/Aids | 1.05% |  | 1.01% | 3.48% |  | 0.43% | 1.98% |
| Cancer | 1.33% |  | 0.43% | 4.38% |  | 0.69% | 5.27% |
| Diabetes | 8.26% |  | 3.36% | 29.41% |  | 3.70% | 30.43% |
| Number of conditions |  |  |  |  |  |  |  |
| 0 | 80.68% |  | 86.93% | 52.86% |  | 86.75% | 51.97% |
| 1 | 14.64% |  | 11.39% | 29.09% |  | 11.34% | 30.21% |
| 2+ | 4.66% |  | 1.66% | 18.03% |  | 1.89% | 17.80% |
| Having one or more | **19.31%** |  | 13.06% | **47.13%** |  | 13.24% | **48.02%** |
|  |  |  |  |  |  |  |  |
| Medicaid/Medicare | 559,452 |  | 24,130 | 201,060 |  | 22,260 | 312,002 |
| Chronic Lung Disease | 12.37% |  | 7.27% | 11.40% |  | 13.50% | 13.31% |
| Heart Disease | 30.52% |  | 12.59% | 32.94% |  | 13.91% | 31.54% |
| HIV/Aids | 1.76% |  | 4.86% | 2.58% |  | 2.69% | 0.92% |
| Cancer | 6.40% |  | 2.25% | 7.38% |  | 3.86% | 6.27% |
| Diabetes | 26.09% |  | 12.20% | 26.73% |  | 12.59% | 27.71% |
| Number of conditions |  |  |  |  |  |  |  |
| 0 | 52.42% |  | 71.35% | 50.73% |  | 67.51% | 50.97% |
| 1 | 25.49% |  | 20.07% | 25.51% |  | 21.68% | 26.16% |
| 2+ | 22.08% |  | 8.57% | 23.74% |  | 10.80% | 22.85% |
| Having one or more | **47.57%** |  | **28.64%** | **49.26%** |  | **32.48%** | **49.02%** |

Table 3 – Chronic disease prevalence among NYC Medicaid recipients in 2018 by age categories

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ALL NYC |  | Male | | | |  | Female | | | |
|  |  |  | 49/- | 50-64 | 65-74 | 75/+ | | 49/- | 50-64 | 65-74 | 75/+ |
|  | 3,106,213 |  | 1,202,630 | 222,969 | 20,638 | 8,831 |  | 1,348,718 | 255,778 | 30,184 | 16,465 |
| Medicaid only |  |  |  |  |  |  |  |  |  |  |  |
| Chronic Lung Disease | 7.61% |  | 6.68% | 9.52% | 9.45% | 11.36% |  | 6.99% | 13.29% | 7.35% | 8.92% |
| Heart Disease | 6.77% |  | 3.46% | 21.43% | 31.44% | 37.62% |  | 3.61% | 19.02% | 25.96% | 35.71% |
| HIV/Aids | 1.05% |  | 1.01% | 3.85% | 0.80% | 0.24% |  | 0.43% | 2.29% | 0.36% | 0.13% |
| Cancer | 1.33% |  | 0.43% | 3.81% | 8.46% | 9.17% |  | 0.69% | 5.16% | 5.80% | 6.07% |
| Diabetes | 8.26% |  | 3.36% | 28.82% | 35.18% | 30.76% |  | 3.70% | 29.35% | 36.97% | 35.15% |
| Number of conditions |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 80.68% |  | 86.93% | 53.76% | 46.10% | 46.08% |  | 86.75% | 52.86% | 48.19% | 45.18% |
| 1 | 14.64% |  | 11.39% | 29.16% | 29.31% | 26.93% |  | 11.34% | 30.02% | 31.91% | 30.03% |
| 2+ | 4.66% |  | 1.66% | 17.07% | 24.57% | 26.97% |  | 1.89% | 17.11% | 19.89% | 24.78% |
| Having one or more | 19.31% |  | 13.06% | 46.23% | 53.89% | 53.91% |  | 13.24% | 47.13% | 51.80% | 54.81% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Medicaid/Medicare | 559,452 |  | 24,130 | 48,043 | 90,202 | 62,815 |  | 22,260 | 56,951 | 127,248 | 127,803 |
| Chronic Lung Disease | 12.37% |  | 7.27% | 10.56% | 9.75% | 14.40% |  | 13.50% | 15.48% | 11.36% | 14.29% |
| Heart Disease | 30.52% |  | 12.59% | 26.73% | 27.90% | 44.93% |  | 13.91% | 22.93% | 24.80% | 42.08% |
| HIV/Aids | 1.76% |  | 4.86% | 6.32% | 1.99% | 0.57% |  | 2.69% | 2.74% | 0.87% | 0.16% |
| Cancer | 6.40% |  | 2.25% | 5.44% | 6.70% | 9.84% |  | 3.86% | 6.29% | 6.04% | 6.49% |
| Diabetes | 26.09% |  | 12.20% | 26.94% | 24.80% | 29.33% |  | 12.59% | 26.45% | 26.23% | 29.74% |
| Number of conditions |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 52.42% |  | 71.35% | 52.31% | 55.76% | 42.30% |  | 67.51% | 53.88% | 56.75% | 43.91% |
| 1 | 25.49% |  | 20.07% | 26.11% | 23.93% | 27.33% |  | 21.68% | 25.64% | 24.00% | 28.55% |
| 2+ | 22.08% |  | 8.57% | 21.57% | 20.29% | 30.35% |  | 10.80% | 20.46% | 19.23% | 27.52% |
| Having one or more | 47.57% |  | 28.64% | 47.68% | 44.23% | 57.69% |  | 32.48% | 46.11% | 43.24% | 56.08% |

Table 4 Chronic disease counts among NYC Medicaid recipients in 2018 by age categories

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | ALL NYC |  | Male | | | |  | Female | | | |
|  |  |  | 49/- | 50-64 | 65-74 | 75/+ |  | 49/- | 50-64 | 65-74 | 75/+ |
| Medicaid only | 3,106,213 |  | 1,202,630 | 222,969 | 20,638 | 8,831 |  | 1,348,718 | 255,778 | 30,184 | 16,465 |
| Chronic Lung Disease | 236,542 |  | 80,369 | 21,228 | 1,952 | 1,004 |  | 94,286 | 34,013 | 2,221 | 1,469 |
| Heart Disease | 210,420 |  | 41,616 | 47,799 | 6,489 | 3,323 |  | 48,816 | 48,659 | 7,838 | 5,880 |
| HIV/Aids | 32,876 |  | 12,208 | 8,601 | 166 | 22 |  | 5,890 | 5,858 | 109 | 22 |
| Cancer | 41,547 |  | 5,172 | 8,516 | 1,747 | 810 |  | 9,336 | 13,213 | 1,752 | 1,001 |
| Diabetes | 256,759 |  | 40,479 | 64,272 | 7,262 | 2,717 |  | 49,994 | 75,085 | 11,162 | 5,788 |
| *Sum* | *778,144* |  | *179,844* | *150,416* | *17,616* | *7,876* |  | *208,322* | *176,828* | *23,082* | *14,160* |
| Number of conditions |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 2,506,286 |  | 1,045,539 | 119,873 | 9,515 | 4,070 |  | 1,170,097 | 135,205 | 14,548 | 7,439 |
| 1 | 454,979 |  | 137,092 | 65,018 | 6,051 | 2,379 |  | 153,053 | 76,809 | 9,632 | 4,945 |
| 2+ | 144,948 |  | 19,999 | 38,078 | 5,072 | 2,382 |  | 25,568 | 43,764 | 6,004 | 4,081 |
| Having one or more | 599,927 |  | 157,091 | 103,096 | 11,123 | 4,761 |  | 178,621 | 120,573 | 15,636 | 9,026 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Medicaid/Medicare | 559,452 |  | 24,130 | 48,043 | 90,202 | 62,815 |  | 22,260 | 56,951 | 127,248 | 127,803 |
| Chronic Lung Disease | 69,233 |  | 1,756 | 5,074 | 8,801 | 9,046 |  | 3,007 | 8,819 | 14,461 | 18,269 |
| Heart Disease | 170,790 |  | 3,039 | 12,845 | 25,170 | 28,224 |  | 3,097 | 13,061 | 31,562 | 53,792 |
| HIV/Aids | 9,861 |  | 1,175 | 3,038 | 1,802 | 361 |  | 599 | 1,566 | 1,112 | 208 |
| Cancer | 35,830 |  | 544 | 2,618 | 6,051 | 6,181 |  | 860 | 3,583 | 7,687 | 8,306 |
| Diabetes | 145,968 |  | 2,945 | 12,944 | 22,378 | 18,427 |  | 2,804 | 15,068 | 33,382 | 38,020 |
| *Sum* | *431,682* |  | *9,459* | *36,519* | *64,202* | *62,239* |  | *10,367* | *42,097* | *88,204* | *118,595* |
| Number of conditions |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 293,294 |  | 17,217 | 25,132 | 50,303 | 26,575 |  | 15,029 | 30,690 | 72,219 | 56,129 |
| 1 | 142,624 |  | 4,844 | 12,547 | 21,590 | 17,170 |  | 4,826 | 14,606 | 30,551 | 36,490 |
| 2+ | 123,534 |  | 2,069 | 10,364 | 18,309 | 19,070 |  | 2,405 | 11,655 | 24,478 | 35,184 |
| Having one or more | 266,158 |  | 6,913 | 22,911 | 39,899 | 36,240 |  | 7,231 | 26,261 | 55,029 | 71,674 |

Table 5 Number of risk population by insurance type

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | All | Medicaid | Dual | Private | Uninsured | Other |
| Age 50/+ |  | 554,856 | 513,062 |  |  |  |
| Any 1 condition |  | 164,834 | 132,954 |  |  |  |
| At least 1 condition |  | 264,215 | 252,014 |  |  |  |

Table 6 Frequency of chronic condition dyads among NYC Medicaid recipients in 2018 by age categories (sorted by most frequent)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | All NYC |  | Male | |  | Female | |
|  |  |  |  | 49/- | 50/+ |  | 49/- | 50/+ |
| Medicaid Only |  | 3,106,213 |  | 1,202,630 | 252,438 |  | 1,348,718 | 302,427 |
| diabetes | heart disease | 76,353 |  | 7,783 | 29,131 |  | 8,380 | 31,059 |
| heart disease | chronic lung | 42,532 |  | 6,479 | 11,250 |  | 9,510 | 15,293 |
| diabetes | chronic lung | 39,642 |  | 4,458 | 10,347 |  | 7,925 | 16,912 |
| heart disease | cancer | 14,076 |  | 1,264 | 4,850 |  | 1,994 | 5,968 |
| diabetes | cancer | 13,641 |  | 814 | 4,696 |  | 1,606 | 6,525 |
| heart disease | HIV | 6,377 |  | 1,301 | 2,332 |  | 904 | 1,840 |
| diabetes | HIV | 5,550 |  | 835 | 2,198 |  | 733 | 1,784 |
| chronic lung | cancer | 7,569 |  | 680 | 2,136 |  | 1,436 | 3,317 |
| chronic lung | HIV | 7,816 |  | 1,658 | 2,076 |  | 1,549 | 2,533 |
| cancer | HIV | 2,063 |  | 489 | 756 |  | 259 | 559 |
|  |  |  |  |  |  |  |  |  |
| Medicaid/Medicare |  | 559,452 |  | 24,130 | 201,060 |  | 22,260 | 312,002 |
| diabetes | heart disease | 81,143 |  | 1,079 | 31,906 |  | 1,033 | 47,125 |
| heart disease | chronic lung | 43,575 |  | 538 | 15,532 |  | 900 | 26,605 |
| diabetes | chronic lung | 33,041 |  | 443 | 10,949 |  | 838 | 20,811 |
| heart disease | cancer | 20,413 |  | 196 | 8,757 |  | 307 | 11,153 |
| diabetes | cancer | 16,352 |  | 145 | 6,610 |  | 240 | 9,357 |
| chronic lung | cancer | 9,537 |  | 93 | 3,739 |  | 192 | 5,513 |
| heart disease | HIV | 3,281 |  | 193 | 1,856 |  | 131 | 1,101 |
| diabetes | HIV | 2,737 |  | 147 | 1,518 |  | 100 | 972 |
| chronic lung | HIV | 2,266 |  | 150 | 988 |  | 188 | 940 |
| cancer | HIV | 1,047 |  | 101 | 600 |  | 46 | 300 |

**MEPS Memo:**

**ACS memo:**

We use the American Community Survey to compute the Insurance and Demographic distributions in New York City. Our sample is restricted to people of age 50 years or more and living in any of the 5 boroughs of NYC. The numbers we generated here are weighted and averaged over the last 3 years (2016-2018) of available data from ACS.

Variable Construction:

Age is categorized in 3 groups:

1. 50-64 years
2. 65 – 74 years
3. More than 75 years

Sex is categorized in 2 groups:

1. Male
2. Female

The Insurance Hierarchy as:

1. **Assign** Insurance = “Other/Any Insurance” if currently enrolled in any insurance plan.
2. **Assign/Replace** Insurance = “Uninsured” if currently not enrolled in any insurance plan
3. **Assign/Replace** Insurance = “Any Private Insurance” if currently enrolled in any private insurance
4. **Assign/Replace** Insurance = “Medicaid” if currently enrolled in Medicaid
5. **Assign/Replace** Insurance = “Medicare” if currently enrolled in Medicare
6. **Assign/Replace** Insurance = “Medicaid+Medicare” if currently enrolled in Medicaid and Medicare Simultaneously.