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**WORKING WELL: THE TEXAS DEMONSTRATION TO MAINTAIN  
INDEPENDENCE AND EMPLOYMENT (DMIE)**

**CMS FINAL EVALUATION REPORT**

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## EXECUTIVE SUMMARY

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### **Background**

The Working Well program tested interventions to address the health, employment and social needs of working individuals in the hopes of forestalling the need for federal disability benefits. The goal of the program is to intervene before working people with significant health problems become permanently disabled and dependent on federal programs such as Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI).

The Texas Demonstration to Maintain Independence and Employment (DMIE) was a federally-funded research study that used a randomized control design to examine whether participants (i.e. working people with potentially disabling health conditions) can remain employed and independent if provided health and employment supports. The study's 1,616 participants were individuals working at least 40 hours a month, aged 21-60, with a health diagnosis that could potentially lead to their applying for disability benefits who had not yet applied for disability benefits.

### **Findings**

Overall the evaluation found that individuals who received the intervention had better access to medical services and medications, made more use of preventative care, were more adherent to prescribed medications, and were more satisfied with the healthcare they received. Finally, a lower percentage of the intervention group reported receiving federal disability benefits. More specifically:

- ❖ Results for preventing participants from transitioning to federal disability benefits showed:
  - For all participants, there was a low incidence of **applying** for federal disability benefits (intervention 9%, control 9%; according to self-report data).
  - There was a significant overall difference between the intervention and control groups in **receiving** federal disability benefits (6% intervention; 8% control). This difference was strongest for the subgroup of participants who were recruited by mail (vs. in-person recruitment). Among this subgroup, which represented 60% of all participants in the study, only 4% of intervention participants, compared to 8% of control participants, reported receiving federal disability benefits.
  
- ❖ The most frequent impact of the intervention may be in the area of increasing access to and use of appropriate health services. A higher percentage of the intervention group used mental health and outpatient services and a higher percentage filled prescriptions. Intervention participants who reported using outpatient physical health services had a higher average number of visits compared to the control group. The intervention group was also less likely

to report delays in receiving health care due to costs, and showed generally better adherence and persistence with their medications. Intervention participants also expressed greater satisfaction with their access to health care and the health care they received.

- ❖ Case Managers spent more time with intervention participants with greater health and employment needs and high levels of case management hours were related to more access to health care and higher earnings.
- ❖ Even with the expanded health benefits, in-depth interviews with a small sample of participants showed that health remained the main reason why intervention participants stopped working.
- ❖ Having no co-pays for medical appointments and medication was one of the most highly appreciated benefits reported by participants and it increased their utilization of preventative and maintenance health care. Obtaining medication at no charge led to increased treatment compliance and more medical stability for chronic conditions.
- ❖ Participants reported that having a case manager maintain monthly contact with them made them feel supported through difficult times and increased their motivation to take action. In addition, the case manager's advocacy for them within the health care system reportedly made participants feel less alone and more empowered to make decisions about their health.

The evaluation of Working Well yielded clear and useful recommendations for future implementation of similar programs. The experiences of the project in successfully engaging low-income, high risk uninsured adults can also potentially offer guidance to federal and state policymakers working to improve health care access for similar individuals under the Affordable Care Act (ACA) of 2010.

## I. OVERVIEW OF THE PROJECT

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Texas has the highest rate of uninsured workers in the country with over 5.7 million (27%) of the non-elderly population being without health insurance<sup>1</sup>. People with chronic conditions – those who need regular health care the most – make up nearly half (an estimated 45%) of the uninsured population<sup>2</sup>. The lion’s share of health care currently provided to these uninsured individuals falls heavily on indigent care systems such as large county hospital districts. Harris County Hospital District (HCHD) in Houston served nearly 900,000 individuals in outpatient services during HCHD fiscal year 2009 which ended February 28, 2009.<sup>3</sup> However, despite the availability of publicly-funded care, uninsured adults with chronic conditions are less likely to visit a health professional, have been found to forgo needed medical care due to costs, and “suffer serious, identifiable gaps in needed medical care”.<sup>2</sup>

Untreated medical conditions can lead to various other consequences in addition to poorer health, including reduced quality of life, strained social relationships, and reduced productivity at work, up to and including the need to stop working and file for federal disability benefits (SSI/SSDI). Numerous studies document the benefits of enhanced health and mental health care and employment supports in helping those with behavioral illness maintain employment<sup>4,5,6,7</sup>.

### A. Target Population and Intervention Goals

The Working Well interventions addressed the health, employment and social needs of working individuals in the hopes of forestalling the need for federal disability benefits. The goal of Working Well was to intervene before working people with significant health problems became permanently disabled and dependent on federal programs such as Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI).

The interventions were tested in a randomized, controlled trial funded under a Demonstration to Maintain Independence and Employment (DMIE) grant from the Centers for Medicare and Medicaid Services (CMS). The target population included working people with potentially

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<sup>1</sup> State Health Access Data Assistance Center (2009). At the brink: Trends in America’s Uninsured. [http://covertheuninsured.org/files/u15/State\\_by\\_State\\_Analysis\\_2009.pdf](http://covertheuninsured.org/files/u15/State_by_State_Analysis_2009.pdf) [On-line].

<sup>2</sup> The Urban Institute of Maryland Baltimore County (2005). Uninsured Americans with chronic health conditions: Key findings from the National Health Interview Survey. [http://www.urban.org/UploadedPDF/411161\\_uninsured\\_americans.pdf](http://www.urban.org/UploadedPDF/411161_uninsured_americans.pdf) [On-line].

<sup>3</sup> Harris County Hospital District (2009). *Harris County Hospital District 2009 Annual Report*.

<sup>4</sup> Drake, R. E., Becker, D. R., Clark, R. E., & Mueser, K. T. (1999). Research on the individual placement and support model of supported employment. *Psychiatric Quarterly*, 70, 289-301.

<sup>5</sup> Langlieb, A. M. & Kahn, J. P. (2005). How much does quality mental health care profit employers? *Journal of Occupational and Environmental Medicine*, 47, 1099-1109.

<sup>6</sup> Schoenbaum, M., Unutzer, J., McCaffrey, D., Duan, N. H., Sherbourne, C., & Wells, K. B. (2002). The effects of primary care depression treatment on patients’ clinical status and employment. *Health Services Research*, 37, 1145-1158.

<sup>7</sup> Rost, K., Smith, J. L., & Dickinson, M. (2004). The effect of improving primary care depression management on employee absenteeism and productivity: A randomized trial. *Medical Care*, 42, 1202-1210.

disabling physical and mental health conditions. The study examined whether participants could remain employed and independent if provided health benefits, employment services and case management.

More specifically, study participants were working adults selected from among persons enrolled in the Harris County Hospital District's "Gold Card" program, which provides discounted access to health care for Harris County residents.

Criteria for selection into the study included:

- Employed an average of 40 hours for the past 6 months
- 21 – 60 years of age
- Eligible for HCHD medical program ("Gold Card") services
- Not receiving Medicaid, SSI or SSDI
- Not currently certified eligible for Social Security benefits (SSI, SSDI)
- Had a medical encounter with HCHD within the prior 12 to 24 months
- A medical records diagnosis of schizophrenia, bi-polar disorder, or major depression; or another behavioral health diagnosis co-occurring with a physical diagnosis that could potentially lead to disability.

From the pool of eligible candidates, a sample of 1,616 was recruited. After selection into the study, participants were randomly assigned to the intervention group (n=904, 56%) or the control group (n=712, 44%). The control group received standard Medicaid-comparable services normally provided by HCHD to its patients. The intervention group received case management, and employment services, expedited clinic appointments, enhanced mental health and substance abuse services, dental and vision benefits, and subsidized prescriptions and medical visits.

## **B. Program Services**

Essential components of the Working Well model provide insurance-like medical benefits as well as additional supports, including:

- Case management, including health care and employment systems navigation and employment supports
- No copayments for medical appointments
- No copayments for medications
- Enhanced access to care (expedited behavioral health and medical appointments)
- Enhanced services, including dental, vision, substance abuse treatment, chiropractic services, and durable medical equipment
- Transportation assistance

In Working Well, the hospital district provided the bulk of physical and psychiatric health care, while case management and enhanced medical services (dental, vision, etc.) were supplied by contract providers.

## II. EVALUATION

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### A. Hypotheses

The evaluation study was designed to test the following hypotheses:

**Hypothesis 1** – Compared to the control group, across time and adjusted for age, sex, ethnicity, occupation, mental illness, overall health and recruitment method, participants in the intervention group will demonstrate and report:

1. Higher rates of employment and income
2. Greater job satisfaction
3. Greater control over health
4. Improved behavioral and physical health
5. Better quality of life
6. Decreased rates of applying for and receiving federal disability benefits

**Hypothesis 2** – Within the intervention group, across time and adjusted for age, sex, ethnicity, occupation, mental illness, overall health and recruitment method, participants who access more services will demonstrate and/or report:

1. Higher rates of employment and income
2. Greater job satisfaction
3. Greater control over health
4. Improved behavioral and physical health
5. Better quality of life

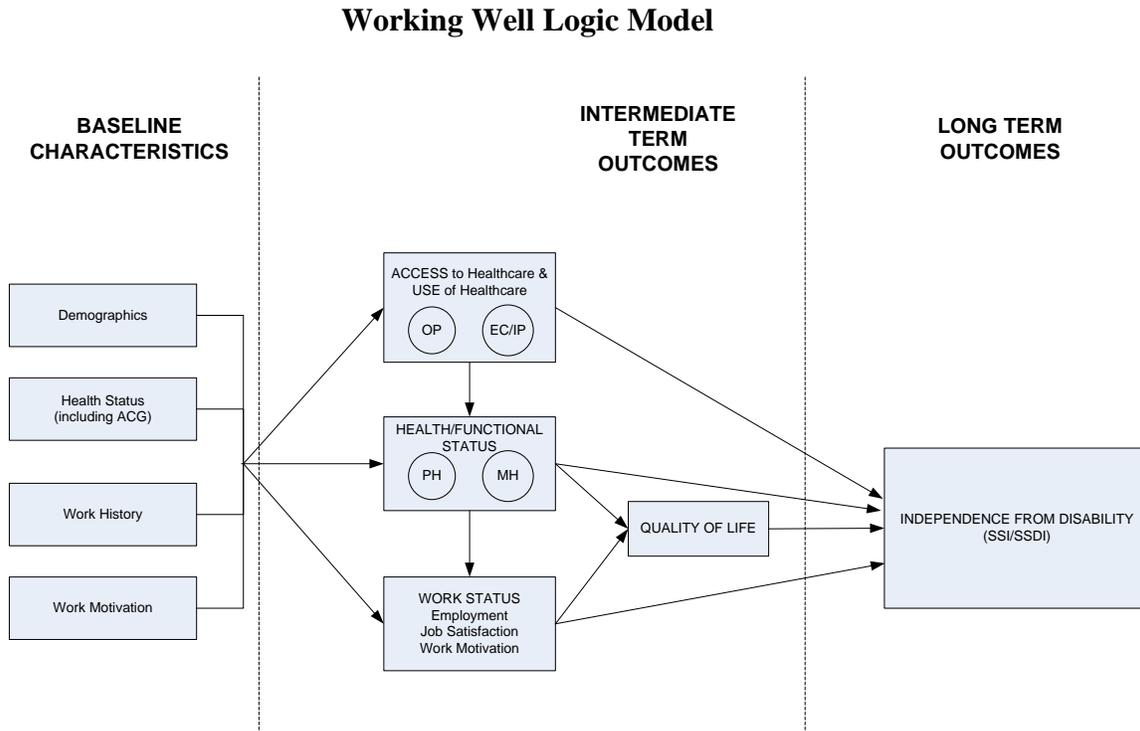
**Hypothesis 3** – Compared to the control group, participants in the intervention group will show a decreased rate of transition from:

1. Employed to unemployed status
2. Employed to disabled status

**Hypothesis 4** – Compared to the control group, participants in the intervention group will show lower post-enrollment health care charges.

## B. Logic Model

The following diagram provides a visual summary of the logical associations and direction of causality underlying the hypotheses:



The model depicts the factors that were expected to affect the long-term outcome (independence from disability). ('Disability' here refers to dependence on SSI or SSDI). The model posits that baseline characteristics (demographics, health status, work history and initial work motivation) are underlying factors that directly affect the intermediate factors of access to and use of health care, physical and mental health status, and work status. Among the intermediate-term factors themselves, the model posits that access to and use of healthcare directly affects health status which, in turn, affects work status (employment situation, job satisfaction, and work motivation). Health status and work status in turn affect overall quality of life. These four intermediate outcomes themselves are predictors of the long-term outcome.

The Working Well intervention would impact the model in several ways. Case management, availability of expedited or enhanced services, and subsidized co-pays and prescriptions would directly affect access to and use of health services. The case management vocational component, including referral to specialized services, would be expected to directly affect work status. The 'social support' component of case management might be expected to directly affect quality of life, as well as to (perhaps more subtly) affect the likelihood of applying for disability through encouraging and motivating clients to remain working.

## C. Data

Data for the evaluation came from several sources:

1. Participant surveys;
2. Medical encounter data, including encounter records from HCHD and contracted service providers, and pharmacy data;
3. Case management activity reports;
4. Administrative data on participants from the Texas Workforce Commission (employment and unemployment earnings; employment assistance activities) and the Department of Assistive and Rehabilitative Services (employment assistance activities); and
5. Individual ‘process evaluation’ interviews conducted with selected participants, focus group with Case Managers, and interview with stakeholders.

## III. EVALUATION RESULTS

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The following sections present outcomes for the most recent timeframe for which data have been analyzed (i.e. 13 – 18 months after study entry). Notable trends observed from 13-18 months are highlighted.

### A. Impact Estimates and Program Outcomes

#### 1. Health Care Access and Utilization

Of the thirty-two (32) outcomes in the health care access and utilization category, thirteen (13) showed statistically significant differences between the intervention and control groups. Table 1, below, shows the six (6) significant findings related to health care **utilization**.

**Table 1: Health Care Utilization  
Significant Findings**

<b>Outcome</b>	<b>Sample Size*</b>	<b>Intervention</b>	<b>Control</b>	<b>Difference</b>
<b>Percent utilizing outpatient services in months 13-18</b> (as reported by health care provider)	1480	72%	58%	14%
<b>Average number of routine physical health visits in months 13-18</b> (self reported)	1186**	2.9	2.6	0.3
<b>Percent seen in a mental health clinic in months 13-18</b> (as reported by health care provider)	1480	12%	6%	6%
<b>Percent who had at least one mental health service in months 13-18</b> (self-reported)	1476	23%	17%	6%

Outcome	Sample Size*	Intervention	Control	Difference
<b>Percent who had at least one dentist or optician visit in months 13-18</b> (self-reported)	1480	61%	46%	15%
<b>Average number of dentist or optician visits in months 13-18</b> (self reported)	805**	3.0	2.2	0.8

\* Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

\*\* Data is for those participants who reported at least one visit (zero visits not included in the calculation), therefore the lower sample size is not due to non-response or invalid response.

As can be seen in the table above, during months 13 to 18 of enrollment, a higher percentage of the intervention group used outpatient services for physical care and outpatient mental health care (both as reported by the health care provider and self-reported). Additionally, among participants who self-reported having a routine health care visit in the past 6 months (months 13 to 18 of their enrollment in the study), participants in the intervention group reported a higher average number of visits than participants in the control group. These are positive findings in that utilization of outpatient services is an indication of better preventative health care. Intervention participants also reported higher rates (compared to the control group) of visiting a dentist or optician in the past 6 months (months 13 to 18 in the study), and a higher average number of visits for these services.

Table 2, below, shows significant differences between the intervention and control groups in reported delay or inability to receive care due to cost, a measure of health care access. The intervention group was significantly less likely to have delayed or not received any of the seven types of care included in the survey questions. Access appeared to improve over the course of the study. At 12 months, study participants were less likely to experience delay in four of the seven types of care queried, while at 18 months they were less likely to experience delay in all seven types of care

**Table 2: Health Care Access  
Significant Findings**

Outcome	Sample Size*	Intervention	Control	Difference
<b>Percent who needed the following, but delayed or were unable to get due to cost:</b>				
• 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%

\* Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

## 2. Pharmacy Outcomes

### Receipt of Prescriptions

A review of the pharmacy utilization data between months 13 and 18 of study enrollment showed Working Well participants enrolled in the intervention group received an overall larger percentage of prescriptions compared to the control group. Of the 17 drug classes and medical devices that were analyzed, intervention participants were more likely to receive prescriptions for ACE I inhibitors, biguanides, non-steroidal anti-inflammatories, second generation antihistamines, and HMG-CoA reductase inhibitors as well as for medical devices and test equipment for diabetes (Table 3).

**Table 3: Receipt of Prescriptions  
Significant Findings**

Medications	Sample Size*	Intervention	Control	Difference
<b>ACE inhibitors</b> (for hypertension)	1082	39%	33%	6%
<b>Biguanides</b> (for diabetes)	1082	19%	13%	6%
<b>Non-steroidal anti-inflammatories</b> (for pain)	1082	37%	27%	10%
<b>Second Generation Antihistamines</b> (for allergies)	1082	26%	18%	8%
<b>HMG-CoA reductase inhibitors</b> (for high cholesterol)	1082	31%	25%	6%

Medical Equipment	Sample Size*	Intervention	Control	Difference
<b>Medical Devices</b> (such as BP cuffs, CPAP machine, etc.)	1082	19%	12%	7%
<b>Test equipment for diabetes mellitus</b>	1082	24%	17%	7%

\* Sample size for pharmacy analyses was 1,082 participants who were prescribed at least one of 17 medications used to treat chronic conditions.

### Pharmacy Adherence

Analysis of prescription claims data showed better medication adherence among the intervention group, particularly for drug therapies used to treat chronic health conditions. Adherence is the degree to which individuals conform to medical recommendations regarding day-to-day treatment of illness. In particular, medication adherence is identified through Working Well participants' prescriptions filled through the HCHD pharmacy.

**Table 4: Medication Utilization (Adherence) – Average Proportion of Days Covered  
Significant Findings**

Medications	Sample Size*	Intervention	Control	Difference
<b>ACE inhibitors</b> (for hypertension)	416	78%	71%	7%
<b>Antidepressants</b>	438	69%	64%	5%
<b>Beta adrenergic agonists<sup>8</sup></b> (for respiratory conditions)	194	58%	47%	11%
<b>Beta blocking agent</b> (for hypertension)	267	78%	72%	6%
<b>HMG-CoA reductase inhibitors</b> (for high cholesterol)	321	74%	67%	7%
<b>Sulfonylureas</b> (for diabetes)	198	77%	66%	11%

\* Sample size for medication utilization was based only on those participants who had at least one prescription for that specific drug.

### Pharmacy Persistence

Group differences in medication persistence were also examined for prescription drugs used to treat chronic health conditions. Medication persistence represents how long individuals follow medical advice (i.e., the duration of time from the initiation to a significant break or discontinuation of drug therapy). Medication persistence was measured using the number of days from the date of the first prescription to the date of the last prescription before a break of at least 35 days occurred (after taking into account the number of pills in the last prescription).

Descriptive analysis shows the intervention group was more likely to be persistent on eight of eleven drug agents. Statistically significant differences in persistence were seen between groups placed on beta blocking agents and test equipment for diabetes mellitus (Table 5). The results indicate that the intervention group was more likely to persist in continuing on beta blocking agents and less likely to continue with diabetes test equipment from the date of first prescription starting the 13<sup>th</sup> month after enrollment through the 18<sup>th</sup> month. The finding for diabetes test equipment is surprising since the intervention group showed statistically significantly higher persistence from study entry to 12 month for differences in persistence on anti-diabetic agents such as biguanides and insulins.

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<sup>8</sup> There are two types of Beta Adrenergic Agonists (B1 and B2). B1 agonists are used to treat cardiac related illness such as heart attack and differ from beta-blockers. B2 agonists are bronchiole dilators used to treat respiratory conditions such as asthma and COPD.

**Table 5: Percentage of Participants without a Break in Prescriptions  
Significant Findings**

Medications	Sample Size*	Intervention	Control	Difference
<b>Beta blocking agent</b> (for hypertension)	267	95%	89%	6%

Medical Equipment	Sample Size*	Intervention	Control	Difference
<b>Test equipment for diabetes mellitus</b>	244	72%	83%	11%

\* Sample size for medication persistence was based only on those participants who had at least one prescription for that specific drug/equipment.

### 3. Behavioral and Physical Health Outcomes

Table 6, below, shows the statistically significant results for outcomes related to self-reported behavioral health. Two (2) of the nine (9) outcomes for behavioral health demonstrate differences between the intervention and control groups. The intervention group, relative to the control group, had higher average ratings on the self-harm sub-scale of the BASIS 24 which is an indication that individuals may be experiencing self-harm symptoms; and the percent who rated their mental health status as good, very good or excellent was lower in the intervention group.

**Table 6: Behavioral Health  
Significant Findings**

Outcome	Sample Size*	Intervention	Control	Difference
<b>Average Score on Self-Harm Sub-Scale</b> as measured by the BASIS sub-score (range 0 – 4; lower score = better)	1479	0.15	0.10	0.05
<b>Percent rating mental health status as good, very good or excellent</b>	1475	73%	77%	-4%

\*Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

In addition to the significant overall findings above, some subgroup differences were also significant:

- Among participants who **rated their mental health** status as good, very good or excellent **at baseline**, those in the intervention group were less likely to rate their mental health as high at 18 months (83% intervention vs. 88% control). There was no difference between the intervention and control groups among participants who rated their mental health status as poor at baseline.
- Among those **recruited through the mail** (but not among those recruited in person), there was a significant difference between the intervention and control groups on the

BASIS 24 psychosis subscale in that the intervention group reported more symptoms consistent with psychosis (intervention mean score .53, control mean score .41 where lower is better).

- Among the **African American** subgroup, participants in the intervention group scored lower on the SF-12 mental health subscale (50 intervention vs. 52 control), indicating slightly worse mental health than the control group.

Although there were no overall group differences on self-reported physical health outcomes, one health outcome difference emerged when looking at subgroups of participants.

- Among participants who were **recruited through the mail**, the intervention group was more likely than the control group to report having at least one limitation in Instrumental Activities of Daily Living (IADL), indicating that they were in worse physical health (49% reporting IADLs in the intervention groups vs. 44% in the control group).

#### 4. Employment and Earnings Outcomes

Fifteen (15) outcomes for employment and earnings were studied. Overall, the intervention and control groups were very similar on these measures at 18 months, with one exception: satisfaction with job (Table 7). The percent satisfied with their job was *lower* for the intervention group.

**Table 7: Employment and Earnings Outcomes  
Significant Findings**

Outcome	Sample Size*	Intervention	Control	Difference
<b>Percent satisfied with job</b>	1410	78%	81%	-3%

\*Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

In addition to the significant finding above, other differences between the intervention and control groups were significant among subgroups of participants:

- Among participants who had scored **low** on the **Positive Work Goals scale** at baseline (about 10% of the study sample), **a much higher percentage** of the intervention group compared to the control group scored high at 18 months (83% intervention vs. 65% control). Those who had scored high on the Positive Work Goals scale at baseline had no intervention/control difference at 18 months.

## 5. Participant Quality of Life

Of the six (6) outcomes studied to measure quality of life, two (2) showed significant differences between the intervention and control groups: satisfaction with access to health care and satisfaction with health care received (Table 8). The intervention group was significantly more satisfied with access to health care and with the health care they received than the control group.

**Table 8: Quality of Life  
Significant Findings**

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

\*Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

## 6. Federal Disability Benefits

Of the six (6) outcomes that looked at application for and receipt of federal disability benefits (SSI or SSDI), Medicaid and other government assistance, one showed a significant difference between the intervention and control groups: percent **receiving** SSI or SSDI (self-report). The percent of participants in each group that reported **applying** for SSI or SSDI was equivalent (9%), yet the intervention group was significantly less likely to report **receiving** it (6% vs. 8%).

**Table 9: Receipt of Federal Disability Benefits (SSI or SSDI)  
Significant Findings**

Outcome	Sample Size*	Intervention	Control	Difference
Percent received SSI or SSDI in months <b>13 to 18</b> (self reported)	1478	6%	8%	-2%

\*Sample size for analysis was 1,480. Specific outcomes with a sample size less than 1,480 resulted from non-response or invalid response.

Looking at the data more closely, it can be seen that it was the group who were recruited through the mail/telephone method (vs. in person) who contributed to the significant difference, with only 4% in the intervention group reporting receipt of SSI/SSDI, but 8% in the control group. At 12 months, the difference between intervention and control groups was also observed mail/telephone recruitment cohort.

**Table 10: Receipt of Federal Disability Benefits (SSI or SSDI) by Recruitment Cohort**

Recruitment Cohort	Sample Size	Intervention	Control	Difference
Participants recruited by <b>mail / telephone</b>	874	4%	8%	-4%
Participants recruited <b>in person</b>	604	8%	8%	0%*

\*Not a significant difference

## 7. Case Management

Case management services are a vital part of the Working Well intervention. Case Managers facilitated nearly every intervention benefit, including access to expedited appointments, dental care, vision care, enhanced behavioral health care, and employment counseling/support. The tables below show significant relationships between the focus of case management time (health, employment, other) and specific outcomes for Working Well intervention group participants. In addition to looking at these direct relationships to outcomes, additional analyses looked at non-linear relationships; in other words, do high levels of case management hours have additional benefit to participants?

### Health Care Access and Utilization

Table 11, below, shows the significant results for outcomes related to health care access and utilization. Overall, the amount of case management time spent on health and employment matters was positively associated with use of outpatient physical and mental health services.

**Table 11: Health Care Access and Utilization  
Significant Findings**

<b>More Case management time that focused on...</b>	<b>Was significantly related to...</b>
Health	<ul style="list-style-type: none"> <li>• More utilization of outpatient physical health services (HCHD-reported)</li> <li>• Higher percent seen in a mental health treatment location (HCHD-reported)</li> <li>• Higher percent utilizing mental health services (self-reported)</li> </ul>
Employment	<ul style="list-style-type: none"> <li>• More utilization of outpatient physical health services (HCHD-reported)</li> <li>• Higher percent seen in a mental health treatment location (HCHD-reported)</li> <li>• Higher percent utilizing mental health services (self-reported)</li> <li>• Lower percent saying they received routine health care as soon as needed</li> </ul>
Other (Non-health or non-employment related hours which could include dealing with personal issues)	<ul style="list-style-type: none"> <li>• More utilization of outpatient physical health services (HCHD-reported)</li> <li>• Higher percent who requested a routine medical appointment (self-reported)</li> </ul>

Analyses of non-linear relationships showed that high levels of case management hours that focused on health were related to decreased emergency room visits (as reported by the health care provider and self-report), but more likely to have a visit to urgent care. More hours of health-focused case management was also related to decreased outpatient encounters. High levels of other case management hours were related to higher probability of at least one ER encounter and outpatient visit.

High levels of case management employment hours were related to increased need for urgent care (self-report) and decreased outpatient visits. However, high levels of case management hours that focused on health were related to a lower probability of receiving timely care if urgent care was needed (self-report).

High levels of other case management hours were related to a lower probability of mental health visits, which suggests that case managers were appropriately focusing attention elsewhere when individuals had fewer or less significant behavioral health conditions.

Behavioral and Physical Health

Table 12, below, shows the significant results for outcomes related to physical and behavioral health. Overall, greater case management time spent on health matters and other matters (excluding employment) was associated with individuals who reported poorer mental and physical health functioning. These findings suggest that individuals who had **poorer** mental and physical health were appropriately receiving **more** health-related case management services (which include mental health services).

**Table 12: Behavioral and Physical Health Outcomes  
Significant Findings**

<b>More Case management time that focused on...</b>	<b>Was significantly related to...</b>
Health	<ul style="list-style-type: none"> <li>• Worse overall functioning as measured by the BASIS 24, as well as worse scores on the depression/functioning subscale and the emotional lability subscale</li> <li>• Worse overall mental health as measured by the SF-12 mental health subscale</li> <li>• Lower percent rating their mental health as good, very good or excellent</li> <li>• Lower percent rating their physical health as good, very good or excellent</li> <li>• Higher percent reporting at least one limitation in Activities of Daily Living (ADLs)</li> <li>• Higher percent reporting at least one limitation in Instrumental Activities of Daily Living (IADLs)</li> </ul>
Other (Non-health or non-employment related hours which could include	<ul style="list-style-type: none"> <li>• Higher average score on the BASIS 24 subscale for self-harm (indicating more factors for the propensity for self-harm were reported)</li> </ul>

dealing with personal issues)	<ul style="list-style-type: none"> <li>• Lower average rating on the SF-12 physical health scale (indicating lower overall physical health)</li> <li>• Lower percent rating their physical health as good, very good or excellent</li> <li>• Higher percent reporting at least one limitation in Activities of Daily Living (ADLs)</li> </ul>
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Analyses of non-linear relationships show that high levels of case management hours that focused on health were related to higher reported levels of depression but better overall levels of mental health status. High levels of other case management hours were related to higher ratings of physical health status but also a higher probability of reporting difficulties in activities of daily living (ADLs).

### Employment and Earnings

Table 13, below, shows the significant results for outcomes related to employment and earnings. Overall, greater case management time was related to individuals having lower income and more challenges regarding health and employment. For example, participants who received more case management hours worked fewer hours and had lower annual income. This is to be expected since participants with more needs received more case management time. However, there was some indication that hours spent on **employment** were related to **higher work motivation**.

**Table 13: Employment and Earnings Outcomes  
Significant Findings**

<b>More Case management time that focused on...</b>	<b>Was significantly related to...</b>
Health	<ul style="list-style-type: none"> <li>• Fewer total hours worked over the past 6 months (months 13 to 18)</li> <li>• Fewer total months worked over the past 6 months (months 13 to 18)</li> <li>• Less annual household income (self-reported)</li> <li>• Lower percent reporting that they worked the same or more as they had in the previous 6 months</li> </ul>
Employment	<ul style="list-style-type: none"> <li>• Fewer total hours worked over the past 6 months (months 13 to 18)</li> <li>• Fewer total months worked over the past 6 months (months 13 to 18)</li> <li>• Less average job earnings over the past 6 months (months 13 to 18) as reported by the Texas Workforce Commission</li> <li>• Lower percent reporting that they worked the same or more as they had in the previous 6 months</li> <li>• Lower percent who scored high on the Negative Work Motivation scale (i.e. an increase in work motivation)</li> </ul>
Other (non-health or non-employment related hours which could include	<ul style="list-style-type: none"> <li>• Fewer total months worked over the past 6 months (months 13 to 18)</li> </ul>

dealing with personal issues)	
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Non-linear analyses show that **high levels of employment case management hours were related to higher TWC earnings**. High levels of other case management hours were related to higher number of months worked in the past six months and a greater probability of working the same or more as the previous six months. High levels of case manager hours focused on health were related to a lower quality of work, greater positive and negative work motivation and a decrease in feeling satisfied with ability to work. This potentially indicates the link between health status and work. Case manager encouragement was positively affecting work motivation in participants, and case managers were also appropriately focusing their greatest attention on participants who had more health issues affecting their motivation to work.

### Quality of Life

Table 14, below, shows the significant results for outcomes related to quality of life. As with other outcome categories, there is the suggestion that there is a relationship between high need and case management hours, with those who receive case management time reporting lower results on two different quality of life measures. Yet, case management hours spent in areas other than health and employment (e.g. on personal issues) were positively related to participants' reported satisfaction with their access to health care.

**Table 14: Quality of Life Significant Findings**

Increase in case management time that focused on...	Was significantly related to...
Health	<ul style="list-style-type: none"> <li>Decrease in percent who rated their quality of life as good, very good or excellent</li> </ul>
Employment	<ul style="list-style-type: none"> <li>Decrease in percent satisfied with their finances</li> </ul>
Other (Non-health or non-employment related hours which could include dealing with personal issues)	<ul style="list-style-type: none"> <li>Increase in percent who reported satisfaction with their access to health care services</li> </ul>

Analyses of non-linear relationships indicated that high levels of case management hours that focused on health were related to lower satisfaction with access to healthcare and the quality of healthcare received, again suggesting that case management was **appropriately focused on participants with greater needs**. Higher employment case management hours were also related to lower satisfaction with access to health care and rating quality of life as good or very good. Greater hours of case management that focused on health were related to higher satisfaction with personal relationships.

## **B. Key Findings from the Implementation Evaluation**

The implementation evaluation gathered data from focus groups and interviews with program participants, Working Well case managers, project medical directors, administrators, and evaluators. The key findings are presented by primary components of program initiation and on-going management.

### ***1. Staffing***

#### The Case Management Team

The Texas Working Well program was staffed by experienced case managers with varied expertise; i.e. registered nurses, vocational rehabilitation counselors and licensed masters level social workers. Each case manager, regardless of professional background, held their own caseload. The variety of professional backgrounds among the case managers brought a full array of skills to the program. The case managers worked as a team, seeking expert advice from each other, which proved helpful when working with participants with diverse needs. This multidiscipline teamwork assured that all of the participants' needs were addressed.

Administrative Team The HCHD administrative team that implemented and managed the Working Well intervention included a Project Manager who served as the liaison between the hospital district, service providers, and evaluators; Medical Directors for both physical and behavioral health, a contracts person who helped negotiate all external contracts with additional service providers (e.g., dental, vision, substance abuse services, case management), and an administrative coordinator who assisted with ensuring all billing was done appropriately and dealt with individual participant administrative issues.

#### Hiring and Training

One challenge of initiating the Working Well program was the timing of hiring case managers and ensuring proper training for everyone. Case managers were hired in stages as participants were added to the program, which required multiple training sessions provided by various personnel.

#### Caseload and Intensity of Contacts

Each case manager worked independently with responsibility for up to 60 to 70 participants. Because the Working Well program was a study, participants were added to the program within a relatively short recruitment period (as compared with an ongoing program under which admissions can be more equally distributed across time). Since some case managers were added to the team after the program began in response to the growing number of participants, those who came on later immediately faced a full caseload that was in need of time-intensive assessments, treatment plans and services. Case managers suggested that future implementations add participants to each case manager's caseload in increments to ensure adequate time for case managers to become acquainted with each participant, establish rapport and conduct the needs assessments. Since not all participants required or desired the same level of intervention, future implementations might be successful with larger caseloads than the original implementation.

## ***2. Participant selection***

### Recruitment

As a research study, Working Well encountered some initial problems related to recruitment of the target population. It was found that using multiple recruitment strategies helped recruit the target number of participants in the shortest amount of time. Different methods have their respective strengths. Mail recruitment (followed up, if necessary, by telephone), because it requires the most paperwork, may select for the most highly motivated or proactive participants; yet in a mobile population, it can result in a significant number of bad address returns. In-person recruitment in clinics can be more efficient in identifying people with current diagnoses, and enable on-the-spot verification of current contact information and program eligibility. Physician referral may help target those participants who are most likely to benefit from the intervention, as well as encouraging physicians to support and be involved in the project.

Since the goal of the Working Well program was to assist participants in maintaining their health and employment to reduce the need for federal disability benefits, individuals who were actively applying for benefits or currently receiving or certified eligible for them were not admitted (those who reported having previously applied for, but were denied, benefits were accepted into the program). This information was acquired by self-report and its accuracy is uncertain. In the absence of official data on disability status, screening questions could have been used but to ensure that candidates clearly understand which benefits they were being asked about – e.g. SSI or SSDI – as individuals may have different perceptions of what is meant by “disability” or government assistance.

Additionally, recruiters verified (by reviewing recent paycheck stubs or tax returns or by calling the employer) that each participant was working at least an average of 40 hours per month at the time of selection into the candidate pool. Results from the Working Well evaluation showed that participants in both the intervention and control groups (9% in each group) reported applying for disability benefits. It is possible that the requirements for entry into the program captured individuals who were not yet nearing the need to stop working. Future studies should consider expanding the requirements for participation, perhaps including those who had applied for disability benefits (but not granted) or those who had already stopped working due to their health concerns.

### Participant Needs and Program Participation

Due to the variety of conditions represented in the program’s population, not all individuals needed the same mix or intensity of services. Some did well with minimal case management and primarily benefited from the subsidized medical and pharmaceutical services, while for others, case management was the essential component of the program.

Case managers noted that not all participants seemed truly motivated to work towards the program’s goals of independence and empowerment. It would have been helpful for participant non-compliance with program goals to have been defined and consequences identified. An up-front assessment of participants’ readiness to change or willingness to work with a case manager

would also have been helpful. Case managers suggested that the optimal time of withdrawing a participant from the program should be after a continuous six-month period of case manager's attempts and no contact with the participant.

### ***3. Case management and other services***

#### **Empowerment and Building on Strengths**

Working Well case managers demonstrated effective interpersonal communication skills to motivate, educate, and advocate for their participants and to facilitate referrals to community resources. Case managers were also flexible and able to strategize successfully in order to address the participants' health, psychosocial, and vocational needs to meet the goals of the project. Participants reported that having a case manager maintain monthly contact with them made them feel supported through difficult times and increased their motivation to take action. In addition, the case manager's advocacy for them within the health care system reportedly made participants feel less alone and more empowered to make decisions about their health. Teaching participants how to advocate for themselves at their place of employment helped some participants appropriately problem-solve situations or ask for more responsibilities or a raise. Case managers also taught participants other life skills as needed to help them better manage their lives. Instilling a sense of confidence in their own abilities to take charge of their lives helped participants stay motivated towards working on their health and employment goals.

Basic training on the motivational interviewing technique provided helpful guidance for case managers. However, case managers indicated that more extensive training was needed to successfully use this technique to fully engage participants in working toward behavior change.

### ***4. Enhanced Services***

#### **Removal of Financial Barriers**

Having no co-pays for medical appointments and medication was one of the most highly appreciated benefits reported by participants and it increased their utilization of preventative and maintenance health care. Obtaining medication at no charge led to increased treatment compliance and more medical stability for chronic conditions. Durable medical equipment such as blood pressure monitors, CPAP machines and orthotic shoes, helped participants who needed them manage their physical health, increase their mobility and decrease their use of sick days at work.

In a few instances, billing staff did not recognize benefits that were covered under the program erroneously bill participants for them. These issues required remediation by HCHD. Ideally, an action plan should have been in place to prevent situations in which participants are accidentally billed for services.

#### **Navigation of the Health Care System**

An important benefit of the Working Well Program was assistance with navigating the physical and mental health care system. For individuals who traditionally have little access to health care, granting access is only a first step. With this under-served population, there is not a culture of knowing how to engage in the health system or how to get the services they need. The Working

Well program worked to empower individuals to plan for their own care and to navigate the system.

Case managers helped participants obtain appointments; advocated for participants within the system by speaking with doctors, nurses, behavioral health therapists and other hospital district personnel; aided participants' understanding of various medical diagnosis and recommendations; facilitated referrals to specialists or surgery; and helped participants resolve billing problems. The two Working Well medical directors were instrumental in helping participants and case managers understand medical diagnoses and recommendations, facilitating referrals to specialists and surgery, and helping obtain expedited appointments. The medical director in charge of psychiatry scheduled emergency psychiatric appointments in her clinic, which provided the necessary intervention and follow-up care needed.

### Dental Services

The Working Well dental plan evolved over the course of the program in response to what was learned about participants' needs. At the beginning of the program, a basic preventative benefit package was provided to allow for services such as cleanings and fillings. However, administrators quickly realized that participants had gone years, decades even, without dental care and therefore needed extensive restorative work. A new dental benefit plan was provided to meet these needs. Because the additional services became available near the end of the Working Well program, many participants reported that they were unable to take full advantage of the enhanced benefits due to the lengthy time frames needed to complete the work. Those who were able to complete treatment expressed gratitude for the ability to finally get their dental needs addressed. Some participants did suggest, however, that the program have more than one provider so that participants can have better choices of locations and customer service.

### Vision Services

Under the Working Well program, participants were able to get a vision exam and a pair of glasses annually. This is in contrast to the exams and glasses offered only every two years through the hospital system. Participants were provided an exam and single, bifocal, or trifocal lenses with frames from the least expensive in stock. Some participants were willing to pay for an upgrade in frames. Special lenses were available at a discounted price, and simple contact lenses were also available, but often for an extra fitting fee. Participants reported a positive experience with the enhanced vision care program. The success of this program is attributed to the large selection of geographically diverse providers available through the contracted vendor, which allowed participants to easily access vision care close to their homes and in the evenings or on weekends. Overall, relatively few issues were noted with the vision program, and once issues were identified, they were easily resolved. Providers who offer both exams and glasses within the same building should be chosen for maximum convenience to participants.

### Substance Abuse Services

Substance abuse services provided under Working Well included assessment, referral and provision of treatment. However, substance services were generally not utilized by participants in this program. The low use of substance abuse services in Working Well, relative to the expected need identified from medical records, may have been because those diagnoses were inaccurate or because participants were not willing to admit to or act on their substance misuse.

Another factor for low usage of substance abuse services may have been participants' unwillingness to discuss drug use with a case manager they did not know well and who may have been viewed as someone who could influence the participant's continuation in or termination from the project. For effective engagement, participants may need a longer time to build trusting relationships with case managers. Case managers could then be more efficacious in moving participants toward change once the relationship is firmly rooted.

### ***5. Communication between organizations/providers/stakeholders***

Effective working partnerships are essential to the success of any project. The agency partners of the Working Well program agreed that the implementation of the project ran more smoothly and effectively as their working relationships strengthened over the course of the project. Other vital factors in the success of the program were a strong commitment to the program's goals and flexibility to make changes as the program evolved.

Despite the commitments and best intentions of the partner agencies, communication and planning problems still occasionally arose. The contracting process with multiple vendors was long and tedious and resulted in some services being delayed.

### ***6. Administration***

#### Use of Electronic Medical Records

Case managers found it helpful to have access to participants' electronic medical records in order to review medical histories, recommendations and pending appointments. This information allowed case managers to assist participants to keep appointments and follow treatment recommendations, as well as being able to answer participant questions about their health. The system also enabled case managers to have updated contact information for participants and to communicate with medical staff via e-mail. Case managers were able to enter progress notes for their participants into the medical records, which was potentially helpful to participants' physicians.

#### Evaluation

Sources of data that were helpful in evaluation of the Texas Working Well project included:

(1) **Participant surveys**, conducted by telephone at study entry, 12 months, 18 months and 24 months. The survey instruments included several standardized measures: The World Health Organization's Work Performance Questionnaire (HPQ), the Activities of Daily Living and Instrumental Activities of Daily Living scales, the SF12v2, and the Basis-24 health status survey. Other survey topics included demographics, self-rating of physical and mental health, conditions and treatment received, employment history, health-related work challenges, use of medical services, health insurance, government assistance, work motivation, general satisfaction, satisfaction with health care and access to health care, alcohol and drug use and family income.

(2) **Medical encounter and pharmacy records** data obtained quarterly from the hospital district and contracted providers, including dates of service, diagnoses, procedures, medications and costs.

(3) **Case management activity reports**, including, for each case manager and client, date of activity, amount of time spent, and type of activity (based on a list of about 40 different activities, such as assistance in accessing enhanced services, employment support, providing information about the disease process, treatment options or eligibility for benefits, family member counseling, monthly contact call, etc.).

(4) **Administrative data** on participants provided by the Texas Workforce Commission (employment and unemployment earnings; employment assistance activities) and the Department of Assistive and Rehabilitative Services (employment assistance activities).

(5) In-depth **qualitative interviews** conducted with sub-samples of participants, case managers and stakeholders. Case managers also provided short (anonymous) case studies of some clients to give a more detailed and “personal” picture than participant surveys could provide.

### **C. Study Limitations.**

Many of the participant outcomes are based on self-report and reflect perceptions of access to and use of care that may not be identically reflected in medical records. Roberts et al. (1996), comparing self-reported use of health care services with medical records for a sample of 500 community-dwelling men in Minnesota, found exact agreement was 93% for inpatient hospital nights and 91% for ambulatory physician visits in the past two weeks, but only 30% for ambulatory physician visits in the previous year, with a bias towards underreporting of higher numbers of physician visits.<sup>9</sup> Therefore, self-reported outcomes may not fully reflect actual experience. This is also true in reporting applications for disability. Self report did not demonstrate differences between the groups while actual SSA data reported to the national evaluators at MPR showed a difference between intervention and control.

Additionally, the Working Well intervention was originally intended to be carried out over several years but due to federal statutory restrictions on funding, only lasted approximately two years for most participants. The present study reports on the results of the first 18 months period which may be too short in which to identify a strong impact of the intervention. Ultimately, the study should have followed individuals for at least three full years and five to 10 years to fully identify the impact on disability applications and receipt.

## **IV. CONCLUSIONS AND NEXT STEPS**

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### **A. Summary of Findings and Lessons Learned**

The Working Well evaluation was designed to answer two overall hypotheses.

**Hypothesis 1: The intervention group will show more positive outcomes than the control group at each evaluation time point, including a decreased rate of transition to unemployment and less dependence on federal disability benefits.**

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<sup>9</sup> Roberts RO, Bergstralh EJ, Schmidt L, et al. Comparison of self-reported and medical record health care utilization measures. *J Clin Epidemiol* 1996 Sep; 49(9):989-95.

Overall, the findings were mixed, but results showed that the Working Well intervention had a positive effect in particular areas, notably in increased access to services and medications, better adherence to medications, and increased satisfaction with healthcare. In terms of **disability status**, there was an overall significant difference between the two groups in self-reports of having received federal disability payments, with the intervention group less likely to have received them.

**Hypothesis 2: A higher ‘dose’ of intervention will be associated with better outcomes for participants in the intervention group.**

The amount of case management and other services received during individuals’ in Working Well seemed to reflect pre-existing need, with those in greater need getting more case management and services. However, the relationship between case manager involvement and participant outcomes was curvilinear, which means that once pre-existing need was accommodated, more intensive case management (greater hours) resulted in some better outcomes for participants including decreased emergency room encounters, higher employment earnings, and higher overall ratings of physical and mental health. Greater hours of case management had a less clear effect on other outcomes, however.

On the ultimate outcome of interest, the intervention’s effect on receipt of disability, findings demonstrate that the intervention group was less likely than the control group to report receiving SSI/SSDI. The difference was most pronounced for the mail/phone recruitment cohort.

The strongest impact of the Working Well intervention was in the area of increasing access to and use of appropriate health services. The intervention group, as compared to the control group, showed higher use of outpatient, mental health and dental/optical services, fewer delays in getting medical care, and higher adherence and persistence with medications.

The intervention group was more likely than the control group to be satisfied with their access to health care and with the health care they received, but less likely to be satisfied with their job. While at 12 months the intervention group had been less satisfied than the control group with their finances, at 18 months both groups were equally satisfied. This last finding may reflect the fact that the household income difference that was seen at year one, in favor of the control group, was no longer seen at 18 months.

The findings suggest that the intervention might have a differential impact on particular subgroups of participants. The meaning of these differences is not always clear, however, and varied by outcome. For example, while the intervention group as a whole reported fewer cost-related delays than the control group in obtaining medical care, **women** seemed to benefit the most from this aspect of the intervention (i.e. women in the intervention group were disproportionately less likely than women in the control group to report delays, whereas the difference among men was small). **Men** in the intervention group, on the other hand, reported lower satisfaction with their finances than men in the control group, whereas there was no difference among women. One possible explanation for this finding is that women were more sensitive to the program’s effect on receipt of timely care because they are more likely to seek health care in the first place, or to defer needed care for cost reasons.

In the area of employment, the intervention affected individuals differently according to age: compared to younger people, **older** people in the intervention group were less likely to have been unemployed, while older people in the control group were more likely than younger people to have been unemployed. The benefit of the intervention on reducing unemployment among older people may be a particularly important one since older people are more likely to face inherent barriers such as declining health or age discrimination. In terms of reducing unemployment, the intervention also seemed to benefit participants working in occupations **outside of the sales/service field** the most: among those workers, the intervention group reported lower unemployment than the control group.

There was no difference between study groups in self-reported application for or receipt of government benefits other than SSI/SSDI. However, among the 10% of participants in the study with **serious mental illness**, those in the intervention group were more likely than those in the control group to have applied for Medicaid. It is possible that the increased access to mental health and other health services that the intervention provided afforded more opportunity for these participants to learn about or be encouraged by their health providers to apply for Medicaid. People with severe mental illness were also more likely to be disqualified from participation in the DMIE study at the outset due to application for disability benefits. For individuals with serious mental illness, Medicaid or similar insurance, if separated from disability requirements and coupled with appropriate employment supports, could potentially enable such individuals to continue working and avoid complete dependence on disability benefits. Under the Affordable Care Act (ACA), a number of low income workers with potentially disabling health conditions such as serious mental illness will have access to Medicaid or benchmark coverage. Targeting such individuals for outreach and enrollment into health coverage under ACA is a promising strategy, as is improved coordination between health and employment systems. As part of the DMIE phase-down plan, Texas is analyzing methods to sustain / replicate lessons of the DMIE project in the public mental health / employment systems in Bexar and other counties. Technical assistance is being provided via a learning community process. Evaluation of the learning community process will be included in future analyses.

In terms of the effect of the dose of intervention (i.e. number of hours of case management received), findings were mixed. High amounts of time received from case managers seemed to reflect pre-existing need, with participants having the highest needs receiving the most time. Those participants who received very high amounts of time from the Case Managers had the most positive outcomes, however. Interestingly, although it might have been expected that case management activities focused on health would most strongly affect participants' health and activities focused on employment would most strongly affect employment, there was not always a clear distinction, and hours spent in one area often affected outcomes in other areas (though not always in a positive way). The dose of case management seemed to have the strongest association with increased access to and use of health care; it may be that improvements in this area are a prerequisite to seeing improvements in areas such as employment.

One of the most significant lessons learned from the Working Well project was that, despite significant challenges, most people do not identify as being disabled, but see themselves as workers who strive to maintain their independence even when facing health problems and other adversities. Case management supports were most effective when building on that resiliency.

Learning how these individuals cope and survive helped the program better support them in their efforts to maintain their employment and quality of life.

## **B. Implications for State Programs and Policies**

The experiences of the Working Well project can potentially offer lessons to policymakers as they implement the provisions of the ACA, which expand coverage to uninsured individuals. Working Well demonstrates the potential of targeting interventions, such as navigation and empowerment via case management, to vulnerable individuals within an existing health delivery system. The Working Well demonstration can thus provide guidance regarding how these or similar interventions might operate within the expanded insurance options under the ACA and the value they might add to that system.

A major pathway by which the Working Well model was intended to help under-insured workers with potentially disabling conditions stay independent and employed was through increasing their access to health care. In the Texas project, this was done through providing case management, no co-payments for medical visits or medications and expedited services. Case management helped participants engage more fully with the health care system, navigate the logistical problems to obtaining care, and learn to assert their needs and self-advocate; and lack of co-payments removed the financial barriers to seeking care and adhering to prescriptions. Evaluation findings showed that cost was perceived as a barrier to getting care, that individuals who received the intervention were more likely to utilize outpatient health services and mental health care, and that those who received the most intensive case management were most likely to access care. Under the ACA, existing indigent care systems, such as hospital districts will presumably provide significantly less uncompensated care. This could potentially free up funds in these systems for providing services such as case management. In addition, new insurance options that will be available for low income working people under the ACA could benefit from incorporating components of the Working Well interventions, such as the kind of case management provided by Working Well.

An incidental lesson learned in the Working Well project was the potential importance of outreach to people who may be less likely to be proactive about their health care needs. On several outcomes examined in the Working Well evaluation, it was noted that participants who had been recruited via a mail procedure had better outcomes than those recruited in person. Since those recruited by mail typically responded earlier and filled out application forms more independently than those recruited in person, it is speculated that they may represent individuals who were more motivated or had more “human capital” resources (literacy, understanding of the applications process) to engage early in a program that could improve their health and employment situation. Those recruited in person still received benefits from the intervention, but were noted by case managers as possibly being harder to engage in the program. Such individuals may therefore more easily fall through the cracks of being able to benefit from increased access under reform, unless special effort is made to find and involve them. People with other special needs, such as the seriously mentally ill, may also benefit from more targeted outreach.

### C. Recommendations for Future Demonstration Projects

The following recommendations address potential demonstration projects within the next four to five years while national health-care reform is not fully implemented. The recommendations target low-income workers lacking access to private insurance who use public health-care systems for their care. The potential impact of ACA on these recommendations is discussed at the end of the recommendations.

Low-income, uninsured working adults face multiple barriers as they try to maintain their health and their employment, including lack of access to a regular source of preventative medical care. To enhance use of preventative medical services among individuals who rely on public health care systems, several barriers to a regular source of care must be overcome. For example, cost is a significant barrier. Even when a person's copayments are based on a sliding-fee scale, the cost of a doctor's appointment may still be beyond what a low-income person is able to pay. The cost of medications is especially prohibitive. Even low copayments for medications add up to a significant bill when an individual is prescribed multiple medications, which is typical for persons trying to control chronic conditions. Efforts to increase access to preventative health care must *decrease financial barriers* to appointments and medications.

Another barrier that individuals using public health systems face is the lack of timely care. Due to large populations served on a limited budget, appointments in primary care can be months away from when an appointment is requested. Appointments for surgery can occur over a year from when first requested. Additionally, due to large call volumes, setting the appointment can be difficult, requiring hours on the phone. Once the appointment is made, the wait time at a crowded clinic can be lengthy. Many individuals express frustration regarding the significant amount of time and energy involved in calling for an appointment, obtaining an appointment and going to an appointment which frequently interferes with their work schedule. In order to increase access to preventative care, efforts must be made to *ease the process of obtaining and attending an appointment*.

Needs for psychiatric care and substance abuse treatment can be under or misdiagnosed, but once the need is identified, individuals in a public health system find this care difficult to find and obtain. As with physical health care, mental health care clinics are crowded and available appointments are scarce. Added to that, mental health services are usually available in fewer clinic locations, often leading to transportation barriers. Substance abuse services are time intensive, sometimes requiring daily or weekly meetings. Increased *access to mental health and substance abuse treatment should be an integral part of any health plan* for low-income, uninsured working adults. Increased access could include more flexible appointments and after hours appointments.

Low-income workers also face a multitude of economic, housing, family and other social issues that may hinder their ability to maintain their health and employment. Transportation to health care appointments and work is often a barrier. Also, many individuals have family responsibilities such as caring for children or elderly or sick family members, which can be a significant burden for families with low resources. Lack of money to buy food, pay for rent, mortgage or utilities or fix the car not only has direct effects but can also cause significant stress. Individuals who have few financial and social supports could benefit from *case management*

*services that support their efforts to maintain their health and employment despite the additional struggles they face.*

Future demonstration projects that implement the Working Well Model, which is designed to provide a comprehensive “early intervention” program to working adults with potentially disabling conditions, need further refinement. The underlying program model posits that enhanced access to health care and employment supports will improve individuals’ physical and mental health, quality of life and ability to keep working; these improved outcomes then, in the longer term, help individuals prolong independence and avoid dependence on government support.

Under national health care reform, fewer low income working Americans will presumably rely on the public indigent care system, since more people will be insured. After 2014, many low-income adults will have the option of Medicaid, benchmark coverage or insurance via various plan options that will be partially subsidized up to 400% FPL. Working Well type demonstrations should also occur within the health plan options offered under the ACA, particularly the Medicaid expansion and benchmark plans offered to working age individuals up to 133% of poverty. Congress should consider funding innovative pilot studies that test how person-centered case management could be implemented under various types of coverage plans. To realize the promise of increased access under the ACA, people have to effectively use the system and be able to access the services – having a benefit or insurance plan does not, in itself, equate to access and effective engagement with the health system.

Specific recommendations for implementation of future projects are outlined below:

### Program Services and Structure

Projects should include the following key services:

- Case Management and health care navigation
- No copayments for medical appointments
- No copayments for medications
- Enhanced access to care (expedited appointments)
- Enhanced services, including access to dental, vision, and durable medical equipment
- Employment Supports
- Transportation assistance that helped facilitate participants’ individualized case management plans. Trips to medical appointments, job interviews, and the Texas Workforce Commission were typical examples of the transportation assistance provided.

These components of the program should be provided through or in alliance with an organized health care system or health plan. The goals of the program should be clearly defined for all parties involved.

### Staffing

- Staff the program with experienced case managers from various fields including vocational, nursing and social work.
- Establish a treatment team among the case managers so that each participant has access to staff members who are experts in vocation, health and social services.
- Train case managers in motivational interviewing, including initial and on-going reinforcement of techniques.
- Slowly build each case manager's caseload so that each participant receives adequate time and attention when they join the program.

### Participants

- Focus participant selection on those with stated needs so that resources can be used expeditiously.
- Diagnoses should be confirmed just before entry to the program.
- Develop a protocol for how to determine if a participant is non-compliant with the program and when and how these situations should be addressed.

### Case Management

- Use a model of case management, which addresses all areas of participants' lives (health, social/family, employment, substance use, etc.).
- Develop a personal strengths, goals and needs plan with the participant initially and review the plan with the participant periodically.
- The personal plan should include measureable, achievable short and medium term goals.
- Case manager interactions with participants should focus on empowerment of the individual.
- Case managers should be flexible in their work time in order to accommodate participants work schedules.
- Case managers should develop effective relationships with agency partners, including community resources.
- Case managers should have access to participants' electronic medical records in the health care system as to facilitate communication with the medical team.

### Selecting and Working with Providers

- Develop successful partnerships between all agencies by ensuring a common vision; establishing measureable goals; clearly stating needs, resources and responsibilities; and ensuring ongoing communication.
- Identify "champions" of the program who work in the partner agencies, especially the health care setting, who can provide help with information for the case managers and who can educate other staff at their agency about the goals and needs of the program.
- Establish an organizational chart depicting who is in charge of which areas and to whom concerns should be directed. This chart should be distributed to all staff and agencies in the program.
- Conduct monthly meetings with program supervisors, directors and case managers to encourage communication across systems.

- Staff at the partner agencies should be well-educated about the program goals and procedures. Training should happen repeatedly as to train new staff and to provide refresher for existing staff.
- The program should persevere in finding partner agencies (such as dental, vision, and substance abuse) who are equally committed to the project. Services providers should also have services available in multiple locations across the metropolitan area.
- Contracts for dental services should be expansive enough to cover adults who may have extensive dental needs.
- Procedures for obtaining services within the health care system and with external providers should be clearly written and available to case managers and participants.
- Ensure that all services, contracts and procedures are in place and that staff training has occurred before participant services begin.
- Retain the flexibility to alter the service mix, depending on the needs of the participants.

#### Administration / Communication

- Systems should be firmly in place to avoid erroneous billing of participants.
- Establish a plan for how to address unanticipated problems before they arise, including identifying specific people to contact if problems arise.

#### Evaluation

- An evaluation of the program should be carefully planned and should include a formative process evaluation, a summative outcomes evaluation, and in-depth life histories
- Evaluators on multi-site trials with local evaluation efforts should meet at least semi-annually and coordinate data collection and outcomes
- Components of the process evaluation should be used as the program is developed to help identify and solve problem areas.
- Key process measures would include:
  - a. Individual health goals identified
  - b. Tracking key service delivery characteristics such as number and type of case manager contacts per participant monthly
  - c. Participant satisfaction surveys that would focus on areas such as health care access, support, empowerment, and vocational services.
- Outcome measures should be created that directly test key participant outcomes such as access to care and effective use of outpatient care for chronic conditions. Key issues to address are
  - a. Ensuring sufficient time to measure changes in key participant outcomes such as health status, health care utilization, medication utilization, functional limitations, and work status
  - b. Track health care access through claims data
- A cost effectiveness analysis should be conducted.

Finally, future implementation of Working Well-type programs should plan for a rapidly changing health care environment. A projected shortage of providers in the near term, as health care access becomes more widespread, will make it increasingly crucial for individuals to learn how to advocate for, obtain and use the services they need. The inclusion of a case management component in future programs and policies would improve the ability of individuals to navigate

the healthcare system, better understand what is available to them and how to advocate for themselves. This assistance would especially beneficial for individuals with mental health problems who may face more obstacles.