

Medicaid Analytic eXtract (MAX)

Providing Medicaid Data for Analytic Uses

Presentation to the National Committee
on Vital and Health Statistics

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MAX Data – Purpose and Overview

- **Purpose**
 - Produce data to support research and policy analysis on Medicaid and SCHIP populations.
 - MAX is needed because source data are not organized to support research
- **Person-level Medicaid data by calendar year**
 - Eligibility
 - Service utilization
 - Medicaid payments
 - For all individuals whether or not they used any services
 - Includes Medicaid SCHIP, but only some eligibility data for non-Medicaid “stand-alone” programs



MAX Development

- **MAX is derived from the Medicaid Statistical Information System (MSIS) for all states & D.C.**
- **Differences from MSIS**
 - Orientation is calendar year
 - Data are gathered by date(s) of service
 - Uses 7 fiscal year quarters of MSIS records
 - Includes lagging eligibility and claims transactions
 - MAX data is health-event based
 - For Medicaid services, MAX combines initial claims, voids and other adjustments to create a “final action event”



MAX Data Files

- **Person Summary File**

Person level data on eligibility, demographics, managed care enrollment, a summary of utilization and Medicaid payment by type of service.

- **Services files**

Fee-for-Service claims, managed care premium payments and encounter records - including diagnoses, procedures, drug codes, as appropriate

- Inpatient Hospital (IP)
- Long Term Care (LT)
- Other Services (OT)
- Prescription Drug (RX)



MAX Enhancements to MSIS Data

- **More detail on Medicaid Eligibility**
 - Validation of SSNs (partially)
 - Retroactive eligibility in proper chronology
 - Eligibility codes remapped for consistency
 - Verification of dual status through linkage to Medicare Enrollment Data Base (EDB)



MAX Enhancements to MSIS Data

- **Improved Coding for Services**
 - Types of service remapped for consistency
 - Additional types of service identified
 - Durable Medical Equipment (DME) and supplies
 - Residential Care
 - Psychiatric Services
 - Adult Day Care
 - Maternal Delivery Indicator
- **Therapeutic usage data added to each prescription drug record.**

These therapeutic codes are proprietary products and are releasable only to parties who have valid license agreements with First Data Bank and Wolters Kluwer Health (Medi-Span).

Enhancements to MAX Data - 2005 and Beyond

- **New Eligibility Data Elements**
 - Improved verification of Social Security Numbers (SSNs)
 - Expanded detail on enrollee race and ethnicity
 - Monthly dual Medicare and Medicaid enrollment
 - Waiver plan identifier & type up enrollment - up to three waivers per month
 - Enrollment in 1915(c) waivers on an annual basis
- **New Service Data Elements**
 - Expenditures for 21 types of community-based long-term care
 - Available starting in 2009
 - National Provider Identifier
 - Provider Taxonomy

MAX Availability and Access

– Availability

- 1999-2004 All states
- 2005 – 29 states now, all by end of 2008
- 2006 – Fall of 2009
- Pre-MAX 1992-1998 – 25-29 states

– Access via Privacy Board review

- Research protocol review
- Minimum data necessary criteria
- For approvals, a Data Use Agreement required
- Payment of a fee
- Research Data Assistance Center (RESDAC) can help
 - Web address: <http://www.resdac.umn.edu>
 - Telephone: 1-888-973-7322



MAX Data Products Documentation

- **MAX web address:**

http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/07_MAXGeneralInformation.asp

- General Information (availability, record counts, etc.)
- Data Dictionaries
- Data Validation Reports
- Data Anomaly Reports

- **MAX prescription drug statistics address:**

http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/08_MedicaidPharmacy.asp

- National and state statistics 1999 and 2001-2004
- Chartbooks
- All Medicaid, dual and non-dual populations

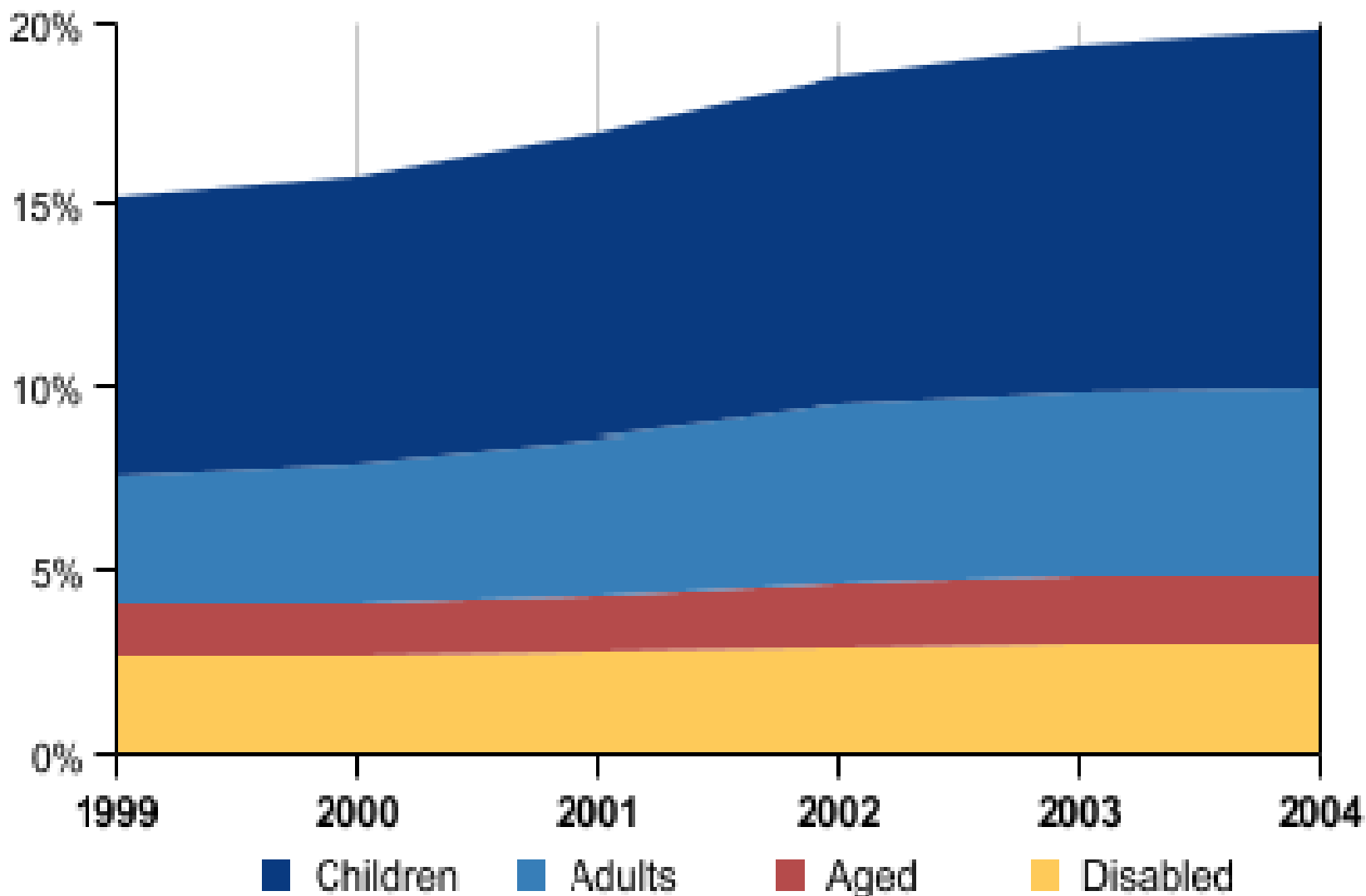


Medicaid Data Limitations

- **Eligibility**
 - Minimal information on other insurance coverage
 - No beneficiary name or address (problem for linkages)
 - Other data unavailable (e.g. income, other programs)
 - Eligibility “Churning” (movement into and out of eligibility)
- **Services**
 - Only during spells of eligibility
 - Only Medicaid covered services (coverage varies by state)
 - Incomplete for duals (residual after Medicare payment)
 - Incomplete for persons in prepaid plans
- **Payments**
 - Missing some payments
 - Aggregate adjustments
 - End-of-year settlements
 - Disproportionate Share Hospital (DSH)
 - Incomplete for third-party payments
 - Drug payment amounts are prior to rebates
- **Completeness**
- **Timeliness**
- **No provider characteristics**

Figure 2.3

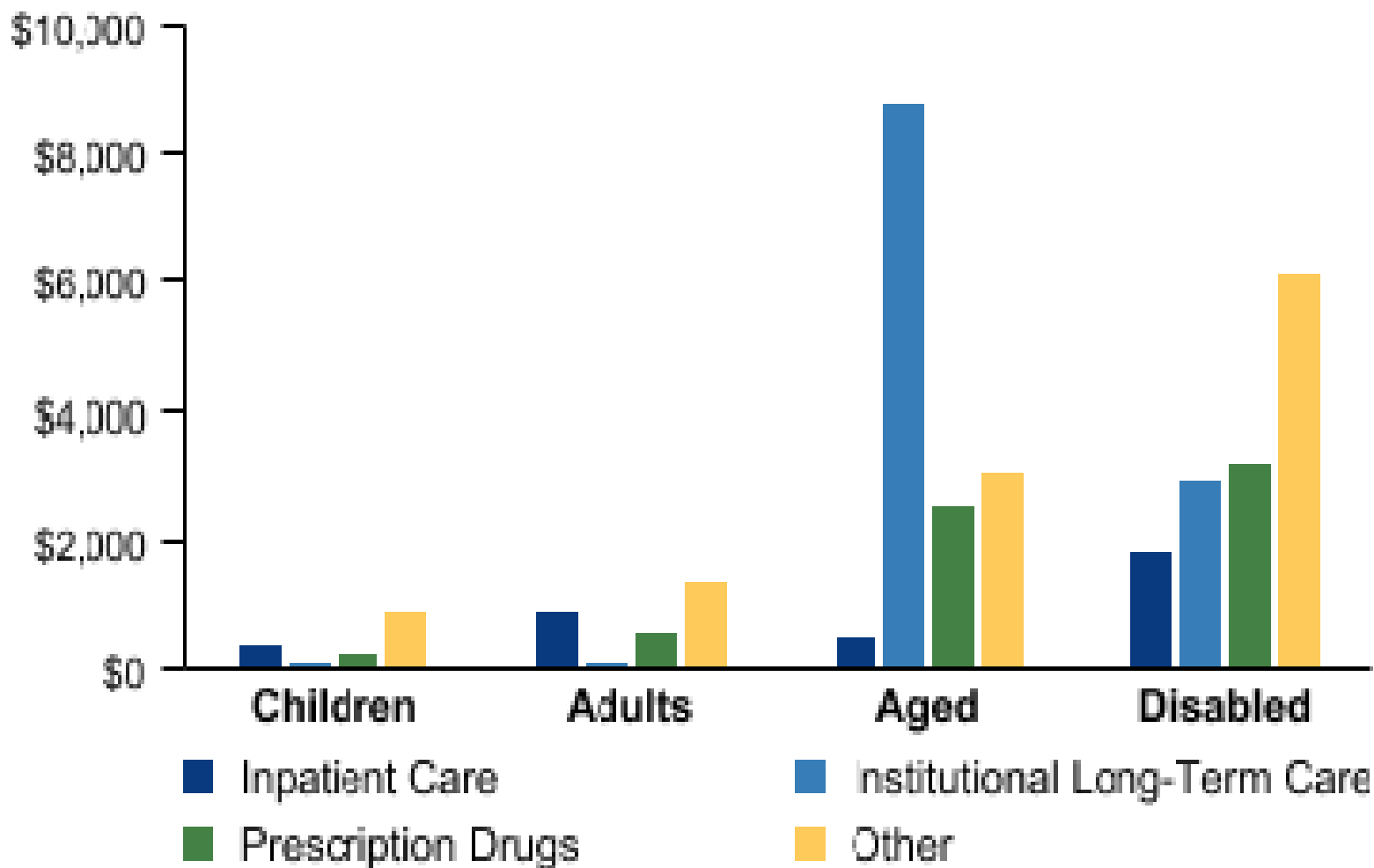
Percentage of the Population Enrolled in Medicaid, 1999-2004



Source: Medicaid Analytic Extract, 1999-2004.

Figure 2.21

Per-Enrollee Fee-for-Service (FFS) Expenditures Among FFS Enrollees in 2004, by Basis of Eligibility

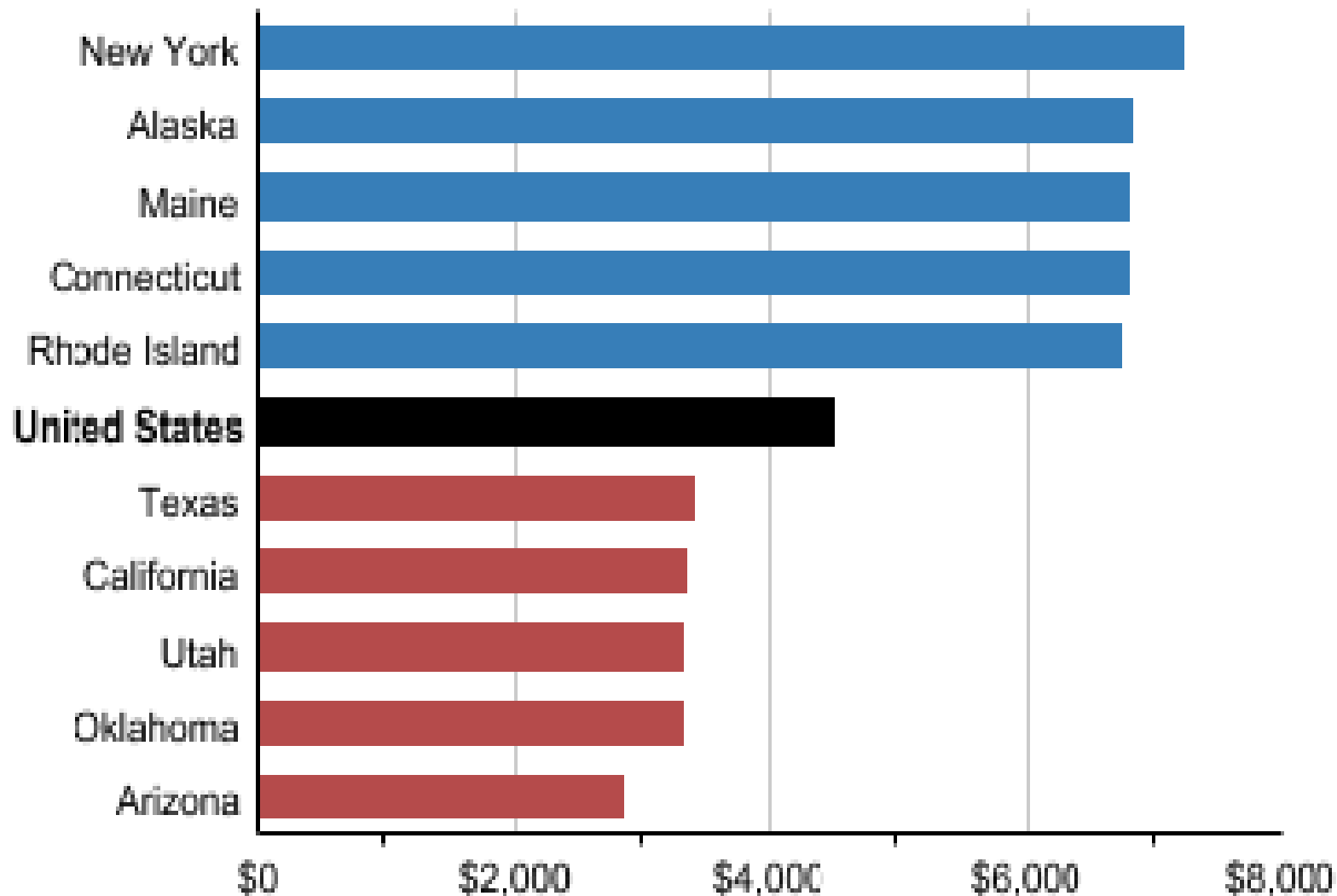


Source: Medicaid Analytic Extract, 2004.

FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

Figure 3.13

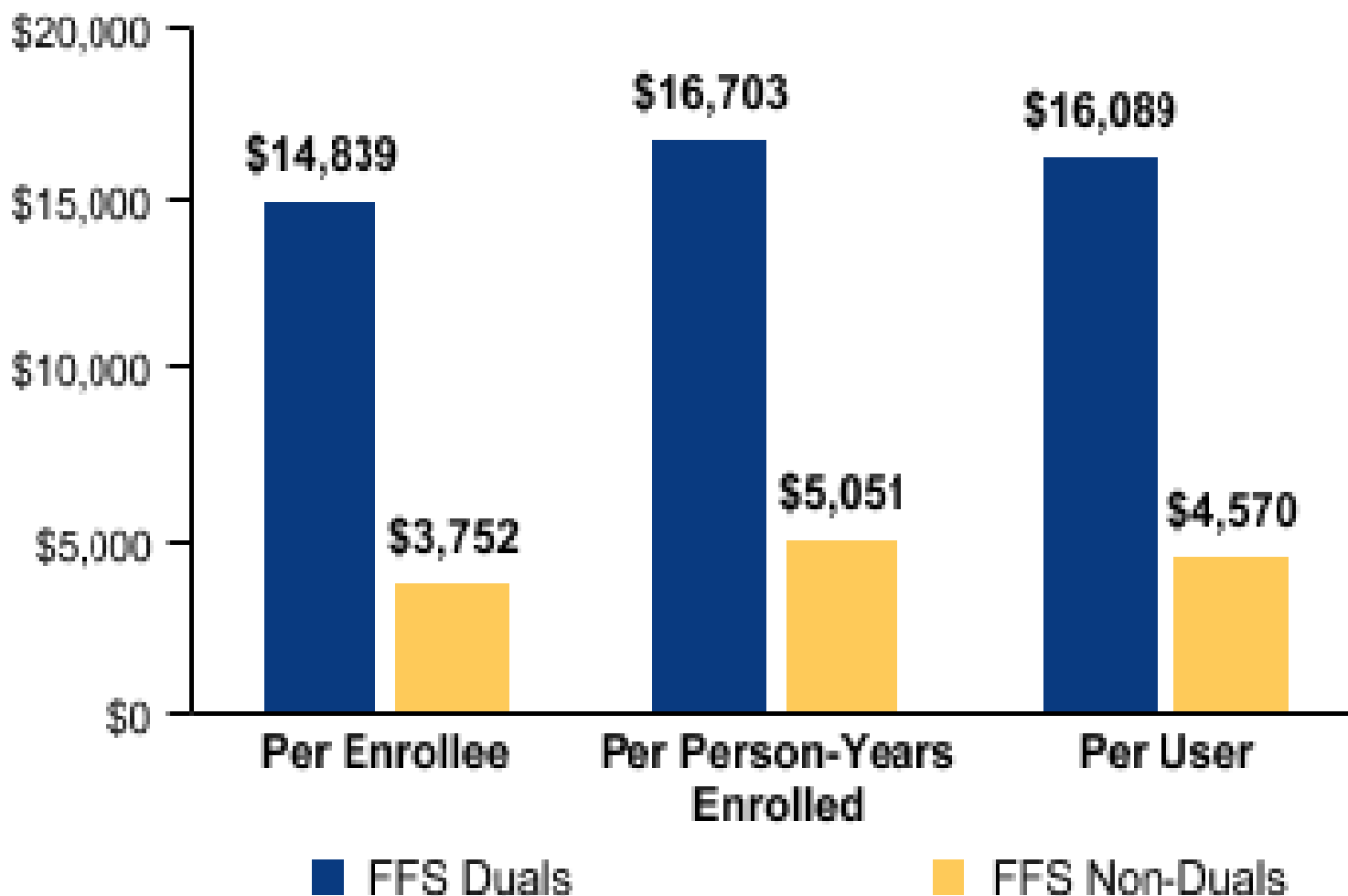
Per-Enrollee Medicaid Expenditures Among Full-Benefit Enrollees in 2004: Top and Bottom 5 States



Source: Medicaid Analytic Extract, 2004.

Figure 5.8

A Comparison of Medicaid Fee-for-Service (FFS) Expenditures Between FFS Duals and Non-Duals in 2004

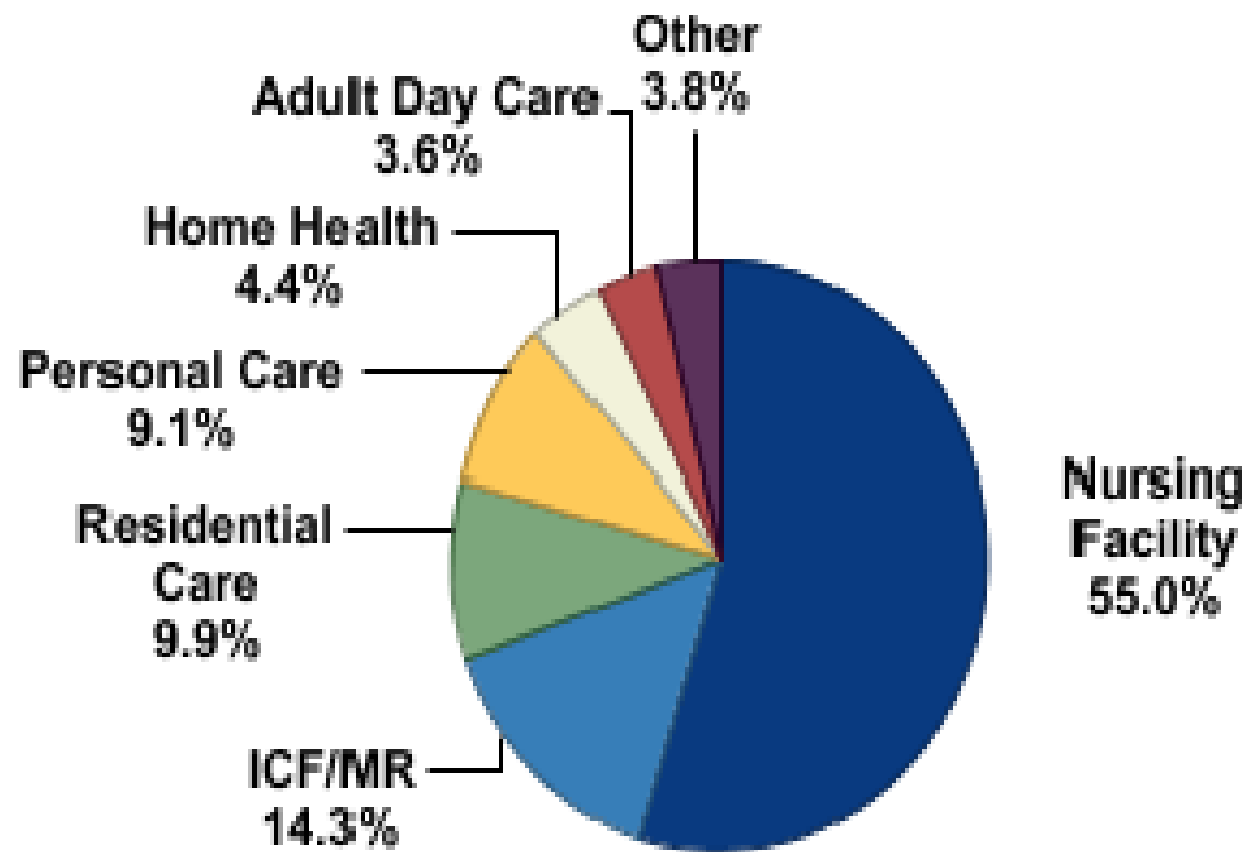


Source: Medicaid Analytic Extract, 2004.

FFS enrollees = full-benefit enrollees not enrolled in HMOs/HIOs in 2004.

Figure 6.7

Composition of Institutional and Community-Based FFS Long-Term Care Expenditures Among FFS Enrollees in 2004



Total Expenditures = \$75.9 Billion

Source: Medicaid Analytic Extract, 2004.

ICF/MR = intermediate care facility for the mentally retarded.

Exhibit 34

Total Medicaid Pharmacy Reimbursement, 1999, 2001, 2002, 2003, and 2004^{a,b}



- Source: Medicaid Analytic Extract (MAX), 2004. This graph is based on the information contained in Table 6 of the 1999, 2001, 2002, 2003, and 2004 Compendiums.
- ^aThe Medicaid pharmacy reimbursement amount is the amount Medicaid reimbursed pharmacies, including dispensing fees minus beneficiary copayment. Reimbursement amounts are gross amounts prior to the receipt of rebates from drug manufacturers to states.
- ^bMonthly reimbursement amounts were calculated by dividing the total reimbursement among all beneficiaries in the study population by the total number of benefit months of those beneficiaries. Benefit months are months during which beneficiaries had FFS pharmacy benefit coverage.

Aggregate State Reporting on SCHIP

- **Enrollment**

Statistical Enrollment Data System (SEDS)

Several enrollment measures for SCHIP

- **Expenditures**

- Total computable
- Federal and state share

- **Form CMS-21 (parallels Form CMS-64)**

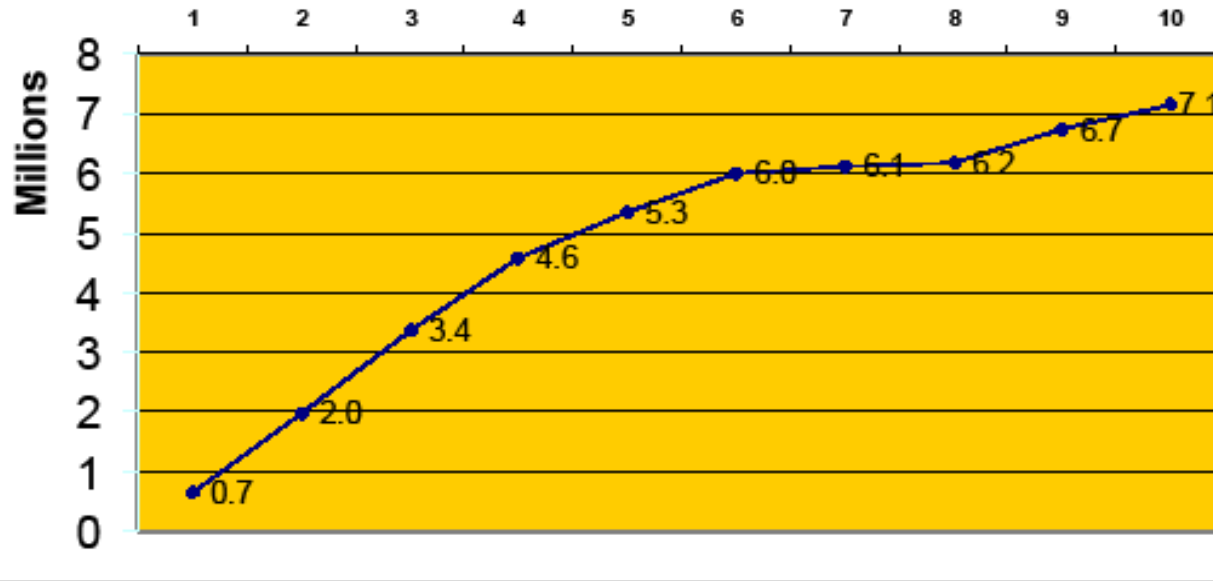
- Expenditures for current quarter
- Adjustments for prior quarters

- **Form CMS-21b (parallels Form CMS-37)**

- Expenditures by fiscal year and quarter



SCHIP EVER ENROLLED IN YEAR



<u>FY</u> 1998	<u>FY</u> 1999	<u>FY</u> 2000	<u>FY</u> 2001	<u>FY</u> 2002	<u>FY</u> 2003	<u>FY</u> 2004	<u>FY</u> 2005	<u>FY</u> 2006	<u>FY</u> 2007
660,351	1,966,716	3,369,747	4,581,418	5,300,644	5,984,772	6,102,784	6,156,249	6,745,194	7,144,794

Data Source: SCHIP Statistical Enrollment Data System (SEDS) 2/07/08

SCHIP = Separate Child Health Programs and Medicaid Expansion (Title XXI)

MAX Users

- **CMS Agency**
 - Research
 - Medicaid Program
 - Actuaries
- **Other Federal agencies, including**
 - DHHS - ASPE, HRSA, AHRQ, SAMHSA, NCI
 - Executive Branch - CBO, CRS
 - Census Bureau
- **Consultants/Contractors**
- **State agencies**
- **Academics**



Concluding Remarks

- **Future Activities**
 - Additional years of MAX
 - New data elements (e.g. community long-term care)
 - Expand data linkage activities, for example
 - Medicare Chronic Condition Warehouse (CCW)
 - American Community Survey, if possible

- **Thanks to ASPE for their support of MAX**

- **Contacts**

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