HAUSE
Actuarial Solutions

Non-Emergency Medical Transportation (NEMT) 2014

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7201 W. 129th St.
Suite 310
Overland Park, KS 66213

p. 913-685-2200
f. 913-685-2205

[Email]
www.hauseactuarial.com

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Executive Summary

Hause Actuarial Solutions (Hause) actuaries have from time-to-time performed transportation experience analyses for state programs. Our most recent project began in 2011 and in advance of that, Hause began updating our research on Non-Emergency Medical Transportation (NEMT). This research has continued through to 2014. As in the past, Hause found the literature and data sources for NEMT services for Medicaid enrollees to be sparse and often out of date. To amend this data void, Hause contacted more than half of the states to request "readily available" information contained in Requests for Proposals and similar documents. These responses were used to augment material available from public sources and paint a broader picture of the NEMT landscape. The following is a summary of Hause's findings on the current state of NEMT programs and a discussion of items to consider for the next NEMT contract cycle.

Background

Non-Emergency Medical Transportation (NEMT) is referred to under 42 CFR 440.170 as necessary transportation and travel related expenses to secure medical examinations and treatment for a Medicaid beneficiary. NEMT includes the cost of transportation by private vehicle, taxicab, bus, ambulance or other appropriate means. It also includes the costs of meals and lodging, and the costs of attendants where necessary. NEMT services are to be provided only when the beneficiary has no other means of transportation for medical care or services.

The historical background of NEMT programs was typically a fee-for-service program that relatively recently converted to a contractual brokerage arrangement. Fee-for-service programs generally lacked adequate controls and oversight which led to situations of overspending and rapid inflation. In March of 2006, the Deficit Reduction Act provided a more direct route for states to establish NEMT brokerage programs as opposed to filing a 1915(b) waiver request. This is sometimes referred to as a 1902(a)(70) plan. In light of the rising program costs plus shrinking Medicaid budgets, many states began turning to a brokerage system for NEMT services.

Brokerage

Under brokerage arrangements, brokers are responsible for verifying eligibility, determining the appropriateness of trips and arranging the most efficient means of transportation. Brokers also are responsible for documentation and reporting of beneficiary and trip data on a seriatim basis. The types of brokerage arrangement vary by state and sometimes region within a state. They range from administrative services only (ASO) contracts to full-risk brokerage arrangements. Full-risk contracts pay the broker a fixed amount from which the broker must reimburse the transportation providers directly.

Program Structure

The most significant variation between states lies in the program structure. Among the program differences are the populations covered. Some states carve-out transportation services from managed care organization (MCO) contracts while others carve-in the services i.e. MCOs are responsible for providing NEMT along

with other medical services. Eligibility groups (e.g. CHIP) or categories of service (mental health) may be separately priced or carved out of the NEMT program. The number of transportation regions varies from one (statewide) to in excess of twenty regions in some states.

Available Experience Data

Hause found that fee-for-service program data was generally only available in summary form. Total program expenses and total eligible beneficiaries only provides a per member per month expense number. With the expansion of brokerage programs, richer datasets are becoming available in the form of encounter data. Information on the number of trips, the number of riders, the mode of transport, the trip purpose and the trip cost/mileage are some of the items being captured in encounter data. The issue with encounter data is its accuracy and completeness. Information that is not directly relevant to a broker's compensation historically has not received as much care in reporting. States are beginning to address this issue as part of contract negotiations with brokers.

Broker Compensation

Reimbursement methods vary by mile, by trip, by type of provider, by distance or are capitated on a per eligible beneficiary per month basis. Adjustments are often provided for fuel costs, utilization (trips, miles, riders) and for penalties, incentives or payment limits. Reimbursement rates also generally differ by mode of transportation and for any special beneficiary needs or assistance.

Issues/Concerns

One of the most frequently cited concerns of state NEMT programs is that while NEMT is a very small percentage of the Medicaid budget, it requires a highly disproportionate amount of management time and resources. At the forefront of this issue is the time and effort required in negotiating and contracting with brokers for each region of the state.

Along with broker contracting concerns is the need to adjust to Medicaid program changes (such as Medicaid expansion under the Affordable Care Act). Changes in Medicaid eligibility flow through to transportation needs that must be ultimately addressed by the brokers and transportation providers. Each will want sufficient assurances of adequate compensation before contracting with the state.

Reporting and Controls

As programs have evolved, procurement requirements have become more targeted toward addressing the shortfalls seen through state oversight. Historically, potential vendors were asked to describe their procedures and practices for administration and quality control. More recent procurement documents reflect specific deliverable targets and mandated reporting formats.

Conclusions

The purpose of this report is to update the literature with a comparison and contrast of states methodologies and experiences. The differences between state programs give rise to different issues and concerns. The reporting and control requirements reflect each State's methodology for addressing their particular program needs. The research developed for this report and our prior transportation experience has led Hause to the following thoughts and observations which states may want to consider as their NEMT programs evolve.

- Reduce the number of regions to urban with transit, urban without transit and rural
- Revisit the number of brokers necessary to adequately serve the state's NEMT needs
- Evaluate alternative methods of contracting
- Evaluate ASO brokerage versus full-risk brokerage
- Evaluate MCO carve-ins/outs
- Evaluate special population or service needs
- Address expanding/contracting populations, other programs
- Evaluate the type of broker required by region
- Pursue synergy with mass transit where available
- Evaluate controls on broker encounter submissions
- Consider base rate + bonus or cap rate - penalty compensation
- Consider cap on maximum reimbursement
- Consider tiered rates by eligibility category, adult vs child
- Expand broker financial reporting requirements
- Consider mixed reimbursement methods, per trip + mileage + mode adjustment
- Address broker issues/concerns
- Consider broker withdrawal provisions (waiting period)
- Attention to beneficiary outreach
- Integrate broker pay and incentives with program goals
- Payment methodologies should align with program goals and provide the flexibility necessary to address the needs of the state and broker as well as the beneficiary.

Hause plans to update and publish this information annually and would like to thank state NEMT personnel for their cooperation in this effort. At best, it is hoped that this resource will provide a "one-stop shop" for current NEMT program information. At a minimum, we hope it will reduce the number of NEMT surveys to one per year. Also, please feel free to suggest additional topics or data items you would like to see added to future versions of the report via the contact information below.

While every effort has been made to ensure the accuracy of the information presented, Hause makes no warranty to the accuracy or completeness of the data. States should independently verify any data they intend to rely on.

Please send all corrections, comments or questions to:

- Rex Durington
- 636-448-3176
- rexd@hauseactuarial.com

Brokerage

State NEMT programs have predominantly moved to the brokerage system with only a handful of fee-for-service (FFS) models remaining. Administrative Services Only (ASO) contracts are used in about ten states with full-risk contracts used in the rest.

FFS and ASO contracts require greater effort by the States to control costs. Under both arrangements, transportation providers historically have tended to over report trips, mileage or the level of service.

In addition to trip reimbursement systems, FFS models require the State to develop the infrastructure to perform thorough audits and monitor trip activity and trends. FFS programs generally only remain in states that have compared their per trip costs to brokered states and have not found the level or trend to be of a magnitude to warrant the move to a brokerage system.

ASO contracts transfer most of the States' oversight functions and trip logistics to the broker while retaining the reimbursement mechanisms and rate determination with the State. ASO brokers are typically compensated on a fixed dollar basis although some states pay per mile, per trip or per eligible individual to adjust for utilization and/or population swings. ASO contracts must be carefully designed to incent brokers to manage the program like a full-risk broker. Without financial risk, ASO brokers may not be as motivated to manage trip intensity measures such as mileage or mode of transport.

Full-risk brokerage arrangements are predominantly paid on a capitated basis – a fixed dollar per eligible member per month (PMPM). Mississippi and South Carolina are capitated at a fixed dollar per contract period. Full-risk brokers are responsible for ASO duties plus developing a provider network for each region and compensating the providers for trip services.

The number of brokers in a state is often one (statewide brokerage) and frequently three or less. Exceptions generally involve one broker per region or county and reflect historical procurement and management practices.

Maintaining fewer brokers simplifies the contracting process for the State but may be viewed as distancing the broker from regional variations and requirements of the State. Fewer brokers also may tend to shrink the competitive bidding pool from one contract period to the next.

Consideration should also be given to the number of eligible members by region. Brokers will require a certain volume of business to make bidding worthwhile. Also, splitting a state into geographic regions requires logistics for how cross-region travel will be handled (particularly for county-based models). States may want to develop other methods for providing for geographic needs such as compensation based on urban/rural tiers.

Hause would recommend that, prior to adopting a particular brokerage model, a State contact states with similar models, similar demographics and infrastructures to discuss what works well and what needs improvement. The Appendices provided at the end of this report should facilitate this search.

Appendix 1 summarizes the type of brokerage contract by state.

Program Structure

One of the more significant variations between state NEMT programs lies in the treatment of Medicaid Manage Care (MCO) members' transportation needs. With regard to MCOs, "Carve-outs" remove NEMT services from the MCO contract while "carve-ins" require the MCO to provide access to medical transportation.

MCO carve-outs retain state control over transportation needs. They provide central service ("one-stop shopping" for rides) and may be particularly useful when medical transportation is integrated with other transportation programs in the state. Carve-outs eliminate potential concerns about MCOs having an incentive to provide less efficient transportation as a means to lowering medical costs. Cost efficiencies may also be improved in carve-outs through scheduled rides and shared rides which MCOs cannot logistically provide.

MCO carve-ins give MCOs better coordination of care. When the MCO oversees medical transportation there is less likelihood of no-shows and unnecessary trips. Trip scheduling naturally flows with the scheduling of medical care visits. Carve-ins may be beneficial where access to care is problematic as it links medical care with transportation needs more directly. In practice, carve-ins often use the same brokers the state uses for its non-managed care population.

The other primary program structure differences are carve-ins or outs of eligibility groups or categories of service. Changes to Medicaid eligibility or programs may dramatically alter program costs and utilization. For this reason, carve-ins and outs of groups or services should generally be priced separately to allow maximum program flexibility.

Appendix 2 compares program structure by state.

Available Experience Data

Hause research into available program data and our subsequent information requests yielded an expected result given the transition that plans have been undertaking over the last few years. State programs generally fell into three data categories:

1) Limited FFS data - brokerage program not fully developed
2) Limited Encounter Data – brokerage model relatively new, data parameters not fully developed
3) Recent Detailed Encounter Data – Matured brokerage programs with expanded encounter data

In all of the various NEMT program stages, a general concern was the accuracy and completeness of data under relatively new reporting requirements and reporting entities. While accuracy and completeness measures were beyond the scope of our research, Hause noted growing sophistication on data validity requirements in some of the more recent bid requests. Broker financial statements tied directly to the NEMT program with financial withholds, penalties/bonuses for performance standards are becoming more commonplace.

Encounter data reporting is also evolving in both the richness of the dataset detail and in the requirements for timeliness and accuracy. The following list provides a list of data fields being captured in some of the more detailed state datasets.

Sample Encounter Data Fields		
Eligibility	**Encounter**	
Exposure Period	Trip Legs	Trip Cost
County of Origin	Riders	Passengers
Eligible Counts by:	Mileage	Special Needs
Category of Aid	Mode	Start Date
Eligibility Program	Trip Intensity Measure	End Date
Child/Adult	Payment Method	Claim Status
ID Codes	Trip Purpose/Destination	ID Codes

Hause would suggest that additional data fields may be warranted after discussions with brokers. For example, brokers are often concerned about uncompensated services for waiting time, no shows and door-to-

door versus curb-to-curb drop-offs. Capturing data related to these areas of concern will provide for better contract negotiation between the State and broker.

Hause would also recommend that controls or accuracy measures be developed for each data field to the extent practicable. For example, comparison of encounter trip data against medical claims data may reveal information on inappropriate or overstated trips.

Appendix 3 summarizes the higher level data fields of the states. In many cases multiple years are available of which only the most recent is shown for this report. Additional fields are also available in a lesser number of states but have been omitted due to the lack of sufficient number of comparable state statistics.

Appendix 4 provides a discussion of key metrics States should consider developing for data analysis purposes.

Broker Compensation

Reimbursement methods typically are capitated payments which have an advantage over other methods as they automatically adjust for population variations. Capitation payments are essentially based on historical program costs (adjusted for current conditions) per eligible member. The disadvantages of capitated rates often cited are the difficulty in understanding the adjustments and calculations and in the timeliness of the underlying data.

Capitated rates are usually associated with full-risk brokerage arrangements. As brokers are paid per eligible member, they have an incentive to provide the most cost effective mode of transportation and eliminate unnecessary trips. Brokers also have an incentive to provide fewer services so State oversight is required for denials of service and member complaints.

ASO contracts are frequently based on a fixed dollar arrangement. The competitive bidding process requires brokers to submit a set price for providing the services either with a built-in profit margin or a state mandated profit allowance. Full-risk brokerages using fixed dollar reimbursement may be found in Florida, Mississippi and South Carolina. An advantage of fixed dollar contracts is that the State has a predictable cost. As with capitated arrangements, brokers have an incentive to cut costs and oversight is required to assure valid transportation requests are met. Unlike capitation methods, full-risk fixed dollar contracts transfer the risk of population fluctuations to the broker.

Adjustments for fuel costs (South Carolina, Arkansas), utilization (Arkansas) and administrative costs (Nebraska) are some of the variations on broker compensation. These adjustments are designed to more closely match actual broker expenses. Reimbursement adjustments may also be seen as a means to lengthen the appropriateness of the base payment rate. By providing a more dynamic rate that adjusts according to the economics of the transportation brokers and providers, States may be saved the time and expense of more frequent procurement cycles.

Other compensation arrangements involve per trip and/or per mile payments. Variations exist for mode of transportation and whether an explicit administrative allowance is provided. While these reimbursement methodologies may provide a more direct link to the cost of each trip, they can retain many of the problems states experienced under fee-for-service. Trip and mileage inflation and up-coding of transportation modes need close monitoring. Brokers may also have an incentive to avoid trips that are undercompensated relative to actual cost.

Per trip/mile arrangements may be well suited to new programs or populations as the underlying historical data will not be available to support capitation calculations and the lack of data may also make fixed dollar bidding less attractive to brokers. In general, payment methodologies should align with program goals and provide the flexibility necessary to address the needs of the State, brokers and beneficiaries.

Issues/Concerns

The most frequently cited issues are the amount of time and resources necessary to address the transportation needs of the recipients, the logistical and financial needs of the brokers and the oversight requirements of the State.

Recipients needs vary, at a minimum, by category of aid, adult versus child, required mode of transportation and destination (type of service). Simplicity and quality of service are the key issues for NEMT eligibles.

Broker concerns center on provision of adequate coverage and other logistical issues associated with rural eligibles. Long distance trips are more costly and may involve the additional cost of meals, lodging for the recipient and frequently an attendant or family member. No shows and excessive waiting times are a financial drain for brokers who are generally restricted to a relatively fixed income. Adequate compensation for the required services and program continuity are primary concerns of brokers.

Medicaid program changes (such as Medicaid expansion under the Affordable Care Act) add additional complexity as to the number of newly eligible and their relative health. Utilization and cost changes are absorbed by the broker. Brokers have the difficult assignment of assessing financial and logistical requirements such as the number/type of vehicles needed along with personnel requirements.

In addition to the difficulties in structuring the bid process and determining contractual requirements, states are charged with overseeing that there is adequate access to quality NEMT services. Many states have found that more regions and more brokers results in more headaches in bidding, scoring and contracting. Hause observed the trend is towards fewer regions and brokers with more specific deliverables as programs renegotiate broker arrangements.

Another issue involving both brokers and States is the extensive recordkeeping and reporting required to maintain an NEMT program. The section on experience data above outlined key items to capture in encounter data reporting. In addition, there are several other reports required in the typical brokerage arrangement (e.g. call data and complaint logs). These will be covered in the next section along with a discussion of program controls.

Reporting and Controls

Hause review of reports and control measures revealed a long list of broker requirements and state oversight. Brokers are generally responsible for verifying, for each trip request that the service is provided in cost effective manner to recipients who: are Medicaid eligible, have no other means for the appropriate mode of transportation for Medicaid covered medically necessary services. "Cost effective manner" may refer to the nearest provider who is qualified to provide the medical service via the least costly mode of transportation. "Appropriate mode" considers the recipients mobility and functional needs as well as trip cost.

States are responsible for managing the competitive procurement process. States are also responsible for broker oversight and ensuring that the brokers provide adequate access and quality of service. As states re-procure contracts, they are moving away from scoring broker narratives as part of the bid process toward mandated reports and performance standards.

The following tables outline the types of plans and documents that states may require in initial contracting and the periodic reports used for the state oversight function.

Broker Contracting Reports		
Implementation Plan	Drug Testing	Cost Efficiency Plans and Measures
Transition Plan (From Prior Broker)	Background Checks	Trip Appropriate Plans and Measures
Turnover Plan (To Next Broker)	Provider Manual	Closest Appropriate Provider Plans and Measures
Business Continuity/Disaster Recovery Plan	Operating Procedures Manual	Mode Appropriate Plans and Measures
Hazardous Weather Plan		Call Center Quality Measures
Beneficiary Education Plan		
Provider Education Plan		
Complaint Resolution Plan		
Operational Test		

Broker Periodic Reports		
Personnel Training Requirements/Activity	Member Complaint Report	Call Volume
Personnel Report	Provider Complaints	Telephone Report
Vehicle Roster	Medical Provider Complaints	Excessive Trip Distance Report
Driver Roster	Provider Survey	Add-Ons Report
Outreach Report	Medical Provider Survey	No-Shows Report
Area Coverage Report	Denial Report	Trip Report Detail
	Accident/Incident Report	Quarterly/Annual Financials
	Self-Referrals	Random Sample Audits

As examples of plans and measures, the next table shows categories of performance measures, their benchmark standards and sample penalties for non-compliance.

Performance Measures, Standards and Penalties		
Measure	**Standard**	**Penalty**
Service Delivery	98% Completed	$1,500 per point below 98%
Client Safety	99% Ride Time Estimate	$10,000 per accident
Demand Response	90% On-time pick up	$1,000 per occurrence
Demand Response	95% on-time drop off	$1,000 per occurrence
Vehicle Roster	100% compliant vehicles	$1,000 per non-compliant
Driver Roster	100% compliant drivers	$1,000 per non-compliant
Training Compliance	100%	$500 per occurrence
Management Availability	100%	$500/hr
Management Staffing	100%	$1,000/day
Accuracy	100%	$500 per unauthorized service
Automation Systems	100%	$1,000/hr downtime
Customer Service Satisfaction Surveys	95%	$2,500/qtr under 95%
Service Complaints	98%	$1,000/mo under 98%
Reporting Requirements	100%	$1,000/day/report
Encounter Data	10 days	$1,000/day
Demand Response	No-show < .25%	$1,000/mo

In addition to the above there are numerous call center measures including the following:

- No busy signal
- Live operator within 2 minutes
- Abandon rate less than 5%
- Average talk time less than 7 minutes
- Call count/answered/busy
- Speed to answer
- Available operators by hour

Conclusions

The purpose of this report is to update the literature with a comparison and contrast of states methodologies and experiences. The differences between state programs give rise to different issues and concerns. These items are addressed each procurement cycle with requirements for more refined reports and more complete and accurate data.

The research developed for this report and our prior transportation experience has led Hause to the following thoughts and observations which states may want to consider as their NEMT programs evolve.

- Reduce the number of regions to urban with transit, urban without transit and rural
- Revisit the number of brokers necessary to adequately serve the state's NEMT needs
- Evaluate alternative methods of contracting
- Evaluate ASO brokerage versus full-risk brokerage
- Evaluate MCO carve-ins/outs
- Evaluate special population or service needs
- Address expanding/contracting populations, other programs
- Evaluate the type of broker required by region
- Pursue synergy with mass transit where available
- Evaluate controls on broker encounter submissions
- Consider base rate + bonus or cap rate - penalty compensation
- Consider cap on maximum reimbursement
- Consider tiered rates by eligibility category, adult vs child
- Expand broker financial reporting requirements
- Consider mixed reimbursement methods, per trip + mileage + mode adjustment
- Address broker issues/concerns
- Consider broker withdrawal provisions (waiting period)
- Attention to beneficiary outreach
- Integrate broker pay and incentives with program goals
- Payment methodologies should align with program goals and provide the flexibility necessary to address the needs of the state and broker as well as the beneficiary.

Appendix 1: Brokerage Arrangements

State	Reporting Year	Brokerage Type	Compensation	Broker Count	Region Count
AL	2012	Full Risk	Capitation PMPM		1
AK					
AZ	2014	None	FFS	NA	1
AR	2014	Full Risk	Capitated PMPM	8	11
CA					
CO			Fixed		
CT	2011	ASO	Fixed $ (7.5% Profit Margin)	1	3
DC	2012	Full Risk	Capitated PMPM	1	1
DE					
FL	2012	Full Risk	Fixed	By County	By County
GA	2010	Full Risk	Capitated PMPM	2	5
HI					
ID	2013	Full Risk	Capitated PMPM	1	7
IL					
IN	2011	None	Schedule	NA	1
IA	2010	Full Risk	Capitated PMPM	1	1
KS	2010	Full Risk	Capitated PMPM	1	1
KY	2010	Full Risk	Capitated PMPM	8	16
LA	2011	ASO	Fixed Price (variable profit margin)	1	9
ME	2010	Full Risk	Capitated PMPM	8	8
MD	2008	ASO	Fixed	24	24
MA			Per Trip by Mode		
MI					
MN	2011	ASO	Per Trip by Mode +Mileage	By County or Region	By County or Region
MS	2013	Full Risk	Fixed	1	1
MO	2013	Full Risk	Capitated PMPM	Statewide or By Region	6

State	Reporting Year	Brokerage Type	Compensation	Broker Count	Region Count
MT					
NE	2013	ASO	Fixed	1	1
NV	2011	Full Risk	Capitated PMPM	1	1
NH					
NJ					
NM					
NY					
NC	2012	ASO	Capitated PMPM	1-3	3
ND					
OH					
OK					
OR	2011	ASO			
PA				2	Region/County
RI			Fixed		1
SC	2010	Full Risk	Fixed	1-3	3
SD					
TN	2012	Full Risk	Capitated PMPM	1	3
TX	2013	Full Risk	Capitated PMPM		11
UT			Capitated PMPM		
VT					
VA					
WA	2011	ASO	Per Trip	8	13
WV					
WI	2013	Full Risk	Capitated PMPM	1	1
WY					

Appendix 2: Program Structure

State	Reporting Year	Carved-In to NEMT (Covered by NEMT)	Carved-Out of NEMT	Other Items
AL	2012	Mental Health (Optional)	Mental Health (Optional) Family Planning	Bid with/without Mental Health
AK				
AZ	2014		MCOs Federal Emergency Services	RFI for Full-Risk in 2013 Emergency Day Limit
AR	2014	MCOs ARKids First Plan A		
CA				
CO				
CT	2011	MCOs		
DC	2012		MCOs, CHIP	
DE				
FL	2012	Non-Medicaid eligibles and non-medical transportation MCOs		NEMT under Commission for Transportation Disadvantaged
GA	2010			
HI				
ID	2013		School based services	
IL				
IN	2011			
IA	2010	MCOs	FQHC, Local Education Agencies	
KS	2010			
KY	2010			
LA	2011			
ME	2010			
MD	2008			
MA				
MI				

State	Reporting Year	Carved-In to NEMT (Covered by NEMT)	Carved-Out of NEMT	Other Items
MN	2011			
MS	2013		MCOs	
MO	2013	Mental Health	MCOs except MH/SA Hospice	
MT				
NE	2013	Long-Term Care Transportation MCOs		
NV	2011			
NH				
NJ				
NM				
NY				
NC	2012		MCOs	
ND				
OH				
OK				
OR	2011	MCOs		
PA				
RI				
SC	2010		MCOs	
SD				
TN	2012	Mental Health Dental Dual Eligibles		
TX	2013	Children with Special Health Care Needs Foster Care Indigent Cancer Patients		
UT				
VT				
VA				

State	Reporting Year	Carved-In to NEMT (Covered by NEMT)	Carved-Out of NEMT	Other Items
WA	2011	Mental Health Developmental Disabilities Adoption Support Methadone Dialysis ESRD Adult Day Health Dual Eligible MCOs		
WV				
WI	2013		MCOs PACE Family Care Nursing Home	
WY				

Appendix 3: State Program Data

State	Year	Eligible Count (Average Members)	Program Cost (millions)	Trip Leg Count (One-Way)	Riders (Unduplicated Count)	Cost / Trip	Trips / Rider	Riders / Average Members
AL	2011	711,561	$8.9	481,952	46,449	$ 18.55	10.4	6.5%
AK								
AZ	2014							
AR	2012	478,229	$21.3	1,088,117	134,095	$ 19.56	8.1	28.0%
CA								
CO								
CT	2010	1,453,554		2,215,687				
DC	2012			1,266,271				
DE								
FL	2012		$60.9	2,559,121	73,755	$23.82	34.7	
GA	2010	1,156,016		3,104,756	262,916		141.7	22.7%
HI								
ID	2013	239,867	$20.2	1,194,598	84,164	$16.90	14.2	35.1%
IL	2012			3,677,810				
IN	2011							
IA	2011	398,753	$10.3	200,868	63,192	$51.28	3.2	15.9%
KS	2013	393,813	$5.1	229,580		$22.07		
KY	2010							
LA	2011	1,344,980	$23.0	624,900		$36.81		
ME	2010	198,402	$45.9	1,359,988	44,296	$33.75	30.7	22.3%
MD	2008							
MA								
MI	2012			662,830				
MN	2011							
MS	2009	496,654		731,544	120,969		6.0	24.4%
MO	2012	1,339,874	$29.8	971,793		$30.69		
MT								
NE	2013	227,881	$6.7	400,830	12,298	$16.66	32.6	5.4%
NV	2011			599,178		$39.58		
NH								

State	Year	Eligible Count (Average Members)	Program Cost (millions)	Trip Leg Count (One-Way)	Riders (Unduplicated Count)	Cost / Trip	Trips / Rider	Riders / Average Members
NJ	2012			5,100,103				
NM								
NY								
NC	2012	1,532,126	$54.1		91,928			6.0%
ND								
OH								
OK	2012			824,838				
OR	2011							
PA	2011			11,468,394				
RI								
SC	2010	703,459		1,780,974	46,993		37.9	6.7%
SD				27,791				
TN	2012		$6.6					
TX	2013	3,658,987	$97.7	2,736,477	104,428	$35.70	26.2	2.9%
UT	2013	383,309	$12.7					
VT	2012			276,843				
VA	2012			4,000,000				
WA	2011			2,900,000				
WV								
WI	2012	840,905		1,519,849				
WY								

Appendix 4: Key Metrics

The primary metric used in NEMT programs is the Per Member Per Month (PMPM) rate which is calculated as total annual program costs divided by the sum of the eligible members in each month of the year. In practice, a PMPM rate is calculated for each rate cell (year, demographic category, category of aid, program etc.)

The PMPM rate may be sliced into finer pieces by a formula such as the following:

PMPM = [Cost / Miles] * [Miles / Trips] * [Trips / Riders] * [Riders / Member Months]

Analysis can then be performed on each component to help determine the cause of shifts in the PMPM rate.

A note of caution is in order for collecting Rider data. While Cost, Trips and Member Months are just the sum for each month in the year, Riders are more complicated. For example, there are multiple ways of counting riders – a) total number of riders in each month b) sum of unduplicated count of riders in each month and c) unduplicated count of riders for the entire year are three possible methods.

Since member months are calculated each month, a member who is in Medicaid for the full year contributes twelve member months to the total. To have a similar count for Riders we need a counting method that also adds to twelve over a year's time. Method a) would over count a rider if they rode more than once per month and method c) would only count a rider once per year. So the Rider total desired is b) the unduplicated count of riders in each month summed over each month of the year.

Cost per Mile is a cost measure that may be fixed by the contract reimbursement method or may fluctuate due to other influences on costs and mileage. The following table shows the possible changes in cost and miles and a potential cause for the direction of change.

NOTE: For this and the following tables, only one of potentially many causes is shown for each directional shift and analysis of other possible causes as well as differences between rate cells should be considered.

Cost/Mile				
		Miles		
		Decreasing	No Change	Increasing
	Decreasing	Trip Appropriateness	Mode Efficiencies	Mode Efficiencies
Cost	No Change	Fuel Cost	Fixed Rate	Mode Efficiencies
	Increasing	Fuel Cost	Fuel Cost	Eligibility Increase

Miles per Trip is an intensity measure that provides insight into the effort required to transport a person to necessary medical services. This measure frequently varies significantly between rural and urban regions.

Miles/Trip				
		Miles		
		Decreasing	No Change	Increasing
	Decreasing	Trip Appropriateness	Facility Changes	Nearest Appropriate
Trips	No Change	Nearest Appropriate Provider	Stable Program	Facility Changes
	Increasing	Nearest Appropriate Provider	Shared Rides	Eligibility Increase

Trips per Rider is a utilization measure that may help detect inappropriate use of transportation or changes in a broker's trip scheduling.

Trips/Rider				
		Riders		
		Decreasing	No Change	Increasing
	Decreasing	Eligibility Determination	Trip Appropriateness	Trip Appropriateness
Trips	No Change	Utilization Increase	Stable Program	Utilization Decrease
	Increasing	Utilization Increase	Utilization Increase	Eligibility Increase

Riders per Eligible Member may help in assessing whether there are issues with screening eligible or issues with program outreach.

Riders/Members				
		Riders		
		Decreasing	No Change	Increasing
	Decreasing	MCO Expansion	Outreach	Outreach
Members	No Change	Eligibility Screening	Stable Program	Outreach
	Increasing	Eligibility Screening	Outreach	Eligibility Increase

Capturing the number of riders on each trip as a means of monitoring the effectiveness of shared rides may be particularly relevant to certain categories of aid or programs.

The above is only a partial list of metrics that may be important to a state NEMT program. In particular, states should also consider adding fields that can yield additional insight into or identification of program inefficiencies. Additional fields may also be needed to firmly quantify anecdotal evidence from brokers and recipients.