

Chartbook Number 2

Analysis of Medicaid Expenditures for Long-Term Care Participants in HCBS Services and in Institutions in 2002

(2nd in a series of 6 special quantitative reports)

**Submitted to the
Centers for Medicare & Medicaid Services (CMS),
Advocacy and Special Initiatives Division
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May 2008

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The overall Rebalancing Research is being conducted through a Task Order under a CMS Master Contract between CMS and the CNA Corporation, Arlington, VA, and subcontracts and consultant agreements between CNAC and the various researchers. Rosalie A. Kane is the principal investigator from the University of Minnesota and Elizabeth Williams is the CNAC project director. The special quantitative studies are under the direction of Robert L. Kane. The statements and opinions in the report are those of the writers and do not necessarily reflect the views of CMS or any of its staff, or the State liaisons to the project, or any other state staff or persons who spoke to us from participating states. We thank our CMS Project Officer, William D. Clark of CMS (ORDI), for his comments in an earlier version of this report.

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Preface

In 2003, Congress directed the Centers for Medicare & Medicaid Services (CMS) to commission a study in up to 8 States to explore the various management techniques and programmatic features that States have put in place to rebalance their Medicaid long-term care (LTC) systems and their investments in long-term support services towards community care. The States of Arkansas, Florida, Minnesota, New Mexico, Pennsylvania, Texas, Vermont, and Washington are participating in this 3-year Rebalancing Study. For the study, CMS defined rebalancing as reaching “a more equitable balance between the proportion of total Medicaid long-term support expenditures used for institutional services (i.e., Nursing Facilities [NF] and Intermediate Care Facilities for the Mentally Retarded [ICFs-MR]) and those used for community-based supports under its State Plan and waiver options.” CMS further clarified that a balanced LTC system “offers individuals a reasonable array of balanced options, particularly adequate choices of community and institutional options.”

The products for the entire study include 3 iterations of State-specific case studies that qualitatively and quantitatively examine each State’s management approaches to rebalance its long-term care systems; 6 cross-cutting topic papers on issues in rebalancing; and a series of 6 Chartbooks with special quantitative analyses. A list of all products with web links for completed documents is provided in the Appendix. Various products are posted on <http://www.hcbs.org>, on the CMS website at http://www.cms.hhs.gov/NewFreedomInitiative/035_Rebalancing.asp#TopOfPage, and on the study director’s website at University of Minnesota at <http://www.hsr.umn.edu/LTCResourceCenter>. The special

quantitative work was performed under the direction of Robert L. Kane. We thank Glenn Mitchell and Su Wang (in Florida), Mike Baldwin and Bob Myers (in Minnesota), Kathy Leitch, Bill Moss, Patricia Richards, and Terry Rupp (in Washington) and Bill Clark and Karyn Anderson (at CMS) for their cooperation and assistance but the responsibility for all material rests with the authors.

The special quantitative studies for this project used secondary data from State and Federal sources to explore enrollment, service utilization, and expenditures for state LTC program recipients. In general, they compared Medicaid expenditures for participants in HCBS and nursing homes, as well as Medicare expenditures for individuals dually eligible for Medicaid and Medicare. This quantitative paper, Chartbook Number 2, uses 2002 data to compare all Medicaid expenditures for participants receiving LTSS in the community (under Medicaid waivers or State plans) and those receiving LTSS services in institutions.

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Executive Summary

As part of a comprehensive study of rebalancing efforts in eight states (Arkansas, Florida, Minnesota, New Mexico, Pennsylvania, Texas, Washington, and Vermont), this paper presents the second in a series of analyses of Medicaid Analytic eXtract (MAX) data on the utilization of LTC and medical care services, by Medicaid LTC recipients. States use a combination of Medicaid state program funds (state plan services) as well as Medicaid HCBS waivers to fund and provide LTC services. This report looks at both utilization and expenditure on medical care services as well as long-term care services to examine the broader impact of rebalancing LTC on Medicaid spending.

This report is the second in a series of reports using MAX data, a refined data set of information originally gathered by each state as part of its claims data and submitted to CMS through its Medicaid Statistical Information System (MSIS).

The data presented here are restricted to Medicaid fee-for-service (FFS) payments. A previous report presented analyses on 2001 data. Subsequent reports will present analyses based on 2003 data, as well as combined Medicare and Medicaid data from the dual eligible enrollees. Because the focus is on rebalancing, the analyses look separately at program participants who are covered by Medicaid HCBS waivers and those covered by Medicaid state plan services.

The research questions driving these analyses are:

1. How do the utilization and cost of LTC services (e.g., nursing facility, intermediate care facility (ICF), personal care, home health care and transportation) by Medicaid HCBS waiver participants, and LTC state plan recipients differ across recipient groups and states?
2. How do the utilization and cost of medical services (e.g., hospital, emergency room, physician, physical therapy/occupational therapy/others, other practitioner,

outpatient service, rehabilitation, hospice, other services, and pharmaceuticals) by Medicaid Home and Community-Based Services (HCBS) waiver participants, and state plan recipients receiving LTC services differ across recipient groups and states?

3. How do the utilization and Medicaid cost of these services differ for dual eligible HCBS recipients and recipients covered only by Medicaid?
4. How consistent is utilization of medical and LTC services across years? (This specific report calculates a medical/ long-term care ratio for only a single year.)
5. How does utilization vary by participant characteristics?

Identification of our study population came from finder files created by each state based on persons enrolled in each relevant waiver program or who had used state plan LTC services. Each person had specific months of participation in the relevant groups (enrollment or eligibility periods) which

were then linked to monthly claims data creating person month data for the analyses. Some of the eight states being examined have developed waiver programs to address specific conditions or populations. Others have focused efforts on more broad categories of participants. For comparison purposes we have focused our analyses on two waiver categories of interest: Aging and (Physical) Disability and Mental Retardation/ Developmental Disability (MR/DD). Our state plan groups of interest were limited to individuals who used nursing facility, intermediate care facility (ICF), home health, and personal care services. Our analysis is limited to Medicaid enrollees (including dual eligible) in FFS plans. Because reliable measures of utilization of services and their associated payment could not be obtained for Medicaid managed care enrollees, those covered by managed care were eliminated from this analysis. The number of person months in Medicaid managed care varied across states, ranging from virtually none in

Washington, to over half for nursing facility recipients in Minnesota. We analyzed both medical care services (including inpatient hospital, physician, physical therapy/occupational therapy/others, other practitioner, outpatient service, rehabilitation, hospice, other services, and prescription drugs) and LTC services (including nursing facility, ICF, home health, personal care, and transportation). Our results look at each type of service separately.

There is consistency in results observed between 2001 and 2002.

- There is substantial variation in the use of different types of health care services within states between waiver groups and state plan recipients as well as across states. For example, recipients of home health state plan services have much higher inpatient utilization rates than waiver groups and other state plan services. With home health care recipients, hospital utilization in Arkansas, New

Mexico, and Washington is over 25% whereas hospital utilization in Pennsylvania and Vermont was just over 5%. More work is needed to understand how much of this difference is explained by differences in case mix (personal factors such as age, gender, and existing diagnoses or medical conditions).

- The amount spent on medical care including acute care services and on LTC per client also varies across participants and states. For example, inpatient hospital expenditures for waiver clients are generally lower, whereas expenditures for home health clients are higher. For example, expenditures for acute care for home health state plan recipients range across states from \$450 in Vermont to over \$4,000 in Washington. State differences in payments may be a result of other factors, such as cost of labor across states. If the differences in spending

across groups are not matched by differences in outcomes, issues of efficiency should be explored.

- There is some correspondence between waiver and state plan spending by target group (i.e. MR/DD and ICF); younger persons generally cost less than for older beneficiaries. The difference in payments for inpatient hospital care is more pronounced, but the pattern continues for ambulatory care and prescription drug payments with MR/DD and ICF groups being slightly lower than aging and disabled and nursing facility groups.
- Medical costs constitute a substantial Medicaid cost for persons receiving home and community-based LTC services, particularly home care services in a number of states. One possible reason for this may be a higher acuity level of those individuals receiving home care services. Savings in medical costs could potentially be used to support more LTC.

- Some of the results in 2002 presented here are different from the results found in 2001 (reported in a separate chartbook). In reviewing the two data points, it is not clear if the differences represent simple variation or systematic trends. The report on 2003 MAX data will also look across years – 2001, 2002 and 2003.

Introduction

This paper is one of several *Topics in Rebalancing* papers being produced by the University of Minnesota as a deliverable for the Centers for Medicare and Medicaid Services (CMS) funded project “Research on Program Management Techniques by States to Rebalance Their Long-Term Care Systems.” This three-year project examines, through the use of both qualitative and quantitative methods, the management processes that states use to shift long-term care (LTC) resources, especially those funded through Medicaid, away from traditional LTC institutions to home and community-based services (HCBS). The qualitative component of the project was focused on identifying and describing the management approaches states use to “rebalance” their LTC services, including service expansion, service access, budgetary, and service linkage strategies. The quantitative portion of the project used secondary data from State and Federal sources to explore

enrollment, service utilization, and expenditures for state LTC program recipients. More information about the full project, including an Executive Summary, case studies on each of the participating states, and other topic papers may be found at <http://www.hsr.umn.edu/LTCResourceCenter> as well as <http://www.hcbs.org>.

This paper presents continued analyses for 2002 using Medicare Analytic eXtract (MAX) data of the utilization of and expenditures on LTC and medical care services among Medicaid LTC recipients in the eight states participating in the study. The data presented here are restricted to Medicaid fee-for-service payments. A prior chartbook presented preliminary analyses for 2001. Subsequent reports present analyses based on 2003 data, as well as combined Medicare and Medicaid data from the dual eligible enrollees and Diagnostic Cost Group (DCG) case mix adjustments.

Research Questions

1. How do the utilization and cost of LTC services (e.g., nursing facility, intermediate care facility (ICF), personal care, home health care and transportation) by Medicaid HCBS waiver participants, and LTC state plan recipients differ across recipient groups and states?*
2. How do the utilization and cost of medical services (e.g., hospital, emergency room, physician, physical therapy/occupational therapy/others, other practitioner, outpatient service, rehabilitation, hospice, other services, and pharmaceuticals) by Medicaid Home and Community-Based Services (HCBS) waiver participants, and state plan recipients receiving LTC services differ across recipient groups and states?*
3. How do the utilization and Medicaid cost of these services differ for dual eligible HCBS recipients and recipients covered only by Medicaid?*
4. How consistent is utilization of medical and LTC services across years? (This specific report calculates a medical/ long term care ratio* for only a single year.)
5. How does utilization vary by participant characteristics?

Because the focus is on states' efforts to rebalance use of institutional and HCBS through implementing waiver programs, the analyses look separately at those program participants who are covered by Medicaid LTC waivers and those covered by Medicaid state plan services.

* These items are specifically addressed in this paper. Additional items will be addressed in subsequent reports.

Background

Currently, states are in varying stages of rebalancing their LTC systems. The diverse LTC systems developed in each state reflect the unique historical context found in each state as well as different approaches to developing LTC policies and programs. States use a combination of Medicaid state program funds (state plan services) as well as Medicaid HCBS waivers to fund and provide LTC services. Eight states are participating in the project: Arkansas, Florida, Minnesota, Pennsylvania, New Mexico, Texas, Vermont, and Washington. Each of these eight states offers a number of institutional and HCBS programs through its Medicaid state plans, including nursing homes and intermediate care facilities (ICFs) for the mentally retarded, as well as hospice, home health care and personal care. The full scope of LTC state plan services and the nature of these services, however, varies across the states. In developing their HCBS waiver programs, each state has taken a

somewhat different approach in terms of several key factors: utilizing a number of specialized waivers versus a smaller number of consolidated programs serving a more diverse population; emphasizing waivers over state plan services; and providing waiver services through FFS or managed care programs. A list of the waiver programs offered in 2002 by each of the states participating in the project is found in Table 1.

Data Acquisition

State Finder File Data

Our study population consists of all Medicaid LTC recipients in each state during 2002. Each state provided a “finder file” including all individuals who were eligible for a HCBS waiver and/or received a LTC service under the state plan at some point during the year. These files were then matched against the CMS Medicaid and Medicare claims data (discussed below) to permit analysis of medical and LTC service utilization and expenditures among HCBS waiver and other Medicaid LTC beneficiaries.

Each state provided finder file data for their relevant HCBS waivers (Table 1) as well as those state plan LTC services where data were available (Table 2). Table 3 summarizes the

data extraction approaches used by each of the states to produce the HCBS and state plan finder files. As a result of different data extraction methods, differences in utilization rates may be a result of different selection criteria used rather than actual differences in utilization (selection criteria based upon service use may show higher utilization than a method based upon authorization).

Table 1: HCBS Waivers offered in Each State (2002)

State	Waivers in Each State	Number Served or Authorized in 2002
Arkansas	ElderChoices Waiver	7,860
	Alternatives for Adults with Physical Disabilities Waiver	1,139
	Alternative Community Services Waiver (DD)	2,706
	Family Friends Respite Waiver 1 (respite for children with physical disability)	115
	Family Friends Respite Waiver 2 (respite for children with mental retardation/development disability)	68
Florida	Aging and Disabled Adults Waiver	16,661
	Nursing Home Diversion Waiver	1,153
	Assisted Living for Elderly Waiver	4,163
	Disability Services Waiver	21,827
	Family/Supported Living Waiver	8
	Channeling Waiver	1,796
	Project AIDS Care Waiver	6,551
	Katie Beckett Waiver	4
TBI and Spinal Cord Injury Waiver	164	
Minnesota	Elderly Waiver	11,992
	Community Alternative Care Waiver	134
	Community Alternative for Disabled Individuals Waiver	5,460
	DD-MR/Related Conditions Waiver	14,986
	Traumatic Brain Injury Waiver	536
New Mexico	Disabled and Elderly Waiver	3,000
	Mental Retardation/Developmental Disability Waiver	2,6245
	Developmental Disability with Medically Fragile Condition Waiver	289
	HIV/AIDS Waiver	46

State	Waivers in Each State	Number Served or Authorized in 2002
Pennsylvania	PA Department of Aging Waiver	12,030
	Attendant Care Waiver	3,351
	Elwyn Waiver	44
	Michael Dallas Waiver	60
	OBRA Waiver	546
	Independence Waiver	339
	Consolidated MR/DD Waiver	14,027
	Infant, Toddlers, and Families Waiver	2,972
	Person/Family Directed Support Waiver	5,381
Texas	Community-Based Alternatives Waiver	35,976
	Community Living Assistance and Support Services Waiver	1,501
	Medically-Dependent Children's Program Waiver	1,031
	Deaf-Blind Multiple Disabilities Waiver	190
	Consolidated Waiver Program	5
	Home and Community-Based Services Waiver	5,157
Vermont	Enhanced Residential Care Waiver	174
	Home-Based Waiver	1,200
	Developmental Services (DD) Waiver	1,846
	Traumatic Brain Injury (TBI) Waiver	54
Washington	Community Options Program Entry System (COPES)	30,532
	Community Alternative Program	11,823

Table 2: Summary of State Plan Finder File Data by State

State	State Plan Groups			
	Homecare	Intermediate Care Facility	Nursing Facility	Personal Care
Arkansas	X	X	X	X
Florida	X	X	X	-
New Mexico	X	X	X	X
Minnesota	X	X	X	X
Pennsylvania	X	X	X	-
Texas	-	X	X	X
Vermont	X	X	X	-
Washington	X	X	X	X

Table 3: Summary of State Finder File Data Extraction Approaches

State	Selection Criterion			
	State Plan Services		HCBS Waivers	
	Authorization/ Eligibility	Services use; Claims	Authorization/ Eligibility	Services use; Claims
Arkansas		X	X	
Florida		X		X
Minnesota		X	X	
New Mexico		X		X
Pennsylvania		X	MR/DD	Aging
Texas	X		X	
Vermont		X		X
Washington		X	MR/DD	Aging

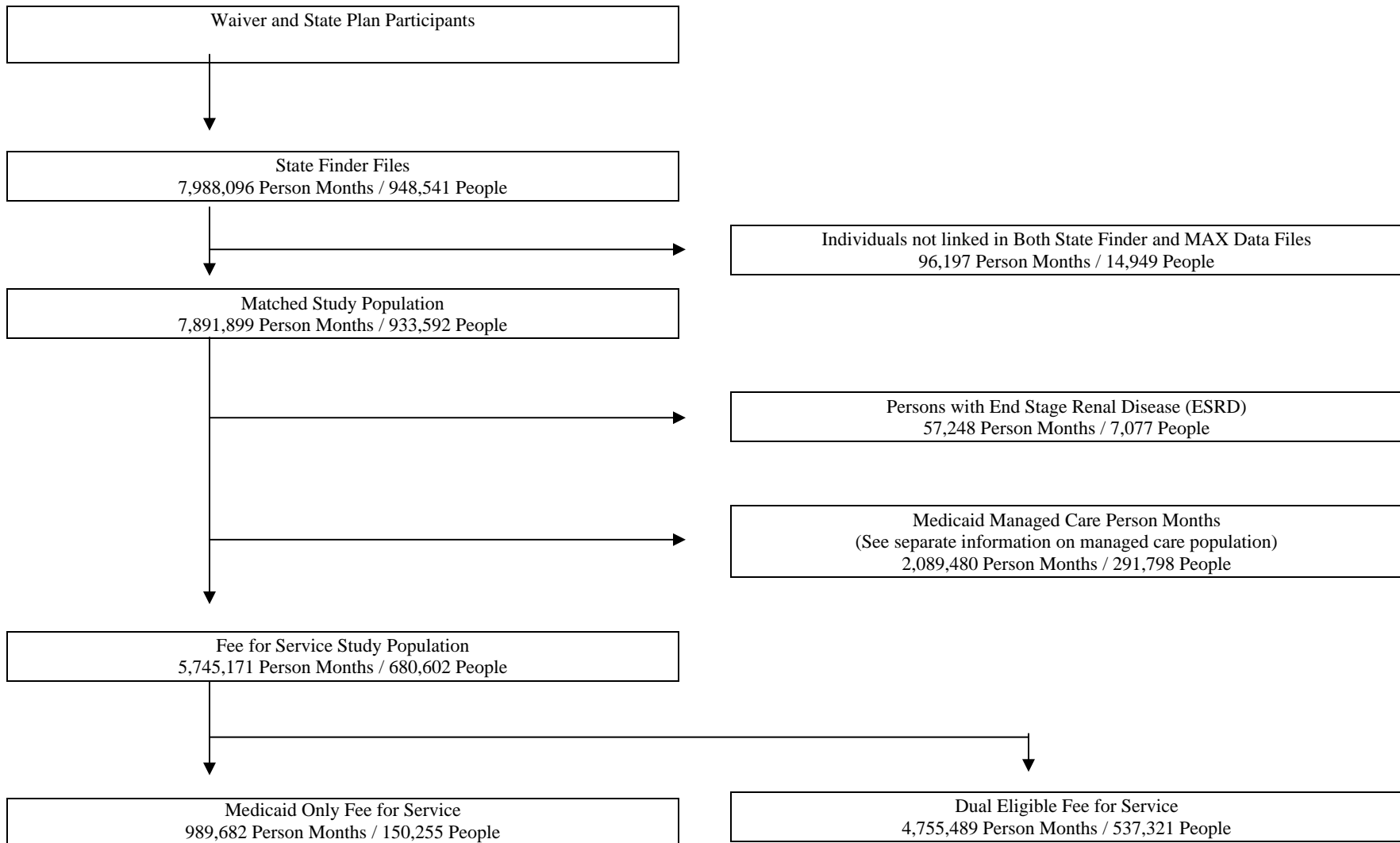
CMS Medicaid Data

Utilization and cost data for medical and LTC services were obtained from the Medicaid Analytic eXtract (MAX) files created by CMS. MAX data is a refined data set built (under a contract with MPR) from the Medicaid claims data submitted by each state as part of its Medicaid Statistical Information System (MSIS). Using the CMS Eligible Identifier Number obtained from the MAX PS file, we extracted all claims from the MAX utilization files (MAX IP: inpatient, MAX LT: long-term care, MAX OT: other services, MAX RX: prescription drugs) pertaining to the persons identified. For inpatient hospital and LTC claims, we also produce secondary files which combine individual claims into contiguous “stays” for analysis of admissions. Claims are combined into a stay when there is a continuous record of claims with no internal gap of more than 7 days.

Our study population includes all individuals who are enrolled in a relevant Medicaid waiver or LTC state plan service, including dual eligible recipients, or those enrolled in both Medicaid and Medicare as a result of age or disability. We linked state finder files with MAX data. Fewer than three percent of all individuals across the eight states failed to match MAX records. Figure 1 traces the development of our analytic sample.

We excluded from our study population those individuals identified as having end stage renal disease (ESRD). Although they represent a small portion of the population (less than 1% across the eight states), their high utilization of services could skew the results. Therefore, these individuals, identified through diagnoses associated with their claims data, were excluded from our study population.

Figure 1: Study Sample Development Process



Creation of Person Months and Waiver/State Plan Analytic Groups

Person month is the unit of analysis. For each person, we identified the primary waiver program (if any) in which they were enrolled in each month, and set flags indicating the utilization of the various services of interest. In months where no waiver enrollment was indicated, but utilization of a state plan LTC service of interest was reported, we classified the person month as “state plan.”

In order to make comparisons, our analysis summarized in this report focuses on the larger HCBS waivers in each state serving the aging and disabled populations. Specific waiver groups in each state were grouped (based on their eligible population) into the following two waiver categories: Aging and (Physical) Disability and Mental Retardation/Developmental Disability (MR/DD). For instance, in Arkansas, enrollees in the Alternative Community Services Waiver were

placed in the MR/DD category and those in the Elderly Choice waiver or the Alternatives for Adults with Physical Disability waiver were both included in the Aging and Disability category. Specific waiver groups that did not fall into these waiver categories were excluded from the analysis.

Our state plan groups of interest across the eight states consisted of those individuals who used nursing facility, ICF, home health, and personal care services. For each person month classified as “state plan” we identified the primary LTC state plan service used by each individual during that month. Use of a state plan service was used to assign person months to state plan groups for comparison purposes. Some individuals were listed in some state finder files as utilizing exclusively hospice or targeted case management state plan services. Because the provision of these services and what types of specific assistance were included varied widely across states we excluded these individuals from our analysis.

The waiver and state plan analytic groups from each state that are included in our cross-state comparison are presented in Table 4. All eight states have waiver groups in the MR/DD and Aging & Disability categories. All eight states also have

ICF/MR and nursing facility state plan analytic groups. Texas does not have home health; and Florida, Pennsylvania, and Vermont do not have personal care as a state plan group.

Table 4: Summary of Waiver and State Plan Analytic Groups in 2002 for Cross-state Comparison

State	Waiver Groups		State Plan Groups			
	Mental Retardation/Developmental Disability	Aging & Disability	Nursing Facility	Intermediate Care Facility	Home Health	Personal Care
Arkansas	Alternative Community Services Waiver	<ul style="list-style-type: none"> Elderly Choice Waiver Alternatives for Adults with Physical disability Waiver 	Yes	Yes	Yes	Yes
Florida	Developmental Disability Waiver	Aging and Disabled Adults Waiver	Yes	Yes	Yes	-
New Mexico	Mental Retardation/Developmental Disability Waiver	Disabled Elderly Waiver	Yes	Yes	Yes	Yes
Minnesota	Mental Retardation/Related Conditions Waiver	<ul style="list-style-type: none"> Elderly Waiver Community Alternative for Disabled Individuals Waiver 	Yes	Yes	Yes	Yes
Pennsylvania	Consolidated Mental Retardation/Developmental Disability Waiver	<ul style="list-style-type: none"> PA Department of Aging Waiver Attendant Care Waiver 	Yes	Yes	Yes	-
Texas	<ul style="list-style-type: none"> Home and Community-Based Services Waiver Community Living Assistance and Support Services Waiver 	Community-Based Alternatives Waiver	Yes	Yes	-	Yes
Vermont	Developmental Services Waiver	<ul style="list-style-type: none"> Enhanced Residential Care Waiver Adult Disability Waiver 	Yes	Yes	Yes	-
Washington	Community Alternatives Program	Community Options Program Entry System	Yes	Yes	Yes	Yes

Exclusion of Managed Care Person Months from Analysis

Our analysis is limited to Medicaid enrollees in FFS plans (including dual eligible). MAX data include enrollment in prepaid Medicaid plans as well as premium payments made by Medicaid into prepaid plans. Some service data are found in the MAX files, but the data are inconsistently reported and there are no cost data available. Managed care claims were reported either as FFS claims with associated payments, encounter claims without payment details, or in some cases went unreported despite enrollment in the group. Reliable measures of service utilization and associated payment could not be obtained for Medicaid managed care enrollees. We therefore excluded managed care person months from the analysis (Figure 1).

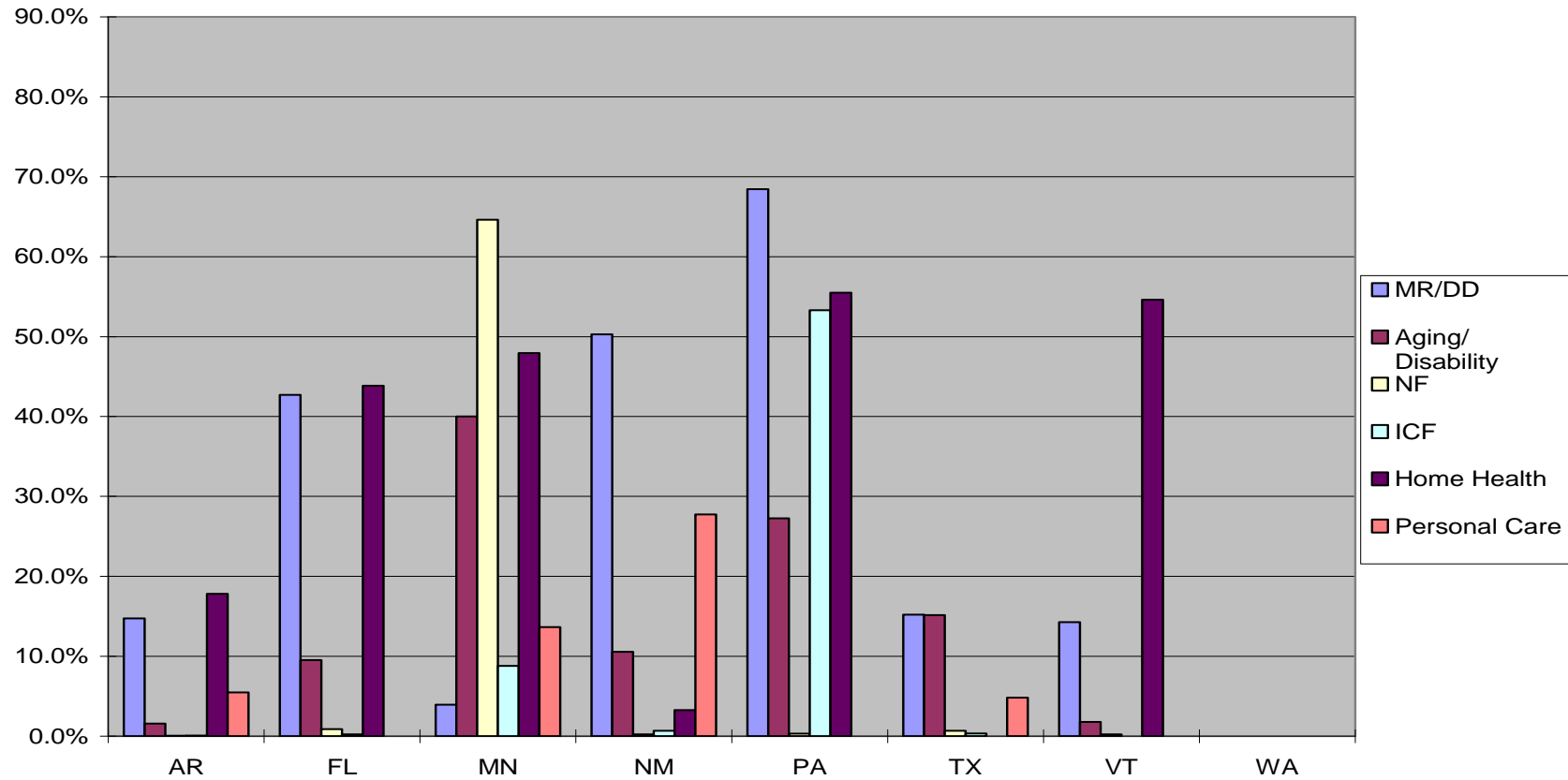
The proportion of person months in Medicaid managed care greatly varied across states (Figure 2), ranging from almost 0% in Arkansas, to almost 70% for nursing facility state

plan in Pennsylvania. Minnesota had the highest percentage of Medicaid managed care enrollment across the waiver and state plan services among the eight states, followed by Pennsylvania and Florida. Managed care enrollment indicated in the MAX data represents different variants of managed care. Managed care enrollees can be enrolled in a comprehensive plan, a dental plan, a behavioral plan, a primary care case management plan, some other managed care plan, or a combination of plans. Comprehensive Medicaid managed care plans may include comprehensive acute health care services but may not include some or all LTC services such as nursing home stays. Some of the waiver programs in some states are also offered through a managed care plan.

In our exclusion of managed care person months from our 2002 analyses, an exception was made for Washington. In the 2001 MAX data for this state, there was very little managed care enrollment of any kind for waiver and state plan recipients

alike. In Washington's 2002 MAX data, almost every Medicaid enrollee in our study population showed a managed care component. In most cases, the data indicated enrollment in a prepaid mental health plan (and not a comprehensive managed care plan). Instead of deleting a significant number of Washington person months from our 2002 analyses, we chose to retain these person months, because the pattern of service utilization had not changed from 2001. In contrast to Washington's managed care cases, the majority of managed care person months we omitted from the 2002 analysis in other states were comprehensive Medicaid managed care plan enrollees.

Figure 2: Percentage of Person Months in Medicaid Managed Care in Analytic Groups-2002



Tables 5 through 8 show basic demographic data on the managed care individuals excluded from our analysis compared to Medicaid only FFS individuals in our analysis. In those states where the managed care population is larger, such as Minnesota, Pennsylvania, and Florida, the pattern of age, gender, and race is fairly consistent with the FFS population. However, in some instances, the managed care population is slightly younger, and fewer are white. In many instances the managed care population is more urban than the FFS enrollees. There are considerably fewer managed care enrollees who are dual eligible for Medicaid and Medicare (except in Minnesota) than the FFS population in each state.

Table 5. Demographic Summary for Medicaid FFS and Managed Care Enrollees by Waiver Analytic Group (2002)

State	Demographic		Medicaid FFS Waiver Groups		Medicaid Managed Care Waiver Groups	
			MR/DD	Aging/Disability	MR/DD	Aging/Disability
AR	N	# Persons	2,585	8394	30	51
	Age	Mean Age	30.2	76.8	20.7	64.7
	Gender	% Female	43.9%	74.1%	43.3%	58.8%
	Race	% White	76.7%	74.6%	50.0%	62.7%
	Urban	% Metro	56.5%	38.8%	46.6%	41.2%
FL	N	# Persons	11,688	13,826	8,845	1,293
	Age	Mean Age	45.5	78.1	31	68.1
	Gender	% Female	49.2%	77.7%	44.3%	73.3%
	Race	% White	73.5%	57.1%	53.3%	46.1%
	Urban	% Metro	87.1%	83.6%	89.7%	86.9%
MN	N	# Persons	14,217	11,458	596	6,505
	Age	Mean Age	29.2	63.7	64.0	78.8
	Gender	% Female	41.9%	68.9%	47.2%	80.1%
	Race	% White	88.8%	90.4%	94.6%	88.8%
	Urban	% Metro	66.9%	59.4%	53.6%	57.7%
NM	N	# Persons	1,444	1,652	1,477	157
	Age	Mean Age	40.1	74.4	26.6	48.3
	Gender	% Female	43.4%	70.8%	39.9%	66.8%
	Race	% White	44.6%	41.1%	47.1%	36.9%
	Urban	% Metro	66.5%	42.6%	75.2%	49.0%
PA	N	# Persons	5,630	12,780	8,047	4,235
	Age	Mean Age	42.5	75.4	41.7	62.9
	Gender	% Female	43.9%	75.1%	42.4%	72.1%
	Race	% White	92.9%	77.2%	78.9%	52.2%
	Urban	% Metro	67.3%	74.7%	94.5%	94.6%
TX	N	# Persons	4,476	27,317	756	5,078
	Age	Mean Age	29	72.5	29	67.5
	Gender	% Female	41.4%	69.9%	41.1%	71.3%
	Race	% White	65.6%	52.8%	62.1%	43.2%
	Urban	% Metro	84.0%	63.3%	96.2%	96.5%
VT	N	# Persons	1,577	1,274	262	263
	Age	Mean Age	33.8	75.4	28.8	55.8
	Gender	% Female	43.6%	71.2%	37.4%	58.3%
	Race	% White	77.8%	79.2%	66.4%	80.4%
	Urban	% Metro	26.2%	34.2%	34.8%	29.3%
WA	N	# Persons	11,081	21,550	0	0
	Age	Mean Age	30.1	72.7	-	-
	Gender	% Female	42.1%	72.6%	-	-
	Race	% White	86.7%	85.4%	-	-
	Urban	% Metro	88.3%	84.2%	-	-

Table 6: Demographic Summary for Medicaid FFS and Managed Care Enrollees by State Plan Analytic Group (2002)

State	Demographic		Medicaid FFS State Plan Groups				Medicaid Managed Care State Plan Groups			
			NF	ICF	Home Health	Personal Care	NF	ICF	Home Health	Personal Care
AR	N	# Persons	17,672	1,716	3,160	8,641	33	8	678	4
	Age	Mean Age	79.3	35.4	29.1	65.9	53.4	16.7	17.2	45.2
	Gender	% Female	71.8%	40.2%	60.8%	75.5%	66.7%	50.0%	58.2%	69.2%
	Race	% White	81.5%	75.9%	55.4%	53.0%	69.7%	62.5%	59.1%	65.0%
	Urban	% Metro	44.2%	70.3%	48.4%	33.0%	39.4%	50.0%	52.5%	27.9%
FL	N	# Persons	69,588	3,300	54,483	-	1,530	15	56,919	-
	Age	Mean Age	79.6	43.2	50.9	-	58.6	22.9	21.2	-
	Gender	% Female	68.4%	42.1%	62.5%	-	52.8%	20.0%	52.3%	-
	Race	% White	70.8%	71.1%	44.4%	-	42.8%	53.3%	32.6%	-
	Urban	% Metro	89.6%	84.9%	85.3%	-	91.9%	50.0%	83.5%	-
MN	N	# Persons	14,891	2,295	4,607	4,749	16,124	205	7,571	964
	Age	Mean Age	76.8	42.2	30.5	30.1	84.7	72.2	20.3	68.8
	Gender	% Female	65.1%	45.1%	66.0%	46.5%	76.2%	53.6%	71.9%	67.0%
	Race	% White	91.8%	94.9%	64.5%	60.9%	95.7%	99.0%	45.5%	28.6%
	Urban	% Metro	59.4%	62.7%	63.2%	85.7%	59.3%	53.1%	75.6%	97.3%
NM	N	# Persons	4,205	252	414	5,351	9	6	19	2,173
	Age	Mean Age	79.9	43.1	21.3	71.75	33.4	20.6	3.31	50.9
	Gender	% Female	66.5%	46.0%	56.5%	72.2%	66.6%	33.3%	36.8%	67.2%
	Race	% White	63.3%	63.1%	13.7%	35.8%	66.6%	83.3%	21.0%	38.0%
	Urban	% Metro	49.4%	59.5%	53.1%	44.6%	33.3%	16.6%	57.8%	47.0%

Table 6 continued: Demographic Summary for Medicaid FFS and Managed Care Enrollees by State Plan Analytic Group (2002)

State	Demographic		Medicaid FFS State Plan Groups				Medicaid Managed Care State Plan Groups			
			NF	ICF	Home Health	Personal Care	NF	ICF	Home Health	Personal Care
PA	N	# Persons	73,420	2,155	2,963	-	1,345	2,197	2,288	-
	Age	Mean Age	81.8	49.5	37.3	-	70.8	42.3	20.8	-
	Gender	% Female	73.9%	44.2%	73.4%	-	66.2%	45.0%	65.8%	-
	Race	% White	87.2%	89.3%	82.5%	-	62.3%	76.4%	70.6%	-
	Urban	% Metro	81.1%	56.5%	61.5%	-	94.4%	97.9%	76.1%	-
TX	N	# Persons	82,884	7,802	-	100,250	1,213	109	-	5,122
	Age	Mean Age	79.2	40.2	-	70.9	68.9	23.6	-	59.6
	Gender	% Female	69.6%	43.7%	-	71.4%	65.6%	38.5%	-	76.7%
	Race	% White	71.5%	69.8%	-	38.5%	38.2%	56.8%	-	30.3%
	Urban	% Metro	70.4%	82.7%	-	73.7%	94.5%	96.4%	-	94.8%
VT	N	# Persons	2,865	11	814	-	30	0	1,203	-
	Age	Mean Age	82.7	50.3	53.1	-	59.1	-	29.8	-
	Gender	% Female	72.1%	72.7%	59.2%	-	53.3%	-	59.9%	-
	Race	% White	75.8%	81.8%	77.8%	-	80.0%	-	75.9%	-
	Urban	% Metro	21.3%	0.0%	29.5%	-	6.7%	-	27.7%	-
WA	N	# Persons	16,446	61	1,231	10,265	0	0	0	0
	Age	Mean Age	78.8	48.5	51.2	64.2	-	-	-	-
	Gender	% Female	67.1%	63.9%	63.5%	71.8%	-	-	-	-
	Race	% White	88.6%	91.8%	75.3%	69.9%	-	-	-	-
	Urban	% Metro	89.8%	100.0%	83.9%	88.3%	-	-	-	-

Table 7: Medicaid FFS Person Months in Waiver and State Plan Analytic Groups by Dual Eligible Status (2002)

State	Number of Person Months	Waiver Groups		State Plan Groups			
		MR/DD	Aging/ Disability	NF	ICF	Home Health	Personal Care
AR	Total	25,658	80,228	168,029	19,841	9,028	75,891
	Medicaid Only	13,270	7,070	16,203	9,495	6,353	15,623
	Dual	12,388	73,158	151,826	10,346	2,675	60,268
	% Dual	48.3%	91.2%	90.4%	52.1%	29.6%	79.4%
FL	Total	130,886	130,847	579,450	38,959	218,462	-
	Medicaid Only	12,545	1,778	45,269	15,614	33,113	-
	Dual	118,341	129,069	534,181	23,345	185,349	-
	% Dual	90.4%	98.6%	92.2%	59.9%	84.8%	-
MN	Total	168,334	107,803	101,368	26,044	20,175	42,928
	Medicaid Only	87,988	26,851	11,568	6,833	10,741	31,096
	Dual	80,346	80,952	89,800	19,211	9,434	11,832
	% Dual	47.7%	75.1%	88.6%	73.8%	46.8%	27.6%
NM	Total	16,432	14,777	33,420	1,652	824	47,053
	Medicaid Only	1,876	331	3,355	730	695	3,507
	Dual	14,556	14,446	30,065	922	129	43,546
	% Dual	88.6%	97.8%	90.0%	55.8%	15.7%	92.5%
PA	Total	51,662	126,251	651,261	23,815	23,818	-
	Medicaid Only	18,379	13,347	37,593	4,689	21,658	-
	Dual	33,283	112,904	613,668	19,126	2,160	-
	% Dual	64.4%	89.4%	94.2%	80.3%	9.1%	-
TX	Total	48,658	320,706	780,930	89,024	-	926,490
	Medicaid Only	27,012	35,743	65,156	40,196	-	132,689
	Dual	21,646	284,963	715,774	48,828	-	793,801
	% Dual	44.5%	88.9%	91.7%	54.8%	-	85.7%
VT	Total	18,401	11,933	26,359	126	3,981	-
	Medicaid Only	6,563	1,134	977	54	894	-
	Dual	11,838	10,799	25,382	72	3,087	-
	% Dual	64.3%	90.5%	96.3%	57.1%	77.5%	-
WA	Total	129,115	201,264	138,933	720	2,889	98,214
	Medicaid Only	74,196	27,226	11,118	186	2,588	47,406
	Dual	54,919	174,038	127,815	534	301	50,808
	% Dual	42.5%	86.5%	92.0%	74.2%	10.4%	51.7%

Table 8: Medicaid Managed Care Person Months in Waiver and State Plan Analytic Groups by Dual Eligible Status (2002)

State	Number of Person Months	Waiver Groups		State Plan Groups			
		MR/DD	Aging/ Disability	NF	ICF	Home Health	Personal Care
AR	Total	4,435	1,288	78	18	1,958	4,387
	Medicaid Only	4,103	1,007	62	17	1,943	4,100
	Dual	332	281	16	1	15	287
	% Dual	7.5%	21.8%	20.5%	5.6%	0.8%	6.5%
FL	Total	97,528	13,778	5,180	92	170,563	-
	Medicaid Only	87,325	7,674	4,115	87	166,262	-
	Dual	10,203	6,104	1,065	5	4,301	-
	% Dual	10.5%	44.3%	20.6%	5.4%	2.5%	-
MN	Total	6,939	71,948	185,063	2,518	18,578	6,798
	Medicaid Only	884	1,544	2,675	143	13,527	1,685
	Dual	6,055	70,404	182,388	2,375	5,051	5,113
	% Dual	87.3%	97.9%	98.6%	94.3%	27.2%	75.2%
NM	Total	16,625	1,743	77	11	28	18,069
	Medicaid Only	15,369	1,488	77	11	28	17,391
	Dual	1,256	255	0	0	0	678
	% Dual	7.6%	14.6%	0.0%	0.0%	0.0%	3.8%
PA	Total	112,019	47,331	2,100	27,188	29,685	-
	Medicaid Only	43,337	15,169	775	10,865	28,665	-
	Dual	68,682	32,162	1,325	16,323	1,020	-
	% Dual	61.3%	68.0%	63.1%	60.0%	3.4%	-
TX	Total	8,735	57,304	5,360	305	-	46,998
	Medicaid Only	6,220	11,446	1,764	253	-	22,399
	Dual	2,515	45,858	3,596	52	-	24,599
	% Dual	28.8%	80.0%	67.1%	17.0%	-	52.3%
VT	Total	3,065	218	62	0	4,792	-
	Medicaid Only	2,761	165	51	-	4,563	-
	Dual	304	53	11	-	229	-
	% Dual	9.9%	24.3%	17.7%	-	4.8%	-
WA	Total	0	0	0	0	0	0
	Medicaid Only	-	-	-	-	-	-
	Dual	-	-	-	-	-	-
	% Dual	-	-	-	-	-	-

Results

Inpatient Hospital Utilization Rate (%)

What is being measured?

The following two graphs show the admission rate to an acute care hospital per month for persons belonging to specific waivers or state plan services for each of the eight states.

Figure 3a reports data for those individuals who are eligible for only FFS Medicaid. Figure 3b reports data for those individuals who are eligible for both FFS Medicaid and FFS Medicare. While at this time only Medicaid data are being reported, because Medicaid typically pays a deductible for Medicare covered stays, all inpatient admissions regardless of payer should be captured in the Medicaid data. We have separated the two groups (Medicaid only and Dual) assuming that the characteristics of the two groups may be different. Previous research has shown that dual eligible enrollees use more health care services in general than non-dual eligible enrollees.

Descriptive Results:

Figure 3a Medicaid Only FFS:

- None of the beneficiaries in the two waiver programs across each of the eight states has admission rates above 10%. At the same time, six of the seven states that offer home health have rates above 10%, several at or above 25% and reaching as high as 35%.
- There is some variation across states in both waiver groups and across state plan services, although not significant and with no particular pattern.

- Consistent across states, among waiver clients, older and disabled clients are more likely to be hospitalized than those with MR/DD. Likewise nursing home residents are more likely to be hospitalized than are ICF residents.
- Hospitalization rates are much higher for home health recipients than any other group.

Figure 3b Dual FFS Enrollees:

- The hospital admission rates for dual eligible participants are similar or slightly lower than for the Medicaid only FFS participants.
- The hospital admission rate across waiver and state plan groups for the dual eligible participants is generally comparable to that of the Medicaid only participants, with only slight variation by state.
- Inpatient utilization rates for the Aging and Disability waiver and NF residents are again higher than for the MR/DD waiver, and ICF residents.
- Again, home health clients have the highest inpatient hospitalization admission rate of the groups presented but much lower than for the Medicaid only population.

Interpretation

- Higher inpatient hospitalization rates in the aging/disability waiver and NF populations could reflect the age and type of chronic illnesses presented in those populations compared to the MR/DD and ICF populations.
- These data do not necessarily support the assumption that dual eligible enrollees are frailer and therefore higher utilizers of health care services.
- The higher inpatient hospitalization rates for home health clients may be due in part to the case mix of the population.

Figure 3a. Inpatient Hospital Utilization Rate (%) per Person Month, by Waiver/State Plan Service Group – Medicaid-Only FFS Enrollees (2002)

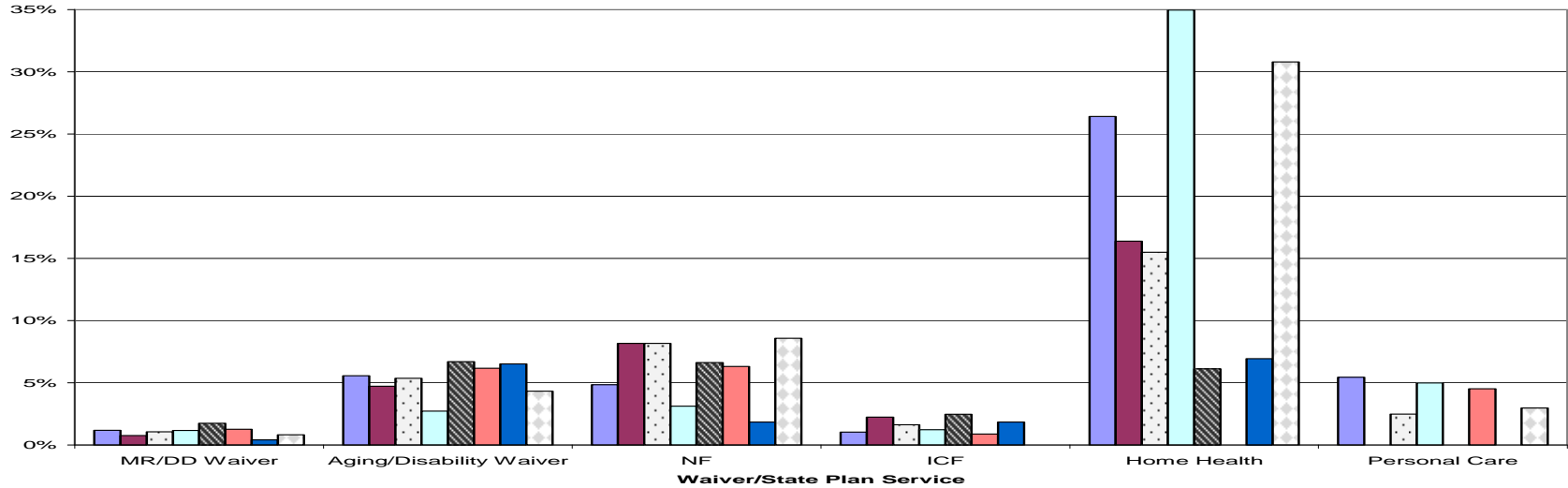
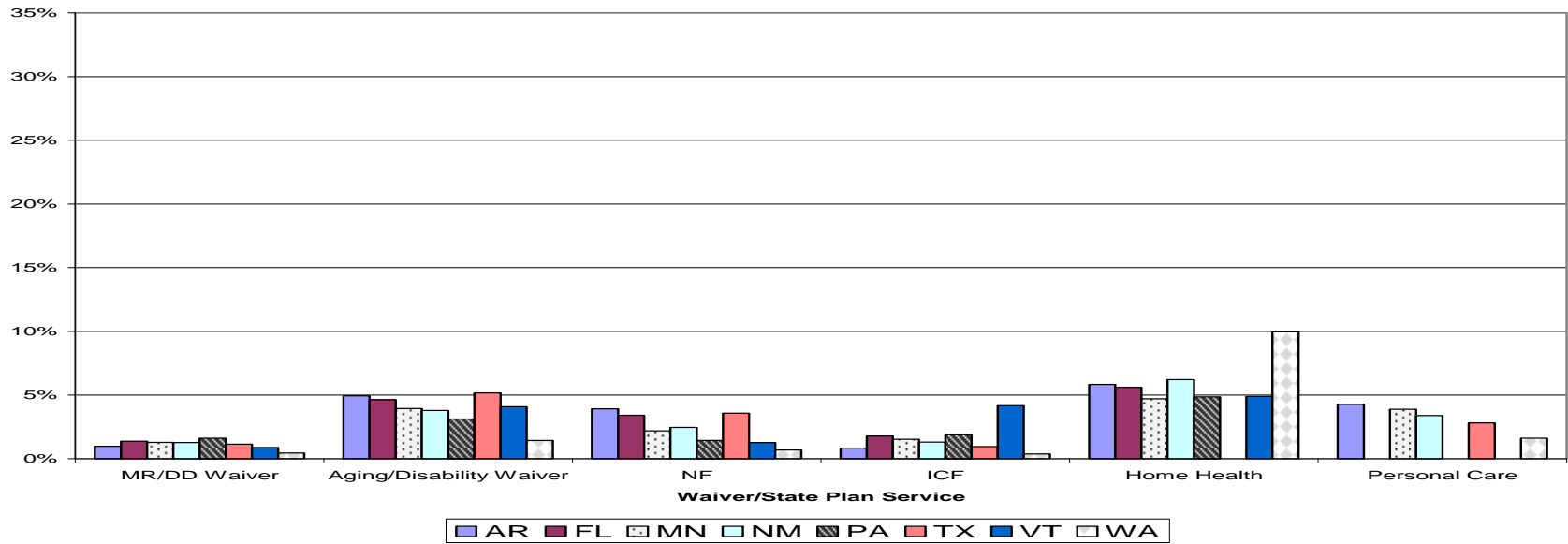


Figure 3b. Inpatient Hospital Utilization Rate (%) per Person Month, by Waiver/State Plan Service Group – Dual FFS Enrollees (2002)



Inpatient Hospital MA Payment (\$) per Person Month in Group

What is being measured?

The next two graphs present the annual Medicaid payment amount per person month in an analytic group – total inpatient hospital Medicaid payments divided by the total number of person months in the analytic group (users and nonusers of the service).

Descriptive Results:

Figure 4a Medicaid Only FFS

- Overall patterns of monthly Medicaid expenditures for inpatient hospital care differ compared to admission rates.
- Inpatient hospital expenditures for waiver clients are generally lower than recipients utilizing state plan services.
- Home Health clients have higher expenditures compared to clients in other state plan service, with especially high expenditures in Arkansas, Washington, and New Mexico.
- MR/DD clients in either institutions (ICF) or the community (MR/DD waiver program) have lower expenditures than the aging and disability waiver group and residents in nursing homes.

Figure 4b Dual FFS Enrollees

- The expenditures on hospitalizations are dramatically lower in the dual eligible group compared to the Medicaid only group. This is consistent with expectations. Medicare expenditures are not captured in the data presented.

Interpretation

Inpatient hospital expenditure patterns likely reflect variations by state in the base cost of inpatient hospital care.

Figure 4a. Inpatient Hospital Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Medicaid-Only FFS Enrollees (2002)

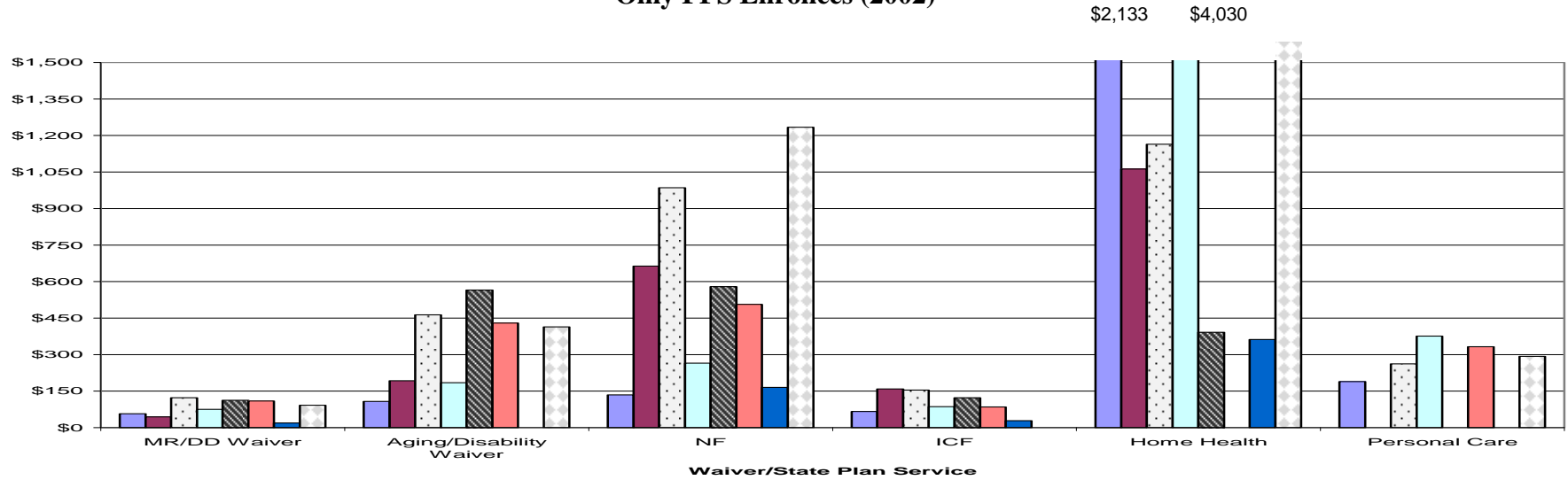
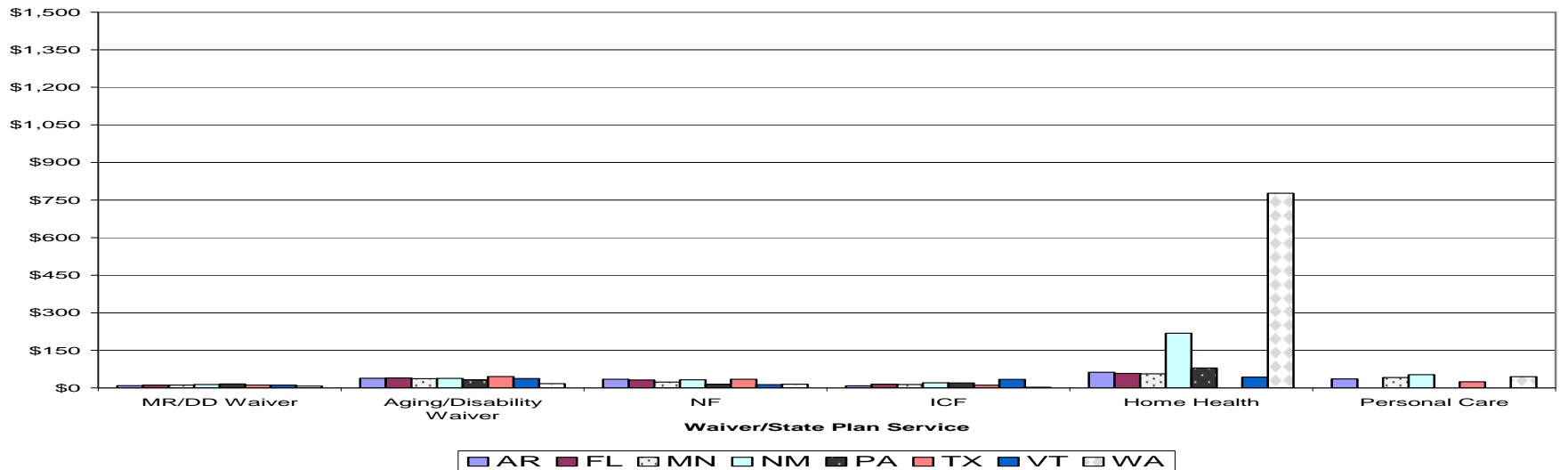


Figure 4b. Inpatient Hospital Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Dual FFS Enrollees (2002)



Residential LTC Utilization Rate and Medicaid Payment per Person Month (\$) in Group

What is being measured?

The utilization rate for nursing home and ICF stays (i.e., counting if a person was in the nursing home in a given month or not) as well as the average Medicaid payment amount per person month in an analytic group across the year total Medicaid payments for nursing home and intermediate care for all beneficiaries in the year divided by the total number of person months in the analytic group (users and nonusers of the service).

Descriptive Results:

Medicaid Only FFS

- There is virtually no use of nursing facilities or intermediate care facilities by waiver participants or Medicaid recipients utilizing other LTC services such as home health or personnel care.
- The average cost of nursing home care is lower than for ICFs.
- The average cost of nursing facility care is very similar across states, whereas the range of expenditures for ICF is greater, ranging from approximately \$4,000 in Texas to over \$12,000 in Vermont.

Dual FFS Enrollees

- The expenditures on nursing homes and ICF are lower in the dual eligible group compared to the Medicaid only group. This is consistent with expectations. Medicare expenditures are not captured in the data presented.

Interpretation

- Residential LTC options, including nursing homes and ICF, are not being used by participants primarily utilizing HCBS.

Total Ambulatory Service Utilization Rate (%)

What is being measured?

The next two graphs present the utilization rate for ambulatory services - the number of person-months with at least one claim for ambulatory services divided by the total number of person months with the same service type (the proportion of beneficiaries using the service in a given month, i.e., it does not distinguish heavy users in a given month from those who use the service only once in that month). Ambulatory services include physician, other practitioner (such as nurse practitioner and nurse midwife), and outpatient services (including outpatient hospital and clinic visits).

Descriptive Results:

Figure 5a Medicaid Only FFS

- Waiver clients generally use less ambulatory care than LTC state plan beneficiaries.
- Home care clients (except Pennsylvania and Vermont) are the highest users of ambulatory services compared to waiver and other state plan clients.

Figure 5b Dual FFS Enrollees

- The ambulatory care utilization rate for dual eligible beneficiaries is somewhat lower than that for MA only beneficiaries.
- There is greater variation between states within waiver or state plan group for the dual eligible population than for the Medicaid only population. For example, rates of ambulatory service utilization were all above 50% for the Medicaid only nursing facility group. In the dual eligible group, four states remained comparatively high, while

three states, Florida, Pennsylvania, and Washington, dropped significantly.

Interpretation

- It is not likely that the difference in hospitalization rates between MR/DD and Aging and Disability is attributable to case mix.
- Again the slightly higher ambulatory service utilization rates for home health clients may be due in part to the case mix of the population.
- These data do not necessarily support the assumption that dual eligible enrollees are frailer and therefore higher utilizers of health care services.

Figure 5a. Total Ambulatory Service Utilization Rate (%), by Waiver/State Plan Service Group – Medicaid-Only FFS Enrollees (2002)

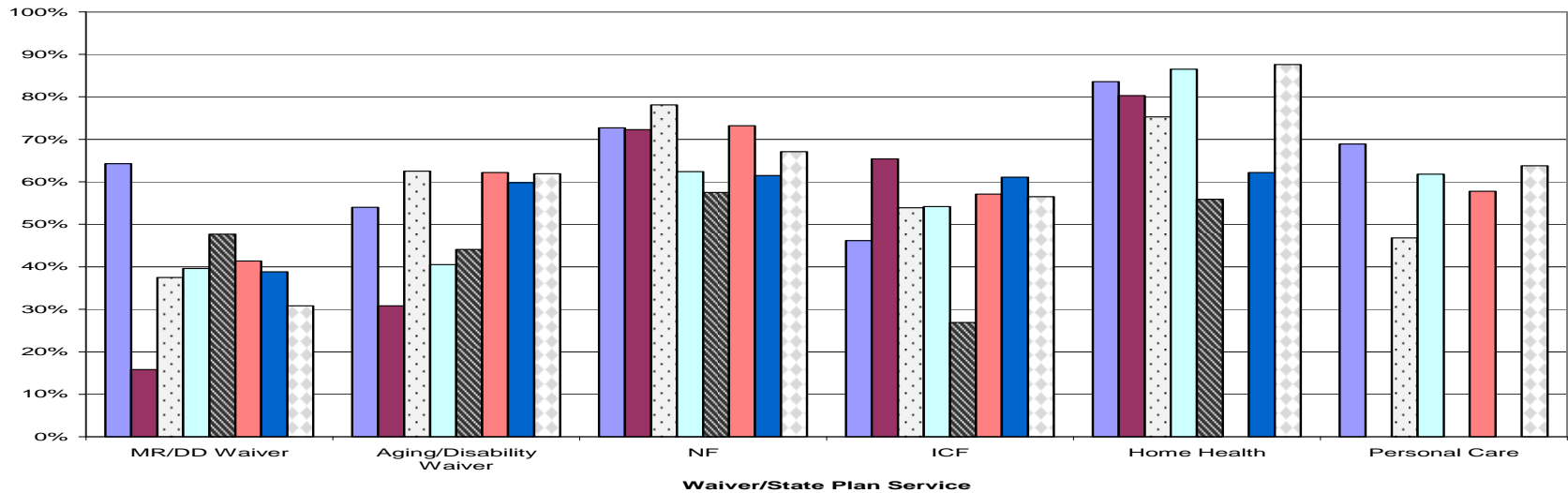
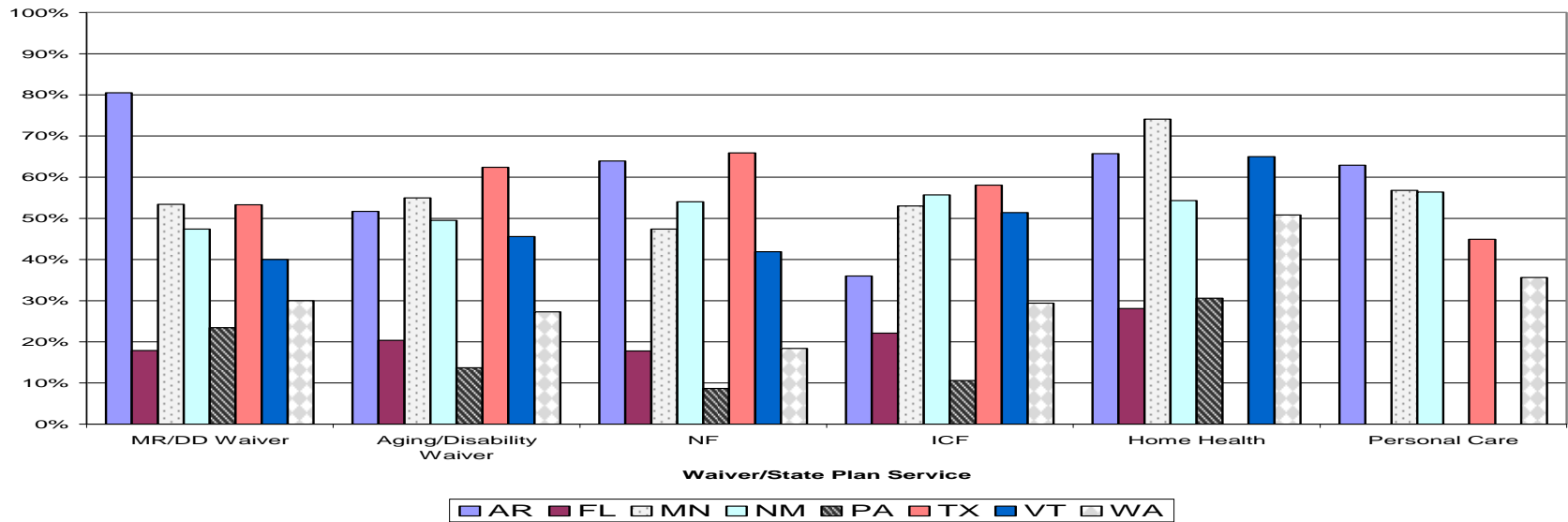


Figure 5b. Total Ambulatory Service Utilization Rate (%), by Waiver/State Plan Service Group – Dual FFS Enrollees (2002)



Total Ambulatory Service Medicaid Payment (\$) per Person Month in Group

What is being measured?

The annual Medicaid payment amount for ambulatory services per person month in an analytic group divided by the total number of person months in the analytic group (users and non users of the service).

Descriptive Results:

Figure 6a Medicaid Only FFS

- There are similarities in ambulatory service payments between MR/DD waiver clients and ICF as well as between aging and disability waiver clients and nursing facility residents.
- Home care payments (except Pennsylvania) are the highest across the waiver and state plan groups.
- Pennsylvania consistently has a lower total payment for ambulatory care across waiver and state plan groups compared to other states.

Figure 6b Dual FFS Enrollees

- The ambulatory care expenditures for dual eligible beneficiaries are substantially lower than that for Medicaid only beneficiaries.
- As with the Medicaid patterns, the rates for Arkansas MR/DD waiver, home care and PCA clients are high, but all rates are much lower than with Medicaid clients.

Interpretation

- The difference between Medicaid only payments and dual eligible payments reflects the role of Medicare coverage which is not reported in this data.
- Total payments show a similar pattern across groups and states as the pattern of utilization, suggesting a more comparable base rate for ambulatory services across states than shown previously for inpatient services.

Figure 6a. Total Ambulatory Service Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Medicaid-Only FFS Enrollees (2002)

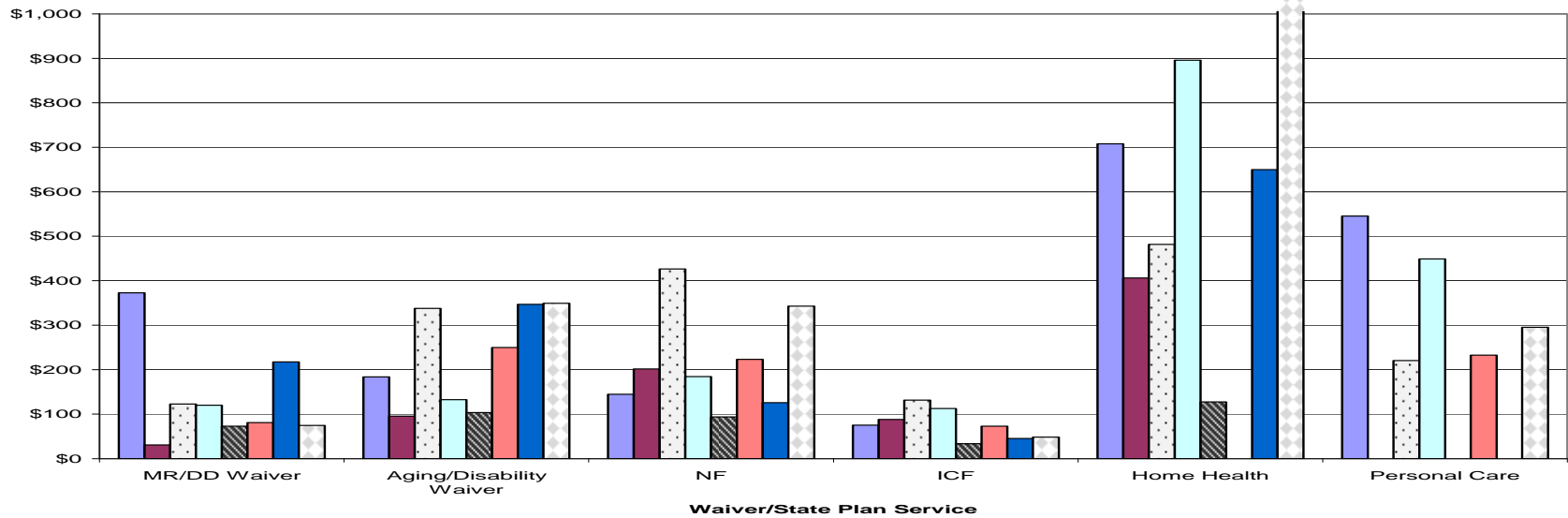
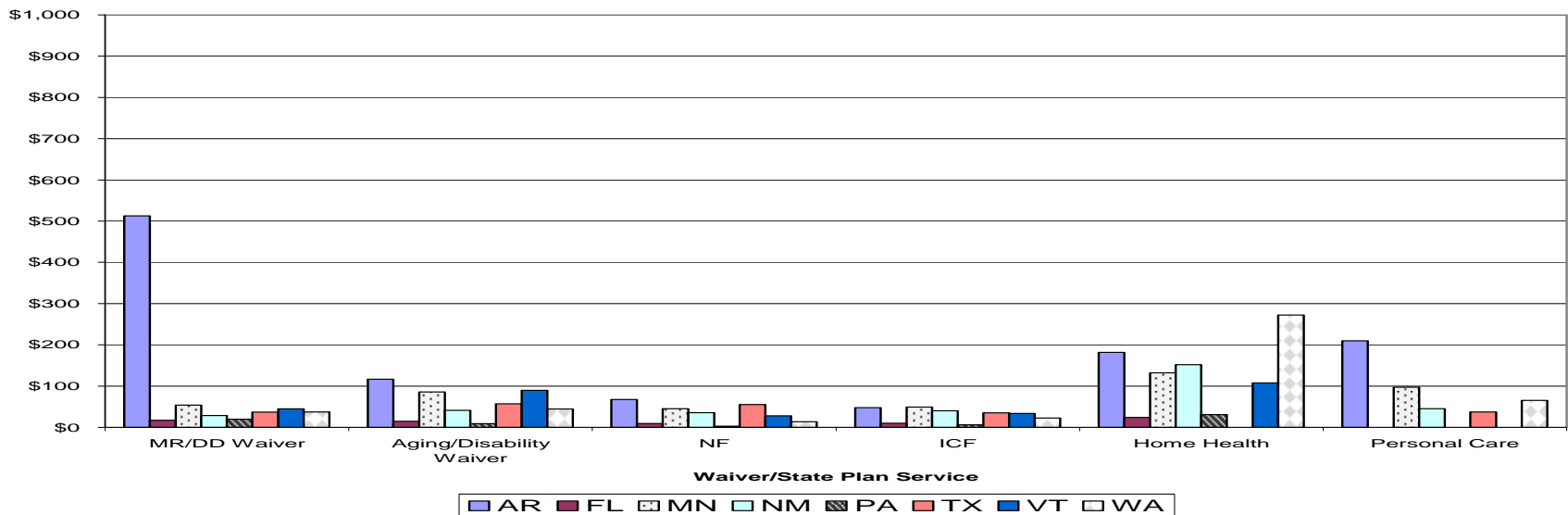


Figure 6b. Total Ambulatory Service Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Dual FFS Enrollees (2002)



Prescription Drug Medicaid Payment (\$) per Person Month in Group

What is being measured?

The annual Medicaid payment amount per person month in an analytic group for prescription drugs divided by the total number of person-months in the analytic group.

Descriptive Results:

Figure 7a Medicaid Only FFS

- In general, there is a modest difference between MR/DD and aging and disability waiver groups with MR/DD payments being lower, although not across all states.
- Medication costs are generally higher for state plan recipients, particularly nursing home recipients.
- There is no clear pattern across programs.
- The relative pattern among states varies across service group.

Figure 7b Dual FFS Enrollees

- Payments for prescription drugs is similar between Medicaid only and dual eligible participants with dual eligible being slightly lower.
- Overall patterns among states and service categories is generally similar to Medicaid only beneficiaries.

Interpretation

- Prescription drug coverage by Medicare was limited in 2001.

Figure 7a. Prescription Drug Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Medicaid-Only FFS Enrollees (2002)

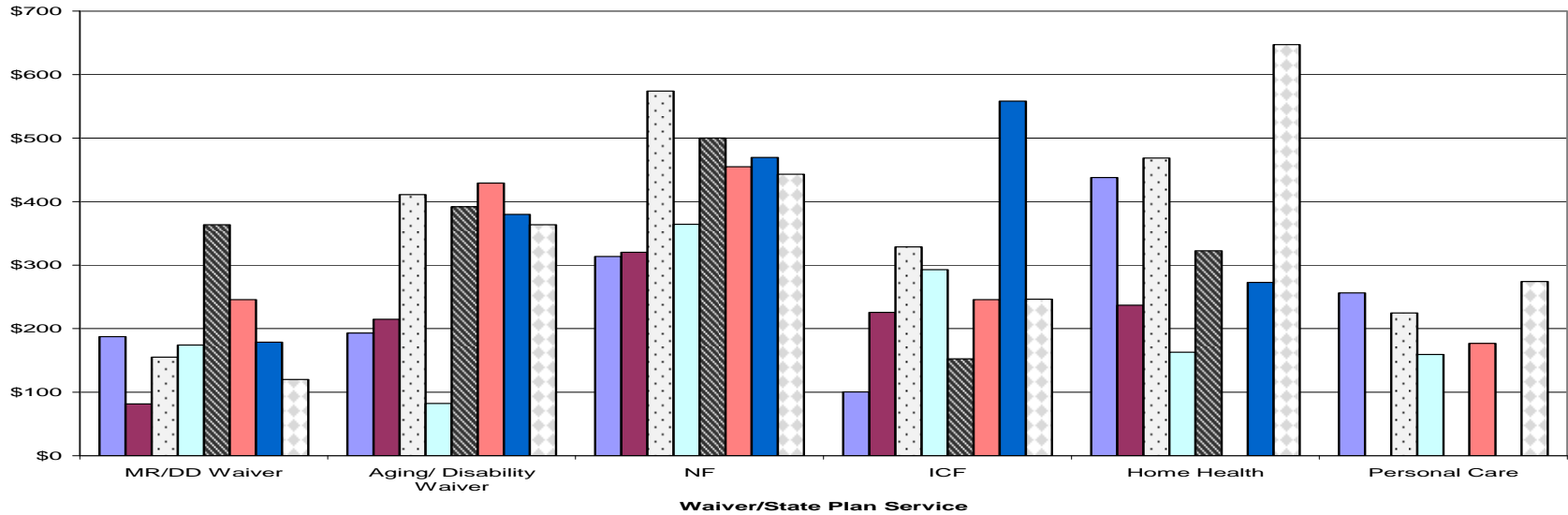
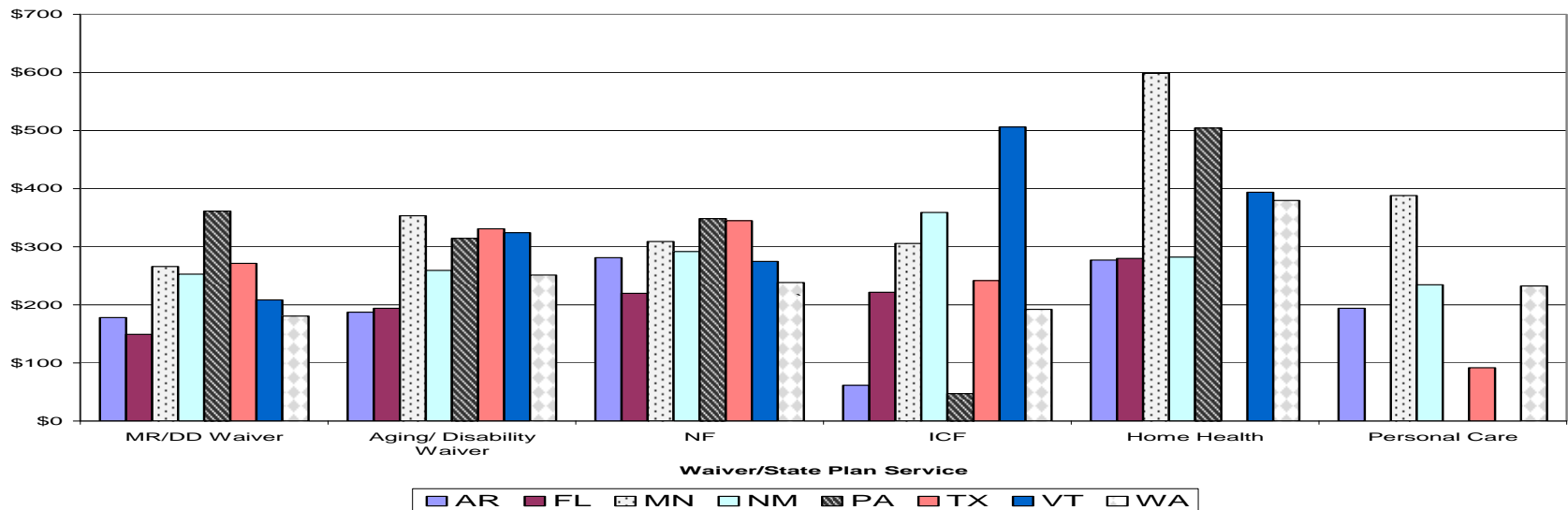


Figure 7b. Prescription Drug Medicaid Payment (\$) per Person Month in Group, by Waiver/State Plan Service Group – Dual FFS Enrollees (2002)



Ratio of Medical Care to LTC Medicaid Payment per Person Month in Group – Medicaid Only

What is being measured?

The ratio of Medicaid payments for each LTC service group aggregated into medical care and LTC.

Descriptive Results:

Figure 8a Medicaid only Waiver groups

- In four states (Arkansas, Florida, New Mexico, and Vermont) expenditures for LTC services exceeded payments for medical care. In four states (Minnesota, Pennsylvania, Texas, and Washington) expenditures for medical care exceed and in some cases far exceed the cost of long term care.
- The ratios vary by waiver group as well as by state.

Figure 8b Medicaid only State Plan groups

- As anticipated, in all states the expenditures for LTC services for those participants utilizing residential LTC in nursing homes or ICFs far exceeds expenditures on medical care.
- The opposite is true for participants utilizing home care services. In all states the expenditures for medical care for participants utilizing home care state plan services far exceed expenditures for LTC services.
- The ratio of medical care to long-term care expenditures is mixed across states for personal care services.

Interpretation

- The dark horizontal bar represents a ratio equal to one. Bars above that line indicate greater spending on medical care. Bars below that line indicate greater spending on LTC. Care must be paid in interpreting the ratios. Those greater than one are self-evident, but those less than one must be translated to make them comparable. For example, a ratio of 2 is equivalent to a ratio of 0.5.
- The higher ratios for home care participants may suggest a higher acuity level for this service group.
- Medical costs represent a substantial Medicaid cost for persons receiving HCBS LTC services. LTC program personnel should take greater account of these medical costs. They may represent an area where savings can be achieved and the funds redirected. Savings in medical costs could be used to support more LTC.

Figure 8a: Ratio of Medical Care to LTC Medicaid Payment per Person Month in Waiver Groups 2002: Non-dual Eligible FFS Enrollees

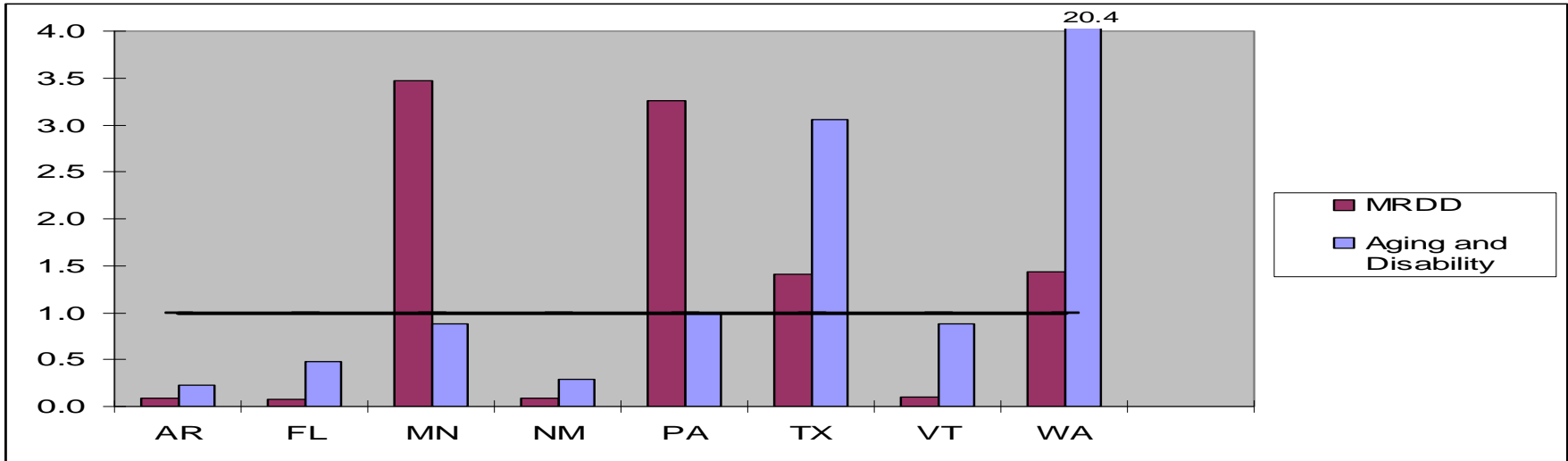
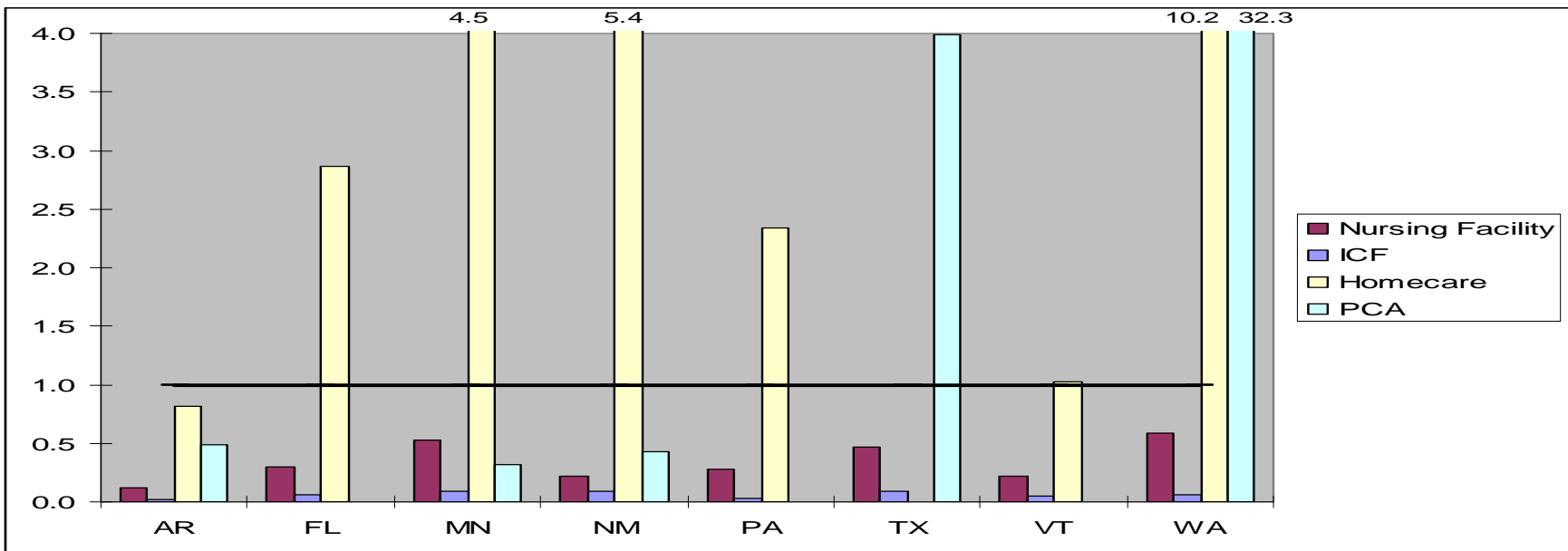


Figure 8b: Ratio of Medical Care to LTC Medicaid Payment per Person Month in State Plan Group 2002: Non-dual Eligible FFS Enrollees



Ratio of Medical Care to LTC Medicaid Payment per Person Month in Group – Dual Eligible

What is being measured?

The ratio of Medicaid payments for each LTC service group aggregated into medical care and LTC.

Descriptive Results:

Figure 9a Dual Eligible Waiver groups

- The pattern across states is similar between the Medicaid only waiver groups and dual eligible waiver groups; however, in those states where medical expenditures are higher than LTC expenditures, the ratio for the dual eligible group is even higher, particularly in the MR/DD group.

Figure 9b Dual Eligible State Plan groups

- The pattern within states across state plan services, as well as across states, is similar between Medicaid only and dual eligible participants.
- The ratios in general are not as high in the dual eligible group as in the Medicaid only group.

Interpretation

- Not only are there opportunities to achieve savings by working with both Medicare and Medicaid payments, but attention to only the Medicaid portion of costs for the dual eligible participants may be useful in identifying possible savings.

Figure 9a: Ratio of Medical Care to LTC Medicaid Payment per Person Month in Waiver Groups 2002: Dual Eligible FFS Enrollees

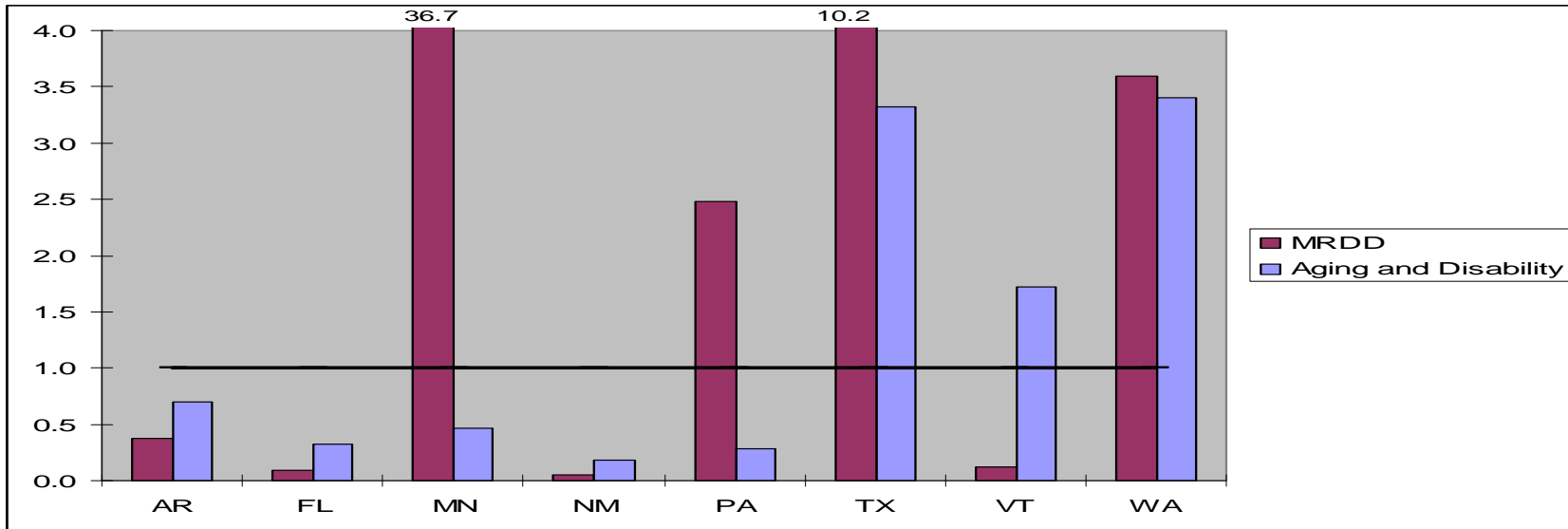
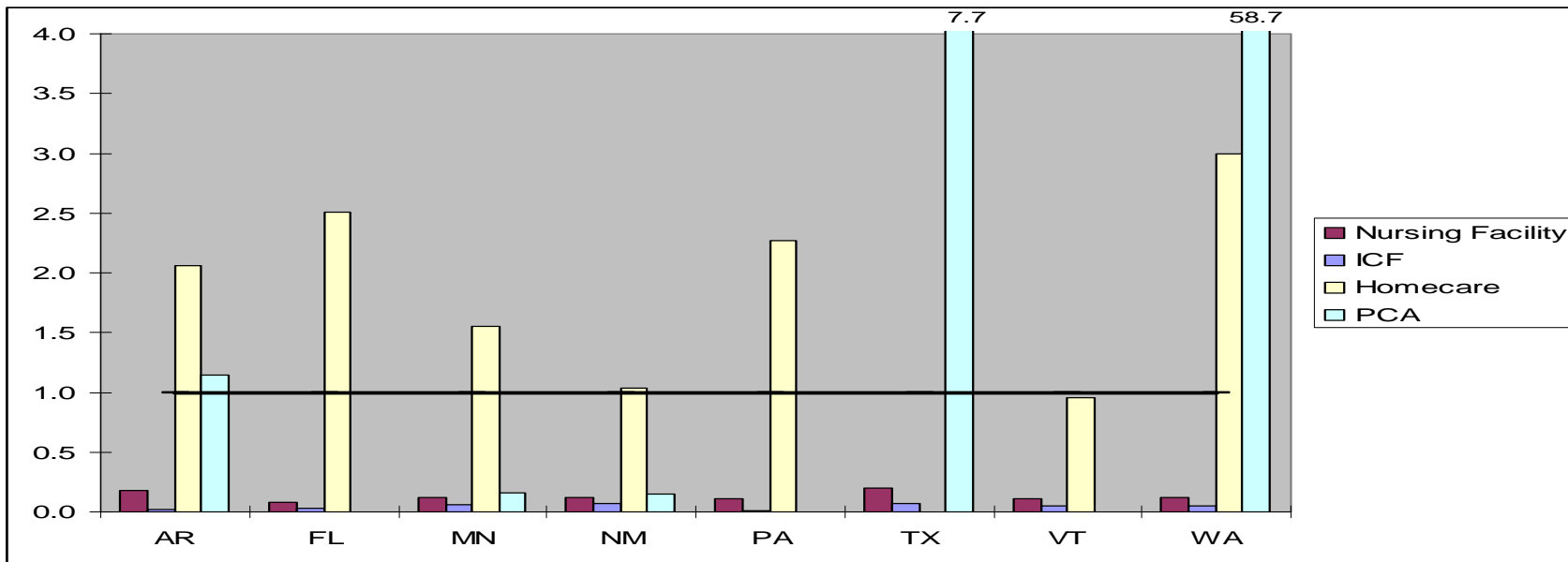


Figure 9b: Ratio of Medical Care to LTC Medicaid Payment per Person Month in State Plan Groups 2002: Dual Eligible FFS Enrollees



Conclusion

There is consistency in the results observed between 2001 and 2002.

- There is substantial variation in the use of different types of health care services within states between waiver groups and state plan recipients, as well as across states. For example, recipients of home health state plan services have much higher inpatient utilization rates than waiver groups and other state plan services. Within home health care recipients, hospital utilization in Arkansas, New Mexico, and Washington are over 25%, whereas hospital utilization in Pennsylvania and Vermont were just over 5%. More work is needed to understand how much of this difference is explained by differences in case mix. (personal factors such as age, gender, and existing diagnoses or medical conditions).

- The amount spent on medical care including acute care services and on LTC per client also varies across participants and states. For example, inpatient hospital expenditures for waiver clients are generally lower, whereas expenditures for home health clients are higher. Expenditures for acute care for home health state plan recipients ranges across states from \$450 in Vermont to over \$4,000 in Washington. State differences in payments may be a result of other factors such as cost of labor across states. If the differences in spending across groups are not matched by differences in outcomes, issues of efficiency should be explored.
- There is some correspondence between waiver and state plan spending by target group (i.e. MR/DD and ICF); younger persons generally cost less than older beneficiaries. The difference in payments for inpatient

hospital care is more pronounced; however, the pattern continues for ambulatory care and prescription drug payments with MR/DD and ICF groups being slightly lower than aging and disabled and nursing facility groups.

- Medical costs constitute a substantial Medicaid cost for persons receiving home and community based LTC services , particularly home care services in a number of states. One possible reason for this may be a higher acuity level of those individuals receiving home care services. Savings in medical costs could potentially be used to support more LTC.
- Some of the results in 2002 presented here are different from the results found in 2001 (reported in a separate chartbook). In reviewing the two data points, it is not clear if the differences represent simple variation or systematic trends. The report on 2003 MAX data will also look across years – 2001, 2002 and 2003.