Impact of a case management program to reduce dependence on federal benefits for low-income working adults with potential disabilities

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Texas in Context

- 28% of **working** Texans are uninsured (highest rate in nation)
- Large county hospital districts care for those without insurance using taxing authority
- 250,000 working age Texans with disabilities receive SSI and 380,000 receive SSDI (2007 data)
- Medicaid expenses for working age Texans = $3.5 billion (2007 data)
- Medicaid expenses in Harris County = $375.5 million (2007 data)

Study Eligibility

- Working 40+ hours in past month or 40 hours averaged over past 6 months
- 21 - 60 years of age
- Enrolled in Harris County Hospital District indigent health care program (Gold Card)
- Not receiving Medicaid
- Not currently certified eligible or currently applying for Social Security benefits
- Medical records diagnosis of Serious Mental Illness or another behavioral health problem (e.g., anxiety, alcohol or drug misuse) + physical disorder with potential for disability (e.g., diabetes)

Study Design

- 1,616 participants randomly assigned to intervention (n=904) or control (n=712)
- Intervention: April 2007 – September 2009
  - Free physical and behavioral health care, prescriptions, dental/vision care
  - Case management by masters level social workers, nurses, voc counselors
    - Individual planning, advocacy and coordination
    - Navigation of health system
    - Connection to community resources
    - Employment/vocational supports
- Outcomes data from surveys, medical records, case manager activity reports, state employment data, and in-depth (qualitative) interviews
- Participants were surveyed at study entry, 12, and 18 months
- 18-month survey completion: 93% intervention, 90% control

Who is Working Well?

- Female (76%), minority (72%), middle-aged (70% > 45 yrs)
- Less than high school diploma (30%); high school diploma (31%)
- Divorced/separated (42%), never married (25%), widowed (7%)
- Income < 100% of FPL (48%), income < 200% of FPL (87%)
- Worked on average 33 hours per week over past year
- Sales/service (39%), health support workers (19%)
- 11% had diagnosis of severe mental illness
- 41% reported at least one limitation in daily activities
- Self-reported health conditions include high blood pressure (57%), depression (51%), anxiety disorder (32%), diabetes (29%)

Evaluation Hypotheses & Analysis

- The intervention group will show more positive outcomes than the control group at each evaluation time point, including:
  - higher rates of maintaining employment
  - less dependence on federal disability benefits
  - greater access to care
  - better health outcomes
  - greater satisfaction with work and health

- All analyses control for participants' gender, age, race/ethnicity, MH diagnosis, overall health status, occupational group, recruitment cohort, and baseline value of the outcome.

Outcome: Transition to Disability

- Intervention group less likely to have begun receiving disability:
  - Difference most pronounced for mail/telephone recruitment cohort who were less likely to be female, Hispanic and older.

Outcome	Sample Size	Intervention	Control	Difference
Percent who received SSI or SSDI in months 13 to 18 (self reported)	1478	6%	8%	-2%*
--Participants recruited by mail or telephone	*874*	*4%*	*8%*	*-4%**
--Participants recruited in person	*604*	*8%*	*8%*	*0%*

*Difference is significant at $p<.05$.

Outcome: Use of Health Care

- Intervention participants accessed more outpatient services, mental health services, and dental/vision services than control participants during months 13 to 18.

Outcome	Sample Size	Intervention	Control	Difference
Percent utilizing outpatient services (as reported by health care provider)	1480	72%	58%	14%*
Percent seen in a mental health clinic (as reported by health care provider)	1480	12%	6%	6%*
Percent who had at least one mental health service (self-reported)	1476	23%	17%	6%*
Percent who had at least one dentist or optician visit (self-reported)	1480	61%	46%	15%*

*Difference is significant at $p<.05$

Outcome: Access to Health Care

- Participants in the intervention group were significantly less likely to report delays or inability to get health care due to costs.

Outcome	Sample Size	Intervention	Control	Difference
Percent who needed the following, but delayed or were unable to get due to cost:				
• **family doctor**	1472	18%	28%	-10%*
• **specialist**	1472	20%	28%	-8%*
• **hospital care**	1472	11%	17%	-6%*
• **surgery**	1472	9%	13%	-4%*
• **dental care**	1472	28%	34%	-6%*
• **fill a prescription**	1472	13%	26%	-13%*
• **medical equipment**	1472	6%	9%	-3%*

*Difference is significant at $p<.05$.

Outcome: Satisfaction with Health Care

- Intervention group was more satisfied with their access to health care and with the health care they received

Outcome	Sample Size	Intervention	Control	Difference
Percent satisfied with access to health services	1472	70%	60%	10%*
Percent satisfied with health care received	1463	81%	74%	7%*

*Difference is significant at $p<.05$

Outcome: Use of Pharmacy

- **Intervention participants were more likely than control participants to receive prescriptions and medical devices:**

ACE inhibitors (for hypertension), *Biguanides* (for diabetes), *Non-steroidal anti-inflammatories* (for pain), *Second Generation Antihistamines* (for allergies), *HMG-CoA reductase inhibitors* (for high cholesterol), *Medical Devices* (such as BP cuffs, CPAP machine, etc.), and *Test equipment for diabetes mellitus*

- **Intervention participants were more likely to be adherent with their medications.**

ACE inhibitors (for hypertension), *Antidepressants, Beta adrenergic agonists* (for respiratory conditions), *Beta blocking agent* (for hypertension*), HMG-CoA reductase inhibitors* (for high cholesterol), and *Sulfonylureas* (for diabetes)

Impact of Case Management

Higher case management hours were related to:

↑ outpatient physical health services (*encounters*)
↑ requests for routine medical appointment *(self-report)*
↑ seen in a mental health treatment location (*encounters*)
↑ utilizing mental health services (*self-report)*

Very high case management was related to:

↓ total emergency room visits (*encounters and self-report*)
↓ outpatient visits (*encounters*)
↑ urgent care visit *(self-report*)
↑ increased earnings *(Texas Workforce commission*)

Other outcomes showing no difference

- Disability status: percent applying for federal disability
- Health status:
  - behavioral or physical self-rating scales (BASIS, SF-12)
  - limitations in daily activities (ADL, IADL)
  - self-rated overall physical health
- Employment and income:
  - total hours worked (mean = 29 hrs/week over 6 months)
  - percent employed continuously over 6 months (90%)
  - employment earnings (mean = $6,800)
  - household income (mean = $19,500)
  - Work motivation

Disability Decisional Balance

Disability Benefits

Income Stability

Access to Health Care

Personal Attributes

Capital (e.g, Car, House)

Internal resources (e.g., motivation, prayer)

Social capital (e.g., education, training)

Social support (e.g., emotional and instrumental support

Job flexibility (workplace accommodation)

Health (severity of health problems and extent they are managed through drugs, surgery, or lifestyle change)

In-Depth Interviews

Interviews with participants showed that:

- Participants struggle to maintain their health and their work and each affects the other.
- Barriers to health care include making and keeping appointments, taking time off of work for appointments, and costs of copayments and medications.
- For most participants, applying for disability is not a preferable option – either they feel like they have to work for the income or they do not see themselves as the type of person who does not work.

Mary

Challenges:

- Depression
- Bipolar Disorder
- Adrenal adenoma
- Chronic back pain

- Mary has multiple psychosocial stressors due to be being the sole caretaker of her disabled son. Because of money troubles, she was not taking her medications regularly nor going to the doctor. She had applied for disability due to not being able to use her hands any more as a cook and due to depression, but was denied.
- **Services:** With the assistance of her DMIE Case Manager, she received vocational counseling, psychiatric counseling, health information and support, job training, dental and vision services, and free medications and doctor visits.
- **Outcomes:** Mary now takes her medications as prescribed and follows all doctor's orders. She has regained her self-esteem and is now working 30 hours per week as a clerk. She is studying for her GED and hopes to continue her education to get an associate's degree.
- *"My Case Manager was able to encourage me to see a better perspective on life. I was able to acquire a job with the assistance of my Case Manager."*

Implications for Health Reform

- 1.3 to 1.8 million additional adult Texans under 138% FPL could enroll in Medicaid expansion*
- The *Working Well* participant population is an important part of this expansion population.
  - 78% were <138% FPL, 100% < 250% FPL
  - < 25% had access to employer sponsored insurance
- Enrolling and engaging these individuals in health care and ensuring access to care will present major challenges
- Person-centered planning is not expensive to implement. (Estimated PMPM of $13.00 to $27.00, depending on caseload size) and could help new Medicaid participants to receive better health care.

Conclusions

- Health reform will lead to many new patients using Medicaid system who will need assistance in utilizing these services.
- The DMIE intervention group has increased their usage of medical appointments, especially outpatient and mental health services, which will help them better manage their health.
- Person-centered planning and motivation works.
- Removing co-pays for medical appointments and medication results in increased use of appropriate services and better disability outcomes.
- The intervention group is applying for and receiving SSI/SSDI less than the control group which can provide future cost offsets to CMS.
- A longer study period may have enabled us to observe more differences between study groups on health status