

Evaluation of the Medicaid Buy-In Program for Workers with Disabilities



A Report for The Ohio Developmental Disabilities Council



Acknowledgements

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Views stated in this report are those of the researchers only and are not to be attributed to the Ohio Developmental Disabilities Council, the Ohio OMA, or to the federal Medicaid Program.

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EXECUTIVE SUMMARY

The Medicaid Buy-In Program for Workers with Disabilities (MBIWD) has enrolled almost 12,000 working disabled adults from 2008 through 2011. Most of those adults (80%) were already in the Medicaid program prior to their enrollment in MBIWD. Their demographic and eligibility characteristics mirror the characteristics of the larger Medicaid Disabled adult population.

The Medicaid expenditures for the MBIWD program did not exceed its forecasted budget (completed in 2007) for 2010, because take-up rate was less than expected, and the percent of newly eligible individuals was less than expected.

Medicaid expenses for the MBIWD were highest among consumers in Long Term Care (LTC) settings. The 27% of MBIWD consumers in LTC settings represented 82% of expenditures.

Dual-eligible consumers were, on average, less expensive than Medicaid-only consumers. Consumers that paid a premium were only less expensive if they were in a LTC setting.

Important differences between the MBIWD population and the larger Medicaid Disabled adult population:

- More likely to have a developmental disability.
- Less likely to have a chronic physical health condition.
- Equally likely to have a mental health condition.
- Less likely to have an inpatient hospitalization, even after controlling for demographic, eligibility, and health care factors.
- Less likely to have an emergency department visit.

The Medicaid program has been effective in improving the percentage of disabled adults who are working, even after controlling for socio-demographic factors that influence employment participation.

The Affordable Care Act (ACA) may have significant effects on participation in MBIWD beginning in 2014.

Uninsured disabled workers facing the individual insurance mandate in 2014 and MBIWD consumers not in LTC settings below 138% of FPL could choose the Medicaid "Community Adult" Program because there are no employment requirements.

MBIWD consumers above 138% of FPL could choose to stay in the MBIWD program because the insurance premium requirements are much less and there are no cost sharing requirements in MBIWD compared to the health insurance exchange (HIE) provisions of the ACA. Additionally, the basic benefit of the HIE will not include LTC services and supports.

There could be a large influx of uninsured disabled working adults above 138% of FPL, facing the individual insurance mandate in 2014, into the MBIWD program because of the difference in premium and cost sharing requirements between MBIWD and the ACA .

INTRODUCTION

The Medicaid Buy-In for Workers with Disabilities (MBIWD) program allows individuals with disabilities who are working to qualify for Medicaid with higher income and resource limits, buy into Medicaid by paying a premium based on income. The program went into effect in Ohio on April 1, 2008. Ohio was the 35th state to implement the program.

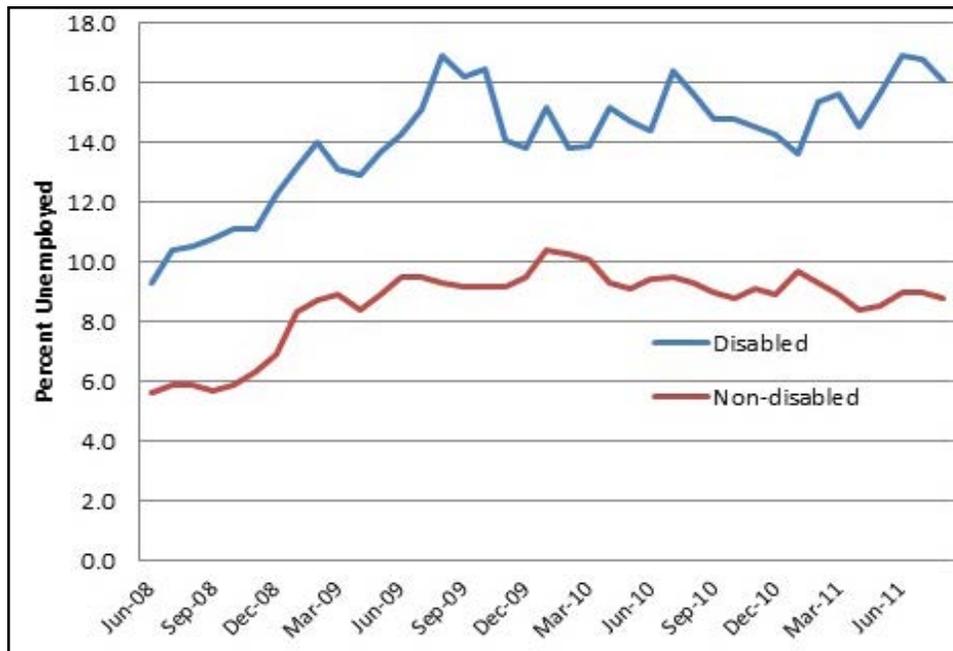
Since Medicaid Buy-In was authorized as part of the Balanced Budget Act of 1997, states have modified eligibility and enrollment requirements for certain groups of low income residents so they can receive health insurance benefits under state Medicaid programs. States have been interested in this approach for many reasons which include: reducing the numbers of the uninsured population, expanding employment opportunities for working people with disabilities, and reducing the reliance of people with disabilities on state and federal entitlement programs. When the Ticket To Work and Work Incentives Improvement Act (TWWIIA) was passed in 1999, states were granted increased flexibility to design Buy-In plans that offered people with disabilities greater income, asset and resource protection.

Ohio's MBIWD program enables any person with a disability (as defined by the Social Security Administration) between the ages of 16 and 64 in the

state of Ohio who wants to work – to be employed. Financial eligibility standards for this program have been increased from the Medicaid standard, including raising the asset limit from \$1,500 to \$10,000; increasing the maximum income to 250% of poverty and excluding the first \$20,000 of earned income (effectively increasing the standard to 430% of the Federal Poverty Level {FPL}). The program replaces the Medicaid "spend down" formula with a premium system based on income level. No premiums are charged until the employed person with a disability exceeds 150% of federal poverty earnings (\$16,755 in 2012 for a single person). Premiums also cannot exceed 10% of gross earnings above 150% of FPL. Ohioans with disabilities would be able to work without the threat of losing their Medicaid health care coverage.

The budget for Ohio's MBIWD program assumed that at full implementation more than 7,000¹ persons would be enrolled. Additional considerations with respect to cost projections and enrollment parameters were made by Howe (2004)². The estimated cost for full implementation of a Medicaid Buy-In program in the state of Ohio was \$14 million per year. This was based upon an expectation that approximately 25% of the participants on the program would not have previous Medicaid eligibility, that the average premium for the program would be approximately \$57 per month, and that 54% of the participants would be paying a premium.

Figure 1 Unemployment Rates of the Disabled and Non-Disabled Population of Ohio



Expected Per Member Per Month (PMPM) costs for the benefit package, excluding Medicare Part D, and other agency services would be approximately \$795 in State Fiscal Year (SFY) 2008 and \$835 in SFY 2009.

RESEARCH AIMS

This report explores the impact of the MBIWD program in Ohio after 44 months of implementation using Medicaid enrollment data through June of 2011, claims data through December 2010, and data from the 2008 through 2010 ACS.

Research Aims include:

- To examine the trends in employment of the adult population with disabilities; and
- To estimate the impact of the MBIWD program on employment of adults with disabilities;
- To estimate clinical characteristics, health care expenditures, utilization, quality and access to care of the consumers in the MBIWD program;
- To estimate duration and gaps in Medicaid coverage; and
- To estimate the potential impact of the ACA on enrollment in the MBIWD program.

IMPACT ON EMPLOYMENT

According to the ACS for Ohio in 2006, the labor force participation rate amongst adults with disabilities ages 16 to 64 was approximately 37%. This compares to 76% for the population without disabilities. In June 2008, the Bureau of Labor Statistics began keeping track of the labor force participation rate and unemployment rate for adults with disabilities monthly. While the unemployment rate for adults without disabilities has increased by 57 % (from 5.6% to 8.8% unemployment rate in 2011), the unemployment rate for adults with disabilities has increased by 73% (from 9.3% to 16.1%) (See Figure 1).

The main purpose of the MBIWD program is to make health insurance more accessible and affordable to persons with disabilities, so that they can work and make a decent wage, and have access to health services. This study considers whether Medicaid enrollment increases the likelihood that a person

with disabilities is working. While we intended that the study specifically evaluates the impact of the Ohio MBIWD program on employment, we have found that the available data from the ACS does not support the ability to make the assessment, as the data prior to 2008 does not identify health insurance status of the respondents.

Using the ACS, this study identifies the characteristics of the adults with disabilities that are working and compares them with the characteristics of those that have enrolled in Medicaid, at a state and sub-state regional level. This will provide information to inform policy makers of which segments of the disabled population are being reached by the program, and what kinds of outreach strategies would have the most impact in increasing participation.

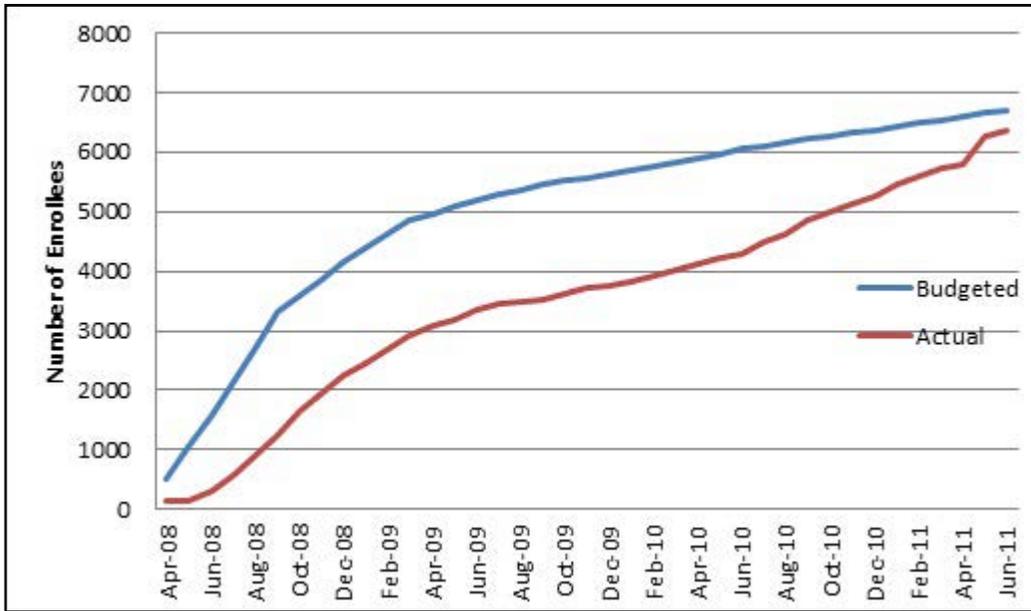
PARTICIPATION IN MBIWD PROGRAMS

Nationwide, first-time enrollees represented about 30% of total Buy-In enrollment in 2006³. Mathematica calculated the state enrollment rate as the number of Buy-In enrollees per 10,000 state residents age 16 to 64 who have a disability, using the 2006 ACS. The penetration rate for the 10 states with the highest enrollment rates ranged from 29 per 10,000 to 1,035 per 10,000, a thirty-fold difference. Neighboring states included Pennsylvania (172 per 10,000) and Indiana (285 per 10,000).

Ohio's enrollment rate in June 2011 was 77.4 per 10,000 (based upon the 2010 ACS). Participation in Ohio's Buy-In program lagged behind projected take-up rate. Through June 2011, enrollment was approximately 70% of the budgeted estimate (See figure 2). By June, 2011, Ohio's Buy-In program had recovered from its initial slow start, increasing to 6,369 participants, instead of the budgeted 6,711, almost 95% of the originally budgeted enrollment. Ohio's budgeted take-up rate was based upon a composite estimate of monthly take-up rate of all the states that had Buy-In programs through 2005.

With Ohio's Buy-In program having lagged behind budgeted estimates, it is important for policy makers to understand the dynamics of the population that

Figure 2. Budgeted vs. Actual Enrollment in Ohio's MBIWD Program



have entered the program. For example, 44.1% of Buy-In participants in Ohio paid a premium, compared to the 54% that was estimated in the budget projection.

Approximately 20% of participants were newly enrolled in Medicaid vs. the national average of 30%, or the budget estimate of 25%.

Clinical Characteristics, Health Expenditures, Utilization, Quality and Access, Duration and Gaps in Coverage

Nationwide in 2005, Buy-In participants incurred lower annual Medicaid expenditures per enrollee than other adult disabled Medicaid enrollees⁴. The national average PMPM was \$1,224, and included prescription drugs (Medicare Part D was implemented in 2006). The estimated budget for Ohio's program in 2006 dollars was \$1,151 (including pharmacy but excluding pharmacy rebate). Adjusted for the PMPM trend in the Ohio Medicaid program, the budgeted PMPM would have been \$1,330 in 2009 (excluding pharmacy, it would have been \$835).

Newly eligible Buy-In participants had average monthly Medicaid expenditures that were 30% lower than for participants with prior Medicaid coverage. Among first-time Buy-In participants who had previous Medicaid coverage, average monthly

expenditures were 12% higher for their first year of Buy-In than the previous year.

An analysis of the enrollment, clinical diagnosis, service utilization patterns, and Medicaid expenditures of the enrolled MBIWD population offers useful information to policy makers and program administrators who are interested in monitoring spending trends for future budget and outreach planning. It can also provide a better understanding of how service needs vary among Buy-In participants.

Potential Impact of the Affordable Care Act (ACA)

The ACA changes financial eligibility standards for adult Medicaid beneficiaries in 2014 to 138% of the FPL. Additionally, the ACA establishes financial eligibility standards for premium subsidies to a HIE up to 400% of the poverty level. These subsidies will be offered on a sliding scale basis and will limit the cost of the premium to between 2% and 9.5% of income for eligible individuals. Cost-sharing subsidies will also be available to people with incomes between 100-250% of the poverty level to limit out-of-pocket spending.

The premium financial standards are very similar to the MBIWD program eligibility standards. The significant financial difference would be the cost-

sharing requirements for persons with income above 100% of FPL. Otherwise, the advantages of MBIWD may lay primarily in the comparison of the Medicaid benefit package to the standard packages available through the health insurance exchange. Coverage issues for disabled adults would include limits on pharmacy, durable medical equipment, and therapies, etc. Issues might also include coverage for dental, and vision services.

METHODOLOGY

This study incorporates analysis of the ACS and Medicaid eligibility and claims/encounter data from the Ohio OMA. The measurement time frame for each data source is relatively similar. The ACS data is aggregated for a three-year timeframe for calendar years 2008-2010. The Medicaid data is aggregated for a two-year timeframe for State Fiscal Years 2009 and 2010.

The ACS is a survey of the civilian non-institutionalized population performed by the United States Census Bureau on an annual basis. It includes information on the socio-economic and demographic status of the population. It includes information on income, health insurance status, employment, and disabilities. It also includes enough sample size to provide estimates at the state level, and at a sub-state level⁵.

The ACS data is used to describe the differences in employment rates of the adult disabled population, and the adult Medicaid population. Comparisons are made with other neighboring states, and Ohio sub-state regions.

The ACS uses a definition of disability which is incorporated into questions 16 through 18, 27, and 28 of the survey (Figure 3). Question 16 asks whether the person has a serious difficulty in hearing or sight, even while wearing glasses. If the answer to either of these is yes, then the survey considers the person to be disabled. Question 17 asks whether the person has physical, mental or emotional conditions, difficulty climbing stairs, or dressing and bathing. Question 18 asks whether the conditions described in Question 17 cause difficulty in doing errands without any assistance. If questions 17 and

Figure 3. Disability Questions from the ACS

American Community Survey: 2008-2010

Questions 16-18 (Disability Questions), 2008 ACS Questionnaire

16a) Is this person deaf or does he/she have serious difficulty hearing?

Yes
No

16b) Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?

Yes
No

Answer question 17a-c if this person is 5 years or over, Otherwise SKIP to the questions for Person 2 on page 12.

17a) Because of a physical, mental, or emotional condition, does this person have difficulty concentrating, remembering, or making decisions?

Yes
No

17b) Does this person have serious difficulty walking or climbing the stairs?

Yes
No

17c) Does this person have difficulty dressing or bathing?

Yes
No

Answer Question 18 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 12.

18. Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?

Yes
No

27a) Does this person have a VA service connected disability rating?

Yes (such as 0%, 10%, 20%,..., 100%)
No → SKIP to question 28

28) What is this person's service connected disability rating?

0 percent
10 to 20 percent
30 to 40 percent
50 to 60 percent
70 percent or higher

18 are both answered positively, then the person is considered to have a disability⁶. Additionally, persons are included as having a disability if it was a result of a military service connected disease or injury (questions 27 and 28).

The socio-economic, health insurance, and disability variables in the ACS are used to model the differences in the likelihood of a disabled adult being employed, for Ohio and comparing Ohio with other states in the Great Lakes Region that have implemented an MBIWD program, including Illinois, Indiana, Michigan, Minnesota, Pennsylvania, and Wisconsin (Figure 4). The key factor for observation is whether the implementation of the Medicaid program increases the likelihood (expressed as an odds ratio) of a disabled adult to be employed.

This study includes analysis of the population of eligible consumers who are enrolled in the MBIWD eligibility category of Medicaid. The study uses Medicaid claims and eligibility data extracted from

the Medicaid Information Technology System (MITS) which is operated by the OMA to manage eligibility information and adjudicate medical claims for Medicaid consumers.

Monthly eligibility records for MBIWD consumers were extracted from the period of April 2008 through June 2011. April 2008 is the first ever recorded month of eligibility for the MBIWD program, and June 2011 corresponds to the latest month that data was available for the study. Medicaid claims were extracted for incurred services between July 2008 and June 2010, reflecting two complete fiscal years of medical services received. State Fiscal Year 2010 is the last complete fiscal year of incurred services that was available for this study.

Demographic and eligibility characteristics of MBIWD consumers reflect the information on the eligibility record of their first month of MBIWD eligibility, unless otherwise specified. Expenditures

Figure 4. Characteristics of State Medicaid Buy In Programs in the Great Lakes Region

State	Year started	Income Eligibility Limit	Disregards	Resource Limits	Income level at which premiums start
Minnesota	1999	No Income Limit	1902(r)(2) All earned and unearned income ignored.	\$20,000	Gross individual income at 100% of FPL
Wisconsin	2000	250% FPL net family.	Standard SSI disregards.	\$15,000	Gross individual income at 150% of FPL
Michigan	2003	No income Limit	Standard SSI disregards.	\$75,000	When earnings exceed \$22,000 per year
Illinois	2002	200% of FPL Net after taxes (individual and spouse)	Standard SSI disregards and work related expenses	\$15,000	\$250 per month.
Indiana	2002	350% FPL net family	tax refunds, grants or scholarships allowed by federal law, Impairment Related Work Expenses (IRWE's), and income of spouse or parents	?	Sliding fee scale based on income
Pennsylvania	2002	250% FPL net individual.	Standard SSI disregards.	\$10,000	5% of countable monthly income.
Ohio	2008	250% FPL net individual	Up to \$20,000.	\$10,580	Gross individual income at 150% of FPL

and clinical characteristics of the MBIWD consumers reflect information from the medical claims records, including professional, institutional, and pharmacy claims. Expenditures reflect any claims adjustments that were received and adjudicated through December 31, 2010. Clinical characteristics reflect ICD-9CM diagnosis codes, and HCPCS/CPT4 procedure codes. Diagnoses used in this study to characterize a consumer's clinical characteristics are based upon primary and secondary diagnoses, and must appear on a claim from a health care professional who is licensed to render clinical diagnoses. In order to be included, the diagnosis must occur for two or more patient visits during a two year time period. A limited number of chronic illness diagnoses (physical health, mental health, and developmental disabilities) that were the most frequent occurring diagnoses on medical claims for MBIWD consumers were used for this study.

The study uses Medicare Part A and Part B claims which were transferred to OMA from Medicare intermediaries to satisfy the copay for the Dual eligible beneficiaries. Note that because the copay is not the full payment for Dual Eligibles, and that Medicare Part D pharmacy claims are not available for Dual Eligibles, it is important not to compare PMPM costs for 'essential benefits' across these eligibility categories. The study estimates total and PMPM of the MBIWD population to measure the potential impact of the ACA. This is predicated on whether Ohio will make policy changes with the MBIWD program, or if consumers with disabilities opt to purchase their health insurance from the HIE instead of through Medicaid.

The study uses a comparison group of adult disabled consumers in the Medicaid program in SFY 2009 and 2010. The comparison group included consumers age 18 to 64 who were enrolled in the Disabled category of Medicaid, and were Medicaid Only, or were Dual Eligible for Medicare and Medicaid (QMBs, and SLMBs are excluded ¹⁰). Eligibility and claims/encounter information was extracted for these consumers using the same strategy as the MBIWD population. The comparison group includes Medicaid Only consumers who were enrolled in Medicaid Managed Care Plans. Encounter data was extracted from the records of managed care plans submitted to MITS.

Since encounter data does not include the amount paid for the service to the health care provider, cost comparisons between the MBIWD group and the comparison group are excluded from the study.

The comparison group contained 350,000 consumers. Statistical analysis using such a large number of cases is problematic, as differences between groups may be statistically significant even though there may be no practical differences. In these types of studies, researchers use techniques to form comparison groups that are of same or similar size as the study group. They could include a "matched-pairs sample" where individuals from the comparison group are matched with the study group based upon common socio-demographic characteristics, or a random sample is selected from the comparison group to approximate the size of the study group. In this study a random sample of 12,000 comparison group consumers was used, in part, because one of the study objectives was to determine whether there are differences in socio-demographic characteristics of the study group from the comparison group.

In order to make more valid comparisons between the two groups, particularly on clinical and service utilization characteristics, it is customary for researchers to estimate the "unbiased utilization" of services assuming that the consumers were enrolled for the entire study period. For the MBIWD population, the average number of months of enrollment was 27 months, although some consumers became enrolled or dis-enrolled during the study period. In order to calculate "unbiased utilization", both the study and comparison groups were reduced to include only consumers who were enrolled continuously for 24 months between July 2008 and June 2010.

The study identifies differences in the characteristics of the MBIWD study group from the comparison group, including demographic, enrollment, chronic illness, and service utilization. In particular, these include differences in the utilization of inpatient hospital care and emergency department care.

The demographic, enrollment, chronic illness, and service utilization variables are used to model the

likelihood that a person had an inpatient hospitalization during the two-year study period. The key factor for observation is whether persons in the MBIWD group are less likely to have an inpatient hospitalization, controlling for all other variables in the model.

STUDY FINDINGS

Demographic and Enrollment Characteristics

The enrolled MBIWD population between April 2008 and June 2011, on a member month basis, was slightly more likely to be male than female, of White race, of non-Hispanic ethnicity, have a marital status of single, and live in their own residence (Table 1). Buy-In enrollees were slightly more likely to be age 18-44 than 45-64.

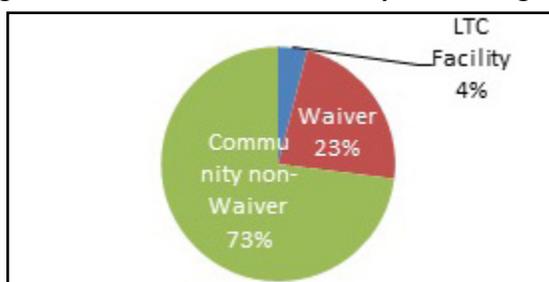
Buy-In enrollees were more likely to be dually eligible for Medicare and Medicaid (76%) than Medicaid Only (24%), and not on a Medicaid Waiver (73%) (Table 2).

With respect to care setting of the MBIWD (Figure 5), 27% of member months were for consumers in LTC settings including 23% on waivers, and 4% in LTC facilities.

More than 44% of MBIWD consumers pay a monthly premium to be on Medicaid (Table 3). Premium payment is highest among consumers who are Dual Eligible (45.6%) than those who are Medicaid Only (39.3%).

The average number of months of Medicaid enrollment in Medicaid for MBIWD consumers was 11.9 months out of the 39 months the study covers (Table 4). This only includes their MBIWD months of eligibility beginning on their first month on MBIWD.

Figure 5. MBIWD Member Months by Care Setting



It does not include eligibility months prior to their first month of MBIWD eligibility. Consumers that enroll in MBIWD were most likely to have continuous eligibility months for the entire time period they were eligible on MBIWD. More than 88% of consumers had continuous eligibility. For the 11.3% of consumers that had a gap, the average length of a gap in Medicaid coverage was only one month, and the percent of consumers that had a gap of more than one month was 1%.

A large majority of MBIWD consumers were eligible for Medicaid prior to being enrolled as an MBIWD (Table 5). Individuals with Medicaid eligibility of four or more months prior to MBIWD enrollment represented 79.7% of all MBIWD. More than 46% of all MBIWD enrollees were on Medicaid 12 months prior to their enrollment in MBIWD.

Those considered 'Newly Eligible' include those who had no eligibility months, or up to three months of eligibility for Medicaid, prior to their first month on MBIWD. The one to three month window is considered new eligibility, as these months can be considered as 'retroactive eligibility' months for new enrollees on the Medicaid program. Approximately 16% of MBIWD had no previous eligibility months, while 4.5% had one to three eligibility months.

Enrollment in the MBIWD program grew steadily (Figure 6) during the time frame this study examines. The number of new eligible consumers entering the program each month averaged 294, while the number of dis-enrollments averaged 140. The ratio of new enrollment to dis-enrollment is 2.1 to 1. This means the overall number of consumers increased by an average of 159 per month. The total number of active enrollees increased to 6,369 by June 2011. The unduplicated count of consumers who were ever enrolled in MBIWD was 11,745.

Expenditure Characteristics

Overall, Medicaid incurred expenses of \$164 million on MBIWD enrollees in the two state fiscal years of 2009 and 2010. This included \$60.8 million in 2009 and \$103.2 million in 2010 (Table 7a).

Figure 6. Monthly and Cumulative Monthly Enrollment in MBIWD

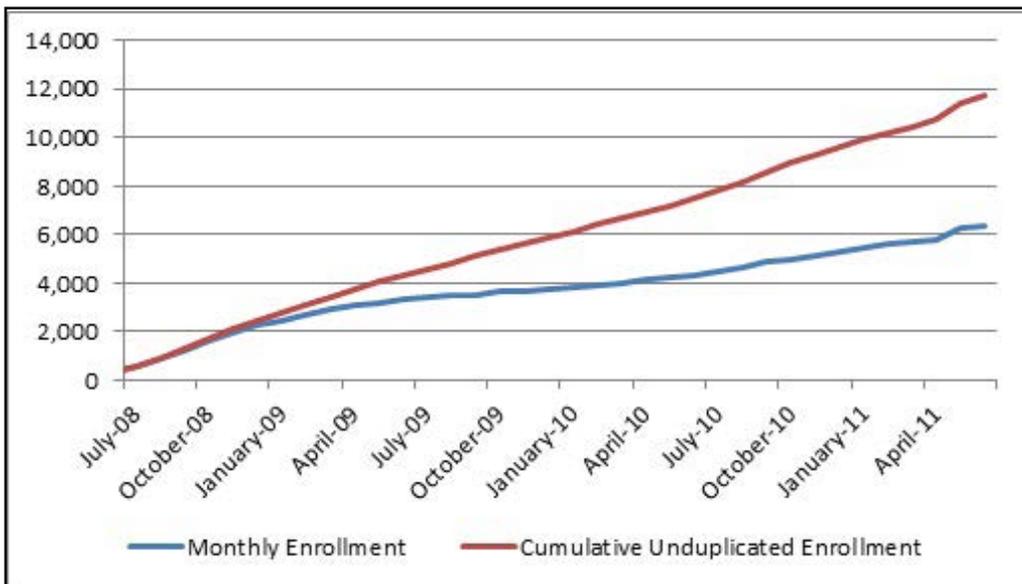
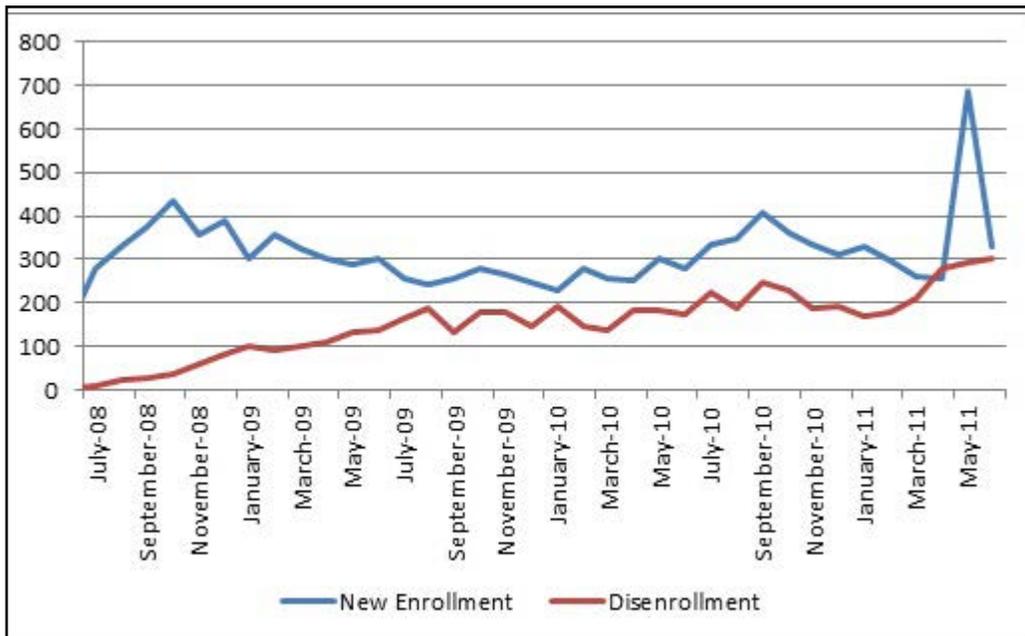


Figure 7. Enrollment and Disenrollment in Ohio’s MBIWD program



Newly eligible enrollees made up 12.7% of the member months of MBIWD in SFY 2009 and SFY 2010. New enrollees cost the Medicaid program \$20.4 million over the two year period (\$7.4 million in 2009 and \$13 million in 2010, all funds, including Federal Financial Participation and GRF)(Table 7c). This was 93% of the original budget expected in 2010 for full implementation of the MBIWD program with 7,000 enrollees. For MBIWD enrollees who were eligible prior to their enrollment in MBIWD their costs were not additional costs of the MBIWD program. The PMPM costs of new enrollees in 2010 (\$2,201) was about the same as previously eligible enrollees (\$2,190). This is consistent regardless of care setting.

Expenses for consumers in LTC settings (institution and waiver) were much higher than consumers in community Medicaid non-waiver (Table 7a). The 27% of MBIWD consumers in LTC settings represented 82% of program expenditures for all MBIWD consumers. In 2010, the PMPM expenditures for all services were \$5,583 for consumers in LTC settings, while the PMPM costs for community Non-Waiver consumers were \$604. The costs of long-term care services and supports for consumers in LTC settings represented, by far, the largest PMPM expenditure at \$5,093. The cost for “essential benefits”, including hospital, physician, pharmacy and other services, was actually lower for LTC consumers (\$468 PMPM)

than community Non-Waiver consumers (\$581). Of course, this may be related to whether LTC consumers are more likely to be dual eligible.

Dual Eligible consumers were, on average, less expensive (\$2,110 PMPM) than Medicaid Only consumers (\$2,466). As expected, the cost of essential benefits for Dual Eligible consumers were \$707 PMPM lower than Medicaid Only. This is largely because Medicaid pays only the co-pay for Part A and B Medicare services for Dual Eligible consumers, and is not responsible for the prescription drug benefit.

Buy-In consumers who pay a premium have income levels above 150% of the poverty level. Those who pay premiums have the same access to services as those who do not, as higher income MBIWD enrollees do not have to make co-pays that might inhibit care seeking behavior. In 2010, for MBIWD consumers who were Community Non-Waiver, there was little difference in PMPM between consumers that paid a premium versus those that did not (Table 7d.). This was true for both consumers who were dual eligible and those who were Medicaid Only. For consumers who were in a LTC setting, those who paid a premium had total PMPM costs that are only 60% to 70% of the PMPM for those who did not pay a premium. These lower costs were concentrated in the cost category of LTC services and supports, suggesting that premium payers are lower cost waiver participants, and that they need less LTC services and supports than other waiver participants.

Comparison of the MBIWD Enrolled Population with a Comparison Group of Medicaid Disabled Adults

Buy-In consumers differ significantly from a comparison group of Medicaid Disabled Adults (MDA) on key measures of utilization which may be indicative of their demographic and clinical risk profiles, as well as their care seeking behavior for primary and preventive care services.

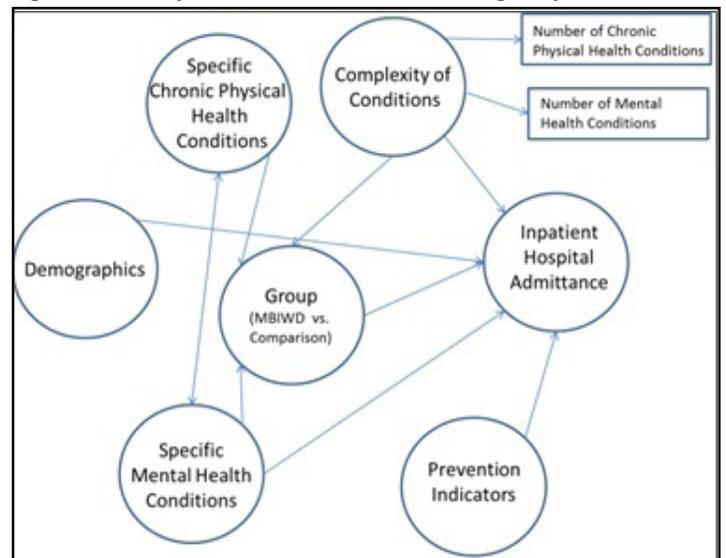
Specifically, the comparison of MDA consumers with MBIWD consumers includes the following:

- 2.8 times higher rate of inpatient hospital utilization;

- 4.7 times higher rate of inpatient utilization for ambulatory care sensitive conditions
- 2.2 times higher rate of emergency department visits; and,
- 2.9 times higher rate of emergency department visits for ambulatory care sensitive conditions.

These are differences that may be rooted in the demographic and clinical profiles of the population. For example, if the MDA group were older or had a higher rate of diabetes, hypertension, and asthma than the MBIWD group, that could make a difference in these utilization rates. The severity of illness of patients that have multiple co-occurring physical or mental health conditions increases utilization of these services. The differences might also lie in currently un-measurable socioeconomic differences between the two populations, such as employment or income status. We know that the MBIWD population is employed in some way, but we don't know which of the MDA population is employed. We know that the MBIWD population is likely to have a higher income because eligibility is effectively at 430% of FPL, far above the standard for the Disabled Medicaid standard of 70% of FPL (even with additional spenddown or patient liability included). But there is not enough information for either group at a personal level to calculate the impact of those differences. To estimate the effects of all that we know about these consumers, we created a conceptual model of the predisposing, enabling, and reinforcing factors that are likely to impact utilization outcomes (Figure 8). For this

Figure 8. Conceptual Model of Factors effecting Hospital Utilization



report we used hospital admissions as the outcome variable. Specifically, we tested the likelihood of having at least one hospital admission during the two-year study period. Predisposing demographic, eligibility and clinical conditions were used in the model. It is useful to review the differences between the MBIWD group and the MDA comparison group, not only for the effect of these characteristics on the model, but also for considering the differences between these populations on who is likely to enroll in MBIWD.

There were strikingly no statistically significant differences between the MBIWD group and the MDA comparison group on demographic characteristics. On tests of significance for age, gender, race, ethnicity, and marital status there were no differences.

The MBIWD group is a mirror image of the MDA population (Table 8a).

There were also no statistically significant differences between MBIWD and MDA groups on Medicaid enrollment characteristics, including the percentage who lived in an institution, the percentage who were waiver participants, and the percentage who were dual eligible for Medicare and Medicaid (Table 8b). There were also no differences based upon average number of months enrolled, average number of gaps in eligibility, and average length of a gap.

There were major differences between MBIWD and MDA groups based upon their chronic physical health and mental health diagnoses. Specifically, for many chronic physical health conditions, MBIWD consumers were less likely to have diagnoses from a health care professional than the MDA comparison group (prob. <.0001, Odds Ratios .38 to .70), (Table 8b). For chronic physical health conditions that are associated with developmental delays/disabilities including cerebral palsy and epilepsy, MBIWD consumers are more likely to have diagnoses from a health care professional. (prob. <.0001, Odds Ratio 2.06 and 1.31 respectively). Participants in the MBIWD were 7.9 times more likely to have a developmental disability than the MDA comparison group.

The MDA comparison group was much more likely to have one or multiple physical health conditions than

the MBIWD group (Table 8c). Thirty-one percent of the MBIWD group had no chronic physical health conditions, compared to 15% of the MDA group (Odds Ratio=2.2). Thirty-seven percent of the MDA comparison group had four or more chronic physical health conditions, compared to 17% of the MBIWD group (Odds Ratio=.338).

Except for depression, there were no significant differences between the MBIWD and MDA comparison groups on the likelihood of having a mental health condition. The MBIWD group (20.6%) was less likely to have depression (Odds Ratio=.76) than the MDA group (25.5%). There was also no significant difference between the groups on the number of co-occurring mental health conditions.

Enabling factors included the availability and accessibility of resources or services that facilitate achievement of good outcomes. Utilization of primary and preventive health services are considered enabling factors to maintain health, and avoid episodes of care that would lead to inpatient hospitalization. These factors have a complicated relationship with outcomes, as there is not necessarily an inverse relationship between them and hospitalizations. The expertise of the practitioner in diagnosing and treating disease, as well as patient's compliance with physician directives, and the patient's ability to change behavior to avoid negative consequences may be more important factors in explaining outcomes than the volume of services received.

Participants in the MBIWD were more likely to have a primary care visit and a dental care visit than the MDA comparison group (table 8d). They were more likely to have had their vaccinations (pneumococcal, influenza, hep. B.), but less likely to have a cholesterol screen. Since cholesterol screens are most associated with risk factors related to physical health conditions (diabetes, hypertension, nutritional disorders), this was not surprising. There was no difference in the likelihood of having a colorectal screen or breast cancer screen (among women age 40 or older).

Logistic regression was used to build a prediction model for inpatient hospitalization (consumer was/ was not admitted at least once during the two-year study period) for the Medicaid Buy-In group and

the MDA comparison group (Described in Appendix 2). The logistic model identified which of the predisposing or enabling factors described above were significant predictors of inpatient admission, and after they have been included, how much of the remainder of the variation in admission is predicted by being in the MBIWD group vs. the MDA comparison group. The model considered main effects, and interaction between the factors. Some specific results include the following:

Increased odds of inpatient hospitalization:

- Three or more mental health conditions (3.7 to 1)
- Renal failure (2.3 to 1)
- Epilepsy (1.6 to one)
- MBIWD group*cholesterol screen (1.3 to 1)
- Multiple physical health conditions (1.3 to 1)

Decreased odds of inpatient hospitalization:

- Spinal back disorders (.8 to 1)
- Developmental Disability (.4 to 1)

Those in the MBIWD group were found to have significantly lower odds (.6 to 1) of having a hospital admission than the MDA comparison group, even after controlling for the other relevant factors.

Comparison of the impact of Medicaid on Disabled Adults that work: State and sub-state regional comparisons.

According to the 2008-2010, ACS combined file: of the 7,030,000 adults from ages 19 to 64 in Ohio, 823,000 (11.7%) were disabled. Of those disabled, 278,000 (33.8%) were working. Amongst those who were disabled and working, 42,021 (15.1%) were on Medicaid. The ACS does not identify sub-categories of Medicaid eligibility, so using Medicaid administrative data for June 2011, of those workers who were on Medicaid, approximately 6369 (15.2%) were enrolled in the MBIWD program⁷.

For each state in the Great Lakes Region, these percentages were calculated in Figures 12, 14, 16, 18. For all the PUMA (Public Use Micro-data Area) regions of Ohio these percentages are calculated in Tables 9, 10, 11, and 12⁸; and presented in quartile ranges in Figures 13, 15, 17, and 19.

Ohio, Michigan, Indiana, and Pennsylvania are similar in percent of adults with a disability, Illinois, Minnesota, and Wisconsin have disability percentages that are lower and similar to one another. In Ohio the highest percentages of adults with a disability cluster in the southeast, southwest rural regions of Ohio, and Cleveland. The lowest percentages of adults with disabilities are clustered in the suburban counties around Columbus, and Cincinnati, and northeast Ohio.

Ohio, Michigan, Indiana, and Pennsylvania are also similar in percent of adults with a disability that are working. Illinois, Minnesota, and Wisconsin have working disabled percentages that are higher and similar to one another. There is almost a two-fold difference in the percentage of disabled adults that are working in Ohio, by geographic area. In suburban Franklin and Cuyahoga Counties, 40% to 51% of disabled adults are working, while in southern Ohio and Cleveland, from 25% to 27% are working.

Michigan, Minnesota, Pennsylvania, and Wisconsin have the highest Medicaid participation percentages among disabled adults. Participation rates for these states cluster in the 38% to 40% range. Illinois, Indiana, and Ohio cluster in the 30% to 34% range.

In Ohio, southeastern Ohio and Cleveland have the highest percent of participation of disabled persons on Medicaid (40% to 46%). The areas that have the lowest rates of participation include Cincinnati suburban counties, Franklin County suburbs, suburban counties surrounding Columbus, and suburban Cuyahoga County (21% to 28%)

Comparing Medicaid enrollees that are working, Illinois, Minnesota, and Wisconsin have the highest percentages (21% to 24%) while Indiana, Michigan, Ohio, and Pennsylvania cluster in the lowest percentages.(13% to 15%). In Ohio, suburban Franklin and Cuyahoga Counties, as well as a swath of north-central Ohio, from the Lake Erie shore to Knox County, and from Hancock to Carroll County have the highest rates (19% to 30%).

In all four of these measures, Ohio and Indiana ranked in the bottom tier in each. Wisconsin and Minnesota ranked in the highest tier for each one,

while Illinois, Michigan, and Pennsylvania ranked in the top tier in some measures, but in the bottom in others. Within and across each state there are a variety of socio-demographic and policy factors that influence these results.

A predictive model (described in Appendix 3) of the likelihood that a disabled adult would be working was created. The model included a variety of socio-demographic factors:

- gender;
- high school diploma;
- some college;
- marital status;
- race;
- age;
- poverty level, and;
- enrolled in Medicaid.

In this model, a state could be making policy choices around Medicaid that enhance participation, but still have a lower rate of disabled persons who work, as a result of other factors. For example, Ohio's financial eligibility standard for MBIWD is higher than most states in the Great Lakes Region, yet the percentage of adult disabled who work is in the bottom tier of the Great Lakes states. Figure 20 shows the influences of all these factors on work participation rates of the population of disabled adults.

In the model, the likelihood of a disabled adult working is expressed as an Odds Ratio for each factor. The factors are independent, as they take into account all of the other factors included in the model.

The most important factor is age. Adults between the ages of 40 and 59 were 2.5 times more likely to be working than adults 19 to 39, and adults 60 to 64 were 1.8 times more likely to be working than adults 19 to 39. Being on Medicaid is the next most important factor. Disabled adults on Medicaid were 1.8 times more likely to be working than those who are not.

Other important factors included education, race, and poverty level. Disabled adults with a high school diploma were 1.5 times more likely to work than those who did not have their high school diploma. Disabled adults with some college were another 1.4

times more likely than those without a high school diploma to work. Disabled adults below the poverty level are .7 times less likely to work than those above FPL. Whites were less likely to work than blacks, and other races are more likely to work than blacks.

This model was repeated for each one of the Great Lakes States. All of the same variables were significant in each state's model, and most variables had little variation in the odd ratios across states. The only variable which had some variation was Medicaid participation.

The following are the Medicaid participation Odds Ratios for each of the state models:

Minnesota	2.85 to 1
Wisconsin	2.37 to 1
Ohio	1.8 to 1
Pennsylvania	1.73 to 1
Michigan	1.68 to 1
Illinois	1.65 to 1
Indiana	1.4 to 1.

The ACA and Ohio's Medicaid Buy-In Program

The Affordable Care Act included several provisions that should affect Ohio's Medicaid program for working people with disabilities. These provisions may encourage more people to choose the Buy-In option, but they could also result in fewer people opting for the Buy-In option.

Key ACA provisions with implications for the Buy-In Program

The provisions within the ACA of greatest import to Ohio's Buy-In program are:

- The option to expand Medicaid for all adults ages 19-64 with incomes up to 138% of poverty;
- An individual mandate that requires all people to have health insurance;
- The establishment of health insurance exchanges for individuals and small employers;
- Regulation changes in the private insurance market, most notably the elimination of preexisting condition clauses, reduced rating band differences to no more than 3 to 1, and

the elimination of annual and lifetime caps on expenditures;

- The inclusion of essential health benefits required to be sold in any individual or small group market health policy;
- The availability of premium and cost sharing subsidies for Ohioans with incomes between 100% and 400% of poverty who obtain their private coverage through the health insurance exchange; and,
- The health homes provisions contained in section 2703 of the ACA.

Medicaid expansion

The ACA expands Medicaid to all adults age 19 to 64 with incomes at or below 138% FPL (133% of poverty plus a 5% income disregard). The ACA provides an enhanced federal match rate for all newly eligible adults, starting at 100% federal funds from 2014 through 2016 and gradually declining to 90% federal match in 2020 and beyond. This enhanced match rate does not apply to any individual who would be eligible for Medicaid under the existing mandatory eligibility criteria but had not yet enrolled on Medicaid.

States are also able to define the benefit package for the Medicaid expansion program. Based upon Ohio’s “Proposed Section 1115 Demonstration Medicaid Eligibility Modernization Project” report, the Kasich Administration would include the adults in the expanded eligibility category into a consolidated eligibility category of “Community Adults”. This eligibility group would have the basic benefit package for Medicaid except for Long Term Services and Supports (LTSS). The MBIWD consumers would be included in the consolidated eligibility category

of adults who require long-term services and supports.

For those MBIWD consumers who are below the 138% FPL standard and do not need LTSS, the consequence of switching to the Community Adult category is that they would not need to work to be eligible. This is roughly equivalent to the MBIWD population that is not in a LTC setting and not paying a premium (below 150% of FPL) to the Buy-In program. This represented about 37% of the Buy-In enrollees in June 2011, or 2,300 consumers who would face that decision. With a PMPM that was \$358 in 2010 dollars, the potential savings to Medicaid (GRF) is \$3.6 million⁹ in 2014.

For those MBIWD consumers that currently use LTSS or are above the 138% FPL, the Community Adult category would not be an option.

Additionally, there were approximately 42,200 uninsured adults who were uninsured, below 138% of FPL and disabled in 2010, according to the ACS definition of disability. Approximately 19,800 of these adults reported on the ACS that they were working. As a part of the individual mandate of the ACA, they could choose to be in the Community Adult category or the MBIWD program.

Individual mandate

The ACA requires that all adults obtain health coverage either through Medicaid, Medicare, or the private market. This requirement will likely cause most people to obtain such coverage rather than pay the tax penalty for not having coverage. The requirement does include some exceptions,

Figure 9. Coverage Shifts for Workers with Disabilities: Potential Impact of the ACA in Ohio

Coverage Group Prior to ACA	Coverage Group After ACA	Potential Impact (1)	Source
MBIWD Enrollees below 138% of FPL w/o LTSS	Medicaid Community Adult	2,300	Medicaid eligibility/claims data
Uninsured Workers with Disabilities below 138% of FPL	Medicaid Community Adult	19,800	American Community Survey
Uninsured Workers with Disabilities between 138% and 400% of FPL	MBIWD	20,900	American Community Survey
(1) These estimates do not include assumptions about take-up rates. Per ACS, estimates about potential populations below 100,000 have a high degree of visibility because of the sample size of the survey.			

one of which is for people who can show that the cost of purchasing health coverage is more than 10% of their annual income.

The Buy-In program should count as a source of coverage to meet the individual mandate. Thus, people on the Buy-In program will not have to find another form of coverage. In addition, new people eligible for the Buy-In program should be able to enroll in this program to meet their coverage requirement.

Elimination of existing insurance industry practices that adversely impact people with health conditions

The ACA makes several reforms to current health insurance practices that negatively affect people with existing health conditions, such as people who qualify for the Buy-In program. These reforms include:

- Elimination of pre-existing condition clauses;
- Elimination of annual and lifetime maximum caps on benefits, and
- Reduction in the premium difference that a plan can charge between different people based on underwriting factors to a maximum of 3 to 1.

These changes will mean that people with existing health conditions should now find it easier to obtain health insurance and for rates that are lower than they experience on the individual market today, as long as private insurers do not leave the business of selling health insurance.

Health Insurance Exchange

Many working people do not have access to affordable health insurance today. In some cases these people work at a firm that does not offer coverage at all. In other cases they work at a firm who offers coverage but they don't qualify for that coverage. One such reason that someone might not qualify for their employer's health plan is that they don't work enough hours, which can often happen for people with disabilities who may work only part-time. Finally, in still other cases they may work at a firm but cannot afford the employee share of the health premium.

To make it easier for people who have not accessed private health insurance through their employers

and to assist smaller employers in providing health care coverage to their employees, the ACA creates health insurance exchanges in each state. These exchanges may be run by the state itself, the state in partnership with the federal government, or the federal government. Ohio has not decided if it will play any role in the operation of the Ohio health insurance exchange in 2014 or in the years after 2014.

The expectation is that the health insurance exchange will create a more affordable market place for health insurance coverage by creating a larger pool of people through which to spread risk. This pool will be especially beneficial for people who qualify for the Buy-In program. Given their medical situation they would face high premiums on Ohio's current individual market as would small employers if such individuals were part of their small group. On the exchange, they may have access to a more affordable health insurance policy.

If the exchange is successful in creating health insurance options at more affordable rates the some people in or eligible for the Buy-In program might choose to obtain private coverage instead. The scope of the benefits for the exchange plan, however, may continue to make the Buy-In option attractive.

Another important feature of the exchange is that as uninsured people seek coverage they will be directed to apply through the exchange. The exchange will look at their eligibility for all coverage options including Medicaid and presumably Buy-In. This Exchange feature will likely increase the number of people eligible for the Buy-In who at least consider it as a coverage option.

Federal health insurance premium and cost sharing subsidies

To minimize the number of people who cannot afford health insurance because of cost, the ACA provides federal premium subsidies on a sliding scale to individuals with incomes between 100% and 400% of poverty. The federal government also provides cost sharing subsidies to these same individuals on a sliding scale basis.

The Ohio Medicaid Buy-In program offers premium subsidies between 150% and 250% of FPL, although

the credits and disregards make the effective income limit for MBIWD to be 430% of FPL. The premium subsidy for MBIWD is limited to 8%. Additionally, unlike the health insurance requirements of the ACA, there are no cost-sharing requirements for MBIWD. Generally, because there is no cost-sharing requirements for MBIWD, the financial incentive for consumers would be to choose MBIWD rather than purchase insurance through the health insurance exchange. As can be seen in Figure 10 below, the differences in premiums are significant. At 200% of FPL, the premium for MBIWD is 53% of the premium for ACA. At 250% of FPL, it is 62% of the premium for ACA.

The MBIWD program could undergo substantial growth as a result of these financial incentives. In response to the individual mandate, adults with disabilities that have no health insurance and whose income is above the Medicaid standard, would be required to choose an insurance plan. For those uninsured disabled who are working, the MBIWD program will be attractive to them because there are no required co-pays, and the benefit package may be more extensive. In Ohio there were approximately 45,100 disabled adults who were uninsured, between 138% and 400% of FPL and disabled in 2010, according to the ACS definition of disability. Approximately 20,900 of these adults reported

on the ACS that they were working. These 20,900 working disabled adults may be covered through the Buy-In program.

Benefit tiers and essential health benefit on the health insurance exchange

Beginning in 2014 health insurance policies that individuals and small employers purchase within or outside of the exchange must include a minimum set of essential health benefits. These essential benefits also apply to newly eligible Medicaid enrollees unless their state decides to offer a richer set of Medicaid benefits.

These essential health benefits must include items and services within at least the following 10 categories: ambulatory patient services; emergency services; hospitalization; maternity and newborn care; mental health and substance use disorder services, including behavioral health treatment; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services and chronic disease management; and pediatric services, including oral and vision care.

The extent of these benefits can vary by state as the Department of Health and Human Services is allowing each state to set its own definition of

Figure 10. Comparison of Premiums for MBIWD vs. ACA Health Insurance Exchange

% of Federal Poverty Level	2012 Poverty Threshold (monthly Income)		ACA Premium Estimate(1)		Medicaid Buy-In Premium Estimate (2)	
	Family of 1	Family of 2	Family of 1	Family of 2	Family of 1	Family of 2
100% of FPL	\$931	\$1,261	\$19	\$25	0	0
133% of FPL	\$1,238	\$1,677	\$25	\$25	0	0
150% of FPL	\$1,396	\$1,891	\$50	\$67	0	0
200% of FPL	\$1,862	\$2,522	\$88	\$119	\$47	\$63
250% of FPL	\$2,327	\$3,152	\$150	\$203	\$93	\$126
300% of FPL	\$2,793	\$3,783	\$221	\$299		
400% of FPL	\$3,723	\$5,043	\$265	\$359		

(1) ACA Premium is calculated as a percentage of gross family income ranging from 2% at 100% of FPL to 9.5% of FPL.

(2) MBIWD Premium is calculated as 10% of family income above 150% of FPL up to 250% or FPL. Family income is calculated after all disregards are taken including earned income tax credit, work related expenses and the first \$20,000 of earned income. The income limit of 250% of FPL is the equivalent of 430% of FPL using gross family income.

essential benefits for 2014 and 2015. States are to define their essential health benefits by establishing a benchmark plan through one of the following options:

- One of the three largest small group plan in the state by enrollment,
- One of the three largest state employee health plans by enrollment,
- One of the three largest federal employee health plan options by enrollment, or
- The largest health maintenance organization plan offered in the state's commercial market by enrollment

If a state does not select its own benchmark plan option, which Ohio has yet to do, then the default benchmark plan will be the plan with the largest enrollment in the given state's small-group market.

The selected benchmark plan does not define the precise set of essential health services. Instead, its plan sets the actuarial value for these essential services. Other insurers selling in these markets must offer plan options that are "actuarially equivalent" to the services in the benchmark plan. It is nearly certain that the essential health benefit plans will offer services that are less robust than the Buy-In benefit.

The essential benefit package does not include LTSS. The health insurance exchange will not be attractive to Medicaid Buy-In consumers who are either in a LTC facility or in a Medicaid waiver program.

Plans will also be able to offer plan options at four different tiers: bronze, silver, gold, and platinum. The essential health benefit plan is at the bronze level. The higher level plans will offer benefits at a higher actuarial value, thus they will either have richer benefits or lower cost sharing costs, or both. The health premium subsidies are set to subsidize plans sold at the silver level.

Medicaid health homes

Separate from its sections focus of expanding health coverage, the ACA includes some other provisions that may influence individual decisions on whether to participate in the Buy-In program.

One of these provisions is referred to as health homes. This provision gives states enhanced match to implement programs aimed at better managing the health needs of people with chronic conditions. In Ohio, the initial health home focus relates to the integration of physical and mental health needs of people served through Ohio's community mental health centers. This integration of physical and mental health services may be attractive to people who qualify for the Buy-In program and have serious mental health needs.

ACA Implications for Ohio's Buy-In Program

The various coverage expansion provisions within the ACA produce great uncertainty on how exactly they will affect Ohio's Buy-In program (Figure 11). We assume that if Ohio expands Medicaid, then a portion of Ohio's Buy-In program enrollment will shift to Medicaid expansion coverage. This shift can occur because the Buy-In program is an optional program and contains requirements different than the Medicaid expansion, such as an asset test. Shifting to coverage through the Medicaid expansion is beneficial to the Buy-In enrollees as there is no asset test under Medicaid expansion, and no work requirement. The shift is also good for Ohio Medicaid because the state will save money due to the availability of enhanced federal matching funds for newly eligible enrollees under the Medicaid expansion.

The other provisions that all interact through the private market may create a mixture of responses from people eligible for the Buy-In program. These provisions may make it easier for Buy-In participants to obtain coverage on the private market at an affordable cost, especially given the premium subsidies. These changes may attract people to the private sector plans, especially as many of these plans may have a wider array of providers willing to see patients than can sometimes occur under Medicaid. However, because these plans may have less rich benefits and more cost sharing requirements than the Medicaid benefit under the Buy-In plan the Buy-In option may remain the preferred option for most, if not all Buy-In enrollees.

The individual mandate could actually increase the number of Buy-In enrollees especially for those uninsured individuals who are eligible but not enrolled on the Buy-In program. Unless the Buy-In's premium cost obligation is higher than the individual would pay on the exchange with their federal premium subsidies, the Buy-In should remain the financially attractive choice. And, if the health exchange's service for helping people choose among their health plan options includes the Buy-In as one of those options, then individuals will become more aware of this opportunity.

Instead of people only obtaining coverage through

the Buy-In or through the exchange, another option would be that people obtain both Buy-In and exchange policies. Nothing in Medicaid rules prevents a person from having both private and Medicaid coverage. In these cases, Medicaid serves as the secondary payor. People who choose this option could get access to a wider range of health care providers, while maintaining access to the full Medicaid pharmacy and community mental health benefit. Ohio would benefit by shifting some of its medical costs for this population onto the private market. To entice such a selection, the Buy-In program might offer a lower premium cost for people who have coverage on the private market.

Figure 11. After ACA Implementation, Most Favorable Coverage for Workers with Disabilities without need for LTC Services and Supports

Poverty Level Categories based upon gross family income	Coverage Category	Advantage to worker
less than 138% of FPL	Medicaid Community Adult	No work requirement, no premium
139% to 150% of FPL	MBIWD	No Premium, No Copay
151% of FPL to 400% of FPL	MBIWD	Lower Premium, No Copay

Figure 12. Great Lakes States Comparison of Percent of Adults with Disability

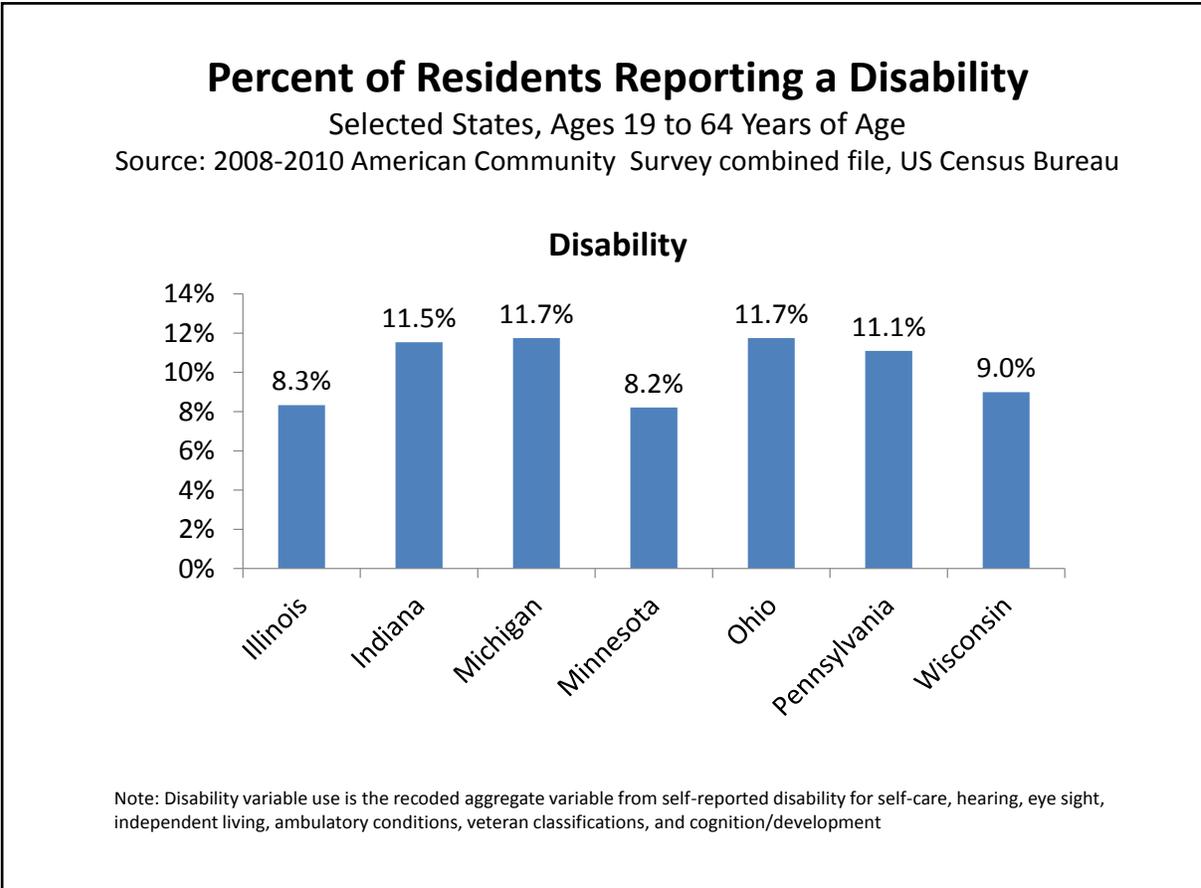


Figure 13. Sub-State Comparison of Percent of Adults with a Disability

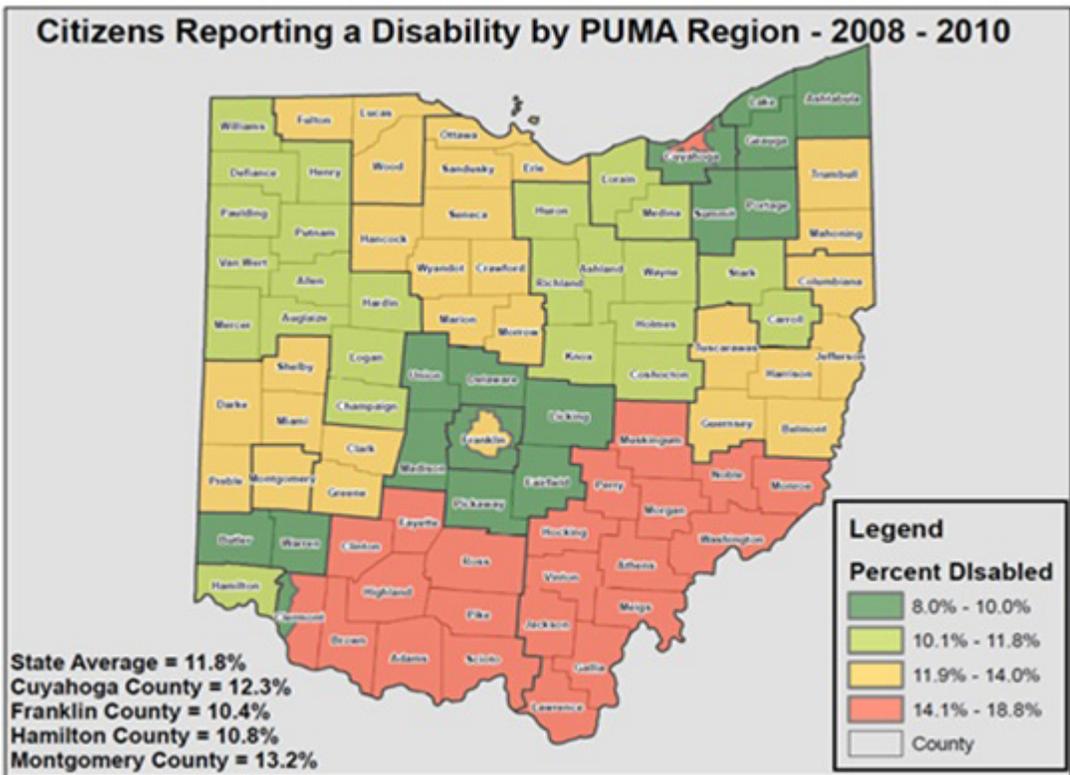
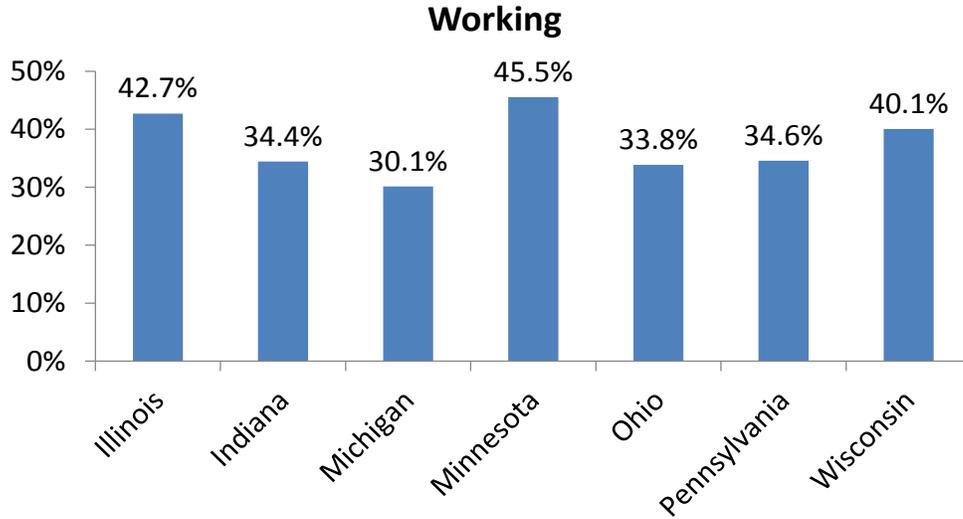


Figure 14. Great Lakes States Comparison of Disabled Adults that are Working

Percent of Disabled Residents that are Working

Selected States, Ages 19 to 64 Years of Age

Source: 2008-2010 American Community Survey combined file, US Census Bureau



Note: Disability variable use is the recoded aggregate variable from self-reported disability for self-care, hearing, eye sight, independent living, ambulatory conditions, veteran classifications, and cognition/development

Figure 15. Sub-State Comparison of Disabled Adults that are working

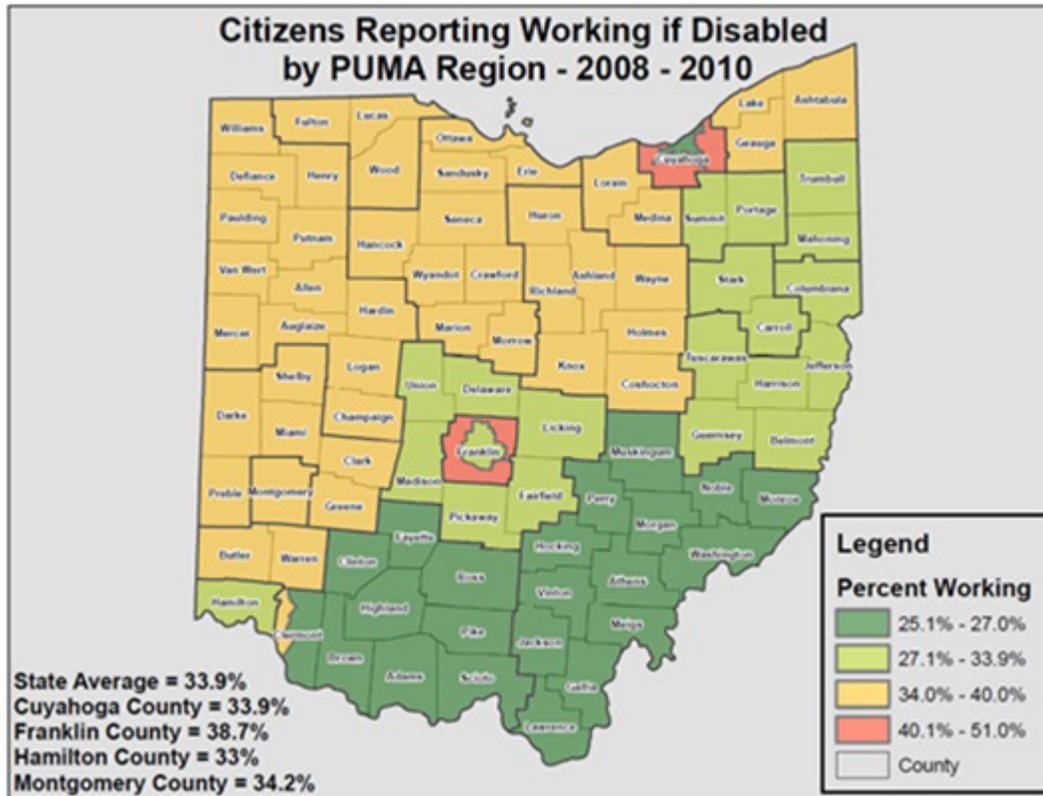


Figure 16. Great Lakes States Comparison of Medicaid Enrollment of Disabled Adults

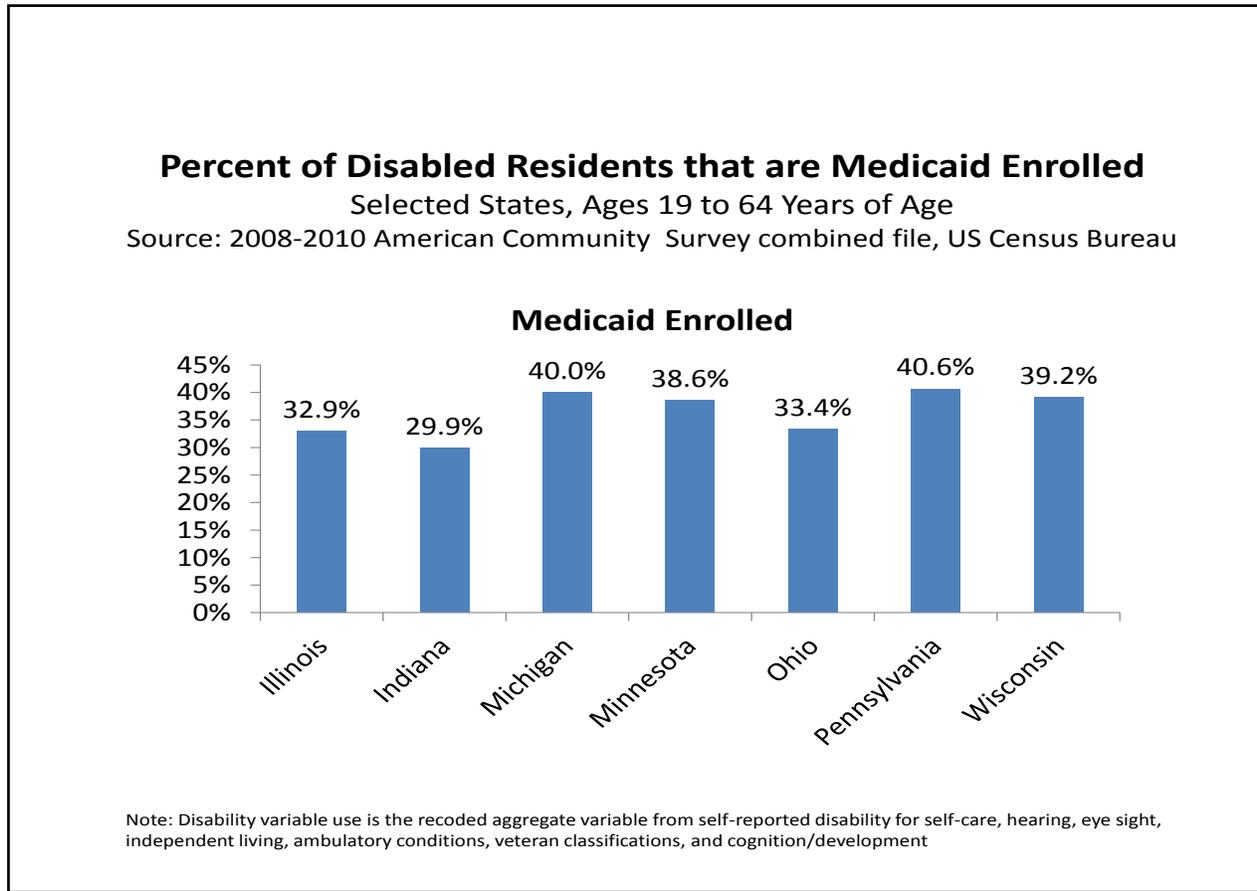


Figure 17. Sub-State Comparison of Medicaid Enrollment of Disabled Adults

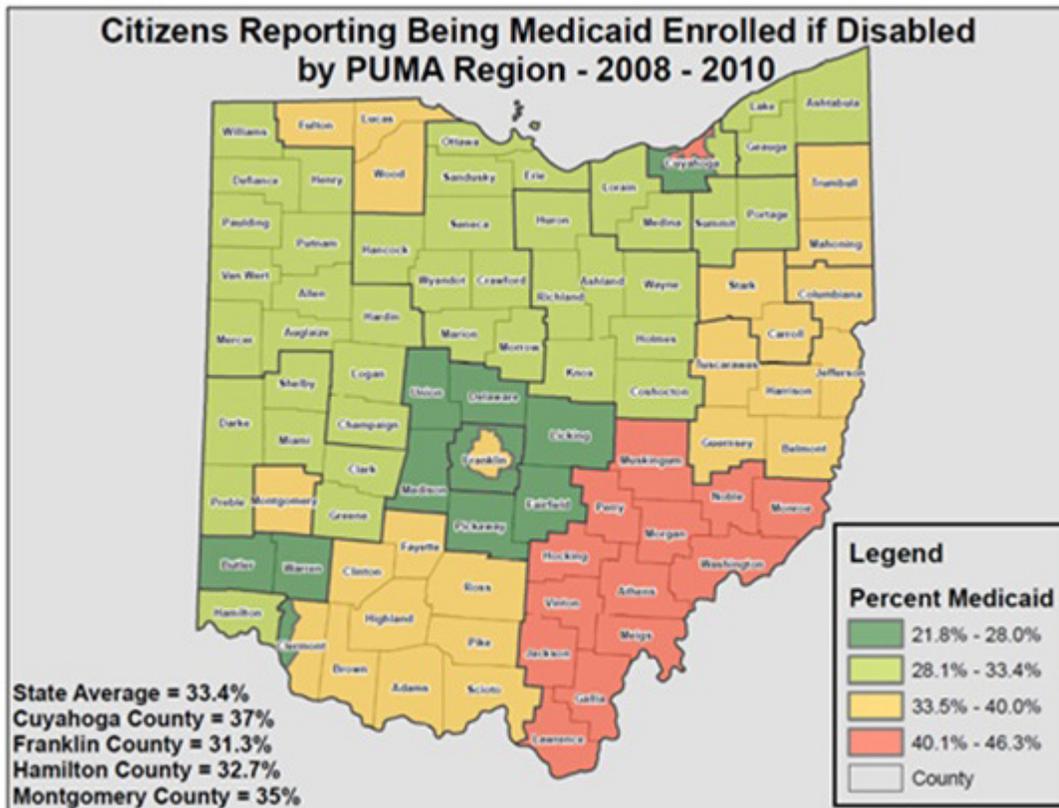


Figure 18. Great Lakes States Comparison of Medicaid Disabled Enrollees who are Working

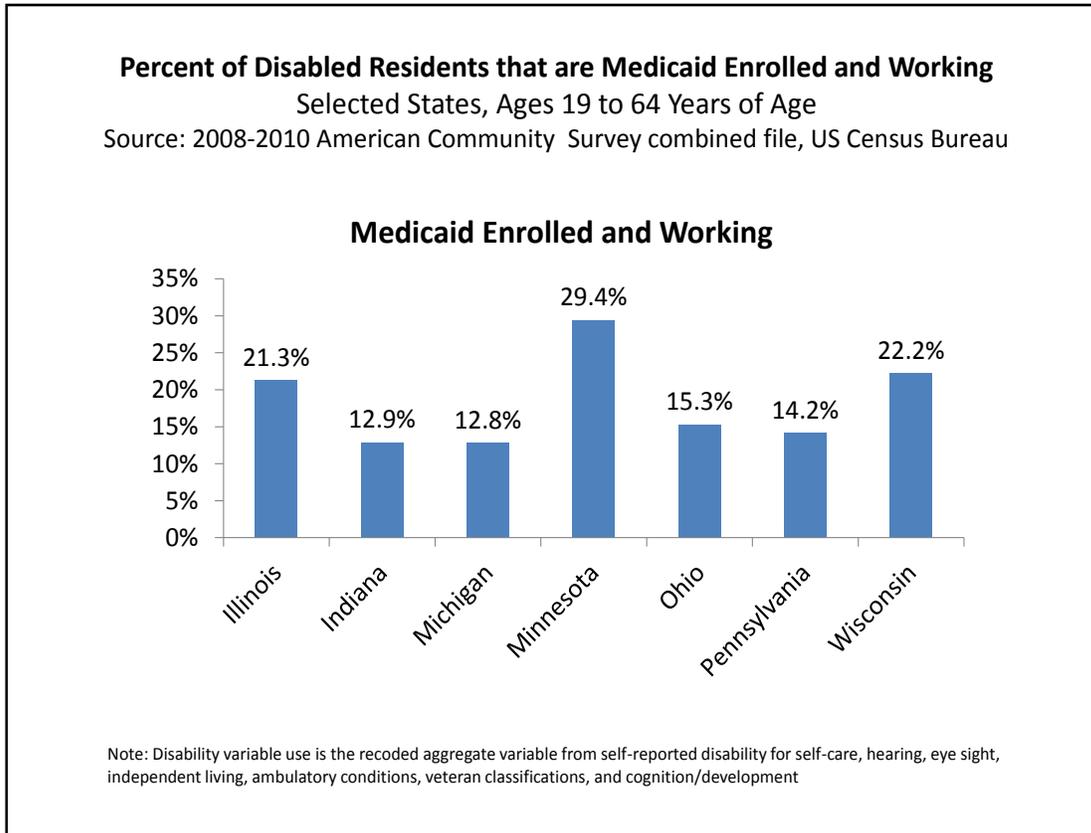


Figure 19. Sub-State Comparison of Medicaid Disabled Enrollees that are Working

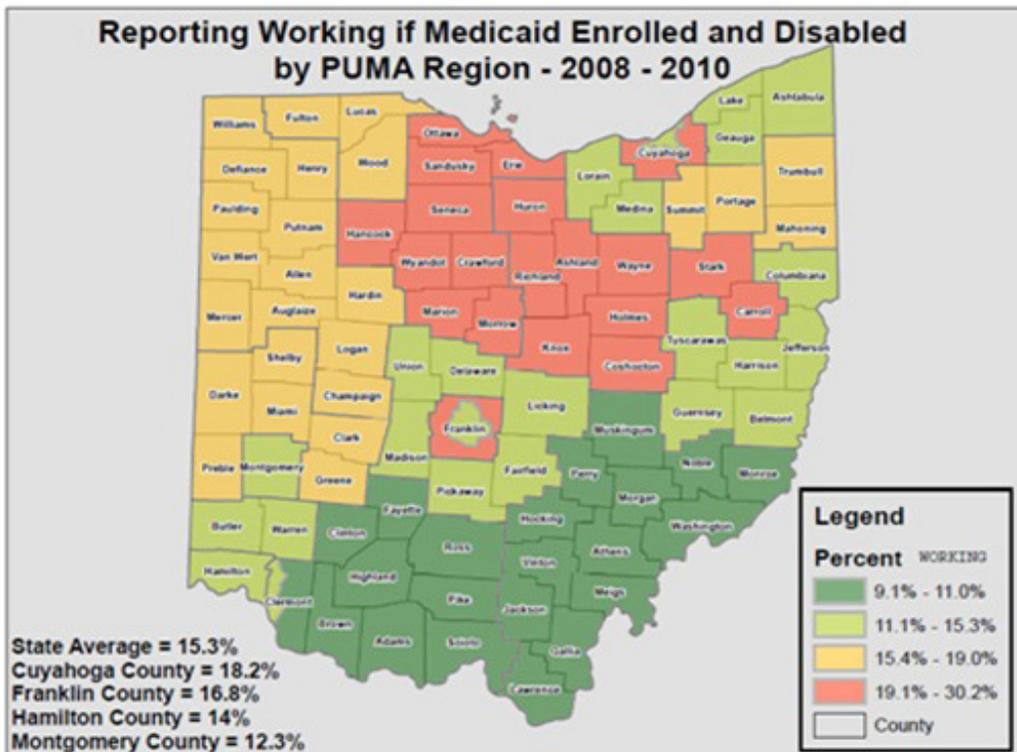


Figure 20. Ohio, Odds Ratios of being a Worker for Adults with Disabilities

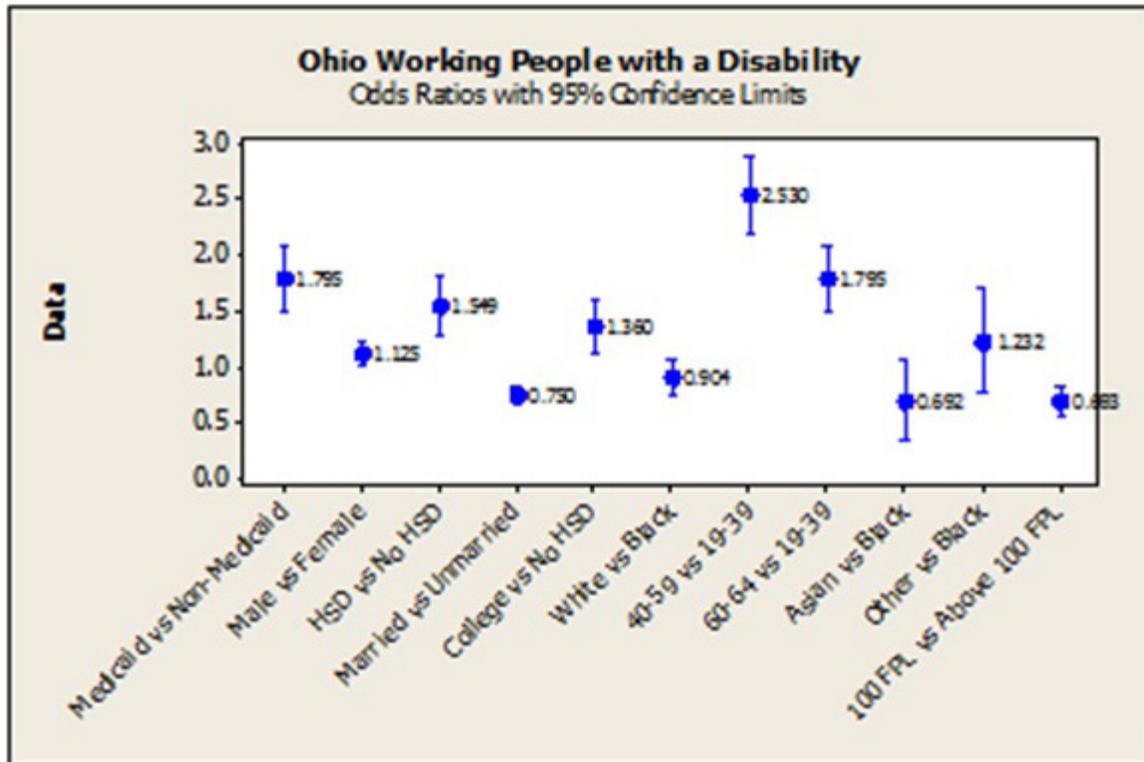


Table 1.

Demographic Characteristics of the MBIWD Population, by Member Month

DEMOGRAPHIC CHARACTERISTIC	MEMBER MONTHS	PERCENT
GENDER		
FEMALE	5,820	48.3
MALE	6,230	51.7
RACE	44	0.37
Other		
Asian	57	0.47
Black	2,566	21.29
White	9,383	77.87
ETHNICITY	11,897	98.73
NON-HISPANIC		
HISPANIC	153	1.27
MARITAL STATUS	1,438	11.93
DIVORCED		
LEGALLY SEPARATED	2	0.02
MARRIED	920	7.63
SEPARATED	447	3.71
SINGLE	8,948	74.26
UNKNOWN	132	1.1
WIDOWED	163	1.35
AGE GROUP	3,618	30.02
Age 18-34		
Age 35-44	2,590	21.49
Age 45-54	3,413	28.32
age 55-64	2,429	20.16
LIVING ARRANGEMENT	10,823	89.82
OWN RESIDENCE		
GROUP QUARTERS	572	4.75
LTC INSTITUTION	488	4.05
OTHER	167	1.39

Table 2.

Enrollment Characteristics of the MBIWD Population, by Member Month

ENROLLMENT CHARACTERISTIC	MEMBER MONTHS	PERCENT
ELIGIBILITY CATEGORY		
DUAL ELIGIBLE	109,560	76.26
MEDICAID ONLY	34,102	23.74
WAIVER STATUS		
NON-WAIVER	8,755	72.66
WAIVER	3,295	27.34

Table 3.

Percent of MBIWD who paid a Premium, by Eligibility Category

	MEMBER MONTHS	PERCENT
DUAL ELIGIBLES		
Premium		
NO PREMIUM	59,626	54.42
PREMIUM	49,934	45.58
MEDICAID ONLY		
Premium		
NO PREMIUM	20,697	60.69
PREMIUM	13,405	39.31
TOTAL		
Premium		
NO PREMIUM	80,323	55.91
PREMIUM	63,339	44.09

Table 4.

Average Length of Eligibility, Number of Gaps, and Months in A Gap

Variable	Mean
Eligibility Months	11.92
Number of Gaps in Eligibility	0.12
Number of Months in a Gap	0.75

Table 5.

Number of MBIWD Consumers with Gaps in Eligibility, by Number of Gaps

	NUMBER OF CONSUMERS	PERCENT
NUMBER OF GAPS IN ELIGIBILITY		
0	10,694	88.75
1	1,237	10.27
2	113	0.94
3	6	0.05

Table 6.

Consecutive Months of Previous Medicaid Eligibility In year immediately preceding first month of participation in MBIWD

	Number of Consumers	Percent
New Eligible		
0 months	1,912	15.9%
1 to 3	539	4.5%
Total New Eligible	2,451	20.3%
Previously Eligible for Medicaid		
4 to 11 months	4,051	33.6%
12 months	5,548	46.0%
Total Previously Eligible	9,599	79.7%

Table 7a.
Total and Per Member Per Month (PMPM) Costs of the MBIWD Population
By Care Setting and State Fiscal Year, 2009 and 2010

Total Costs by Care Setting	Year	Eligibility Months	Total Medicaid \$	Essential Benefits	LTC Services & Supports	Vision	Dental
	2009						
Community Medicaid - Non Waiver	2009	19703	\$10,405,023	\$10,020,328	\$0	\$44,646	\$304,131
	2010	32024	\$19,346,580	\$18,590,358	\$0	\$81,420	\$572,192
Long Term Care - Institution or Waiver	2009	9369	\$50,436,030	\$4,154,904	\$46,102,046	\$18,527	\$121,557
	2010	14980	\$83,637,005	\$7,009,259	\$76,301,444	\$39,764	\$223,256
PMPM Costs by Care Setting	Year						
Community Medicaid - Non Waiver	2009	19,703	\$528.09	\$508.57	\$0.00	\$2.27	\$15.44
	2010	32,024	\$604.13	\$580.51	\$0.00	\$2.54	\$17.87
Long Term Care - Institution or Waiver	2009	9,369	\$5,383.29	\$443.47	\$4,920.70	\$1.98	\$12.97
	2010	14,980	\$5,583.24	\$467.91	\$5,093.55	\$2.65	\$14.90

Table 7b.
PMPM Costs of the MBIWD Population
By Medicaid Program Category and State Fiscal Year, 2009 and 2010

Total Costs by Medicaid Program Category	Year	Eligibility Months	Total Medicaid \$	Essential Benefits	LTC Services & Supports	Vision	Dental
	2009						
DUAL Eligible	2009	21,650	\$43,444,596	\$6,651,658	\$36,361,815	\$46,296	\$328,853
	2010	36,351	\$76,708,155	\$11,958,739	\$63,917,434	\$89,979	\$637,007
MEDICAID Only	2009	7,422	\$17,396,458	\$7,523,574	\$9,723,816	\$16,876	\$96,835
	2010	10,653	\$26,275,429	\$13,640,878	\$12,384,010	\$31,205	\$158,441
PMPM Costs by Medicaid Program Category	Year						
DUAL Eligible	2009	21,650	2,006.68	307.24	1,679.53	2.14	15.19
	2010	36,351	2,110.21	328.98	1,758.34	2.48	17.52
MEDICAID Only	2009	7,422	2,343.90	1,013.69	1,310.13	2.27	13.05
	2010	10,653	2,466.48	1,280.47	1,162.49	2.93	14.87

Table 7c.
PMPM Costs of the MBIWD Population
By Whether Previously Eligible, Care Setting and State Fiscal Year, 2009 and 2010

year	PMPM Costs by Previously Eligibility	Eligibility Months	Total Medicaid \$	Essential Benefits	LTC Services & Supports	Vision	Dental	
2009	PREVIOUSLY ELIGIBLE	25,377	\$2,105.88	\$487.25	\$1,598.78	\$2.17	\$14.55	
	NOT PREVIOUSLY ELIGIBLE	3,695	\$2,002.72	\$489.94	\$1,492.13	\$2.18	\$15.29	
	Long Term Care Setting	Previous Eligibility						
	Community Medicaid - Non Waiver	PREVIOUSLY ELIGIBLE	17,163	\$522.20	\$502.92	\$0.00	\$2.24	\$15.24
		NOT PREVIOUSLY ELIGIBLE	2,540	\$567.90	\$546.73	\$0.00	\$2.44	\$16.78
2010	LTC Waiver or Institution	PREVIOUSLY ELIGIBLE	\$5,414.95	\$454.50	\$4,941.39	\$2.03	\$13.11	
		NOT PREVIOUSLY ELIGIBLE	\$5,158.09	\$365.04	\$4,773.54	\$1.61	\$12.02	
	PREVIOUSLY ELIGIBLE							
		41,100	\$2,189.53	\$538.71	\$1,627.69	\$2.60	\$16.94	
	NOT PREVIOUSLY ELIGIBLE	5,904	\$2,200.83	\$585.80	\$1,592.75	\$2.40	\$16.81	
2010	Long Term Care Setting	Previous Eligibility						
	Community Medicaid - Non Waiver	PREVIOUSLY ELIGIBLE	\$596.49	\$572.96	\$0.00	\$2.56	\$17.69	
		NOT PREVIOUSLY ELIGIBLE	\$657.77	\$633.54	\$0.00	\$2.44	\$19.12	
	LTC Waiver or Institution	PREVIOUSLY ELIGIBLE	\$5,606.76	\$465.24	\$5,119.21	\$2.70	\$15.33	
		NOT PREVIOUSLY ELIGIBLE	1,912	\$5,422.54	\$486.13	\$4,918.19	\$2.33	\$11.99

Table 7d. Per Member Per Month (PMPM) Costs of the MBIWD Population if Member is Paying a Premium, and State Fiscal Year

year	Care Setting	Eligibility Category	Premium	Eligibility Months	Total Medicaid \$	Essential Benefits	LTC Services & Supports	Vision	Dental
PMPM Expenditures									
2009	Community Non Waiver	DUAL	No Premium	7,224	\$331.51	\$312.64	\$0.00	\$1.98	\$16.34
			Premium	7,024	\$305.57	\$285.83	\$0.00	\$2.42	\$15.56
	LTC Waiver or Institution	MEDICAID	No Premium	2,926	\$1,100.06	\$1,081.88	\$0.00	\$2.42	\$12.55
			Premium	2,529	\$1,045.89	\$1,023.56	\$0.00	\$2.48	\$15.84
2010	Community Non Waiver	DUAL	No Premium	4,594	\$5,967.15	\$285.00	\$5,661.38	\$2.11	\$14.59
			Premium	2,808	\$4,092.00	\$383.26	\$3,691.26	\$1.90	\$12.29
		MEDICAID	No Premium	1,610	\$6,357.66	\$979.61	\$5,359.19	\$1.76	\$11.06
			Premium	357	\$3,632.44	\$538.52	\$3,082.12	\$1.91	\$6.26
	LTC Waiver or Institution	DUAL	No Premium	12,542	\$357.93	\$333.29	\$0.00	\$2.45	\$19.49
			Premium	11,079	\$331.49	\$308.97	\$0.00	\$2.36	\$17.78
		MEDICAID	No Premium	4,664	\$1,253.23	\$1,230.26	\$0.00	\$2.95	\$15.34
			Premium	3,739	\$1,428.14	\$1,403.92	\$0.00	\$2.90	\$15.86
LTC Waiver or Institution	DUAL	No Premium	6,868	\$6,330.57	\$319.31	\$5,989.09	\$3.06	\$15.01	
		Premium	5,862	\$4,276.37	\$368.91	\$3,886.79	\$2.07	\$15.80	
	MEDICAID	No Premium	1,691	\$7,459.30	\$1,209.65	\$6,223.13	\$3.49	\$14.29	
		Premium	559	\$4,430.92	\$1,087.99	\$3,328.62	\$1.24	\$6.11	

Table 8.

Comparison of Hospital Utilization Characteristics of the MBIWD enrolled population with a Comparison Group of Medicaid Disabled Eligible Adult Population for Eligibility in SFY 2009 - SFY 2010

Eligibility Group	Hospital Visits per 1000 Member Years			
	Inpatient		Emergency Department	
	Admissions	Ambulatory Care Sensitive Conditions	Visits	Ambulatory Care Sensitive Conditions
Comparison Group of Adult Disabled	299.1	57.6	2,322.4	271.4
MBIWD	106.0	12.9	1,032.2	93.8

Table 8a.
Comparison of the Demographic and Enrollment Characteristics of the MBIWD Enrolled Population
with a Comparison Group of Medicaid Disabled Eligible Adult Population
for Eligibility in SFY 2009 - SFY 2010

	Eligibility GE 1 month in SFY 2009 - SFY 2010			Eligibility 24 months in SFY 2009 - SFY 2010				
	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.
Number of cases	10,940	10,659			7,087	6,430		
Demographic Characteristics								
% Female	50.01%	50.29%	0.17	0.6840	49.98%	51.09%	1.66	0.1975
% age 18 to 34	21.61%	20.90%	1.61	0.2047	21.57%	20.50%	2.35	0.1251
% age 35 to 44	17.27%	17.32%	0.01	0.9199	17.48%	17.09%	0.36	0.5484
% age 45 to 64	61.12%	61.78%	0.98	0.3232	60.94%	62.41%	3.07	0.0796
% Hispanic	2.97%	2.73%	1.13	0.2881	2.95%	2.75%	0.47	0.4937
% White	70.41%	69.95%	0.55	0.4569	70.45%	69.86%	0.57	0.4518
% Black	28.31%	28.76%	0.53	0.4679	28.25%	28.86%	0.63	0.4285
% Married	13.76%	14.26%	1.14	0.2865	13.81%	14.37%	0.86	0.1353
% Divorced	18.34%	18.16%	0.11	0.7416	18.17%	18.32%	0.05	0.8260
% Single	55.68%	54.88%	1.37	0.2411	55.82%	54.65%	1.87	0.1717
Enrollment Characteristics								
% living in A Long-Term Care Institution	5.28%	5.36%	0.06	0.8096	5.39%	5.58%	0.24	0.6224
% Waiver participants	6.69%	6.60%	0.08	0.7777	6.67%	6.52%	0.14	0.7120
% Medicaid Eligible	24.60%	24.81%	0.14	0.7117	24.30%	24.98%	0.84	0.3604

Table 8b.

Comparison of the Clinical Characteristics of the MBIWD Enrolled Population with a Comparison Group of Medicaid Disabled Eligible Adult Population for Eligibility in SFY 2009 - SFY 2010

	Eligibility GE 1 month in SFY 2009 - SFY 2010				Eligibility 24 months in SFY 2009 - SFY 2010					
	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Odds ratio	95% WALD Confidence Limits
Number of cases	10,940	10,659			7,087	6,430				
Percent of the Population with at least 2 visits with a Health Care Practitioner for the following chronic physical health conditions										
Arthropaties or Joint Disorders	31.36%	43.39%	334.01	0.0001	32.68%	49.66%	402.48	0.0001	0.49	0.46 0.53
Asthma	6.22%	9.04%	61.41	0.0001	6.84%	11.04%	73.73	0.0001	0.59	0.53 0.67
Cerebral Palsy	2.68%	1.24%	58.02	0.0001	3.77%	1.87%	43.81	0.0001	2.06	1.66 2.56
Diabetes	15.03%	22.94%	220.15	0.0001	15.44%	25.85%	225.11	0.0001	0.52	0.48 0.57
Epilepsy	7.73%	6.04%	24.04	0.0001	9.92%	7.74%	19.69	0.0001	1.31	1.16 1.48
Head or Spinal Cord Injuries	7.29%	12.28%	153.1	0.0001	7.76%	13.37%	113.73	0.0001	0.55	0.49 0.61
Hypertension	22.23%	33.23%	326.47	0.0001	23.41%	38.71%	371.03	0.0001	0.48	0.45 0.52
Nutritional Disorders	17.17%	20.86%	48.05	0.0001	19.25%	25.49%	76.04	0.0001	0.70	0.64 0.76
Osteoarthritis	11.38%	21.21%	383.81	0.0001	11.13%	24.88%	438.07	0.0001	0.38	0.35 0.42
Renal Failure	4.10%	7.98%	144.44	0.0001	3.83%	7.95%	105.15	0.0001	0.46	0.40 0.54
Respiratory Disorders not elsewhere classified	27.47%	45.12%	728.31	0.0001	27.13%	47.03%	575.08	0.0001	0.42	0.39 0.45
Spinal and back Disorders	17.29%	30.52%	521.11	0.0001	16.99%	34.49%	546.20	0.0001	0.39	0.36 0.42
Percent of the Population with at least 2 visits with a Health Care Practitioner for a Developmental Disability										
Developmental Disability	45.46%	10.33%	3295.8	0.0001	57.49%	14.63%	2652.4	0.0001	7.89	7.25 8.58
Percent of the Population with at least 2 visits with a Health Care Practitioner for a Mental Health Condition										
Bipolar	13.68%	12.78%	3.8569	0.0495	13.84%	13.36%	0.67	0.4135	1.04	0.94 1.15
Depression	20.15%	23.68%	39.42	0.0001	20.63%	25.47%	44.77	0.0001	0.76	0.70 0.82
Neuroses	9.20%	8.42%	3.99	0.0458	10.40%	9.67%	1.96	0.161	1.08	0.97 1.21
Schizophrenia	12.85%	11.10%	15.73	0.0001	13.87%	12.80%	3.34	0.0676	1.10	0.99 1.21
Psychoses	9.23%	9.59%	0.8027	0.3703	10.63%	10.51%	0.04	0.8327	1.01	0.91 1.13

Table 8c.
Comparison of the Clinical Characteristics of the MBIWD Enrolled Population with a Comparison Group of Medicaid Disabled Eligible Adult Population for Eligibility in SFY 2009 - SFY 2010

	Eligibility GE 1 month in SFY 2009 - SFY 2010				Eligibility 24 months in SFY 2009 - SFY 2010					
	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Odds ratio	95% WALD Confidence Limits
Number of cases	10,940	10,659			7,087	6,430				
Percent of the Population by Number of chronic physical health conditions										
No Physical Health Chronic Conditions	30.38%	19.95%	378.98	0.0001	28.22%	15.26%	329.60	0.0001	2.18	2.01 2.38
1 Physical Health Chronic Condition	25.18%	19.00%	119.84	0.0001	25.29%	16.14%	170.23	0.0001	1.76	1.61 1.92
2 Physical Health Chronic Conditions	17.06%	16.39%	1.723	0.1893	17.79%	15.69%	10.65	0.0011	1.16	1.06 1.27
3 Physical Health Chronic Conditions	12.01%	15.10%	43.89	0.0001	12.13%	15.89%	39.75	0.0001	0.73	0.66 0.81
4+ Physical Health Chronic Conditions	15.37%	30.37%	707.17	0.0001	16.57%	37.01%	727.39	0.0001	0.34	0.31 0.37
Percent of the Population by Number of mental health conditions										
No Mental Health Chronic Conditions	54.95%	55.37%	0.3791	0.5381	52.79%	51.88%	1.11	0.2928	1.04	0.97 1.11
1 Physical Health Chronic Condition	30.56%	29.59%	2.403	0.1211	31.35%	31.18%	0.05	0.8302	1.01	0.94 1.08
2 Physical Health Chronic Conditions	10.27%	10.55%	0.4545	0.5002	11.23%	11.80%	1.08	0.2977	0.95	0.85 1.05
3 Physical Health Chronic Conditions	3.14%	3.28%	0.3363	0.562	3.34%	3.75%	1.61	0.2042	0.89	0.74 1.07
4+ Physical Health Chronic Conditions	1.07%	1.20%	0.8311	0.3619	1.28%	1.38%	0.26	0.6121	0.93	0.69 1.24

Table 8d.

Comparison of Health Care Service Utilization characteristics of the MBIWD enrolled population with a Comparison Group of Medicaid Disabled Eligible Adult Population for Eligibility in SFY 2009 - SFY 2010

	Eligibility GE 1 month in SFY 2009 - SFY 2010			Eligibility 24 months in SFY 2009 - SFY 2010				
	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.	Medicaid Buy-In	Disabled Comparison Group	Chi Sq	Prob.
Number of cases	10,940	10,659			7,087	6,430		
Hospital Utilization: % with at least one								
Hospital Admission	15.59%	29.97%	636.61	0.0001	13.79%	28.10%	422.53	0.0001
Admission for an Ambulatory Care Sensitive Condition	2.38%	6.80%	242.9	0.0001	2.14%	6.58%	162.7	0.0001
Emergency Department Visit	55.03%	67.84%	373.73	0.0001	56.05%	70.59%	305.84	0.0001
ED Visit for an Ambulatory Care Sensitive Condition	12.38%	21.02%	290.4514	0.0001	12.71%	23.06%	248.625	0.0001
Ambulatory Care Utilization: % with at least one								
Primary Care Visit	74.58%	72.31%	14.2	0.0002	79.13%	80.39%	3.3	0.0692
Dental Care Visit	53.54%	40.57%	364.52	0.0001	62.62%	48.44%	274.83	0.0001
Preventive Health Service: % with at least one								
Pneumococcal vaccination	11.94%	10.45%	11.99	0.0005	14.01%	12.99%	3.037	0.0816
Influenza vaccination	23.11%	21.14%	12.16	0.0005	28.39%	27.22%	2.3127	0.1283
Hepatitis B vaccination	10.57%	8.80%	19.25	0.0001	12.56%	10.89%	9.0774	0.0026
Cholesterol screen	24.84%	36.89%	367.53	0.0001	24.13%	42.41%	510.99	0.0001
Colorectal screen	3.10%	2.84%	1.2273	0.2679	3.51%	3.50%	0.002	0.9641
Breast cancer screen (women 40 years and over)	14.80%	13.70%	1.9328	0.1644	16.99%	18.19%	1.2475	0.2640

Table 9. % of Persons Age 19-64 Reporting a Disability by PUMA Region in Ohio

Category	Percent	SE	LCL @ .90	UCL @ .90	Count	SE Count	LCL Count	UCL Count	Deff
Reporting a Disability									
All Ohio	11.75%	0.09%	11.60%	11.90%	822,584	6,733	811,510	833,658	1.810
PUMA 10	11.24%	0.41%	10.57%	11.91%	32,893	1,303	30,750	35,036	1.579
PUMA 20	12.04%	0.41%	11.37%	12.71%	45,296	1,679	42,534	48,058	1.906
PUMA 30	12.69%	0.45%	11.95%	13.43%	36,428	1,438	34,063	38,793	1.736
PUMA 40	11.01%	0.42%	10.32%	11.70%	31,692	1,296	29,561	33,823	1.620
PUMA 50	10.83%	0.42%	10.14%	11.53%	30,887	1,308	28,736	33,038	1.694
PUMA 61	8.83%	0.40%	8.17%	9.50%	26,302	1,295	24,171	28,433	1.950
PUMA 62	18.77%	0.61%	17.77%	19.77%	46,486	1,727	43,645	49,327	1.966
PUMA 63	9.80%	0.49%	8.99%	10.61%	22,354	1,201	20,379	24,329	1.971
PUMA 70	9.95%	0.45%	9.21%	10.68%	25,252	1,232	23,226	27,278	1.837
PUMA 80	12.97%	0.48%	12.18%	13.76%	34,647	1,408	32,331	36,963	1.751
PUMA 90	10.00%	0.34%	9.44%	10.55%	43,313	1,564	40,741	45,885	1.729
PUMA 100	11.70%	0.50%	10.88%	12.52%	28,258	1,313	26,098	30,418	1.866
PUMA 110	13.63%	0.50%	12.80%	14.46%	32,331	1,308	30,179	34,483	1.619
PUMA 120	16.24%	0.53%	15.37%	17.11%	48,070	1,767	45,164	50,976	1.989
PUMA 130	9.99%	0.34%	9.42%	10.55%	38,464	1,409	36,146	40,782	1.580
PUMA 141	8.01%	0.36%	7.41%	8.60%	28,348	1,362	26,107	30,589	2.002
PUMA 142	12.57%	0.41%	11.89%	13.25%	49,162	1,760	46,268	52,056	1.929
PUMA 150	12.05%	0.41%	11.37%	12.73%	39,317	1,478	36,886	41,748	1.701
PUMA 160	13.19%	0.47%	12.43%	13.96%	42,775	1,666	40,034	45,516	1.988
PUMA 171	9.46%	0.36%	8.87%	10.06%	40,001	1,646	37,293	42,709	2.074
PUMA 172	17.10%	0.55%	16.19%	18.02%	47,382	1,770	44,470	50,294	2.026
PUMA 180	10.78%	0.34%	10.22%	11.34%	52,926	1,794	49,975	55,877	1.864
Cuyahoga County	12.30%	0.29%	11.82%	12.78%	95,142	2,463	91,091	99,193	1.961
Franklin County	10.40%	0.28%	9.95%	10.86%	77,510	2,221	73,856	81,164	1.955
Hamilton County	10.78%	0.34%	10.22%	11.34%	52,926	1,794	49,975	55,877	1.864
Montgomery County	13.19%	0.47%	12.43%	13.96%	42,775	1,666	40,034	45,516	1.988

SE=Standard Error LCL=Lower Confidence Interval Deff=Design Effect

Table 10. % of Persons Age 19 to 64 With a Disability Reported Working by PUMA Region in Ohio

Category	Percent	SE	LCL @ .90	UCL @ .90	Count	SE Count	LCL Count	UCL Count	Deff
Reporting working if disabled									
All Ohio	33.85%	0.37%	33.23%	34.46%	278,440	3,639	272,454	284,426	1.839
PUMA 10	35.70%	1.75%	32.83%	38.58%	11,744	734	10,536	12,952	1.477
PUMA 20	35.80%	1.64%	33.11%	38.50%	16,217	955	14,646	17,788	1.814
PUMA 30	34.29%	1.71%	31.47%	37.11%	12,491	759	11,242	13,740	1.485
PUMA 40	36.82%	1.81%	33.84%	39.80%	11,669	766	10,408	12,930	1.619
PUMA 50	39.51%	1.94%	36.31%	42.70%	12,203	827	10,842	13,564	1.805
PUMA 61	41.73%	2.25%	38.03%	45.44%	10,977	778	9,697	12,257	1.773
PUMA 62	26.26%	1.52%	23.77%	28.76%	12,209	861	10,792	13,626	1.954
PUMA 63	40.26%	2.58%	36.02%	44.51%	9,000	810	7,667	10,333	2.341
PUMA 70	36.77%	2.19%	33.18%	40.37%	9,286	719	8,104	10,468	1.786
PUMA 80	31.38%	1.77%	28.46%	34.29%	10,871	755	9,630	12,112	1.684
PUMA 90	33.53%	1.59%	30.91%	36.14%	14,521	848	13,126	15,916	1.596
PUMA 100	32.30%	1.94%	29.11%	35.48%	9,126	678	8,011	10,241	1.616
PUMA 110	29.79%	1.72%	26.97%	32.61%	9,631	675	8,521	10,741	1.518
PUMA 120	26.78%	1.36%	24.54%	29.01%	12,872	750	11,638	14,106	1.408
PUMA 130	33.83%	1.62%	31.17%	36.49%	13,013	774	11,740	14,286	1.481
PUMA 141	51.03%	2.24%	47.35%	54.72%	14,467	980	12,854	16,080	2.141
PUMA 142	31.63%	1.51%	29.15%	34.12%	15,552	918	14,043	17,061	1.745
PUMA 150	37.35%	1.69%	34.56%	40.14%	14,685	866	13,261	16,109	1.645
PUMA 160	34.16%	1.74%	31.31%	37.02%	14,613	920	13,100	16,126	1.867
PUMA 171	34.89%	1.78%	31.97%	37.81%	13,956	899	12,476	15,436	1.867
PUMA 172	25.09%	1.44%	22.71%	27.47%	11,888	801	10,570	13,206	1.737
PUMA 180	32.97%	1.47%	30.55%	35.38%	17,449	970	15,854	19,044	1.739
Cuyahoga County	33.83%	1.16%	31.93%	35.73%	32,186	1,410	29,867	34,505	2.012
Franklin County	38.73%	1.30%	36.59%	40.87%	30,019	1,339	27,817	32,221	1.943
Hamilton County	32.97%	1.47%	30.55%	35.38%	17,449	970	15,854	19,044	1.739
Montgomery County	34.16%	1.74%	31.31%	37.02%	14,613	920	13,100	16,126	1.867

SE=Standard Error LCL=Lower Confidence Interval Deff=Design Effect

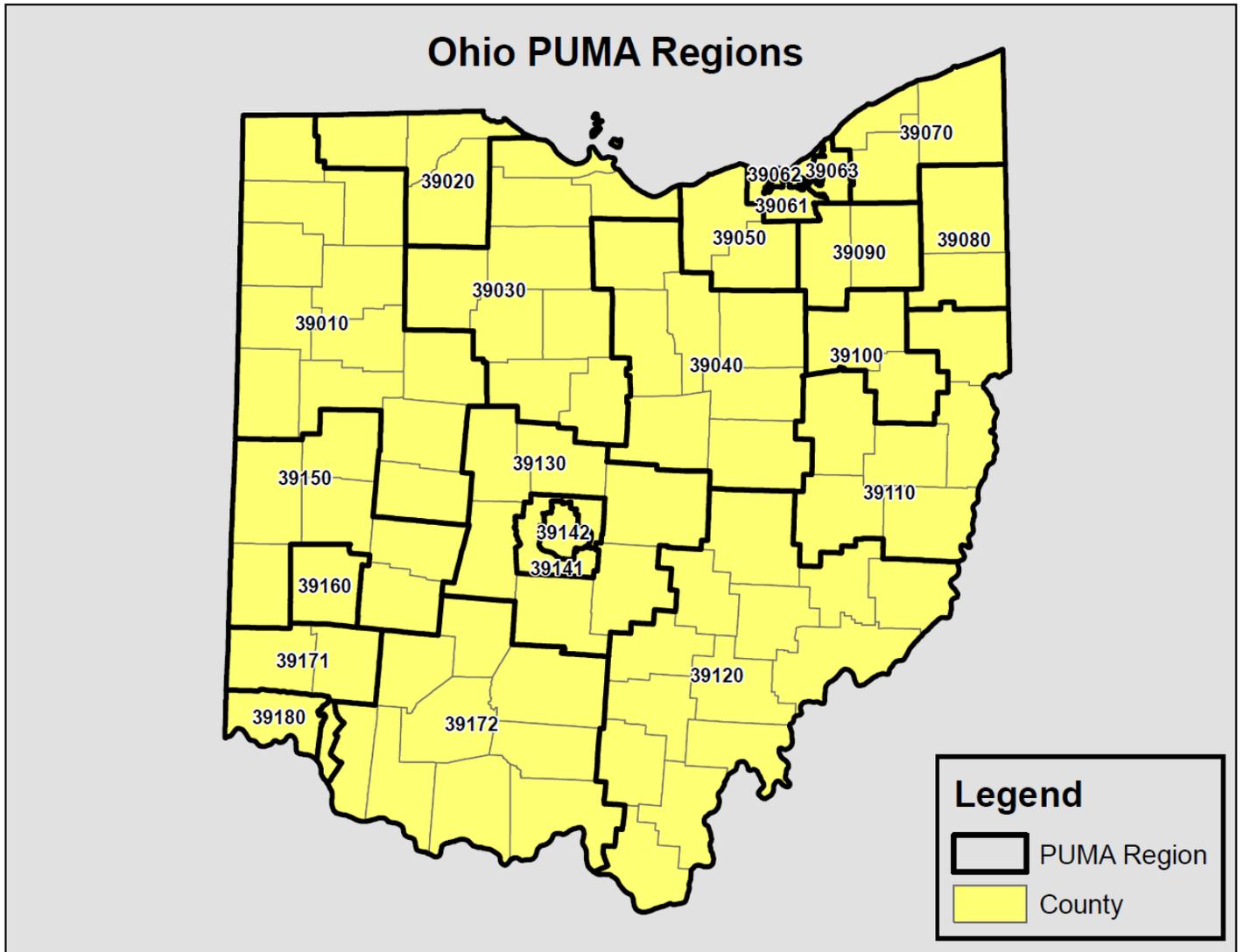
Table 11. % of Persons Age 18-64 With a Disability Enrolled in Medicaid by Puma Region in Ohio

Category	Percent	SE	LCL @ .90	UCL @ .90	Count	SE Count	LCL Count	UCL Count	Deff
Reporting being Medicaid enrolled if disabled									
All Ohio	33.37%	0.39%	32.73%	34.01%	274,513	3,833	268,209	280,817	2.063
PUMA 10	30.57%	1.74%	27.72%	33.43%	10,057	711	8,888	11,226	1.613
PUMA 20	35.37%	1.67%	32.62%	38.12%	16,022	946	14,467	17,577	1.800
PUMA 30	30.15%	1.83%	27.15%	33.16%	10,984	843	9,598	12,370	2.079
PUMA 40	31.57%	1.73%	28.72%	34.42%	10,006	678	8,891	11,121	1.476
PUMA 50	30.50%	1.82%	27.51%	33.50%	9,422	687	8,291	10,553	1.610
PUMA 61	23.73%	2.01%	20.42%	27.03%	6,241	600	5,253	7,229	1.852
PUMA 62	46.28%	1.73%	43.43%	49.13%	21,514	1,104	19,698	23,330	1.834
PUMA 63	33.40%	2.57%	29.17%	37.63%	7,466	767	6,204	8,728	2.529
PUMA 70	29.42%	2.16%	25.87%	32.98%	7,430	654	6,354	8,506	1.847
PUMA 80	34.49%	1.85%	31.44%	37.53%	11,949	828	10,588	13,310	1.844
PUMA 90	32.64%	1.63%	29.96%	35.32%	14,139	898	12,662	15,616	1.838
PUMA 100	36.04%	2.15%	32.50%	39.58%	10,185	792	8,882	11,488	1.981
PUMA 110	35.88%	1.86%	32.82%	38.95%	11,601	765	10,342	12,860	1.624
PUMA 120	41.42%	1.77%	38.50%	44.33%	19,909	1,199	17,936	21,882	2.336
PUMA 130	26.50%	1.60%	23.86%	29.14%	10,193	754	8,953	11,433	1.791
PUMA 141	21.84%	1.90%	18.71%	24.98%	6,192	620	5,173	7,211	1.987
PUMA 142	36.68%	1.61%	34.04%	39.33%	18,035	1,010	16,373	19,697	1.828
PUMA 150	31.28%	1.73%	28.43%	34.12%	12,298	870	10,868	13,728	1.978
PUMA 160	35.00%	1.81%	32.03%	37.97%	14,973	1,000	13,328	16,618	2.153
PUMA 171	24.74%	1.69%	21.97%	27.52%	9,897	785	8,606	11,188	2.000
PUMA 172	39.48%	1.68%	36.71%	42.25%	18,707	1,121	16,863	20,551	2.170
PUMA 180	32.67%	1.50%	30.20%	35.15%	17,293	991	15,663	18,923	1.832
Cuyahoga County	37.02%	1.20%	35.05%	38.99%	35,221	1,467	32,808	37,634	1.995
Franklin County	31.26%	1.25%	29.20%	33.31%	24,227	1,183	22,281	26,173	1.873
Hamilton County	32.67%	1.50%	30.20%	35.15%	17,293	991	15,663	18,923	1.832
Montgomery County	35.00%	1.81%	32.03%	37.97%	14,973	1,000	13,328	16,618	2.153
SE=Standard Error LCL=Lower Confidence Interval Deff=Design Effect									

Table 12. % of Disabled Adults Age 19 to 64 Medicaid Enrolled and Working by PUMA Region in Ohio

Category	Percent	SE	LCL @ .90	UCL @ .90	Count	SE Count	LCL Count	UCL Count	Deff
Reporting working if Medicaid Enrolled and disabled									
All Ohio	15.31%	0.52%	14.46%	16.16%	42,021	1,526	39,511	44,531	1,849
PUMA 10	17.05%	2.55%	12.86%	21.25%	1,715	285	1,246	2,184	1,452
PUMA 20	16.95%	2.29%	13.18%	20.71%	2,715	410	2,040	3,390	1,905
PUMA 30	19.51%	2.69%	15.09%	23.93%	2,143	330	1,601	2,685	1,556
PUMA 40	21.56%	2.80%	16.95%	26.17%	2,157	328	1,617	2,697	1,532
PUMA 50	15.09%	2.51%	10.96%	19.22%	1,422	257	999	1,845	1,422
PUMA 61	19.58%	3.69%	13.51%	25.65%	1,222	254	804	1,640	1,615
PUMA 62	13.63%	1.85%	10.59%	16.67%	2,932	438	2,212	3,652	2,007
PUMA 63	30.23%	5.69%	20.87%	39.59%	2,257	569	1,321	3,193	4,407
PUMA 70	12.30%	2.48%	8.23%	16.38%	914	196	591	1,237	1,288
PUMA 80	16.14%	2.48%	12.06%	20.23%	1,929	328	1,390	2,468	1,707
PUMA 90	16.41%	2.06%	13.02%	19.80%	2,320	318	1,797	2,843	1,340
PUMA 100	19.37%	2.76%	14.84%	23.91%	1,973	314	1,457	2,489	1,529
PUMA 110	12.65%	1.94%	9.47%	15.84%	1,468	244	1,067	1,869	1,238
PUMA 120	10.71%	1.44%	8.35%	13.08%	2,133	305	1,631	2,635	1,341
PUMA 130	12.65%	2.33%	8.81%	16.48%	1,289	253	873	1,705	1,524
PUMA 141	27.92%	4.38%	20.72%	35.12%	1,729	335	1,178	2,280	1,991
PUMA 142	12.96%	1.83%	9.95%	15.98%	2,338	359	1,748	2,928	1,692
PUMA 150	15.99%	2.53%	11.83%	20.16%	1,967	347	1,397	2,537	1,874
PUMA 160	12.31%	1.91%	9.17%	15.45%	1,843	301	1,349	2,337	1,503
PUMA 171	14.64%	2.78%	10.07%	19.21%	1,449	303	951	1,947	1,941
PUMA 172	9.06%	1.61%	6.41%	11.70%	1,694	324	1,160	2,228	1,905
PUMA 180	13.95%	1.97%	10.71%	17.18%	2,412	368	1,807	3,017	1,722
Cuyahoga County	18.20%	1.87%	15.12%	21.28%	6,411	760	5,160	7,662	2,791
Franklin County	16.79%	1.81%	13.82%	19.76%	4,067	490	3,260	4,874	1,822
Hamilton County	13.95%	1.97%	10.71%	17.18%	2,412	368	1,807	3,017	1,722
Montgomery County	12.31%	1.91%	9.17%	15.45%	1,843	301	1,349	2,337	1,503

SE=Standard Error LCL=Lower Confidence Interval Deff=Design Effect



Appendix 2.

MBIWD Model – Likelihood of Having at Least One Hospital Admission in the Study Period.

Summary

We used logistic regression to build a prediction model for inpatient hospital admission for a Medicaid buy-in sample (n=7087) as well as a comparison group (n=6429). Purposeful forward selection was used to select variables in the model. Significant predictors of inpatient hospital admission used in the model were age, the number of physical conditions, the number of mental health conditions, cholesterol screening, breast cancer screening, schizophrenia, psychoses, spinal back disorder, renal failure, developmental disability, respiratory distress not otherwise classified, and epilepsy.

Those in the buy-in group were found to have significantly less odds of hospital admission than the comparison group even after controlling for relevant covariates. Having a cholesterol screen and renal failure both acted as effect modifiers of group (MBIWD vs. Comparison). This indicates that the associations between cholesterol screen and renal failure, and the outcome variable, inpatient hospital admission, differed between the MBIWD group and the comparison group. The odds of inpatient hospital admission for a person in the MBIWD group without a cholesterol screen or renal failure were 38% lower (OR = 0.62) than the odds of inpatient hospital admission from the comparison group. The odds of admission were 17% percent lower (OR=0.83), 56% lower (OR=0.44), and 41% lower (OR=0.59) for someone from the MBIWD group compared to the comparison group with a cholesterol screen, with renal failure, and with both a cholesterol screen and renal failure respectively.

Model Building

We used purposeful forward selection to create a logistic regression model to predict inpatient hospital admission. We considered 13 specific physical conditions, 4 specific mental health conditions, and 10 prevention indicator variables as well as the demographic variables age, race-ethnicity, marital status, LTC institution, and waiver participation.

Final Model

The number of physical conditions was coded as 0,1,2,3,4,5, or 6 or more. The number of mental health conditions was coded as 0,1,2, or 3 or more. The number of physical conditions was modeled as a continuous variable after being found as linear in the logit, and the number of mental health conditions was modeled as a categorical variable.

Model Diagnostics

Using the Hosmer-Lemeshow test for lack of fit we failed to find a lack of fit in our model. We also checked the model for outliers, unusual residuals, and large leverage values.

Hosmer-Lemeshow Lack of Fit Test

number of observations	=	13516
number of groups	=	10
Hosmer-Lemeshow chi2(8)	=	5.74
Prob > chi2	=	0.6763

The area under the ROC curve is 0.7829 indicating good discrimination for the model.

Table 13. Demographic and Outcome Group Characteristics

Variable	MBIWD (n=7087)		COMPARISON (n=6429)	
	Count	%	Count	%
Female	3,545	50.0	3,542	50.0
<i>Age Group</i>				
Age 18-34	1,529	21.6	1,317	20.5
Age 35-44	1,239	17.5	1,099	17.1
Age 45-64	4,319	60.9	4,013	62.4
<i>Race Ethnicity</i>				
Black Non-Hispanic	1,991	28.1	1,843	28.7
Hispanic	209	3.0	177	2.8
Other	52	0.7	49	0.8
White Non-Hispanic	4,835	68.2	4,360	67.8
<i>Marital Status</i>				
Married	979	13.8	924	14.4
Single	4,142	58.5	3,685	57.3
Divorced/Separated	1,782	25.1	1,670	26.0
Missing	184	2.6	150	2.3
LTC Institution	382	5.4	359	5.6
Waiver Participation	473	6.7	419	6.5
Inpatient Hospital Admission (Outcome)	977	13.79	1,086	28.09

Table 14. Specific Chronic Physical Health Conditions Group Characteristics

Variable	MBIWD (n=7087)		COMPARISON (n=6429)	
	Count	%	Count	%
Arthropathies/Joint Disorder NEC	2,316	32.7	3,192	49.7
Asthma	485	6.8	710	11.0
Cerebral Palsy	267	3.8	120	1.9
Developmental Disability	4,074	57.5	941	14.6
Diabetes	1,094	15.4	1,661	25.8
Epilepsy	703	9.9	498	7.8
Head Spinal Cord Injury	550	7.8	860	13.4
Hypertension	1,659	23.4	2,488	38.7
Nutritional Disorders NEC	1,364	19.3	1,639	25.5
Osteoarthritis	789	11.1	1,600	24.9
Renal Failure	271	3.8	510	7.9
Respiratory Distress NEC	1,923	27.1	3,023	47.0
Spinal Back Disorder	1,204	17.0	2,218	34.5
<i>Total Number of Chronic Physical Health Conditions</i>				
0	660	9.3	698	10.9
1	1,945	27.4	1,081	16.8
2	1,713	24.2	1,064	16.6
3	1,174	16.6	1,104	17.2
4	766	10.8	910	14.2
5	432	6.1	706	11.0
6 or more	397	5.6	866	13.5

Table 15. Specific Mental Health Conditions and Prevention Indicators Group Characteristics

Variable	MBIWD (n=7087)		COMPARISON (n=6429)	
	Count	%	Count	%
Bipolar	981	13.8	859	13.4
Depression	1,462	20.6	1,637	25.5
Neuroses	737	10.4	622	9.7
Schizophrenia	983	13.9	823	12.8
Psychoses	753	10.6	676	10.5
<i>Total Number Mental Health Conditions</i>				
0	3,741	52.8	3,336	51.9
1	2,222	31.4	2,004	31.2
2	796	11.2	759	11.8
3 or more	328	4.6	330	5.1
<i>Total Number of Prevention Indicators</i>				
Pneumococcal	993	14.0	835	13.0
Influenza	2,012	28.4	1,750	27.2
HIV Screen	5	0.1	12	0.2
Hep B Vaccine	890	12.6	700	10.9
Cholesterol Screen	1,710	24.1	2,726	42.4
Obesity Screen	61	0.9	26	0.4
Tobacco Screen	54	0.7	84	1.3
Alcohol Sub Screen	1	0.0	3	0.1
Colorectal screen	115	3.4	111	3.6
Breast Cancer Screen	298	16.8	299	17.8
<i>Total Number of Prevention Indicators</i>				
0	3,378	47.7	2,459	38.3
1	1,915	27.0	2,018	31.4
2	705	10.0	939	14.6
3 or more	1,089	15.4	1,013	15.8

Table 16. Logistic Model Coefficients

Variable	Coef.	Std. Err.	z	P>z	95% LCB	95% UCB
Age	0.004119	0.001854	2.22	0.026	0.000485	0.007753
Cholesterol Screen	0.013621	0.063289	0.22	0.83	-0.11042	0.137664
Breast Cancer Screen	-0.22367	0.061617	-3.63	0	-0.34444	-0.1029
<i>Number of Mental Health Conditions</i>						
1	0.063174	0.058191	1.09	0.278	-0.05088	0.177226
2	0.483203	0.081449	5.93	0	0.323565	0.64284
3 or more	1.321214	0.11919	11.08	0	1.087607	1.554822
Schizophrenia	0.202586	0.074628	2.71	0.007	0.056319	0.348853
Psychoses	0.210748	0.085573	2.46	0.014	0.043028	0.378467
Number of Chronic Physical Health Conditions	0.239124	0.022166	10.79	0	0.195679	0.282568
Spinal Back Disorder	-0.24543	0.065013	-3.78	0	-0.37285	-0.118
Renal Failure	0.696325	0.104546	6.66	0	0.49142	0.901231
Developmental Disability	-1.02101	0.13043	-7.83	0	-1.27665	-0.76537
Developmental Disability * Number of Chronic Physical Health Conditions	0.090911	0.035362	2.57	0.01	0.021603	0.160219
Respiratory Distress NEC	0.820382	0.060296	13.61	0	0.702205	0.93856
Epilepsy	0.44585	0.082451	5.41	0	0.28425	0.60745
MBIWD Group	-0.47931	0.067219	-7.13	0	-0.61105	-0.34756
MBIWD Group * Cholesterol Screen	0.295485	0.100101	2.95	0.003	0.099292	0.491679
MBIWD Group * Renal Failure	-0.34581	0.175433	-1.97	0.049	-0.68965	-0.00197
Constant	-2.44534	0.107447	-22.76	0	-2.65593	-2.23474

Table 17 Adjusted Odds Ratios

Variable	OR ESTIMATE	95% LCB	95% UCB
10 Year Increase in Age	1.042048	1.004863	1.080609
Cholesterol Screen (MBIWD Group)	1.362207	1.164429	1.593577
Cholesterol Screen (Comparison Group)	1.013714	0.895456	1.14759
Breast Cancer Screen	0.799578	0.708618	0.902214
<i>Number Mental Health Conditions (vs. 0)</i>			
1	1.065212	0.950395	1.193901
2	1.621259	1.382046	1.901875
3 or more	3.74797	2.967164	4.734243
Schizophrenia	1.224566	1.057935	1.417441
Psychoses	1.234601	1.043967	1.460045
Increase of 1 Chronic Physical Health Conditions (w/o DD)	1.270136	1.216137	1.326532
Increase of 1 Chronic Physical Health Conditions (w/ DD)	1.391016	1.297426	1.491357
Spinal Back Disorder	0.782371	0.68877	0.888693
Renal Failure (MBIWD Group)	1.419795	1.064127	1.894338
Renal Failure (Comparison Group)	2.006366	1.634635	2.462631
Respiratory Distress NEC	2.271368	2.018198	2.556297
Epilepsy	1.561817	1.328765	1.835745
MBIWD Group vs. Comparison (w/o CS and w/o RF)	0.619212	0.542779	0.706408
MBIWD Group vs. Comparison (w/ CS and w/o RF)	0.83	0.7073499	0.9788117
MBIWD Group vs. Comparison (w/o CS and w/RF)	0.438182	0.3108069	0.6177581
MBIWD Group vs. Comparison (w CS and w/RF)	0.5888195	0.4167527	0.8319284

Figure 21 Adjusted Odds Ratios and 95% CI's Covariates

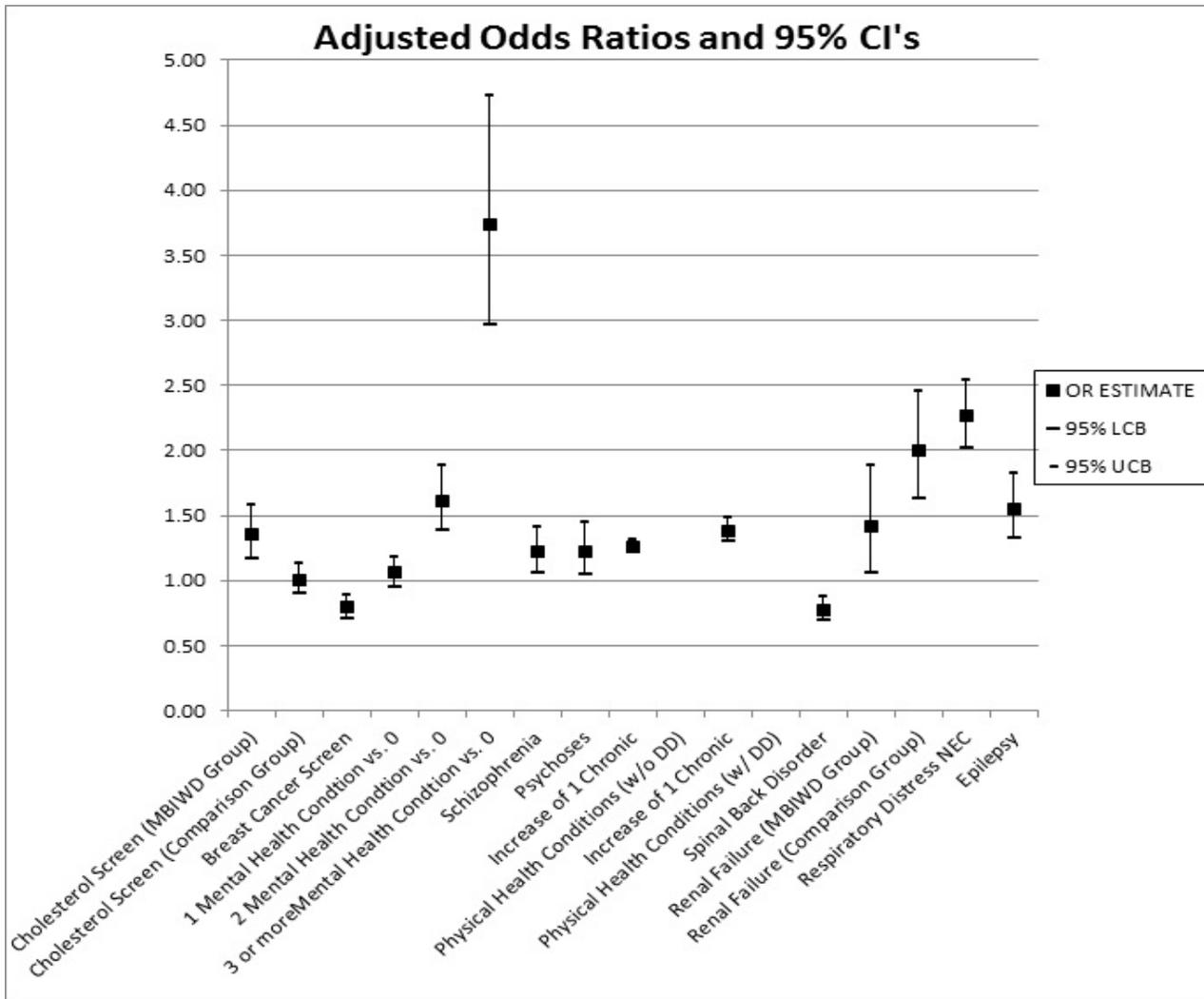
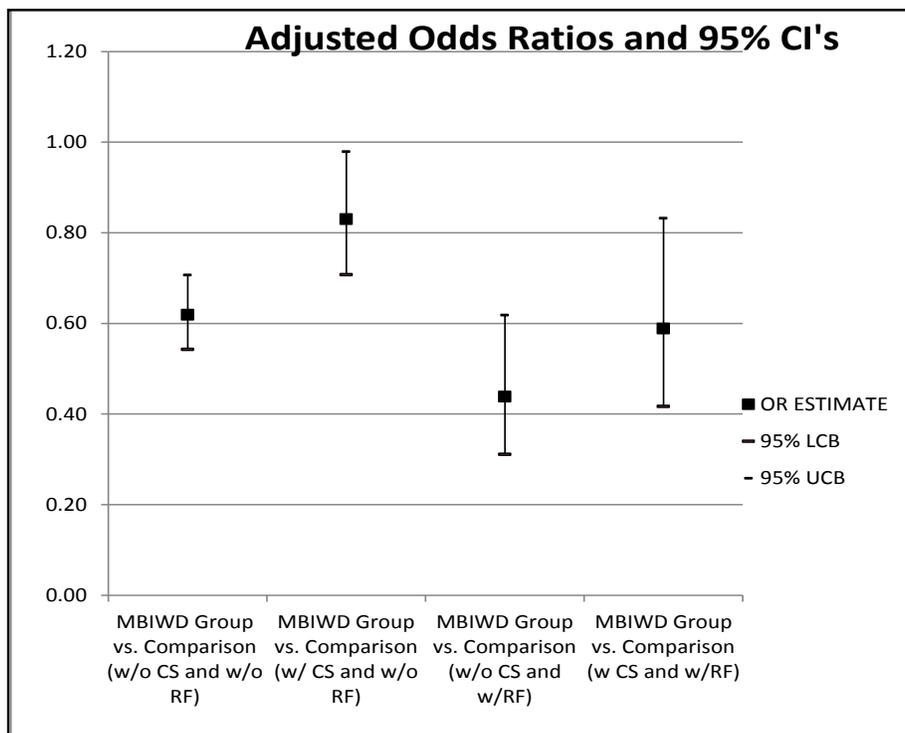


Figure 22. Adjusted Odds Ratios and 95% CI's Group Comparisons



Appendix 3.

Predictive Model of the Likelihood of a Disabled Adult Working

We used logistic regression to build a model to compare the impact of Medicaid on disabled adults that work. We created a predictive model of the likelihood that disabled adult would be working on a variety of socio-economic factors. SAS statistical software was used to prepare the model. Forward and backward selection was initially used in determining the final variables to be used in the model. The data used for this model was from a simple random sample (SRS) of 10% the 2008-2010 American Communities Survey data. A SRS was chosen because of the large amount of data there was.

ACS Variables were recoded as follows.

```
if HINS4=1 then Medicaid=1; else Medicaid=0
if SEX=1 then Male=1; Male=0
if SEX=0 then Female=1; else Female=0
if SCHL le 12 then NOHSD=1; else NOHSD=0
if SCHL in:(16,17) then HSD=1; else HSD=0
if SCHL ge 18 and SCHL le 24 then College=1; else College=0
if MAR=1 then Married=1; else Married=0
if MAR ne 1 then Unmarried=1; else Unmarried=0
if RAC1P=1 then White=1; else White=0
if RAC1P=2 then Black=1; else Black=0
if RAC1P=6 then Asian=1; else Asian=0
if AGEP le 39 and AGEP ge 19 then do young1939=1; else young1939=0
if AGEP le 59 and AGEP ge 40 then do mid4059=1; else mid4059=0
if AGEP le 64 and AGEP ge 60 then do old6064=1; else old6064=0
if POVPIP le 100 then fpl100=1; else fpl100=0
if RAC1P not in:(1,2,6) then Other=1; else Other=0
if DIS=1 then Disability=1; else Disability=0
if ESR in:(1,2,4,5) then working=1; else working=0
if Disability=1 and working=1 then WorkingDis=1; else WorkingDis=0;end;
```

A full Logit model was fit for the dependent variable WorkingDis. The following independent variables identified from the Forward and Backward selection: Medicaid, Male, HSD, Married, College, White, Mid4059, old6064, Asian, Other, fpl100.

All variables were significant due to the forward and backward selection process.

Model Diagnostics Our Wald score of 3702 shows there is little reason to suspect these variables are not associated with WorkingDis. Our Likelihood ratio test used to compare the fit of the null model and the alternative models shows that our alternative model is much more likely model than the null. With this information we can proceed to analyze the model.

The Final Model The variables Medicaid, Male, HSD, College, old6064, and Other odd's ratios and associated confidence intervals were all above 1. Meaning that for a one unit increase in one of these variables WorkingDis is estimated to increase. The variables fpl100, Asian, White, Married odd's ratios and associated confidence intervals all are less than 1 meaning for a one unit increase in anyone of these variables WorkingDis is estimated to decrease.

Table 18 Logistic Regression Output

Model Convergence Status					
Convergence criterion (GCONV=1E-8) satisfied.					
Odds Ratio Estimates					
Effect	Point Estimate	95% Wald Confidence Limits			
		LCL	UCL		
Medicaid	1.795	1.68	1.917		
Male	1.125	1.079	1.174		
HSD	1.549	1.443	1.662		
Married	0.75	0.717	0.785		
College	1.36	1.268	1.458		
White	0.904	0.842	0.97		
mid4059	2.53	2.395	2.672		
old6064	1.795	1.684	1.913		
Asian	0.692	0.559	0.855		
Other	1.232	1.057	1.435		
fpl100	0.693	0.643	0.748		
Testing Global Null Hypothesis: BETA=0					
Test	Chi-Square	DF	Pr > ChiSq		
Likelihood Ratio	4066.284	11	<.0001		
Score	4089.436	11	<.0001		
Wald	3702.018	11	<.0001		
Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-4.6007	0.0458	10093.74	<.0001
Medicaid	1	0.585005	0.058673	232.7726	<.0001
Male	1	0.117783	0.023469	151.6345	<.0001
HSD	1	0.43761	0.054082	752.8676	<.0001
Married	1	-0.28768	0.016837	132.9892	<.0001
College	1	0.307485	0.046939	473.6877	<.0001
White	1	-0.10093	0.031633	6.8531	0.0088
mid4059	1	0.928219	0.068878	1504.452	<.0001
old6064	1	0.585005	0.056633	880.0952	<.0001
Asian	1	-0.36817	0.067857	25.1138	<.0001
Other	1	0.208639	0.089286	4.7847	0.0287
fpl100	1	-0.36673	0.02551	196.2742	<.0001

Endnotes

¹The Lewin Group was retained by ODJFS to study options for designing and implementing the administrative systems necessary to operate an Ohio Buy-In program. The final report published in August 2003 estimated an overall take-up of 7,073 at full enrollment. Budgeted enrollment estimates are based upon this report.

² Steven R. Howe, “Thinking About Medicaid Buy-In Enrollment Projections for Ohio, Lessons from Other States” Report to the Ohio Developmental Disabilities Council, August 2004.

³ The Three E’s: Enrollment, Employment, and Earnings in the Medicaid Buy-In Program, 2006 Final Report, Mathematica Policy Research, Inc. April 11, 2008

⁴ Analysis of Medical Expenditures and Service Use of Medicaid Buy-In Participants, 2002 – 2005, Final Report. Mathematica Policy Research, Inc. October 29, 2009

⁵ PUMAs or Public Use Microdata Areas. See Appendix 1 for a map of Ohio PUMAs.

⁶ Note that the survey does not include questions about developmental or intellectual disabilities.

⁷ Note that the national index of MBIWD take-up is a product of these calculations: $(6369/823,000 * 10000 = 77.4)$.

⁸ Note that the tables include the %, Count, Standard Error (SE), 90% Lower and Upper Confidence intervals (LCL and UCL)

⁹ Federal Financial participation for the Community Adult Category of Medicaid (Medicaid expansion) is 100% from 2014 thru 2016, and drops to 90% by 2020. Total GRF savings for 2014 thru 2020 is \$22.4 million.

¹⁰ QMBs (Qualified Medicare Beneficiaries) and SLMBs (Special Low-Income Medicare Beneficiaries), are not eligible to receive Medicaid services because their incomes are above the Medicaid eligibility standard. However, Medicaid may pay for their Medicare Part A, Part B, and Part D premiums.

