Missouri Medicaid Chart Book

The Missouri Medicaid Program: A Graphical Profile

Medicaid Work Group, University of Missouri--Columbia

August 2005
Acknowledgments

Thank you to the members of the “Medicaid Work Group” at the University of Missouri-Columbia, who researched, designed, created, and compiled this summary report. The group is a collaboration of faculty and staff from several MU Centers:

- Dr. Bill Elder  Office of Social and Economic Data Analysis
- Dr. Kris Hagglund  Center for Health Policy
- Dr. Lanis Hicks  Department of Health Management & Informatics
- Stanton Hudson  Center for Health Policy
- Tanna Klein  Office of Social and Economic Data Analysis
- Amy Lake  Community Policy Analysis Center
- Dr. Jane Mosley  Institute of Public Policy
- Bret Sanders  Institute of Public Policy

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- Dr. Richard L. Koon

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- John Blodgett
- Dr. Keith Jamtgaard
- Steven Meyer

For additional information about this report see: [www.oseda.missouri.edu/medicaid](http://www.oseda.missouri.edu/medicaid) or call OSEDA at 573-882-7396

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Introduction

This report provides a graphical summary of the Missouri Medicaid program. It is intended to provide background information of the policy issues being considered by the Missouri Medicaid Reform Commission. Medicaid at the national level is summarized first, and then the report describes Missouri Medicaid. The types of health care services, expenditure levels, and categories of participants are presented. Health care service types are summarized with a focus on overall expenditure levels. Participants are summarized into general enrollment groups: Children, Adults, Blind and Disabled, Elderly, and Other. The interrelationships among services, expenditures, and participants are explored using current data and historical trends. County level maps display these patterns for the state. Estimates of the effect of recent changes to the Missouri Medicaid Program are provided.

The report uses the most current summary information available and many FY2005 charts are included. However, for some graphics, it was necessary to use older data to achieve a consistent frame of reference. Some Medicaid service types, particularly managed care, are confounded because they include portions of other specific services, such as physician services that also are reported independently. Substantial Medicaid claims data containing additional information about the characteristics of participants, services, and expenditures are being made available for summarization and analyses. We anticipate extending the description of the Missouri Medicaid program with future analyses of these more detailed data.
Background
Mandatory Medicaid Benefits

- Inpatient hospital (excluding inpatient hospital services for mental illness)
- Outpatient hospital including Federally Qualified Health Centers (FQHC), and if state law permits, Rural Health Clinics
- Physician
- Nurse Midwife
- Laboratory and x-ray
- Certified Pediatric and Family Nurse Practitioner, if state law permits
- Early and Periodic Screening, Diagnosis and Treatment (EPSDT) for individuals under age 21
- Family planning services and supplies
- Pregnancy-related services
- Postpartum pregnancy related services (60 days)
- Nursing facility services for those 21 and older
- Home health for those entitled to Medicaid Skilled Nursing Facility (SNF) services under state plan: intermittent or part-time nursing services by home health agency or registered nurse when there is no home health agency, home health aides, medical supplies and appliances for use in the home
- Medical supplies and surgical services of a dentist

Note: (1) Under the Social Security Act (Section 1905(a)), the above services are required to be provided by states. (2) Medicaid eligibility groups classified as “categorically needy” are entitled to the above services unless waived under Section 1115 of the Medicaid law. (3) When the “medically needy” are included in a state’s Medicaid plan, states must provide at least the following services: prenatal and delivery, postpartum pregnancy for persons under age 18 who are entitled to institutional and ambulatory services, home health for those entitled to nursing facility services, and specific services for persons in institutions for mental disease and or ICF/MR (if included as medically needy). (4) The service list above does not apply to the SCHIP program.


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### Number of States\(^1\) Providing Optional\(^2\) Medicaid Benefits

<table>
<thead>
<tr>
<th>Optional Medicaid Benefit (^1)</th>
<th>Number of States Providing Benefit (^2)</th>
<th>Optional Medicaid Benefit (^1)</th>
<th>Number of States Providing Benefit (^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Care Facility for people who are developmentally disabled (ICF-MR)</td>
<td>51</td>
<td>Inpatient hospital care for 65 and older in IMD</td>
<td>43</td>
</tr>
<tr>
<td>Optometrists</td>
<td>51</td>
<td>Nursing facility for those over 65 for Mental Disease (IMD)</td>
<td>43</td>
</tr>
<tr>
<td>Prescribed drugs</td>
<td>51</td>
<td>Speech, hearing and language disorder therapy</td>
<td>43</td>
</tr>
<tr>
<td>Prosthetic devices</td>
<td>51</td>
<td>Dentures</td>
<td>30</td>
</tr>
<tr>
<td>Home health physical therapy services</td>
<td>50</td>
<td>Occupational therapy</td>
<td>30</td>
</tr>
<tr>
<td>Nursing facility for those under age 21</td>
<td>50</td>
<td>Emergency hospital care in non-Medicare participating facilities</td>
<td>37</td>
</tr>
<tr>
<td>Physician-directed clinical services</td>
<td>50</td>
<td>Personal care</td>
<td>36</td>
</tr>
<tr>
<td>Targeted case management</td>
<td>50</td>
<td>Diagnostic services</td>
<td>35</td>
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<tr>
<td>Home health occupational therapy</td>
<td>49</td>
<td>Preventive services</td>
<td>35</td>
</tr>
<tr>
<td>Home health speech/language services</td>
<td>49</td>
<td>Chiropractors</td>
<td>32</td>
</tr>
<tr>
<td>Transportation</td>
<td>48</td>
<td>Psychologists</td>
<td>32</td>
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<tr>
<td>Dental services</td>
<td>47</td>
<td>Screening services</td>
<td>32</td>
</tr>
<tr>
<td>Eyeglasses</td>
<td>47</td>
<td>Private duty nursing</td>
<td>29</td>
</tr>
<tr>
<td>Podiatrists</td>
<td>47</td>
<td>Nurse anesthetists</td>
<td>28</td>
</tr>
<tr>
<td>Home health audiology services</td>
<td>45</td>
<td>Primary care</td>
<td>22</td>
</tr>
<tr>
<td>Hospice care</td>
<td>45</td>
<td>Critical Access Hospital</td>
<td>21</td>
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<tr>
<td>Inpatient psychiatric for under age 21</td>
<td>44</td>
<td>All inclusive care for the elderly (PACG) (^3)</td>
<td>18</td>
</tr>
<tr>
<td>Mental health rehabilitation / stabilization</td>
<td>44</td>
<td>Respiratory care for ventilator dependent</td>
<td>15</td>
</tr>
<tr>
<td>Physical therapy</td>
<td>44</td>
<td>Care at a religious, non-Medicare health care institution</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: (1) The 50 states and the District of Columbia are included. (2) The above are optional services states have elected to include under state plans and managed care waivers as of November 2002. (3) Updated figure as of March 2003. (4) No SCHIP program services or additional non-plan services through waivers or managed care entities are included.


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### FY2004 Medicaid Federal Medical Assistance Percentage (FMAP) Rates

<table>
<thead>
<tr>
<th></th>
<th>Lowest FMAP Rate</th>
<th>Median FMAP Rate</th>
<th>Highest FMAP Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>51%-59%</td>
<td>61%-69%</td>
<td>70% and Greater</td>
</tr>
<tr>
<td>13 States</td>
<td>12 States</td>
<td>14 States</td>
<td>12 States</td>
</tr>
</tbody>
</table>

Note: (1) Mississippi has the highest FMAP rate. (2) Under Section 1905(b) of the Social Security Act a State's Federal Medical Assistance Percentage (FMAP) is calculated based on a state's per capita income and cannot be less than 50 percent nor exceed 83%. All U.S. Territories (e.g., Puerto Rico, Virgin Islands, American Samoa, Guam, Northern Mariana Islands) have a 50 percent FMAP.

## FY2004 SCHIP Enhanced\(^1\)
### Federal Medical Assistance Percentage Rates

<table>
<thead>
<tr>
<th></th>
<th>Lowest FMAP Rate</th>
<th>Median FMAP Rate</th>
<th>Highest FMAP Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>65%-70%</td>
<td>19 States</td>
<td>71%-75%</td>
<td>76%-80%</td>
</tr>
<tr>
<td>71%-75%</td>
<td>Florida, Georgia, Hawaii, Indiana, Iowa, Kansas</td>
<td>11 States</td>
<td>Missouri (73%)</td>
</tr>
<tr>
<td>76%-80%</td>
<td>Alabama, Arizona, Dist. Of Columbia, Idaho, Kentucky, Louisiana, Maine, North Dakota, Oklahoma, South Carolina, Utah</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81% and Greater</td>
<td>Arkansas, Mississippi, Montana, New Mexico, West Virginia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: (1) Enhanced Federal Medicaid Assistance Percentage rates are for everyone covered through SCHIP such as parents of SCHIP and Medicaid children, pregnant women, and other adults through demonstration authority under Section 1115 of the Social Security Act. (2) Mississippi has the highest EFMAP rate. (3) All U.S. Territories (e.g., Puerto Rico, Virgin Islands, American Samoa, Guam, Northern Mariana Islands) have a 65 percent EFMAP.

National Maps
States vary widely in population, ranging from about 500,000 to more than 35 million.
More than a million people were enrolled in Missouri Medicaid in 2001.

Total Medicaid Enrollment, FY2001

Legend
- 57,900 - 444,200
- 444,201 - 1,125,600
- 1,125,601 - 1,798,800
- 1,798,801 - 3,548,600
- 3,548,601 - 9,528,300

Missouri: 1,032,300

SOURCE: The Henry J. Kaiser Family Foundation
Almost one-fifth of Missourians were enrolled in Medicaid in 2001.
Percentage of Population in Poverty, 2002

Medicaid participation is related to poverty rates

SOURCE: US Census Bureau

Legend:
- 6.3% - 6.5%
- 8.0% - 10.3%
- 10.4% - 12.4%
- 12.5% - 15.4%
- 15.5% - 18.9%

Missouri: 11.3%
Per Capita Medicaid Expenditures, 2003

Missouri ranked 15th in per capita Medicaid expenditures, reflecting relative need, state benefits covered, and price.
Total Medicaid Expenditures, FY2003

Missouri ranked 14th in total Medicaid expenditures

Legend (millions of dollars):
- $340.5 - 1,465.8
- $1,465.9 - 2,993.3
- $2,993.4 - 6,373.0
- $6,373.1 - 16,201.9
- $15,281.0 - 40,869.7

Missouri: $5,591.3

SOURCE: The Henry L. Kaiser Family Foundation

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Federal Medicaid Expenditures (in millions), FY2004

Missouri ranked 14th in Federal contributions to Medicaid expenditures

Legend
- $285 - 1,841
- $1,642 - 3,731
- $3,732 - 6,115
- $6,118 - 10,213
- $10,814 - 23,467

Missouri: $4,020

SOURCE: The Henry L. Kaiser Family Foundation
State Medicaid Expenditures (in millions), FY2003

Missouri ranked 16th in state contributions to Medicaid expenditures

Legend
- $121 - 711
- $712 - 1,884
- $1,885 - 3,749
- $3,750 - 6,213
- $6,214 - 12,346

Missouri: $2,164

SOURCE: The Henry L. Kaiser Family Foundation
Distribution of Medicaid Payments for Children, FY2001

Missouri ranked 8th in Medicaid spending for children

Legend
- 10% - 12%
- 12.1% - 16%
- 16.1% - 19%
- 19.1% - 24%
- 24.1% - 30%

Missouri: 22%

Source: The Henry L. Kaiser Family Foundation
Distribution of Medicaid Payments for Adults, FY2001

Missouri ranked 32nd in Medicaid spending for adults

Legend
- 4% - 8%
- 6.1% - 10%
- 10.1% - 14%
- 14.1% - 18%
- 18.1% - 27%

Missouri: 8%

SOURCE: The Henry L. Kaiser Family Foundation

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Distribution of Medicaid Payments for the Elderly, FY2001

Missouri ranked 16th in Medicaid spending for the elderly

Legend
- 12% - 16%
- 16.1% - 24%
- 24.1% - 30%
- 29.1% - 34%
- 34.1% - 42%
Missouri: 31%

SOURCE: The Henry J. Kaiser Family Foundation
Distribution of Medicaid Payments for the Blind/Disabled, FY2001

Missouri ranked 29th in Medicaid spending for the blind and disabled

Legend
- 23% - 29%
- 20.1% - 36%
- 35.1% - 40%
- 40.1% - 44%
- 44.1% - 49%

Missouri: 39%

SOURCE: The Henry L. Kaiser Family Foundation
### Missouri Percentage of Enrollment Groups by Sex and Race, Feb 2005

<table>
<thead>
<tr>
<th>Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blind/Disabled</td>
<td>3.4%</td>
<td>21.3%</td>
<td>75.3%</td>
</tr>
<tr>
<td>Elderly</td>
<td>4.6%</td>
<td>17.2%</td>
<td>78.2%</td>
</tr>
<tr>
<td>Adult</td>
<td>5.1%</td>
<td>22.7%</td>
<td>72.2%</td>
</tr>
<tr>
<td>Child</td>
<td>4.3%</td>
<td>29.2%</td>
<td>66.6%</td>
</tr>
</tbody>
</table>

**Legend:**
- **White**
- **Black**
- **Other/Unknown**

Medicaid enrollment reflects the characteristics of Missouri’s poor.

Source: DHSS, MICA; USDC, Bureau of the Census.

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Missouri Medicaid Expenditures by Enrollment Group, FY2005

Total Enrollees: 992,622
Total Expenditures: $5,557,804,149

- **Children**: 550,043 (55%) accounted for 20% of expenditures
- **Adult**: 185,358 (19%) accounted for 21%
- **Elderly**: 80,985 (8%) accounted for 10%
- **Blind & Disabled**: 159,535 (16%) accounted for 43%
- **Other**: $1,170,751,020 (21%), $536,438,883 (10%), $1,369,283,388 (25%), $2,386,441,894 (43%)

Note: Other includes Medicaid Assistance to Pregnant Women and the Breast or Cervical Cancer Program.
Source: MoDSS Summary Table 5, FY2005.

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Medicaid Enrollees by Enrollment Group, FY1998 – FY2005

The number of Medicaid enrollees increased to nearly one million Missourians in 2005

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Between 2000 and 2005, there was little change in the relative mix of Missouri Medicaid enrollees by eligibility category.
National health expenditures were $6,423 per person (over $1.9 trillion) and Missouri Medicaid expenditures were $5,599 per enrollee.

Source: Centers for Medicare & Medicaid Services, Office of the Actuary and MoDSS Summary Table 5, FY98-05, US Census.
Missouri Medicaid Expenditures by Type of Service, FY2005

Pharmacy is the largest category of costs to Missouri Medicaid.

Note: All other includes rehabilitation & specialty care, EPSDT, buy-in premiums, and dental services.
Source: MoDSS Summary Table 5, FY2005.
Percentage of Missouri Medicaid Expenditures by Type of Service, FY2005

Managed care includes payments to hospitals, physicians, and additional health services.

Source: MoDSS Summary Table 5, FY2005.

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Pharmacy expenditures increased 232% between 1998 and 2005.

Source: MoDSS Summary Table 5, FY1998 - FY2005.
Average Monthly Recipients by Service Type, FY1998–FY2005

The increase in managed care reflects a shift from fee-for-service

Source: MoDSS Summary Table 5, FY1998 - 2005.
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Top Medicaid Expenditures by Service Type and Enrollment Group, FY 2005

Source: MoDSS Summary Table 5, FY2005.

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Average Monthly Cost per Service Recipient by Service Type, 1998-2005

Nursing facilities cost about $2,716 a month in Missouri

Source: MoDSS Summary Table 5, FY1998 - FY2005.
Missouri Maps
Missouri counties vary widely in population, ranging from 2,270 to more than a million.
Missouri Medicaid Enrollees by County, Feb 2005

The highest concentrations of Medicaid recipients in Missouri are in the most populated areas.

SOURCE: Dept. of Health and Senior Services, Missouri Information for Community Assessment (MICA)
USOC, Bureau of the Census
Medicaid Enrollees as Percentage of Total Population by County, Feb 2005

Counties with the highest percentages of population enrolled in Medicaid are in the southeast region and the City of St. Louis.

SOURCE: Dept. of Health and Senior Services, Missouri Information for Community Assessment (MICA), USDC, Bureau of the Census

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Percentage of Missouri Population in Poverty, 2002

Poverty is concentrated in the southeast, south central, northeast regions of the state and in St. Louis City.
Percentage of Children Eligible for Medicaid Benefits, Feb 2005

Missouri Maps

More than one-third of children are eligible for Medicaid benefits

Legend
- 14.4% - 26.8%
- 26.7% - 35.7%
- 35.8% - 45.7%
- 42.8% - 58.8%
- 50.0% - 72.6%

MISSOURI MAPS

SOURCE: Dept. of Health and Senior Services,
Missouri Information for Community Assessment (MICA)
USDC, Bureau of the Census
Just over 10% of adults (age 20-64) are eligible for Medicaid
Percentage of the Elderly Eligible for Medicaid Benefits, Feb 2005

Missouri Medicaid Chartbook

MISSOURI MAPS

Medicaid covered slightly more than 12% of the elderly population

Legend
- 4.7% - 10.3%
- 10.4% - 13.7%
- 13.8% - 16.5%
- 16.6% - 25.5%
- 25.6% - 30.2%

Missouri: 12.0%

SOURCE: Dept. of Health and Senior Services, Missouri Information for Community Assessment (MICA), USDC, Bureau of the Census

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Only 3% of the population is eligible for blind/disabled Medicaid benefits.
Total Medicaid Expenditures by County, FY2004

Total expenditures were $4.8 billion in 2004.
Expenditures per Medicaid eligible enrollee ranged from $3,173 to $11,704 in counties, reflecting both relative need and the location of specialized services.
Medicaid Expenditures per Capita by County, FY2004

Per capita expenditures ranged from $326 to $2,425, reflecting the relative need of the population.
Pharmacy Medicaid Expenditures per Capita by County, FY2004

The average pharmacy expenditure per capita was $190, ranging from $53 to $692.

Legend:
- $62 - 148
- $149 - 227
- $228 - 321
- $322 - 480
- $481 - 696

Missouri: $187

SOURCE: DSS County Quick Facts SFY 2004, USDC, Bureau of the Census
Medicaid Managed Care Expenditures per Capita by County, FY2004

Where managed care is available, per capita Medicaid expenditures ranged from $88 to $405.

Legend
- $95 - 90
- $91 - 173
- $174 - 221
- $222 - 271
- $272 - 392
- Not Applicable

(Only includes counties presented here)

Missouri: $191

SOURCE: DSS County Quick Facts SFY 2004, USDC, Bureau of the Census

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Physician Medicaid Expenditures per Capita by County, FY2004

The lower physician expenditures across central Missouri reflect the availability of managed care, which covers physician services separately.

Legend
- $23 - $33
- $54 - $62
- $83 - $115
- $116 - $150
- $150 - $261

Missouri: $85

SOURCE: DSS County Quick Facts SFY 2004
USDC, Bureau of the Census
The lower hospital expenditures across central Missouri reflect the availability of managed care, which covers hospital services separately.
Nursing Home Medicaid Expenditures per Capita by County, FY2004

Missouri: $123

Legend
- $1 - 93
- $94 - 130
- $131 - 167
- $168 - 243
- $244 - 405

Per capita expenditures for nursing facilities averaged $125 per capita

Source: DSS County Quick Facts SFY 2004, USDC, Bureau of the Census
Number of Persons Affected by Changes in Medicaid Provisions, FY2006

The urban areas of Missouri will have the largest number of people affected by the recent changes in Medicaid provisions.
Percent of County Population Affected by Changes in Medicaid Provisions, FY2006

Missouri’s poorest regions will have the highest percent of population impacted by the recent changes in Medicaid provisions.
Estimated Medicaid Expenditure Reduction due to Changes in Medicaid Provisions, FY2006

Medicaid expenditures will be reduced by an estimated $335 million as a result of recent Medicaid provision changes, with the greatest reductions occurring in urban areas.

Missouri: $334,920,283

Legend
- $156,554 - 1,665,870
- $1,665,871 - 3,714,188
- $3,714,189 - 7,071,062
- $7,071,063 - 16,341,242
- $16,341,243 - 33,101,764

Source: Proposed SFY-06 Governor Budget Recommended Medicaid Eligible Cuts by County with Estimated Savings
Estimated Medicaid Expenditure Reduction per Capita, FY2006

Estimated reductions in per capita Medicaid expenditures by county range from $19 to $228.

Legend:
- $19 - 51
- $52 - 78
- $79 - 109
- $110 - 150
- $151 - 227

Missouri: $58

SOURCE: Proposed SFY 06 Governor or Budget Recommended Medicaid Eligible Cuts by County with Estimated Savings, USDC, Bureau of the Census
Future Analysis

A more definitive analysis of the interrelationships among Missouri Medicaid participant characteristics, service utilization, and expenditure levels is possible. However, hundreds of millions of claims records need to be organized and summarized before analyses can be completed. The extreme size and complexity of these files inhibits summarization and analysis. Consequently, it is difficult to assess the potential impact of policy or procedural changes to the Medicaid program.

Working with the Department of Social Services, our work group is organizing these Medicaid claims records in order to conduct further analyses of the important interrelationships in the program. For example, do expenditures vary in different parts of the state among categories of participants depending upon the health care that they receive? What participant characteristics are associated with higher service utilization and expenditure patterns? How would changes to eligibility or the mix of services affect expenditures?

Each monthly file of Missouri Medicaid claims includes about one million records. Over ten years of these data are being prepared for additional analyses. We look forward to the opportunity to produce additional public policy research from this important source.
Data Notes

1. The major source for data in National Maps section of the Chart Book was the Henry Kaiser Foundation (www.statefacts.org). The Kaiser reports are based on data from the Centers for Medicare and Medicaid Services (CMS). The Missouri Department of Social Services and the Department of Health and Senior Services are the primary sources for data for the Missouri Charts and Missouri Maps.

2. CMS uses data sources and measurement methodologies that differ from those used by Missouri DSS and Missouri DHSS. So, data in the Missouri Charts and Maps sections are not necessarily directly analogous to the data in the National Maps. Notwithstanding, the UMC Medicaid Work Group determined that the national level data are valuable in terms of understanding how Missouri Medicaid compares to other states. CMS data are considered the most accurately standardized, up-to-date national data for this purpose.

3. The UMC Medicaid Work Group created five broad groups of Missouri Medicaid Enrollees for some of the charts. These five groups are: Adults, Children, Blind and Disabled, Elderly and Other. These group titles are the same as those used by the Kaiser Foundation, but are not the same as those typically used in other reports generated by DSS.
Data Sources

- Department of Social Services, *Quick Facts*,
- *Table 5, Medicaid Summary Files, FY1998 – FY2005*. Division of Medical Services, Missouri Department of Social Services.
- National maps were reproduced using the “natural breaks” of data obtained from: *The Kaiser Family Foundation, statehealthfacts.org. Medicaid and SCHIP Statistics*. Henry J Kaiser Foundation.
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