

## SEEI Phase II Study



### **Do Clients Receive More Appropriate Care and Use Fewer Hospital Resources Now that the System is Enhanced?**

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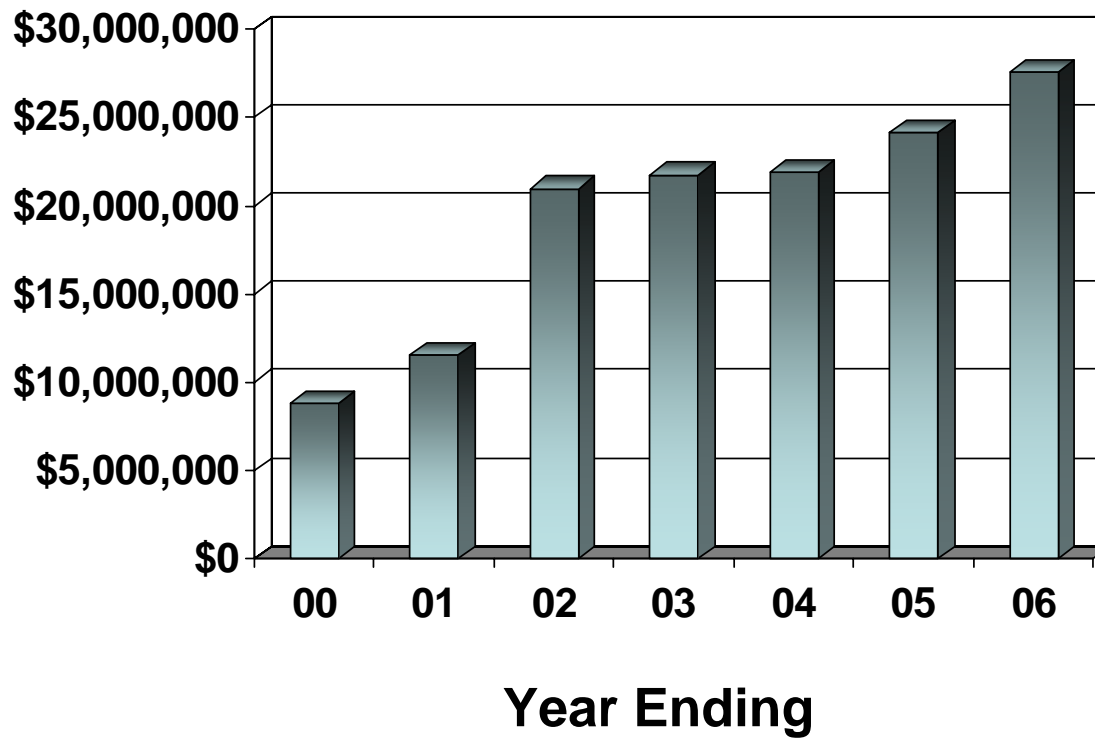
seei

systems  
enhancement  
evaluation  
initiative

# Background to the Study

- Impetus for the original CCAP studies came from the Ministry of Health and Long Term Care in preparation for mental health reform
- SEO study completed CCAPI in 2001 under the auspices of the Southeastern Ontario Mental Health Implementation Task Force
- Similar studies completed in most Task Force districts across the province (all with similar results)
- Data provided to the Ministry of Health & Long Term Care to support funding enhancements

# Funding Enhancements by Year, Southeastern Ontario, 2000-2006



Total Increase:  
\$18,750,502 (213%)

Source: MOHLTC, SEO Regional Office



# Funding Targets

- Targeting community-based services such as:
  - Early intervention program
  - Crisis management & crisis outreach
  - Assertive community treatment
  - Intensive case management
  - Residential beds
- At the time of this evaluation program enhancements were incomplete and many programs were still in the process of change.

# Research Question

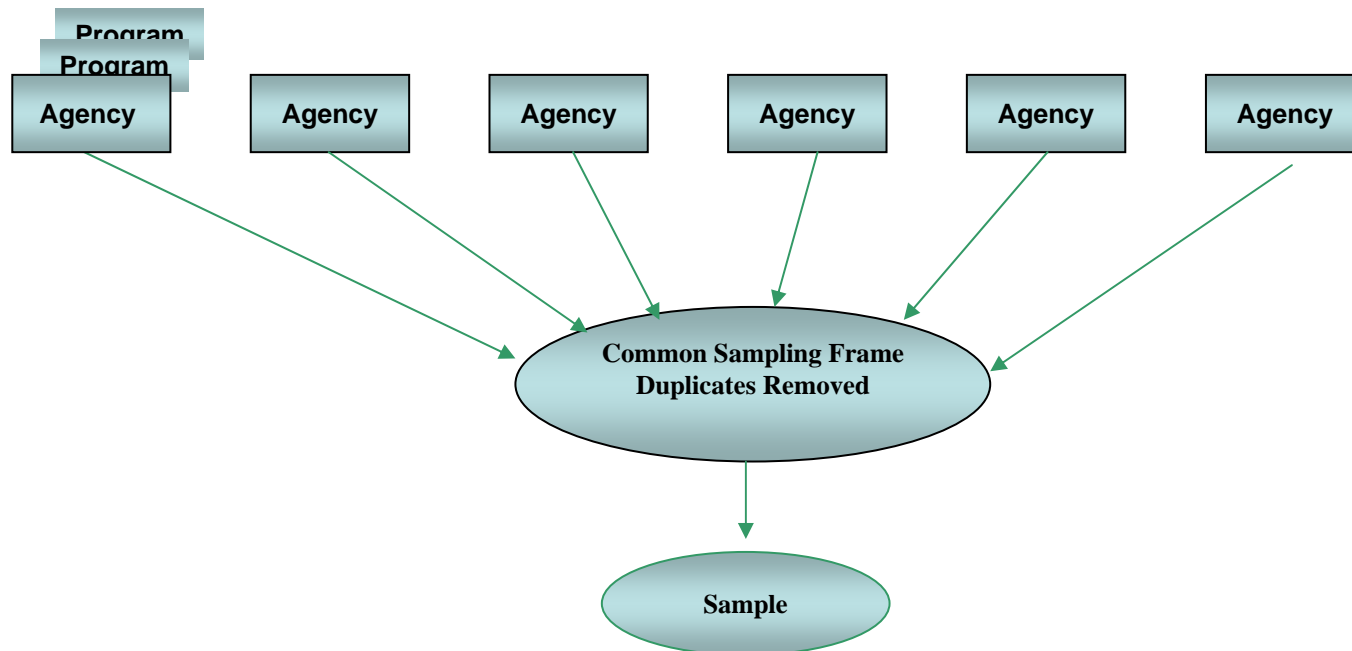
- Do clients receive more appropriate community care (defined as a level of care that matches their level of need) following system funding enhancements?
  - Baseline year = 2001
  - Comparison year = 2006

# Research Approach

- This is a replication study with a follow-up component:
  - Replication of the 2001 Community Comprehensive Assessment Project to assess the match between services and needs in the Southeastern Ontario Planning District
  - Patient-specific follow-up of both the 2001 and the 2006 cohorts in hospital data (using an anonymous, unique identifier) to assess impacts on utilization



# Sampling Design



# 2001 Baseline Sample

# 2006 Replication sample

- All 13 eligible agencies participated
- Clients randomly sampled from amalgamated agency list of 3100 unique individuals, stratified by three age groups:
  - 16-24 Yrs (N=108; 50% weight)
  - 25-64 Yrs (N= 239; 10% weight)
  - 65+ Yrs (N=178; 100% weight)
- 525 assessments completed from 620 (85% response)

- 10 of 11 eligible agencies participated
- Clients randomly sampled from amalgamated agency list of 3327 unique clients, stratified by three age groups:
  - 16-24 Yrs (N=159; 50% weight)
  - 25-64 Yrs (N= 240; 10% weight)
  - 65+ Yrs (N=211; 100% weight)
- 610 assessments completed from 715 (85% response)

**Combined Sample  
= 1,135**

# Specialized Programs Excluded

- Specialized assessment and treatment programs excluded:
  - Acquired Brain Injury
  - Forensic Clients
  - Dual Diagnosis
  - Comorbid Disorders
  - Geriatric
- Sample representative of non-specialized community mental health client population in South Eastern Ontario
- Results weighted to account for stratified sampling design

# Levels of care

**Level 1: Self-management: monthly/as needed**

**Level 2: Community support: weekly**

**Level 3: Intensive community support: daily**

**Level 4: Residential treatment**

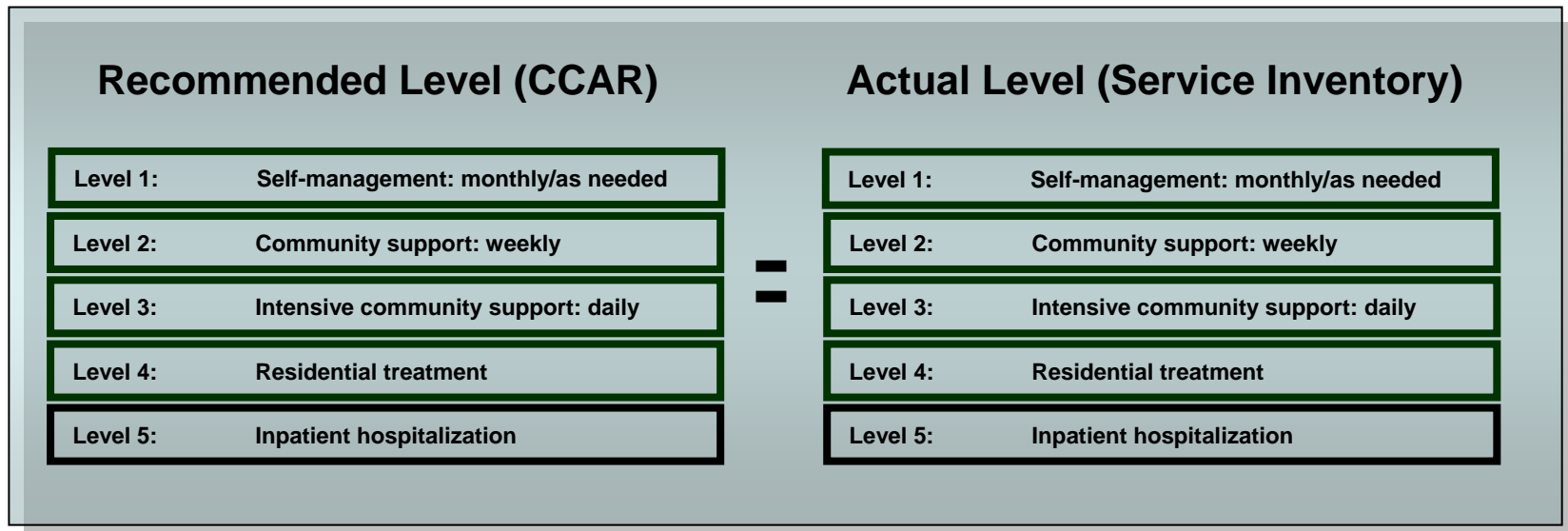
**Level 5: Inpatient hospitalization**

# Measures

- **Recommended Level of Care:**
  - Colorado Client Assessment Record – structured assessment made by clinical staff knowledgeable about the client (primary provider)
  - Standardized computer algorithm used to create recommended levels of care based on security needs, level of disability, and personal strengths and resources
- **Actual Level of Care:**
  - Support and Services Inventory – listing of all health services currently used by the client and the frequency of use
  - Standardized computer algorithm used to create actual levels of care based on frequency and intensity of services used

# Defining Service Match

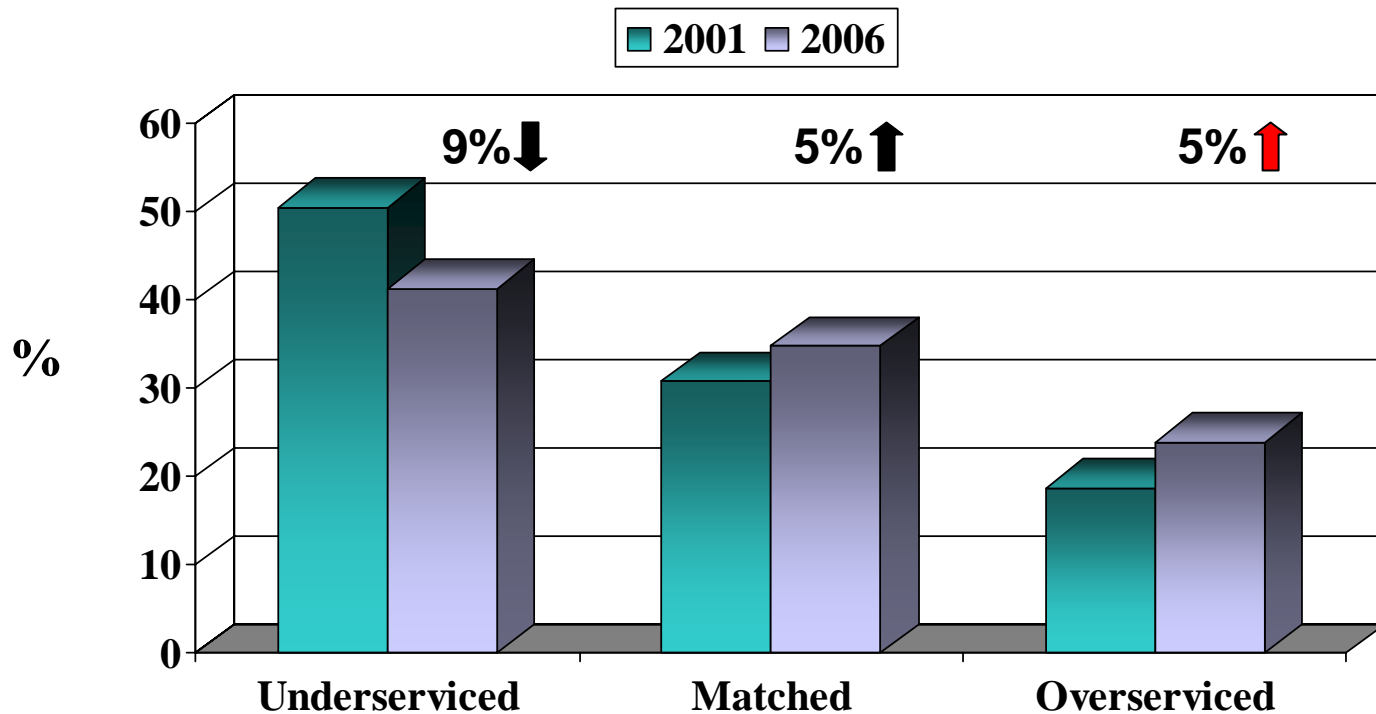
- Comparing recommended level of care to actual level of care gives three outcomes:
  - Underserviced: Actual level of care is less than recommended
  - Matched: Actual level of care and recommended level of care are equal
  - Over-serviced: Actual level of care is higher than the recommended level



# Hypotheses

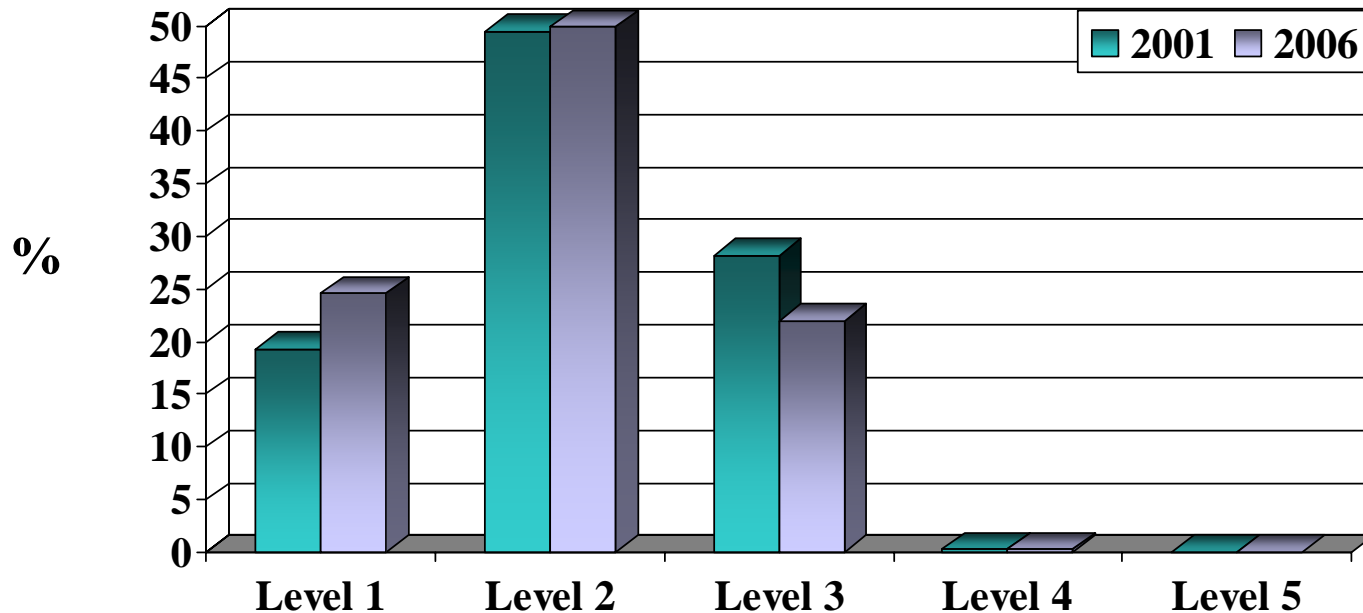
- **Expectations:**
  - The percent of clients with ‘matched’ care would increase over time with,
  - Concomitant drops in the percent of clients who were under-serviced and over-serviced.
- **Caveat:**
  - Because program enhancements were not complete, we expected to see movement in the desired direction, but not necessarily of sufficient magnitude to achieve statistical significance.

# Overall Service Match, 2001 & 2006



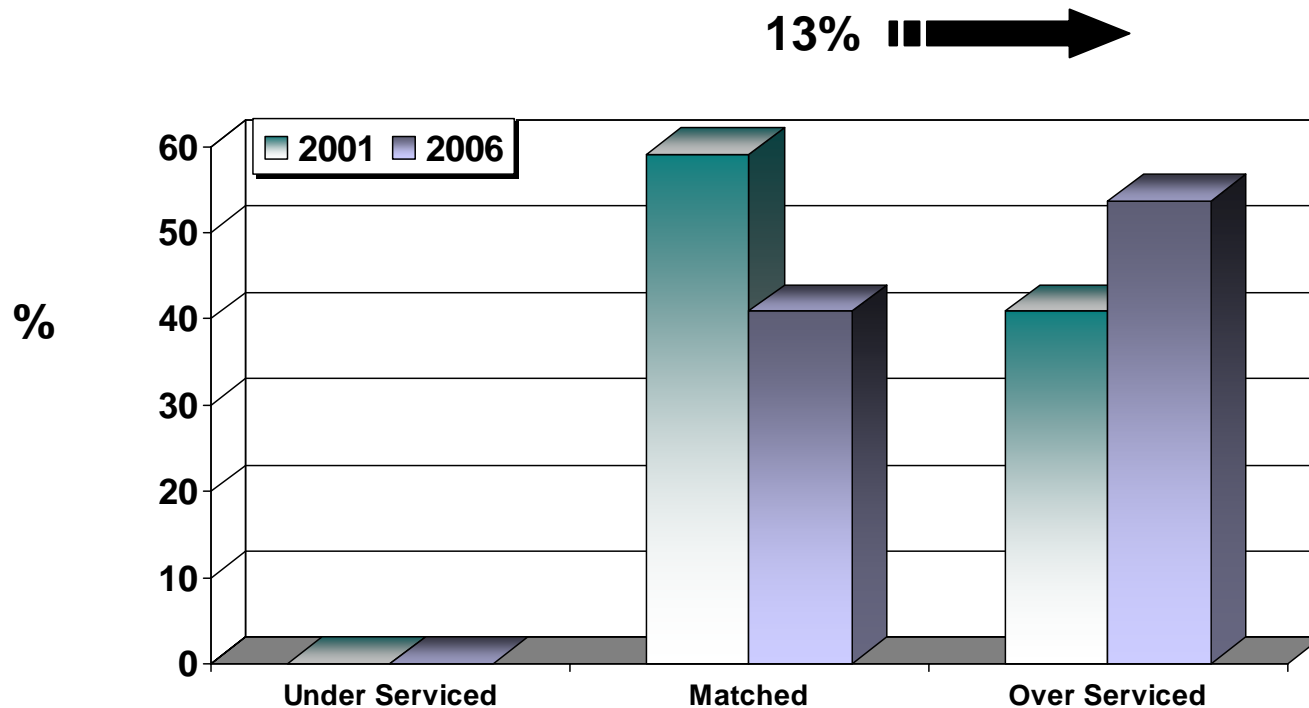
$\chi^2(2) = 9.27, p = .07$

# Level of Care, 2001 & 2006



Note: Due to small numbers, Level 4 & 5 clients excluded from further analysis

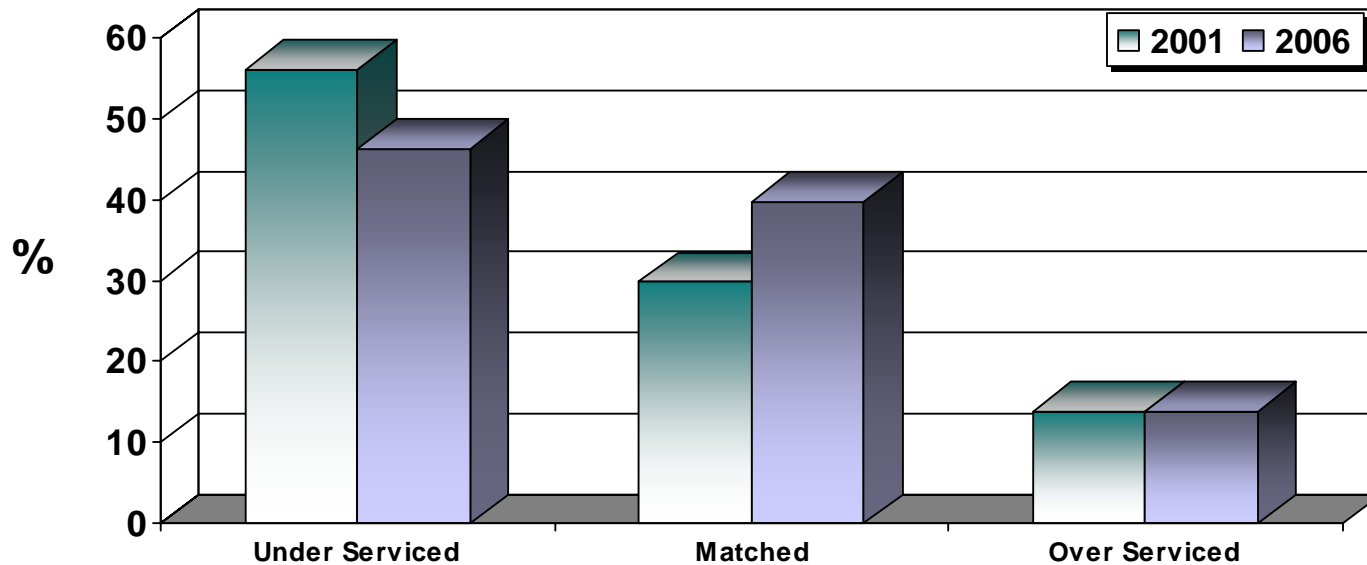
# Service Match Among Clients Recommended for Self-Managed Care (Level 1), 2001-2006



# Service Match Among Clients Recommended for Community Care

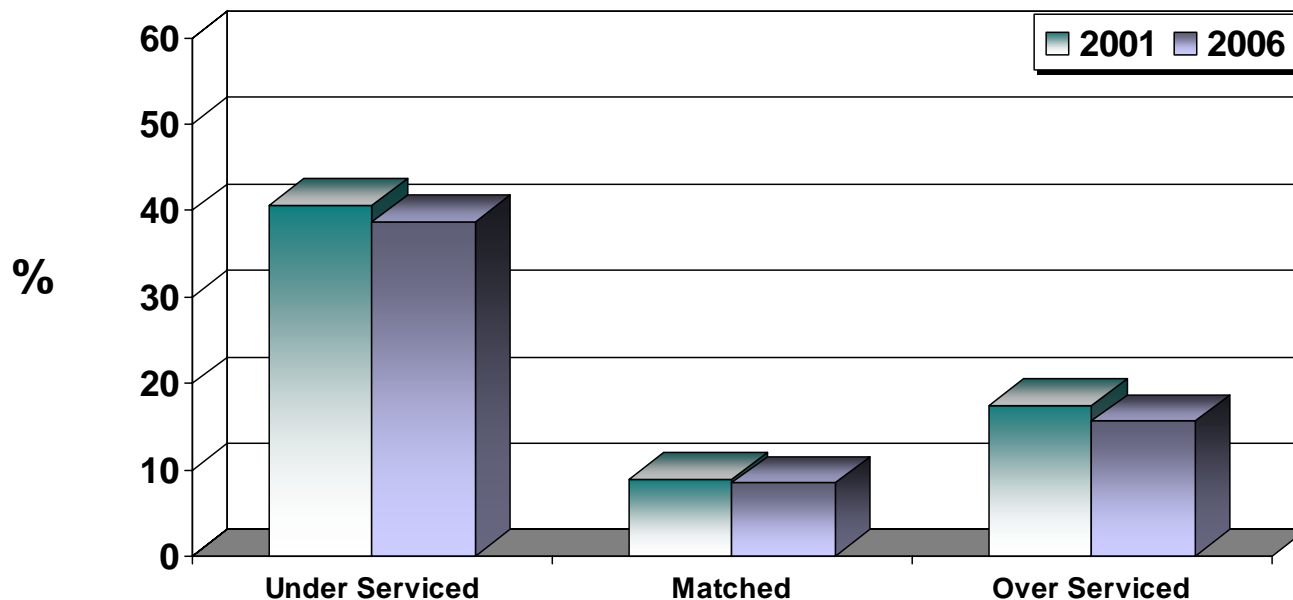
(Level 2), 2001-2006

9% 



# Service Match Among Clients Recommended for Intensive Community Care

(Level 3), 2001-2006



# Summary of Results

- Overall, the system is moving in the right direction by reducing the proportion of clients who are under-serviced and increasing the proportion of those receiving care appropriate to their level of need, though changes are not statistically significant.
- Despite these positive shifts:
  - Almost half of the clients who required self-managed care (Level 1) remained over-serviced, reflecting a 13% increase.
  - A third of clients requiring intensive community treatment (Level 3) remained under-serviced and 15% remained over-serviced at the time of the second survey. There were no changes over time.

# Next Steps

- Examine the extent to which hospital utilization (emergency room contacts and inpatient days of care) have changed over time
- Conduct sub-group analysis to identify factors that predict under and over servicing.