The Outcomes of Addiction Treatment and Approaches to Measuring Performance

Third in a Four-Part Series on The Elements of a Quality Health Care System

Friday, November 2, 2007, 1:00 pm EDT

Supported by the Robert Wood Johnson Foundation
As part of the NCSL Critical Health Areas Project
Speakers

- **Adam Brooks, Ph.D., Scientist, Treatment Research Institute**
- **Kim Johnson, Former Director, Maine Office of Substance Abuse**
What Happens In State-Funded Treatment?

Outcomes, Performance, and Care Monitoring

Adam C. Brooks, Ph.D.
Treatment Research Institute
The Bad Rap on Addiction Treatment

- Addiction Treatment Often Seen as Ineffective
  - Patients Relapse
  - Require Multiple Episodes of Care

- Addiction is Very Similar to Other Chronic Medical Conditions (Diabetes, Hypertension)

- Costs of Treatment Need to Be Compared to the Costs of No Treatment
New Views, New Methods

- Why is Treatment Valuable?
- The Continuing Care Model (Outcomes vs. Performance)
- Recovery Monitoring
- Performance Based Contracting: The Delaware Experiment
A Note On Terminology

Outcomes, Performance, Quality

(What’s the Difference?)

Calls for Better “Accountability” and “Performance” Coming from many Disciplines

Each Discipline Approaches the Goal Differently

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Some Definitions

• **Outcomes:** Changes in patient symptoms, behavior, and function that can be attributed to treatment
  – Measured across several domains
  – “Recovery” is the ultimate goal

• **Recovery:** Patients are not drinking/using, they have sound physical health, and they have regained functioning in important life areas
Some Definitions

• **Quality Care:**
  – Evidence-Based Treatments
  – Accredited or Licensed Practitioners
  – Core Competence of Practitioners
  – Monitored and Regulated Program- and System-Level Indicators

• **Performance and Quality Indicators:**
  Organizational level measures to indicate whether a system or provider conforms to best practices
Is Treatment Worth it?

- California Treatment Outcome Project
- Average costs of treatment: $1,583
- Average societal benefit/savings: $11,487
- Societal costs savings due to:
  - Decreased crime/criminal justice costs (65%)
  - Increased employment (29%)

Costs are in 2001 Dollars
Six Year HIV Infection Rates by Treatment Status at Time of Enrollment

Baseline through 72 Months

Percent Testing Positive

In Treatment
Out of Treatment

B 6 12 18 24 30 36 42 48 60 72

0% 10% 20% 30% 40% 50% 60%

Baseline through 72 Months

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Costs of Treatment

- Average monthly per patient cost of methadone treatment: $364
- Average monthly per-patient costs of treating HIV infection: $2,100
- Average lifetime per-patient costs of treating HIV infection range from $385,000 to $619,000

Costs are in 2004 Dollars
Why Does Addiction Treatment Seem Ineffective?

The Continuing Care Model

Implications for Evaluating Outcome
Treatment of Chronic Illness: The Continuing Care Model

• Evidence of Success
  – Retention in Treatment
  – Reductions in Emergent or Acute Care
  – Improved Functional Status

• Outcome is evaluated during treatment
Outcome In Chronic Illness

Pre - During - Post
Treatment in Addictions: Rehabilitation Model

- Evidence of Success
  - Completion of Treatment
  - Successful Acquisition of New Behaviors
  - Resumption of Function
  - Sustained Elimination of Symptoms

- Outcome is evaluated FOLLOWING TREATMENT
Outcome In Addiction

Pre - Post
A Nice, Simple Treatment Model

Substance Abusing Patient

NON - Substance Abusing Patient
Assumptions

• Some fixed amount or duration of treatment should resolve the problem

• Clinical efforts put toward matching treatment and getting patients to complete treatment

• Evaluation of effectiveness following completion
  – Poor outcome means failure
New Continuing Care Model

Substance Abusing Patient

Detox

Duration Determined by Performance Criteria

Rehab

Duration Determined by Performance Criteria

Continuing Care Self-Management Recovery

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Assumptions

1) Patient will continue in treatment
2) There are agreed upon clinical targets at each stage of treatment
3) Achieving the clinical targets is preparation for the next stage
4) No rush to discharge – just reduced intensity of care leading to self-maintenance
Evidence of Success

- Detox Stabilization
- Rehab
- Continuing Care

Potentially "Healthy" Utilization
Measuring In-Treatment Outcomes: Concurrent Recovery Monitoring

• Monitor patient at regular intervals during treatment

• Use a brief, standardized measure
Available to all key decision makers

Data used for guiding care
Standardized Data Collection: The Blood Pressure Model
An Example of Non-Standardized Reporting: Currently SA-type

Blood Pressure

Nurse 1 – It’s getting better (better than what??)

Nurse 2 – It’s much lower than before (too low??)

Nurse 3 – The patient is in denial (???)

Nurse 4 – The patient is non-compliant, let’s not treat him until he’s really ready
An Example of Standardized Reporting

Blood Pressure

Nurse 1 – It’s 120/80
Nurse 2 – It’s 116/78
Nurse 3 – It’s 122/82
Nurse 4 – The patient is non-compliant, let’s not treat him until he’s really ready
The “Blood Pressure” of Substance Abuse Treatment

- Recurrence of Substance Use
- Patient Risk Factors
- Patient Protective Factors
How Can This Data Be Used?

• Adapt Care for the Individual

• Tailor System for the Population

• Share Information Across Systems
The Delaware Experiment

Improving Public Addiction Treatment Through Performance Contracting

A.T. McLellan, J. Kemp, A.C. Brooks, D. Carise
29 State Medicaid Offices Have Some Form of Performance Based Contracting

- Usually applied to the management of chronic, high-cost illnesses (diabetes, cardiovascular illness)
- Few states applied PBC to addiction services
The Delaware Contract

- DSAMH in Delaware had struggled to get providers to adopt evidence based procedures
- Beginning FY 2001, renegotiated outpatient contracts to provide incentives for:
  - Attracting and engaging their full complement of patients (capacity utilization)
  - Keeping patients engaged at a minimal level
Innovative Aspects

- Provided both incentives (additional dollars) and penalties (loss of base dollars) for hitting targets
- Providers helped set performance targets
- Contract payments were dispersed monthly (not semi-annually or annually)
- Participating providers received consistent, monthly feedback with financial impact (positive or negative)
Census Targets

- Monthly reporting on active utilization

- Providers earned $\frac{1}{12}$th of 100% of their negotiated contract if they served a minimum of 80% of utilization target

- If the target was 100 served monthly, and they served 80 patients, they were paid 100%! 

What Were the Targets?
Census Target Penalties

• Serve 70-80% of census target, suffer a 10% deduction to monthly payment

• Serve 60-70% of census target, suffer a 30% deduction to monthly payment

• After one year, the census minimum for full payment was raised to 90% utilization
### Active Patient Participation

<table>
<thead>
<tr>
<th>Treatment Phase</th>
<th>Time In Treatment</th>
<th>Participation Level</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>&lt;= 30 Days</td>
<td>50 % of Patients</td>
<td>1%</td>
</tr>
<tr>
<td>Treatment 1</td>
<td>31-90 Days</td>
<td>60% of Patients</td>
<td>1%</td>
</tr>
<tr>
<td>Treatment 2</td>
<td>91-180 Days</td>
<td>70% of Patients</td>
<td>1%</td>
</tr>
<tr>
<td>Community Reintegration</td>
<td>180+ Days</td>
<td>80% of Patients</td>
<td>1%</td>
</tr>
<tr>
<td>Bonus for all four targets</td>
<td></td>
<td></td>
<td>1%</td>
</tr>
</tbody>
</table>
Successful Graduation

• Programs were paid an additional $100 bonus for each successful treatment graduation

• SO . . .

A program who met at least 80% of their census, and hit all four participation targets, could earn 105% of their negotiated contract
Services???

- Full, standardized assessment
- Provision of group, individual, family counseling
- Evidence of cultural competence
- Adopt one evidence-based practice (trainings offered by DSAMH)
DSAMH hosted regular meetings to foster a working relationship with providers.

Providers encouraged to share strategies for meeting goals.

DSAMH perfected data collection system.

DSAMH provided trainings in evidence-based practices.
What Happened???
Provider Changes

• Increased Patient Access
  – Streamlined Admissions Procedures
  – Patient Friendly Hours (Mornings and Evenings)
  – Physical Changes in Facilities

• Three Providers Opened Satellite Offices in Underserved Areas

• Some Providers Shared Bonuses with Staff

• All Providers Learned Evidence Based Treatments
What Happened???
Patient Changes

Figure 1
Percent Capacity Utilization, By Fiscal Year

Utilization Target 80 - 90%
## Outpatient System Capacity and Utilization, by Provider and Year

<table>
<thead>
<tr>
<th>Provider</th>
<th>2001 Capacity</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006 Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider 1</td>
<td>175</td>
<td>43%</td>
<td>51%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provider 2</td>
<td>125</td>
<td>69%</td>
<td>94%</td>
<td>87%</td>
<td>89%</td>
<td>91%</td>
<td>107% 130</td>
</tr>
<tr>
<td>Provider 2a</td>
<td>61%</td>
<td>92%</td>
<td>98%</td>
<td>89%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provider 3</td>
<td>135</td>
<td>48%</td>
<td>56%</td>
<td>89%</td>
<td>88%</td>
<td>89%</td>
<td>90% 130</td>
</tr>
<tr>
<td>Provider 3a</td>
<td>65%</td>
<td>90%</td>
<td>92%</td>
<td>90%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provider 4</td>
<td>125</td>
<td>47%</td>
<td>64%</td>
<td>82%</td>
<td>83%</td>
<td>82%</td>
<td>83% 125</td>
</tr>
<tr>
<td>Provider 5</td>
<td>300</td>
<td>66%</td>
<td>79%</td>
<td>90%</td>
<td>88%</td>
<td>90%</td>
<td>92% 300</td>
</tr>
<tr>
<td>Provider 5a</td>
<td></td>
<td>51%</td>
<td>80%</td>
<td>99%</td>
<td>111%</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

| Total      | 860           | 54%  | 69%  | 75%  | 87%  | 92%  | 95% 915      |

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What Happened???

Full Houses
What Happened???
Patient Participation

Percent of Clients Meeting Participation Criteria, By Fiscal Year

Percent Meeting Criterion
- 30 day
- 31 - 180
- > 180

Fiscal Year
- 2002
- 2003
- 2004
- 2005
- 2006

TRI
Performance Based Contracting

- All State Outpatient Providers Collaborating and Sharing Retention Strategies
- No Significant Increase in State Spending
- Significant Gains in System Utilization and Patient Participation
- The End -
Performance Based Contracting: Some Things to Consider

Kimberly Johnson, MSEd, MBA
Maine’s Experience

- P.L. 1983 c. 464 creating the Treatment Data System (TDS)
- Federal Mandate to provide treatment data
- Developed and set performance indicators
Maine’s Experience

- Focused on two categories of outcome: efficiency and effectiveness
  - Efficiency focused on meeting contracted number of units
  - Effectiveness focused on meeting a set standard for client outcomes based on data that is required to be submitted to SAMHSA
Maine’s Experience

- Reports shared with providers on a quarterly basis regarding whether or not they were meeting their contractual obligations.
Key Elements

- Good data collection system
  - Who is required to submit data
  - What data elements are collected
  - At what point in time is data collected

- Clear definitions for data elements
  - Everyone needs to understand and agree
Maine’s Experience

- Problems with system:
  - Historically could only punish not reward
  - Standards arbitrary
  - Standards out of provider’s control
  - Cost based reimbursement system
Key Elements

- Must Have agreed upon performance standards
  - What are the outcomes you want to achieve?
  - How will contracting structure help or hinder change?
  - Are the standards supported by the practices that you are promoting in the field?
Maine’s Experience

- For two years have been working with treatment agencies to improve access and retention
- Used this experience as the basis for changing the performance standards
Clients who fit the clinical profile over phone or at local ED are offered an evaluation the following morning at 7:30 a.m. All evaluated clients started program same day.

IMMEDIATE RESULTS
- Time between initial contact and screening dropped from 16 – 4.1 days to 1.3 days.
- Clients seeking treatment who were retained in treatment rose from 19 percent to 53 percent.
- Retention increased to 67 percent by March 2005.
Addiction Resource Center

2006 & 2007 Volumes - ARC IOP
MCH Benchmark = 188 units
Aroostook Mental Health Center

Caribou Substance Abuse
No-Show/Cancellation
(including clients with co-occurring disorders)

This decrease lead to 31 more client contacts resulting in additional net

This lead to 68 more client contacts resulting in additional
Maine’s Experience

- For the current contract year a new performance based contract was implemented that provided rewards for exceptional performance and penalties for performance below standard.

- Reimbursement mechanism: Grant plus or minus incentive payment.
Maine’s Experience

- Performance Standards are:
  - Timely Access:
    - Intake within 5 days
    - Admission within 14 days
  - Retention in Treatment:
    - Four sessions
    - Twelve weeks
  - Number of Units provided: Based on prior year contract
Maine’s Experience

- Client Outcomes are still tracked, but payment is not based on client outcomes
Next Steps

- Delaware rewards agencies for meeting a standard for successful level of care transitions
- Need to track client outcomes to be sure that assumptions are accurate
- Data system that tracks people through episodes of care (TX)
Any Questions

- Among the Panelists?

- From the audience?
  - Use Q and A option in your web-assisted audioconference.

- After the call
  - Health.chaps@ncsl.org
To follow up

- Feel free to contact us for more information at Health.chaps@ncsl.org

- For more program information and related links, and to see past programs: http://www.ncsl.org/programs/health/webcast2.htm

- This program was recorded and will be made available online.
Additional resources

- Treatment Research Institute
  http://www.tresearch.org

- Network for the Improvement of Addiction Treatment
  http://www.niatx.net

- Maine Office of Substance Abuse
  http://www.maine.gov/dhhs/osa
Resources from NCSL

- The Outcomes of Addiction Treatment and Approaches to Measuring Performance
  [Link](http://www.ncsl.org/programs/health/satmeasure.htm)

- Forum for Health Policy Leadership
  Critical Health Areas Project
  [Link](http://www.ncsl.org/programs/health/forum/chap/index.htm)