


## Factors Affecting the Quality of Care for Persons with Serious Mental Illness

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### Objectives for Presentation

1. Provide an overview to the Independent Case Review (ICR) process utilized by the Office of the Court Monitor (OCM) to assess compliance to the Arnold v. Sarn Exit Criteria
2. Review the methods and sample employed in the 2006 ICR
3. Present results from statistical analyses conducted to identify those factors corresponding with judgments that the behavioral health needs of persons with serious mental illness are being met
4. Discuss the implications of these findings as they relate to the provision of quality services to persons with serious mental illness

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### History of Arnold v. Sarn Lawsuit

Class action lawsuit filed on behalf of a group of individuals with mental illness in 1988

Established the state's responsibility to provide appropriate community based services to persons with serious mental illness

Names defendants include the State of Arizona, Department of Health Services, Maricopa County

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 **Introducing the Players**

- Class Member
- Priority Client
- Office the Court Monitor
- Independent Case Review
- Exit Criteria

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 **Introduction to the Exit Criteria**

Exit criteria set forth in February 1996 *Joint Stipulation on Exit Criteria and Disengagement* and December 1998 *Supplemental Agreement*

A total of 17 specific compliance standards were identified and compliance between 80 and 95% was to have been achieved across all 17 standards in 1999

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 **Appendix C Criteria**

1. Priority clients have case managers
2. Except in unusual circumstances where the person is properly assigned to the case coordination model, priority clients have clinical teams which include the client, nurse, physician, case manager and vocational specialist unless employment has been determined by the team and the client no longer to be an issue
3. Within ninety days of a determination of eligibility, priority clients whose clinical needs require extended ISPs have extended ISPs, with a functional assessment and a long term view
4. Priority clients have periodic reviews at least every six months

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 **Appendix C Criteria**

5. Whenever there is a substantial reduction of services, a substantial modification of a residential setting and/or day/vocational program, or a termination of services, class members' ISPs are modified with the clients consent or consistent with ISP rules
6. Class members are informed of their right to appeal eligibility and treatment decisions
7. **All of the behavioral health needs of priority clients are met, consistent with their ISP**
8. The needs of class members are substantially met, consistent with their ISP if one exists, their treatment plan if no ISP is available, or their Special Needs Treatment Plan for Inmates of the jail

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 **Appendix C Criteria**

9. Class members participate in the planning and development of their ISP if one exists, their treatment plan if no ISP is available, or their Special Needs Treatment Plan for Inmates of the jail
10. Class members in need of special assistance are offered or provided reasonable assistance by ADHS or the RBHA in the ISP or grievance processes
11. Class members who have documentation of adequate informed consent to medication, ECT, and surgically-related procedures to address mental health conditions
12. Class members if still remaining for more than seven days in inpatient treatment settings have an ITDP by the tenth day which is derived from their ISP or from their treatment plan if one exists

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 **Appendix C Criteria**

13. Class members in jail psychiatric units have a Special Needs Treatment Plan as described in 20 of the stipulation and which is derived from their ISP is available
14. RBHA and provider staff serving class members receive adequate orientation and training
15. All programs funded by ADHS substantially provide services which are consistent with principles 2 (respect) and 6 (human treatment) of AACR9-21-103
16. ADHS or its designee shall investigate reports of abuse, neglect, shall review death reported generated by the RBHA or providers, and shall investigate deaths when required
17. ADHS tracks and trends grievance/appeal/requests for investigation information to determine whether appeals or grievances are resolved in a timely manner and whether recommendations or decisions are implemented

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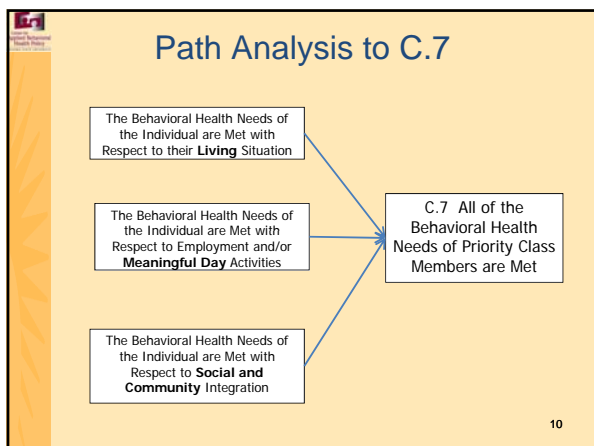
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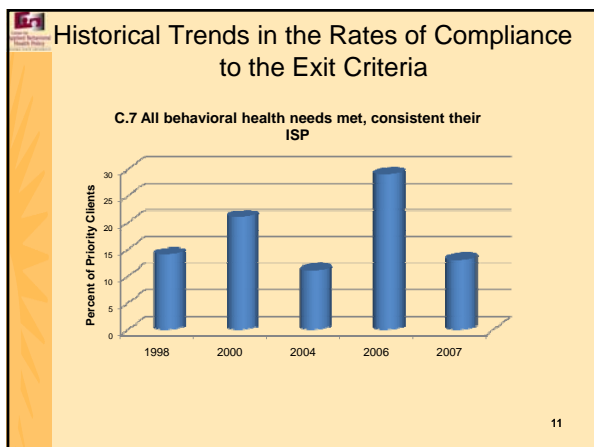
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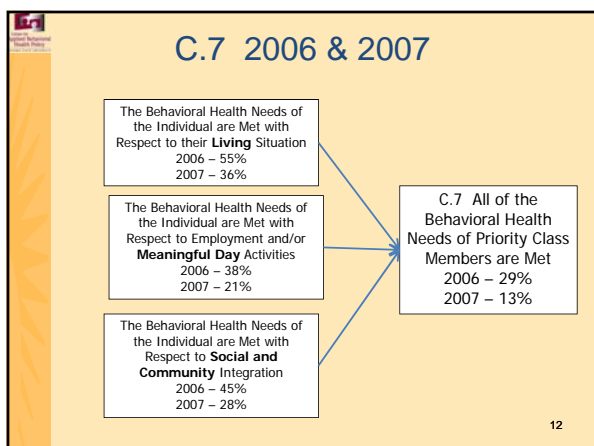
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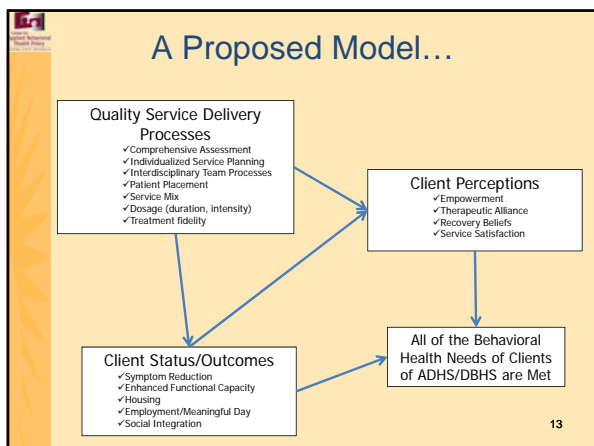
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- ### 2006 ICR Methodology
1. Auditor (Case Reviewer) Recruitment
    1. **Education:**
      1. Bachelor's in behavioral health + 2 years exp.
      2. Bachelor's or Master's in non-behavioral health + 4 years
      3. Associate of Art's degree + 4 years
    2. **Licensure:** Psychologist, Clinical Social Worker, Counselor, Psychiatrist, Substance Abuse Counselor (+4), RN/LPN (+2)
  2. Gold Standard Training
    1. Two full days of training covering audit process and protocol
      1. Comprehensive Test Score >+90%
      2. Data Collection Components:
        1. Audit Tool – Version 22
        2. 12 Month look behind for Clinical Record Review
        3. Home Visit
        4. Semi-structured Interviews
          1. Client
          2. Case Manager

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- ### 2006 ICR Methodology
2. Gold Standard Training
    2. Inter-rater Reliability
      1. **Pre-field:** Practice case review score at 80% or above
      2. **On-going:** >=80% agreement for each question
        1. One case from each reviewer was assigned to another reviewer to assess consistency in scoring
          1. Evaluated case documentation separately
          2. Conducted interviews jointly
      3. Case Judging

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2006 ICR  
Population - Demographics

Indicators	Priority	Non-Priority
<b>SAMPLE SIZE (Total = 429)</b>	<b>281</b>	<b>148</b>
<b>AGE</b>		
Mean	43.2	46.4
Median	44.0	47.5
Min - Max	21 - 69	20 - 87
<b>GENDER</b>		
Male	61.6%	42.6%
Female	38.4%	57.4%
<b>RACE/ETHNICITY</b>		
White	71.2%	76.2%
Black or African American	14.6%	10.2%
Hispanic / Latino	10.0%	8.8%
Native American or Alaska Native	2.5%	2.0%
Asian	.7%	0%
Native Hawaiian or Pacific Islander	.4%	.7%
Other	.7%	2.0%

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2006 ICR  
Population - Demographics

Indicators	Priority	Non-Priority
<b>PRIMARY RESIDENCE</b>		
Independent	64.9%	89.8%
Treatment Based	8.2%	4.8%
Non-Treatment Based	9.7%	1.4%
Other, Homeless, Hotel-Motel, Shelter	17.2%	4.1%
<b>TITLE XIX</b>		
Yes	74.4%	62.8%
No	25.6%	37.2%
<b>PSYCHIATRIC MEDICATIONS</b>		
Yes	93.6%	98.0%
No	6.4%	2.0%
<b>HOSPITAL ADMISSION (Last 12 Mths)</b>		
Yes	17.8%	16.9%
No	82.2%	83.1%

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2006 ICR  
Population - Demographics

Primary Residence \* Residence Groupings Crosstabulation

Count		Residence Groupings				Total
		Independent Housing	Treatment Based/ Licensed Housing	Non-Treatment Based/Non-Licensed Housing	Other, Homeless, Hotel-Motel, Shelter	
Primary Residence	Independent	114	0	0	0	114
	Hotel-Motel	0	0	0	7	7
	Halfway House - Boarding Home	0	0	9	0	9
	Supervisory Care	0	0	17	0	17
	Home - Assisted Living	0	0	0	14	14
	Homeless Shelter	0	0	0	3	3
	Other	0	0	0	24	24
	Nursing Home	0	0	1	0	1
	Home with Family Level I, II, or III BH	67	0	0	0	67
	Treatment Setting	0	22	0	0	22
	Transitional Housing (Level IV)	0	1	0	0	1
<b>Total</b>		<b>181</b>	<b>23</b>	<b>27</b>	<b>48</b>	<b>279</b>

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### 2006 ICR Population - Demographics

Indicators	Priority	Non-Priority
<b>CURRENTLY EMPLOYED</b>		
Yes	20.5%	24.6%
No	79.5%	75.4%
<b>HAVE DRUGS BEEN A PROBLEM – PER CLIENT</b>		
Yes	60.2%	37.1%
No	39.8%	62.9%
<b>CURRENT ALCOHOL OR DRUG USE – PER CASE MANAGER</b>		
Yes	30.6%	13.6%
No	69.4%	86.4%

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### 2006 ICR Exit Criteria Scores

Appendix Item	Priority	Non-Priority
C2: Priority Clients have an appropriately constituted clinical team.	68%	N/A
C3: Priority clients have an ISP with a functional assessment and long-term view.	34%	N/A
C4: Priority clients have periodic reviews at least every six months.	78%	N/A
C5: Substantial service changes result in modification to the client's ISP with the person's consent.	40%	36%
C6: Class members are informed of their right to appeal eligibility and treatment decisions.	90%	88%
C8: The needs of non-priority class members are substantially met consistent with their ISP	N/A	44%
C9: Class members participate in the planning and development of their ISP.	79%	86%
C7: The needs of priority class members are met consistent with their ISP	29%	N/A
	Living	55%
	Working/Meaningful Day	38%
	Social/Community Integration	45%

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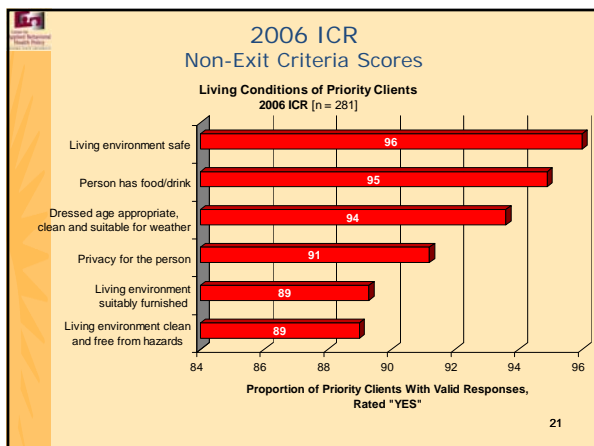
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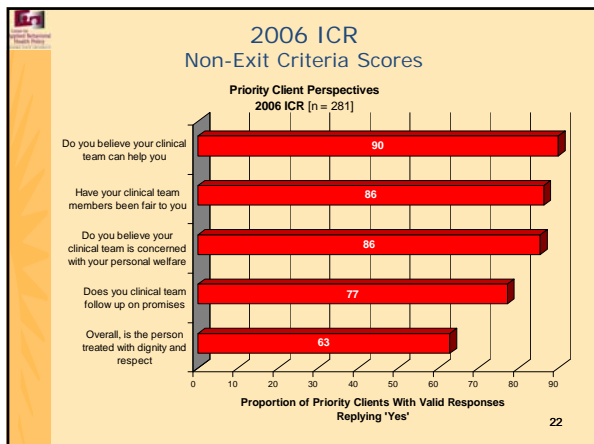
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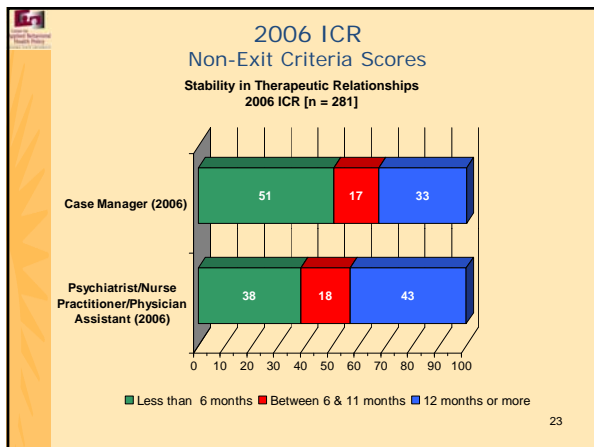
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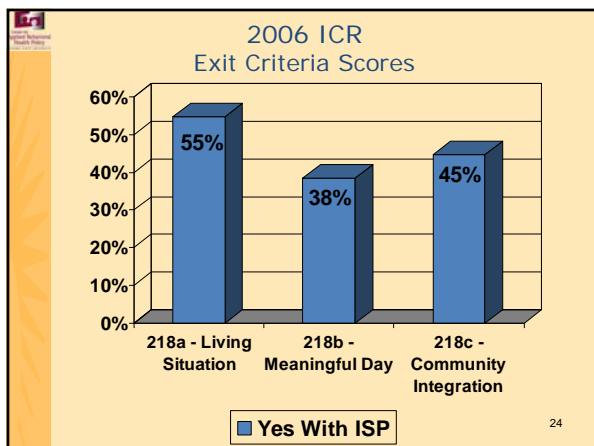
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**2006 ICR Exit Criteria Scores**  
Persons Scoring Yes On Questions 218a, 218b & 218c

Service Planning Process: ICR Non-Exit Items	Q 218a Living Yes [n = 153]	Q 218b Working Yes [n = 107]	Q 218c Playing Yes [n = 125]
Q 186 – Current ISP	98.0%	99.1	98.4%
Q 189 – Individualized service goals and objectives in the ISP	93.3%	97.2%	96.7%
Q 191 – Professional input in the development and formulation of the ISP	92.7%	98.1%	93.5%
Q195 – Case Manager/Team Responds to changes in the persons treatment needs and/or life circumstances in a timely manner	74.5%	79.4%	77.6%
Q 188a – Functional Assessment addresses living situation	78.7%	82.1%	82.9%
Q 188b – Functional Assessment addresses meaningful day	72.7%	88.7%	79.7%
Q 188c – Functional Assessment addresses social/community integration	72.0%	84.9%	83.7%

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**2006 ICR Exit Criteria Scores**  
Persons Scoring Yes On Question 219 (C.7)

Service Planning Process: ICR Non-Exit Items	Q 219 Yes [n = 80; 28.8%]
SQ 214 – Does the clinical team assure that all services are in place in accordance with ISP	89.9%
SPP 203 – Do Priority Clients have ISPs with a functional assessment and long term view	81.3%
SPP 194 – Is the Service Plan revised based on progress, or lack of progress and/or a change in behavioral needs	87.5%

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- Predictors of ICR Summary Questions 218 a, b, c, & 219 (C.7): Evaluation Questions**
- Which Independent Case Review (ICR) items are associated with behavioral needs being met in the following three domains:
    - living situation,
    - meaningful day/work situation,
    - social/community integration
  - Which items are best predictive of summary question 219 (Exit Criteria C.7)?
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**Predictors of ICR Summary Questions**  
**218 a, b, c, & C.7:**  
**Data Source**

- Data were collected during 2006 Independent Case Review (ICR) by the Office of the Monitor
- Court Monitor Reviewers used the ICR instrument, v. 22
- Sample Size = 281 priority clients

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**2006 ICR**  
**Population - Demographics**

Variables	f	%
<b>GENDER</b>		
Male	173	61.6
Female	108	38.4
<b>RACE/ETHNICITY</b>		
White	200	71.2
Black or African American	41	14.6
Hispanic / Latino	28	10.0
Native American or Alaska Native	7	2.5
Asian	2	.7
Native Hawaiian or Pacific Islander	1	.4
Other	2	.7
<b>Total</b>	<b>281</b>	<b>100</b>

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**Predictors of ICR Summary Questions**  
**218 a, b, c:**  
**Description of 218 Items**

- For priority class clients to meet the Exit Criteria C.7, their “behavioral health needs” need to be met (as well as consistent with ISP) in the following three domains:
  - SQ218a: Living situation
  - SQ218b: Meaningful Day/work situation
  - SQ218c: Social/community integration
- Response Options for 218 a, b, & c:
  - No
  - Yes (not consistent with ISP)
  - Yes (consistent with ISP)

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**Predictors of ICR Summary Questions:  
Data Analytic Approach**

- A logistic regression approach was used to model the effect of items on binary outcome variables
- Backward stepwise logistic regression
  - Diagnostics
    - Inflated standard errors
    - Influence statistics

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**Predictors of ICR Summary Questions  
Interpreting Odds Ratios**

- The odds ratios can range from 0 to + infinity.
- Odds ratios < 1
  - A higher value on an independent variable decreases the odds of getting a yes on a summary question
- Odds ratios = 1
  - No relationship between item and summary question
- Odds ratios > 1
  - A higher value on an independent variable increases the odds of getting a yes on a summary question

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**Predictors of ICR Summary Questions  
Interpreting Odds Ratios: *Example***

Item	Item Description	Odds Ratio
SPP188a	Does the functional assessment address where the person is and what the person needs and progress toward in the area of living situation?	<b>35.62</b>
While controlling for SPP189, <i>priority clients who get a yes to SPP188a are over 35 time more likely to get a yes (w/ ISP) rather than yes (w/out ISP) than clients whose functional assessment did not address what the person needs.</i>		
SPP189	Are there individualized service goals and objective in the ISP?	<b>32.07</b>
While controlling for SPP188a, <i>those who had their individualized service goals/objectives in their ISP were 32 times more likely to get a yes (w/ISP) than priority clients who did not have their goals/objectives in their ISP.</i>		

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**Predictors of ICR Summary Questions 218**

Individualized Service Planning Items	218 A: Living	218 B: Meaningful Day	218 C: Social/Community Integration
Individualized service goals and objectives in the ISP	32.07	17.71	
Professional input in the ISP		14.51	
Case manager/team respond to changes in a timely manner		8.00	
Functional assessment addresses living situation	35.62		10.97
Functional assessment addresses meaningful day		7.95	

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**Predictors of ICR Summary Questions 218**

Comprehensive Assessment Items	218 A: Living	218 B: Meaningful Day	218 C: Social/Community Integration
CA includes recommendations & next steps			4.21
Legal status and apparent capacity	7.22	8.91	6.03
<b>Client Status Items</b>			
Person is satisfied with their current living situation	2.72		10.97
Living environment is suitably furnished		4.40	
<b>Client Perception</b>			
Anyone ever talked to you about recovery?		7.30	
Does the clinical team follow-up on promises?		6.40	2.59

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- Predictors of ICR Summary Question 219 (Exit Criteria C.7): Item Description**
- C.7 item had the following stem: "Needs of priority clients are met, consistent with their ISP."
  - The response options for C.7 were
    - 0 = No,
    - 1 = Yes
  - A score of a yes means that all three domains (SQ218 a, b, and c) must have been rated "yes and consistent with ISP."
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**Predictors of ICR Summary Question 219 (C.7): Final Model**

Item	Item Description	Odds Ratio
SQ214	Does the clinical team assure that all services are in place in accordance with the ISP?	<b>32.36</b>
SPP203	Do Priority Clients have ISPs with a functional assessment and long term vision?	<b>17.13</b>
SPP194	Is the svc plan revised based on progress, or lack of progress and/or a change in behavioral needs?	<b>13.02</b>

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**Predictors of ICR Summary Question 219 (C.7): Final Model Cross-Classification**

Observed	Predicted		% Correct
	No	Yes	
No	107	6	94.7
Yes	9	31	77.5
Overall %			90.2

The cut value is .50

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- Implications and Recommendations**
- Independent Case Review process utilized by the Office of the Monitor provides a multi-dimensional approach to assess the service quality of persons with SMI
  - This approach has been significantly improved and the underlying methodology meets scientific standards
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 **Implications and Recommendations**

- According to the ICR conducted in 2006, the majority of persons with SMI are failing to have all of their behavioral health needs met
- These same results however, suggest that the overwhelming majority of individuals are housed in safe and comfortable settings and that they are satisfied with the services they received from their case manager and their clinical team

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 **Implications and Recommendations**

- Appendix C Exit Stipulation Scores were found to NOT be statistically significantly related to a client's demographic or clinical characteristics, not an individuals function status, nor their opinions or perspective about the services they were receiving.

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 **Implications and Recommendations**

Appendix C Exit Stipulation scores were found to be statistically significantly related to three items from the Independent Case Review related to the function of the clinical team and the composition of the client's Independent Service Plan (ISP):

- The clinical team assure that all services are in place in accordance with the ISP
- Priority Clients have ISPs with a functional assessment and long term vision
- The ISP is revised based on progress, or lack of progress and/or a change in behavioral needs

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 **Implications and Recommendations**

It appears that compliance to the Arnold v. Sarn court order related to Exit Stipulation Appendix C.7 can be significantly improved by enhancing the quality and regularity of service planning processes (ISP, functional assessment, comprehensive assessment, long term view) AND ensuring appropriate and current documentation of all service provision and service related planning processes.

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 **Implications and Recommendations**

The lack of observed association between any client status or client perspective items and C.7 suggests an over-reliance upon documentation to the exclusion, or at least minimization, of client outcome and client perspective in score determinations related to this Exit Stipulation.

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