# The Effect on Medical Care Utilization of Extending Public Insurance to Low-Income Adults without Dependent Children

#### **Abstract**

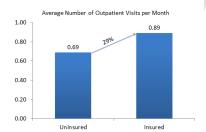
States' decisions to expand Medicaid to low-income childless adults will depend, in part, on how this coverage may affect the use of medical care. In 2009, Wisconsin created a new public insurance program for low-income uninsured childless adults. We use a case-crossover study design to analyze administrative claims data spanning 2008 and 2009 on a population of 9,619 very low income individuals who were automatically enrolled into this program. In the 12 months following enrollment into public insurance, outpatient visits increased 29% and ED visits increased 46%. Inpatient hospitalizations declined 59% as did measures of preventable hospitalization. A cost-weighted index of payments shows a 10% overall decline of expenses associated with this population. The possible benefits of a Medicaid coverage expansion are evident in the decline in hospitalizations and improvement in preventive quality indices found here. The maximum benefits from the expansion may depend on whether there exists sufficient access to primary care, which may mitigate any increase in emergency department utilization and its associated inefficiencies.

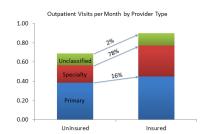
#### **Data Summary**

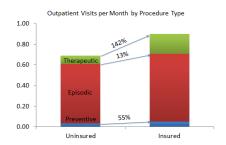
#### **Office Visits Increase**

In the 12 months following enrollment into the Core Plan, outpatient visits increased 29% (IRR 1.293, 95% CI, 1.276 - 1.310) and ED visits increased 46% (IRR 1.460, 95% CI, 1.374 - 1.552). Public insurance overage led to a large increase in outpatient office visits and visits to the ED. The increase in outpatient visits comprises both an increase in primary care visits and an increase in specialty visits, though the percentage increase in specialty visits is substantially larger. This finding is consistent with this previously uninsured population already having had some access to primary care through community health centers, but having had limited access to specialists.

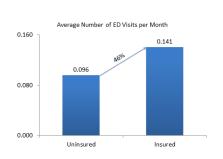
These findings support previous studies that have found that public insurance enrollment increases the use of non-hospital care. Other studies have also found that private insurance increases the use of the ED, although this finding is not universal in the literature. The finding that ED use increases once uninsured individuals gain insurance coverage could indicate insufficient access to primary care.

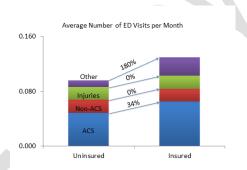






#### **Emergency Department Visits Increase**



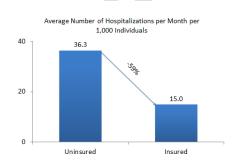


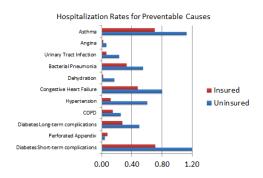
### **Hospitalizations Decrease**

Inpatient hospitalizations declined 59% (IRR 0.412, 95% CI, 0.368-0.461) as did measures of preventable hospitalization.

Public insurance coverage also led this population to have a sizeable reduction in the rate of hospitalizations. This decline may have resulted from an improvement patients' access to specialist referrals. In the absence of insurance coverage, ED physicians may have resorted to admitting patients in order to provide them specialist consultation or follow-up diagnostics. In addition, the observed decline in preventable hospitalizations – for example, admissions for hypertension – suggests that the underlying health of this population may have improved as a result of increased access to outpatient care.

Either way, this finding of a decline in hospitalization is a striking difference from that of several previous studies, which tend to find that insurance coverage leads to increased inpatient hospitalizations among young adults and children and increased hospitalizations among low-income adults.



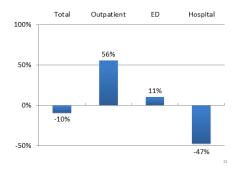


#### **Overall: Expenditures Decline**

Our analysis of expenditures, using a cost-weighted index of payments, shows a 10% overall decline of expenses associated with this population.

The 47% decrease in hospitalization expenditures drives this decrease, and more than offsets the increase outlays associated with the office visits (56% increase in expenditures) and emergency department utilization (11% increased expenditures). This finding suggests that coverage expansion may not be as expensive as might be assumed for particular populations or may even reduce costs.

Total Expenditures based on Cost-Weighted Index Weights: average expenditures per visit categorized using primary diagnosis



Conclusions: Wisconsin's insurance program for low-income childless adults led to a substantial decline in hospitalizations alongside an increase in usage of outpatient services and the ED. The benefits of such coverage expansions are evident in the decline in hospitalizations. As other states expand coverage to childless adults, achieving these benefits while avoiding increasing emergency department utilization and its associated inefficiencies will depend on there being sufficient access to primary care.

# Discussion

Introducing a Medicaid-like public insurance program to cover a low-income, uninsured childless adult population with a high prevalence of chronic illness in Wisconsin had dramatic effects on the use medical care.

Public insurance overage led to a large increase in outpatient office visits and visits to the ED. The increase in outpatient visits comprises both an increase in primary care visits and an increase in specialty visits, though the percentage increase in specialty visits is substantially larger. This finding is consistent with this previously uninsured population already having had some access to primary care through community health centers, but having had limited access to specialists. These findings support previous studies that have found that public insurance enrollment increases the use of non-hospital care. Our study is also consistent with studies that have found that private insurance increases the use of the ED, although this finding is not universal in the literature. The finding that ED use increases once uninsured individuals gain insurance coverage could indicate insufficient access to primary care.

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Either way, this finding of a decline in hospitalization is a striking difference from that of several previous studies, which tend to find that insurance coverage leads to increased inpatient hospitalizations among young adults and children and increased hospitalizations among low-income adults. While we do not examine costs in this study, this finding is especially intriguing because of the possibility that a coverage expansion may not be as expensive as previously assumed for particular populations or may even reduce costs.

Differences between our findings and those of previous studies are likely due to important differences in the characteristics of the populations studied and in the nature of the intervention. For example, other studies examine non-poor young adults, poor children, or poor adults, including both parents and childless adults who seek to enroll in public insurance and, therefore, tend to have lower rates of chronic illness than the individuals in our study.

Several features of our study make it very likely that its findings translate well into what one should expect to see from Medicaid expansions under the ACA. First, the study population is relatively low-income; even though the Core Plan was available to individuals with family incomes up to 200% FPL, those automatically enrolled had incomes up to only 125% FPL, which is close to the new income eligibility threshold that states can expand to under ACA. Second, the study population was automatically enrolled into public insurance, rather than enrolling voluntarily. This feature may more closely mimic the expansions under the ACA, which are combined with an individual coverage mandate that should substantially drive up take-up. Previous studies examine expansions in eligibility that are not coupled with a mandate, resulting in study populations who voluntarily enroll or seek to enroll.

Wisconsin's experience in covering low-income childless adults suggests that the Medicaid expansions enacted by the ACA have the potential to lead to declines in hospitalizations and increased access to outpatient office visit services along with increased utilization of the ED. The possible benefits of a Medicaid coverage expansion are evident in the decline in hospitalizations found here. Obtaining maximum benefits from the expansion, however, may depend on whether there exists sufficient access to primary care, which may mitigate any increase in emergency department utilization and its associated inefficiencies.