

# Comparison of Outcomes between Consumers in Full-Service Partnership Programs and Usual Care in the California Public Mental Health System

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# 2010 MHSA Study Team

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# MHSA – Background

## *Why Did It Pass?*

- Passed in 11-04, Effective 01-05
  - 53.7% in favor
  - 46.3% against
- Majority was swayed by
  - current state of MH system
  - mentally ill homeless and incarcerated
  - taxing of the rich



Scheffler R, Adams N; "Millionaires and Mental Health: Proposition 63 in California" *Health Affairs*; 2005 Jan-Jun; Suppl Web Exclusives:W5-212-W5-224.



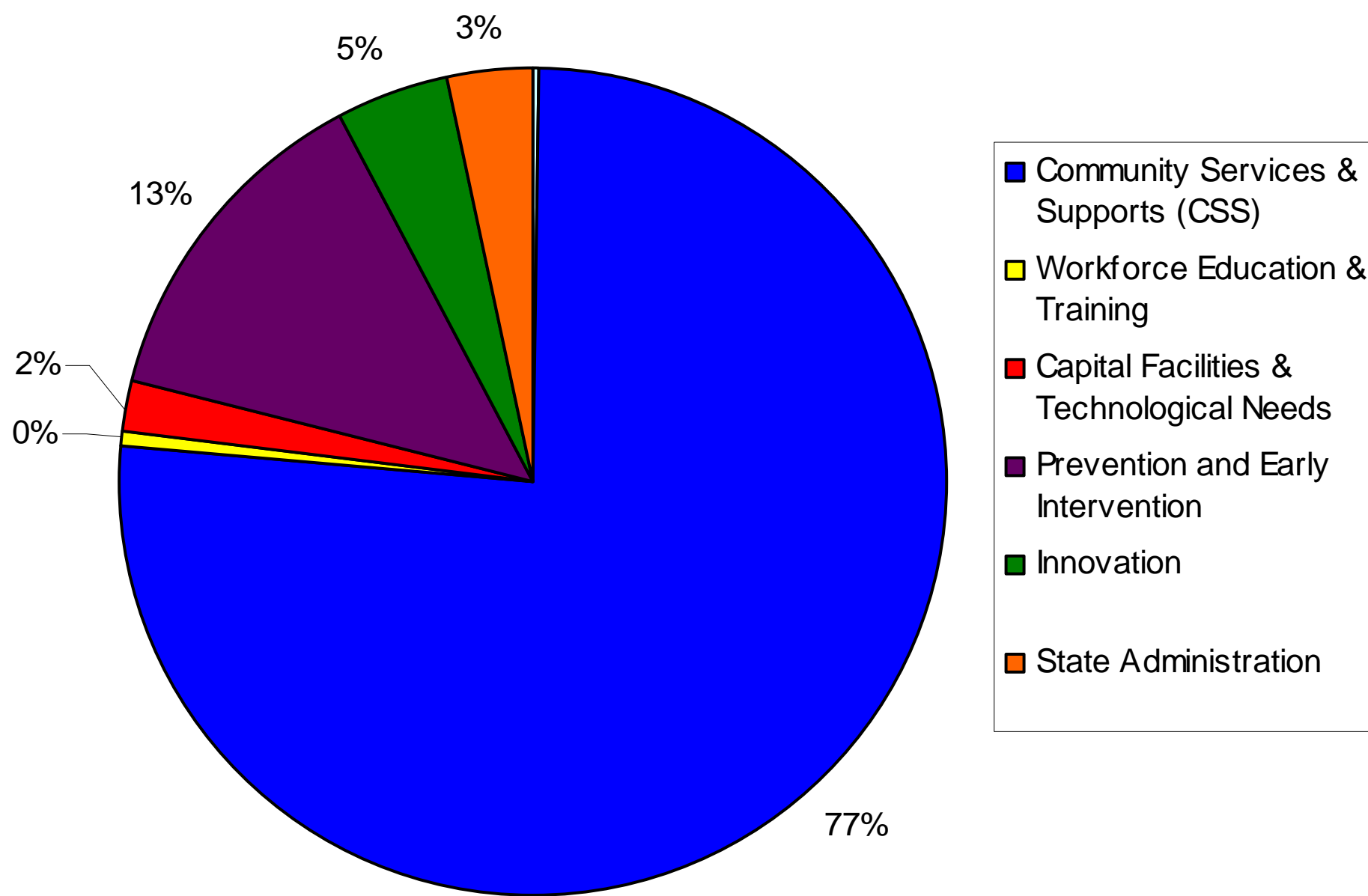
# MHSA – Background *Funding*

- 1% tax on adjusted gross income >\$1 million
- 0.1% of taxpayers
- \$3.7 billion has been approved/distributed based on county requests



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# Expenditures by Funding Category



# MHSA was passed to reduce:

- Suicide
- **Incarcerations**
- **Prolonged suffering**
- **School failure or dropout**
- **Unemployment**
- **Homelessness**
- Removal of children from their homes



# Full Service Partnerships “whatever it takes”

✓ Housing



✓ Job training



✓ Peer support



✓ Life skills



# Full Service Partnerships

## Entry Criteria

1. Unserved and one of following:
  - ✓ Homeless/at risk of homelessness
  - ✓ Criminal justice
  - ✓ Frequent ER/hospital
  
2. Underserved and at risk for one of following:
  - ✓ Homeless
  - ✓ Criminal justice
  - ✓ Institutionalization





# Study Questions

## Do FSPs differ from usual care?

### Global Rating

- General satisfaction



### Outcomes

- Outcomes of services
- Functioning
- Arrests
- Emergency room visits



# Study Questions

## Do FSPs differ from usual care?

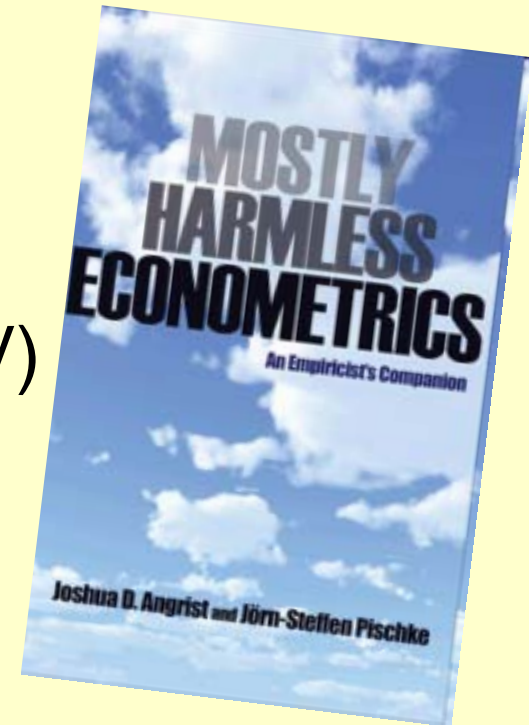
### Characteristics of Services

- Quality and appropriateness
- Participation in treatment planning
- Access

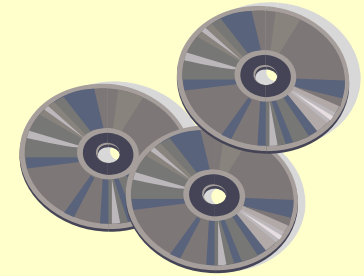


# Analytic Approach

- Quasi-experimental
  - FSP vs. usual care
  - Instrumental variables (IV)
  - Pass statistical tests
    - Strength of IVs
    - Overidentification
    - Essential heterogeneity



# Data



- Consumer Perception Survey (CPS) for adults and older adults from May 2005-May 2008
- Client and Service Information System (CSI)
- Data Collection and Reporting System (DCR)
- Total: up to approx 80,000 obs (60,000 individuals)  
FSP: up to approx 1,700 obs (1,400 individuals)



# Counties Used in Analysis



**85.4% of  
Population**

# Results: FSP vs. Usual Care

General satisfaction	27%+ more satisfied
Outcomes of services	30% better outcomes (varies)
Functioning	27% better functioning
Quality and appropriateness	28%+ higher quality
Access	No difference
Participation in tx planning	No difference
Arrests	50%+ fewer arrests



# Additional Study Question

## Does FSP differ from usual care?

- Emergency room visits?



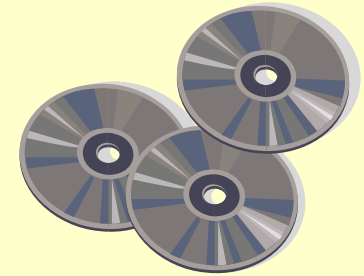
# Analytic Approach

- Quasi-experimental
  - FSP vs. usual care
  - Account for all baseline factors
  - Conditional logistic regression





# Data



- Short-Doyle/Medi-Cal Claims Data (SD/MC)  
January 1<sup>st</sup>, 2007 – June 30<sup>th</sup>, 2008
- Data Collection and Reporting System (DCR)
- Total 88,128 observations, 14,668 individuals  
(FSP: 4446 observations, 741 individuals)



# Counties Used in Analysis



Humboldt

Sacramento

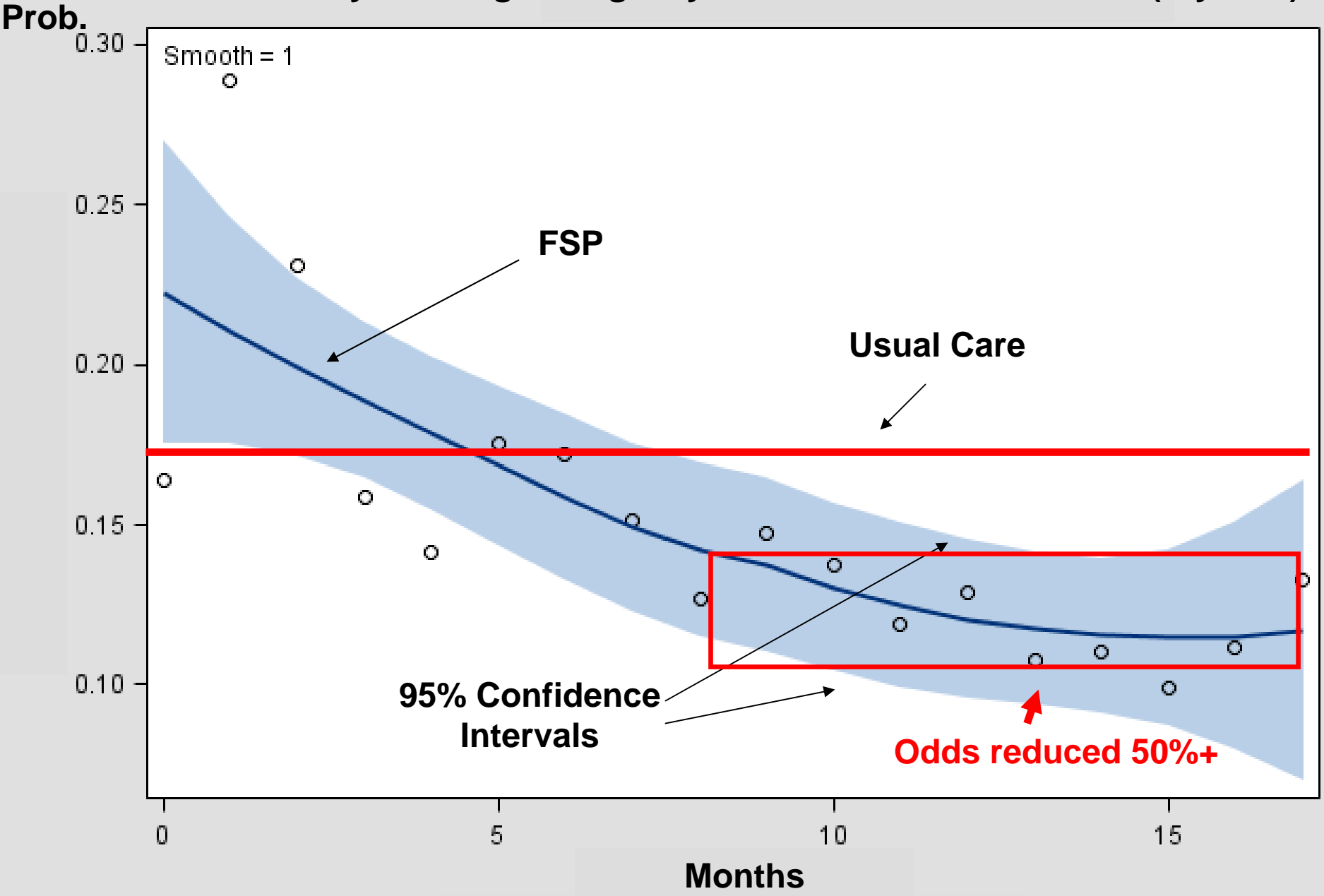
San Mateo

Santa Clara

Los Angeles

San Diego

# Probability of Using Emergency Room: FSP vs. Usual Care (Stylized)



Prob.

Smooth = 1

FSP

Usual Care

95% Confidence Intervals

Odds reduced 50%+

Months

# Study Questions

- Does participation in FSP change:
  - Living situation
  - Employment
  - Education

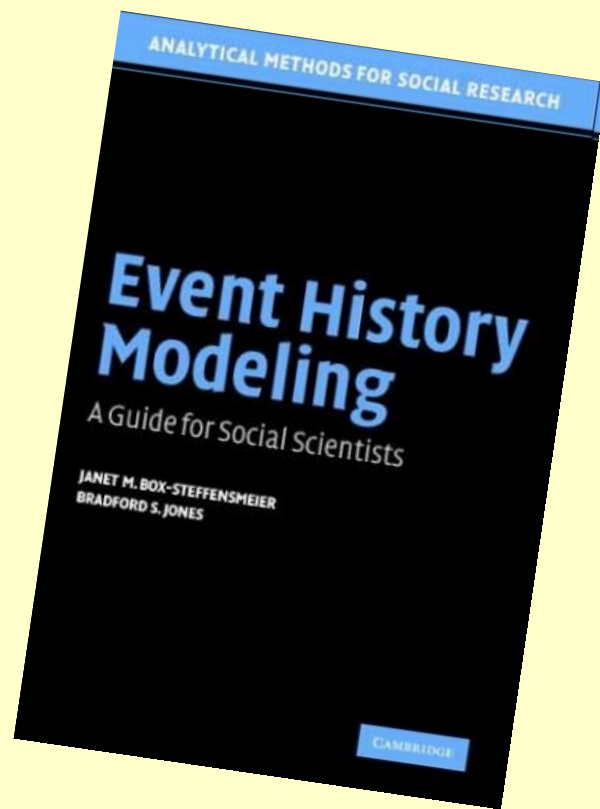


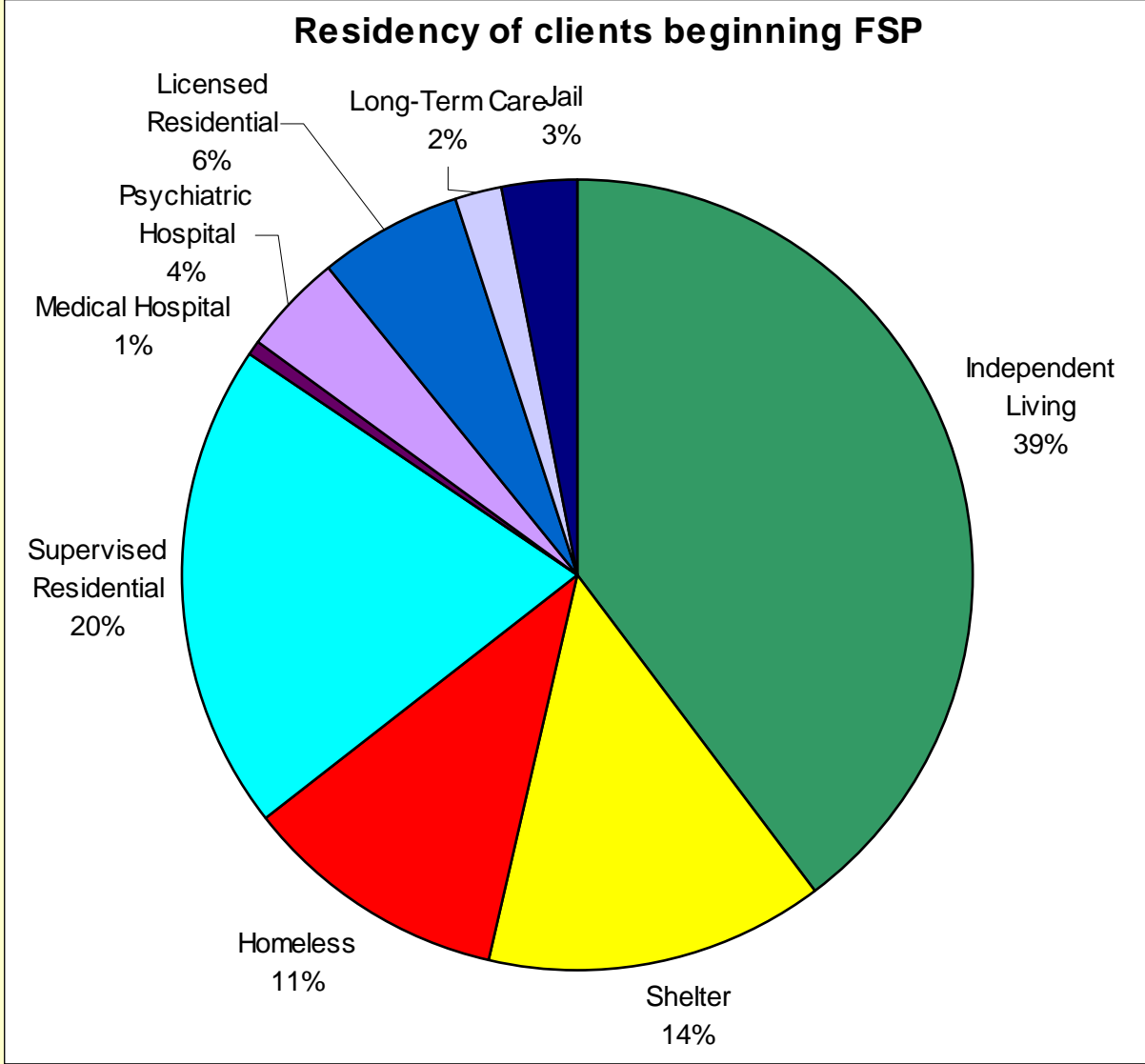
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# Statistical Methods – Living Situation

## *Event history analysis*

- Estimate transition probabilities
- Adjusted for predictors
  - Age
  - Gender
  - Race/Ethnicity
  - Sources of financial support
  - Psychiatric diagnoses
  - Educational attainment





Petris Center analysis of data from the Data Collection and Reporting System and the Client and Service Information System from 2005-2009 for adults ages 26 or older in 43 California counties. This study included data from 7,028

FSP participants. FSP: Full Service Partnership program.

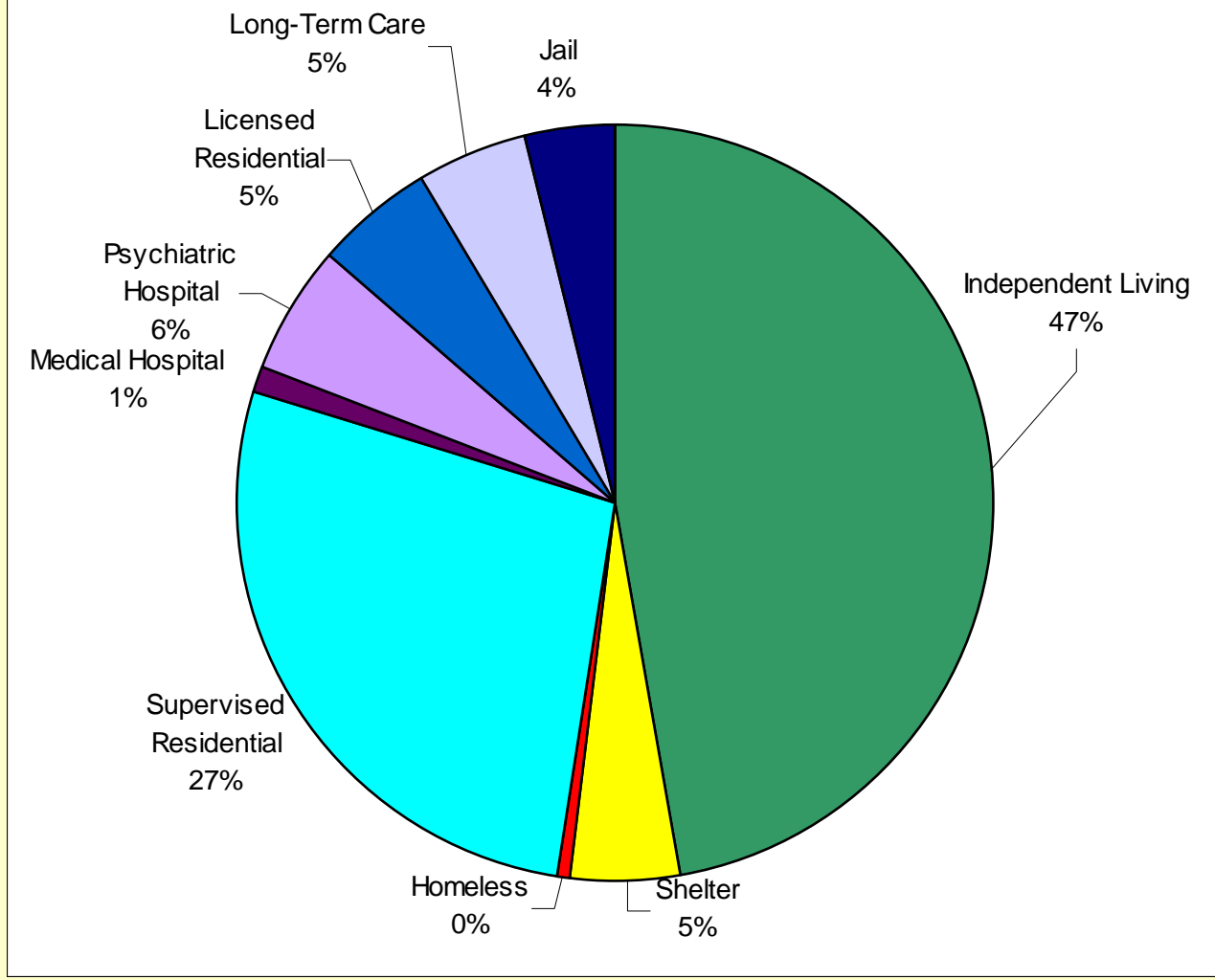


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### Residency of clients after 1 year in FSP



Petris Center analysis of data from the Data Collection and Reporting System and the Client and Service Information System from 2005-2009 for adults ages 26 or older in 43 California counties. This study included data from 7,028

FSP participants. FSP: Full Service Partnership program.



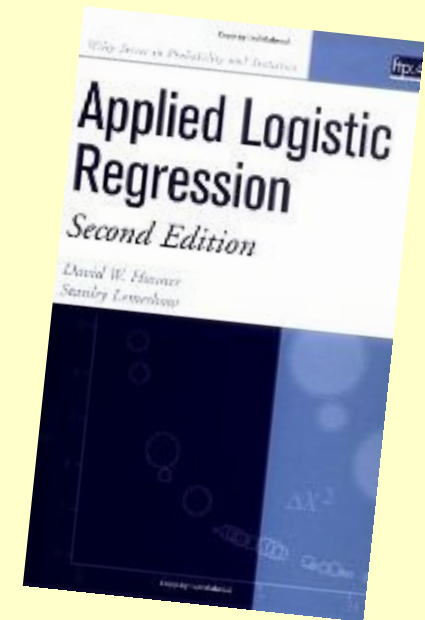
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# Statistical Methods Employment and Education

- Education/Employment recovery goal
  - Logistic regression
- Starting education
  - Cox non-proportional hazard model
- Employment
  - Ordinal logistic regression
- Determine probabilities





# Employment Outcomes

Time in FSP	Employment
FSP involvement for 6 months	12.5% increase in employment
FSP involvement for 1 year	25% increase in employment

Petris Center analysis of data from the Data Collection and Reporting System and the Client and Service Information System for 2005-2008 for clients aged 16 or older in 43 California counties. This study included data from 6,241 FSP participants. FSP: Full Service Partnership program.



# Education Outcomes

## Impact of FSP on Starting Educational Programs

Factor examined	Starting Education
Employment	200% more likely to start education
FSP involvement for 1 year	30% more likely to start education
Current substance abuse problem	24% less likely to start education
Receiving substance abuse treatment	49% more likely to start education

Petris Center analysis of data from the Data Collection and Reporting System and the Client and Service Information System from 2005-2008 for clients aged 16 or older in 43 California counties. This study included data from 9,888 FSP participants. FSP: Full Service Partnership program.



# Conclusions

- MHSA intended to move mental health care toward a recovery model & has been highly successful
- FSPs improve:
  - Housing
  - Employment
  - Education outcomes
- Compared to usual care, FSPs decrease:
  - Arrests
  - Mental health-related emergency room use



# Conclusions (continued)

- Compared to usual care, FSPs cause large increases in:
  - Functioning
  - Outcomes of services
  - General satisfaction
- Evaluation of the FSP program needs to continue to determine the long-term impact
- County best practices need to be understood, documented and disseminated
- Cost-effectiveness studies should be done



# General Satisfaction

- I like the services that I received here.
- If I had other choices, I would still get services from this agency.
- I would recommend this agency to a friend or family member.



# Outcomes of Services

- I deal more effectively with daily problems.
- I am better able to control my life.
- I am better able to deal with crisis.
- I am getting along better with my family.
- I do better in social situations.
- I do better in school and/or work.
- My housing situation has improved.
- My symptoms are not bothering me as much.



# Functioning

- I do things that are more meaningful to me.
- I am better able to take care of my needs.
- I am better able to handle things when they go wrong.
- I am better able to do things that I want to do.
- My symptoms are not bothering me as much.



# Connectedness

- I am happy with the friendships I have.
- I have people with whom I can do enjoyable things.
- I feel I belong in my community.
- In a crisis, I would have the support I need from family or friends.





# Arrests

- In the past MONTH, how many times have you been arrested for any crimes?



# Access to Services

- The location of services was convenient.
- Staff were willing to see me as often as I felt it was necessary.
- Staff returned my calls within 24 hours.
- Services were available at times that were good for me.
- I was able to get all the services I thought I needed.
- I was able to see a psychiatrist when I wanted to.



# Quality and Appropriateness

- Staff here believe that I can grow, change and recover.
- Staff encouraged me to take responsibility for how I live my life.
- Staff were sensitive to my cultural/ethnic background.
- Staff helped me obtain the information needed so that I could take charge of managing my illness.
- Staff told me what side effects to watch for.
- I was encouraged to use consumer-run programs (support groups, drop-in centers, crisis phone line, etc.).
- I was given information about my rights.
- Staff respected my wishes about who is, and is not to be given information about my treatment.
- I felt free to complain.



# Participation in Tx planning

- I, not staff, decided my treatment goals.
- I felt comfortable asking questions about my treatment and medication



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