

Assisted Outpatient Treatment in New York State:

Research and Reflections on Service Utilization and Service Delivery

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**The Eighteenth Annual Conference on State Mental Health
Agency Services Research, Program Evaluation and Policy
February 12, 2008**

Outline of Today's Session

- Overview of New York's Kendra's Law and Assisted Outpatient Treatment
- Review of Findings from New York State's ongoing evaluation of Kendra's Law
- The Impact of Assisted Outpatient Treatment on Patterns of Service Utilization and Medicaid Costs
- Promoting Recovery for Individuals in Mandated Outpatient Treatment: an Evaluation of a Training Initiative to Address Provider Stigma and Practice

What is Kendra's Law?

- Kendra's Law is Mental Hygiene Law §9.60
- In January 1999, Kendra Webdale was pushed from a New York City subway platform to her death. Her attacker was a mentally ill man who was not receiving treatment for his illness.
- Kendra's Law, also known as Assisted Outpatient Treatment (AOT), went into effect in New York State on November 8th, 1999.
- Kendra's Law sunset in June 2005 but was renewed by the New York State Legislature for an additional 5 years, making specific changes based on the previous years' experience.

What is Kendra's Law?

Kendra's Law has a dual purpose:

- **To assist mentally ill individuals to live safely in the community, and**
- **To maintain safety in the community**

What is Kendra's Law?

Eligibility Criteria

Eligibility criteria for AOT or Assisted Outpatient Treatment are based on the following factors and clinical determinations:

- 1. 18 years of age or older**
- 2. Suffering from a mental illness**
- 3. Unlikely to survive safely in the community without supervision**

What is Kendra's Law?

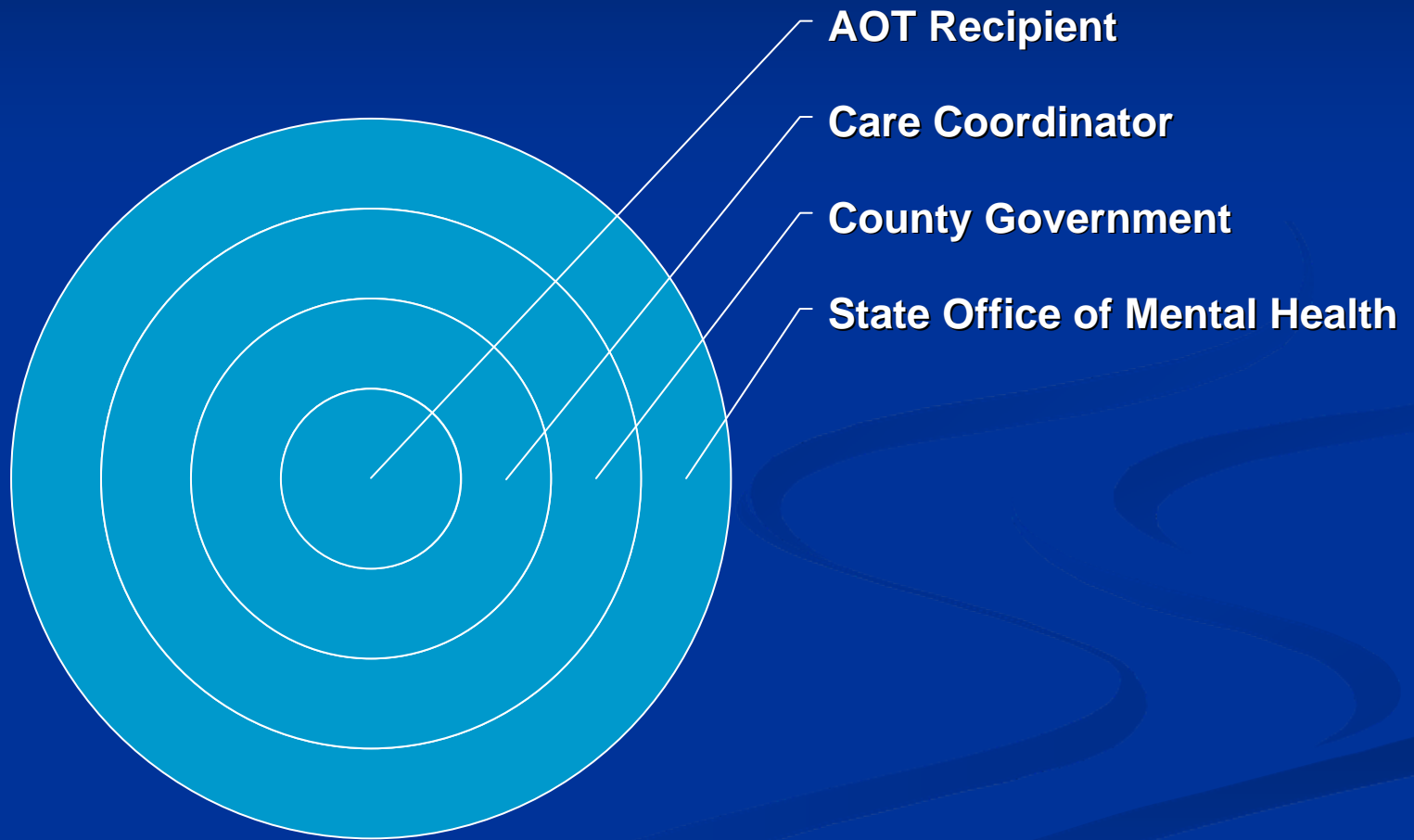
Eligibility Criteria

(continued)

4. **History of non-compliance with treatment**
5. **Unlikely to voluntarily participate in treatment**
6. **Court-ordered treatment is necessary to prevent relapse or deterioration**
7. **Likely to benefit**

What is Kendra's Law?

Concentric Circles of Oversight



What is Kendra's Law?

Authorized Petitioners

Although the majority of petitions are filed by hospital directors and county directors of community services, authorized petitioners also include:

- Roommate
- Family
- Other specific service providers
- Parole or Probation Officer

What is Kendra's Law?

Right to Counsel

The individual who is the subject of the petition has the right to legal representation by the Mental Hygiene Legal Service (MHLS) or by private counsel at all stages of the proceeding.

What is Kendra's Law?

The Hearing

- **Testimony by a physician is required.**
- **The subject of the petition may present evidence, call witnesses, and cross-examine adverse witnesses.**

What is Kendra's Law?

Disposition

- **Evidentiary Standard: Clear and Convincing**
- **The proposed treatment must be the least restrictive alternative.**
- **Initial orders may be granted for up to 6 months; consecutive subsequent orders may be renewed for up to 1 year.**

What is Kendra's Law?

Failure to Comply with the Court Order

If a physician determines that:

- The individual has failed to comply with the court order
- Efforts made to secure compliance have failed, and
- The individual may meet the standard for involuntary civil commitment

Then:

The County DCS may order the individual's removal from the community. He or she will be transported to a hospital for examination to determine whether there is a need for involuntary hospitalization.

This examination may not exceed 72 hours

What is Kendra's Law?

Failure to Comply with the Court Order (continued)

If the examining physician determines that:

- The individual does not meet the legal standard for involuntary admission and retention, and
- He or she is unwilling to remain in the hospital voluntarily

Then:

He or she must be released

Failure to comply with an AOT order is neither grounds for involuntary civil commitment nor a finding of contempt of court.

New York State's Evaluation of AOT

New York State Office of Mental Health's Mandate to Evaluate AOT

- **Kendra's Law includes a mandate for the New York State Office of Mental Health to evaluate AOT and report evaluation findings.**
- **Since its inception OMH has been collecting data on all recipients who receive AOT.**

Statewide Evaluation Protocol

Paper-based, standardized assessments for each AOT recipient are completed by case managers or Assertive Community Treatment teams which capture demographic characteristics of AOT recipients and their status in a variety of areas.

Data are collected at the onset of the court order, at six month intervals and at the expiration of the court order.

New York State's Evaluation of AOT

- Who gets AOT?
- How long do recipients receive AOT?
- What has NYS's statewide evaluation of AOT shown regarding outcomes for recipients?

Characteristics of AOT Recipients

Characteristics of AOT Recipients

Number of Individuals Who Have Received Court Orders through 2/08/08	6,418
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Age	Mean	37.7 Years
Gender	Male	67%
	Female	33%

Characteristics of AOT Recipients

Race/Ethnicity*	Black (non-Hispanic)	38%
	White (non-Hispanic)	31%
	Hispanic	26%
	Asian	3%
Diagnosis of Schizophrenia or Psychotic Disorder		
		73%
Coexisting Alcohol and/or Substance Abuse Disorder		
		48%

Lifetime Incidence of Hospitalization, Incarceration and Homelessness Prior to Issuance of Court-Order

Psychiatric Hospitalizations

Mean lifetime number	4.51
Percent hospitalized (at least one episode).	88%

Incarcerations

Mean lifetime number	0.52
Percent incarcerated (at least one episode).....	21%

Homeless Episodes

Percent with lifetime homelessness	23%
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How Long Are Individuals in Assisted Outpatient Treatment?

- **Initial court orders are issued for six months.**
- **Renewals can be for up to one year.**
- **About half of all initial court orders are renewed.**
- **The average time individuals are in AOT is about 16 months.**

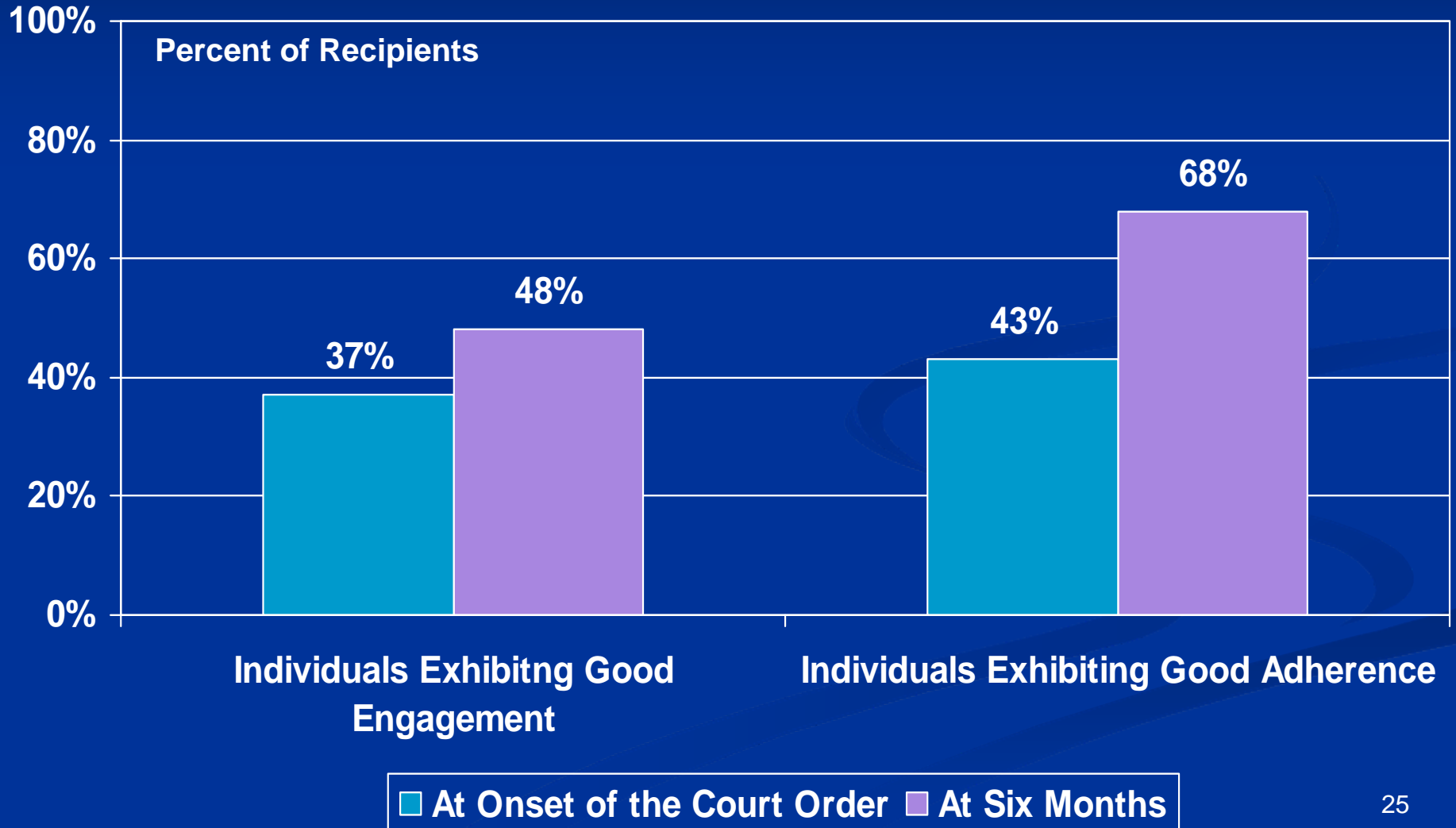
Outcomes for AOT Recipients

Reduced Incidence of Significant Events for AOT Recipients

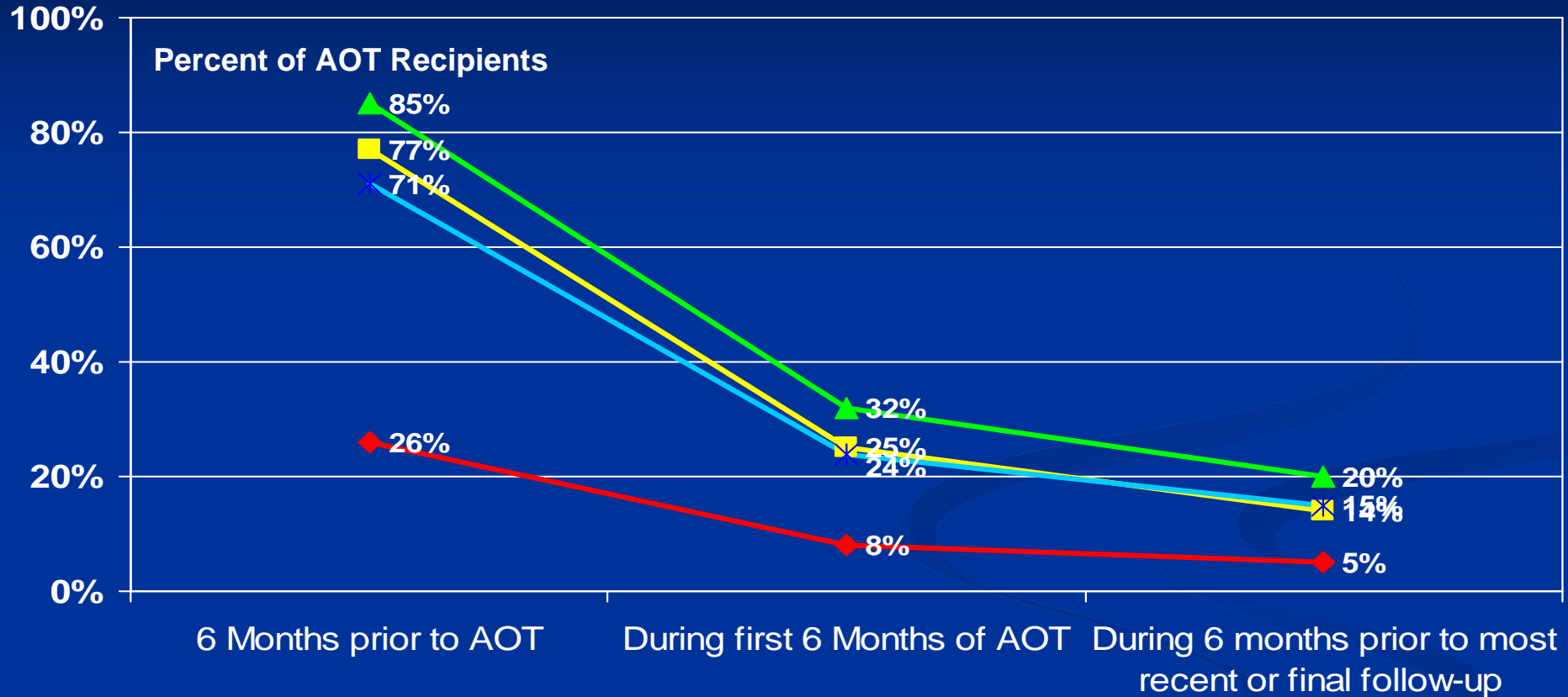
	Prior to AOT	During AOT	Percent Reduction
Incarceration	24%	6%	75%
Psychiatric Hospitalization	89%	36%	59%
Homelessness	23%	10%	56%

Changes in Service Engagement and Adherence to Medication Among AOT Recipients

At Onset of the Court Order vs. At Six Months



Reductions in Violence among AOT Recipients



The Impact of Assisted Outpatient Treatment on the Patterns of Service Utilization and Medicaid Costs

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Presentation Outline

- Analytic Purpose, Design and Method
- What is the impact of AOT on service utilization of recipients and on cost?
- Does length of time receiving AOT make a difference?
- How do the service utilization patterns of recipients receiving AOT compare to service utilization patterns of a comparable group of recipients?

Purpose of Analysis

- AOT seeks to promote successful and safe recipient engagement in care coordination and other community-based mental health services
- What can Medicaid claims data tell us about how effective AOT is achieving this goal and costs associated with identified service utilization patterns?

Analytic Design and Method

- Time Period: Claims extracted for service periods that span 12 months pre-AOT to 12 months post-AOT.
- Time in AOT: Recipients were grouped into two groups by length of their first continuous court order (6 months vs. more than 6 months)
- Service group: Claims data were aggregated into four service categories (care coordination, mental health outpatient, mental health inpatient, pharmacy)
- Medicaid services costs were averaged per recipient over service group and time period.
- A multilevel modeling approach was used to analyze change over time.

Service Group Definitions

Care Coordination	Assertive Community Treatment Intensive Case Management, Supportive Case Management Blended Case Management
Mental Health Outpatient	Continuing Day Treatment Outpatient Clinic Community Residence Intensive Psychiatric Rehabilitation Treatment, Partial Hospitalization Prepaid Mental Health Program
Psychiatric Inpatient	
Pharmacy	Mental Health Related Medications

Derivation of the AOT Analytic Cohort

The Challenge of Using Medicaid Claims Data

I	Identify all AOT Recipients for whom a Medicaid number was known to OMH	(n=4687)
II	Identify all cases that meet the appropriate time criteria: <ul style="list-style-type: none"> ■ court order began no earlier than 1/1/2002 and ended no later than 12/31/2005 ■ and more than 1 year gap before next court order 	(n=1390)
III	Identify cases that have Medicaid Claims in all three time periods of interest (pre-, during, post-AOT)	(n=840)
IV	Identify cases that are continuously eligible for Medicaid and have complete care coordination Medicaid claims billing	(n=299)

Findings from the most limited sample are generalizable to larger identified samples

- Analyses for the AOT sample were conducted using the most rigorous decision rules (sample IV, n=299) regarding time period, continuous eligibility and, completeness of billing.
- Findings from these analyses were similar analyses to conducted on a larger (sample III, n=840) - no differences in data patterns were observed.

Characteristics of Three Identified Cohorts

		Sample IV (N=299)	Sample III (N=840)	Sample II (N=1,391)
Age	Mean	38.6	37.0	37.8
Gender	Male	61.9%	65.9%	67.7%
	Female	38.1%	34.1%	32.3%
Race/Ethnicity	White	31.4%	36.6%	36.3%
	Non-White	68.6%	63.4%	63.7%
Marital Status	Single	79.4%	77.9%	77.2%
	Divorce/widowed	5.2%	6.0%	7.1%
	Married/Cohabitated w/significant other or domestic partner	15.5%	16.1%	15.7%

Characteristics of Three Identified Cohorts

		Sample IV (N=299)	Sample III (N=840)	Sample II (N=1,391)
Diagnosis	Schizophrenia	69.9%	68.5%	70.4%
	Bipolar	17.4%	17.2%	17.6%
Current Living Situation(*)	Living alone	14.5%	13.8%	11.6%
	Living with others	46.2%	40.9%	36.7%
	Supervised Living	32.9%	36.6%	39.2%
	Other	6.4%	8.8%	12.4%

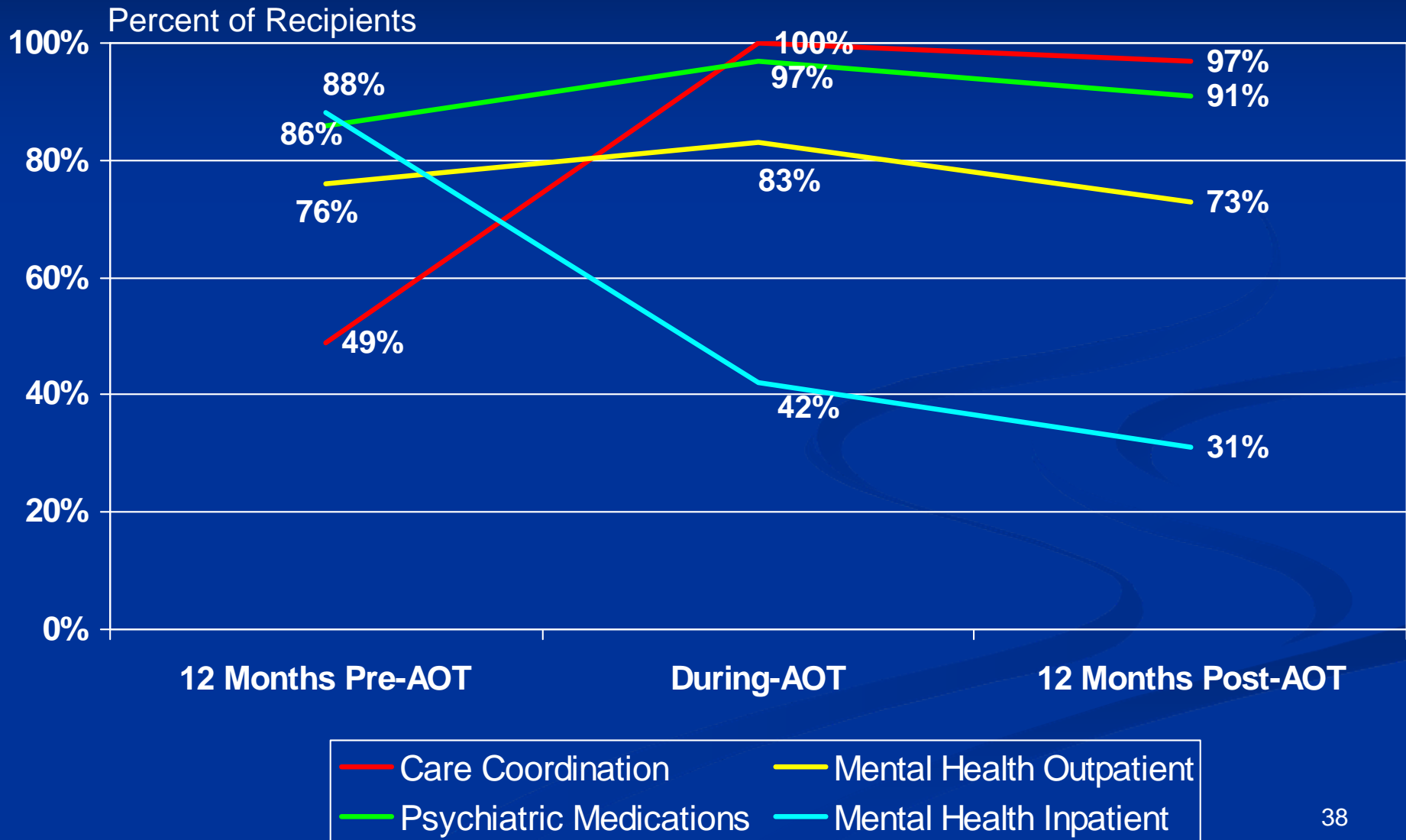
* $p < .05$

Analyses Conducted

- AOT Sample
 - Change in utilization patterns.
 - Frequency of hospital admissions.
 - Model of inpatient, care coordination and total Medicaid cost over time.
 - Expansion of the model to test the effect of time in AOT (6 month orders vs. more than 6 months orders).
- AOT Sample vs. Comparison Group
 - Compare changes in inpatient utilization
 - Model of inpatient and total Medicaid cost over time.

Service Utilization Patterns for AOT Recipients

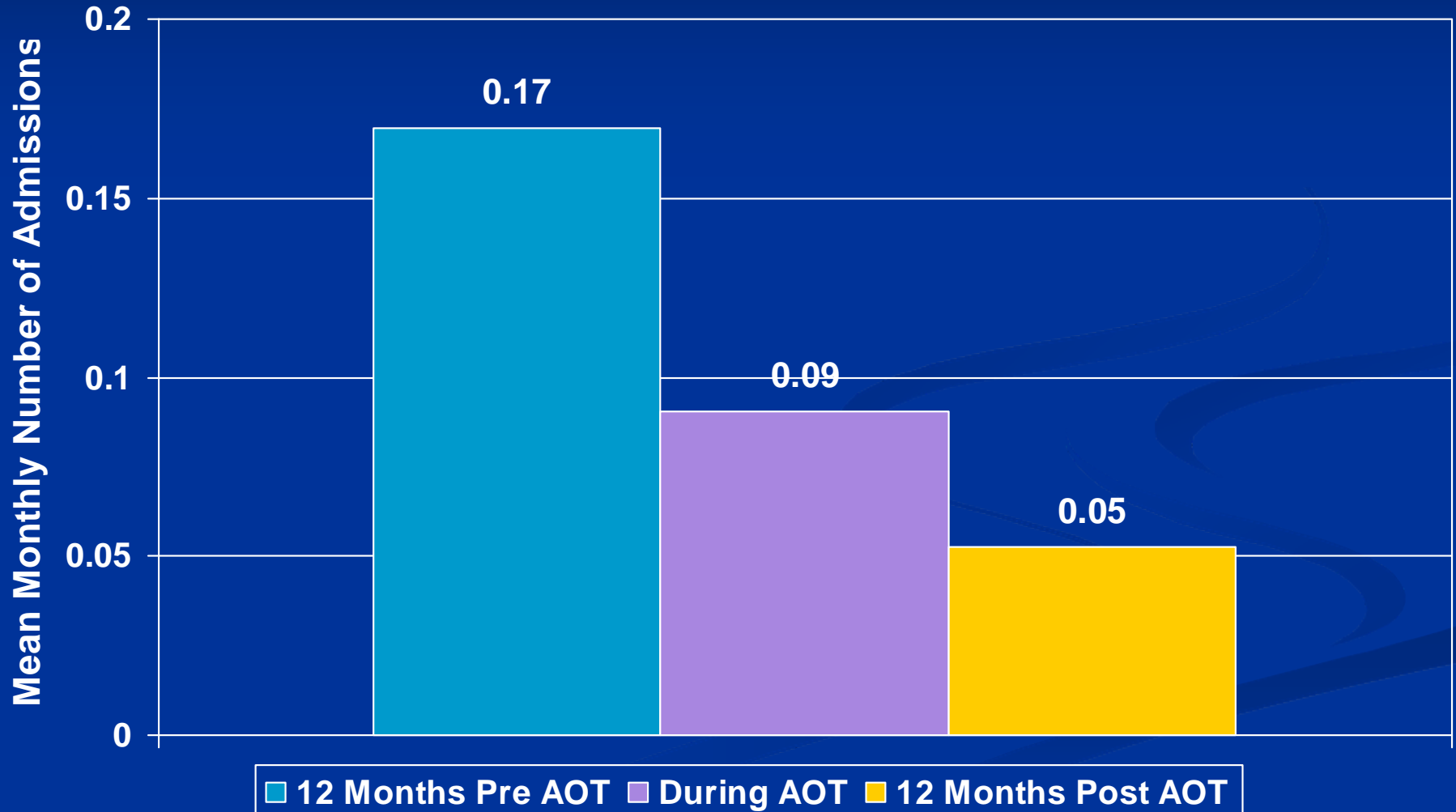
Percent of AOT Recipients in Service Categories of Interest 12 Months Pre-AOT, During AOT, and 12 Months Post-AOT (n=299)



Inpatient Utilization Pattern for AOT Recipients

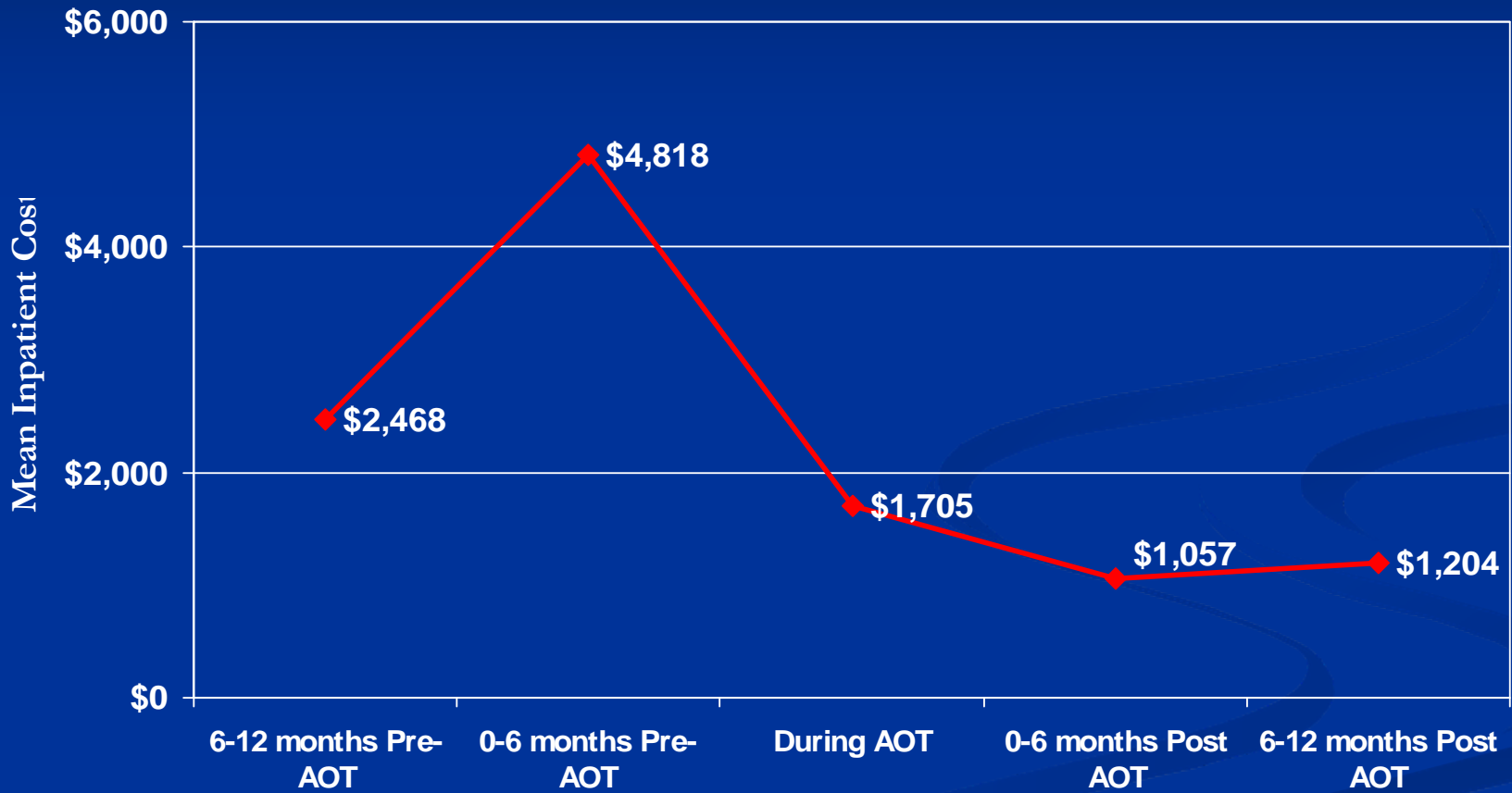
Mean Monthly Number of Inpatient Admissions

12 Months Pre-AOT, During AOT, and 12 Months Post-AOT
(n=299)



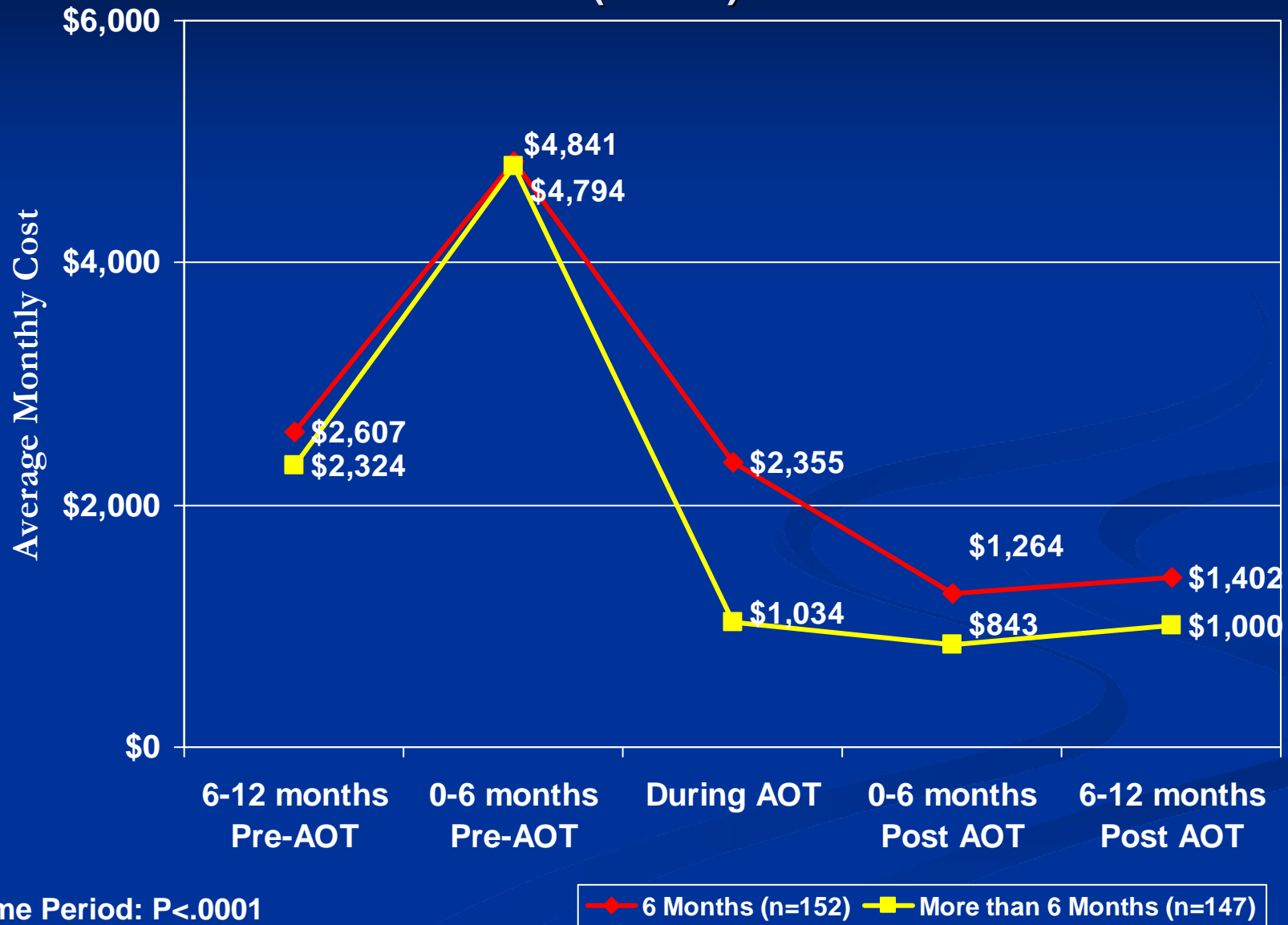
Inpatient Medicaid Costs for AOT Recipients

12 Months Pre-AOT, During AOT, and 12 Months Post-AOT
(n=299)



Time Period: P<.0001

Inpatient Medicaid Costs for AOT Recipients 6 Months vs. More than 6 Months under Court Order (n=299)



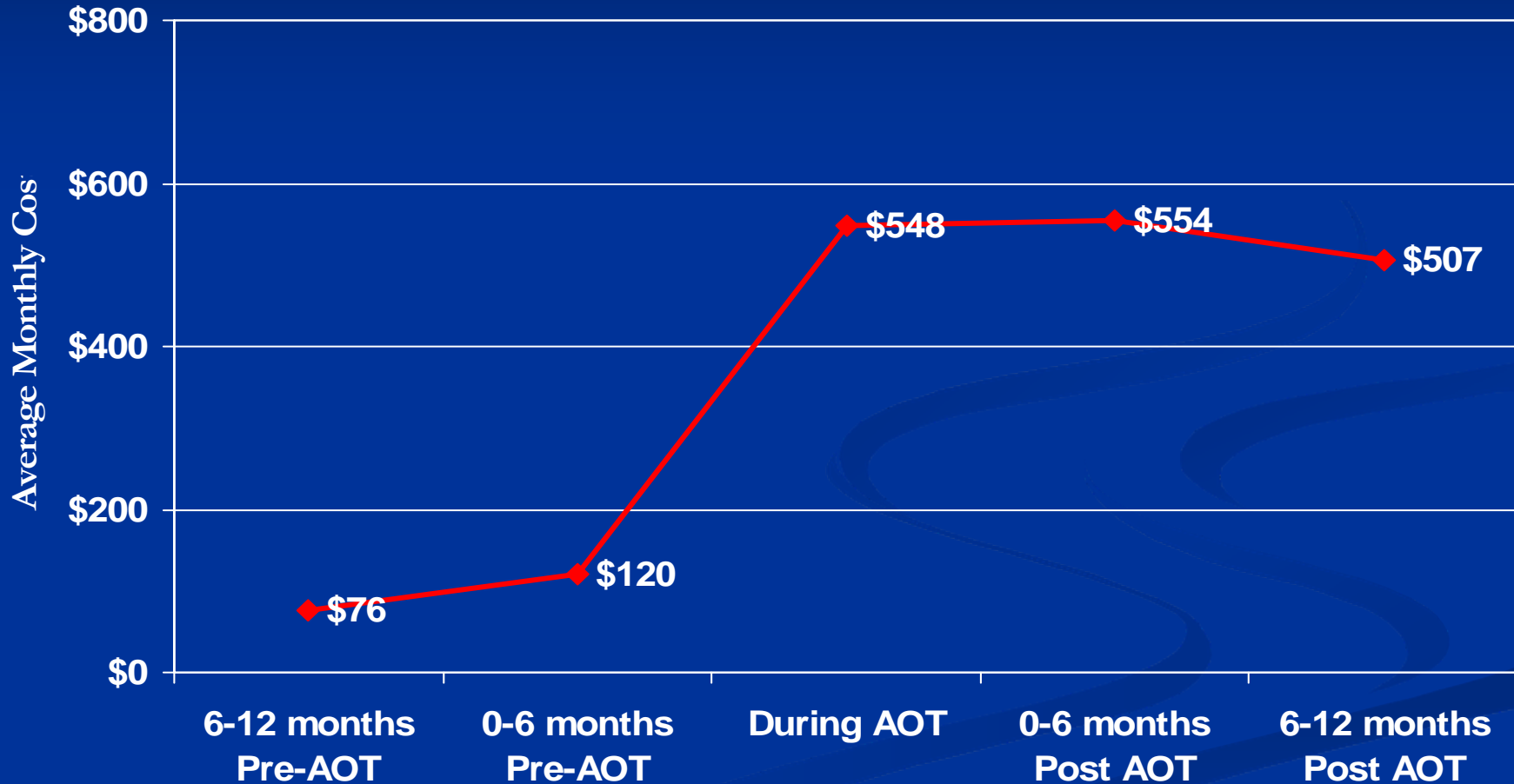
Time Period: $P < .0001$
Time In AOT: $P = 0.07$

Care Coordination Service Utilization Pattern for AOT Recipients

Model 1: Care Coordination Costs for AOT Individuals

12 Months Pre-AOT, During AOT, and 12 Months Post-AOT

(N=299)

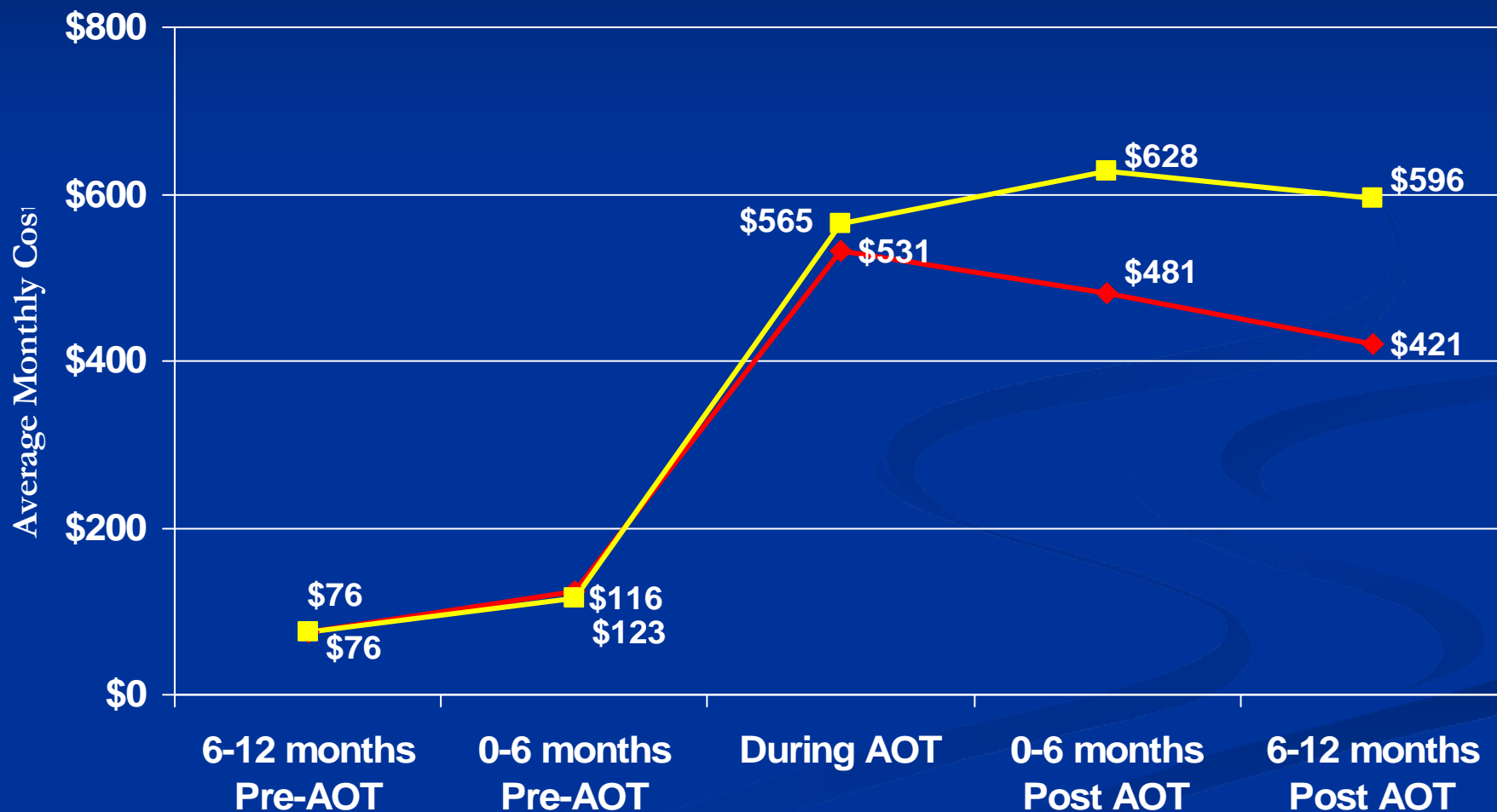


Time Period: $P < .0001$

Actual Care Coordination Costs for AOT Individuals

6 Months vs. More than 6 Months under Court Order

(n=299)



Time Period: $P < .0001$, Time In AOT: $P < .005$,
 Time Period * Time In AOT: $P < .0001$

◆ 6 Months (n=152) ■ More than 6 Months (n=147)

Change in Total Medicaid Cost for AOT Recipients

Total Medicaid Costs for AOT Individuals

12 Months Pre-AOT, During AOT, and 12 Months Post-AOT

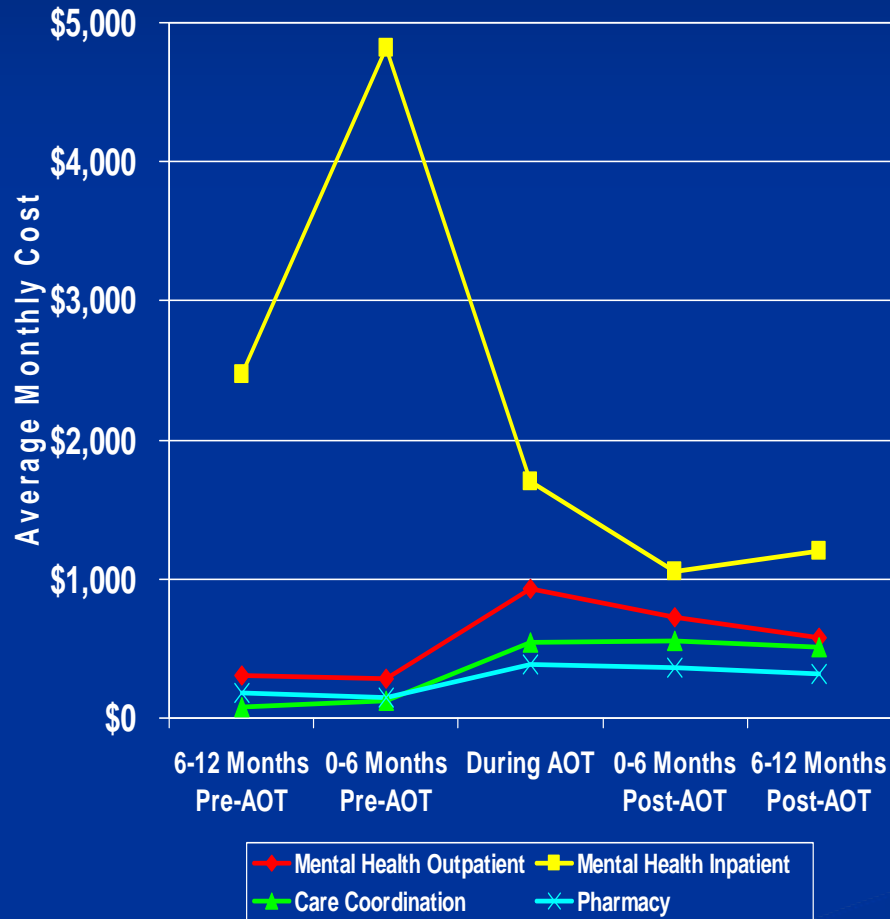
(N=299)



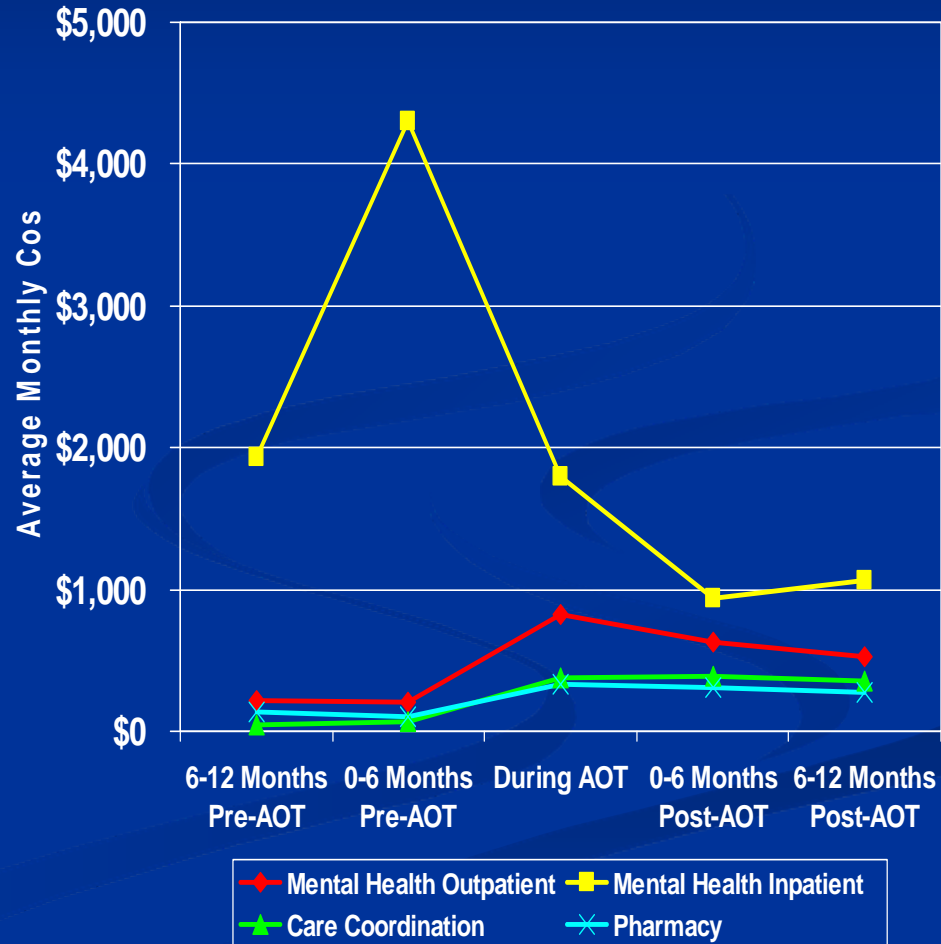
Time Period: P=0.0007

Monthly Average Medicaid Costs for AOT Individuals 12 Months Pre-AOT, During AOT, and 12 Months Post-AOT by Service Category

Sample IV (n=299)



Sample III (n=840)



How do the service utilization patterns of recipients receiving AOT compare to service utilization patterns of a comparable group of recipients?

Comparison Group Description

- The comparison group was derived from the Medicaid Claims data.
- Individuals in the comparison were identified as having *two or more inpatient admissions in a year with a total of 14 or more inpatient days and a diagnosis of schizophrenia or affective disorders and enrolled in assertive community treatment or case management.*
- Comparison Time Periods:
 - 1: 7-12 Months pre AOT or admission to program;
 - 2: 0-6 Months pre AOT or admission to program;
 - 3: Time in AOT or 0-12 month post admission to program;
 - 4: 0-6 Months post AOT or 12-18 months post program;
 - 5: 7 to 12 Months post AOT or 18-24 months post program.

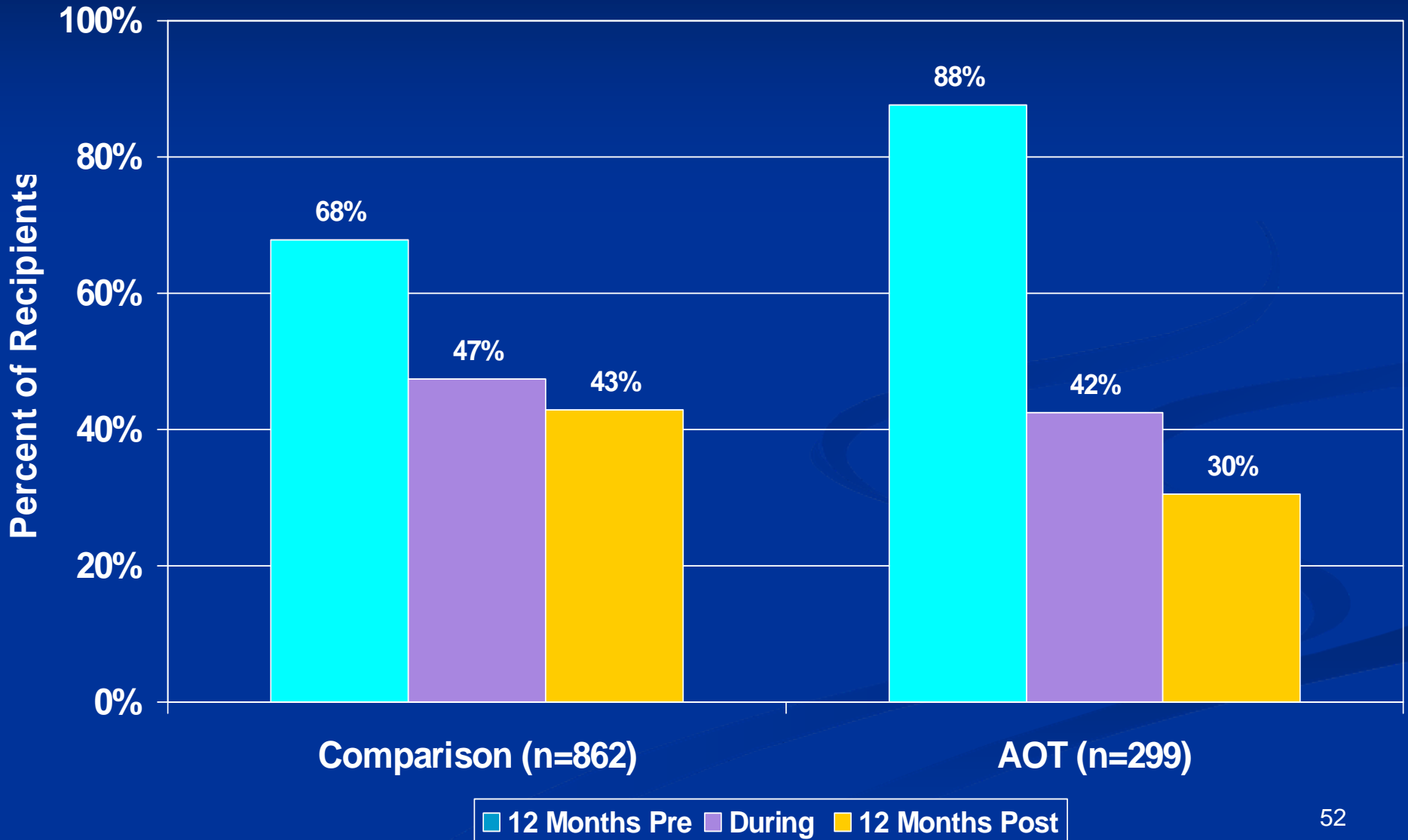
Demographic Comparison between AOT and Comparison Group

		AOT Sample (N=299)	Comparison Group (N=862)
Age (*)	Mean	38.6	40.6
Gender	Male	61.9%	64.8%
	Female	38.1%	35.2%
Race/Ethnicity	White	31.4%	34.0%
	Non-White	68.6%	66.0%
Region of Residence	Central NY	1.4%	2.6%
	Hudson River	7.0%	9.4%
	Long Island	14.6%	10.7%
	New York City	73.9%	73.4%
	Western NY	3.1%	3.9%

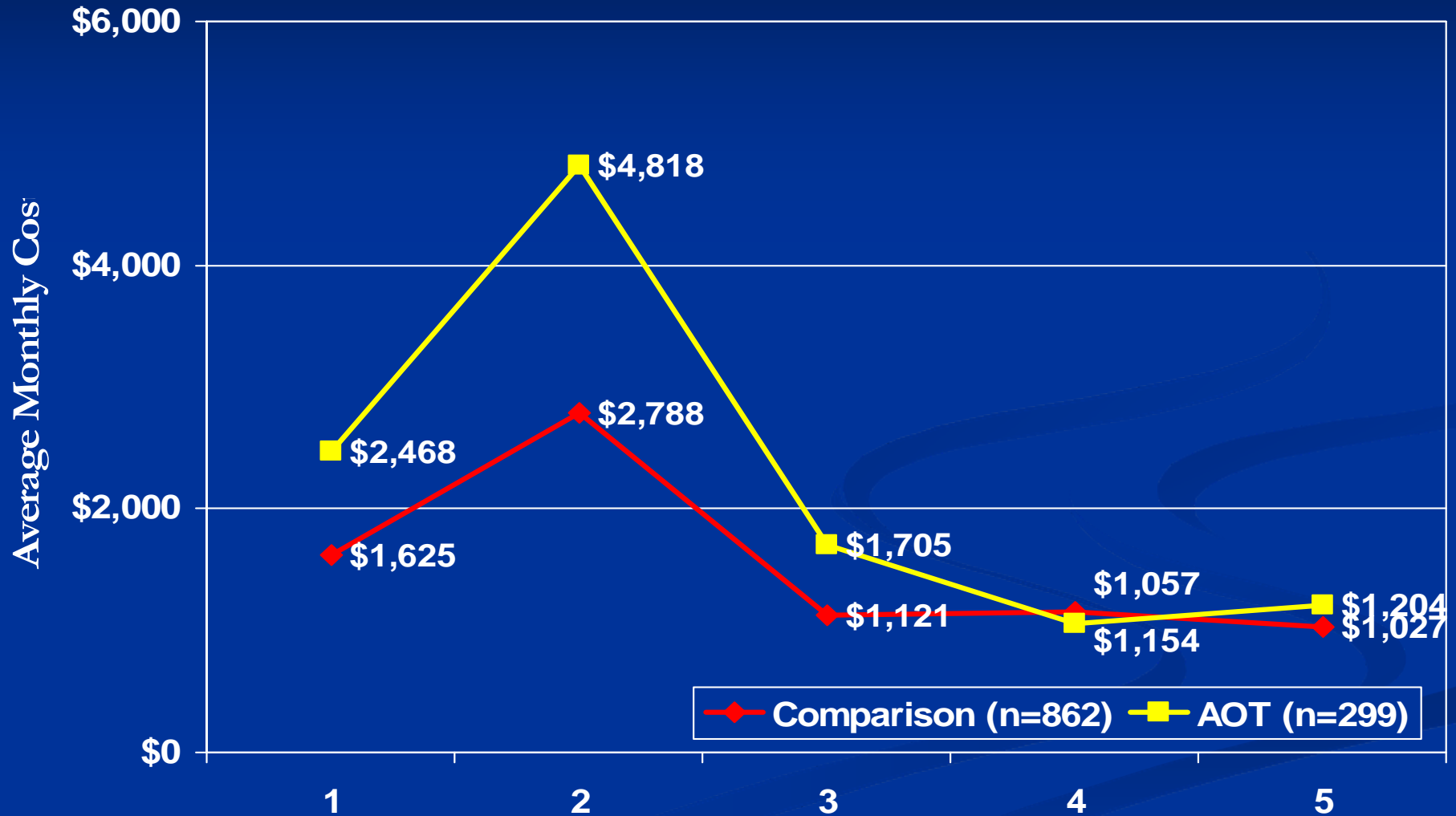
*Significant different at 5% level

Inpatient Admissions

AOT vs. Equivalent Comparison Group

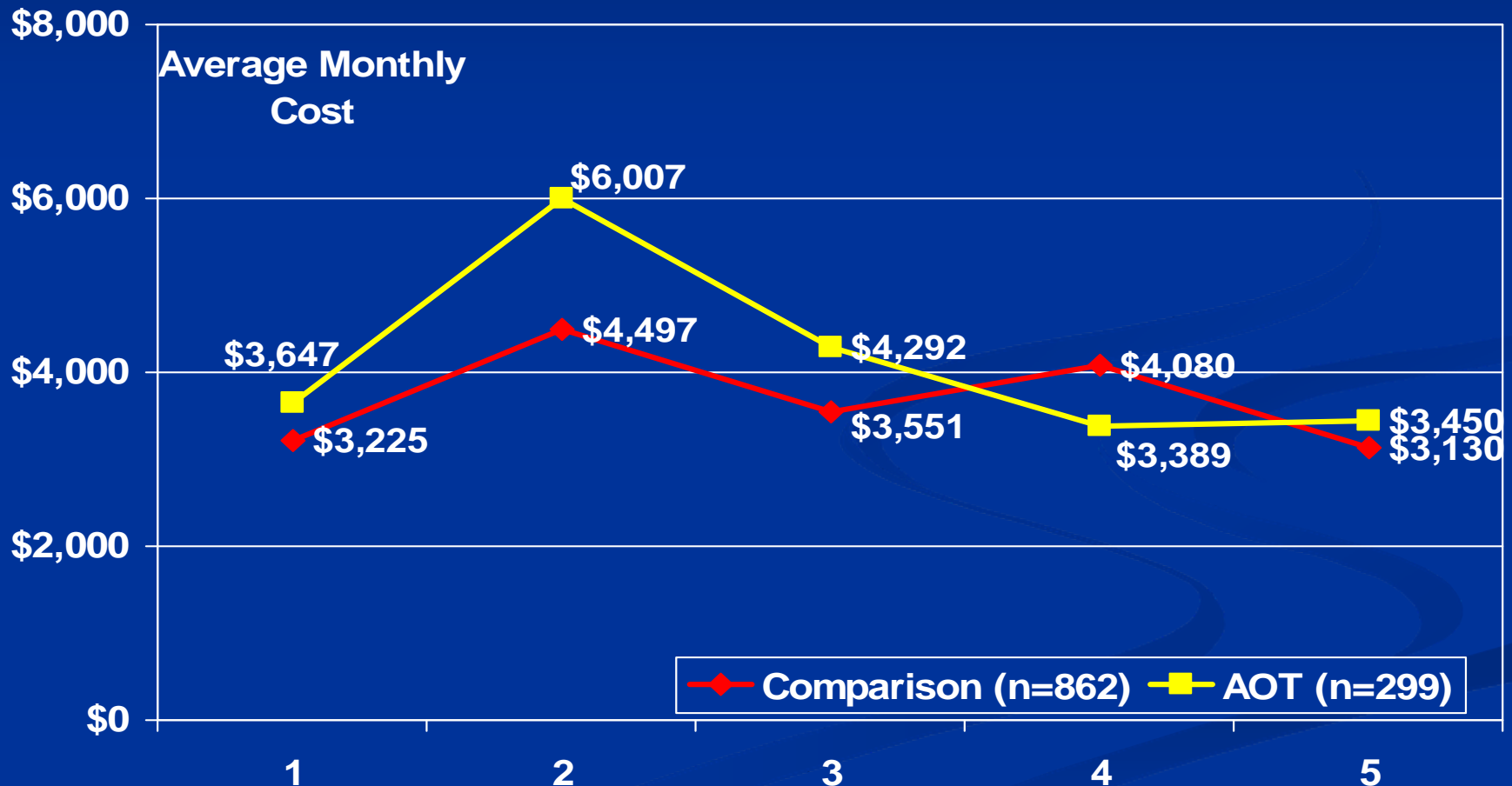


Actual Inpatient Cost AOT vs. Equivalent Comparison Group



Time Period: $P < .0001$, Group: $P < .0001$,
Time Period*Group: $P < .0001$

Total Medicaid Cost (actual) AOT vs. Equivalent Comparison Group



Time Period: $P < .0001$, Group: $P = 0.0001$
Time Period*Group: $P = 0.0050$

Conclusions

- Service utilization patterns changed for individuals who received AOT.
 - Increase in number of individuals receiving care coordination and decrease in hospitalizations.
 - Decrease in inpatient and total Medicaid cost over time,
 - Individuals under court order longer have more savings in inpatient Medicaid cost.
 - Individuals under court order longer have significantly better engagement in care coordination services
- Individuals in AOT show significantly more savings than the comparable group of individuals without AOT between one year prior to the court order to one year following the court order. However, once in care coordination costs are comparable.

Next Steps

- Continue efforts to isolate the impact of the court order.
- Examine the implications of missing Medicaid claims data in regard to understanding service utilization.
- Broaden the cost analysis.
- External, independent evaluation of AOT

**PROMOTING RECOVERY FOR INDIVIDUALS
IN MANDATED OUTPATIENT TREATMENT:
AN EVALUATION OF A TRAINING
INITIATIVE TO ADDRESS PROVIDER
STIGMA AND PRACTICE**

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**“Patients can only be
as healthy as
you want them to be.”**

David Schaub, MD

What were the AOT Symposia?

The AOT symposia were designed to promote a greater understanding of AOT among community service providers and to foster use of recovery-oriented strategies in working with individuals who are court-mandated to receive treatment.

What were the AOT Symposia?

- Conducted by the New York State Office of Mental Health (NYSOMH) in partnership with the New York City Department of Health and Mental Hygiene and the New York City Health and Hospitals Corporation
- Five one-day sessions, in each of the five boroughs of New York City in May and June 2007.

Targeted Audience

Service providers in the following settings were targeted:

- Continuing Day Treatment Programs
- Outpatient Clinics
- Residential Facilities
- Intensive Psychiatric Rehabilitation Programs
- Partial Hospital Programs

Symposia Agenda

- Address myths associated with AOT
- Describe the AOT process
- Explain providers' roles and responsibilities in relation to AOT
- Review Evaluation Results
- Present the AOT experience from the recipient perspective
- Train providers in engagement strategies for recipients who are difficult to engage

Characteristics of Symposia Participants

Symposia Participant Demographic Characteristics

Age, Gender and Race (n=354)

Mean Age 44 Years

Female 70%

Race/Ethnicity:

White 40%

Black 36%

Hispanic 15%

Asian/Pacific Islander 7%

Other 2%

Symposia Participant Characteristics

Prior Experience and Training in Mental Health and AOT
(n=354)

	Mean	Range
Mental Health Experience	12.2 years	0-30+ years
AOT Experience	3.5 years	0-7 years
Have ever received any training specific to AOT?		46 Percent

Symposia Evaluation Goals

Symposia Evaluation Goals

- To gather participants' reactions to the symposia.
- To explore service provider beliefs about attitudes toward individuals with serious mental illness in general and toward individuals receiving AOT in particular.
- To measure changes in those beliefs pre- and post symposia.

Evaluation Method and Measures

- Survey questionnaire administered just prior to the start of each symposium, at the end of each symposium and 9 months following each symposium.
- Questionnaire captured data on
 - Participant feedback on substance, relevance and usefulness of the symposia.
 - Stigmatizing beliefs regarding
 - individuals with serious mental illness.
 - individuals receiving AOT.
 - Engagement practices used by providers.
 - Recovery oriented practices used by providers.

Evaluation Questions

- What are the symposium participants reaction to the symposia?
- What do community-based service providers believe about attitudes toward
 - individuals with serious mental illness?
 - individuals receiving AOT?
- Are beliefs about attitudes regarding people with mental illness associated with:
 - engagement strategies used by providers?
 - recovery-oriented practices used by providers?
- Did the AOT Symposium intervention have an impact on beliefs of providers and the practices they employ?

Symposia Participant Feedback

Symposia Participant Feedback

(n=295)

	Agree/ Strongly Agree
The content of the AOT Symposium met my expectations:	82.7%
Now that I have completed the symposium, I am likely to apply what I've learned to my job.	84.0%
The overall pace of today's symposium was just right. *	83.2%
The overall length of today's symposium was just right. *	77.4%
	Relevant/ Very Relevant
How relevant is today's symposium to your job?	88.6%

* Although, there was good feedback regarding the pace and length of the symposia, there were also a number of comments that the symposia were too long and overly ambitious for a single day.

Symposia Participant Feedback

(n=295)

- 75% of responding participants described their knowledge of AOT as good or excellent after the symposia compared to 45% before the symposia.
- 76% of responding participants described their understanding or ability to use AOT as good or excellent after the symposia compared to 45% before the symposia
- 94% of responding participants gave the Symposia an overall rating of good, very good or excellent.
- 97% of responding participants reported that they would recommend the AOT Symposium to others.

Summary of Participant Feedback

- Participants provided overwhelmingly positive feedback.
- Participants reported significant improvement in their knowledge of AOT and their ability to use AOT after the symposia compared to before the symposia.
- A number of comments were received that the symposia were too long and overly ambitious for a single day.

Beliefs and Attitudes of Symposia Participants Regarding Individuals with Mental Illness

Attitudes Reported at Baseline - General Stigma Items

(for positively worded items lower levels of agreement represent higher levels of stigma)

Do you Strongly Disagree, Disagree, Agree, or Strongly Agree with the following statements?

<i>Percentage of Symposia Participants who Agree or Agree Strongly</i>	
Most people would <u>not</u> accept a person who has fully recovered from mental illness as a teacher of young children. (r)	83%
Most people believe that a person who has been hospitalized for mental illness is <u>not</u> just as trustworthy as the average citizen. (r)	82%
Most people would <u>not</u> be willing to marry someone who has been a patient in a mental hospital. (r)	78%
Most people would <u>not</u> accept a person who has been in a mental hospital as a close friend. (r)	70%
Most people in my community would <u>not</u> treat a person who has been hospitalized with mental illness the same as they would treat anyone. (r)	70%
Most employers will <u>not</u> hire a person who has been hospitalized for mental illness if s/he is qualified for the job. (r)	44%

(r) = indicates that the item is reverse worded and scored when calculating a mean value.⁷⁵

Attitudes Reported at Baseline - General Stigma Items

(for negatively worded items higher levels of agreement represent higher levels of stigma)

Do you Strongly Disagree, Disagree, Agree, or Strongly Agree with the following statements?

<i>Percentage of Symposia Participants who Agree or Agree Strongly</i>	
Most employers will not hire a person who has been hospitalized for serious mental illness to take care of their children, even if he or she has been well for some time.	85%
Most people believe that a person who has been hospitalized for a mental illness is dangerous.	73%
Most people think less of a person after s/he has been hospitalized for a mental illness.	73%
Most people believe that entering a psychiatric hospital is a sign of personal failure.	60%
Most employers will not hire a person who has been hospitalized for a mental illness.	51%

Attitudes Reported at Baseline - AOT Stigma Items

(for positively worded items lower levels of agreement represent higher levels of stigma, for negatively worded items higher levels of agreement represent higher levels of stigma).

Do you Strongly Disagree, Disagree, Agree, or Strongly Agree with the following statements?

<i>Percentage of Symposia Participants who Agree or Agree Strongly</i>	
People receiving AOT should be isolated from the rest of the community.	5%
People receiving AOT should not be given any responsibility.	6%
People receiving AOT are unable to make decisions.	10%
People receiving AOT are <u>not</u> able to work. (rev)	18%
People receiving AOT are <u>not</u> as unpredictable as the general population. (rev)	42%
People receiving AOT are <u>not</u> wrongly viewed as lazy. (rev)	46%
People receiving AOT are difficult to deal with.	51%
Once someone knows that a person is receiving AOT they will treat him very differently.	61%
Most people believe that a person receiving AOT is dangerous	76%

(r) = indicates that the item is reverse worded and scored when calculating a mean value ⁷⁷

Attitudes Reported at Baseline – General AOT Items

(for positively worded items lower levels of agreement represent higher levels of stigma)

Do you Strongly Disagree, Disagree, Agree, or Strongly Agree with the following statements?

<i>Percentage of Symposia Participants who Agree or Agree Strongly</i>	
All things considered, receiving AOT is really good for people with serious mental illness	84%
People receiving AOT <u>do not</u> experience very little stigma as a consequence of being court-ordered into outpatient treatment. (r)	74%

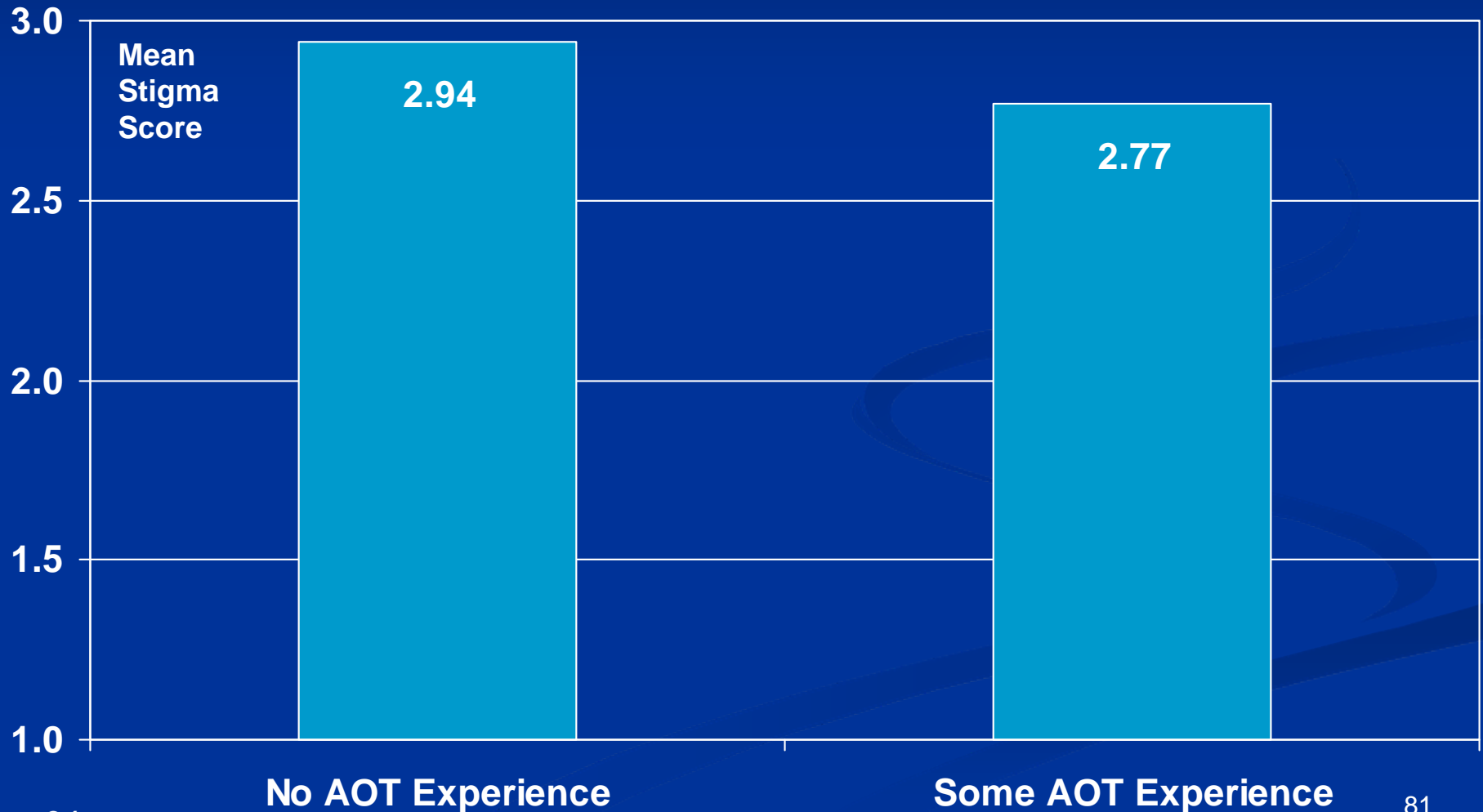
Computing Mean Stigma Scores

- For cross sectional and baseline/follow-up comparisons of stigma, mean stigma scores were computed.
- A scale of 11 “most people” items was constructed ($\alpha = .81$) – cases where 8 of the 11 items were completed were included in the calculation of the mean scores.
- Positively worded items were reverse-coded so that the direction of all items were aligned to be meaningfully consistent: higher score = higher stigma

Characteristics of Symposia Participants and Stigmatizing Beliefs

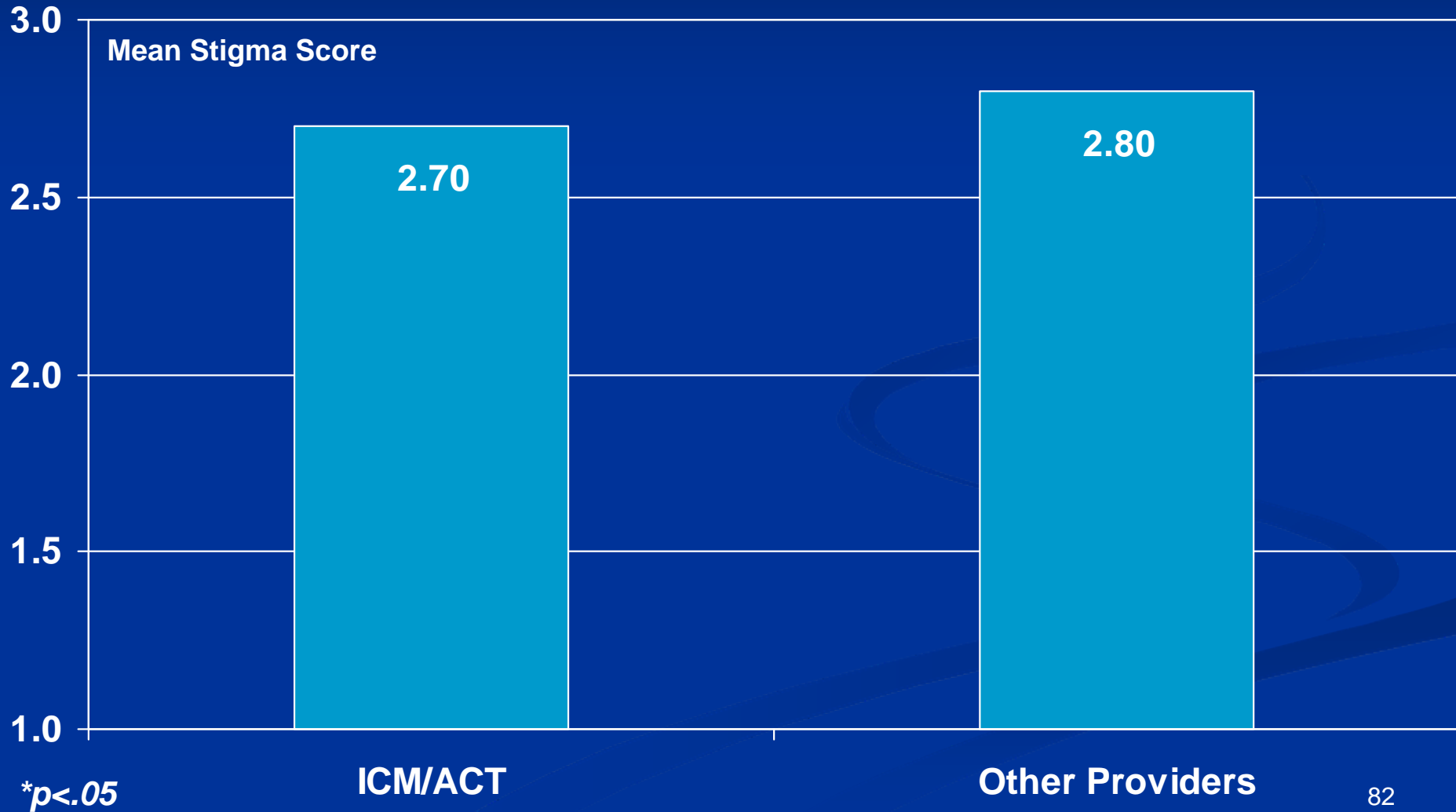
Characteristics of Symposia Participants and Stigmatizing Beliefs

Symposia participants with at least **some experience working with AOT recipients** report significantly lower levels of stigmatizing beliefs than symposia participants with **no experience working with AOT recipients**.*



Characteristics of Symposia Participants and Stigmatizing Beliefs

ICM and ACT Symposia participants (n=27) endorse significantly lower levels of stigmatizing beliefs than other symposia participants (n=272).*



Characteristics of Symposia Participants and Stigmatizing Beliefs

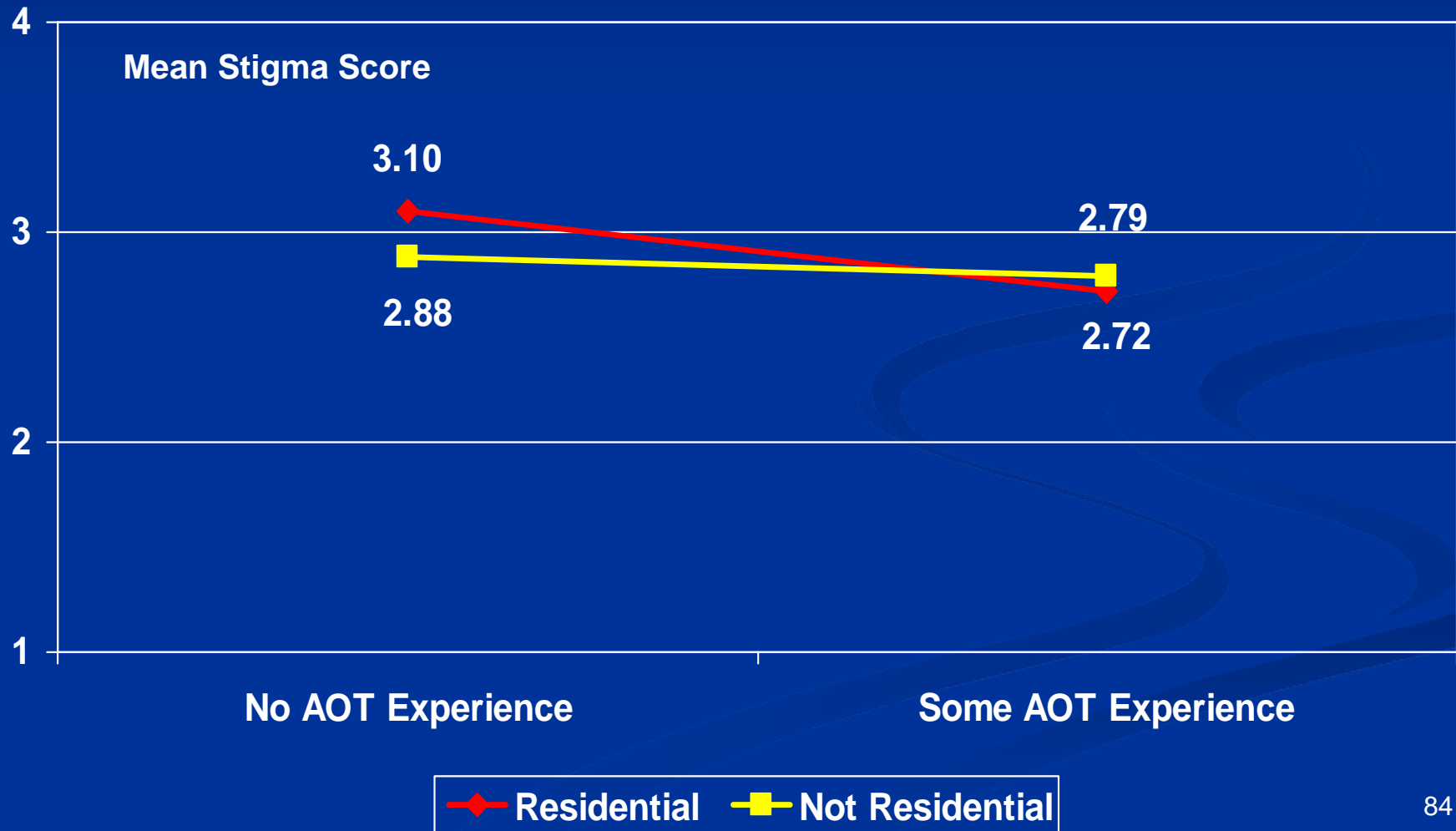
Symposia participants who provide services from mental health clinics (n=47) endorse significantly higher levels of stigmatizing beliefs than other symposia participants (n=252).*



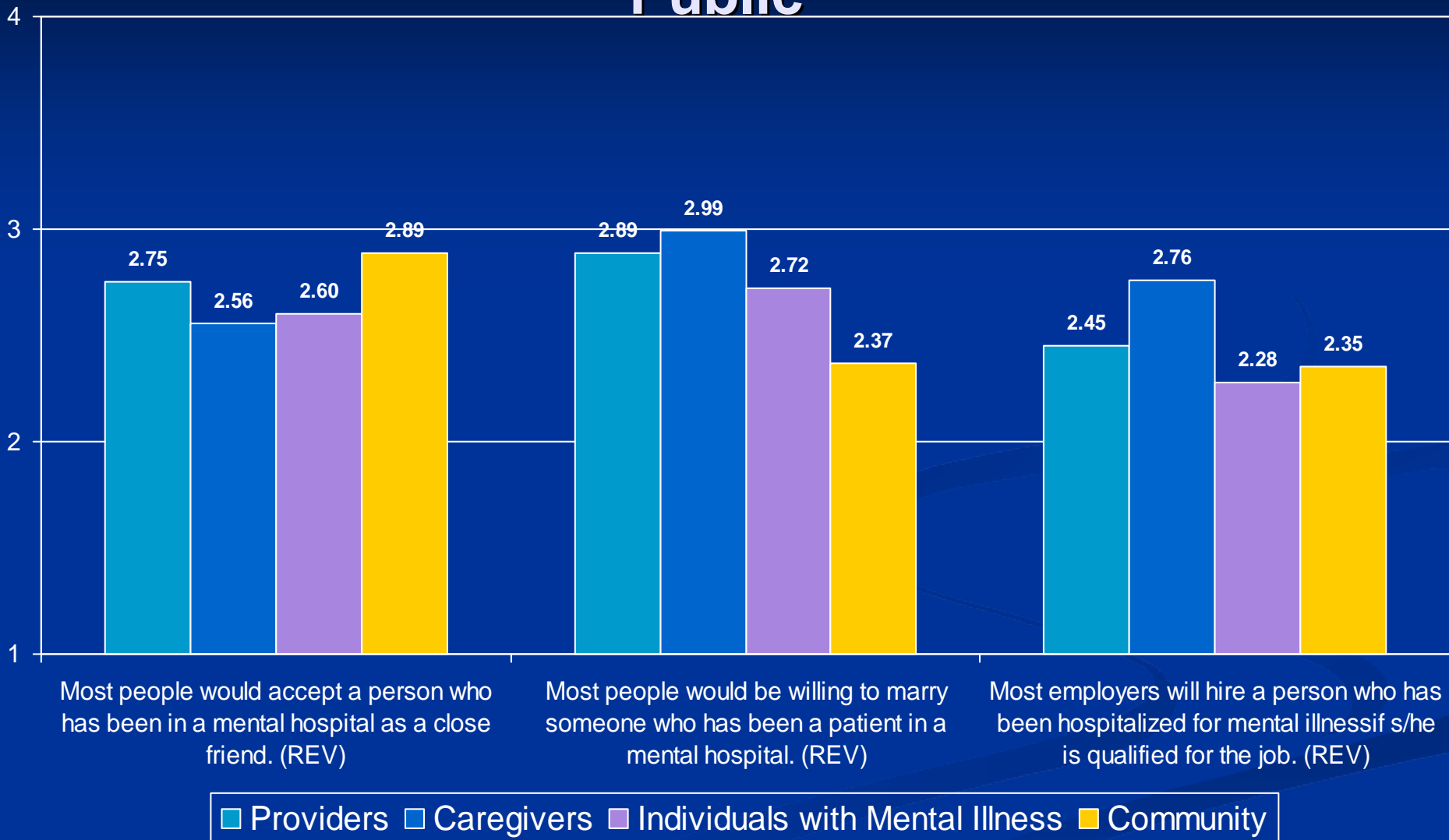
* $p < .05$

Characteristics of Symposia Participants and Stigmatizing Beliefs

Residential providers (n=114) with some AOT experience have significantly lower mean stigma score than residential providers with no AOT experience while other providers showed no difference on stigma and AOT experience.



Stigmatizing Beliefs: How do Providers compare to Caregivers¹, Individuals with Mental Illness² and the Public³



¹Struening, EL; Perlick, DA; Link, BG; Hellman, F; Herman, D & Sirey, JA (2001). The Extent to Which Caregivers Believe Most People Devalue Consumers and Their Families.

²Link and Castille (2007) Unpublished data from Community Outcomes Study of Assisted Outpatient Treatment.

³Link, BG.; Cullen, FT, Struening, EL; Shrout, PE; & Dohrenwend, BP (1989). A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment.

Observations Regarding Symposia Participants and Stigmatizing Beliefs

- Symposia participants report stigmatizing beliefs with regard to people with mental illness – levels comparable to those reported by recipients and the public.
- Symposia providers report low levels of stigma with regard to “severe” attitudes toward recipients receiving AOT but extend their beliefs about attitudes toward people with mental illness to AOT recipients.
- The significant association between lower stigma and AOT experience and ICM/ACT providers suggest that contact with AOT recipients and training specific to AOT may mitigate stigmatizing beliefs among service providers.

Provider Engagement and Recovery Oriented Practice Strategies

Frequency of Use of Positive Engagement Practices

How often do you and/or other staff at your agency
(Never, Rarely, Sometimes, Often):

	Sometimes/Often
Buy recipients lunch, other small gifts, etc. to promote better engagement in services (e.g., to help build the relationship, to reward them for making progress toward treatment plan goals, as part of an agreement or behavioral contract with a recipient.)	40.7%
Serve food during group treatment activities to improve attendance.	62.2%
Give small gifts to encourage recipients' participation in services.	31.4%
Provide transportation for shopping, medical appointments, and group treatment activities.	69.6%
Attempt to engage recipients who are refusing services by calling on the phone, going to their home and/or offering them food, necessities, cigarettes, etc.	60.1%

Frequency of Use of Limiting Engagement Practices

How often do you and/or other staff at your agency
(Never, Rarely, Sometimes, Often):

	Sometimes/Often
Remind recipients of potential for relapse and hospitalization if they continue to have trouble following their treatment plan (e.g., poor medication adherence, continued substance use, etc.)	92.2%
Remind recipients that they may lose their housing if they continue to have trouble following their treatment plan (e.g., poor medication adherence, continued substance use, etc.)	74.5%
Remind recipients that they may lose or have difficulty regaining custody/visitation of their children if they continue to have trouble following the treatment plan (e.g., poor medication adherence, continued substance use, etc.)	74.1%
Remind recipients they may need a guardian if they continue to have trouble following the treatment plan (e.g., poor medication adherence, continued substance use, etc.)	50.6%
Remind recipients of risk for incarceration if they continue to have trouble following the treatment plan (e.g., poor medication adherence, continued substance use, etc.)	61.9%
Supervise the administration of medication for recipients who have trouble with medication adherence.	69.7%

Baseline Questionnaire

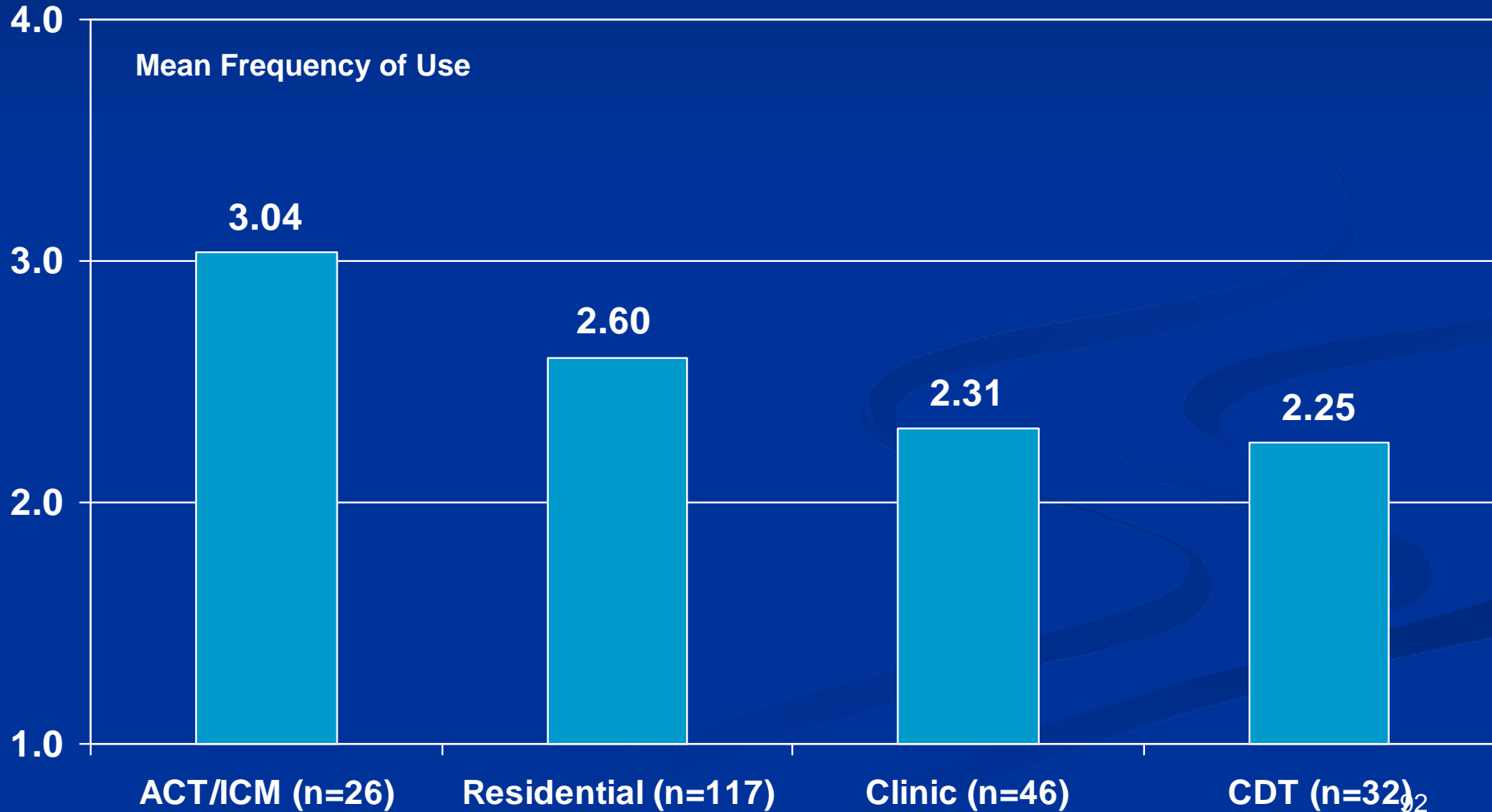
How often do you and/or other staff at your agency
(Never, Rarely, Sometimes, Often):

	Sometimes/Often
Explore recipients' feelings regarding receiving AOT.	87.0%
Seek formal opportunities for recipients and family members to learn about recovery.	87.3%
Make efforts to involve significant others (spouses, friends, family members) and other natural supports (i.e., clergy, neighbors, landlords) in the planning of a person's services, if needed.	90.3%
Assist recipients in their pursuit of educational and/or employment goals.	91.2%
Discuss with recipients the pros and cons of being in treatment.	95.2%
Assist recipients with fulfilling their individually defined goals and aspirations.	95.5%
Give recipients the opportunity to discuss their perspective on past negative experiences with treatment.	95.5%
Listen to and follow the choices and preferences of recipients.	96.3%
Monitor progress made toward goals (as defined by the person in recovery) on a regular basis.	98.2%

**Characteristics of
Symposia Participants
and Provider Practice:
Use of Positive
Engagement Strategies**

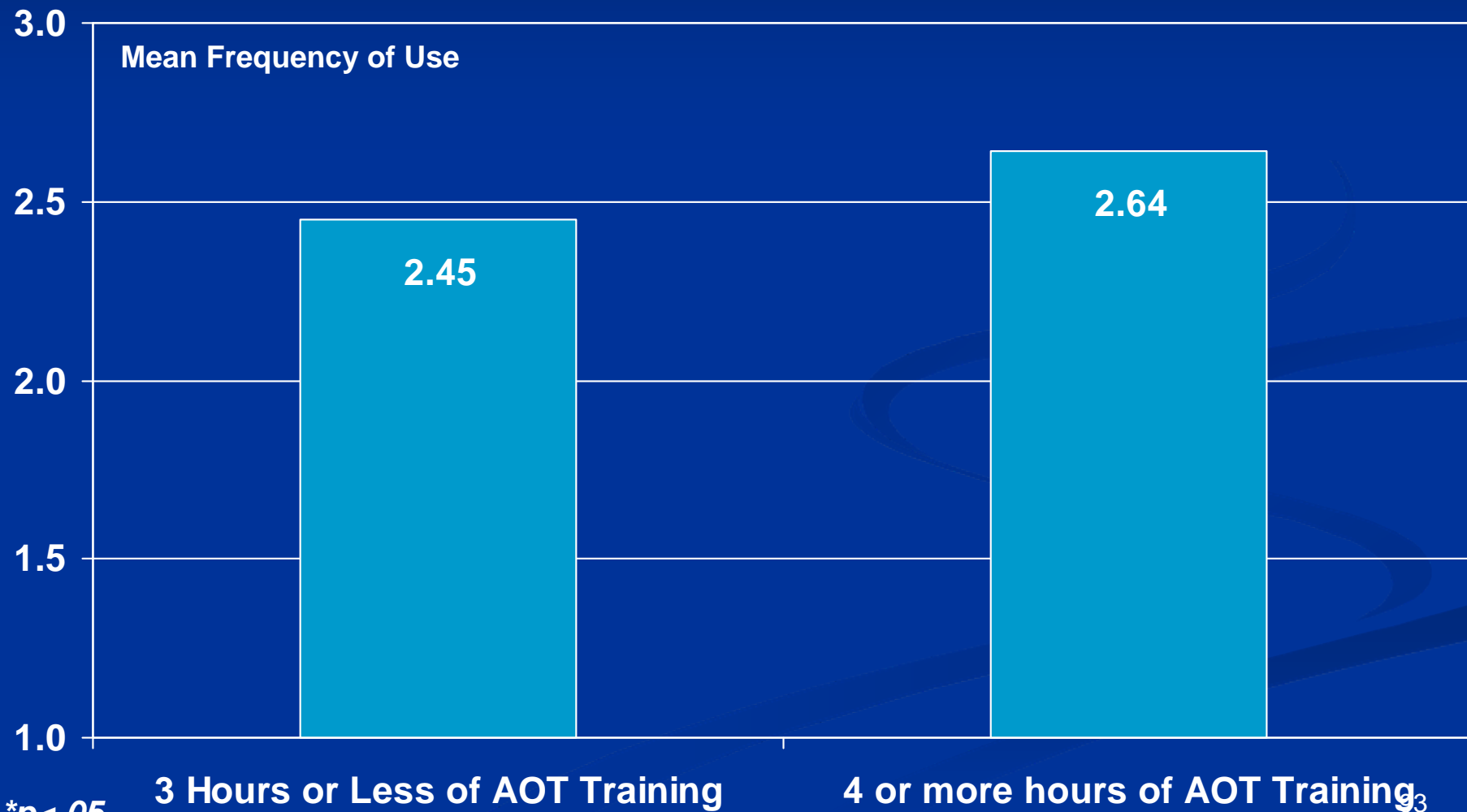
Characteristics of Symposia Participants and Provider Practice: Use of Positive Engagement Strategies

Symposia participants from different agency types report using positive practices with varying frequency.



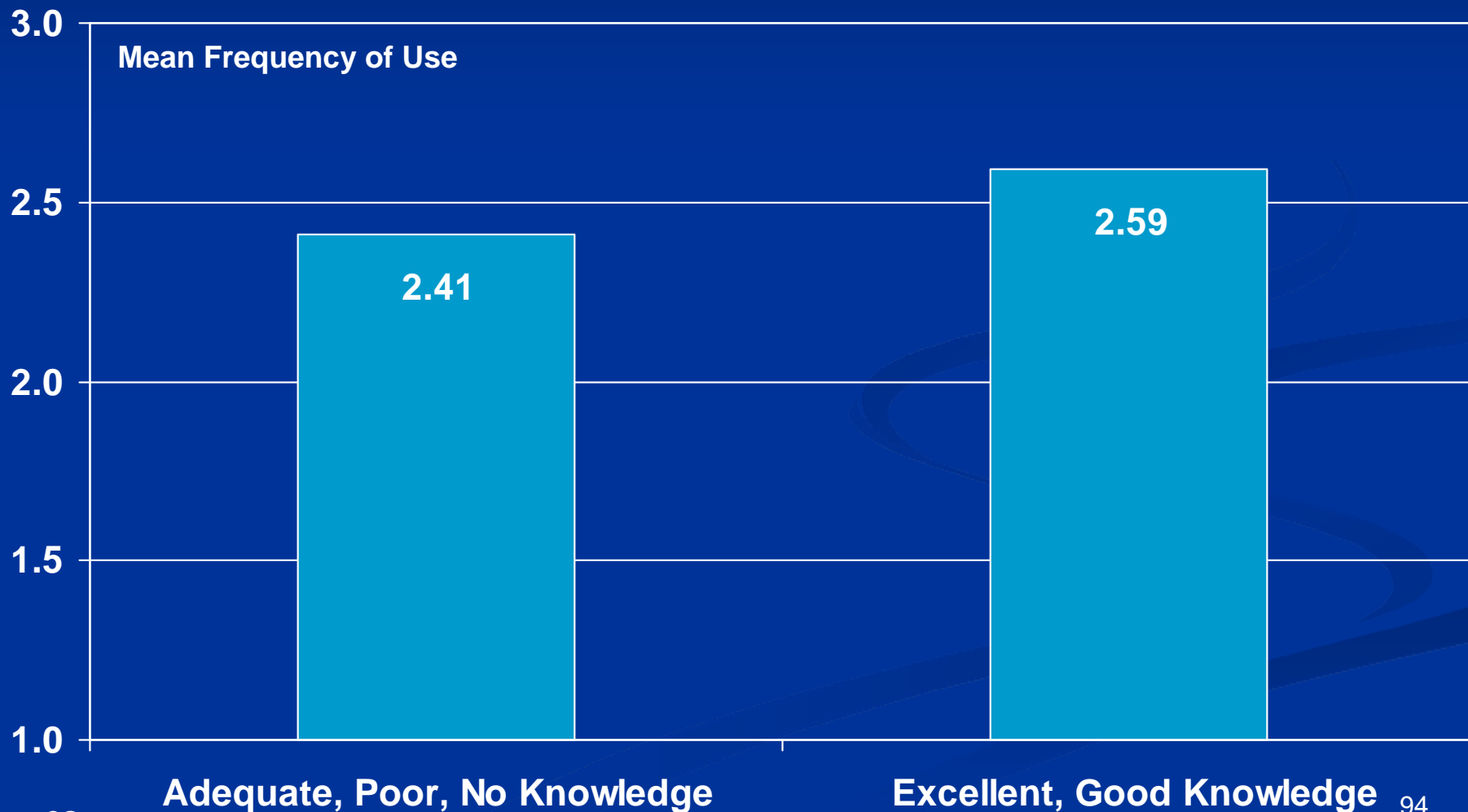
Characteristics of Symposia Participants and Provider Practice: Use of Positive Engagement Strategies

Symposia participants who had **4 or more hours of AOT training** (n=63) report using positive practices significantly more frequently than symposia participants who had **3 hours or fewer of training** (n=226). *



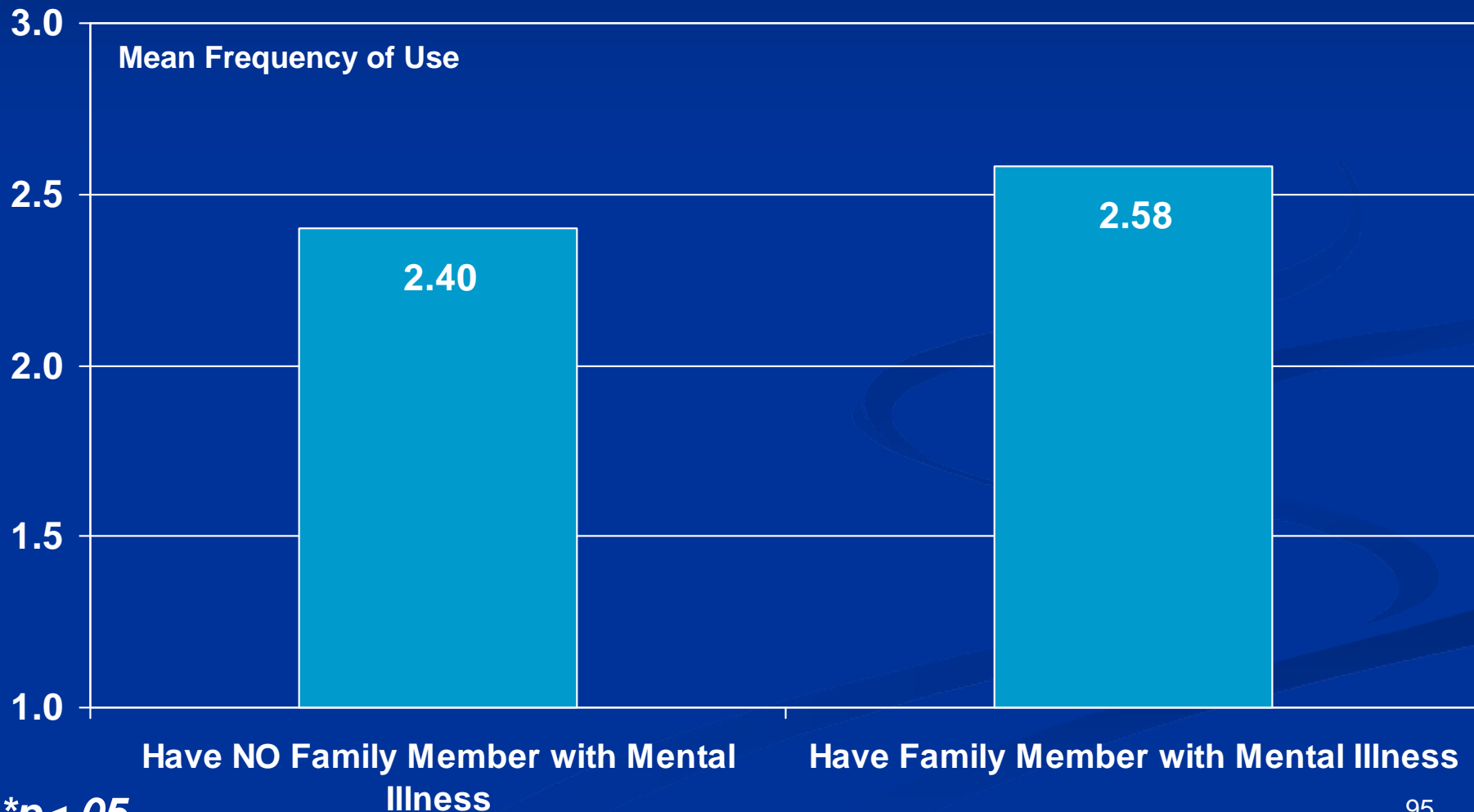
Characteristics of Symposia Participants and Provider Practice: Use of Positive Engagement Strategies

Symposia participants who report **good or excellent knowledge** of AOT (n=127) report using positive practices significantly more frequently than symposia participants who report **adequate, poor or no knowledge** of AOT (n=161).*



Characteristics of Symposia Participants and Provider Practice: Use of Positive Engagement Strategies

Symposia participants who report having a **family member with mental illness** (n=126) report using positive practices significantly more frequently than symposia participants who do not (n=95).*



Characteristics of Symposia Participants and Provider Practice: Use of Positive Engagement Strategies

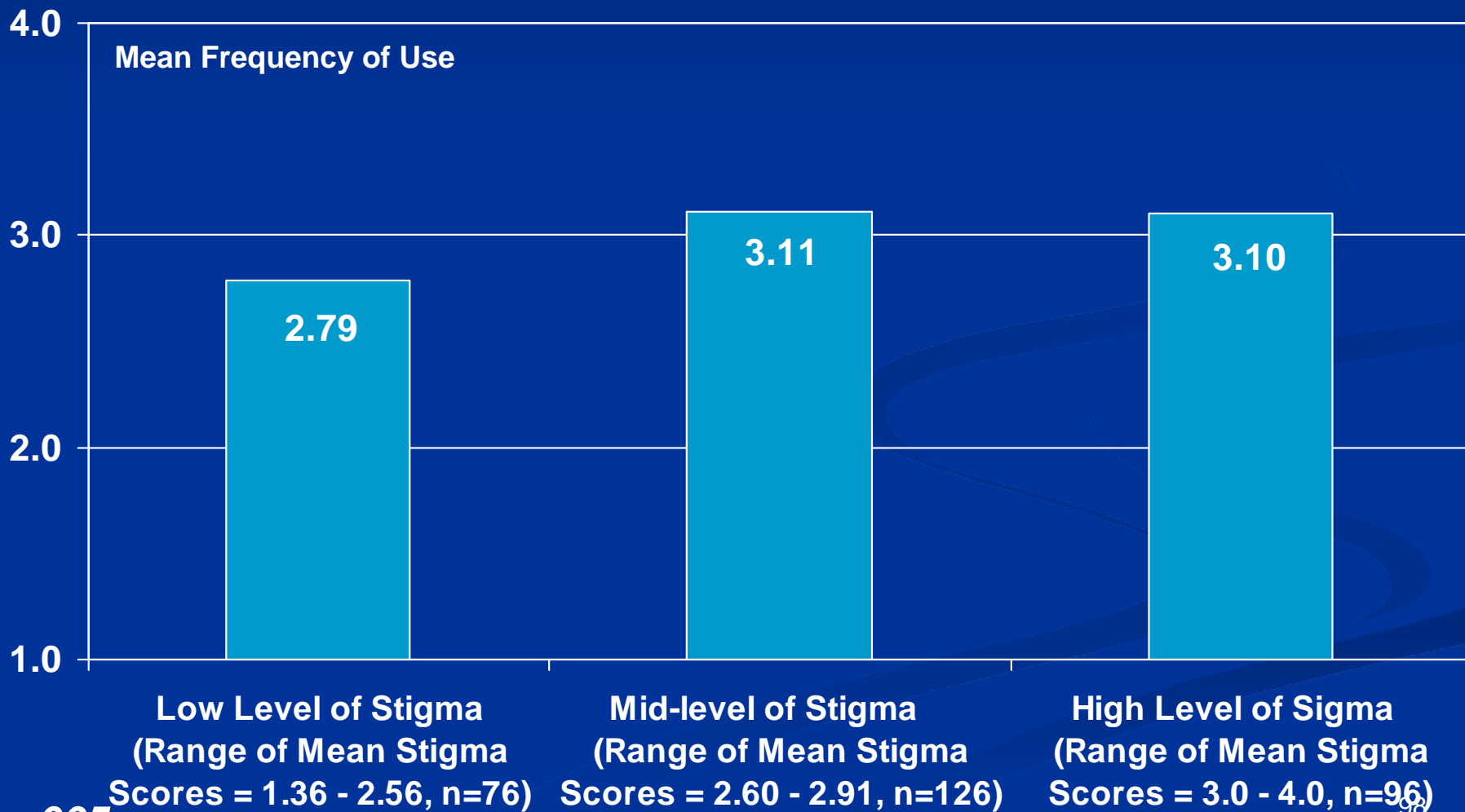
Observations

- Greater use of positive engagement practices among ACT/ICM and residential providers may suggest that more non-clinical contact with recipients may be associated with more positive engagement practices.
- The association of more training and knowledge and more frequent use of positive engagement practices suggests a constructive role for training in encouraging those practices.
- The association of having a family member with mental illness and greater frequency of positive engagement practices suggests that familiarity with individuals with mental illness can have a positive impact on encouraging those practices.

**Characteristics of
Symposia Participants
and Provider Practice:
Use of Limit-Setting
Engagement Strategies**

Characteristics of Symposia Participants and Provider Practice: Use of Limit Setting Engagement Strategies

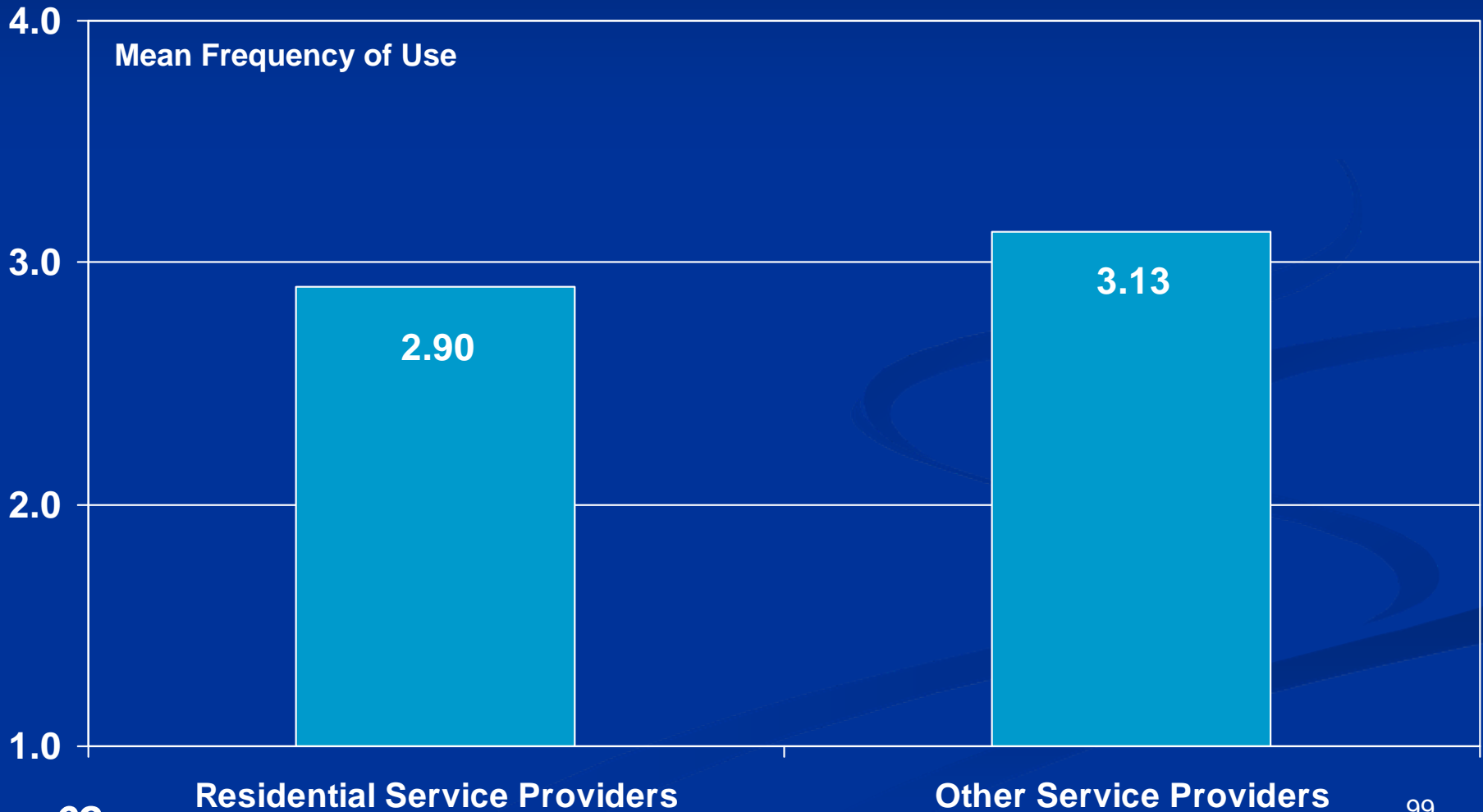
Symposia participants who endorse lower levels of stigmatizing beliefs report using limit-setting practices significantly less frequently than symposia participants who endorsed higher levels of stigmatizing beliefs. *



* $p < .005$

Characteristics of Symposia Participants and Provider Practice: Use of Limit Setting Engagement Strategies

Symposia participants who work as providers in residential settings (n=114) report using limit-setting practices significantly less frequently than other symposia participants (n=164).*



* $p < .02$

Characteristics of Symposia Participants and Provider Practice: Use of Limit Setting Engagement Strategies

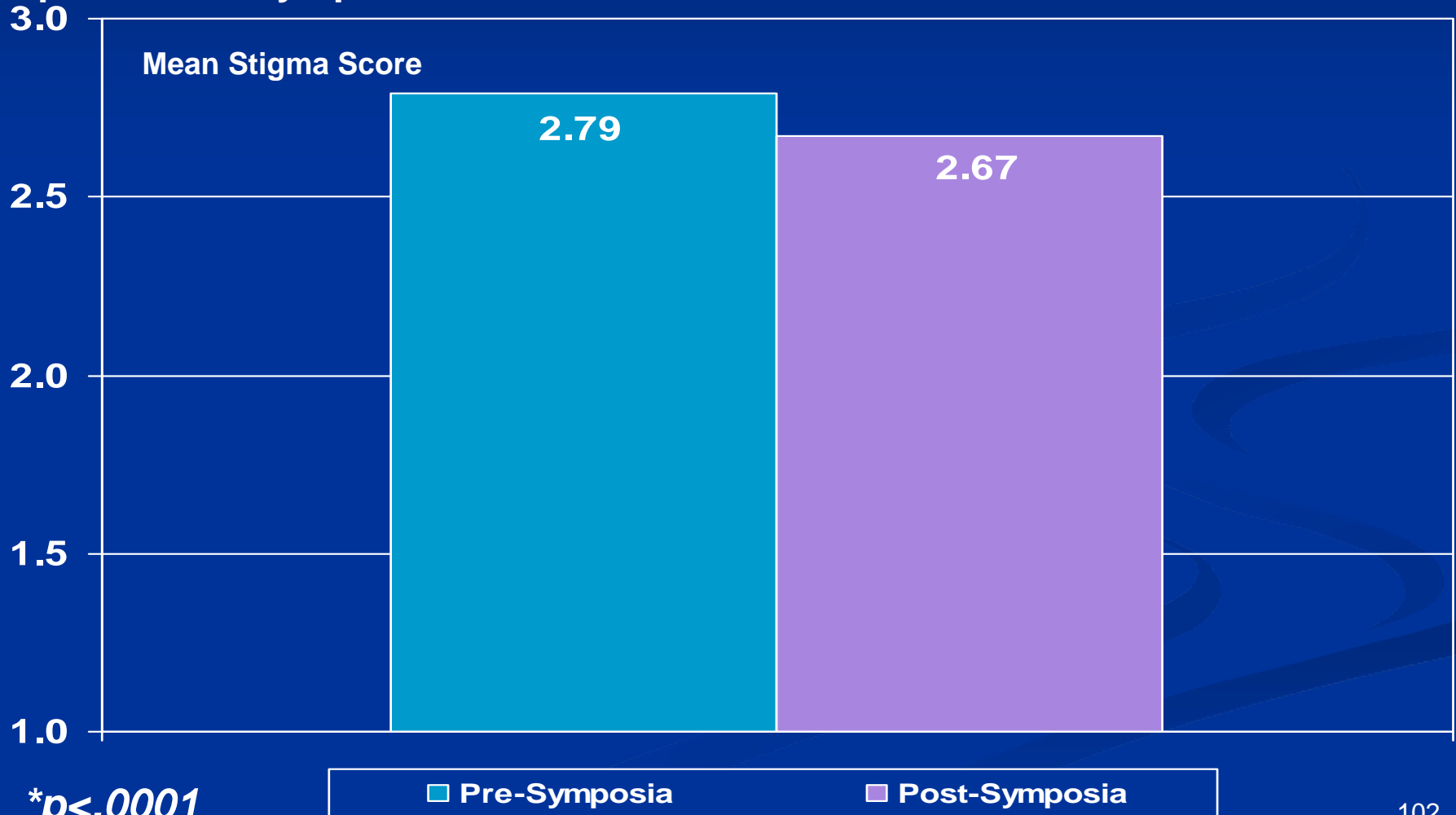
Observations

- Levels of stigmatizing beliefs are associated with use of restrictive/leveraging provider practice.
- Residential service providers, who are in close contact with recipients report lower frequency of restrictive, limit-setting practices.

**Changes in Stigmatizing Beliefs:
Pre-Symposia
vs.
Post-Symposia**

Changes in Stigmatizing Beliefs: Pre-Symposia vs. Post-Symposia (n=242)

Overall, the stigma mean scores of symposia participants declined significantly after the end of the symposium compared to the score seen at prior to the symposia.

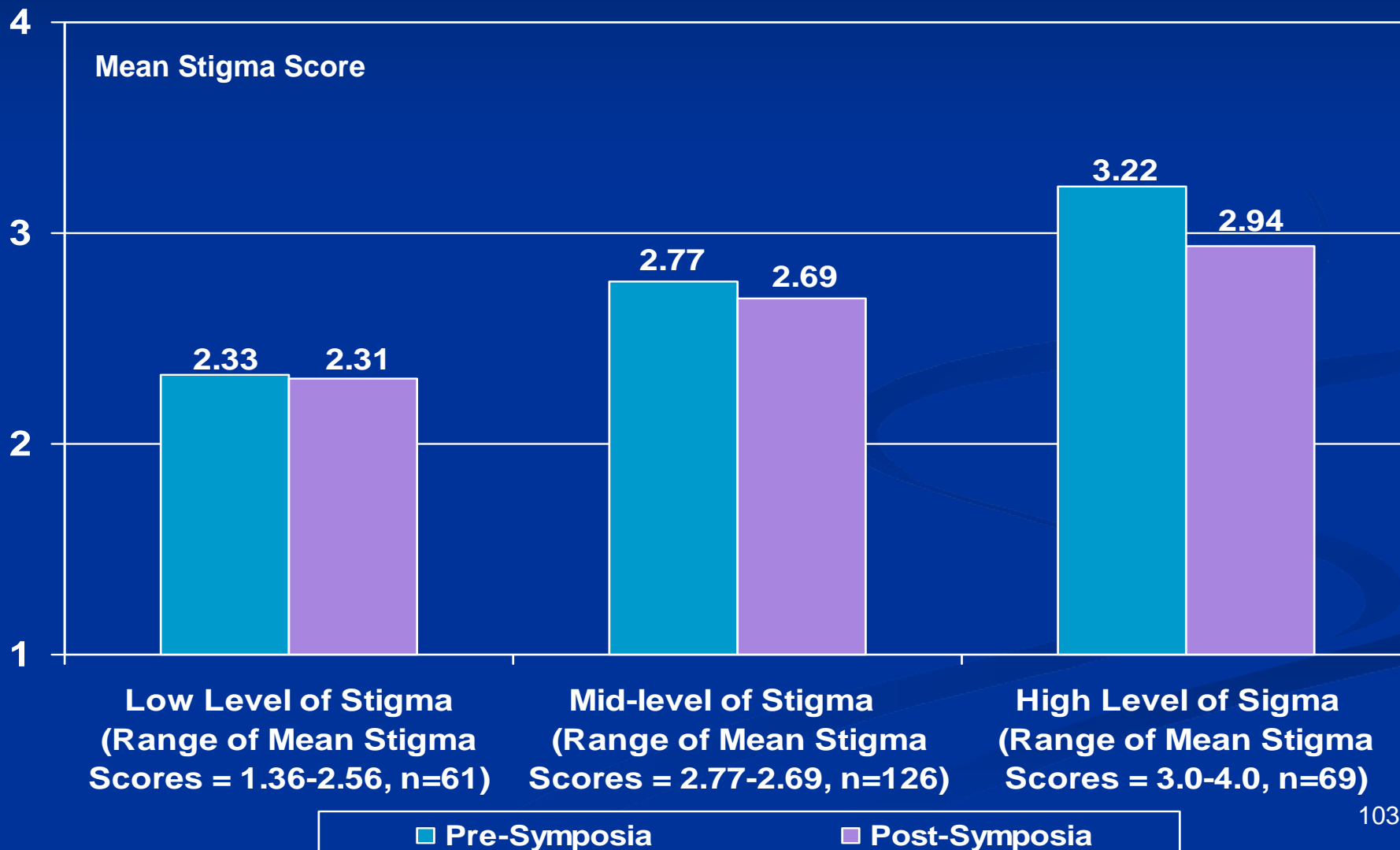


Changes in Stigmatizing Beliefs: Pre-Symposia vs. Post-Symposia

Changes by Pre-Symposia Levels of Stigma

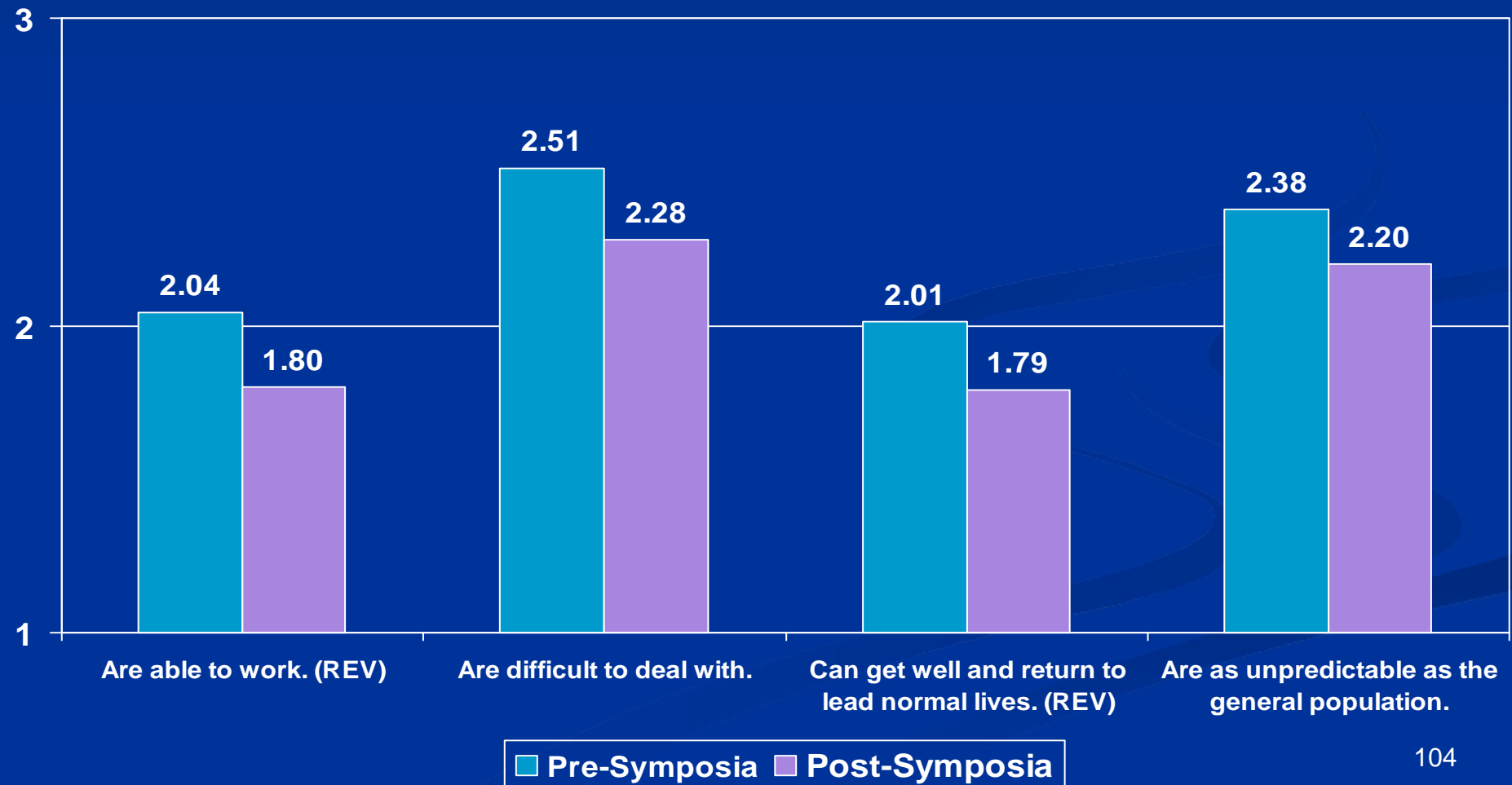
(n=242)

Participants with higher levels of reported stigma showed the greatest reduction in stigma.



Changes in Attitudes Toward AOT Recipients: AOT Stigma Items that Showed the Largest Change Pre-Symposia vs. Post-Symposia (n=242)

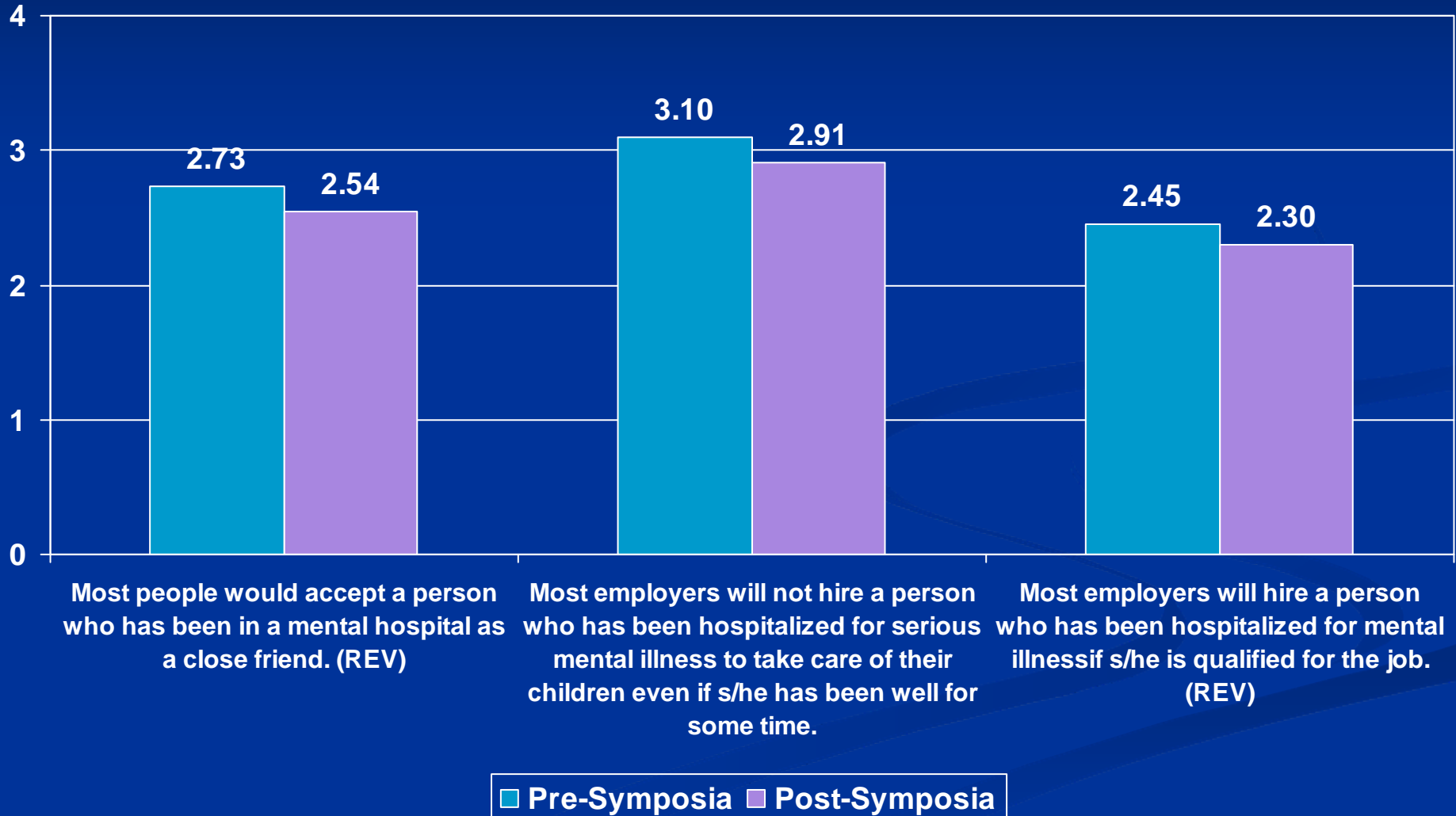
Items closely associated with the focus of the symposia were among those that showed the largest change.



Changes in Attitudes Toward People with Mental Illness

Stigma Items that Showed the Largest Change

Pre-Symposia vs. Post-Symposia
(n=242)



Changes in Stigmatizing Beliefs: Pre-Symposia vs. Post-Symposia

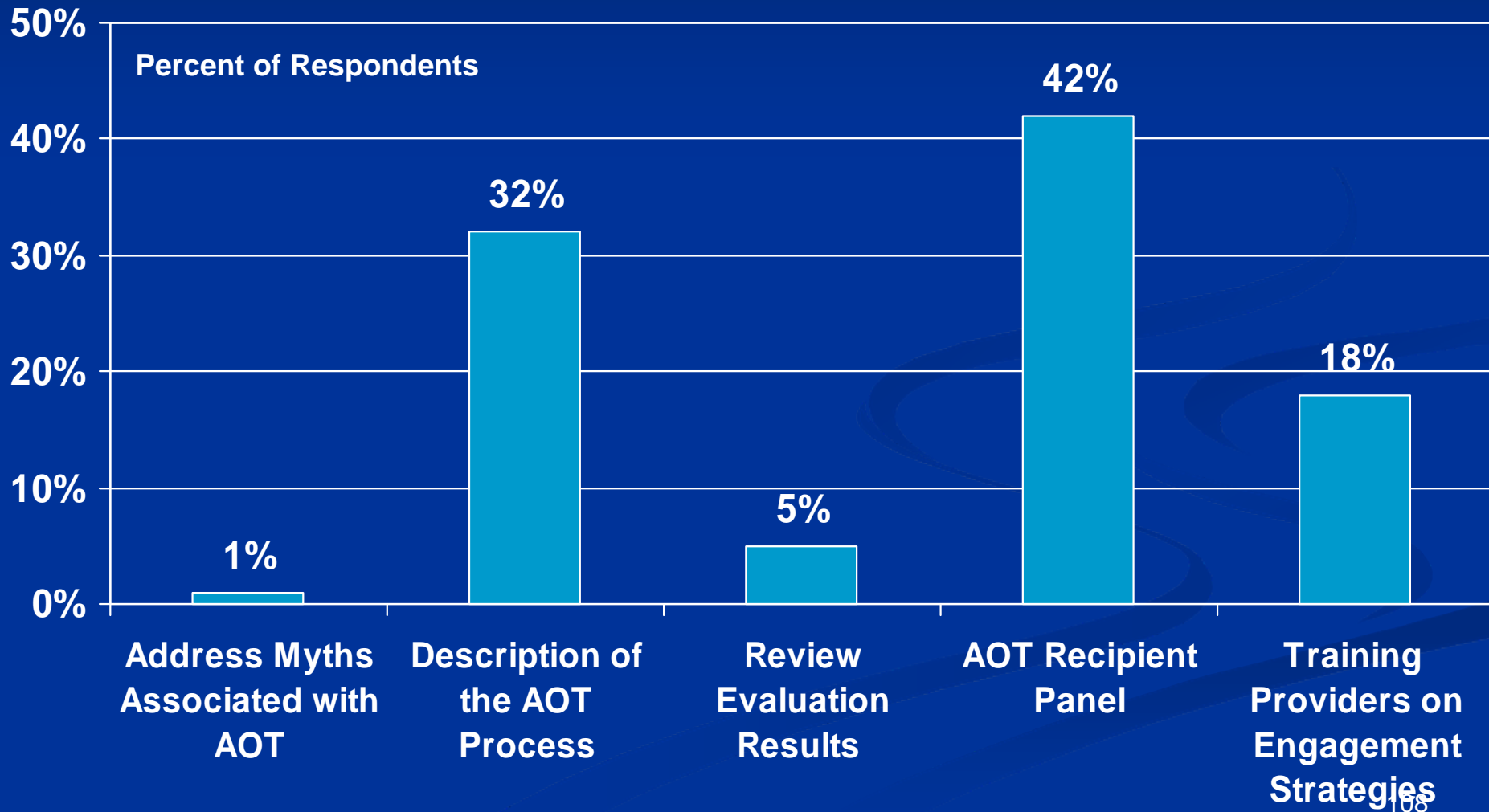
Observations

- Overall stigma scores declined significantly compared to stigma scores reported at baseline.
- Items that are associated with the content of the symposia are among those that had the strongest change.

The Symposium Agenda:

What was most valuable?

What did you find most valuable about the AOT Symposium?



Participant Observations on the Recipient Panel

- “The sharing experience from AOT recipients. What better way to know about the experience; then to hear it from the recipients.”
- “I found the client feedback important. As a provider it's important to see the AOT process through the eyes of the individual that is going through the experience.”

Participant Observations on the Recipient Panel

- “The clients on the panel were chosen because they had made progress. I would have liked to see clients who were having a difficult time and to talk about what they needed to help them.”
- “It was good to hear successful clients, but I think unsuccessful clients would be a better learning experience.”

Conclusions

- Stigmatizing beliefs among service providers are real and appear similar to the general public.
- Data collected in association with our evaluation of the AOT Symposia verify the belief that training, knowledge, familiarity with individuals with mental illness and exposure to recipients can impact the stigmatizing beliefs and practices of mental health providers.
- Although the relationship between stigmatizing beliefs and provider behavior remains unclear this evaluation shows some evidence linking the two.
- Stigma remains an important concern regarding mental health service delivery and further exploration is desirable.

Some Next Steps and Remaining Questions

- Examine the longer-term impact of the intervention.
 - On provider attitudes and beliefs regarding individuals with mental illness.
 - on provider practices.
- Examine provider attitudes regarding people with mental illness more closely.
- Improve measures of stigma in the provider community.

A Final Observation

“Excellent presentation
and the food was good too.”