Appendix Table 1. CPT and ICD-9 Code List Used for Identifying Cancer Screening Tests and Reimbursement for the Cancer Screening Testa

|  | **Colonoscopy** | **FOBT** | **Mammography** | **Pap Test** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **CPT** | 44388-44394 | 82270 | 76092 | 88142-88155 |
|  | 44397 | 82272 | 77057 | 88164-88167 |
|  | 45355-45392 | 82274 | G0202 | 88174 |
|  | G0105 | G0107 |  | 88175 |
|  | G0121 | G0328 |  | G0123 |
|  |  | G0394 |  | G0124 |
|  |  |  |  | G0141 |
|  |  |  |  | G0143 |
|  |  |  |  | G0144 |
|  |  |  |  | G0145 |
|  |  |  |  | G0147 |
|  |  |  |  | G0148 |
|  |  |  |  | P3000 |
|  |  |  |  | P3001 |
|  |  |  |  | Q0091 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **ICD-9 Diagnosis or Procedure Codes** | 45.21 |  |  | 91.46 |
|  | 45.22 |  |  | V76.2b |
|  | 45.23 |  |  | V72.31b |
|  | 45.25 |  |  | V72.32b |
|  |  |  |  |  |

a There were very few claims for sigmoidoscopy or barium enema (0.2% and 0.4% of the eligible population, respective), so receipt of these tests was not included in analyses.

bICD-9 diagnosis codes and V codes were used to identify claims related to cancer screening for creation of the dependent variables, but they were not used in creating the reimbursement variable for cancer test screening.

Appendix Table 2. State Medicaid Policies, by State

|  | **Income Eligibility, % FPLa,b,c**  | **Asset Test Required or If Asset Test is Required, Asset Limita,b,c**  | **Frequency of Medicaid Renewala** | **Copay for Physician Servicesd**  |
| --- | --- | --- | --- | --- |
| **State** | Parents | Blind/Disabled | Medically Needye | Parents | Blind/Disabled | Medically Needye |  |  |
| AL | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | 12 months | Copay |
| AK | ≤100%  | >75%  | -- | Asset test | ≤$2,000 | -- | <12 months | Copay |
| AZ | >100%  | >75%  | -- | No asset test | >$2,000 | -- | 12 months | Copay |
| AR | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| CA | ≤100%  | >75%  | >54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| CO | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | 12 months | Copay |
| CT | >100%  | ≤75%  | >54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| DE | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | 12 months | No Copay |
| DC | >100%  | >75%  | >54% | No asset test | >$2,000 | >$2,000 | 12 months | No Copay |
| FL | ≤100%  | ≤75%  | ≤54% | Asset test | >$2,000 | >$2,000 | 12 months | Copay |
| GA | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | <12 months | Copay |
| HI | ≤100%  | >75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| ID | ≤100%  | >75%  | -- | Asset test | ≤$2,000 | -- | 12 months | No Copay |
| IL | >100%  | >75%  | >54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| IN | ≤100%  | ≤75%  | -- | Asset test | ≤$2,000 | -- | 12 months | No Copay |
| IA | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | >$2,000 | 12 months | Copay |
| KS | ≤100%  | ≤75%  | >54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| KY | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| LA | ≤100%  | ≤75%  | ≤54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| ME | >100%  | >75%  | >54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| MD | ≤100%  | ≤75%  | ≤54% | Asset test | >$2,000 | >$2,000 | 12 months | No Copay |
| MA | >100%  | >75%  | >54% | No asset test | >$2,000 | ≤$2,000 | 12 months | No Copay |
| MI | ≤100%  | >75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| MN | >100%  | >75%  | >54% | Asset test | >$2,000 | >$2,000 | 12 months | No Copay |
| MS | ≤100%  | >75%  | -- | No asset test | >$2,000 | -- | 12 months | Copay |
| MO | ≤100%  | >75%  | -- | No asset test | ≤$2,000 | -- | 12 months | Copay |
| MT | ≤100%  | ≤75%  | >54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| NE | ≤100%  | >75%  | ≤54% | Asset test | >$2,000 | >$2,000 | <12 months | Copay |
| NV | ≤100%  | ≤75%  | -- | Asset test | ≤$2,000 | -- | 12 months | No Copay |
| NH | ≤100%  | >75%  | >54% | Asset test | ≤$2,000 | >$2,000 | <12 months | No Copay |
| NJ | >100%  | >75%  | ≤54% | No asset test | >$2,000 | >$2,000 | 12 months | No Copay |
| NM | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | 12 months | No Copay |
| NY | >100%  | >75%  | >54% | Asset test | >$2,000 | ≤$2,000 | 12 months | No Copay |
| NC | ≤100%  | >75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | <12 months | Copay |
| ND | ≤100%  | ≤75%  | >54% | No asset test | >$2,000 | >$2,000 | 12 months | Copay |
| OH | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | <12 months | No Copay |
| OK | ≤100%  | >75%  | -- | No asset test | ≤$2,000 | -- | 12 months | Copay |
| OR | ≤100%  | ≤75%  | -- | Asset test | >$2,000 | -- | 12 months | Copay |
| PA | ≤100%  | >75%  | ≤54% | No asset test | ≤$2,000 | >$2,000 | <12 months | Copay |
| RI | >100%  | >75%  | >54% | No asset test | >$2,000 | >$2,000 | 12 months | No Copay |
| SC | ≤100%  | >75%  | -- | Asset test | >$2,000 | -- | 12 months | Copay |
| SD | ≤100%  | ≤75%  | -- | Asset test | ≤$2,000 | -- | 12 months | No Copay |
| TN | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| TX | ≤100%  | ≤75%  | -- | Asset test | ≤$2,000 | -- | <12 months | No Copay |
| UT | ≤100%  | >75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | <12 months | No Copay |
| VT | >100%  | >75%  | >54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| VA | ≤100%  | >75%  | ≤54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| WA | ≤100%  | ≤75%  | >54% | Asset test | ≤$2,000 | ≤$2,000 | <12 months | No Copay |
| WV | ≤100%  | ≤75%  | ≤54% | Asset test | ≤$2,000 | ≤$2,000 | 12 months | No Copay |
| WI | >100%  | >75%  | >54% | No asset test | ≤$2,000 | ≤$2,000 | 12 months | Copay |
| WY | ≤100%  | ≤75%  | -- | No asset test | ≤$2,000 | -- | 12 months | No Copay |

a Data on income thresholds and asset tests for parents and frequency of Medicaid renewal were reported in *Health Coverage for Children and Families in Medicaid and SCHIP: State Efforts Face New Hurdles—A 50-State Update on Eligibility Rules, Enrollment and Renewal Procedures, and Cost-Sharing Practices in Medicaid and SCHIP in 2008* by Kaiser Commission on Medicaid and the Uninsured. The state’s policy on frequency of Medicaid renewal for parents was also applied to the blind/disabled and medically needy populations because state-specific redetermination periods for these populations were not readily available.

b Income thresholds for parents applying for Medicaid reflect income as a percentage of the FPL for a family of three. Income thresholds for the blind/disabled and the medically needy applying for Medicaid reflect income as a percentage of the FPL for a single individual. The allowable asset limit for the blind/disabled and medically needy populations reflects the asset limit for a single individual.

c Data on income thresholds and asset tests for the blind/disabled and medically needy beneficiaries were reported in *Medicaid Financial Eligibility: Primary Pathways for the Elderly and People with Disabilities* by the Kaiser Family Foundation. Data reflect state policies in 2009 because 2007 data were not available.

d Data on states’ use of physician copayments were reported in Kaiser Family Foundation's Medicaid Benefits Database.

e States have the option of providing Medicaid coverage to individuals not otherwise eligible for Medicaid but have a medical need. For states that do not provide coverage to individuals with medical need, income and asset test requirements are not provided.

Appendix Table 3. CPT and ICD-9 Code List for Chronic Conditions

| **Condition** | **ICD-9 or CPT Code1** |
| --- | --- |
| HIV | 042, 0420, 0421, 0422, 0429, 0430, 0431, 04320433, 0439, 0440, 0449, 07953, V08, 27910, 27919 |
| Chronic Obstructive Pulmonary Disease | 4910, 4911, 4912, 49120, 49121, 4918, 4919, 4920, 4928, 494, 4940, 4941, 496 |
| Renal Failure | 5849, 585, 5851, 5852, 5853, 5854, 5855, 5856, 5859, 7925, V420, V451, V560, V561, V562, V5631, V5632, V568, 403XX, 404XX, 582XX |
| Arthritis | 710xx, 712xx, 713xx, 714xx, 715xx, 720xx, 721xx, 725xx, 7291, 7294, 1361, 274xx3571, 391xx, 6960 |
| Dementia | 290xx, 294xx |
| Hypertension | 401xx, 402xx, 403xx, 404xx |
| Obesity | 278.0x |
| Congestive Heart Failure | 428xx, 40201, 40211, 40291, 40401, 40411, 40491, 40403, 40413, 40493 |
| Hepatic Disease | 5712, 5715, 5716 |
| Asthma | 493xx |
| Coronary Heart Disease | 410xx, 411xx, 412xx, 413xx, 414xx |
| Other Cerebral Degenerations | 330xx, 331xx, 332xx, 333xx, 334xx, 335xx, 336xx, 337xx |
| Depression | 296xx, 311xx |
| Diabetes | 25000, 25001, 25002, 25003, 25010, 25011, 25012, 25013, 25020, 25021, 25022, 25023, 25030, 25031, 25032, 25033, 25040, 25041, 25042, 25043, 25050, 25051, 25052, 25053, 25060, 25061, 25062, 25063, 25070, 25071, 25072, 25073, 25080, 25081, 25082, 25083, 25090, 25091, 25092, 25093, 3572, 3620, 36201, 36202, 36641 |
| Intellectual Disabilities | 317xx, 318xx, 319xx |
| Stroke | 430xx, 431xx, 433xx, 434xx, 436xx, 438xx |

1x and xx denotes any numbers or blank

Appendix Table 4. The Percentage of the Age/Sex Eligible Population that Received a Cancer Screening Test (% Screened) and the Median State Medicaid Reimbursement Rate for the Screening Test and Office Visit ($), by Statea,b

|  | **Colonoscopy** | **FOBT** | **Film & Digital Mammography** | **Pap Test** | **Office Visit** |
| --- | --- | --- | --- | --- | --- |
| **State** | % Screened | $ | % Screened | $ | % Screened | $: Digital, Facility | $: Digital, Non-Facility | $: Film, Facility | $: Film, Non-Facility | % Screened | $ | % Screened | $ |
| AK | 5.7 | 598.20 | 2.3 | N/A | 17.6 | 46.45 | 134.60 | 46.45 | 75.83 | 23.5 | 20.00 | N/A | 79.62 |
| AL | 6.2 | 298.47 | 4.9 | N/A | 13.4 | 26.26 | 86.43 | 54.70 | 55.80 | 23.1 | 24.00 | N/A | 44.86 |
| AR | 5.5 | 435.54 | 2.7 | N/A | 14.1 | 38.46 | 92.76 | 52.04 | 70.14 | 17.7 | 19.00 | N/A | 40.72 |
| AZ | -- | -- | -- | N/A | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| CA | 4.1 | 261.08 | 5.1 | N/A | 19.9 | 49.16 | 124.88 | 38.60 | 66.18 | 22.9 | 22.00 | N/A | 22.14 |
| CO | 6.0 | 225.12 | 4.2 | N/A | 16.8 | 33.30 | 89.81 | 23.21 | 57.52 | 25.9 | 27.00 | N/A | 44.40 |
| CT | 7.4 | 233.78 | 4.6 | N/A | 32.0 | 117.32 | 120.07 | 22.91 | 45.83 | 28.9 | 27.00 | N/A | 22.00 |
| DC | 7.0 | 248.43 | 1.5 | N/A | 17.8 | 105.12 | 112.19 | 44.17 | 68.02 | 22.0 | 20.00 | N/A | 23.85 |
| DE | 6.6 | 395.12 | 3.3 | N/A | -- | -- | -- | -- | -- | 34.4 | 28.00 | N/A | 59.35 |
| FL | 6.2 | 256.34 | 5.8 | N/A | 21.0 | 16.84 | 65.02 | 16.53 | 41.32 | 23.2 | 15.00 | N/A | 25.83 |
| GA | 5.8 | 233.49 | 5.8 | N/A | 22.9 | 29.72 | 30.04 | 30.04 | 75.11 | 20.6 | 26.00 | N/A | 41.85 |
| HI | 2.9 | 201.86 | 6.3 | N/A | 24.3 | 25.86 | 132.18 | 22.99 | 55.56 | 24.8 | 28.00 | N/A | 34.48 |
| IA | 3.8 | 364.18 | 2.6 | N/A | 14.6 | 35.2 | 118.81 | 47.30 | 46.20 | 25.9 | 28.00 | N/A | 46.20 |
| ID | 6.9 | 389.03 | 4.2 | N/A | 21.1 | 36.46 | 113.81 | 43.09 | 43.09 | 22.6 | 28.00 | N/A | 54.14 |
| IL | 5.1 | 235.02 | 1.6 | N/A | 16.0 | 38.38 | 66.36 | 31.98 | 65.34 | 27.0 | 4.00 | N/A | 25.81 |
| IN | 7.7 | 265.54 | 4.8 | N/A | 24.4 | 27.96 | 90.32 | 25.81 | 54.84 | 21.1 | 15.00 | N/A | 27.96 |
| KS | 5.7 | 308.99 | 3.8 | N/A | 18.6 | 22.85 | 78.35 | 23.94 | 54.41 | 19.7 | 18.00 | N/A | 42.44 |
| KY | 6.8 | 292.00 | 3.8 | N/A | 22.4 | 56.83 | 100.55 | 28.42 | 38.25 | 25.8 | 28.00 | N/A | 46.99 |
| LA | 4.9 | 305.33 | 4.0 | N/A | 21.3 | 58.76 | 25.03 | 26.12 | 64.20 | 24.2 | 16.00 | N/A | 39.17 |
| MA | 7.8 | 203.22 | 9.5 | N/A | -- | -- | -- | -- | -- | 35.2 | 24.00 | N/A | 46.07 |
| MD | 2.8 | 388.52 | 1.0 | N/A | -- | -- | -- | -- | -- | 11.0 | 37.00 | N/A | 43.97 |
| MI | 4.8 | 148.59 | 4.3 | N/A | 17.6 | 21.34 | 55.86 | 20.33 | 29.47 | 19.4 | 25.00 | N/A | 28.46 |
| MN | 6.2 | 452.96 | 2.6 | N/A | 23.6 | 87.18 | 118.97 | 32.82 | 44.10 | 23.0 | 15.00 | N/A | 22.56 |
| MO | 7.0 | 196.62 | 3.9 | N/A | -- | -- | -- | -- | -- | 26.0 | 24.00 | N/A | 35.11 |
| MS | 5.6 | 354.79 | 4.0 | N/A | 19.4 | 33.41 | 112.47 | 33.41 | 41.20 | 28.4 | 24.00 | N/A | 42.32 |
| MT | 5.4 | 191.83 | 2.0 | N/A | 24.1 | 33.26 | 114.19 | 29.93 | 68.74 | 24.2 | 28.00 | N/A | 46.56 |
| NC | 7.5 | 228.92 | 6.7 | N/A | 22.4 | 29.91 | 73.72 | 29.91 | 73.72 | 31.3 | 36.00 | N/A | 48.08 |
| ND | 4.0 | 401.85 | 6.0 | N/A | 22.5 | 136.31 | 122.91 | 58.10 | 42.46 | 33.8 | 28.00 | N/A | 50.28 |
| NE | 7.3 | 338.49 | 4.0 | N/A | -- | -- | -- | -- | -- | 33.3 | 21.00 | N/A | 47.62 |
| NH | 7.7 | 162.08 | 6.6 | N/A | 26.1 | 33.00 | 49.00 | 31.00 | 28.00 | 32.8 | 23.00 | N/A | 43.00 |
| NJ | 5.1 | 159.20 | 4.0 | N/A | 18.4 | 34.64 | 48.85 | 54.17 | 37.30 | 17.5 | 18.00 | N/A | 21.31 |
| NM | -- | -- | -- | N/A | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NV | -- | -- | -- | N/A | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| NY | 5.0 | 83.94 | 0.9 | N/A | -- | -- | -- | -- | -- | 21.3 | 23.00 | N/A | 25.42 |
| OH | 6.6 | 326.16 | 4.2 | N/A | -- | -- | -- | -- | -- | 20.1 | 24.00 | N/A | 35.23 |
| OK | 5.8 | 389.96 | 2.6 | N/A | 15.9 | 48.66 | 129.75 | 36.91 | 72.71 | 19.5 | 20.00 | N/A | 58.17 |
| OR | 6.5 | 332.06 | 3.9 | N/A | 21.9 | 72.12 | 91.54 | 26.91 | 33.37 | 26.5 | 20.00 | N/A | 38.75 |
| PA | 6.8 | 279.99 | 3.7 | N/A | 26.7 | 63.42 | 101.48 | 27.48 | 46.51 | 32.1 | 16.00 | N/A | 26.43 |
| RI | 7.2 | 165.95 | 5.6 | N/A | 25.3 | 19.69 | 72.83 | 18.70 | 43.31 | 27.7 | 33.00 | N/A | 20.67 |
| SC | 6.2 | 205.60 | 4.0 | N/A | 21.6 | 31.62 | 112.32 | 64.34 | 64.34 | 29.1 | 31.00 | N/A | 44.71 |
| SD | 7.5 | 384.79 | 3.6 | N/A | 17.3 | 84.18 | 130.19 | 34.79 | 51.63 | 31.7 | 22.00 | N/A | 43.77 |
| TN | 6.2 | 363.34 | 5.7 | N/A | 21.6 | 51.03 | 116.18 | 32.57 | 67.32 | 28.8 | 30.00 | N/A | 44.52 |
| TX | 5.4 | 329.46 | 5.0 | N/A | 18.3 | 29.06 | 43.06 | 23.39 | 37.67 | 22.3 | 24.00 | N/A | 31.22 |
| UT | 4.3 | 324.74 | 1.3 | N/A | -- | -- | -- | -- | -- | 14.5 | 8.00 | N/A | 36.96 |
| VA | 6.7 | 328.65 | 6.7 | N/A | 21.0 | 57.42 | 97.05 | 31.65 | 79.11 | 23.6 | 28.00 | N/A | 43.25 |
| VT | 8.4 | 361.97 | 5.2 | N/A | 31.5 | 60.99 | 209.25 | 48.37 | 28.39 | 39.9 | 24.00 | N/A | 53.63 |
| WA | 5.6 | 168.23 | 4.7 | N/A | 22.9 | 37.81 | 80.86 | 22.52 | 49.15 | 21.6 | 28.00 | N/A | 36.85 |
| WI | 7.6 | 473.49 | 3.3 | N/A | 25.8 | 24.21 | 75.79 | 28.42 | 65.26 | 32.1 | 28.00 | N/A | 29.47 |
| WV | 7.2 | 181.44 | 5.1 | N/A | -- | -- | -- | -- | -- | 24.2 | 25.00 | N/A | 45.31 |
| WY | 5.2 | 464.37 | 2.2 | N/A | -- | -- | -- | -- | -- | 26.9 | 28.00 | N/A | 67.03 |

a Data for states excluded from the regression analysis for a particular screening test are not presented.

b Percentages of the population screened are weighted by the number of months an individual was enrolled in fee-for-service Medicaid