

# **Impact of Early Intervention Programs for Persons with Mental Health Conditions: Evidence from the National DMIE Evaluation**

**AcademyHealth Annual Research Meeting**

**Boston, Massachusetts**

**June 30, 2010**

**Boyd Gilman • Gilbert Gimm • Henry Ireys •**

**Noelle Denny-Brown • Sarah Croake**

**MATHEMATICA**  
Policy Research, Inc.

Center for  
Studying  
**DISABILITY POLICY**



# Purpose of Presentation

---

- **Present preliminary results from national evaluation on whether the provision of early intervention services to individuals with a potentially disabling mental health condition can help prevent or delay loss of work and transition to disability**
- **Two caveats:**
  - **Examining short-term impacts only**
  - **Lag in availability of some outcome data**

# Targeted Conditions

- ✓ ***Both states targeted working adults with diagnosis of serious mental health disorder***
  
- **Minnesota**
  - **Severe mental illness (schizophrenia and other psychotic disorders, and depressive, anxiety, bipolar, adjustment, substance, and attention deficit disorders)**
  
- **Texas**
  - **Serious mental illness (schizophrenia, bipolar disorder, or major depression)**
  - **Behavioral health condition with physical impairment that puts person at risk for disability**

# Recruitment Pool

- ✓ ***Both states recruited participants from existing public health insurance programs***
- **Minnesota**
  - **State-financed health insurance plans for low-income residents who do not qualify for or have access to affordable health care coverage**
- **Texas**
  - **County-financed integrated health care system for low-income uninsured residents in Harris County**

# Early Intervention Benefits

- ✓ ***Both states offered comprehensive health and employment support services***
- **Medicaid-like and enhanced medical, behavioral, dental services**
- **Employment training and support services**
- **Client-centered case management and navigation services**
- **Financial assistance with premiums and copayments, or elimination of annual spending limits**

# Evaluation Design and Analysis

- **Randomized assignment**
  - Treatment group (offered early intervention services)
  - Control group (“business as usual”)
- **Intent-to-treat analysis**
- **Pooled data across two states with similar target populations**
- **Regression-adjusted impact estimates**
  - Controlling for participant age, health status, withdrawals, and enrollment year, plus prior applications, baseline employment status, or baseline hours worked
- **Estimates based on survey data weighted to account for non-response**

# Data Sources

- ✓ ***Merged state survey and federal administrative data***
  
- **Uniform state survey data (baseline and 12-month follow up) on:**
  - Demographic characteristics
  - Physical and mental health characteristics
  - Employment characteristics
  
- **SSA administrative data**
  - 831 file on disability applications
  - Master earnings file (derived from W-2 reports)

# Study Sample

	Minnesota	Texas	Total
Treatment group	888	886	1,774
Control group	267	695	962
Total	1,155	1,581	2,736



# Baseline Demographic Characteristics

	Minnesota	Texas
Age (mean years)	38.5	47.0
% Female	60.8	76.3
% White and non-Hispanic	77.9	23.3
% Black	8.7	41.4
% Hispanic	3.1	32.1
% Currently married	22.3	24.7
% Four-year college graduate	19.1	8.4

# Baseline Health Status

	Minnesota	Texas
% with serious mental illness	96.1	11.0
Physical health SF-12 score (mean)	47.9	37.9
Mental health SF-12 score (mean)	35.1	49.6

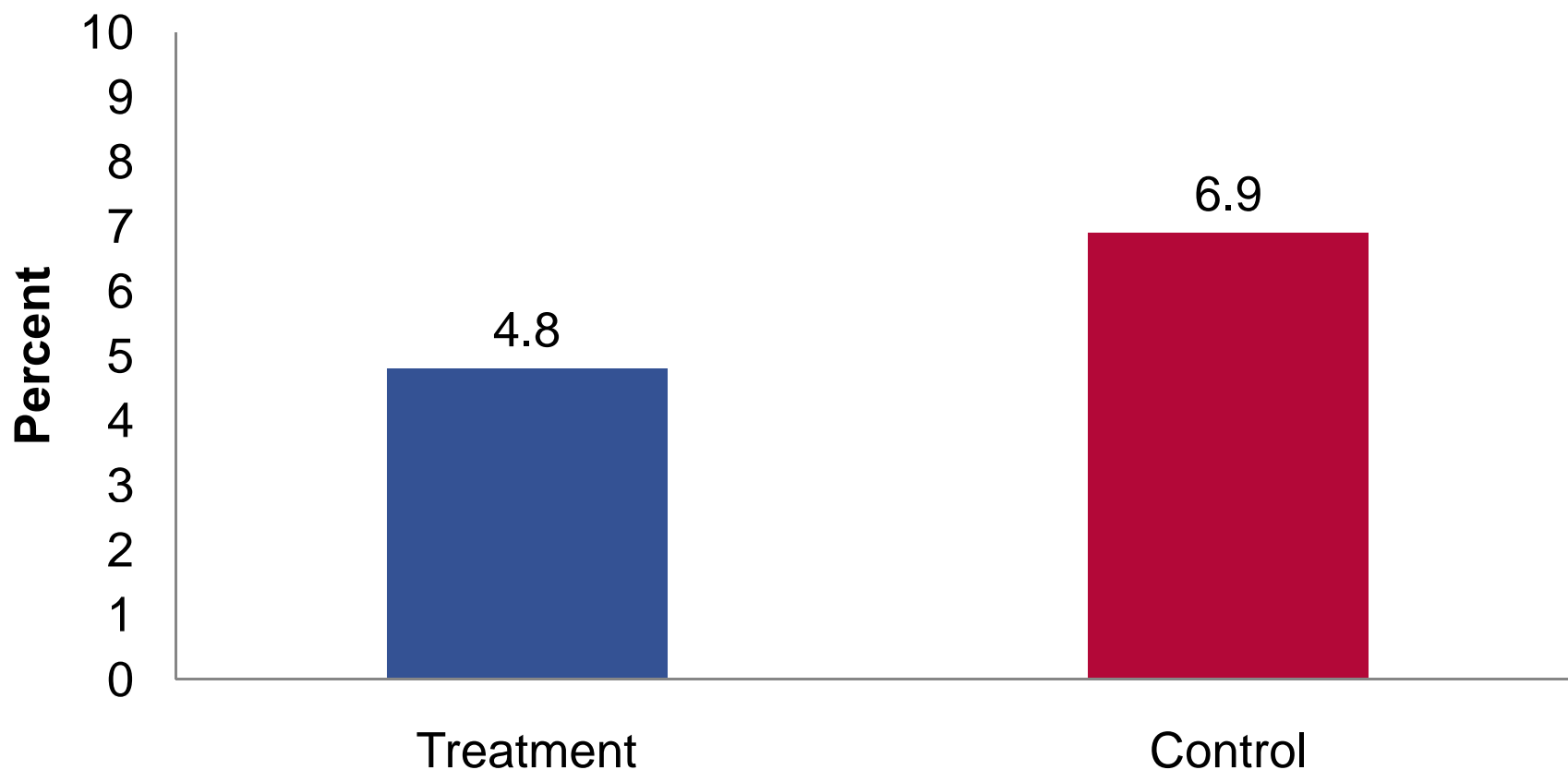
Note: SF-12 health scores are norm-based, with 50.0 representing the national average. Lower scores indicate worse health.

# Baseline Employment and Earnings

	Minnesota	Texas
Average monthly hours worked	120.8	119.4
% Working at least half time	75.6	73.0
% Working full time	21.9	31.2
Mean annual earnings (2008)	\$17,391 (167% FPL)	\$15,316 (147% FPL)

Note: 2008 federal poverty level for individual was \$10,400.

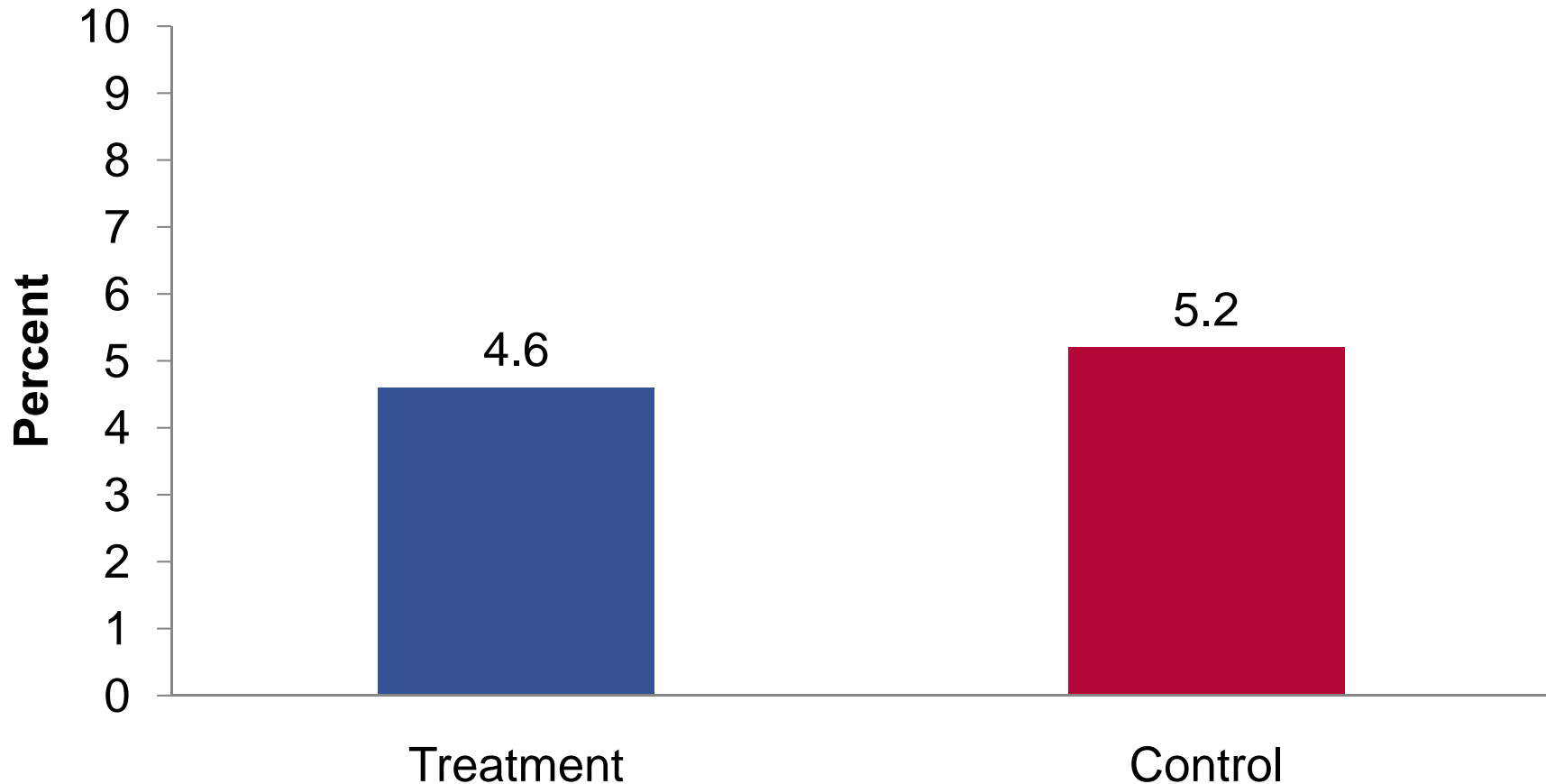
# Percent of Participants With Federal Disability Benefits Application 12 Months After Enrollment



Note:  $p = 0.03$ . Impact estimates are adjusted for age, withdrawals, enrollment year, mental and physical health scores, and history of SSA disability applications prior to enrollment.



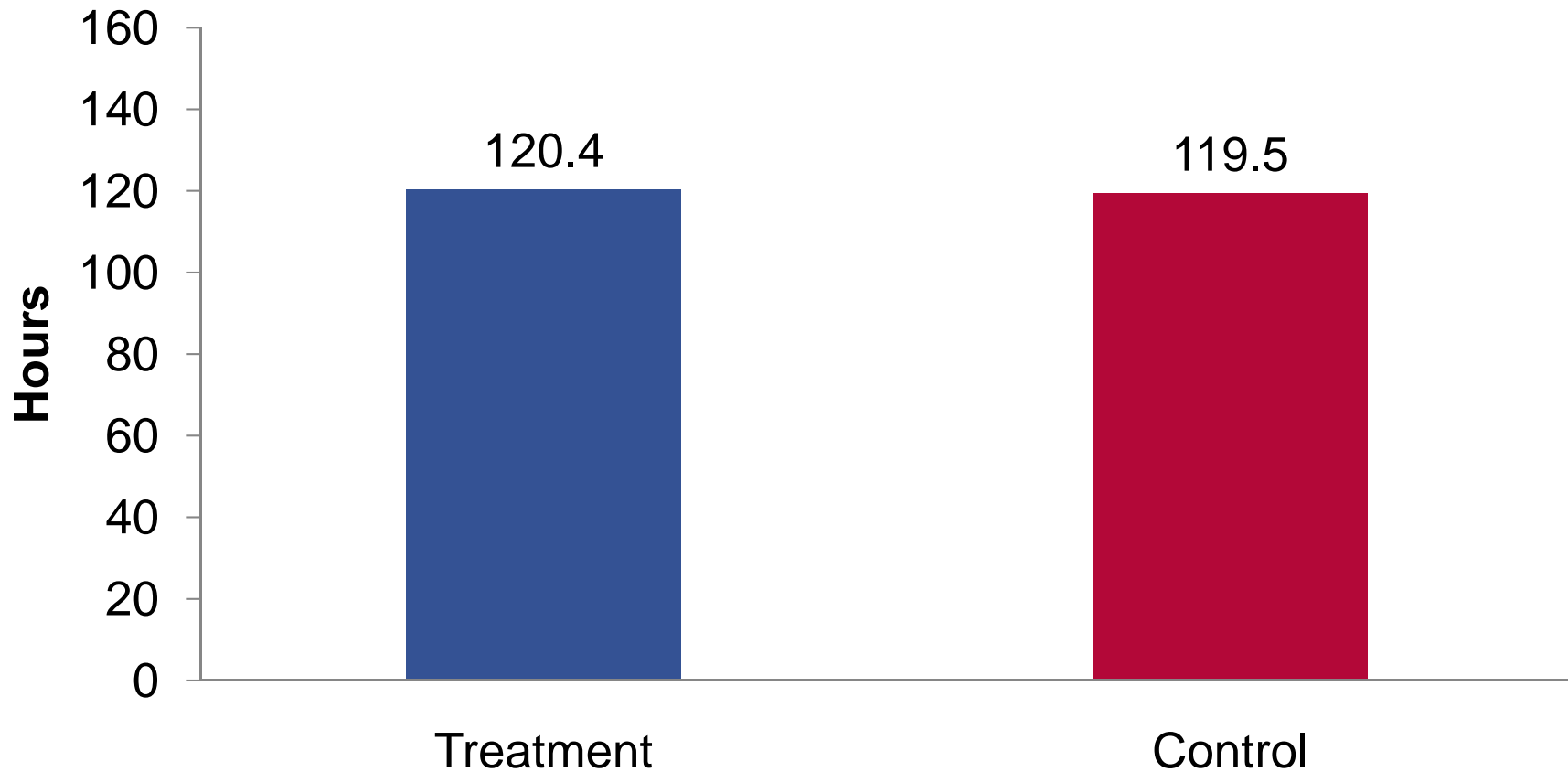
# Percent of Participants Who Reported Not Working 12 Months After Enrollment



Note:  $p = 0.56$ . Impact estimates are adjusted for age, withdrawals, enrollment year, mental and physical health scores, and employment status at time of enrollment. Results are weighted for Round 2 survey nonresponse.



# Average Monthly Hours Reported Working 12 Months After Enrollment



Note:  $p = 0.72$ . Impact estimates are adjusted for age, withdrawals, enrollment year, mental and physical health scores, and monthly hours worked at time of enrollment. Results are weighted for Round 2 survey nonresponse.



# Summary of Findings

---

- **Most participants with serious mental illness or other behavioral health condition report working at least half time.**
- **Early intervention programs for persons with serious mental illness or other behavioral health condition led to reduction in applications for federal disability benefits in the short run.**
- **Early intervention programs had no short-term impact on employment status or hours worked.**

# Policy Implications

- **Early intervention programs for individuals with potentially disabling conditions:**
  - may be cost effective strategy for preventing or delaying onset of disability.
  - have potential to benefit large number of working adults at risk of becoming disabled.
  - focus on pre-disabled population and can be targeted on high-cost and/or high-impact conditions.
- **Model may be relevant for health reform by providing enhanced medical and employment services to at-risk individuals within an existing health insurance plan.**



# Future Research Activities

---

- **Analyze impact of early intervention programs on health status and disease progression**
- **Evaluate longer-term impacts on disability, employment, and earnings**
- **Evaluate effects on groups at greatest risk of disability, such as those with severe mental illness only or those working fewer hours**

# Contact Information

---

**Boyd Gilman, Ph.D.**  
**Mathematica Policy Research**  
**955 Massachusetts Avenue, Suite 801**  
**Cambridge, MA 02139**

- [bgilman@mathematica-mpr.com](mailto:bgilman@mathematica-mpr.com)

**Access reports/issue briefs on the DMIE at**

- [www.disabilitypolicyresearch.org](http://www.disabilitypolicyresearch.org)
- [www.mathematica-mpr.com/disability/dmie.asp](http://www.mathematica-mpr.com/disability/dmie.asp)