

The Centers for Medicare & Medicaid Services' Office of Research, Development, and Information (ORDI) strives to make information available to all. Nevertheless, portions of our files including charts, tables, and graphics may be difficult to read using assistive technology.

Persons with disabilities experiencing problems accessing portions of any file should contact ORDI through e-mail at ORDI_508_Compliance@cms.hhs.gov.

**STATISTICAL COMPENDIUM:
MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT IN 2007
MICHIGAN**

LIST OF TABLES

OVERVIEW OF STUDY POPULATION

TABLE 1. OVERVIEW OF BENEFICIARY SELECTION CRITERIA FOR STUDY POPULATION

FOR ALL MEDICAID BENEFICIARIES

TABLE 2. CHARACTERISTICS OF MEDICAID STUDY POPULATION BENEFICIARIES, BY BASIS OF ELIGIBILITY

TABLE 3. ANNUAL MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFICIARY, BY BENEFICIARY CHARACTERISTIC

TABLE 4. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BENEFICIARY CHARACTERISTIC

TABLE 5. AVERAGE MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BRAND STATUS AND BENEFICIARY CHARACTERISTIC

TABLE 6. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY BRAND STATUS AND THERAPEUTIC CATEGORY

TABLE 7. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY TOP 10 DRUG GROUP

FOR ALL NONDUAL BENEFICIARIES

TABLE ND.2. CHARACTERISTICS OF MEDICAID STUDY POPULATION BENEFICIARIES, BY BASIS OF ELIGIBILITY

TABLE ND.3. ANNUAL MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFICIARY, BY BENEFICIARY CHARACTERISTIC

TABLE ND.4. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BENEFICIARY CHARACTERISTIC

TABLE ND.5. AVERAGE MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BRAND STATUS AND BENEFICIARY CHARACTERISTIC

TABLE ND.6. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY BRAND STATUS AND THERAPEUTIC CATEGORY

TABLE ND.7-7D. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY TOP 10 DRUG GROUP

TABLE ND.8. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR ALL-YEAR NURSING FACILITY RESIDENTS, BY BENEFICIARY CHARACTERISTIC

TABLE ND.9. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR ALL-YEAR NURSING FACILITY RESIDENTS, BY BRAND STATUS AND THERAPEUTIC CATEGORY

TABLE ND.10-10D. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR TOP 10 DRUG GROUPS AMONG ALL-YEAR NURSING FACILITY RESIDENTS, BY TOP 10 DRUG GROUP

TABLE ND.11. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D AMONG NONDUALS, BY BENEFICIARY CHARACTERISTIC

TABLE ND.12. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D AMONG NONDUALS PER BENEFIT MONTH, BY BENEFICIARY CHARACTERISTIC

TABLE ND.13. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D FOR SELECTED DRUG CATEGORIES AMONG NONDUALS

FOR DUAL ELIGIBLE BENEFICIARIES

TABLE D.2. CHARACTERISTICS OF MEDICAID STUDY POPULATION BENEFICIARIES, BY BASIS OF ELIGIBILITY

TABLE D.3. ANNUAL MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFICIARY, BY BENEFICIARY CHARACTERISTIC

TABLE D.4. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY

BENEFICIARY CHARACTERISTIC

TABLE D.5. AVERAGE MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BRAND STATUS AND BENEFICIARY CHARACTERISTIC

TABLE D.6. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY BRAND STATUS AND THERAPEUTIC CATEGORY

TABLE D.7-7D. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY TOP 10 DRUG GROUP

TABLE D.8. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR ALL-YEAR NURSING FACILITY RESIDENTS, BY BENEFICIARY CHARACTERISTIC

TABLE D.9. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR ALL-YEAR NURSING FACILITY RESIDENTS, BY BRAND STATUS AND THERAPEUTIC CATEGORY

TABLE D.10-10D. MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT FOR TOP 10 DRUG GROUPS AMONG ALL-YEAR NURSING FACILITY RESIDENTS, BY TOP 10 DRUG GROUP

TABLE D.11. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D AMONG DUALS, BY BENEFICIARY CHARACTERISTIC

TABLE D.12. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D AMONG DUALS PER BENEFIT MONTH, BY BENEFICIARY CHARACTERISTIC

TABLE D.13. USE AND REIMBURSEMENT FOR DRUGS EXCLUDED BY STATUTE FROM MEDICARE PART D FOR SELECTED DRUG CATEGORIES AMONG DUALS

SUPPLEMENTAL TABLES

SUPPLEMENTAL TABLE 1. MEDICAID PHARMACY REIMBURSEMENT FOR DUAL ELIGIBLE BENEFICIARIES

SUPPLEMENTAL TABLE 1A. MEDICAID PHARMACY REIMBURSEMENT FOR DISABLED DUAL ELIGIBLE BENEFICIARIES UNDER AGE 65

SUPPLEMENTAL TABLE 1B. MEDICAID PHARMACY REIMBURSEMENT FOR DUAL ELIGIBLE BENEFICIARIES AGE 65 AND OLDER

SUPPLEMENTAL TABLE 1C. MEDICAID PHARMACY REIMBURSEMENT FOR DUAL ELIGIBLE BENEFICIARIES AGE 65 TO 74

SUPPLEMENTAL TABLE 1D. MEDICAID PHARMACY REIMBURSEMENT FOR DUAL ELIGIBLE BENEFICIARIES AGE 75 TO 84

SUPPLEMENTAL TABLE 1E. MEDICAID PHARMACY REIMBURSEMENT FOR DUAL ELIGIBLE BENEFICIARIES AGE 85 AND OLDER

APPENDIX TABLES

APPENDIX TABLE A.1. CHARACTERISTICS OF MEDICAID BENEFICIARIES WITH AT LEAST ONE MONTH OF PHARMACY BENEFIT COVERAGE, BY BASIS OF ELIGIBILITY, NONDUAL BENEFICIARIES

APPENDIX TABLE A.2. MEDICAID BENEFICIARIES AND THEIR BENEFIT MONTHS WITH OR WITHOUT FEE-FOR-SERVICE PHARMACY BENEFITS, NONDUAL BENEFICIARIES

APPENDIX TABLE A.3. CHARACTERISTICS OF MEDICAID BENEFICIARIES WITH AT LEAST ONE MONTH OF PHARMACY BENEFIT COVERAGE, BY BASIS OF ELIGIBILITY, DUAL ELIGIBLE BENEFICIARIES

APPENDIX TABLE A.4. MEDICAID BENEFICIARIES AND THEIR BENEFIT MONTHS WITH OR WITHOUT FEE-FOR-SERVICE PHARMACY BENEFITS, DUAL ELIGIBLE BENEFICIARIES

TABLE 1
OVERVIEW OF BENEFICIARY SELECTION CRITERIA FOR STUDY POPULATION
MICHIGAN, 2007

Inclusion Criteria (2007)	Number of Dual and Nondual Eligible Beneficiaries (Cell)	Number of Dual Eligible Beneficiaries (Cell) ^g	Number of Nondual Eligible Beneficiaries (Cell)
1. Beneficiaries who were eligible for Medicaid during at least one month ^a	1957490 (A)	261113 (E)	1696377 (I)
2. Beneficiaries who had Medicaid pharmacy benefits during at least one month ^b	1830199 (B)	239519 (F)	1590680 (J)
3. Beneficiaries who had fee-for-service pharmacy benefit coverage during at least one month ^{c, d, e}	1251535 (C)	235345 (G)	1016190 (K)
4. Beneficiaries who were all-year nursing facility residents ^f	23388 (D)	21503 (H)	1885 (L)

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. MAX data element "Eligible Months Count" was used to determine an individual's Medicaid eligibility. All individuals who had a value greater than zero were considered as beneficiaries and counted in Cell A.

b. Counts in Cell B were obtained by excluding from Cell A beneficiaries who never had pharmacy benefit coverage during their Medicaid enrollment in 2007 (based on MAX data element "Eligible Restricted Benefits Flag").

c. Cell C represents the study population for Tables 2 through 7. Cell C was obtained by excluding from Cell B beneficiaries who were in managed care (MC) plans that included prescription drugs in their capitated benefit package during all months of Medicaid eligibility in 2007, because the MAX files do not include separate prescription drug claims for those beneficiaries. MC plans include health maintenance organizations (HMOs), prepaid health plans (PHPs), or other MC organizations that provide health care benefits under capitation arrangements. Beneficiaries included in the study population are those who were in fee-for-service or primary care case management (PCCM) programs. In addition, beneficiaries in selected states in which prescription drug benefits were not covered in the capitated benefit package in MC or PHP plans are also included (see footnote e for a list of these states). In those states, if a beneficiary spent part of the year in fee-for-service, PCCM, or in a PHP or MC plan in which drugs were not included in the capitation, and spent part of the year in a PHP or MC plan in which drugs were capitated, only the months with fee-for-service pharmacy benefits are included in the tables. For example, if a beneficiary was in an MC plan that did not include prescription drugs in the capitation for 3 months of the year, and in a PHP with capitated drug coverage for the remaining 9 months, only the 3 months would be counted toward the number of benefit months associated with the beneficiary. Therefore, benefit months included represent the benefit months with fee-for-service pharmacy benefits.

d. The total Medicaid pharmacy reimbursement for Michigan in 2007 was \$562,886,617, of which \$158,317,184 was excluded from our analysis because those claims were made for beneficiaries who were outside the study population or took place during months that were excluded from the analysis.

e. Enrollees in prepaid health plans (PHP) or managed care (MC) plans that did not provide a pharmacy benefit are treated as having fee-for-service pharmacy benefit coverage. There were 27 states in 2007 that had PHPs that did not include a pharmacy benefit: AL, AR, AZ, CA, CO, DC, FL, GA, HI, IA, MA, MI, NC, NH, NM, NV, NY, OK, OR, PA, SC, SD, TN, TX, UT, WA, and WI. In addition, there were 8 states in which MC plans did not provide a pharmacy benefit (DE, IA, IL, NE, NY, TN, TX, and WV). These lists were constructed from the CMS 2007 Medicaid Managed Care Enrollment Report and by checking PHP and MC pharmacy coverage as necessary through state, PHP, and MC web sites. As a further check, we reviewed prescription drug expenditures by type of managed care plan to determine whether enrollees in comprehensive MC plans had significant prescription drug expenditures during the year, since that would indicate that at least some prescription drugs were not included in the capitated benefit and were being provided on a fee-for-service basis. There were some states in which most, but not all, prescription drugs were included in the MC capitated benefit package. Mental health drugs, for example, may have been excluded. In those states, we excluded all the MC enrollees from the study population, but some of their drugs would have been included, potentially resulting in higher reported per-beneficiary use of those drugs than would have been the case if we had been able to exclude those drugs.

f. Cell H represents the study population for Tables D.8 through D.10D. Cell L represents the study population for Tables ND.8 through ND.10D. All-year nursing facility residents are the beneficiaries who resided in nursing facilities throughout their enrollment in 2007. These beneficiaries were identified by comparing the number of months during which the MAX files contained at least one claim from nursing facilities to the number of Medicaid eligible months. If the former is greater than or equal to the latter, the beneficiary was considered an all-year resident. If the former is less than the latter but not equal to zero, the beneficiary was considered a part-year resident. Part-year residents are treated separately because they are likely to be short-term residents and the level and pattern of their pharmacy benefit use may differ substantially from longer-term residents. The number of part-year residents and their benefit months are presented in footnotes to Tables D.8 through D.10D and ND.8 through ND.10D. Residents of mental hospitals for the aged, inpatient psychiatric facilities for individuals under age 21, or intermediate care facilities for the mentally retarded are not counted as nursing facility residents in the nursing facility tables.

g. Pharmacy benefit use and reimbursement among full dual eligible beneficiaries are presented in Tables D.2 through D.7D, Tables D.11 through D.13, and Supplemental Tables 1 through 1E corresponding to the sample of beneficiaries in Cell G. To determine Medicaid-Medicare dual eligibility status, two MAX data elements ("Eligible Medicare Crossover Code -- Annual New Values" and "Eligible Restricted Benefits Flag") were used in combination. The dual eligible tables include all dual eligible benefit months in which the beneficiary had a fee-for-service pharmacy benefit.

Beneficiaries represented in Cell G, the dual study population, include all dual eligible beneficiaries who had a fee-for-service pharmacy benefit at least during one month in 2007. The dual eligible tables include all dual eligible benefit months in which the beneficiary had a fee-for-service pharmacy benefit.

Characteristics of non-dual eligible beneficiaries represented by Cell J are shown in Appendix Table A.1 and characteristics of non-dual eligible beneficiaries and their benefit months included in Cell J but excluded from Cell K are shown in Appendix Table A.2. Characteristics of dual eligible beneficiaries represented by Cell F are shown in Appendix Table A.3, and characteristics of dual eligible beneficiaries and their benefit months included in Cell F but excluded from Cell G are shown in Appendix Table A.4.

Bene(s) = beneficiary (or beneficiaries); CMS = Centers for Medicare & Medicaid Services; HMO = health maintenance organization; MAX = Medicaid Analytic Extract; MC = managed care; PCCM = primary care case management; PHP = prepaid health plan.

TABLE 2
CHARACTERISTICS OF MEDICAID STUDY POPULATION BENEFICIARIES, BY BASIS OF ELIGIBILITY^{a, b}
MICHIGAN, 2007

Beneficiary Characteristics	Number of Beneficiaries						Number of Benefit Months					
	All	Aged	Disabled	Adults	Children	Other/ Unknown	All	Aged	Disabled	Adults	Children	Other/ Unknown
All	1,725,909	122,011	294,341	366,648	941,651	1,258	16,417,230	1,251,178	3,182,398	3,121,418	8,851,733	10,503
Age												
5 and younger	343,042	0	6,601	13	336,428	0	3,100,295	0	70,911	34	3,029,350	0
6-14	414,130	0	21,063	17	393,050	0	4,128,346	0	237,651	168	3,890,527	0
15-20	246,870	0	19,726	24,956	202,175	13	2,289,380	0	217,055	200,189	1,872,076	60
21-44	417,778	0	101,052	306,473	9,831	422	3,790,393	0	1,109,298	2,619,173	59,388	2,534
45-64	180,967	1	145,089	35,058	18	801	1,850,110	1	1,541,377	300,882	78	7,772
65-74	51,994	51,039	809	123	1	22	550,113	542,950	6,103	922	1	137
75-84	40,252	40,246	0	6	0	0	414,623	414,588	0	35	0	0
85 and older	30,726	30,724	0	2	0	0	293,650	293,635	0	15	0	0
Unknown	150	1	1	0	148	0	320	4	3	0	313	0
Gender												
Female	1,005,954	86,850	148,526	302,501	466,819	1,258	9,573,511	899,110	1,624,720	2,636,247	4,402,931	10,503
Male	719,797	35,161	145,814	64,139	474,683	0	6,843,389	352,068	1,557,675	485,158	4,448,488	0
Unknown	158	0	1	8	149	0	330	0	3	13	314	0
Race												
White	994,686	84,413	170,110	232,292	506,899	972	9,069,659	854,925	1,821,185	1,923,872	4,461,752	7,925
African American	588,641	27,113	110,033	111,161	340,120	214	6,022,080	286,734	1,210,685	1,010,858	3,511,869	1,934
Other/unknown	142,582	10,485	14,198	23,195	94,632	72	1,325,491	109,519	150,528	186,688	878,112	644
Use of Nursing Facilities^c												
Entire year	23,388	20,724	2,659	5	0	0	246,611	217,187	29,378	46	0	0
Part year	19,519	16,043	3,427	44	5	0	182,736	147,407	34,845	440	44	0
None	1,683,002	85,244	288,255	366,599	941,646	1,258	15,987,883	886,584	3,118,175	3,120,932	8,851,689	10,503
Maintenance Assistance Status												
Cash	629,638	38,024	190,467	138,861	262,286	0	6,585,315	435,914	2,171,721	1,308,632	2,669,048	0
Medically needy	114,871	9,014	9,084	65,794	30,979	0	863,820	70,691	60,870	501,452	230,807	0
Poverty-related	692,448	44,617	63,104	49,058	534,411	1,258	6,307,946	463,649	651,477	333,764	4,848,553	10,503
Other/unknown	288,952	30,356	31,686	112,935	113,975	0	2,660,149	280,924	298,330	977,570	1,103,325	0
Dual Medicare Status^d												
Full dual, all year	224,846	110,228	109,208	5,305	71	34	2,403,909	1,155,187	1,193,499	54,203	667	353
Full dual, part year	14,386	6,642	7,709	35	0	0	148,824	67,548	80,893	383	0	0
Non-dual, all year	1,486,677	5,141	177,424	361,308	941,580	1,224	13,864,497	28,443	1,908,006	3,066,832	8,851,066	10,150
Managed Care (MC) Status												
Fee-for-service (FFS) all year	1,631,674	121,863	288,865	362,207	857,491	1,248	16,039,075	1,250,405	3,152,372	3,099,561	8,526,271	10,466
FFS part year, with Rx claims	32,515	32	3,355	2,530	26,592	6	158,584	208	20,244	13,901	124,208	23
FFS part year, no Rx claims	61,720	116	2,121	1,911	57,568	4	219,571	565	9,782	7,956	201,254	14

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 2 includes the beneficiaries represented by Cell C of Table 1. Benefit months are months during which beneficiaries had fee-for-service pharmacy benefits.

b. Medicaid basis of eligibility is classified as: aged, disabled, adults, and children. The disabled group includes beneficiaries of any age who were determined to be eligible because of disability or blindness. The children's group includes children receiving foster care and adoptive services. The total includes some beneficiaries with unknown basis of eligibility and some whose age categories are not consistent with basis of eligibility.

c. Please refer to footnote f of Table 1 for methodology used to determine nursing facility residence.

d. The "Full dual, all year" group includes beneficiaries who had Medicare coverage as well as Medicaid fee-for-service pharmacy benefits during all months of Medicaid enrollment in 2007. The "Full dual, part year" group includes beneficiaries who had such benefits for some, but not all, months of their enrollment. The "Non-dual, all year" group includes beneficiaries who were never dually eligible. Refer to footnote g of Table 1 for more information about how we determined dual eligibility status.

Bene(s) = beneficiary (or beneficiaries); Bene Mo(s) = benefit month(s); CMS = Centers for Medicare & Medicaid Services; FFS = fee-for-service pharmacy benefit; MAX = Medicaid Analytic Extract; MC = managed care; Rx = pharmacy benefit.

All Medicaid Beneficiaries

TABLE 3
ANNUAL MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFICIARY, BY BENEFICIARY CHARACTERISTIC^{a, b}
MICHIGAN, 2007

Beneficiary Characteristics	Percentage with at Least One Rx	Mean Number of Rx	Mean Rx \$	\$ per Rx	Mean \$, All Medicaid FFS \$ ^c	Rx \$ as a Percentage of All Medicaid FFS \$ ^d	Number of Beneficiaries
All	30.3	3.1	\$234	\$75	\$3,699	6.3	1,725,909
Age							
5 and younger	19.3	0.8	54	65	1,936	2.8	343,042
6-14	22.4	2.0	192	97	1,574	12.2	414,130
15-20	27.6	2.5	248	101	2,221	11.2	246,870
21-44	41.5	4.3	304	71	3,940	7.7	417,778
45-64	50.5	9.1	631	69	8,299	7.6	180,967
65-74	26.2	2.3	55	23	5,170	1.1	51,994
75-84	24.1	1.7	20	11	11,296	0.2	40,252
85 and older	25.5	1.7	14	9	21,097	0.1	30,726
Unknown	0.0	0.0	0	0	89	0.0	150
Basis of Eligibility^e							
Aged	25.2	1.9	31	16	11,186	0.3	122,011
Disabled	48.7	9.1	838	93	9,222	9.1	294,341
Adults	41.5	3.3	152	46	2,751	5.5	366,648
Children	20.8	1.3	102	77	1,362	7.5	941,651
Unknown	76.8	20.5	1,507	74	10,073	15.0	1,258
Gender							
Female	32.6	3.3	200	61	3,757	5.3	1,005,954
Male	27.1	2.9	282	97	3,617	7.8	719,797
Unknown	0.0	0.0	0	0	78	0.0	158
Race							
White	35.7	3.9	270	69	3,955	6.8	994,686
African American	22.6	2.0	192	94	3,536	5.4	588,641
Other/unknown	24.7	2.1	162	78	2,582	6.3	142,582
Use of Nursing Facilities^f							
Entire year	36.7	8.5	350	41	41,590	0.8	23,388
Part year	44.0	7.3	316	43	23,463	1.3	19,519
None	30.1	3.0	232	77	2,943	7.9	1,683,002
Maintenance Assistance Status							
Cash	34.2	4.5	389	86	4,639	8.4	629,638
Medically needy	37.6	3.6	204	57	3,539	5.8	114,871
Poverty related	25.9	1.9	118	63	2,397	4.9	692,448
Other/unknown	29.5	2.9	190	67	4,832	3.9	288,952

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 3 includes beneficiaries represented by Cell C of Table 1.

b. The Medicaid reimbursement amounts presented in this table do not reflect federally required rebates from drug manufacturers to the state.

c. In eight states (DE, IA, IL, NE, NY, TN, TX, and WV) the expenditures in this column include only Rx drug expenditures for those enrolled in capitated managed care plans, and not expenditures for other services covered by the plans or long-term-care services not covered by the plans. As a result, the amounts shown in this column for all Medicaid fee-for-service expenditures are lower than they would otherwise be.

d. In eight states (DE, IA, IL, NE, NY, TN, TX, and WV) the Rx share of expenditures for all Medicaid services shown in this column is higher than it would be if all expenditures for these other services, including services provided in capitated managed care plans and long-term-care services, were included.

e. Medicaid basis of eligibility is classified as: aged, disabled, adults, and children. The disabled group includes beneficiaries of any age

who were determined to be eligible because of disability or blindness. The children's group includes children receiving foster care and adoptive services.

f. Please refer to footnote f of Table 1 for methodology used to determine nursing facility residence.

Bene(s) = beneficiary (or beneficiaries); CMS = Centers for Medicare & Medicaid Services; FFS = fee-for-service; MAX = Medicaid Analytic Extract; OTC = over-the-counter; Rx = prescription(s) or pharmacy benefit; \$ = Medicaid reimbursement.

All Medicaid Beneficiaries

TABLE 4
MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BENEFICIARY CHARACTERISTIC^{a, b}
MICHIGAN, 2007

Beneficiary Characteristics	Mean Number of Rx	Mean Rx \$	Rx \$ as a Percentage of All Medicaid FFS \$ ^c	Number of Rx, Percentage with:						Mean \$, All Medicaid FFS \$ ^d	Number	
				None	More than 0, but 1 or Less	More than 1, but 2 or Less	More than 2, but 5 or Less	More than 5, but 10 or Less	More than 10		Beneficiaries	Benefit Months
All	0.3	\$25	6.3	69.7	24.1	3.1	2.5	0.5	0.2	\$389	1,725,909	16,417,230
Age												
5 and younger	0.1	6	2.8	80.7	18.0	0.8	0.4	0.1	0.0	214	343,042	3,100,295
6-14	0.2	19	12.2	77.6	18.3	2.1	1.5	0.3	0.1	158	414,130	4,128,346
15-20	0.3	27	11.2	72.4	22.4	2.5	2.0	0.5	0.2	240	246,870	2,289,380
21-44	0.5	34	7.7	58.5	32.3	4.7	3.8	0.7	0.1	434	417,778	3,790,393
45-64	0.9	62	7.6	49.5	32.7	7.7	7.4	2.1	0.7	812	180,967	1,850,110
65-74	0.2	5	1.1	73.8	23.2	1.9	0.8	0.2	0.1	489	51,994	550,113
75-84	0.2	2	0.2	75.9	22.0	1.5	0.5	0.1	0.0	1,097	40,252	414,623
85 and older	0.2	2	0.1	74.5	23.3	1.5	0.5	0.1	0.0	2,208	30,726	293,650
Unknown	0.0	0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	42	150	320
Basis of Eligibility^e												
Aged	0.2	3	0.3	74.8	22.8	1.6	0.6	0.1	0.0	1,091	122,011	1,251,178
Disabled	0.8	78	9.1	51.3	31.1	7.3	7.6	2.0	0.6	853	294,341	3,182,398
Adults	0.4	18	5.5	58.5	34.0	4.3	2.9	0.4	0.0	323	366,648	3,121,418
Children	0.1	11	7.5	79.2	18.2	1.5	0.9	0.2	0.1	145	941,651	8,851,733
Unknown	2.5	181	15.0	23.2	28.2	15.8	24.2	7.6	1.0	1,207	1,258	10,503
Gender												
Female	0.3	21	5.3	67.4	26.1	3.2	2.5	0.5	0.1	395	1,005,954	9,573,511
Male	0.3	30	7.8	72.9	21.2	2.8	2.4	0.6	0.2	381	719,797	6,843,389
Unknown	0.0	0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	37	158	330
Race												
White	0.4	30	6.8	64.3	27.5	3.9	3.3	0.7	0.2	434	994,686	9,069,659
African American	0.2	19	5.4	77.4	19.0	1.9	1.4	0.3	0.1	346	588,641	6,022,080
Other/unknown	0.2	17	6.3	75.3	20.8	1.9	1.6	0.3	0.1	278	142,582	1,325,491
Use of Nursing Facilities^f												
Entire year	0.8	33	0.8	63.3	26.7	3.5	2.2	2.2	2.0	3,944	23,388	246,611
Part year	0.8	34	1.3	56.0	33.9	3.0	2.9	2.8	1.4	2,506	19,519	182,736
None	0.3	24	7.9	69.9	23.9	3.1	2.5	0.5	0.1	310	1,683,002	15,987,883
Maintenance Assistance Status												
Cash	0.4	37	8.4	65.8	25.4	4.1	3.7	0.8	0.2	444	629,638	6,585,315
Medically needy	0.5	27	5.8	62.4	27.9	4.7	3.9	1.0	0.2	471	114,871	863,820
Poverty related	0.2	13	4.9	74.1	22.3	1.9	1.2	0.3	0.1	263	692,448	6,307,946
Other/unknown	0.3	21	3.9	70.5	23.8	2.9	2.2	0.5	0.1	525	288,952	2,660,149

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 4 includes the beneficiaries represented by Cell C of Table 1. Benefit months are months during which beneficiaries had fee-for-service pharmacy benefits.

b. The Medicaid reimbursement amounts presented in this table do not reflect federally required rebates from drug manufacturers to the state.

c. In eight states (DE, IA, IL, NE, NY, TN, TX, and WV) the expenditures in this column include only Rx drug expenditures for those enrolled in capitated managed care plans, and not expenditures for other services covered by the plans or long-term-care services not covered by the plans. As a result, the amounts shown in this column for all Medicaid fee-for-service expenditures are lower than they would otherwise be.

d. In eight states (DE, IA, IL, NE, NY, TN, TX, and WV) the Rx share of expenditures for all Medicaid services shown in this column is higher than it would be if all expenditures for these other services, including services provided in capitated managed care plans and long-

term-care services, were included.

e. Medicaid basis of eligibility is classified as: aged, disabled, adults, and children. The disabled group includes beneficiaries of any age who were determined to be eligible because of disability or blindness. The children's group includes children receiving foster care and adoptive services.

f. Please refer to footnote f of Table 1 for methodology used to determine nursing facility residence.

Bene(s) = beneficiary (or beneficiaries); Bene Mo(s) = benefit month(s); CMS = Centers for Medicare & Medicaid Services; FFS = fee-for-service; MAX = Medicaid Analytic Extract; Rx = prescription(s) or pharmacy benefit; \$ = Medicaid reimbursement.

All Medicaid Beneficiaries

TABLE 5
AVERAGE MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT PER BENEFIT MONTH, BY BRAND STATUS AND BENEFICIARY CHARACTERISTIC^{a, b, c}
MICHIGAN, 2007

Beneficiary Characteristics	All Rx			Patented Brand-Name Drugs			Off-Patent Brand-Name Drugs			Generic Drugs		
	Number of Rx	Rx \$	\$ per Rx	Number of Rx	Rx \$	\$ per Rx	Number of Rx	Rx \$	\$ per Rx	Number of Rx	Rx \$	\$ per Rx
All	0.3	\$25	\$75	0.1	\$21	\$186	0.0	\$1	\$110	0.2	\$3	\$14
Age												
5 and younger	0.1	6	65	0.0	5	195	0.0	0	67	0.1	1	16
6-14	0.2	19	97	0.1	17	149	0.0	1	100	0.1	2	19
15-20	0.3	27	101	0.1	23	201	0.0	1	117	0.1	3	19
21-44	0.5	34	71	0.1	28	194	0.0	1	128	0.3	4	14
45-64	0.9	62	69	0.3	52	206	0.0	2	122	0.6	8	13
65-74	0.2	5	23	0.0	4	144	0.0	0	55	0.2	2	8
75-84	0.2	2	11	0.0	1	95	0.0	0	31	0.2	1	6
85 and older	0.2	2	9	0.0	1	71	0.0	0	26	0.2	1	5
Unknown	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Basis of Eligibility^d												
Aged	0.2	3	16	0.0	2	122	0.0	0	43	0.2	1	6
Disabled	0.8	78	93	0.3	68	232	0.0	2	124	0.5	8	15
Adults	0.4	18	46	0.1	14	138	0.0	1	122	0.3	4	13
Children	0.1	11	77	0.1	9	140	0.0	0	87	0.1	1	17
Unknown	2.5	181	74	0.8	145	194	0.0	9	202	1.7	26	16
Gender												
Female	0.3	21	61	0.1	17	167	0.0	1	109	0.2	3	13
Male	0.3	30	97	0.1	26	207	0.0	1	111	0.2	3	16
Unknown	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Race												
White	0.4	30	69	0.1	25	168	0.0	1	112	0.3	4	14
African American	0.2	19	94	0.1	17	240	0.0	0	104	0.1	2	14
Other/unknown	0.2	17	78	0.1	15	195	0.0	1	110	0.1	2	15
Use of Nursing Facilities^e												
Entire year	0.8	33	41	0.2	24	148	0.0	2	77	0.6	7	11
Part year	0.8	34	43	0.1	24	164	0.0	2	85	0.6	7	12
None	0.3	24	77	0.1	21	187	0.0	1	113	0.2	3	14
Maintenance Assistance Status												
Cash	0.4	37	86	0.2	32	211	0.0	1	122	0.3	4	14
Medically needy	0.5	27	57	0.1	22	164	0.0	1	128	0.3	5	14
Poverty related	0.2	13	63	0.1	11	153	0.0	0	93	0.1	2	14
Other/unknown	0.3	21	67	0.1	17	156	0.0	1	94	0.2	3	14

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 5 includes the beneficiaries represented by Cell C of Table 1. Benefit months are months during which beneficiaries had fee-for-service pharmacy benefits.

b. The Medicaid reimbursement amounts presented in this table do not reflect federally required rebates from drug manufacturers to the state.

c. Brand-name drugs, sometimes called "innovator single-source drugs," are drugs whose patents have not yet expired. Off-patent brand-name drugs, sometimes called "innovator multiple-source drugs," are brand-name drugs whose patents have expired. Generic drugs, sometimes called "non-innovator multiple-source drugs," are off-patent drugs manufactured and sold by companies other than the original patent holder. In Michigan, 0.2 percent of drug claims have missing values for brand status. Thus, the sum of the three groups in this table may be smaller than all prescriptions

combined. For information about this classification method, see Wolters Kluwer Health, <http://www.medi-span.com/master-drug-database.aspx>

d. Medicaid basis of eligibility is classified as: aged, disabled, adults, and children. The disabled group includes beneficiaries of any age who were determined to be eligible because of disability or blindness. The children's group includes children receiving foster care and adoptive services.

e. Please refer to footnote f of Table 1 for methodology used to determine nursing facility residence.

CMS = Centers for Medicare & Medicaid Services; MAX = Medicaid Analytic Extract; Rx = prescription(s) or pharmacy benefit; \$ = Medicaid reimbursement.

All Medicaid Beneficiaries

TABLE 6
 MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY BRAND STATUS AND THERAPEUTIC CATEGORY^{a, b, c, d}
 MICHIGAN, 2007

Therapeutic Category	Number of Rx per Benefit Month Among Users				\$ per Benefit Month Among Users				\$ per Rx				Users ^e				
	Total	Patented Brand-Name	Off-Patent Brand-Name	Generic	Total	Patented Brand-Name	Off-Patent Brand-Name	Generic	Total	Patented Brand-Name	Off-Patent Brand-Name	Generic	Total Number of Rx	Total Rx \$	Number of Users	As a Percentage of All Benes	Number of Benefit Months
Anti-infective Agents	0.2	0.0	0.0	0.2	\$19	\$15	\$0	\$3	\$84	\$504	\$93	\$18	370,848	\$31,208,854	167,030	9.7	1,635,375
Biologicals	0.4	0.4	0.0	0.0	654	654	0	0	1707	1,707	0	0	2,552	4,356,922	720	0.0	6,661
Antineoplastic Agents	0.5	0.2	0.0	0.3	121	110	1	10	261	672	1,464	32	11,247	2,933,226	2,346	0.1	24,336
Endocrine/Metabolic Drugs	0.4	0.1	0.0	0.2	27	21	1	5	73	162	50	23	261,516	19,150,191	73,307	4.2	722,047
Cardiovascular Agents	0.7	0.1	0.0	0.5	21	12	2	6	32	110	75	12	275,920	8,736,232	42,666	2.5	416,426
Respiratory Agents	0.4	0.2	0.0	0.1	30	27	1	3	77	111	64	19	291,584	22,535,499	75,720	4.4	757,871
Gastrointestinal Agents	0.4	0.1	0.0	0.2	30	21	2	7	80	148	141	33	150,589	12,117,921	40,786	2.4	399,041
Genitourinary Agents	0.2	0.1	0.0	0.1	9	6	0	3	42	90	56	19	38,914	1,626,932	18,152	1.1	175,726
CNS Drugs	0.8	0.3	0.0	0.5	66	60	0	6	81	225	113	10	2,010,587	163,455,673	232,223	13.5	2,472,400
Stimulants/Anti-obesity/Anorexia	0.7	0.5	0.0	0.1	48	45	0	2	71	83	60	16	399,518	28,186,942	56,144	3.3	592,732
Miscellaneous Psychological/Neurological Agents	0.3	0.2	0.0	0.0	61	59	0	1	239	255	60	59	16,827	4,018,896	6,686	0.4	66,241
Analgesics and Anesthetics	0.3	0.0	0.0	0.3	10	4	2	4	29	286	330	14	355,532	10,435,071	108,558	6.3	1,045,132
Neuromuscular Agents	0.7	0.3	0.0	0.4	49	39	4	6	70	133	125	15	784,724	54,768,804	103,881	6.0	1,114,960
Nutritional Products	0.3	0.0	0.0	0.3	3	0	0	2	10	14	15	9	129,760	1,264,404	48,102	2.8	459,612
Hematological Agents	0.5	0.1	0.0	0.4	136	133	0	3	291	1,600	102	8	99,826	29,039,526	20,307	1.2	213,604
Topical Products	0.2	0.0	0.0	0.2	6	3	0	2	32	97	68	15	159,637	5,097,124	84,410	4.9	829,725
Miscellaneous Products	0.4	0.2	0.0	0.1	86	77	3	6	234	316	155	56	23,266	5,455,652	5,901	0.3	63,417
Unknown Therapeutic Category	0.2	0.0	0.0	0.0	10	0	0	0	57	0	0	0	3,196	181,564	1,787	0.1	19,009
TOTAL NO. OF RX AND RX \$	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5,386,043	404,569,433	n.a.	n.a.	n.a.

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 6 includes the beneficiaries represented by Cell C of Table 1. A beneficiary who used drugs from two or more categories was counted as a user for each category. Therefore, the sum of users across categories may exceed the total number of individual users. Benefit months are months during which beneficiaries had fee-for-service pharmacy benefits.

b. Medicaid reimbursement amounts presented in this table do not reflect federally required rebates from drug manufacturers to the state.

c. For information about these therapeutic categories, see Wolters Kluwer Health, <http://www.medi-span.com/master-drug-database.aspx>.

d. Brand-name drugs, sometimes called "innovator single-source drugs," are drugs whose patents have not yet expired. Off-patent brand-name drugs, sometimes called "innovator multiple-source drugs," are brand-name drugs whose patents have expired. Generic drugs, sometimes called "non-innovator multiple-source drugs," are off-patent drugs manufactured and sold by companies other than the original patent holder. In Michigan, 0.2 percent of drug claims have missing values for brand status. Thus, the sum of the three groups in this table may be smaller than all prescriptions combined.

For information about this classification method, see Wolters Kluwer Health, <http://www.medi-span.com/master-drug-database.aspx>.

e. A user is a beneficiary who had at least one prescription filled in a given therapeutic category during 2007.

Bene(s) = beneficiary (or beneficiaries); Bene Mo(s) = benefit month(s); CMS = Centers for Medicare & Medicaid Services; CNS = Central Nervous System; MAX = Medicaid Analytic Extract; n.a. = not applicable; Rx = prescription(s) or pharmacy benefit; \$ = Medicaid reimbursement.

TABLE 7
 MEDICAID PHARMACY BENEFIT USE AND REIMBURSEMENT, BY TOP 10 DRUG GROUP^{a, b, c}
 MICHIGAN, 2007

Top 10 Drug Groups	Total Medicaid Rx \$	Users			Among Users		
		Number	As a Percentage of All Beneficiaries	Number of Benefit Months	Number of Rx per Benefit Month	\$ per Rx	Rx \$ per Benefit Month
ANTIPSYCHOTICS	\$130,891,399	76,925	4.5	854,861	0.6	\$271	\$153
ANTICONVULSANT	52,492,581	103,797	6.0	1,146,384	0.6	76	46
STIMULANTS/ANTI-OBESITY/ANOREXIANTS	26,741,987	60,994	3.5	675,552	0.6	71	40
ANTIDEPRESSANTS	26,012,504	168,132	9.7	1,808,245	0.4	33	14
MISC. HEMATOLOGICAL	22,839,941	3,304	0.2	33,128	0.4	1,848	689
ANTIVIRAL	21,015,769	9,479	0.5	96,826	0.4	528	217
ANTIASTHMATIC	15,605,668	83,912	4.9	853,640	0.2	75	18
MISC. ENDOCRINE	8,113,875	4,036	0.2	43,583	0.5	414	186
ULCER DRUGS	7,852,358	43,112	2.5	430,520	0.3	62	18
ANTIDIABETIC	7,527,653	21,161	1.2	209,606	0.4	84	36
Total	319,093,735	574,852	n.a.	6,152,345	n.a.	n.a.	n.a.

Source: Data for this table are from the MAX 2007 file for Michigan, released by CMS in 3/2010. This table was produced on 04/19/2011.

a. Table 7 includes the beneficiaries represented by Cell C of Table 1. A user is a beneficiary who had at least one prescription filled in a given drug group during 2007. A beneficiary who used drugs from two or more groups was counted as a user for each group. Therefore, the sum of users across drug groups may exceed the total number of individual users. Benefit months are months during which beneficiaries had fee-for-service pharmacy benefits.

b. Medicaid reimbursement amounts presented in this table do not reflect federally required rebates from drug manufacturers to the state.

c. The top 10 drug groups were determined based on total Medicaid reimbursement in the state for 2007. For information about these drug groups, see Wolters Kluwer Health, <http://www.medi-span.com/master-drug-database.aspx>.
 Bene(s) = beneficiary (or beneficiaries); Bene Mo(s) = benefit month(s); CMS = Centers for Medicare & Medicaid Services; MAX = Medicaid Analytic Extract; Rx = prescription(s) or pharmacy benefit; \$ = Medicaid reimbursement.

All Medicaid Beneficiaries