APPENDIX B. COMPARISON OF MSIS MANAGED CARE DATA TO CMS DATA

To assess the validity of the managed care data in Medicaid Statistical Information System (MSIS), MSIS data on enrollment in comprehensive managed care plans and primary care case management (PCCM) plans for June 1999 were compared with information from the Centers for Medicare & Medicaid Services (CMS). The CMS information can be found at the CMS website on managed care: http://www.cms.hhs.gov/medicaid/managedcare/cover99.asp. Both MSIS and CMS report the number of Medicaid managed care enrollees in comprehensive managed care plans and primary care case management (PCCM) plans in June, 1999. 1999 MSIS data could not be compared to data from the National Academy for State Health Policy (NASHP) because NASHP only reports Medicaid managed care enrollment data biannually in even-numbered years.

Tables 1 and 2 present Medicaid managed care enrollment numbers for comprehensive managed care plans and PCCMs by state for June, 1999. In each table, columns 1 and 2 show the enrollment numbers for MSIS and CMS, respectively. Columns 3 and 4 then show the actual and percent difference between MSIS and CMS. When one source showed enrollment for a type of managed care for a state but the other source did not show any enrollment, the percent difference is reported as +/- 100.00 percent. For example, MSIS reported that Georgia had 19,725 enrollees in a comprehensive managed care plan in June 1999 while CMS data did not have any enrollees in this plan type; therefore, MSIS is reported to be +100.00 percent different relative to CMS.

For a majority of states, MSIS data on enrollment in comprehensive and PCCM plans for 1999 were within 10 percent of the CMS data. Since 1999 was the first year all states were reporting into MSIS, this result was encouraging. For the 19 states where the difference was greater than 10 percent for at least one of the managed care plan types, Table 3 provides available information on why the difference occurred. This information is also included in the footnotes for each state. There were many explanations for the disparities between MSIS and CMS numbers. In some instances, state Medicaid officials acknowledged a problem of undercounting managed care in MSIS data. In other instances, Medicaid officials believed the CMS data to be in error. For several states, plans were reported into one type of managed care plan in the MSIS data and another type in the CMS data. In a few instances, information was not available on why differences occurred.

Both MSIS and CMS reported national Medicaid enrollment in comprehensive plans of about 11.6 million. Of interest, both sources appear to have had some problems of undercounting this type of managed care. The national totals for PCCM enrollment were not as close, with CMS reporting 4.3 million Medicaid enrollees in PCCMs, compared to 3.6 million for MSIS.   Some, but not all, of the differences in PCCM reporting occurred because of differences between CMS and MSIS in whether hybrid PCCM plans were classified as PCCMs.

The MSIS and CMS data sets also provide counts for other types of managed care. Limited resources prevented staff from reconciling these numbers on a state by state basis. In addition, there are definitional differences across the three sources for the less common forms of managed care. For example, MSIS reports the following managed care plan types separately: behavioral managed care plans, dental plans, long-term care plans, prenatal/delivery plans, Programs for All-Inclusive Care for the Elderly (PACE) and other. CMS reports these types of managed care into two broad groupings --PHPs and other.

The state footnotes also mention any known problems with MSIS data for these less common types of managed care. In addition, when a state reported enrollment into the "other" grouping in MSIS, the footnotes explain what types of plans were reported. Finally, the footnotes mention any information on changes in a state's monthly managed care enrollment patterns during 1999, such as a new type of managed care plan being reported, or the termination of a large managed care plan.

TABLE 1
COMPARISON OF ENROLLMENT IN COMPREHENSIVE MEDICAID MANAGED CARE PROGRAMS
USING NASHP, CMS AND MSIS DATA SOURCES FOR JUNE, 1999

	Number of Enrollees		Differences Between Sources	Percent Differences Between Sources[1]
	MSIS	CMS		
Alabama	42,814	39,597	3,217	8.12
Alaska	0	0	0	0.00
Arizona	363,489	384,162	-20,673	-5.38
Arkansas	0	0	0	0.00
California	2,514,723	2,511,937	2,786	0.11
Colorado	78,522	81,149	-2,627	-3.24
Connecticut	233,518	230,217	3,301	1.43
Delaware	70,314	68,869	1,445	2.10
District of Columbia	74,101	75,499	-1,398	-1.85
Florida	440,557	446,538	-5,981	-1.34
Georgia	19,725	0	19,725	100.00
Hawaii	123,117	243,442	-120,325	-49.43
Idaho	0	0	0	0.00
Illinois	145,372	140,461	4,911	3.50
Indiana	108,798	112,042	-3,244	-2.90
Iowa	47,292	47,048	244	0.52
Kansas	28,269	22,402	5,867	26.19
Kentucky	143,195	158,628	-15,433	-9.73
Louisiana	0	0	0	0.00
Maine	6,338	5,569	769	13.81
Maryland	355,291	347,937	7,354	2.11
Massachusetts	146,953	141,523	5,430	3.84
Michigan	736,885	750,620	-13,735	-1.83
Minnesota	270,784	268,116	2,668	1.00
Mississippi	10,295	10,216	79	0.77
Missouri	153,512	276,628	-123,116	-44.51
Montana	2,003	1,965	38	1.93
Nebraska	28,021	28,052	-31	-0.11
Nevada	38,346	36,945	1,401	3.79
New Hampshire	2,172	5,812	-3,640	-62.63
New Jersey	360,405	356,956	3,449	0.97
New Mexico	208,538	208,528	10	0.00
New York	635,959	594,444	41,515	6.98
North Carolina	165,921	38,881	127,040	326.74
North Dakota	726	718	8	1.11
Ohio	246,568	244,888	1,680	0.69
Oklahoma	95,339	98,140	-2,801	-2.85
Oregon	293,260	230,591	62,669	27.18
Pennsylvania	778,676	843,380	-64,704	-7.67
Rhode Island	86,385	85,900	485	0.56
South Carolina	7,914	7,454	460	6.17
South Dakota	0	0	0	0.00
Tennessee	1,340,363	1,312,969	27,394	2.09
Texas	272,528	215,861	56,667	26.25
Utah	62,501	73,921	-11,420	-15.45
Vermont	59,548	65,692	-6,144	-9.35
Virginia	150,728	150,067	661	0.44
Washington	409,211	416,300	-7,089	-1.70
West Virginia	46,848	46,878	-30	-0.06
Wisconsin	182,702	186,884	-4,182	-2.24
Wyoming	0	0	0	0.00
TOTAL	11,588,526	11,613,826	-25,300	-0.22

1. The percent difference between MSIS and CMS is calculated with the following equation: $[(CMS/MSIS) - 1] * (100\%)$

TABLE 2
COMPARISON OF ENROLLMENT IN PCCM MEDICAID MANAGED CARE PROGRAMS USING CMS AND
MSIS DATA SOURCES FOR JUNE, 1999

	Number of Enrollees			Percent Differences Between Sources[1]
	MSIS	CMS	Differences Between Sources	
Alabama	277,464	310,584	-33,120	-10.66
Alaska	0	0	0	0.00
Arizona	0	0	0	0.00
Arkansas	46,412	194,753	-148,341	-76.17
California	2,188	26,617	-24,429	-91.78
Colorado	48,900	50,214	-1,314	-2.62
Connecticut	0	0	0	0.00
Delaware	0	0	0	0.00
District of Columbia	0	0	0	0.00
Florida	432,348	465,507	-33,159	-7.12
Georgia	543,799	613,560	-69,761	-11.37
Hawaii	0	0	0	0.00
Idaho	31,653	31,184	469	1.50
Illinois	0	0	0	0.00
Indiana	214,122	219,321	-5,199	-2.37
Iowa	45,682	45,570	112	0.25
Kansas	92,709	73,466	19,243	26.19
Kentucky	141,009	165,819	-24,810	-14.96
Louisiana	0	44,741	-44,741	-100.00
Maine	14,541	18,151	-3,610	-19.89
Maryland	0	0	0	0.00
Massachusetts	436,343	433,663	2,680	0.62
Michigan	0	0	0	0.00
Minnesota	0	0	0	0.00
Mississippi	177,840	190,131	-12,291	-6.46
Missouri	0	0	0	0.00
Montana	39,748	39,847	-99	-0.25
Nebraska	24,326	24,345	-19	-0.08
Nevada	0	0	0	0.00
New Hampshire	0	0	0	0.00
New Jersey	0	0	0	0.00
New Mexico	0	0	0	0.00
New York	21,404	4,768	16,636	348.91
North Carolina	524,597	517,511	7,086	1.37
North Dakota	25,523	23,168	2,355	10.16
Ohio	0	0	0	0.00
Oklahoma	0	95,762	-95,762	-100.00
Oregon	11,368	134,279	-122,911	-91.53
Pennsylvania	0	154,468	-154,468	-100.00
Rhode Island	0	0	0	0.00
South Carolina	0	0	0	0.00
South Dakota	49,453	50,220	-767	-1.53
Tennessee	0	0	0	0.00
Texas	139,849	136,201	3,648	2.68
Utah	0	0	0	0.00
Vermont	0	0	0	0.00
Virginia	142,711	142,147	564	0.40
Washington	3,702	3,805	-103	-2.71
West Virginia	67,706	64,654	3,052	4.72
Wisconsin	24	0	24	100.00
Wyoming	0	0	0	0.00
TOTAL	3,555,421	4,274,456	-719,035	-16.82

1. The percent difference between MSIS and CMS is calculated with the following equation: [(CMS/MSIS) -1]*(100%)

TABLE 3

EXPLANATIONS FOR ENROLLMENT DISPARITIES (GREATER THAN +/- 10%) IN COMPREHENSIVE AND PCCM MEDICAID MANAGED CARE PROGRAMS REPORTED IN MSIS AND CMS DATA SETS FOR JUNE, 1999

State	Plan Type	Number of Enrollees MSIS	Number of Enrollees CMS	Differences Between Sources	Percent Differences Between Sources[1]	Explanations for Disparities between Data Sources
Alabama	PCCM	277,464	310,584	-33,120	-10.66	Although disparities exist between MSIS Medicaid managed care counts (for HMOs and PCCMs) and other sources, Alabama officials assert that the MSIS counts are more accurate.
Arkansas	PCCM	46,412	194,753	-148,341	-76.17	Managed care enrollment was undercounted for Arkansas in MSIS 1999. Arkansas only reported PCCM enrollment for ARKids, a subset of PCCM enrollees. In addition, the state was not reporting any PHP enrollment. CMS managed care data indicated that 232,122 persons were enrolled in PHP plans in June, 1999.
California	PCCM	2,188	26,617	-24,429	-91.78	CMS and MSIS data in 1999 differed with regard to how a small group of enrollees (<30,000/month) in hybrid PCCM plans and pilot managed care programs were reported. In CMS data, all of these enrollees were reported as enrolled in PCCMs. In MSIS, most (but not all) of the enrollees in hybrid PCCM plans and pilot managed care plans were reported into the "other" managed care plan type. However, a small subset of these enrollees were mistakenly reported into the PCCM plan type in MSIS. Another way in which California MSIS data differ from the CMS managed care data is that considerably more enrollees are reported for dental managed care enrollment in MSIS than the CMS report.
Georgia	HMO	19,725	0	19,725	100.00	CMS and MSIS managed care data for 1999 are not consistent. The MSIS data show about 20,000 persons in June, 1999 enrolled in a comprehensive HMO (the Grady HealthCare, Inc.), while CMS data counted the Grady enrollees under the PHP grouping. In addition, the CMS managed care report included about 2000 individuals in a Mental Health BHP that was not reported in MSIS because it is a 1915c waiver program.
Georgia	PCCM	543,799	613,560	-69,761	-11.37	
Hawaii	HMO	123,117	243,442	-120,325	-49.43	MSIS managed care data showed lower enrollment in Medicaid HMOs than the CMS managed care report; however, Hawaii officials assert that the MSIS numbers are accurate.
Kansas	HMO	28,269	22,402	5,867	26.19	Kansas may have overreported managed care enrollment in 1999 MSIS. Both the HMO and PCCM enrollment numbers are about 26 percent greater than the comparable counts in the CMS managed care reports. Kansas officials are unable to explain why the difference occurred.
Kansas	PCCM	92,709	73,466	19,243	26.19	
Kentucky	PCCM	141,009	165,819	-24,810	-14.96	CMS and MSIS show somewhat different counts for HMO and PCCM enrollment in June, 1999, but information is not available on which numbers are more reliable. The "other" managed care plan type in Kentucky was a special capitation plan for transportation benefits; this transportation plan type was not reported in CMS data.
Louisiana	PCCM	0	44,741	-44,741	-100.00	Managed care in Louisiana was undercounted in 1999 MSIS. Louisiana did not identify any PCCM enrollees in MSIS data in 1999; however, the state has indicated that about 44,000 Medicaid enrollees participated in a hybrid PCCM plan each month, as reported in the CMS managed care data.
Maine	HMO	6,338	5,569	769	13.81	CMS and MSIS show somewhat different counts for HMO and PCCM enrollment in June, 1999, but information is not available on which numbers are more reliable.
Maine	PCCM	14,541	18,151	-3,610	-19.89	

Missouri	HMO	153,512	276,628	-123,116	-44.51	Missouri undercounted managed care enrollment until October 1999 in MSIS. The CMS data for June, 1999 on HMO enrollment are more reliable than the MSIS data.
New Hampshire	HMO	2,172	5,812	-3,640	-62.63	Managed care HMO enrollment may be underreported in MSIS 1999, since the MSIS HMO enrollment numbers are less than half the level reported to CMS in Medicaid managed care reports for June, 1999. Enrollment in the Tufts Health Plan was reported in CMS data, but not MSIS.
New York	PCCM	21,404	4,768	16,636	348.91	New York's managed care data in MSIS may not be reliable for the first part of 1999. From March to April, HMO enrollment decreased by over one-third, and PCCM enrollment decreased by over half. In addition, the MSIS enrollment numbers for BHPs and PCCMs were not consistent with other CMS data on managed care enrollment for June, 1999.
North Carolina	HMO	165,921	38,881	127,040	326.74	Effective 7/99, North Carolina terminated its 1915b Carolina Alternatives HMO contract, reported into the other managed care plan type in MSIS. This plan was reported in CMS managed care data as a PHP.
Oklahoma	PCCM	0	95,762	-95,762	-100.00	The "other" managed care plan type in Oklahoma is a hybrid PCCM in which the capitation fee to physicians also covers a limited number of common office procedures and lab work. Enrollment in this plan is reported as a PCCM in the CMS managed care reports.
Oregon	HMO	293,260	230,591	62,669	27.18	Some disparity exists between the June 1999 CMS and MSIS managed care enrollment numbers for HMOs and PCCMs. It appears as if there was an error in the data reported to CMS. The MSIS numbers are consistent with data from the state's website in FY99.
Pennsylvania	PCCM	0	154,468	-154,468	-100.00	Managed care enrollment may be underreported in MSIS 1999, since Pennsylvania failed to report any PCCM enrollment. According to CMS managed care reports, about 154,000 persons were enrolled in Medicaid PCCM plans in June, 1999.
Texas	HMO	272,528	215,861	56,667	26.25	CMS and MSIS managed care data are consistent with regard to PCCM enrollment in June, 1999, but MSIS shows more enrollees in HMOs than CMS. Information is not available on which source is more reliable with regard to HMO enrollment.
Utah	HMO	62,501	73,921	-11,420	-15.45	CMS and MSIS managed care data are consistent with regard to PCCM enrollment in June, 1999, but CMS shows more enrollees in HMOs than MSIS. Information is not available on which source is more reliable with regard to HMO enrollment.
Wisconsin	PCCM	24	0	24	100.00	Some inconsistencies in the MSIS and CMS managed care counts for PCCM, BHP and other managed care enrollment for June, 1999 may have occurred because of differences in how the groups were reported.

1. The percent difference between MSIS and CMS is calculated with the following equation: $[(CMS/MSIS) - 1] * (100\%)$