Assessment of the Colorado Substance Use Disorder Services Resource Allocation Framework

Developed for the
Colorado Department of Human Services
Division of Behavioral Health
Substance Use Disorder Services

May 2011

Prepared by
James E. Sorensen, Ph.D., CPA

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The author expresses his sincere appreciation to the executives from the DBH, MSOs, CDHCP&F, and the Substance Use Disorder Providers who participated in this study. An additional note of thanks goes to the Substance Use Disorder providers who completed the Survey Monkey confidential survey.

Executive Summary

In September 2010, the Colorado Department of Human Services, Division of Behavioral Health substance use disorder services requested assistance from James E. Sorensen, Ph.D., CPA to assess the resource allocation framework for its substance use disorder treatment services and to recommend optional methodologies to enhance the allocation process.

The Patient Protection and Affordable Care Act of 2010 and the Health Care and Education Reconciliation Act of 2010—together referred to as the "The Affordable Care Act (ACA)" recognizes that prevention, early intervention and when necessary, treatment of mental and substance use disorders are an integral part of improving and maintain overall health (SAMHSA, 2010). A number of substance use disorder services are likely to be funded by Medicaid (Mancuso and Felver, 2010) although SAMHSA's Substance Abuse Prevention and Treatment Block Grant (SAPTBG) dollars will continue to play an important role in providing services not covered by Medicaid health services, for example, some types of residential service or wrap-around services (NASADAD, 2010).

Knowing your cost of service and completing (the illustrative Colorado Mental Health demonstration) Medicaid cost report are *not* the same thing. If the Medicaid resource assignment model permitted a floating base unit cost and an empirical set of relative value units for *each provider*, then a Medicaid cost report could produce usable cost of service reports. (It would be analogous to Time-Driven Activity Based Costing (TDABC)). *Standardized* base unit costs and *standardized* RVUs are demonstrated to introduce biases in estimating costs of services. Medicaid intends to control costs (via the base unit cost) and establish standards for production (via the RVU) to control costs and to stimulate efficiency. From a funder's point of view, the system may make sense as a way to *control reimbursement rates*. It does not necessarily, however, tell the provider the cost of the services. For a service provider to manage his/her services effectively s/he must know the cost of the services (not just what s/he will be paid by a particular funder). A TDABC would be an effective method to determine a provider's actual unit of service cost although refined traditional unit-of-service costing may do reasonably well.

An empirical survey of Colorado substance use disorder providers revealed (43 providers were asked with a response rate of 77% or a response set of 33):

- Wide-spread representation of varied providers in varied geographic locations among the respondents.
- Services are defined clearly by almost 80% of the providers.
- Sixty percent of the providers can calculate unit of service costs.
- Eighty percent had independent audits.
- About two-thirds have functional statements of expense.
- About fifty percent have detailed cost information about programs and services.
- About fifty percent of the total sample would be able to produce audited costs of services.

- Over sixty percent are unable to calculate the total costs of priority populations they serve and of those who can almost eighty percent can calculate a cost per yearly admission.
- About two-thirds of the appropriate providers expressed satisfaction with admissions to detox and the total number of required admissions for treatment, but expressed dissatisfaction with the total dollars assigned to detox, treatment and over-all funding.
- No clear overwhelming preference for a funding option emerged although 45% did not support an update of the current Diagnosis-Related Group (DRG) system. A review of preferences by region did not reveal any new patterns.
- Preference for the current payment option (namely, 1/12 or equal monthly payments) was viewed favorably by 78% while 11% thought it was undesirable and 11% were unsure. A similar pattern emerged in a regional analysis.
- Providers are generally satisfied (75% to 92%) with their MSOs except for the issue of "understanding of your organization's needs" that drew 22% dissatisfaction.
- Providers' open-ended comments for MSOs and the DBH ranged from no change to sophisticated outlines of how to change the funding and payment systems. Other issues included the MSO organization themselves as well as geographic and service concerns.

All providers should be encouraged to compute the costs of various substance use disorder services. The DBH and MSOs should make technical assistance available to those who do not currently possess the capability to determine the cost of services.

The providers and MSOs should work with the independent auditor (namely, CPAs) to align the service and production cost allocation (namely, step-down) methods to produce the functional expense report attested by the independent auditor. Information systems producing units of service (namely, encounters, days, or other units of measure) should be designed with appropriate internal controls so independent auditors may review and attest to the performance and results of the system. Ideally the independent auditor could attest to the costs assigned to the programs (services) and to the units of service (namely, encounters, residential days, and other services).

Unless there are dramatic shifts in the Affordable Health Care Act, the ultimate imposition of a Medicaid type reporting system on providers may enable the DBH to focus its funding based on relative value units and case rates for specific priority populations. The Medicaid approach (as in the mental health prototype system) embraces the framework of the Time-Based Activity Based Costing (TBABC) so the approach has conceptual support from the accounting literature (Kaplan and Anderson, 2007). While some of the reported costs and services are focused on Medicaid reimbursable services, an entire reporting system could provide other usable information for the DBH. In the mental health prototype system encounter-based mental health services with RVU weights as well as residential facility services are reported (Mental Health Accounting and Auditing Guidelines, 2010). The undesired variability of unit of cost procedures should be minimized.

The DBH is encouraged to replicate the mental health services prototype for substance use disorder services. The project should be a cooperative effort with the Department of Health Care Policy and Financing.

I. Introduction

Purpose of the consultation

In September 2010, the Colorado Department of Human Services, Division of Behavioral Health substance use disorder services requested assistance from James E. Sorensen, Ph.D., CPA to assess the resource allocation framework for its substance use disorder treatment services and to recommend optional methodologies to enhance the allocation process.

The Colorado Department of Human Services, Division of Human Behavioral Health contracted for the services of James E. Sorensen, Ph.D. and CPA.

The consultant provided onsite and off-site consultation. This report summarizes the documentation, assessments and recommendations for the resource allocation of the Division of Behavioral Health for its substance use disorder services. Issues included

- costing of substance use disorder services,
- methods of allocating SAMHSA block grants and State of Colorado funding
- role of potential Medicaid costing and reimbursement systems and
- payment systems for providers.

Consultant's background

James E. Sorensen is professor of accountancy in the School of Accountancy in the Daniels College of Business at the University of Denver, a position he has held since 1972. He teaches Not-for-Profit Accounting and Cost Accounting in the School of Accountancy and Strategic Cost Management in the MBA and EMBA programs.

Sorensen's work is often cited in the cost determinations of human service agencies. His behavioral health research includes cost-finding, cost-outcome and cost-effectiveness of human service programs. Dr. Sorensen's clients include federal, state and local behavioral health agencies and providers in every state in the United States as well as Puerto Rico, Guam and the Republic of Palau.

Sorensen has published more than 100 articles. His research has appeared in the ***Journal of Government Financial Management, Journal of Behavioral Health Services & Research (formerly The Journal of Mental Health Administration), Administration and Policy in Mental Health, Management Accounting, Journal of Accountancy, The Accounting Review, Journal of International Accounting, Administrative Science Quarterly, Decision Sciences, Accounting, Organizations and Society,*** and six other journals.

Note on Figures, Charts and Tables

Figures, charts and tables will be interspersed with the copy when compatible with a portrait format, but they will be consolidated when requiring a landscape format to minimize the number of pages displaying the results.

II. Consultation Report

Background overview

Within behavioral health mental health has played a leading role in developing funding support for services via Medicaid. State Medicaid agencies are playing an increasing role in funding, managing, and monitoring public mental health services in States, reflecting the steady growth over the last three decades in the share of public mental health services funded by Medicaid. Yet relatively little is known on a State-by-State basis about how Medicaid agencies are exercising their responsibilities for mental health services (Verdier, Barrett and Davis, 2007). A similar pattern is developing for substance use disorder services although the Substance Abuse Mental Health Services Administration ISAMHSA) Substance Abuse Prevention and Treatment Block Grant (SAPTBG) funding will continue to play an important role in providing services not covered by Medicaid health services, for example, some types of residential service or wrap-around services (NASADAD, 2010). The Patient Protection and Affordable Care Act of 2010 and the Health Care and Education Reconciliation Act of 2010—together referred to as the "The Affordable Care Act (ACA)" recognizes that prevention, early intervention and when necessary, treatment of mental and substance use disorders are an integral part of improving and maintain overall health (SAMHSA, 2010).

Health care reform will dramatically increase Medicaid enrollment for working age adults by making Medicaid coverage available universally to low-income adults without regard to pregnancy, disability status or the presence of children in the household. The Medicaid expansion population will have relative high rates of alcohol/drug problems. The low state share of costs for the Medicaid expansion population creates a financial incentive [for states] to provide alcohol/drug treatment (Mancuso and Felver, 2010).

Evidence of the changing backdrop of substance use disorder services is displayed by the screening, brief intervention, and referral to treatment (SBIRT) project in Colorado funded currently by a SAMHSA grant. The project represents an intersection of substance use disorders, criminal justice and providers not normally associated the substance use disorder provider system and with potential funding by Medicaid for a large number of clients using the SBIRT approach (Sorensen, 2011). Funding for many substance abuse services is likely to follow the path of mental health with Medicaid becoming an increasingly major funding source. Iowa, for example, now has both mental and substance abuse services funded by a single Medicaid capitation payment per enrollee per month where the contractor is at full risk and limited to a 13.5% administrative cost including profit of the capitation payment (see Appendix B). Evidence of funding by apparent regional geo-economic differences appears in other States, for example, Pennsylvania (see Appendix C). An example of capitated rates for substance abuse services is shown in Appendix D (Maine Care Benefits Manual).

On the horizon in Colorado is The Regional Care Collaborative Organization for the Accountable Care Collaborative Program that may eventually handle behavioral health services including substance use disorder services *that become eligible for payment by Medicaid (Colorado Department of Health Care Policy and* Financing, RFP, 2010). While not an explicit

component of the current Request for Proposals, as the inclusion of behavioral health service expands, the Regional Care Collaborative Organization may play a role.

As part of the foregoing dynamic background, this consultation attempts to analyze cost issues as well as funding and payment options for substance use disorder programs in Colorado.

A. Developing Unit of Service Costs

Substance abuse disorder program manager and funders can use a unit of service cost for the management (for example, managing production and cost of services, budgeting, strategic planning, and contracting services). For a service provider to develop unit of service costs presumes the accrual basis of accounting (as opposed to a cash basis), identification of what services will be costed, and specification of what cost centers (namely, identifiable organizational units) are used to produce the services.

The development of a unit cost has been approached in the accounting literature in three ways: (1) ratio of cost to charges (RCC) cost determination, (2) service and production step-down cost allocation (SPSDCA) and (3) resource-based relative value unit (RBRVU) cost determination. Time-driven activity-based-costing (TDABC) unit of service costing is an example of RBRVU.

RCC unit of service costing.

To implement a RCC requires the market value (or charge rate) of all services to be identified. The total value of the market value (namely, the market value of a service times the number of services summed across all services) is compared to the total cost of all of the services to develop a ratio (or the ratio of cost to charges or RCC). The cost of a treatment service is estimated by applying the RCC ratio to the market (or charging) rate to derive the cost. Table 1 illustrates RCC for three treatment services (A, B and C):

Table 1

Cost per Unit of Service Using Ratio of Cost to Charges (RCC)

Description	$ or ratio
Value of total client services (namely, service x fair value (or charge)	$ 1,052,632
Total cost of all services (including allocations)	$ 1,000,000
Ratio of cost to charges (RCC)	0.95
Fair value or charge for a unit of service A	$ 100.00
Estimated cost per unit of service A (fair value or charge x RCC of .95)	***$ 95.00***
Fair value or charge for a unit of service B	$ 150.00
Estimated cost per unit of service B (fair value or charge x RCC of .95)	***$ 142.50***
Fair value or charge for a unit of service C	$ 50.00
Estimated cost per unit of service C (fair value or charge x RCC of .95)	***$ 47.50***

The RCC could be developed on a departmental or total organizational basis. If departmental, then various departments could have varying rates. In this illustration, three services (namely A,

B and C) are costed based on fair value or charges (namely, $95, $142.50 and $47.50, respectively).

Generally determining costs based on revenues is viewed as the weakest approach to unit of service costing. The RCC method is the least complicated and the least accurate. In health care, hospitals have used this method extensively.

Unit of service costing using service & production (step-down) cost allocation.

Assigning costs to services may involve distributing internal service center costs to client service producing centers in order to determine the full cost of each client service cost center. An internal service center cost should be assigned to client service cost centers using a basis that most accurately measures how the internal center is used by the client service center. For example, administration (namely, costs incurred internally to manage the organization) may be assigned on the relative number of personnel in centers producing client services. If a service center had 40% of the organization's personnel, it could receive an allocation of 40% of the administrative costs. In more complex environments multiple internal service centers may exist and are allocated among other internal service centers and client service centers depending on the benefit of the service center allocated to the other centers. In the latter case, differing allocation bases may be used to allocate a service center. If depreciation of buildings is identified separately from administration, the total internal service cost of depreciation might be allocated on square footage while administration is allocated based on number of personnel. If an internal service cost center is allocated (or closed), it will not receive any additional allocations from other service centers

Figure 1 illustrates two internal cost centers and two client treatment service centers. Depreciation is allocated to administration, treatment and residential based on square footage (namely, 10%, 60% and 30%, respectively). Administration (that now includes its share of depreciation) is allocated based on the relative salary and fringe benefit costs of the two direct services (namely, treatment $600,000/ ($600,000 + $150,000) or 80% and $150,000/ ($600,000 + $150,000) or 20%). The $115,000 cost of administration is allocated 80% to A ($93,000) and 20% to B ($23,000). The total costs of the two client services now equal $752,000 and $248,000, respectively. When related to the units of service (namely, 10,027 and 2,756, respectively), the unit of service costs are $75 and $90, respectively.

Figure 1 displays how rates for treatment service might be calculated based on time studies of staff time spent in services A, B and C. The example assumes 50% is spent in Service A; 40% in Service B and 10% in Service C. These percentages are applied to the total cost of treatment services ($752,000) to estimate the cost of each service. Each service cost is divided by the units of service to develop a cost per unit of service; the service cost is round to a convenient value (namely, $75, $100 and $37.50). The cost accounted for using the *rounded values* is $752,616 (or $616 more than the cost of $752,000).

Resource-based Relative Value Unit (RVU) unit of service costing.

Resource based unit cost can use discrete cost accounting that assigns actual resources used to produce a unit of service (Blocher, *et.al.*, 2010) or a relative value unit (RVU) that defines the intensity of resources required to produce a unit of service in comparison to other units of

service. The resource-based relative value scales (RBRVS) developed for use in the Medicare program apply procedures that include professional time, practice expenses and malpractice expense. (See AMA, *Current Procedural Terminology (CPT)*, Fourth Edition.)

Encounters are weighted by relative values (namely, relative intensity of the use of resources). For example, if a service requires 60 minutes it might be given a relative value of 1, but a service that is 120 minutes could be given a relative value of 2 since it requires twice the amount of time. Once the relative values are established, a set of services can be evaluated for the total RVUs created, namely, multiplying the RVU times the number of service encounters and summing these values for all services. If the relevant costs for all of the services are identified, then the total cost can be divided by the total RVU to develop a **base unit cost** (BSU or cost per RVU). (In other discussions by Medicaid, the BSU is called a *conversion factor*.) For a specific service, the base unit cost times the RVU determines the cost of the service. As proof, the total encounters for a service are multiplied by the cost per unit to create a total cost accounted for and when summed across all services, the total costs are accounted for.

Figure 2 illustrates the resource based relative value unit (RVU) unit of service costing. Three services are envisioned for the treatment services (namely, A, B and C). C is assumed to be a base of 1.0; A requires twice as much resource as C so it carries a RVU of 2; B is assumed to require three times as much resource as C so it is assigned a RVU of 3. The treatment costs from Figure 1 of $752,000 are used. The total RVUs given the number of encounters is 21,081 or a base unit cost (BSU) of $35.6719 ($752,000 divided by 21,081). The BSU times the RVU generates the cost for each service (namely, $71.34, $107.02 and $35.67 for A, B and C, respectively). The proof demonstrates the encounters times the cost per unit equals the total costs to be accounted for (namely, $752,000).

Time-driven activity based unit of service costing.

The cost of services is tied to the time-based level of activity. Time-driven activity-based costing (TDABC) is especially useful for services that are time-driven (Kaplan and Anderson, 2007). Many substance abuse services carry time as a common underpinning.

The approach requires two computations:

1. The unit cost of supply capacity
2. The consumption of capacity in performing services for clients.

Unit cost of supply capacity. For substance abuse services, the unit cost of supply capacity is a function of costs divided by supply capacity (usually expressed in minutes). In substance abuse services supply capacity is

> **Treatment staff x days available per month x work hours per day x months per year x minutes per hours x practical capacity rating = total capacity supply of minutes.**

A practical capacity rating is introduced since it is not reasonable to expect 100% of the personnel time to be delivered in service. A rating of 80% is a common choice—80% of personnel time will be used in producing services.

The total cost (related to services) derived from the accounting system is divided by the supply capacity to derive a ***cost per minute.*** The time required for each service is multiplied by the cost per minute to develop a ***unit of service cost***.

Consumption of capacity. Service encounters are multiplied by estimated times and summed to identify total time used while service encounters are multiplied by unit of service costs and summed to calculate the total cost assigned.

Unused (or over-used) capacity. A comparison of total supply capacity provided with the total used can indentify in minutes or costs unused (or over-used capacity). A primary managerial advantage of the time-driven approach is the ability to identify deviations from practical capacity. In conventional ABC and RVU approaches, under- or over-utilization is buried in the cost per unit of service.

Figure 3 (*for treatment services only*) with a cost of $752,000 from Figure 1 develops the unit cost of supply per minute ($0.741793) and tracks the consumption of minutes into three services (A with 90 minutes, B with 135 minutes and C with 45 minutes). The cost per unit of service (namely, time x cost of supply per minute) is $66.76, $100.14 and $33.38 for A, B and C, respectively

In the summary, a comparison of the total supply capacity is compared to the total capacity used (in time and costs) and, in this illustration, identifies ***unused capacity*** of over 65,000 minutes amounting to over $48,000 in costs. *Note the cost per unit of service is lower than the RVU approach since the RVU approach does not identify the cost of unused capacity.*

This approach is more useful for managers of service programs trying to identify appropriate use of existing or future resources and is probably too complicated for funding approaches. The example is presented here since it is an extension of the Medicaid RVU approach.

***Unit of service costing using step-down cost allocation and detailed costing of treatment services*.**

One of the assumptions made in RVU costing is the *uniform assignment* of salaries and fringe benefit costs, other costs, and indirect costs (like depreciation) to all treatment services through the use of the *base unit cost*. In many treatment service settings the type of professional and related salary and fringe benefits and related costs will vary by type of service. Medical Doctors (MD) and Ph.D. psychologists may be used only in selected services while Bachelor of Science (BS) or Masters of Science (MS) may be concentrated in other services. The consequence of using *varying professionals in different ways across varying treatment services* may have a substantial impact on base unit costs and, therefore, the treatment unit of service costs.

An additional assumption made in developing uniform base unit costs is a common service setting. Service settings (namely, urban, suburban, rural and frontier) may have profound impacts on the type of personnel, salaries and fringe benefits and other costs so wide variations in treatment unit of service costs are likely to exist.

Figure 4 reveals the impact of *detailed costing of treatment services*. While the total of $752,000 of treatment services is reproduced, the detailed cost of service rates vary from the

RVU computation. Costing by type of treatment service renders a different unit of service cost than applying RVU rates to a uniform base unit cost. What appears as a $75 overall unit of service cost is expanded under RVU into service A, B and C as $71.34, 107.02, 35.67 in Figure 3, respectively, but with detailed costing (incorporating differential use of personnel and location), the rates become $53.13 and $119,26 and $62.27 for A,B, and C, respectively.

Figure 5 displays the effect of a rural setting (with a 20% decrease in costs, but at the same level of productivity in encounters). Unit costs are lower because total costs decrease.

The latter costs per unit of treatment services reveal the effects of the simplifying assumptions of RVU (Table 2 and Charts 1 and 2). Illustrative staff effects show higher or lower unit of service costs while illustrative rural effects show consistently lower unit of service costs.

Table 2
Comparison of RVU Rates with Detailed Staff and Rural Rates

Service	RVU Cost (Figure 1)	Detailed Staff (Figure 4)	Difference	*%*	Detailed Rural (Figure 5)	Difference	*%*
A	$ 71	$ 53	$ (18)	*-26%*	$ 60	$ (11)	*-16%*
B	$ 107	$ 119	$ 12	*11%*	$ 79	$ (28)	*-26%*
C	$ 36	$ 63	$ 27	*76%*	$ 31	$ (5)	*-13%*

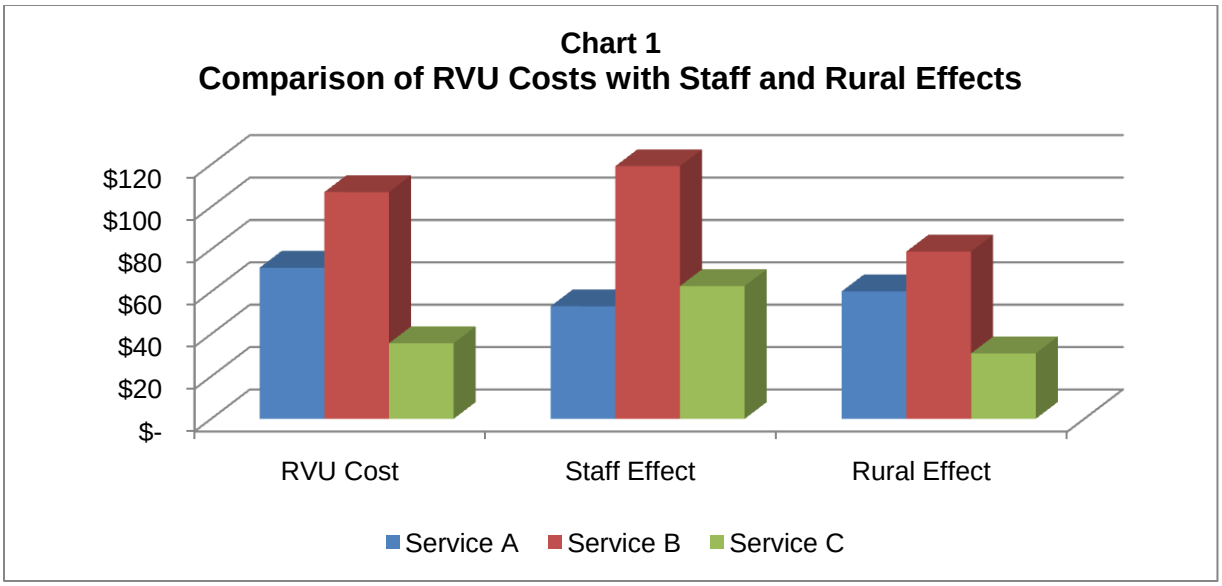


Chart 1
Comparison of RVU Costs with Staff and Rural Effects
$120
$100
$80
$60
$40
$20
$-
RVU Cost
Staff Effect
Rural Effect
Service A
Service B
Service C

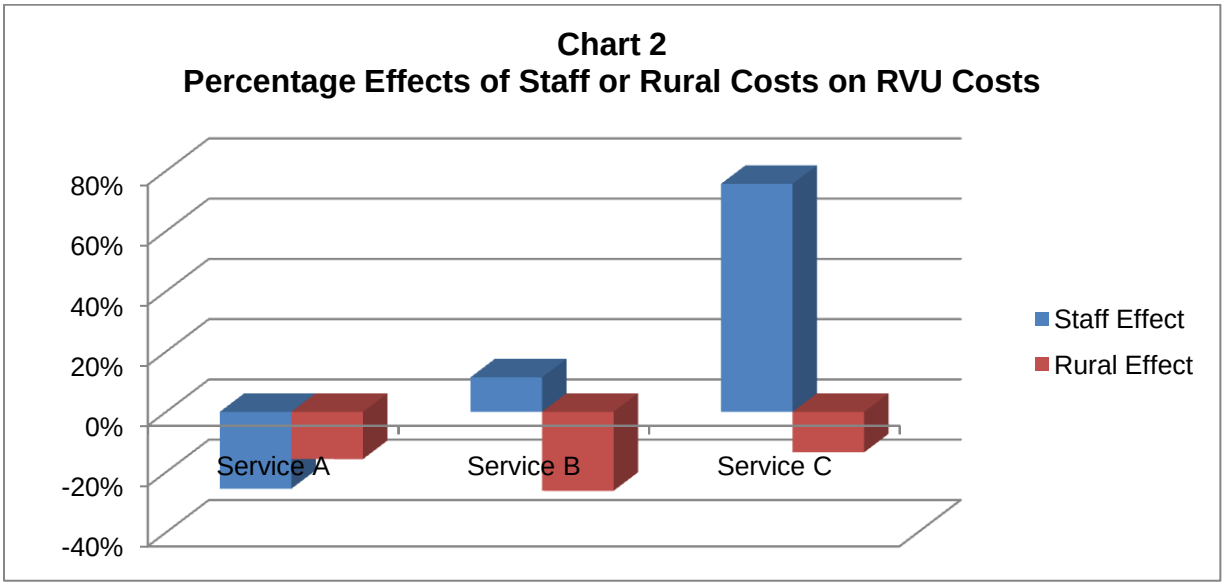


Chart 2
Percentage Effects of Staff or Rural Costs on RVU Costs
80%
60%
40%
20%
0%
-20%
-40%
Service A
Service B
Service C
Staff Effect
Rural Effect

Figure 1

Cost per Unit of Service Using Cost Allocation Step-down Procedures

		Internal service:		*Client services:*		
Cost	$ Amount	Depreciation	Administration	Treatment	Residential	check figure
Salaries & Fringe Benefits	$ 850,000		$ 100,000	$ 600,000	$ 150,000	$ 850,000
Other related costs	$ 100,000		$ 10,000	$ 30,000	$ 60,000	$ 100,000
Depreciation	$ 50,000	$ 50,000				
Total	$ 1,000,000	$ 50,000				
Allocation of Depreciation		$ (50,000)	$ 5,000	$ 30,000	$ 15,000	$ 50,000
Subtotal		$ -	$ 115,000			
Allocation of Administration			$ (115,000)	$ 92,000	$ 23,000	$ 115,000
Subtotal			$ -	$ 752,000	$ 248,000	$ 1,000,000
Units of service				10,027	2,756	
Cost per unit of service				**$ 75**	**$ 90**	

Basis of allocation of internal service:

Square footage used	*10%*	*60%*	*30%*	
Salary and fringe benefit costs		*80%*	*20%*	

Allocation and rates based on time study (treatment services only):

Service	*Time Study %*	*Cost Assigned*	*Units of Service*	Cost per Unit	*Rounded*	*Cost Accounted For*
A	50%	*$ 376,000*	*5,000*	75.20	***$ 75***	$ 375,000
B	40%	*$ 300,800*	*3,027*	99.37	***$ 100***	$ 302,616
C	10%	*$ 75,200*	*2,000*	37.60	***$ 37.5***	$ 75,000
	100%	*$ 752,000*	*10,027*			$ 752,616

Figure 2

Resource Based Relative Value Unit (RVU) Unit of Service Costing

Treatment Services only

Total Cost of Treatment Services (see Figure 1)	$ 752,000

Services performed	Encounters	Relative Value Unit	Total RVUs
Service A	5,000	2	10,000
Service B	3,027	3	9,081
Service C	2,000	1	2,000
Total	10,027		21,081

Cost per RVU (Base Unit Cost)	$ 35.6719

Service	Base Unit Cost	RVU	**Cost per Unit**
A	$ 35.6719	2	**$ 71.34**
B	$ 35.6719	3	**$ 107.02**
C	$ 35.6719	1	**$ 35.67**

Proof:

Service	Encounters	Cost per Unit	Total Cost
Service A	5,000	$ 71.34	$ 356,719
Service B	3,027	$ 107.02	$ 323,937
Service C	2,000	$ 35.67	$ 71,344
Total	10,027		$ 752,000

Figure 3

Time Driven Activity Based Unit of Service Costing

Treatment Services only

Total Cost of Treatment Services (see Figure 1) $ 752,000

Time Driven ABC Estimates

1. The unit cost of supply capacity (yearly estimate)

	treatment staff	days per month	hours per day		months per year	minutes per hr	practical capacity	total minutes
assume:	10	22	8		12	60	0.8	1,013,760
	cost per minute	**$ 0.741793**		=	$ 752,000	divided by	1,013,760	

service minutes in each service:		cost per unit of service: (minutes x cost per minute)
service A	90	**$ 66.76**
service B	135	**$ 100.14**
service C	45	**$ 33.38**

2. The consumption of capacity performing services for clients: (actual yearly activity)

yearly results:	*services:*	*encounters:*	*total time used:*	*total cost assigned:*
	Service A	5,000	450,000	$ 333,807
	Service B	3,027	408,645	$ 303,130
	Service C	2,000	90,000	$ 66,761
	Total	10,027	948,645	$ 703,698

summary:	*minutes*	%	costs	%
total supplied (practical capacity)	1,013,760	100%	$ 752,000	100%
total used	948,645	94%	$ 703,698	94%
unused capacity	***65,115***	*6%*	***$ 48,302***	6%

Figure 4

Cost per Unit of Service Using Cost Allocation Step-down Procedures with Detailed Cost of Treatment Services
(Staff Effects)

		Internal service:		*Client services:*	*(detailed breakout of Treatment)*				
Cost	$ Amount	Depreciation	Admin	Treatment (total)	Service A	Service B	Service C	Residential	check figure
Salaries & Fringe Benefits	$ 850,000		$ 100,000	$ 600,000	$ 200,000	$ 300,000	$ 100,000	$ 150,000	$ 850,000
Other related costs	$ 100,000		$ 10,000	$ 30,000	$ 20,000	$ 5,000	$ 5,000	$ 60,000	$ 100,000
Depr	$ 50,000	$ 50,000							
Total	$1,000,000	$ 50,000							
Allocation of Depreciation		$ (50,000)	$ 5,000	$ 30,000	$ 15,000	$ 10,000	$ 5,000	$ 15,000	$ 50,000
Subtotal		$ -	$ 115,000						
Allocation of Administration			$ (115,000)	$ 92,000	$ 30,667	$ 46,000	$ 15,333	$ 23,000	$ 115,000
Subtotal			$ -	$ 752,000	$ 265,667	$ 361,000	$ 125,333	$ 248,000	$ 1,000,000
Units of service				10,027	5,000	3,027	2,000	2,756	
Cost per unit of service				**$ 75**	**$ 53**	**$ 119**	**$ 63**	**$ 90**	

Basis of allocation of internal service:

Square footage used	*10%*	*60%*		*30%*
Salary and fringe benefit costs		*80%*		*20%*

Figure 5

Cost per Unit of Service Using Cost Step-down Procedures with Detailed Cost of Treatment Services (Rural Setting)

		Internal service:		*Client services:*	*(detailed breakout of Treatment)*				
Cost	$ Amount	Depreciation	Administration	Treatment (total)	Service A	Service B	Service C	Residential	check figure
Salaries & Fringe Benefits	$ 680,000		$ 80,000	$ 480,000	$ 160,000	$ 240,000	$ 80,000	$ 120,000	$ 680,000
Other related costs	$ 80,000		$ 8,000	$ 24,000	$ 16,000	$ 4,000	$ 4,000	$ 48,000	$ 80,000
Depreciation	$ 40,000	$ 40,000							
Total	$ 800,000	$ 40,000							
Allocation of Depreciation		$ (40,000)	$ 4,000	$ 24,000	$ 15,000	$ 10,000	$ 5,000	$ 12,000	$ 40,000
Subtotal		$ -	$ 92,000						
Allocation of Administration			$ (92,000)	$ 73,600	$ 24,533	$ 36,800	$ 12,267	$ 18,400	$ 92,000
Subtotal			$ -	**$ 601,600**	$ 215,533	$ 290,800	$ 101,267	$ 198,400	$ 800,000
Units of service				10,027	5,000	3,027	2,000	2,756	
Cost per unit of service				**$ 60**	**$ 43**	**$ 96**	**$ 51**	**$ 72**	

Basis of allocation of internal service:

Square footage used	*10%*	*60%*		*30%*
Salary and fringe benefit costs		*80%*		*20%*

Allocation and rates based on time study (treatment services only):

Service	*Time Study %*	*Cost Assigned*	*Units of Service*	**Average RVU Cost per Unit**
A	50%	*$ 300,800*	*5,000*	**60.16**
B	40%	*$ 240,640*	*3,027*	**79.50**
C	10%	*$ 60,160*	*2,000*	**30.08**
	100%	***$ 601,600***	*10,027*	

Comparison of methods.

For the managers of a provider organization to know their cost per unit of service, the cost allocation framework will relate actual costs to actual activity. The resource based approach or RVU approach (similar to time-driven Activity Based Costing) can estimate costs if the base unit cost and the RVU match actual activity. The Medicaid approach, however, has been to specify both the base unit cost value and the value of the relative-value-unit (RVU). *In brief, the approach is like time-driven ABC with standards.* Medicaid has set the standard cost (namely, the base unit cost) that includes personnel, direct supplies, and indirect costs (like overhead) and Medicaid has set the standard for the varying treatment services (based on the relative time and effort to perform the service). With both the cost and the treatment service standards set, the RVU becomes a ***reimbursement system--not a cost-finding system.*** Medicaid will ***pay*** X dollars based on the combination of the standard cost (namely, the base unit cost) times the standard relative value unit (RVU). "The intent of the encounter pricing is to assign a reasonable and appropriate ***fee*** *(emphasis added)* for each procedure delivered and to use this information to determine an actuarially sound capitation ***rate*** *(emphasis added)*." (Mercer, p. 54). The intent, however, is not to be insensitive to cost. "… To be actuarially sound, the rates paid to the managed care organization or BHO must be sufficient to cover the cost of services "(Mercer, p. 13) based on prior studies.

The national Medicaid reimbursement system is designed to promote cost containment and efficient service delivery. One of the advantages of the Medicaid approach is the use of encounters. Encounters enrich the traditional unit of service approach by offering *additional* ways to envision treatment service delivery. The primary limitation is the base unit cost that combines all types of costs related to treatment service delivery. The approach assumes the *mixture* of base unit costs applies to *all* treatment delivery services. The RVU specifies the *intensity* of how the base unit cost is used. While incorporating a standard for the amount of effort, it may not adequately distinguish the varying ***mixtures*** of costs (namely, the varied use of MD, Ph.D., Masters, B.S., B.A. or other professionally credentialed personnel). Other differences in other direct costs or indirect costs ***among*** services are glossed over as well.

The application of Time-Driven Activity Based Costs (TDABC) has been applied to common costs related to groups of highly related services dependent on time*. In TDABC costs are segregated frequently into cost* ***pools*** *representing fairly* ***homogeneous*** *services* (Kaplan and Anderson, 2007). The unit cost of supply capacity is comparable to the base unit cost. The consumption of capacity to produce a service is comparable to the Relative Value Unit (RVU). The unit cost of supply capacity time the consumption of capacity to produce a service is comparable to the base unit cost times the RVU. In TDACB budgeted or actual values are used; in a fully developed Medicaid framework, standard values for the cost and the service are specified based on prior studies.

Mental Health Medicaid Demonstration.

In the demonstration of the Medicaid approach for mental health services, providers in Colorado were permitted to calculate the base unit cost for their respective organizations. Substantial variability existed in the costs data available to this researcher. The RVUs, on the other hand,

were given and based on experience in other states (for example, West Virginia) deploying the Medicaid approach.

When the varying base unit costs were applied to the fixed RVUs, the unit of service costs revealed variability. Using a convenience sample of three Colorado mental health centers representing southern, eastern and western Colorado, Figure 6 reveals a difference between the highest and lowest base unit costs of $57.39 or over 77%. When the base unit costs of the individual centers were applied to the standardized relative value units (RVU), three illustrative services revealed the same 77% variation. Individual psychotherapy (RVU Code 90806) demonstrated a RVU rate (for facility) of $171 to $303 (a difference of about $132 or 77%). When compared to the Mercer audit report (p.56), the difference between the highest and lowest was $77 or about 67%. For this service the RVU approach showed *higher variability* than the unit of service costs as well as rates that *strain creditability* as estimates of the actual costs of an individual psychotherapy session.

On the other hand, group psychotherapy (RVU code 90853) and case management of 15 minutes each (RVU code T1016) while still revealing the 77% difference using base unit costs and RVU, demonstrated a considerable reduction in the variability between high and low rates when compared to the unit of service costs (namely, 77% vs. 326% and 77% vs. 173% for group psychotherapy and case management, respectively.

The convenience sample is not intended to be a representative analysis, but it does reveal the need to study further the application of base unit costs and RVUs to a behavioral health setting. Additional analysis is required to assess how well the Medicaid approach meets the rate-setting needs of mental health providers.

One way to eliminate the variability is to fix the base unit cost at a specific level. If the base unit cost is fixed and the RVUs are fixed, then the system becomes a reimbursement system. *The provider cannot expect a fixed base unit cost and a fixed RVU to reflect **actual c**osts unless the providers base unit cost and RVU efforts match the Medicaid formulas.* In all likelihood, Medicaid will normalize the base unit cost so the system will become a reimbursement system without regard to the actual cost of a ***specific*** provider.

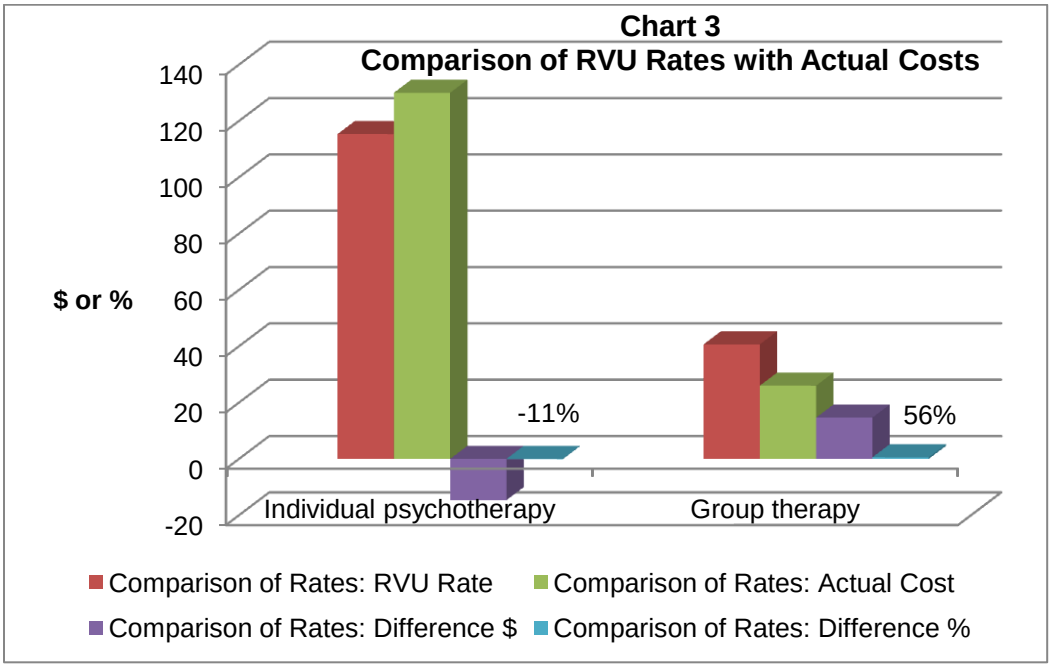
Base Unit Costs and RVU versus Actual Costs.

An illustrative analysis of the actual cost per hour of service versus a resource based approach with a standardized RVU schedule is shown in Figure 7. An illustrative example tracks a psychologist (with salary and overhead of $156,000) in the provision of a *single* service (namely, individual psychotherapy) and demonstrates the actual cost per delivered hour ($130) is the same under the RVU rate or the actual cost rate (Part A of Figure 7). In Part B of Figure 7, the psychologist now provides *both individual psychotherapy and group therapy* (with a group size of five). The introduction of standardized RVUs results in an individual psychotherapy rate of $115.35 and a group therapy rate of $40.65. When an actual cost-finding for the services delivered is computed allocating time actually spent in the providing the two services, the unit of service cost is $130 and $26 for individual psychotherapy and group therapy, respectively. The differences in the RVU rate and actual cost rate are an *understatement* of the individual psychotherapy rate of 11% and an *overstatement* of the group therapy rate of 56%. Table 3

summarizes the results from Figure 7. Both approaches can produce equal total billings, however, if used within the logical framework of each approach. Chart 3 underscores the need to determine the actual cost of services where time-driven services reflect both the actual costs assigned to a service and the actual production of services.

Table 3
Comparison of RVU Rates with Actual Costs (Based on Figure 7)

Service	RVU Rate	Actual Cost	Difference $	Difference %
Individual psychotherapy	$ 115.35	$ 130.00	$ (14.65)	-11%
Group therapy	$ 40.65	$ 26.00	$ 14.65	56%



Summary thoughts about cost-finding and Medicaid procedures

Knowing your cost of service and completing the (illustrative Colorado Mental Health demonstration) Medicaid cost report are *not* the same thing. If the Medicaid resource assignment model permitted a floating base unit cost and an empirical set of relative value units for *each provider*, then a Medicaid cost report could produce usable cost of service reports. (It would be analogous to Time-Driven Activity Based Costing (TDABC). As illustrative with a demonstration study in mental health, the base unit cost (equivalent to the cost of production in TDABC) is aggregated across too many types of costs, too many geographic settings and too wide a set of treatment services. As shown in various examples, the Medicaid RVU rate may be unrealistic because of either the cost aggregation or the RVU standards. In some instances, the Medicaid RVU rate may be much higher or lower than an actual cost. Medicaid intends to control costs (via the base unit cost) and establish standards for production (via the RVU) to control costs and to stimulate efficiency. From a funder's point of view, the system may make sense as a way to *control reimbursement rates*. It does not necessarily, however, tell the

provider the cost of the services. For a service provider to manage his/her services effectively s/he must know the cost of the services (not just what s/he will be paid by a particular funder).

The disparity in unit costs could be the result of genuine differences in the resources used in providing the services. The differences, however, could be result of variations in cost accumulation, allocation procedures and operating statistics. These latter differences could lead to inaccurate unit of service costs (DHCP&F and the DBH, Mental Health Accounting and Auditing Guidelines, 2010). A TDABC framework (as attempted in the Medicaid prototype system) could produce improved results.

B. Analysis of Provider Survey Results

A confidential Survey Monkey questionnaire reviewing the DBH substance use disorder treatment service resource allocation framework was distributed to forty-three providers (with 33 or 77% responding). Fifteen point-and-click confidential questions (and two confidential opportunities for open-ended comments) were answered by either an upper level executive or the chief financial officer. The respondents were assured no individual provider would be identified and providers would have access the resulting report. Managed Service Organizations (MSO) offered substantial support by reviewing a draft of the survey and by controlling the distribution of the final survey to its providers. Respondents were asked to complete the survey by February 18, 2011.

Respondents.

Executive officers (48%), fiscal officers (18%) client delivery executives (15%) and others (18%) responded. The respondents were distributed over four MSOs and seven regions/sub-state planning areas as shown in Table 4.

Table 4

Managed Service Organization's (MSOs) Contract Region/Sub-State Planning Area

MSO Region/Sub-state Planning Area	Response %	Response #
Region 1 Northeast Signal	18%	6
Region 2 Denver Metro Signal	21%	7
Region 3 South Central Counties AspenPointe	15%	5
Region 4 Southeast Signal	18%	6
Regions 5 and 6 West Slope	21%	7
Region 7 Boulder	6%	2
Total	100%	33

Services Offered.

Table 2 summarizes the services offered by the providers. Thirty offered outpatient services and 22 offered strategies for self-improvement and change (SSIC). Two-thirds or more did not offer detox, chronic detox, STIRRT residential, or opiate replacement therapy.

Table 5

Services Offered by Providers

Service:	Yes	No	Responses
Detox	36% (9)	**64.0% 16)**	25
Residential	48.0% (12)	**52.0% (13)**	25
Outpatient	**100.0% 30)**	0.0% (0)	30
Specialized Women's Services	**73.1% (19)**	26.9% (7)	26
Strategies for Self-Improvement & Change	**81.5% (22)**	18.5% (5)	27
Chronic Detox	22.7% (5)	**77.3% (17)**	22
STIRRT Program: Residential	28.6% (6)	**71.4% (15)**	21
STIRRT Program: Outpatient	45.5% (10)	**54.5% (12)**	22
Opiate Replacement Therapy	29.2% (7)	**70.8% (17)**	24
Other programs	**68.2% (15)**	31.8% (7)	22

Geographic placement.

The providers were geographically dispersed.

- 30% urban
- 18% suburban
- 33% urban/rural
- 27% rural
- 21% frontier

Clearly defined services.

Of the 28 who responded to the question, 54% felt all of the services are defined clearly and another 32% believed nearly all are defined clearly (for a total of 86%). The balance felt many are not defined or only a few were defined or skipped the question. Of the total sample (n=33) 28 felt all, nearly all or many services were defined or, in summary, *almost 80% of the providers felt services were defined.*

Calculating a cost per unit of service.

Of the 29 who answered this question, 11 (33%) were able to calculate a unit of service cost for all services on a regular (namely, yearly) basis. Another 9 (27%) were able to calculate a unit of service cost for some services on a regular or occasional basis. The balance (13 or 40%) did *not* calculate unit of service costs or skipped the question. For the entire sample, 60% *of the providers can calculate unit of service costs.*

Audit by an independent (namely, CPA) accountant.

Almost 80% (26) indicated an audit within the last year or two and about 10% (3) did not have an audit. (Four providers skipped the question or about 10%). In terms of the entire response set, 26 of 33 or *80% of the providers have independent audits.*

Audit including a statement of functional expenses.
Of the 26 with independent audits, over 80% (21) indicated it included a breakout of costs by program and administrative activities. The remaining 20% (5) did not include a functional expense statement. Recasting the responses in terms of the survey total of 33, 21 (64%) or *about two-thirds have access to a functional statement of expenses.*

Of those with functional expense statements, over 75% (16) contained costs by programs and/or service while about 24% (5) did not. *Examining the responses in light of the survey total of 33 respondents, only 16 or about 50% have detailed cost information about specific programs or services.*

Compute total costs to serve a priority population.
Of the 33 respondents, 13 (40%) could calculate the total cost for all or some of the priority populations. The balance could not (n=15) or skipped the questions (n=5). *Most providers (60%) appear to be unable to calculate the total costs of the priority populations they serve.*

Ability to calculate a total cost per (yearly) admission given the ability to compute the total costs of priority populations
About 30% (n=10) of the total response set could calculate a yearly cost per admission for priority populations. Of the subset that can calculate the total costs of priority populations, 10 of the 13 (77%) could calculate a cost per yearly admission.

While the majority of providers could not compute total costs to serve a priority population, most regions have some capability to prepare these costs as shown in Table 6. The total cost per admission follows the same pattern over regions.

Agency satisfaction with methods of determining ….
Table 7 excludes *"not applicable"* so the number of response totals varies from method to method. *The percentages are based on respondents who felt the issue was relevant to their organization*. Six providers skipped the question.

For the total number of required admissions to detox, 70% (9 of 13) were satisfied and 65% (15 of 23) were satisfied with the total required number of admission for treatment. The total number of admissions for priority populations, however, was more divided with 58% (15) dissatisfied and 42% (11) satisfied. On the three remaining issues the majority revealed dissatisfaction:

- Total dollars assigned to detox 67% (8 of 12) expressed dissatisfaction
- Total dollars assigned to treatment 70% (18 of 26) expressed dissatisfaction
- Total funding dollars 70% (18 of 26) expressed dissatisfaction.

Desirable funding options.
No overwhelming preference for a funding option emerged in Table 8. Funding options that have 50% or more favorable ratings include:

- Linking funding to the costs of services provided to various substance abuse populations: 56%

- Funding based on case rates (fixed amount for treating an individual in a level of care or episode of care or period of time): 54%
- Funding based on per capita payment to support delivery capacity: 52% (note 45% opposed)
- Funding recognizing groupings such as urban, suburban, rural or frontier: 60%
- Funding recognizing provider size and complexity services : 63%

Lower desirability ratings appear for an *update* of the current Diagnosis-Related Group (DRG) system (45% not desirable) and funding based on a fixed per capita payment to support delivery capacity (45% not desirable).

Funding based on *current MSO practices* (namely, admission of priority populations and historic funding levels) was split: 41% undesirable, 48% desirable and 11% unsure.

Desirable funding options by region.
The same overall trends for funding options appear in the regions as well (Table 9). The split preferences for the funding option by region (with one or two exceptions depending on the funding option) tend to follow the overall analysis in the prior Table. Note Table 9 uses percentages (while reconciling to the total n and total overall percentages of the prior table) to present a *profile* of how the providers in the region feel. The "unsure" response appeared most frequently in the (#2) update of the DBH Diagnostic Related Groups (DRGs) and (#4) case rates.

Desirable payment options.
The current practice of equal monthly payments (1/12) was viewed as desirable by 78% while 11% believe it was undesirable and 11% were unsure (Table 10). *The equal monthly payment option has the highest preference among the alternatives presented.* Payments based on rendered services and unit of service costs was viewed as unfavorable by 54% while 35% held a favorable view and 12% were unsure. Payments based on encounters (not a residential service) and a Relative Value Unit was viewed favorably by 48% while 30% held an unfavorable view and another 22% were unsure.

Desirable payment options by region.
Sorting the payment options by region (Table 11) tended to reveal the same pattern as the overall results (in the prior table). The equal monthly payment option was view *unfavorably* by only three providers (11%). All of the other regional providers were for it or were unsure. Payments based on rendered services and unit of service cost was viewed not desirable generally and the pattern was consistent over the regions. The Relative Value Unit (RVU) approach while garnering 48% support overall was viewed as undesirable by eight providers (30%) and six (22%) were unsure. With the exception of one region, the variation existed throughout the regions.

Satisfaction with MSOs.
On five performance variables most providers appear to be satisfied with their MSOs (75% to 92%) although there is smaller percentage (8% to 22%) of providers who are not (Table 12). Communication skills, knowledge and expertise, and responsiveness/follow through received

the highest satisfaction ratings, 89%, 92% and 89%, respectively. The issue drawing the most concern was “understanding of your organization’s needs” with 22% expressing dissatisfaction. Six providers did not answer the question.

Open-ended comments by providers for MSOs:

Funding and payments: Comments range from “no change” to sophisticated outlines of how the funding and payment system should work. The comments are reproduced below.

No changes.

System works pretty well. There are some minor issues with funding being tied to data items though this is being addressed and should be a non-issue in the near future.

Programs can be made to feel a lot of pressure to increase referrals/meet quotas which doesn't feel good. Support is provided which is great. [One] can feel like always under threat of having funding stopped/ readjusted etc. which is not fun.

Pay for actual costs.

Funding approach could be improved by working closely with the provider to determine actual encounters from previous year and using that figure for funding instead of projected encounters which are outdated.

Determine a method of funding that makes sense and is applied fairly throughout the State.

1) Episode-based data collection; 2) reimbursement based upon RVUs and case rates/DRGs; 3) provider managed utilization review based upon clinical need with retrospective review; 4) DRGs based upon expected costs; 5) continue 1/12 payments with periodic reconciliation; 6) incentives based upon RVUs; 7) priority population goals and incentives based upon reasonable penetration rates for the defined population.

MSO organization: Providers express concerns about how providers are formulated and how they do or might relate to current or potential providers. Comments include:

Be less self-serving. [It] seems like they keep the majority of the funds for their organization and don't readily refer outside of their agency. It is comparable to the fox watching the hen house.

I've always been somewhat [concerned about] our MSO because our competitors are also on the Board of our MSO. For the most part, they seem to have been fair but this arrangement presents a definite conflict of interest. I do respect [x] but this has always bothered me.

I think at times we need to look at ways that support the best use of tax payer dollars and not what providers want to agree on. Seems like it is an incestuous relationship where people on the board are those receiving the funding and seems they are acting in their best interests.

Geographic and service issues: The final group of comments deals with geographic and service concerns:

Not be Metro centric

Recognize difference between resources and availability of client populations in rural/frontier versus metropolitan areas.

[Maintain] flexibility in adding services (Adolescent Treatment)

Open-ended provider comments for the Division of Behavioral Health

Funding and payments: As was the case with MSOs, provider comments range from "no change" to sophisticated outlines of how the funding and payment system should work. The comments are reproduced below.

No changes.

Same!

Start using available tools and look at information that is already available.

Funding approach could be improved by providing funds based on actual encounters and determined cost per encounter instead of using outdated projections.

Being familiar with other funding sources, a flat fee for services per that would be billed.

Specify funding based on differences of client availability in rural/frontier versus metropolitan. It may cost more to provide services in rural/frontier areas versus metropolitan.

Move away from the cost share model of care and support full cost of care in providing Substance Use Disorder treatment.

This questionnaire was difficult to answer in many ways. However, the current funding approach (1/12th) payments for the most part ensure some financial stability to organizations and the value of that should not be underestimated for most programs. However, I question that the rates were established fairly to start with - see above.

Although we are experiencing tough economic times, more funding would be important. Colorado is so low in per capita spending on substance abuse and mental health treatment.

1) Episode-based data collection; 2) reimbursement based upon RVUs and case rates/DRGs; 3) provider managed utilization review based upon clinical need with retrospective review; 4) DRGs based upon expected costs; 5) continue 1/12 payments with periodic reconciliation; 6)

incentives based upon RVUs; 7) priority population goals and incentives based upon reasonable penetration rates for the defined population.

Services. The providers' advice centers on services, how they are counted (or estimated) and how services for substance use disorder clients are inter-related with other needed services. Specific comments include:

Count services provided to persons, other than merely admissions.

Realistic goals, realistic formulas for determining compliance, inclusion of provider input when making these decisions.

Develop a transparent framework for handling the complexity of multiple services for clients who have different needs -- i.e. a medical model.

We have been providing co-occurring services for the past four years (with the help of private grants and foundation funds) in anticipation of new dollars and designated funding streams (and rates) for this service. It is more costly to provide but is considerably more effective for clients who are diagnosed with substance abuse and mental health disorders. This needs to be implemented into all levels of care.

Figure 6

The DBH Analysis of RVU Schedule 5 Base Unit Cost-Illustrative MH

Centers

Southern Colorado			FY June 2010	high vs. low difference $	high vs. low difference %
Total Allowable Cost for Encounter-Based Mental Health Services (from Schedule 2)		Total Relative Value Units (from Schedule 4 and 4A)	Base Unit Cost (Total Allowable Cost/Total RVU's)		
$ 9,655,955.32		96,706.42	**$ 99.85**		

Eastern Colorado			Unstated time		
Total Allowable Cost for Encounter-Based Mental Health Services (from Schedule 2)		Total Relative Value Units (from Schedule 4 and 4A)	Base Unit Cost (Total Allowable Cost/Total RVU's)		
$ 5,548,322.00		42,134.12	**$ 131.68**		

Western Colorado			FY June 2010		
Total Allowable Cost for Encounter-Based Mental Health Services (from Schedule 2)		Total Relative Value Units (from Schedule 4 and 4A)	Base Unit Cost (Total Allowable Cost/Total RVU's)		
$ 12,599,240.99		169,585.70	**$ 74.29**	**$ 57.39**	**77.24%**

Illustrative Service Individual Psychotherapy, Office, 45-50 minutes

Location	RVU Code	Non-facility RVU	Facility RVU		RVU Rate: non-facility	RVU Rate: facility	high vs. low facility $	high vs. low facility %
Southern Colorado	**90806**	2.47	2.3		$ 246.62	$ 229.65		
Eastern Colorado	**90806**	2.47	2.3		$ 325.26	$ 302.87		
Western Colorado	**90806**	2.47	2.3		$ 183.51	$ 170.88	$ 131.99	77.24%

Mercer audit (page 56)	**90806**				high	$ 190.45		
					low	$ 113.73	$ 76.72	67.46%

Figure 6 (continued)
DBH Analysis of RVU Schedule 5 Base Unit Cost--Illustrative MH Centers

Illustrative Service: Group Psychotherapy (Other than multiple-family groups)

Location	RVU Code	Non-facility RVU	Facility RVU		RVU Rate: non-facility	RVU Rate: facility	high vs. low facility $	high vs. low facility %
Southern Colorado	**90853**	0.86	0.81		$ 85.87	$ 80.88		
Eastern Colorado	**90853**	0.86	0.81		$ 113.25	$ 106.66		
Western Colorado	**90853**	0.86	0.81		$ 63.89	$ 60.18	$ 46.48	77.24%
Mercer audit (page 56)	**90853**				high	$ 131.84		
					low	$ 30.90	$ 100.94	326.67%

Illustrative Service: Case Management, Each 15 Minutes

Location	RVU Code	Non-facility RVU	Facility RVU		RVU Rate: non-facility	RVU Rate: facility	high vs. low facility $	high vs. low facility %
Southern Colorado	**T1016**	0.61	0.6		$ 60.91	$ 59.91		
Eastern Colorado	**T1016**	0.61	0.6		$ 80.33	$ 79.01		
Western Colorado	**T1016**	0.61	0.6		$ 45.32	$ 44.58	$ 34.43	77.24%
Mercer audit (page 56)	**T1016**				high	$ 98.95		
					low	$ 36.17	$ 62.78	173.57%

Figure 7
Comparison of Actual Costs with RVU Rates:
Illustrative Example

Part A: Provision of a single service:

	Salary	*Fringe*	*Total*
Psychologist	$100,000	0.3	$ 130,000.00
Overhead	20%		$ 26,000.00
Total			$ 156,000.00

	Hrs per week	*Productivity*	*Weeks*	*Yearly Output*
Productive hours	40	0.6	50	1200

Cost per hour of delivered service	**$ 130.00**	**(Total cost / Yearly Output)**

RVU: 90812 Individual Psychotherapy	2.44	
# of units provided	1200	
Total RVU	2928	
Base Unit Cost	$ 53.28	

RVU Rate	**$ 130.00**	**(RVU * Base Unit Cost)**

# of units	1200
Total billing	$ 156,000.00

Figure 7
Comparison of Actual Costs with RVU Rates: Illustrative Example (continued)

Part B: Provision of multiple services:

	Salary	*Fringe*	*Total*
Psychologist	$100,000	0.3	$ 130,000.00
Overhead	20%		$ 26,000.00
Total			$ 156,000.00

	Hrs per week	*Productivity*	*Weeks*	*Yearly Output*
Productive hours	40	0.6	50	1200

Cost per hour of delivered service			**$ 130.00**	
RVU:	90812 Individual Psychotherapy		2.44	
RVU:	90853 Group Therapy		0.86	
# of units provided	1000	Indiv psycho	1000	
# of units provided	200	group therapy	1000	group size: **5**
Total RVU	1000	Indiv psycho	2440	
	1000	group therapy	860	
			3300	
Base Unit Cost			$ 47.27	(Total cost/Total RVU)
RVU Rate		**individual psyc**	**$ 115.35**	
		group therapy	**$ 40.65**	
# of units		individual psyc	1000	
		group therapy	1000	
Total billing		individual psyc	$ 115,345.45	
		group therapy	$ 40,654.55	
			$ 156,000.00	

Figure 7
Comparison of Actual Costs with RVU Rates: Illustrative Example (continued)

Part C: Actual Cost-finding analysis:

Service:	Hours	% Split	Hourly $ Split	Unit of Service Cost	
Individual	1000	83%	$ 130,000.00	$ 130.00	($ split / service hours)
Group	200	17%	$ 26,000.00	$ 26.00	($ split /(service hours x group size)
	1200	100%	$ 156,000.00		

# of units provided	1000	Indiv psycho	1000		
# of units provided	200	group therapy	1000	group size:	**5**
Total billing		individual psyc	$ 130,000.00		
		group therapy	$ 26,000.00		
			$ 156,000.00		

Comparison of Rates: (see Table 3 and Chart 3)

Service	RVU Rate	Actual Cost	Difference $	Difference %
Individual psychotherapy	$ 115.35	$ 130.00	$ (14.65)	-11%
Group therapy	$ 40.65	$ 26.00	$ 14.65	56%

Table 6
Compute Total Costs to Serve a Priority Population by Region

Response	Region 1	Region 2	Region 3	Region 4	Region 5/6	Region 7	Total
Yes (all or some)	50%	43%	0%	50%	80%	50%	13 (40%)
No	50%	57%	100%	50%	20%	50%	15 (45%)
Skipped question							5 (15%)
							33 (100%)

Table 7
Level of Satisfaction with the DBH and MSO Methods

	Method:	Not Satisfied	Satisfied	Unsure	Total n
1	Total required number of admissions to detox	3 (28%)	**9 (70%)**	1 (7%)	13 (100%)
2	Total required number of admissions to treatment	7 (30%	**15 (65%)**	1 (5%)	23 (100%)
3	Total required number of admissions for priority populations	**15 (58%)**	11 (42%)	0 (0%)	26 (100%)
4	Total dollars assigned to detox	**8 (67%)**	3 (25%)	1 (8%)	12 (100%)
5	Total dollars assigned to treatment	**18 (70%)**	7 (27%)	1 (3%)	26 (100%)
6	Total funding dollars	**18 (70%)**	8 (30%)	0 (0%)	26 (100%)

Table 8
Desirability of Funding Options

#	Funding Option	Not Desirable	Desirable	Unsure
1	Funding based on current MSO practices (namely, admission of priority populations and historic funding levels)	11 (41%)	**13 (48%)**	3 (11%)
2	Funding based on an UPDATE of the DBH Diagnostic Related Groups (DRGs) using expected cost of services and expect levels of service	**12 (45%)**	9 (33%)	6 (22%)
3	Funding linked to the costs of services provided to various substance abuse populations	9 (38%)	**15 (56%)**	3 (11%)
4	Funding based on case rates (fixed amount for treating an individual in a level of care or episode of care or period of time)	8 (31%)	**14 (54%)**	4 (11%)
5	Funding based on per capita payment (namely, fixed payment for each person in the general population served by the provider) to support delivery capacity, but not to fund services fully	12 (45%)	**14 (52%)**	1 (4%)
6	Funding recognizing groupings such as urban, suburban, rural, frontier	9 (33%)	**16 (60%)**	2 (7%)
7	Funding recognizing provider size and complexity of services	9 (33%)	**17 (63%)**	1 (4%)

Table 9
Desirability of Funding Options by Region

#	Funding Option	Region 1	Region 2	Region 3	Region 4	Region 5/6	Region 7	Total
1	Funding based on current MSO practices (namely, admission of priority populations and historic funding levels)							
	Not desirable	0%	43%	25%	50%	60%	50%	11 (41%)
	Desirable	**67%**	**57%**	**50%**	**50%**	**20%**	**50%**	**13 (48%)**
	Unsure	33%	0%	25%	0%	20%	0%	3 (11%)
		100%	100%	100%	100%	100%	100%	27 (100)%
2	Funding based on an UPDATE of the DBH Diagnostic Related Groups (DRGS) using expected cost of services and expected levels of service							
	Not desirable	**33%**	**43%**	**50%**	**50%**	**40%**	**50%**	**12 (45%)**
	Desirable	34%	43%	0%	33%	60%	0%	9 (33%)
	Unsure	33%	14%	50%	17%	0%	50%	6 (22%)
		100%	100%	100%	100%	100%	100%	27 (100)%
3	Funding linked to the costs of services provided to various substance abuse populations							
	Not desirable	33%	43%	50%	50%	0%	0%	9 (38%)
	Desirable	**67%**	**57%**	**25%**	**33%**	**100%**	**50%**	**15 (56%)**
	Unsure	0%	0%	25%	17%	0%	50%	3 (11%)
		100%	100%	100%	100%	100%	100%	27 (100)%
4	Funding based on case rates (fixed amount for treating an individual in a level of care or episode or care or period of time)							
	Not desirable	0%	30%	50%	50%	40%	0%	8 (31%)
	Desirable	**50%**	**70%**	**25%**	**33%**	**60%**	**50%**	**14 (54%)**
	Unsure	50%	0%	25%	17%	0%	50%	4 (11%)
		100%	100%	100%	100%	100%	100%	26 (100)%

Table 9
(cont'd)

5 Funding based on per capita payment (namely, fixed payment for each person in the general population served by the provider) to support delivery capacity, but not to fund services fully							
Not desirable	33%	30%	75%	33%	33%	100%	12 (45%)
Desirable	**34%**	**70%**	**25%**	**67%**	**67%**	**0%**	**14 (52%)**
Unsure	33%	0%	0%	0%	0%	0%	1 (4%)
	100%	100%	100%	100%	100%	100%	27 (100)%
6 Funding recognizing groupings such as urban, suburban, rural, frontier							
Not desirable	33%	43%	75%	17%	0%	50%	9 (33%)
Desirable	**67%**	**57%**	**25%**	**83%**	**100%**	**50%**	**16 (60%)**
Unsure	0%	0%	0%	0%	0%	0%	2 (7%)
	100%	100%	100%	100%	100%	100%	27 (100)%
7 Funding recognizing provider size and complexity of services							
Not desirable	33%	43%	25%	17%	60%	0%	9 (33%)
Desirable	**34%**	**57%**	**75%**	**83%**	**40%**	**100%**	**17 (63%)**
Unsure	33%	0%	0%	0%	0%	0%	1 (4%)
	100%	100%	100%	100%	100%	100%	27 (100)%

Table 10

Desirability of Payment Options

#	Funding Option	Not Desirable	Desirable	Unsure
1	Payments based on equal monthly amounts (1/12)	3 (11%)	**21 (78%)**	3 (11%)
2	Payments based on rendered services and unit of service costs	**14 (54%)**	9 (35%)	3 (11%)
3	Payments based on encounters (not a residential service) and a Relative Value Unit (RVU) that reflects relative consumption of resources including personnel and other related costs	8 (30%)	**13 (48%)**	6 (22%)

Table 11
Desirability of Payment Options by Region

#	Payment Option	Region 1	Region 2	Region 3	Region 4	Region 5/6	Region 7	Total
1	Payments based on equal monthly amounts (1/12)							
	Not desirable	0%	14%	0%	0%	40%	0%	3 (11%)
	Desirable	**33%**	**86%**	**100%**	**100%**	**60%**	**50%**	**21 (78%)**
	Unsure	67%	0%	0%	0%	0%	50%	3 (11%)
		100%	100%	100%	100%	100%	100%	27 (100)%
2	Payments based on rendered services and unit of service costs							
	Not desirable	**33%**	**72%**	**50%**	**50%**	**67%**	**50%**	**14 (54%)**
	Desirable	0%	28%	50%	33%	33%	50%	9 (35%)
	Unsure	67%	0%	0%	17%	0%	0%	3 (11%)
		100%	100%	100%	100%	100%	100%	26 (100)%
3	Relative Value Unit (RVU) that reflects relative consumption of resources including personnel and other related costs							
	Not desirable	33%	43%	25%	33%	20%	0%	8 (30%)
	Desirable	**0%**	**43%**	**75%**	**34%**	**60%**	**100%**	**13 (48%)**
	Unsure	67%	14%	0%	33%	20%	0%	6 (22%)
		100%	100%	100%	100%	100%	100%	27 (100)%

Table 12
Provider Satisfaction with MSOs

#	Performance Dimension	Not Satisfied	Satisfied
1	Communication skills	3 (11%)	**24 (89%)**
2	Knowledge and expertise	2 (8%)	**24 (92%)**
3	Understanding of your organization's needs	6 (22%)	**20 (75%)**
4	Creativity and flexibility	4 (15%)	**22 (82%)**
5	Responsiveness/follow through	3 (11%)	**24 (89%)**

Interviews with the DBH, MSO, CDHCP&F and Substance Use Disorder Provider Executives.

Qualitative research was completed with personal interviews with the Division of Behavioral Health (DBH), Managed Service Organizations (MSO), Colorado Department of Health Care Policy & Financing (CDHCP&F) and substance use disorder provider executives. Seven DBH executives participated in interviews. Eight key executives from all (one through seven) of the MSOs were interviewed. Twelve executives from varying providers agreed to participate in on-site or conference call interviews. Three executives from the Colorado Department of Health Care Policy & Financing (CDHCP&F) were interviewed. All of these interviews aided in indentifying key issues and in formulating the Survey Monkey questionnaire.

The interviews suggested funding to providers has been at a fairly stable amount for a number of years and the effective control by the DBH to assure services for substance use disorder clients was through specifications for priority populations. In recent contracts, the key concerns centered over the required number of admissions of priority populations. Diagnosis Related Rates (DRGs) were considered so out-of-date, they were not used in the MSO contracts.

C. Conclusions

Funding for substance use disorder services by Medicaid appears to be following in the footsteps of mental health. SAMHSA State block grants are likely to continue and will support important substance use disorder services not funded by Medicaid. Current providers of substance use disorder services are likely to be required to complete a service, revenue and cost reporting system controlled by the Department of Health Care Policy and Financing in order to secure Medicaid funding. A prototype system is now under development for mental health (CDHCP&F, 2009) and could be extended to include substance use disorder services qualified for Medicaid payment. As with mental health (and hospital health care as well), Medicaid will become an important source of funding so compliance with Medicaid reporting systems will follow. The inevitability of a Medicaid reporting requirement places the DBH in a quandary regarding other potential reporting requirements even though the DBH will be funding services not supported by Medicaid.

In all likelihood, the DBH will not surrender its grip on MSOs through the use of priority population enrollment and ultimately providers to focus SAMHSA block grant and State resources on priority populations. The effective control by the DBH to assure services for substance use disorder clients has been through admission specifications for priority populations. (A return to the historic DRG system would be difficult because providers, as shown earlier, are not able to produce audited unit of service costs.)

Traditional service and production (or step-down) costing is still needed to determine the total cost of a substance use disorder service. Medicaid costing methods still embrace service and production costing for determining the total costs of services (CDHCP&F, 2009). Total costs of a service may be unitized by unit of service or by a resource based utilization using relative value units. A conventional Medicaid reporting system that specifies a base unit cost and the relative

value unit becomes a reimbursement system, not a cost-finding system. Only if the base unit cost and the relative value unit are provider specific can the analysis produce useful approximations of the cost of services (or encounters). Base unit costs tend to gloss over important differences in professional staffing among services as well as differences in geographic economics of urban, suburban, rural and frontier market places. An analysis of a Medicaid approach to encounter rate setting using a convenience sample of mental health centers revealed greater variability on some services while showing lower variability on others when compared to traditional unit of service costing. The results suggested the need to further study the formulation of the costing analysis as well as the relative value units (RVUs) applied to behavioral health.

An empirical survey of Colorado substance use disorder providers revealed (43 providers were asked with a response rate of 77% or a response set of 33):

- Wide-spread representation of varied providers in varied geographic locations among the respondents.
- Services are defined clearly by almost 80% of the providers.
- Sixty percent of the providers can calculate unit of service costs.
- Eighty percent had independent audits.
- About two-thirds have functional statements of expense.
- About fifty percent have detailed cost information about programs and services.
- About fifty percent of the total sample would be able to produce audited costs of services.
- Over sixty percent are unable to calculate the total costs of priority populations they serve and of those who can almost eighty percent can calculate a cost per yearly admission.
- About two-thirds of the appropriate providers expressed satisfaction with admissions to detox and the total number of required admissions for treatment, but expressed dissatisfaction with the total dollars assigned to detox, treatment and over-all funding.
- No clear overwhelming preference for a funding option emerged although 45% did not support an update of the current Diagnosis-Related Group (DRG) system. A review of preferences by region did not reveal any new patterns.
- Preference for the current payment option (namely, 1/12 or equal monthly payments) was viewed favorably by 78% while 11% thought it was undesirable and 11% were unsure. A similar pattern emerged in a regional analysis.
- Providers are generally satisfied (75% to 89%) with their MSOs except for the issue of “understanding of your organization’s needs” that drew 22% dissatisfaction.
- Providers’ open-ended comments for MSOs and the DBH ranged from no change to sophisticated outlines of how to change the funding and payment systems. Other issues included the MSO organization themselves as well as geographic and service concerns.

Basic financial management requires providers to know the cost of services in order to

- evaluate the efficiency of service production,
- determine a proper allocation of resources,
- establish rates for services.
- evaluate varied funding sources and to

- negotiate contracts.

The current evidence suggests there is some need to define services (80% feel the definitions are clear), but the costing of services, especially for priority populations currently funded in part by the DBH, is lacking in the majority of providers.

Providers, MSOs and the DBH should realize the proposed Medicaid mental health reporting system may not determine a unitized cost of services, but these users may find it economical to use the approach as an approximation of the unit costs. The Colorado demonstration project (CDHCP&F, 2009) while holding the RVU values constant did permit the provider to determine the base unit cost. The option of an independently determined based unit cost is likely to disappear and a standardized based unit cost will be specified. With both the base unit cost and the relative value unit (RVU) specified, the system becomes a reimbursement determination system (not a cost-finding system). Single base unit costs are likely to gloss over important allocations of professional staff. Multiple base unit costs are useful to reflect the differential use of professional staff and the economics and delivery systems of different geographic areas.

D. Recommendations

All providers should be encouraged to compute the costs of various substance use disorder services. The DBH and MSOs should make technical assistance available to those who do not currently possess the capability to determine the cost of services. Only 50% of the providers have detailed cost information about specific programs or services. Determining cost per admission for priority populations and cost per priority population client served seem needed if the organization is held contractually responsible for meeting admission targets and providing services to priority populations. Providers may want to use existing unit of service costing methods that are already established. A Time-Driven Activity Based Costing (TDABC) may an ideal approach since it would enable production and service cost allocation methods using actual costs along with provider specific resource (time or relative value) consumption values. (These latter values approximate the RVU values used in the Colorado prototype mental health Medicaid cost and service reporting system (CDHCP&F, 2009)).

The providers and MSOs should work with the independent auditor (namely, CPAs) to align the service and production cost allocation (namely, step-down) methods to produce the functional expense report attested by the independent auditor. Information systems producing units of service (namely, encounters, days, or other units of measure) should be designed with appropriate internal controls so independent auditors may review and attest to the performance and results of the system. Ideally the independent auditor could attest to the costs assigned to the programs (services) and to the units of service (namely, encounters, residential days, and other services).

Unless there are dramatic shifts in the Affordable Health Care Act, the ultimate imposition of a Medicaid type reporting system (like the mental health demonstration prototype) may enable the DBH to focus its funding based on relative value units and case rates for specific priority populations. The Medicaid prototype approach embraces the framework of the Time-Based Activity Based Costing (TBABC) so the approach has conceptual support from the accounting

literature (Kaplan and Anderson, 2007). While some of the reported costs and services are focused on Medicaid reimbursable services, an entire reporting system could provide other usable information for the DBH. In the mental health prototype system encounter-based mental health services with RVU weights as well as residential facility services are reported (Mental Health Accounting and Auditing Guidelines, 2010). The variability of unit of cost procedures should be minimized.

The DBH is encouraged to replicate the mental health services prototype for substance use disorder services. A replication project should be funded to produce

- Descriptions of substance use disorder encounters and related Relative Value Units (RVUs)
- Descriptions of substance use disorder residential services and units of service
- Descriptions of other substance use disorder services and related units of service
- Reviews of methods for determining admissions of priority populations
- Appropriate base unit costs for varied geographic areas such as urban, suburban, rural and frontier
- Formulation of funding based on case rates (non-Medicare services) for priority populations (namely, priority populations, services used and cost of services) and/or capitation per enrollee.
- Specification of payments (such as equal monthly payments of case rate or capitation funding) and methods of reconciliation
- Specification of methods of accountability
- Reporting guidelines for services, accounting and auditing
- Identification of incentive approaches.

The project should be a cooperative effort with the Department of Health Care Policy and Financing.

E. Key Documents Reviewed

This consultation reviewed the following documents during the process of the consultation. Many are used in the formulation of the cost analysis and funding options presented.

American Medical Association (AMA), Current Procedural Terminology (CPT), Fourth Edition, Chicago, IL, 2009.

Blocher, Edward, David E. Stout, and Gary Cokins, *Cost Management: A Strategic Emphasis (5th ed.)*, New York: McGraw-Hill/Irwin business unit of The McGraw-Hill Companies, Inc., 2010

Colorado Department of Health Care Policy & Financing, *Mental Health Accounting and Auditing Guidelines*, Denver: 2010.

Colorado Department of Health Care Policy & Financing, *Relative Value Unit (RVU) Schedule*, Denver: 2009.

Colorado Department of Health Care Policy & Financing, *Request for Proposals: Regional Care Collaborative Organizations for the Accountable Care Collaborative Program,* Denver: 2010.

Colorado Department of Health Care Policy & Financing, *Uniform Service Coding Standards Manual*, Denver: 2009.

Iowa Department of Human Services (DHS) and the Iowa Department of Public Health (IDPH) Request for Proposals (RFP), http://bidopportunities.iowa.gov/index.php?pgname=viewrfp&rfp_id=2924 , 2005.

Kaplan, Robert S. and Steven R. Anderson, Time-Driven Activity Based Costing, Boston: Harvard Business School Press, 2007.

Maine Care Benefits Manual, Chapter III, Principles of Reimbursement, Section 97, Private Non-Medical Institution Services, Appendix B Substance Abuse Treatment Facilities, updated 11/15/2010.

Mancuso, David and Barbara E. M. Felver, *Health Care Reform, Medicaid Expansion and Access to Alcohol/Drug Treatment: Opportunities for Disability Prevention,* Research and Data Analysis Division, Department of Social and Health Services, State of Washington, Olympia, Washington, 2010.

Mercer Government Human Services Consulting, *Medicaid Mental Health Rates, Department of Health Care Policy and Financing, Performance Audit*, November 2006.

Nardone, Mike, former Secretary of the Pennsylvania Department of Welfare, State of Pennsylvania, *personal e-mail*, April 2011.

National Association of State Directors of Alcohol and Drug Directors (NASADAD), *The Effects of Health Care Reform on Access to, and Funding of, Substance Abuse Services in Maine, Massachusetts, and Vermont*, Washington, DC, 2010.

Sorensen, James E. and Tom Lucking, *Unit Cost Determination (Substance Abuse Services)* and Tom Lucking and James E. Sorensen, *Substance Abuse Treatment Services: Rate-Setting for Public Payers*, E-Curricular Courses, State Systems Technical Assistance Project (SSTAP), Division of State and Community Assistance (DSCA), Center for Substance Abuse (CSAT), Substance Abuse and Mental Health Services Administration (SAMHSA), Department of Health and Human Services (HHSA) *under development* with Johnson, Bassin and Shaw International, North Bethesda, MD., 2011.

Sorensen, James E., *Criminal Justice, Substance Use Disorder (SUDs) and Rate-Setting for Services Funded by Medicaid*, Community Oriented Correctional Health Services Work Group on Health Reform and Criminal Justice, Bethesda, MD, March 2011.

Substance Abuse Mental Health Services Administration (SAMHSA), *Description of a Good and Modern Addictions and Mental Health Service System* (Draft), Center for Substance Use Treatment (CSAT), Bethesda, MD, December 2010,

Verdier, James, Allison Barrett, Sarah Davis, *Administration of Mental Health Services by Medicaid Agencies*, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, Bethesda, MD, 2007.

APPENDIX A: Content of the Confidential On-Line Survey Monkey Survey Form

The Division of Behavioral Health (DBH) Substance Use Disorder program is reviewing its treatment services resource allocation framework. You are asked to answer up to 15 point and click confidential questions (and two confidential opportunities for open ended comments). Each provider is asked to provide one response (either an upper level executive or the chief financial officer). The survey should take about 15 minutes. Your answers are confidential and you are not asked for identifying information. The results will be presented in a final report distributed to DBH, MSOs and providers. No individual provider will be identified. Please complete the survey by Friday February 18, 2011 to have your professional opinions counted. Your responses are recorded only on my personal Survey Monkey Site to insure confidentiality. Thank you for your help!

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1. Please identify your primary organizational responsibilities

- ◯ Executive Officer (other than Fiscal Officer)
- ◯ Fiscal Officer
- ◯ Delivery of client services
- ◯ Other (please specify)

2. What is your Managed Service Organization's (MSOs) contract region/Sub-State Planning Area?

◯ Region 1 Northeast Signal ◯ Region 2 Denver Metro Signal ◯ Region 3 South Central Counties AspenPointe
◯ Region 4 Southeast Signal ◯ Regions 5 and 6 West Slope ◯ Region 7 Boulder

3. What services do you offer?

	Yes	No
Detox	◯	◯
Residential	◯	◯
Outpatient	◯	◯
Specialized Women's Services	◯	◯
Strategies for Self-Improvement and Change (SSIC)	◯	◯
Chronic Detox	◯	◯
STIRRT Program: Residential	◯	◯
STIRRT Program: Outpatient	◯	◯
Opiate Replacement Therapy	◯	◯
Other programs	◯	◯

4. How would you classify your organization? (You may choose more than one if appropriate.)

- ☐ Suburban
- ☐ Urban/Rural
- ☐ Rural
- ☐ Frontier

5. Do you think the units of service provided in substance abuse programs are defined clearly by your programs?

- ◯ Yes, all are defined
- ◯ Yes, nearly all are defined
- ◯ Many are, but a few are not defined
- ◯ Only a few are defined
- ◯ Nearly all are undefined
- ◯ None of the services are defined

6. Do you calculate a cost per unit of service (for one or more services) within your various programs?

- ◯ Yes for all services on a regular (for example, yearly) basis
- ◯ Yes for some services on a regular basis
- ◯ Yes for some services on an occasional basis
- ◯ No we do not calculate unit of service costs

7. Do you have a recent (namely, last year or two) audit by an independent accountant (namely, CPA)?

- ◯ Yes
- ◯ No

8. Does your audit contain a statement of functional expenses? (A Statement of Functional Expenses is included by the independent auditor in the audited financial statements and divides a nonprofit organization's expenses into Program Expenses (services distributed to fulfill the purpose of the organization), Administrative Expenses (costs of business management and general administrative activities) and Fund Raising Expenses (costs of fundraising campaigns and events.)

- ◯ Yes
- ◯ No

9. Does your statement of functional expenses contain costs by programs and/or services?

- ◯ Yes
- ◯ No

10. Are you able to compute the total costs to serve a priority population (namely, pregnant women, IV drug users, women with dependent children and involuntary commitments)?

- ◯ Yes for all priority populations
- ◯ Yes for some priority populations
- ◯ No

11. If you are able to compute the total costs of priority populations, can you calculate a cost per admission (on a yearly basis)?

- ◯ Yes for all priority populations
- ◯ Yes for some priority populations
- ◯ No for any priority populations

Please indicate your level of satisfaction with the DBH and MSO funding approach.

12. For your agency, how satisfied are you with the method of determining the ...

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Unsure
Total required number of admissions to detox	◯	◯	◯	◯	◯
Total required number of admissions for treatment	◯	◯	◯	◯	◯
Total required number of admissions for priority populations	◯	◯	◯	◯	◯
Total dollars assigned to detox	◯	◯	◯	◯	◯
Total dollars assigned to treatment	◯	◯	◯	◯	◯
Total funding dollars	◯	◯	◯	◯	◯

Please evaluate the following aspects of potential funding and payment options:

13. How desirable are the following aspects of funding options?

	Highly Undesirable	Not Desirable	Desirable	Highly Desirable	Unsure
Funding based on current MSO practices (namely, admission of priority populations and historic funding levels)	◯	◯	◯	◯	◯
Funding based on an UPDATE of the DBH Diagnostic Related Groups (DRGs) using expected cost of services and expected service levels (for varied populations	◯	◯	◯	◯	◯
Linking funding to the costs of services provided to various substance abuse populations	◯	◯	◯	◯	◯
Funding based on case rates (fixed amount for treating an individual in a level of care or episode of care or period of time)	◯	◯	◯	◯	◯
Funding based on per capita payment (namely, fixed payment for each person in the general population served by the provider) to support delivery capacity, but not to fund services fully	◯	◯	◯	◯	◯
Funding recognizing groupings such as urban, suburban, rural or frontier	◯	◯	◯	◯	◯
Funding recognizing provider size and complexity of services	◯	◯	◯	◯	◯

14. How desirable are the following payment options?

	Highly Undesirable	Not Desirable	Desirable	Highly Desirable	Unsure
Equal monthly payments (1/12)	◯	◯	◯	◯	◯
Payments based on rendered services and unit of service costs	◯	◯	◯	◯	◯
Payments based on encounters (not a residential service) and a Relative Value Unit or RVU that reflects the relative consumption of resources including personnel and other related costs	◯	◯	◯	◯	◯

Please indicate your level of satisfaction with the MSO team member(s) who work with your organization.

15. How satisfied are you with the MSO team member's...

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	Unsure
Communication skills	◯	◯	◯	◯	◯
Knowledge and expertise	◯	◯	◯	◯	◯
Understanding of your organization's needs	◯	◯	◯	◯	◯
Creativity and flexibility	◯	◯	◯	◯	◯
Responsiveness/follow through	◯	◯	◯	◯	◯

16. How could the MSO improve its funding approach? (open-ended)

17. How could DBH improve its funding approach? (open-ended)

APPENDIX B: Iowa Behavioral Health Plan Excerpt on Funding

The Iowa Behavioral Health Plan can be found at the link below.

http://bidopportunities.iowa.gov/index.php?pgname=viewrfp&rfp_id=2924

1.1 THE IOWA PLAN

The Iowa Department of Human Services (DHS) and the Iowa Department of Public Health (IDPH) jointly issue this Request for Proposals (RFP) for a single statewide Contractor to administer the Iowa Plan for Behavioral Health (the Iowa Plan). The Iowa Plan jointly manages specific, publicly funded treatment and related support services for mental health and substance abuse. The Contractor is at full risk for all Medicaid-funded mental health and substance abuse services and provides specified administrative services for the IDPH-funded substance abuse services.

Program Feature	**Mental Health Services**	**DHS Substance Abuse Services**	
		DHS	**IDPH**
Program Feature Mental Health Services DHS Substance Abuse Services DHS IDPH Payment to Contractor	Single Medicaid capitation payment per Enrollee per month covering all Medicaid services; Contractor is at full risk; administrative cost including profit not to exceed 13.5% of capitation payment; Contractor must return any interest earned from premium payments to the state	Single Medicaid capitation payment per Enrollee per month covering all Medicaid services; Contractor is at full risk; administrative cost including profit not to exceed 13.5% of capitation payment. Contractor must return any interest earned from premium payments to the state	Payment for administrative services performed; risk borne at provider level; administrative cost including profit not to exceed 3.5% of IDPH Iowa Plan funding

APPENDIX C: Pennsylvania Use of Regions in Rates (e-mail form Mike Nardone, Former Secretary, Pennsylvania Department of Welfare, State of Pennsylvania)

The Southeast (Philadelphia and surrounding counties) is the largest of three managed care zones in the state. SW [Southwest] PA and the Lehigh Cap are the other two MCO regions of the state and SW similarly has rates for Pittsburgh and the surrounding counties.

APPENDIX D: Maine Care Benefits Manual

Maine Care Benefits Manual, Chapter III, Principles of Reimbursement, Section 97, Private Non-Medical Institution Services, Appendix B Substance Abuse Treatment Facilities, updated 11/15/2010.

The following capitated rates apply to Appendix B services:

Detoxification (Non Hospital based) - $210.96 per diem
Halfway House services - $102.91 per diem
Extended Care - $113.38 per diem
Residential Rehabilitation Type I - $217.71 per diem
Residential Rehabilitation Type II - $116.07 per diem
Adolescent Residential Rehabilitation - $182.04 per diem
Personal Care Substance abuse (Substance abuse shelter services) $55.17 per diem.

Members are assessed … and will be assigned to one of the type of substance abuse treatment services described above. Providers bill the Department on a per diem basis for each member receiving service. The capitated rate includes all PNMI services required by the member for his/her type of service including all staffing required pursuant to State of Maine licensing guidelines and as identified in the members individual service plan. There is no cost settlement for Appendix B PNMI services.