

Data Sources and Methods Used to Adjust State of Provider Expenditures to a State of Residence Basis¹

Method:

Net flow ratios for each type of service were derived using data from Medicare National Claims History files for each year. Medicare reimbursements from claims data by State of Residence were divided by Medicare reimbursements by State of Provider. For Non-Medicare, Non-Medicaid expenditures, Inpatient Hospital and Physician net flow ratios were further adjusted, using private claims data to service-mix adjust for the Non-Medicare population. For each year, State of Provider expenditures, calculated in the context of National Health Expenditures, were adjusted by multiplying each service's corresponding Net Flow Ratio, resulting in expenditures by State of Residence. After all pieces were adjusted, they were then added together to create the aggregate services.

Medicare Flow Matrices²

All Services Data Source:

National Claims History Files, 1991-1993, 1996, 1999, 2002
Net flow ratios for intervening years were interpolated.
2002 ratios were held constant for 2003-2004

Flow Matrices used by Year

1991-1993, 1996, 1999, 2002

National and State Health Expenditure

Accounts Categories:

Hospital	
Inpatient	Inpatient Hospital
Outpatient	Outpatient Hospital
Hospital-based HHA's	Hospital-based HH
Hospital-based SNF	1991: SNF and 1992-1993, 1996, 1999, 2002: Hospital-based SNF
Hospital-based Hospice	Hospice
Physicians & Clinics	
Physician	Physician
ESRD Clinics	ESRD
Home health care (Freestanding)	
Home health care (Freestanding)	Home Health
Home health-based Hospice	Hospice
Skilled Nursing Facilities (Freestanding)	
SNF (Freestanding)	SNF
SNF-based Hospice	Hospice
Other Professionals, incl. Ambulance	Other Professionals, incl. Ambulance
Durable Medical Products	Not Adjusted
Dental	Not Adjusted
Drugs and Other Medical Nondurables	Not Adjusted

Non-Medicare Non-Medicaid Flow Matrices²

All services except Inpatient Hospital and Physicians use Medicare matrices³

Inpatient Hospital Data Source:

Healthcare Cost and Utilization Project, 1991-1993, 1996, 1999, 2002
Net flow ratios for intervening years were interpolated
2002 ratios were held constant for 2003-2004

Physicians Data Source:

Medstat Market Scan Commercial Database, 1991-1993, 1996, 1999
Net flow ratios for intervening years were interpolated
1999 ratios were held constant for 2000-2004

Flow Matrices used by Year

1991-1993, 1996, 1999, 2002

National and State Health Expenditure

Accounts Categories:

Hospital ⁴	
Inpatient ⁵	Inpatient hospital, service-mix adjusted
Outpatient	Medicare-Outpatient Hospital
Physicians & Clinics ⁶	Physician, service-mix adjusted⁷
Other Professionals, including Ambulance	Medicare-Other Professionals, incl. Ambulance
Home health care (Freestanding)	Medicare-Home Health
Nursing home care (Freestanding)	Medicare-SNF
Dental	Medicare-Other Professionals, incl. Ambulance
Durable Medical Products	Medicare-Other Professionals, incl. Ambulance
Drugs and Other Medical Nondurables	Not Adjusted
Other Personal Health Care	Not Adjusted

NOTES:

¹ Medicaid Services were not adjusted.

² Both Medicare & Non-Medicare Non-Medicaid, matrices were based on the U.S. only and represent the total Medicare population.

Only Medicare fee-for-service expenditures were adjusted. Spending for Medicare managed care is already on a state of residence basis.

³ We assumed that expenditure patterns between the Medicare and NonMedicare population were similar for most services; however, for selected services (Inpatient Hospital, Physicians) we assumed that differences in expenditure patterns were due to variations in service mix.

⁴ Non-Medicare Non-Medicaid hospital expenditures were split into Inpatient and Outpatient using revenue data from the American Hospital Association (AHA), Hospital Statistics, 1991-2004.

⁵ For Non-Medicare Non-Medicaid inpatient hospital, the net flow ratios were calculated at the DRG level for Medicare beneficiaries and then reweighted to reflect the service mix of the non-elderly using data from the Healthcare Cost and Utilization Project 3 (HCUP-3), National Inpatient Samples.

⁶ For Non-Medicare Non-Medicaid physician, the net flow ratios were calculated at the 2-digit BETOS code level and then reweighted to reflect the service mix of the non-elderly using data from Medstat's Market Scan Commercial Database.

⁷ 1999 was the last year of available data.