

FACTORS AFFECTING REDUCTION OF GENDER DIFFERENCES IN HEALTH CARE COVERAGE FOR VOCATIONAL REHABILITATION CLIENTS WITH DISABILITIES

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Background. Uninsured women with disabilities experience serious difficulties in accessing quality health care. Employment improves an individual's ability to access health insurance. The aim of Vocational Rehabilitation Services (VR) is to improve employment abilities for people with disabilities.

Study Purpose. To examine gender differences in health insurance coverage for people who access VR and the factors that influence health insurance coverage for people with disabilities.

Methods. The study analyzed VR case management data from 617,149 cases that were closed by VR in 2006 in the United States. Chi-square and *t*-tests were used to examine gender differences and multivariate analysis was used to assess factors that influence health insurance coverage.

Principal Findings. The study found significant gender differences in access to VR employment-enhancing services and in insurance coverage. Women were more dependent on coverage from public sources.

Conclusion. VR can improve health insurance coverage but is more effective with men than with women.

Background

The Census Bureau estimates that there are 54.4 million (18.7% of the population) Americans with disabilities. Of these 34.9 million (12% of the population) have severe disabilities (Census Bureau, 2008). Americans with disabilities have wide-ranging health care needs, but they face serious challenges in the health care system. Studies indicate a positive correlation between health insurance coverage and regular access to care, and prescription adherence (Ranji, Wyn, Salganicoff & Yu, 2007; Riley, 2006; Schoen &

DesRoches, 2000; Xu, Patel, Vahratian, & Ransom, 2006). Therefore, health insurance is a critical health care access factor.

People with disabilities experience difficulties accessing quality health care. In their study on differences in quality of care provided to women with and without disabilities, Shin and Moon (2008) found, that compared with women without disabilities, women with disabilities were more likely to experience lower access to care and unsatisfactory and inadequate care. They also found that having health insurance was strongly associated with improved access to care and reduced, unmet or delayed care among women with disabilities. Using data from the 2002 National Survey of America's Families, Sommers (2008) examined access to coverage, access to care, and service use for a large sample of adults with disabilities, with a focus

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on the uninsured. Sommers found that people with disabilities have greater unmet needs and services than their counterparts without disabilities. Financial difficulties and lack of health insurance lead to problems of prescription noncompliance and to worse health outcomes for people with disabilities (Kennedy & Erb, 2002). Other studies indicate that people with disabilities are less likely to be satisfied with communications with their health care providers and with the care they receive (Iezzoni, Davis, Soukup, & O'Day, 2003), which is indicative of lower access to quality care. Policies that support health insurance for people with disabilities who lack coverage are critical to the well-being of people with disabilities (Chevarley, Thierry, Gill, Ryerson, & Nosek, 2006; Hanson, Neuman, Dutwin & Kasper, 2003).

Although women with disabilities experience a variety of unique health needs, they encounter attitudinal, informational, environmental, and geographic barriers as they seek access to health care (Piotrowski & Snell, 2007). In their study of access to clinical preventive services, Wei, Findley, and Sambamoorthi (2006) found that women with disabilities were less likely to receive some cancer screening services. They also found that women who had a usual source of care and health insurance were significantly more likely to receive clinical preventive services. Furthermore, women were more affected by financial barriers to care than men. In particular, women with lower incomes were consistently less likely than others to have visited a physician (Xu & Borders, 2003). Financial and disability-based barriers result in women with disabilities experiencing double jeopardy in accessing quality health care.

Research findings indicate a decline in both men's and women's health insurance coverage rates. In addition, women's routes to and composition of coverage have also changed with their socioeconomic status (SES). More women are dependent on self-acquired health insurance than on insurance coverage as dependents. A larger fraction of insured women are now enrolled in Medicaid than in the 1980s. Women's channels for obtaining health insurance coverage are more fragmented than those of men (Glied, Jack, & Rachlin, 2008). Women who are employed full time have increased odds of insurance coverage (Merzel, 2000).

Given the established relationship between health insurance and access to care, especially for people with disabilities, there is a need for a better understanding of health insurance coverage for this population. Because women with disabilities experience greater access difficulties and channels for women's health insurance access are fragmented, there is a need for a clearer understanding of factors that affect health insurance for women with disabilities. It is also important to determine whether access to vocational rehabilitation (VR) services can aid women with disabilities to gain health insurance coverage.

Theoretical Framework

This study utilizes a model which was developed in an earlier study (Mwachofi & Broyles, 2008). The model combines two complementary frameworks: the social model of disability and the capabilities model. The social model views disability as a result of barriers external to the individual including physical, organizational and attitudinal conditions in society (Finkelstein, 1996). The capabilities model utilizes a welfare economics perspective and views disability as a deprivation of a capability or functioning that results from the interaction of the individual's characteristics, their economic resources and their social, economic, political, and cultural environments (Mitra, 2006). The Mwachofi–Broyles model posits that personal characteristics, environmental factors, and access to health resources combine to result in either an absolute or relative disadvantage for people with impairments (Figure 1).

The model is in concert with the views of disability expressed by the Institute of Medicine (IOM, 1991, 1997, 2007) and the World Health Organization (2001) that a disability results from the interaction between the individual and the environment in which they live. Using the perspective of this model, the study examines the proposition that VR interventions reduce the absolute or relative disadvantage so that individuals with disabilities are able to acquire health insurance coverage, allowing them to access health care and necessary services.

Study objectives

Employing the Mwachofi–Broyle framework, the purpose of the study is to examine VR factors that are effective in reducing the absolute and relative health insurance disadvantages experienced by individuals with disabilities and to determine whether such effects

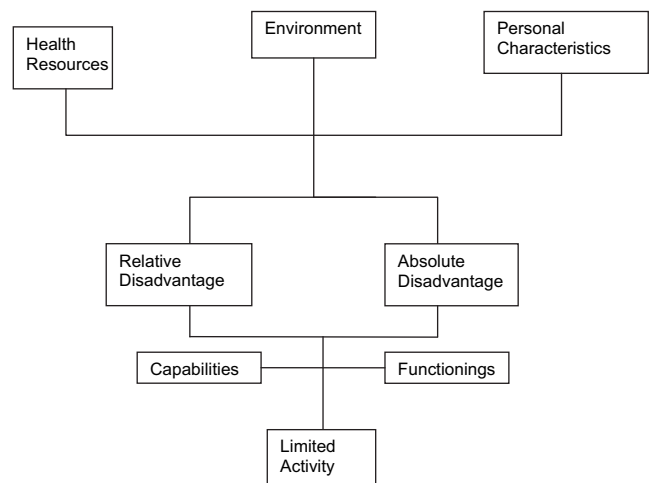


Figure 1. Mwachofi-Broyles model.

differ by gender. The study examines the following questions:

- What are the gender differences in health insurance coverage before and after VR interventions?
- What factors affect private health insurance coverage for people with disabilities who access VR services?
- What factors affect public health insurance coverage for people with disabilities who access VR services?
- What factors affect having any health insurance coverage for people with disabilities who access VR services?
- What factors affect changes from public to private health insurance coverage for people with disabilities who access VR services?
- Is gender a significant predictor of health insurance coverage for individuals with disabilities who access VR services?
- What are the gender differences in access to employment-enhancing interventions from VR?

Study Methods

The study used a standard chi-square test to determine health insurance differences by gender. This analysis was followed by logistic regression analysis that examined factors that affect health insurance coverage. The multivariate analysis also examined the role of gender in predicting health insurance coverage after controlling for other relevant factors such as demographic characteristics, pre-intervention socioeconomic factors and intervention factors that may influence health insurance coverage.

Letting R represent a vector of individual demographic factors and S correspond to a set of preintervention socioeconomic attributes, and I a set of intervention factors, the analysis focused on the function:

$$\text{Health insurance} = f(R_j, S_j, I_j)$$

where the subscript j identifies the individual as the unit of analysis. This function posits that the health insurance status of an individual is influenced by a set of individual demographic factors, socioeconomic characteristics and the intervention received from VR. The study estimates the likelihood of four types of health insurance: public, private through own employment, private through other means, and the likelihood of having any health insurance coverage. The study also estimates the likelihood of moving away from dependence on public insurance to having private insurance after VR.

Because employment status has an effect on insurance status, the study used chi-square tests to examine gender differences in access to employment-enhancing interventions from VR.

Data source

The study used case management data recorded by VR service providers in the process of serving people with disabilities in all states in the United States. An important goal of VR interventions is assisting people with disabilities attain gainful employment. People are eligible for VR services if they have a physical, mental, or sensory disability that makes it difficult for them to find or keep employment. VR services are offered to prepare people with disabilities secure, retain, or regain employment. At the federal level, data from VR in all states are compiled by the Rehabilitation Services Administration (RSA) into the data set commonly known as the RSA-911 data. These data include demographic and socioeconomic characteristics, and VR intervention services. The study analyzed 617,149 cases that were closed by VR in 2006, 54% of these cases were males; 72.3% Whites, 23.9% African Americans, 1.9% American Indians, 1.2% Asian Americans, and 0.5% Hawaiians/Pacific Islanders.

Study variables

Variable definitions and summary statistics are presented in Tables 1, 2 and 3. They are presented in three groups: individual demographic factors; socioeconomic factors and VR intervention factors.

Individual demographic factors included in the study are the age of the individual at the time they applied for VR services, their gender, race and ethnicity. Also included in the demographic factors are types of disabilities (physical and mental with sensory disabilities as the reference category) and a variable that represents individuals who have significant disabilities that make it difficult for VR to assist them attain employment (Table 1).

Socioeconomic factors include the postintervention wage rates, weekly hours of work, and the education levels defined in terms of whether the individual had a college degree or not after VR. Other socioeconomic factors include health insurance coverage before and after VR. These are variables of interest to the study. They include public insurance (Medicare, Medicaid, and other public sources); private insurance (own-employment based and from other private sources). The study also include variables indicating changes in insurance status after VR, such as movements from public to private insurance (Table 2).

Finally, the study variables include VR intervention factors such as the length and cost of the intervention. Other intervention factors included are competitive and supported employment services offered by VR (Table 3).

Principal Findings

Gender differences in insurance coverage

The chi-square test results are presented in Table 4. There was no difference in the proportions that got insurance

Table 1. Study Variable Definitions and Descriptive Statistics: Individual Demographic Factors

Variable	Definition	Mean	Standard Deviation
Individual demographic factors			
Age	Age in years at time they applied for VR services	34.92	14.05
Gender	Male = 1; female = 0	0.55	0.50
Race	If consumer is White = 1, otherwise = 0	0.73	0.44
Ethnicity (Latino/a)	If consumer is Latino/a = 1, otherwise = 0	0.10	0.29
Physical disability	If primary disability is physical = 1, otherwise = 0	0.30	0.46
Mental disability	If primary disability is mental = 1, otherwise = 0	0.57	0.50
Significant disability	If has significant disability = 1 otherwise = 0	0.86	0.35

VR, vocational rehabilitation.

from other private sources (18% for both males and females). The results also indicate that 40.8% of males and 46.5% of the females depended on public health insurance (Medicare, Medicaid, and other public sources).

After VR interventions, there was a decrease in dependence on public sources of insurance to 34.7% for males and 39.3% for females. There was an increase in dependence on employment-base health insurance (a 6% increase for males and 5% increase for females). After VR interventions, proportionately more females depended on health insurance from public sources (4.6% difference). Although proportionately more women than men were covered by Medicare and Medicaid, the differences were smaller than they were before VR interventions. Also notable is the fact that before VR proportionately more females had insurance from their own employment than males but the opposite was the case after VR interventions. This change suggests that, after VR interventions, more men than women gained employment that provided insurance. Before VR there was no difference in proportions getting insurance from other private

sources; after the interventions, proportionately more women were dependent on this source for insurance coverage. The results indicate that gender differences in proportions covered by insurance from private sources were very small (<1%) but significant. Although the significance of the small differences could be partly explained by the large sample size, the significance also suggests that the differences were systematic not mere chance occurrences. For practical purposes, this would mean that there is a systematic process that results in these differences. That process could be used as a tool for attaining greater gender equity in insurance coverage. The small differences could also be explained by gender differences in employment and earnings that exist in the general population.

Factors affecting health insurance status after VR

To gather more information about the gender differences in health insurance and the effects of VR interventions on health insurance status, the study estimated the likelihood of attaining public health insurance, private employment-based insurance, private

Table 2. Study Variable Definitions and Descriptive Statistics: Socioeconomic Factors

Variable	Definition	Mean	Standard Deviation
Socioeconomic Factors			
Post—wage	Hourly wage earned at closure	9.67	8.11
Post—work hours	Weekly hours worked at closure	5.31	12.36
Post—college degree	If client earned a bachelors degree or higher at closure = 1 otherwise = 0	0.08	0.27
Medicaid	If client had Medicaid = 1 otherwise = 0	0.29	0.45
Medicare	If client had Medicare = 1 otherwise = 0	0.12	0.32
Pre—public insurance	If client had public health insurance before VR = 1 otherwise = 0	0.38	0.49
Pre—Private Insurance other	If client had private insurance through other means before VR = 1 otherwise = 0	0.18	0.38
Pre—employer insurance	If client had private insurance through own employment before VR = 1 otherwise = 0	0.06	0.23
Post—public insurance	If client had public health insurance after VR = 1 otherwise = 0	0.33	0.47
Post—employer Insurance	If client had private insurance through own employment after VR = 1 otherwise = 0	0.11	0.32
Post—private insurance, other	If client had private insurance through other means after VR = 1 otherwise = 0	0.11	0.32
Public to private	If insurance changed from public to private insurance after VR = 1 otherwise = 0	.036	0.19

VR, vocational rehabilitation.

Table 3. Study Variable Definitions and Descriptive Statistics: Intervention Factors

Variable	Definition	Mean	Standard Deviation
Intervention factors			
Intervention length	Number of days client received VR interventions (from Individualized Program of Employment to case closure)	668.15	685.70
Intervention cost	Cost of services purchased by VR for the client	2335.77	6150.49
Competitive employment	if they got competitive employment = 1, otherwise = 0	0.96	0.20
Supported employment	if they got supported employment = 1, otherwise = 0	0.16	0.48

VR, vocational rehabilitation.

insurance from other sources, the likelihood of having any insurance, and the likelihood of moving away from dependence on public sources to private sources after VR interventions. These estimations were conducted through logistic regression. The results are presented in Tables 5, 6, and 7.

Likelihood of attaining public or private health insurance after VR

Table 5 juxtaposes logistic regression results of the estimates of the likelihood for attaining any public and any private insurance after VR interventions. The results indicate that the likelihood of attaining public insurance after VR is positively associated with being older, male, having a significant disability, receiving supported employment services, and having public insurance before VR. The likelihood of attaining private health insurance after VR is positively associated with being White, having a significant disability, hours of work, hourly wage rate having private insurance before VR, and attaining competitive employment through VR. The results indicate that VR interventions are significantly associated with the likelihood of attaining both public and private insurance. Although significant, the coefficients for intervention length and cost are extremely small. Their significance could

be partly explained by the large sample size. However, for practical purposes, the positive and significant relationship between VR intervention factors and attainment of health insurance coverage also suggests that the rehabilitation process does improve health insurance status and is a useful tool for improving access to health care for people with disabilities.

Likelihood of attaining employment-based or other private health insurance after VR

The study estimated consumer likelihood of attaining private health insurance after VR interventions in two ways: likelihood of own-employment-based health insurance and the likelihood of having private insurance through other sources. The results, presented in Table 6, indicate that being White, having a college degree, having a significant disability, having private insurance before VR, hours of work, wage rate, and intervention factors are positively associated with the likelihood of attaining own-employment-based health insurance coverage. However, being older, male, and having a primary physical or mental disability are negatively associated with the likelihood of attaining own-employment-based health insurance. Being White and having a mental, physical, or significant disability are associated positively with

Table 4. Chi-Square Test of Independence of Gender and Health Insurance Type

Insurance Type	% With This Insurance		Difference (M–F)	Chi-Square	p-Value
	Male	Female			
Before VR interventions					
Medicaid	26.2	31.3	–5.1*	1951.27	.000
Medicare	11.2	12.0	–0.8*	87.32	.000
Other public insurance sources	3.4	3.2	0.2*	36.92	.000
Private through own employment	5.1	5.9	–0.8*	153.13	.000
Private through other means	18.0	18.0	0	0.150	.699
Pre—public insurance	36	41	–5*	1657.28	.000
After VR interventions					
Medicaid	21.7	25.8	–4.1*	1418.96	.000
Medicare	10.3	11.0	–0.7*	67.80	.000
Other public insurance sources	2.7	2.5	0.2*	30.58	.000
Private through own employment	11.3	10.8	0.5*	36.10	.000
Private through other means	10.8	11.4	–0.6*	55.94	.000
Post—public insurance	31	36	–5*	1203.59	.000

Degrees of freedom = 1.

* $p < .001$.

Table 5. Likelihood of Attaining Public or Private Insurance After VR Interventions

	Public Insurance			Private Insurance		
	B	Wald Statistic	<i>p</i> -Value	B	Wald statistic	<i>p</i> -Value
Individual demographic factors						
Age	.018*	1038.858	.000	−.007*	234.424	.000
Gender	.119*	74.305	.000	−.115*	108.463	.000
Race	−.034	4.475	.034	.234*	315.197	.000
Ethnicity	.098*	18.604	.000	−.062*	11.116	.001
Physical disability	−.101*	22.233	.000	−.277*	277.656	.000
Mental disability	−.176*	69.755	.000	−.254*	240.613	.000
Significant disability	.453*	203.204	.000	.374*	334.787	.000
Socioeconomic factors						
Post—work hours	−.077*	11839.275	.000	.061*	9396.783	.000
Post—wage	−.041*	683.758	.000	.071*	3093.541	.000
Post—college degree	−.044	3.426	.064	.388*	465.232	.000
Pre—public insurance	2.864*	37039.879	.000	−.237*	338.528	.000
Pre—private insurance	−.235*	166.639	.000	1.893*	21799.910	.000
Intervention factors						
Competitive employment	−.730*	186.461	.000	.601*	110.084	.000
Supported employment	.487*	1149.145	.000	−.126*	83.645	.000
Intervention length	.000*	156.802	.000	.000*	130.727	.000
Intervention cost	.000*	328.246	.000	.000*	17.112	.000
Model fit						
Nagelkerke <i>R</i> ²	.560			.382		
−2 Log likelihood	139845.6			205196.9		
% Correct prediction	85.2			74.4		

* *p* < .001.

the likelihood of attaining private health insurance through other means. VR intervention length and expenditures on services rendered associate positively with the likelihood of attaining private health insurance. The results also indicate that

socioeconomic factors including hours of work, wage rates, education, and previous private health insurance associate positively and significantly with the likelihood of attaining private insurance after VR.

Table 6. Logistic Regression Results: Estimating the Likelihood of Attaining Private Own-Employment–Based Insurance or Private Insurance Through Other Sources After VR Interventions

	Private From Own Employment			Private From Other Sources		
	B	Wald Statistic	<i>p</i> -Value	B	Wald Statistic	<i>p</i> -Value
Individual demographic factors						
Age	−.004*	68.932	.000	−.004*	37.335	.000
Gender	−.146*	163.818	.000	−.001	.001	.970
Race	.154*	123.424	.000	.187*	93.851	.000
Ethnicity	−.209*	112.525	.000	.274*	124.733	.000
Physical disability	−.369*	508.470	.000	.150*	48.883	.000
Mental disability	−.359*	483.727	.000	.166*	58.325	.000
Significant disability	.178*	80.174	.000	.439*	220.828	.000
Socioeconomic factors						
Post—work hours	.102*	15439.881	.000	−.031*	1677.577	.000
Post—wage	.067*	3376.273	.000	−.012*	76.755	.000
Post—college degree	.342*	394.498	.000	−.001	.005	.946
Pre—public insurance	−.136*	91.005	.000	−.339*	264.981	.000
Pre—private insurance	.738*	3465.156	.000	2.067*	14964.328	.000
Intervention factors						
Competitive employment	1.127*	173.064	.000	.150	5.068	.024
Supported employment	−.127*	57.529	.000	−.162*	84.545	.000
Intervention length	.000*	72.875	.000	.000*	26.507	.000
Intervention cost	.000*	1.003	.317	.000*	44.872	.000
Model fit						
Nagelkerke <i>R</i> ²	.315			.218		
−2 Log likelihood	193114.9			130761.6		
% Correct prediction	75.8			86.8		

* *p* < .001.

Table 7. Likelihood of Attaining Any Insurance or Moving From Public to Private Insurance After Vocational Rehabilitation Interventions

	Any Insurance			Public to Private Insurance		
	B	Wald Statistic	p-Value	B	Wald Statistic	p-Value
Individual demographic factors						
Age	.003*	58.745	.000	-.006	55.492	.000
Gender	-.010	.838	.360	-.086	16.199	.000
Race	.230*	313.737	.000	.146	35.861	.000
Ethnicity	.020	1.101	.294	-.015	.203	.652
Physical disability	-.327*	357.953	.000	.049	2.087	.149
Mental disability	-.284*	279.582	.000	-.063	3.577	.059
Significant disability	.507*	655.619	.000	-.098	3.456	.063
Socioeconomic factors						
Post—work hours	.000	.533	.465	.086	5024.785	.000
Post—wage	.054*	1489.492	.000	.080	1054.172	.000
Post—college degree	.396*	403.253	.000	.228	40.230	.000
Pre—public insurance	2.159*	22043.381	.000	29.680	.086	.770
Pre—private insurance	1.697*	15862.341	.000	2.104	3012.839	.000
Intervention factors						
Competitive employment	-.335*	43.853	.000	.932	78.413	.000
Supported employment	.365*	694.906	.000	-.297	139.609	.000
Intervention length	.000*	471.433	.000	.000	9.847	.002
Intervention cost	.000*	70.286	.000	.000	1.379	.240
Model fit						
Nagelkerke I ²	.298			.552		
-2 Log likelihood	202358.0			55265.903		
% Correct prediction	75.9			93.3		

* $p < .001$.

Likelihood of attaining any type of insurance or moving from public to private health insurance after VR

The study also estimated the likelihood of having any insurance, and of changing from dependency on public sources to having private insurance. The results, presented in Table 7, indicate that being older, White, and having a significant disability are positively associated with the likelihood of having health insurance. SES factors including the hourly wage rate, having a college degree, and having had insurance before VR interventions associate positively with the likelihood of having health insurance coverage after VR. Receiving supported employment services also positively associates with the likelihood of having any insurance or moving away from dependence on public sources to attaining private insurance.

Movement away from dependency on public sources of health insurance coverage to private sources is positively associated with being White, attaining competitive employment through VR, and the length and cost of VR interventions. The SES factors (weekly hours of work, wage rate, education, and pre-VR private insurance) are also positively associated with the likelihood of movement away from public sources of health insurance coverage.

Gender differences in access to employment-enhancing interventions

Gender differences in access to employment-enhancing interventions from VR might explain

gender differences in the likelihood of attaining own-employment-based health insurance. The study used a chi-square test of independence between gender and access to employment-enhancing interventions from VR. The results are presented in Table 8. They indicate statistically significant differences in access to training and to employment-enhancing interventions. Whereas a greater proportion of women received college, vocational training, and transportation, proportionately more men received employment-enhancing interventions, including on-the-job and job readiness training and job search and job placement assistance. The magnitude of the differences is small, ranging from 0.2% to 2.1%, but the differences are significant ($p < .0001$). Furthermore, descriptive statistics indicate that after receiving VR services, a slightly greater proportion of women (24.1%) than of men (23.5%) exited without employment outcomes.

Discussion and Conclusions

This study analyzed a very large number of cases making it statistically possible to note even small differences. This issue was resolved through adoption of the more stringent significance level ($p < .001$) rather than conventional practice ($p < .05$ to $p < .01$). Because the study analyzes only cases closed by VR in 2006, it is not possible to establish causation with certainty. However, the VR client cases examined by this study included clients who were served an average of 670 days. Thus the study data cover a considerable

Table 8. Chi-Square Test of Independence of Gender and Employment-Related Services

Service	% Receiving Service		Difference	Chi-Square	p-Value
	Men	Women			
College or university training	7.6	9.7	-2.1*	738.25	.000
Occupational/vocational training	7.4	8.5	-1.1*	30.96	.000
On-the-job training	2.0	1.8	0.2*	117.29	.000
Job readiness training	8.1	7.6	0.5*	50.75	.000
Job search assistance	16.6	16.1	0.5*	82.33	.000
Job placement assistance	19.5	18.6	0.9*	58.82	.000
On-the-job supports	10.9	10.2	0.7	2.81	.094
Transportation services	19.5	20.2	-0.7*	158.76	.000

Degree of freedom = 1.

* $p < .001$.

intervention length of time (close to 2 years). Furthermore, this study is strengthened by the fact it used case management data collected and recorded in the course of service provision. Therefore, these data reflect actual service provision by VR.

The study found significant gender differences in health insurance status for this national sample. Before VR interventions proportionately more women than men were covered by Medicaid, Medicare, and private insurance attained through their own employment. More men were covered by other public sources of insurance. After VR interventions, more women than men were covered by Medicare and Medicaid but the differences were smaller than they were before VR interventions. Another notable change is that after VR interventions proportionately more men than women were covered through their own employment-base private insurance, which is opposite to the case before VR interventions. These changes seem to suggest that after VR interventions, more men than women gained employment that provided insurance. This finding is supported by previous studies that indicate that VR interventions are more successful in aiding men than women into gainful employment (Mwachofi, 2009).

The study results indicate that VR interventions have a positive and significant effect on the likelihood of attaining public insurance, own-employment-based insurance, and private insurance through other means. However, VR interventions measured in terms of the length of the intervention and the cost of services have a small but significant relationship with the probability of attaining public health insurance. These findings suggest that VR interventions are capable of reducing the absolute and relative disadvantages of people with disabilities such that they are able to attain health insurance coverage.

Analysis of gender differences on the types of VR services accessed indicate that proportionately more men accessed employment-enhancing services than the women did. Men accessed more on-the-job and job readiness training and more job search and job placement assistance. These results suggest that access

to the employment-enhancing services reduces absolute or relative employment disadvantages for men, making it easier for them to attain own-employment-based health insurance.

These results indicate that VR interventions can improve access to health care through their improvements in the likelihood of attaining health insurance. Because of the gender differences in sources of health insurance with greater proportions of females depending on public sources of insurance, the study expected to find that being female is positively associated with the likelihood of attaining public health insurance after VR. However, these results indicate that that is not the case. Being male is positively associated with the likelihood of attaining public health insurance after VR but it is negatively associated with the likelihood of attaining private health insurance after VR.

The study expected to find that being male is strongly and positively associated with the likelihood of attaining own-employment-based health insurance (Andersen, Rice & Kominski, 2007; Dushi & Honig, 2003). However, the opposite was the case. It is important to note here that the intervention length associated positively with the likelihood of attaining own-employment-based health insurance. Expenditures on interventions are positively and significantly associated with the likelihood of attaining private health insurance through other means. Thus, these results suggest that VR interventions can improve consumers' health insurance status.

These findings suggest that VR is capable of reducing employment disadvantages for people with disabilities and thus improve their likelihood of attaining own-employment-based health insurance. The findings also suggest that access to employment-enhancing services is not gender equitable. Therefore, VR needs to make a conscious effort to enhance women's access to employment-enhancing services such as on-the-job and job readiness training and job search and job placement assistance.

Cast in this study's analytical framework, the pre- and post-VR intervention differences in health insurance coverage suggest that VR was more effective in

reducing the men's relative and absolute disadvantages than women's.

There is need for more research to gather information that can be used to enhance VR's ability to improve health care coverage outcomes for people with disabilities and to reduce the gender differentials. Such information could be gathered through a study of the dynamics of the VR service provision process including: application, determinations of eligibility, the process that designs the Individualized Programs of Employment and how such programs are initiated and run. The study would also gather information about the effects of VR in health promotion, health education, receipt of health insurance, and other related factors. Such a study would determine gender differences in actual service provision that could explain the gender differential effects of VR on health care coverage.

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