Access to Care and Use of Health Services by Low-Income Women

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Data from the 1997 National Survey of America's Families (NSAF) are used to analyze access to care and use of health care services for low-income women. Three groups of women are examined: those with Medicaid coverage, those with private coverage, and those with no insurance. Findings show that uninsured women faced larger access barriers and utilized fewer services, particularly preventive care services, than women with either public or private coverage. Access and use did not differ greatly between Medicaid and privately covered women. The results suggest that expansions in coverage, either through Medicaid or through private options, could improve access to care for uninsured women.

INTRODUCTION

The Medicaid program is an important source of insurance coverage for low-income women. In 1997, 19.0 percent of low-income women, that is those with incomes below 200 percent of the Federal poverty level (FPL), had Medicaid coverage, 43.1 percent had private coverage, 4.3 percent had other public coverage, and 33.6 percent were uninsured (Figure 1). (In 1997, 200 percent of the FPL was approximately equal to $26,000 for a family of three.) Eligibility for Medicaid has historically been limited to those receiving Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI), pregnant women, and the medically needy. A number of States have made special efforts to provide Medicaid coverage to other adults through research and demonstration waivers granted under section 1115 of the Social Security Act. However, these States are the exception to the rule. Consequently, Medicaid's role is especially critical for poor women and for pregnant women. In 1997, Medicaid covered almost one-third of all poor women and financed the deliveries for more than one-third of all births nationally (National Governor's Association, 2000).

To address the complex and diverse health needs of this low-income population, the Medicaid benefit package is relatively broad and has limited cost-sharing. Among the services States are required to provide under their Medicaid programs are inpatient and outpatient care, laboratory and X-ray services, physician, nurse midwife, and nurse practitioner services, and family planning services. Optional services include dental care and prescription drugs, among others (Congressional Research Service, 1993).

Despite this breadth of coverage, concern about access to care under the Medicaid program is longstanding. Low reimbursement rates, administrative burdens, and residential segregation between providers and patients have been cited historically as factors that contribute to access problems for those covered by Medicaid

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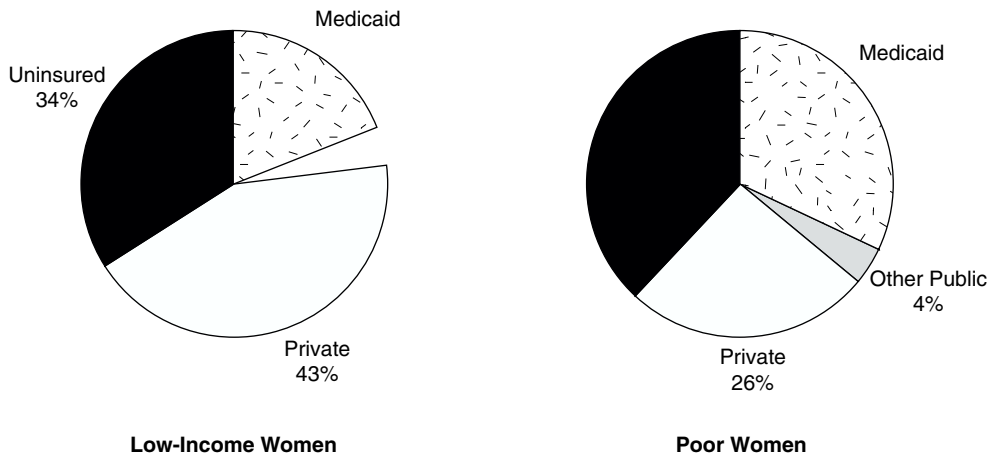
Figure 1
Health Insurance Coverage of Low-Income Women



NOTES: Low-income women include those with family incomes below 200 percent of the Federal poverty level. Poor women include those with incomes below the Federal poverty level. Insurance coverage is measured at the time of the survey.

SOURCE: Author's tabulations of data from the 1997 National Survey of America's Families.

(Sloan, Mitchell, and Cromwell, 1978; Mitchell, 1991; Fossett et al., 1992; Dubay et al., 1995). At the same time, Medicaid beneficiaries are consistently found to use more services than both the uninsured and the privately insured (Freeman and Corey, 1993; Marquis and Long, 1996).

Surprisingly, little attention has been paid to access issues for low-income women with private coverage. Most of these women receive coverage through their employer or their spouse's employer, while others purchase coverage in the non-group market. Low-income women with private coverage often face deductibles, copayments, and limited coverage of preventive and other benefits, which may also affect access to care and use of services. Understanding how low-income women fare is important, given the large share of women with private coverage.

Finally, almost one-third of low-income women are uninsured. These women must rely on the safety net, pay for services out of their own pockets, or forgo needed care. To the extent that these women are generally in good health, are able to obtain preventive and other services, and have little unmet need, then perhaps they should not be much of a policy concern. If, however, these women do have unmet need and are not appropriately accessing services, they may be an important target for expansions in coverage.

In this article, we compare access to care and use of health care services for low-income women with Medicaid coverage, with private coverage, and with no insurance, just prior to the implementation of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA). We analyze disabled Medicaid recipients separately from other Medicaid recipients. We examine first how those with Medicaid coverage fare compared with their privately insured counterparts. This analysis identifies the relative strengths and weaknesses of each type of

coverage. In addition, we examine how those who are uninsured fare compared with women with Medicaid coverage, in order to document the extent to which they are underserved. Finally, we examine whether disabled Medicaid recipients have comparable access to other Medicaid-covered women.

PREVIOUS LITERATURE

Several studies using mixed sex samples from large nationwide datasets from the 1980s indicate that Medicaid beneficiaries report levels of health care use that are at least equal to, and often higher than, those of their privately insured counterparts. The uninsured lag behind, reporting consistently lower levels of use than individuals with any type of coverage (Marquis and Long, 1996; Freeman and Corey, 1993; Berk and Schur, 1998). However, findings from these studies, which combine rates for both men and women, are not necessarily applicable to low-income women.

There is evidence that women have greater health care needs and correspondingly higher utilization levels than men (Bertakis et al., 2000), due in part to their need for reproductive health services. Women are also at greater risk of being impoverished than men (Lyons, Salganicoff, and Rowland, 1996) and, because of eligibility policy, comprise a disproportionate share of the Medicaid population. For these reasons, they may be more vulnerable to having access problems than men, and it is especially important to understand their patterns of care. There are currently only a few studies that address health services use for low-income women. We focus on several that compare differences in access and utilization among Medicaid, privately insured, and uninsured low-income women.

Salganicoff and Wyn (1999) examined these disparities using data from the Kaiser/Commonwealth Five-State Low-Income Survey. The survey, fielded in 1995 and 1996, samples adults age 18 to 64 with incomes at or below 250 percent of the FPL. Data were collected through telephone interviews with respondents in Florida, Minnesota, Oregon, Tennessee, and Texas. Using a sample of 5,200 low-income women, the researchers evaluated differences between the three insurance groups across access, utilization, and satisfaction measures. The study found that uninsured women fared the worst; they did significantly worse than Medicaid-covered women on all access and utilization measures and were generally less satisfied with their care.

Differences between Medicaid-covered and privately insured women were less consistent. Although women with Medicaid coverage were more likely to have postponed or not received needed care, they also had generally higher levels of utilization, as measured by both physician/clinic contacts and the use of preventive services. They also expressed greater dissatisfaction on several measures, including waiting time and physician location. Overall, Salganicoff and Wyn concluded that Medicaid-covered and privately insured women had generally comparable access and utilization.

Using data from the 1993 Commonwealth Fund Survey of Women's Health (Lyons, Salganicoff, and Rowland, 1996), a nationwide telephone survey, Lyons and others examined differences between insurance groups in the likelihood of having physician visits, a primary care provider or usual source of care, and preventive Pap smears and breast exams. Other measures included the number of physician visits and the postponement of or failure to obtain needed care. The sample included 705

adult, non-elderly (age 18-64) women with incomes at or below 200 percent of the FPL.

Like Salganicoff and Wyn, the researchers found that uninsured women had consistently lower levels of access and utilization when compared with women with any type of insurance coverage. These researchers also found that Medicaid-covered women fared better than privately insured women across all measures; the former were more likely to have had physician visits and to have reported a usual source of care. Women with Medicaid coverage also had a higher average number of physician visits and higher rates of utilization of all three preventive care services. These findings suggest that Medicaid may actually provide better access than private coverage.

Reisinger (1996) also uses data from the 1993 Commonwealth Fund Survey, but in a multivariate context. She models the effects of insurance type, income, race/ethnicity, marital status, education, and health status on the number of physician visits and the likelihood of having unmet need. The study sample includes the elderly and women at all income levels and distinguishes among sources of private insurance, with separate categorical variables for individual coverage, employer-sponsored coverage purchased through the spouse, and coverage obtained through the woman's own employer. When the selected factors are held constant, women with employer coverage obtained through their spouses report 1.2 more annual visits than uninsured women, while those with Medicaid coverage have two more visits per year than those without insurance. There is also a strong effect of insurance on unmet need, indicating that having any type of insurance decreases the likelihood of having unmet need.

The existing literature suggests that for low-income women, Medicaid generally provides access that is either comparable with or better than private insurance. However, each of the studies has several limitations that complicate interpretation of their results. The most important limitation that they all share is that they analyze all Medicaid beneficiaries together and do not make separate estimates for those eligible because they are disabled. Disabled Medicaid recipients (defined as those receiving SSI or those who are dually eligible for Medicaid and Medicare) constitute approximately 25 percent of all women with Medicaid coverage (authors' tabulations of 1997 NSAF). Previous studies have found that even after basic controls for health status, Medicaid beneficiaries receiving AFDC had significantly fewer visits and hospitalizations relative to SSI recipients and other Medicaid beneficiaries (Marquis and Long, 1996). Therefore, the higher use of services by Medicaid-covered women relative to privately insured women found in the previous literature may be, in part, due to the greater health care needs of disabled Medicaid recipients. This potential bias is likely to be greatest in the studies that did not attempt to control for health status in a multivariate framework. Although the Reisinger study used multivariate techniques, women of all incomes are included in the analysis, which may also bias estimates of the effects of insurance for low-income women (Kaestner, 1999).

In terms of the sample used for these analyses, the Kaiser/Commonwealth study surveyed women in only five States and thus has limited generalizability. Although the Commonwealth Fund Survey sampled women across the Nation, its sample of low-income women is relatively small. Finally, a weakness that the studies share is that they rely solely on data obtained using telephone surveys. Surveys that omit households without telephones will understate coverage by public

programs and to a lesser extent uninsurance—with a greater bias for the low-income population (Hall et al., 1999).

Finally, in the past few years, welfare reform and its attendant effects on Medicaid eligibility policy have led to an erosion of coverage for low-income women. In addition, it has become increasingly common for States to enroll Medicaid beneficiaries in managed care plans. As a result, more recent data may be better able to capture the effects of these changes on Medicaid enrollees' access and utilization.

METHODS

National Survey of America's Families

The NSAF is a household survey that provides information on more than 100,000 children and non-aged adults representing the non-institutionalized civilian population under age 65 (Brick et al., 1999). The NSAF was fielded by Westat as part of The Urban Institute's Assessing the New Federalism project. The first round of the NSAF was conducted from February to November 1997, using computer-assisted telephone interviewing technology. The survey was administered in English and Spanish. Interviews were conducted in households with and without telephones. Telephone households were selected using a random-digit dial frame, and non-telephone households were selected using a multistage area sample. Families in households without telephones were interviewed using cellular telephones.

Detailed information was collected on one sampled adult and up to two sampled children in each family. The sampled adult or the spouse of the sampled adult was the respondent. The overall household response rate for the NSAF is 70 percent (Brick et al., 1999). For 90 percent of sampled women, the respondent is the woman herself. For ease of exposition, we present responses to questions as if the woman herself reported the information. For questions regarding confidence in obtaining needed care and satisfaction with care, the respondent is not always the sampled adult or the spouse of the sampled adult in families with children. In cases where the most knowledgeable adult (MKA) for a sampled child is not the sampled adult or the spouse of the sampled adult (for example, the MKA is the child's grandparent), the MKA will be the respondent for these questions.

The survey asks about the past year's insurance coverage, health care use, access, and health status (Kenney et al., 1999). Access measures include questions about usual source of care; unmet need for medical or surgical care, dental care, and prescription drugs; and confidence in ability to obtain needed care. Respondents are also asked about their satisfaction with care received. Questions are asked about each sampled adult with the exception of questions regarding the respondent's confidence in ability to get needed care and satisfaction with the quality of care that pertain to the experience of all family members.

Utilization measures include physician and non-physician health professional visits, preventive health care (Pap smears and clinical breast exams), dental care, emergency room visits, and overnight hospital stays (for delivery and other) during the 12 months preceding the time of the interview. With the exception of the question about being in the hospital for delivery that was asked only of women between 18 and 50 years of age, the utilization questions are asked about all women.

Statistical Analyses

We focus on women in families with incomes below 200 percent of the FPL. We categorize women by whether they had

private coverage, were uninsured, or had Medicaid or other public coverage for the entire year. (For a complete discussion of how insurance coverage was determined, refer to Rajan, Zuckerman, and Brennan [2000].) We use the past year's coverage because our access and utilization measures reflect patterns of care over the past year. Throughout the article, we refer to those with Medicaid or other public coverage as "Medicaid-covered." However, this group includes a small share (11.2 percent) of women who are covered by State-sponsored insurance programs and the Civilian Health and Medical Program of the Uniformed Services. In all of our analyses, we exclude disabled Medicaid recipients from the Medicaid-coverage category. Disabled Medicaid recipients are identified by their receipt of SSI or their dual coverage under Medicaid and Medicare. To the extent that participation in SSI and Medicare is underreported in the survey, we may not be able to identify all disabled Medicaid recipients.

We conduct multivariate analyses using a linear probability model to control for differences across the various insurance categories in demographic, socioeconomic, geographic, and health-status indicators known to be associated with access and utilization (Anderson, 1968; Grossman, 1972). Control variables include the woman's perceived health status, presence of conditions that limit work, as well as age, sex, race and ethnicity, birthplace and citizenship, work status, educational attainment, and marital and parental status. Also included are the woman's family income as a percentage of the FPL, urban or rural location, and State.

Two sets of regressions are performed. The main set of analyses examines how access and use for non-disabled Medicaid recipients differ from access and use among privately insured and uninsured women. This analysis excludes disabled Medicaid recipients. By doing so, the group of women with public coverage is made more comparable, with respect to health status, to women with private coverage and women who are uninsured.

The second set of analyses examines access and use between disabled and non-disabled Medicaid recipients. This group is analyzed separately because disabled women with public coverage have significantly different health care needs than other publicly covered women (Marquis and Long, 1996), and this group constitutes about one-quarter of the Medicaid population (authors' tabulations of the 1997 NSAF).

For ease of interpretation, we present ordinary least squares (OLS) regression for all outcomes. Our results do not appear to be sensitive to alternative specifications of the dependent variable. All of the outcomes with binary dependent variables were also estimated using a logit specification. The logit estimates were consistent with the OLS estimates both in terms of the pattern of the effect and the significance levels estimated for differences. We also re-estimated the models of the number of visits given some use using a log transformation of visits as the dependent variable and found that same pattern of results and significant levels.

The NSAF contains data on 14,197 non-elderly low-income women, that is, women with incomes below 200 percent of the FPL. We exclude 2,781 women who had more than one type of coverage over the past year because their inclusion could confuse the insurance effects (Marquis and Long, 1996). These women account for 19.6 percent of low-income women. (When we include these individuals in regression models, the results produce patterns that are consistent with the models of full-year coverage.) We also exclude 244 women receiving Medicare coverage but not receiving SSI benefits or Medicaid coverage.

We compute variance estimates using a replication method that adjusts for the survey's complex sample design (Flores-Cervantes, Brick, and DiGaetano, 1999), using STATA Version 6.0 statistical software. We use imputed data for health insurance, access, and utilization variables with missing values (Dipko et al., 1999). Imputed values account for 1.3 percent or less of all observations for health insurance and the access and utilization measures. In addition, we report the *F*-test of the joint hypothesis that all three groups of women have the same mean value for each outcome for both the descriptive and multivariate analyses.

Sensitivity Analysis

We recognize that we do not account for selection into insurance coverage. Consequently, differences that we observe between the uninsured and those with insurance as well as differences between those with different types of insurance may be due to variation in the demand for health care across these groups. Similarly, differences in access and use across these groups of women may be due to unmeasured health status. We conducted a number of sensitivity analyses to assess whether our findings depended on the specification of the model. Because we thought that unmeasured differences in health status posed the most serious possible threat to the validity of our findings, we re-estimated our multivariate models on subgroups who were likely to be more homogeneous with respect to health status. These subgroups included (1) women reported to be in excellent and very good health; (2) non-pregnant women, and (3) women who did not have a hospital stay in the 12 months prior to the survey. On the whole, the pattern of our findings (available on request from the authors) did not change when we narrowed the analysis to focus on these smaller subgroups, although in some cases the differences tended to have weaker statistical significance.

RESULTS

The results of our descriptive analysis of access and use are presented in Tables 1 and 2. The results show that Medicaid-covered women (excluding the disabled) and privately insured women fared differently on some, but not all, measures of access and use and that uninsured women consistently fared worse than privately insured and Medicaid-covered women across all access and use measures.

USUAL SOURCE OF CARE

A usual source of care is defined as the place where an individual usually goes when he or she is sick or when health care advice is sought. A consistent usual source of care is an important component of continuous primary care and, as such, a key indicator of access. No significant difference was found between the proportion of Medicaid-covered and privately insured low-income women who lacked a usual source of care or relied on the emergency room, 16.3 versus 13.4 percent, respectively. In contrast, low-income uninsured women were much more likely than both privately insured and Medicaid-covered women to lack a usual source of care (34.4 percent).

Ability to Obtain Needed Medical Care

Three questions were included on the NSAF to identify the extent to which women felt that they did not get care or experienced delays in getting needed care. The questions asked about unmet need for medical or surgical services, prescription

Table 1

Use of Health Care Services by Low-Income Women, by Insurance Coverage[1]: 1997

	Low-Income Women						
	With Medicaid or Other Public[2] Coverage		With Private Coverage		Uninsured		
Outcome	Mean	Standard Error	Mean	Standard Error	Mean	Standard Error	*F*-Test
No Usual Source of Care or Usual Source is Emergency Department	16.3	1.9	13.4	1.0	34.4	*1.6	*57.27
Unmet or Delayed Health Needs[3]							
Medical or Surgical Care	7.9	1.2	7.5	0.8	19.8	*1.6	*21.83
Dental Care	17.0	1.6	12.3	*0.8	23.6	*1.4	*32.05
Prescription Drugs	7.6	1.1	4.6	*0.6	10.8	1.2	*12.49
Confidence and Satisfaction with Care							
Not Confident About Obtaining Needed Care for Family	10.1	1.0	10.3	1.0	27.7	*1.3	*62.38
Not Satisfied with Care They or Their Families Received Among Women with More than 1 Visit	8.8	1.1	10.5	1.2	18.9	*1.9	*9.73
Number of Observations	2,284	—	4,945	—	3,226	—	—

* Significantly different from low-income women with Medicaid/other public coverage ($p<0.05$).

[1] Coverage pertains to full-year insurance status.

[2] Includes women with Medicaid or other public coverage not receiving Supplemental Security Income or Medicare.

[3] Not obtaining or postponing medical or surgical care.

SOURCE: The Urban Institute tabulations of data from the 1997 National Survey of America's Families.

Table 2

Use of Health Care Services for Low-Income Women, by Insurance Coverage[1]: 1997

	Low-Income Women								
	All		With Medicaid or Other Public[2] Coverage		With Private Coverage		Low-Income Uninsured		
Outcome	Mean	Standard Error	Mean	Standard Error	Mean	Standard Error	Mean	Standard Error	*F*-Test
At Least 1 Visit to Physician or Other Health Professional in Past Year	73.6	0.8	80.9	1.6	79.3	1.2	57.1	*1.8	*55.80
Total Visits to Physicians or Other Health Professionals Among Women with at Least 1 Visit	5.6	0.1	7.1	0.5	4.8	*2.0	4.1	*0.3	*13.73
At Least 1 Visit to a Dentist or Dental Hygienist in the Past Year	55.5	0.8	58.4	2.1	69.2	*1.5	39.3	*1.9	*64.66
Average Annual Dental Visits Among Women with at Least 1 Visit	2.2	0.0	2.2	0.1	2.2	0.1	2.2	0.1	0.02
Preventive Services									
At Least 1 Pap Smear in the Past Year	53.8	0.9	64.5	2.2	56.5	*1.6	42.5	*1.7	*38.70
At Least 1 Clinical Breast Exam in the Past Year	44.0	0.8	44.6	2.0	51.2	*1.3	31.0	*1.6	*47.09
At Least 1 Visit to Hospital Emergency Department in the Past Year	28.4	0.9	41.9	2.3	21.5	*1.5	26.3	*1.6	*23.99
Inpatient Hospitalizations									
Non-Maternity-Related Hospitalization at Least Once in the Past Year	9.2	0.6	12.9	1.8	8.6	*0.8	5.2	*0.9	*9.99
Maternity-Related Hospitalization at Least Once in the Past Year	5.8	0.4	12.5	1.4	3.2	*0.4	2.3	*0.5	*23.29
Number of Observations	13,953	—	2,284	—	4,945	—	3,226	—	—

* Significantly different from low-income women with Medicaid or other public coverage ($p < 0.05$).

[1] Coverage pertains to full-year insurance status.

[2] Includes women with Medicaid or other public coverage not receiving Supplemental Security Income or Medicare.

SOURCE: Urban Institute tabulations of data from the 1997 National Survey of America's Families.

drugs, and dental services. No significant difference was found between the proportion of Medicaid-covered and privately insured women reporting unmet medical or surgical needs, about 8 percent of both groups. Compared with privately covered women, Medicaid-covered women reported significantly higher levels of unmet need for prescription drugs (7.6 percent versus 4.6 percent, respectively) and dental services (17.0 percent versus 12.3 percent, respectively). Uninsured women reported higher levels of unmet need for medical or surgical services and for dental care compared with women with public coverage: 19.8 percent reported unmet medical or surgical needs, and 23.7 reported unmet dental needs. No significant difference in unmet need for prescription drugs was found between uninsured women and women with public coverage.

Confidence and Satisfaction with Needed Care

The NSAF asked how confident the respondents felt in their ability to get health care for their family when it was needed. No significant difference was found between privately insured and Medicaid-covered women with respect to their confidence in obtaining needed care for their family. Ten percent of both privately insured and Medicaid-covered women were in families that were not confident in their ability to obtain needed care. In contrast, uninsured women were in families that were almost three times more likely (27.7 percent) to lack confidence about obtaining needed care. Among women who had a visit to a health professional, no significant difference was found between privately insured and Medicaid-covered women in the share who were in families that were not satisfied with the care they received. Uninsured women were about twice as likely to be in families that were not satisfied with care (18.9 percent).

Use of Physician and Other Services

The NSAF includes a number of questions on utilization of health care services including questions about visits to physicians or other health professionals and dentists; preventive care services such as Pap smears and clinical breast exams; emergency room use; and maternity and non-maternity hospitalizations. In general, we found that women with public coverage were more likely to obtain health care services than women with private coverage. Uninsured women always had a lower probability of obtaining health services than women with public coverage, with the exception of emergency room use.

The proportion of women obtaining a visit to any health professional was not significantly different for Medicaid-covered and privately insured women (80.9 percent versus 79.3 percent, respectively). However, among women with at least one visit to a health professional, Medicaid-covered women had a significantly higher number of visits than privately covered women (7.1 versus 4.8, respectively). Only 57.1 percent of uninsured low-income women obtained a visit to a health care professional in the 12 months prior to the survey. Given at least one visit, uninsured women had significantly fewer visits to a health professional than women with public coverage (4.1 versus 7.1, respectively).

In terms of dental services, privately covered women were the most likely to have had a visit to a dentist or dental hygienist in the past year (69.2 percent), followed by women with public coverage (58.4 percent),

and uninsured women (39.3 percent). No significant difference was found in the number of dental visits, given at least one visit, among the three insurance categories.

For preventive service indicators, we looked at the rate of Pap smears and clinical breast exams. Women with public coverage were significantly more likely to have had a Pap smear than women with private coverage and uninsured women (64.5 percent versus 56.5 percent and 42.5 percent). In contrast, women with public coverage were significantly less likely to have obtained a clinical breast exam than women with private coverage (44.6 percent versus 51.2 percent). Only 31 percent of uninsured low-income women obtained a clinical breast exam in the 12 months prior to the survey.

Among the three insurance categories, women with private coverage were the least likely to have used the emergency room in the previous year (21.5 percent). Women with public coverage had the highest rate of emergency room use (41.9 percent), followed by 26.3 percent of uninsured.

In terms of inpatient care, Medicaid-covered women were significantly more likely to have had a maternity or non-maternity hospitalization in the past year than women with private coverage and uninsured women. The proportion of Medicaid-covered women with a non-maternity hospitalization was 12.9 percent, compared with 8.6 percent of women with private coverage and only 5.2 percent of uninsured women. Similarly, 12.5 percent of women with public coverage had a maternity-related hospitalization compared with 3.2 percent of women with private coverage and 2.3 percent of uninsured women. This greater use of maternity-related hospitalization for Medicaid recipients reflects Medicaid's important role in coverage of low-income pregnant women.

Disabled Medicaid Recipients

We analyzed disabled Medicaid recipients—those receiving SSI or receiving both Medicaid and Medicare—separately from other women with Medicaid coverage because their patterns of care are substantially different. As seen in Table 3, findings show that disabled Medicaid recipients had significantly higher rates of unmet need and dissatisfaction with care than other women with Medicaid coverage. Disabled Medicaid recipients were almost twice as likely as other women with Medicaid coverage to have an unmet medical or surgical need (15.1 percent versus 7.9 percent, respectively) and were more than 1.5 times as likely to have an unmet dental need (27.6 percent versus 17.0 percent, respectively). No significant difference was found with respect to unmet need for prescription drugs. Among women with at least one visit to a health professional, 18 percent of disabled Medicaid recipients were not satisfied with the care they received, compared with 8.8 percent of other Medicaid-covered women. There was no significant difference between the two groups of women with respect to the probability of having no usual source of care and of not being confident about obtaining needed care for their family.

Despite their higher levels of unmet need and dissatisfaction with care, disabled Medicaid recipients were significantly more likely than other Medicaid-covered women to have visited a health professional (88.4 percent versus 80.9 percent, respectively), and, given at least one visit to a health professional, had a higher average number of visits (10.8 versus 7.1). Disabled Medicaid recipients were also more likely to have had a non-maternity hospitalization (27.0 versus 12.9 percent, respectively) than other women with Medicaid coverage. These generally higher

Table 3

Use of Health Care Services for Low-Income Women, by Insurance Coverage[1]: 1997

Outcome	Low-Income Women: With Medicaid and Other Public Coverage[2] — Mean	Standard Error	Low-Income Women: With Medicaid or Other Public Coverage Who Also Receive SSI or Medicare — Mean	Standard Error
Access Measures				
No Usual Source of Care or Usual Source is Emergency Department	16.3	1.9	12.7	2.0
Unmet or Delayed Health Needs				
Not Obtaining or Postponing Medical or Surgical Care	7.9	1.2	15.1	*2.8
Not Obtaining or Postponing Dental Care	17.0	1.6	27.6	*2.6
Not Obtaining or Posptoning Prescription Drugs	7.6	1.1	12.4	2.4
Confidence and Satisfaction with Care				
Not Confident About Obtaining Needed Care for Family	10.1	1.0	16.0	2.8
Not Satisfied with Care They or Their Families Received Among Women with at Least 1 Visit	8.8	1.1	18.0	*3.1
Use Measures				
At Least 1 Visit to Physician or Other Health Professional in the Past Year	80.9	1.6	88.4	*2.7
Total Visits to Physicians or Other Health Professionals Among Women with at Least 1 Visit in the Past Year	7.1	0.5	10.8	*0.9
At Least 1 Visit to a Dentist or Dental Hygienist	58.4	2.1	36.7	*3.4
Average Annual Dental Visits Among Women with at Least 1 Visit	2.2	0.1	2.1	0.2
Preventive Services				
At Least 1 Pap Smear in the Past Year	64.5	2.2	45.7	*4.6
Women with at Least 1 Clinical Breast Exam in the Past Year	44.6	2.0	47.6	4.5
At Least 1 Visit to Hospital Emergency Department in the Past Year	41.9	2.3	43.2	4.0
Inpatient Hospitalizations				
Women with a Non-Maternity-Related Hospitalization at Least Once in the Past Year	12.9	1.8	28.7	*3.2
Women with a Maternity-Related Hospitalization at Least Once in the Past Year	12.5	1.4	2.5	*1.3
Number of Observations	2,284	—	753	—

* Significantly different from women with Medicaid or other public coverage ($p < 0.05$).

[1] Coverage pertains to full-year insurance status.

[2] Includes women with Medicaid or other public coverage not receiving Supplementary Security Income or Medicare.

SOURCE: The Urban Institute tabulations of data from the 1997 National Survey of America's Families.

rates of acute care service use likely reflect the lower health status of this group of Medicaid recipients. In contrast, disabled Medicaid recipients were significantly less likely than other Medicaid-covered women to have had a visit to a dentist or dental hygienist (36.7 percent versus 58.4 percent, respectively), to have had a Pap smear (45.7 versus 64.5 percent, respectively), or to have had a maternity hospitalization (2.5 percent versus 12.5 percent, respectively). These two groups of women showed no difference with respect to the number of visits to a dentist, given at least one visit, the likelihood of having a breast exam, and the probability of having a visit to the emergency room.

Multivariate Results for Non-Disabled Women

We used multivariate analysis to assess whether differences in access and use among low-income women persist across the three insurance groups when potentially confounding demographic, health-status, and socioeconomic factors are controlled for. It is important to control for these factors because the underlying characteristics differ across these groups in ways that may also affect access and use. The results from the OLS regressions are presented in Tables 4 and 5, and a comparison of the bivariate and multivariate analyses is presented in Table 6.

After controlling for other factors, fewer significant differences remained in access and use among Medicaid-covered and privately insured women compared with the descriptive results. In contrast, the multivariate findings with respect to the uninsured were mostly consistent with the descriptive results: This group fared significantly worse on virtually all access and use measures identified in the bivariate analysis.

Access Measures

After controlling for other factors, women with public coverage were 9 percentage points more likely to have unmet dental needs than women with private coverage. However, statistically significant differences no longer remained between these two groups in unmet need for prescription drugs. For uninsured women, the multivariate results confirmed all the bivariate findings. Compared with Medicaid-covered women, uninsured women were 18 percentage points more likely to have no usual source of care, 11 percentage points more likely to have unmet medical or surgical needs, 5 percentage points more likely to have unmet dental needs, 14 percentage points more likely not to be confident about obtaining needed care, and 8 percentage points more likely not to be satisfied with care received.

Utilization Measures

The multivariate analysis of utilization was consistent with the bivariate results. Statistically significant differences were found between privately insured and Medicaid-covered women in the number of visits obtained, given at least one visit (Medicaid-covered women received 1.7 more visits than privately covered women), having at least one dental visit (Medicaid-covered women were 10 percentage points less likely to have had at least one dental visit than privately covered women), and having any emergency room use (Medicaid-covered women were 11 percentage points more likely than privately covered women to have an emergency room visit). However, the bivariate differences in the probability of obtaining a Pap smear, a clinical breast exam, or having a maternity or non-maternity hospitalization found between

Table 4

Regression-Adjusted Differences in Access to Care and Use of Health Services for Low-Income Women, by Insurance Coverage[1]: 1997

Variable	Privately Insured Versus Medicaid or Other Public Insurance[2]	Uninsured Versus Medicaid and Other Public Insurance[2]	*F*-Test
Access Measures			
No Usual Source of Care or Usual Source of Care is Emergency Department	-0.01	*0.18	*46.36
Unmet or Delayed Health Needs			
Not Obtaining or Postponing Medical or Surgical Needs	-0.03	*0.11	*26.08
Not Obtaining or Postponing Dental Care	*-0.09	*0.05	*37.76
Not Obtaining or Postponing Prescription Drugs	-0.03	0.03	*12.35
Confidence and Satisfaction with Care			
Not Confident About Obtaining Needed Care for Their Family	-0.01	*0.14	*46.50
Not Satisfied with Care They or Their Families Received Among Women with at Least 1 Visit	0.02	*0.08	*6.72
Use Measures			
At Least 1 Visit to Physician or Other Health Professional in the Past Year	-0.03	*-0.20	*37.89
Total Visits to Physicians or Other Health Professionals Among Women with at Least 1 Visit	*-1.69	*-2.86	*13.03
At Least 1 Visit to a Dentist or Dental Hygienist in the Past Year	*0.10	*-0.15	*36.12
Average Annual Dental Visits Among Women with at Least 1 Visit	0.19	0.20	0.65
Preventive Services			
At Least 1 Pap Smear in the Past Year	-0.02	*-0.13	*14.42
At Least 1 Clinical Breast Exam in the Past Year	0.03	*-0.11	*24.40
At Least 1 Visit to Hospital Emergency Department in the Past Year	*-0.11	*-0.09	*5.78
Inpatient Hospitalizations			
At Least 1 Non-Maternity-Related Hospitalization in the Past Year	-0.03	*-0.08	*10.26
At Least 1 Maternity-Related Hospitalization in the Past Year	-0.01	-0.01	0.94
Number of Observations	10,455		

* Differences between private versus Medicaid/other public and uninsured versus Medicaid/other public are significant at the 0.05 level.

[1] Coverage pertains to full-year insurance status.

[2] Includes women with Medicaid or other public coverage not receiving Supplemental Security Income or Medicare.

NOTE: The regression controlled for age, pregnancy status, health status, family structure, race, income, educational attainment, employment status, immigration status, State of residence, and urban/rural status.

SOURCE: The Urban Institute tabulations of data from the 1997 National Survey of America's Families.

Table 5

Regression Adjusted Differences in Access to Care and Use of Health Services for Low-Income Women with Public Coverage[1]: 1997

Variable	Difference[2]
Access Measure	
No Usual Source of Care or Usual Source of Care is Emergency Department	0.00
Unmet or Delayed Health Needs	
Not Obtaining or Postponing Medical or Surgical Needs	0.02
Not Obtaining or Postponing Dental Care	-0.01
Not Obtaining or Postponing Prescription Drugs	0.01
Confidence and Satisfaction with Care	
Not Confident About Obtaining Needed Care for Their Family	0.01
Not Satisfied with Care They or Their Families Received Among Women with at Least 1 Visit	0.03
Use Measure	
At Least 1 Visit to Physician or Other Health Professional in the Past Year	-0.04
Total Visits to Physicians or Other Health Professionals Among Women with at Least 1 Visit	-0.06
At Least 1 Visit to a Dentist or Dental Hygienist in the Past Year	-0.09
Average Annual Dental Visits Among Women with at Least 1 Visit	0.37
Preventive Services	
At Least 1 Pap Smear in the Past Year	*-0.12
At Least 1 Clinical Breast Exam in the Past Year	-0.08
At Least 1 Visit to Hospital Emergency Department in the Past Year	-0.12
Inpatient Hospitalizations	
At Least 1 Non-Maternity-Related Hospitalization in the Past Year	-0.04
At Least 1 Maternity-Related Hospitalization in the Past Year	*0.03
Number of Observations	3,037

* Differences are significant at the 0.05 level.

[1] Coverage pertains to full-year insurance status.

[2] Regression-adjusted difference between women with Medicaid or other public coverage who also receive Supplemental Security Income or Medicare and women with Medicaid or other public coverage who are not also receiving Supplemental Security Income or Medicare.

NOTE: The regression controlled for age, pregnancy status, health status, family structure, race, income, educational attainment, employment status, immigration status, State of residence, and urban/rural status.

SOURCE: The Urban Institute tabulations of data from the 1997 National Survey of America's Families.

Table 6

Regression-Adjusted Differences in Access to Care and Use of Health Services for Low-Income Women, by Insurance Coverage[1]: 1997 Comparison of Bivariate and Multivariate Results

Variable	Privately Insured Versus Medicaid/Other Publicly Insured[2]		Uninsured Versus Medicaid/Other Publicly Insured[2]		SSI or Medicare[3] Versus Medicaid/Other Publicly Insured[2]	
	Bivariate	Multivariate	Bivariate	Multivariate	Bivariate	Multivariate
Access Measure						
No Usual Source of Care or Usual Source of Care is Emergency Department			+	+		
Unmet or Delayed Health Needs						
Not Obtaining or Postponing Medical or Surgical Needs			+	+	+	
Not Obtaining or Postponing Dental Care	—	—	+	+	+	
Not Obtaining or Postponing Prescription Drugs	—					
Confidence and Satisfaction with Care						
Not Confident About Obtaining Needed Care for Their Family			+	+		
Not Satisfied with Care They or Their Families Received Among Women with at Least 1 Visit			+	+	+	
Use Measure						
At Least 1 Visit to Physician or Other Health Professional in the Past Year			—	—	+	
Total Visits to Physicians or Other Health Professionals Among Women with at Least 1 Visit	—	—	—	—	+	
At Least 1 Visit to a Dentist or Dental Hygienist in the Past Year	+	+	—	—	—	
Average Annual Dental Visits Among Women with at Least 1 Visit						
Preventive Services						
At Least 1 Pap Smear in the Past Year	—		—	—	—	—
At Least 1 Clinical Breast Exam in the Past Year	+		—	—		
At Least 1 Visit to Hospital Emergency Department in Past Year	—	—	—	—		
Inpatient Hospitalizations						
At Least 1 Non-Maternity-Related Hospitalization in the Past Year	—		—	—	+	
At Least 1 Maternity-Related Hospitalization in the Past Year	—		—		—	+

— Significantly lower than low-income women with Medicaid or other public coverage.

+ Significantly higher than low-income women with Medicaid or other public coverage.

[1] Coverage pertains to full-year status.

[2] Includes women with Medicaid or other public coverage not receiving Supplemental Security Income or Medicare.

[3] Includes women with Medicaid or other public coverage who also receive Supplemental Security Income or Medicare.

SOURCE: The Urban Institute tabulations of data from the 1997 National Survey of America's Families.

privately insured and Medicaid-covered women no longer remained once we controlled for other factors.

For women lacking coverage, the multivariate analysis confirmed all the bivariate findings with the exception of the probability of having a maternity-related hospitalization, which was no longer significant once other factors were controlled for. Compared with Medicaid-covered women, uninsured women were 20 percentage points less likely to have had a visit, those who had at least one visit had 2.8 fewer visits, were 15 percentage points less likely to have had a dental visit, and 13 and 12 percentage points less likely to have had a Pap smear or a clinical breast exam, respectively, 9 percentage points less likely to have had an emergency room visit, and 8 percentage points less likely to have had an inpatient hospital stay.

Multivariate Results for Disabled Medicaid Recipients

After controlling for other factors, few of the significant bivariate differences in access and utilization between disabled Medicaid recipients and other Medicaid-covered women remained in the multivariate analysis. The results of this analysis are presented in Table 5. Holding all else equal, disabled Medicaid recipients were still less likely than other women with Medicaid to have received a Pap smear. The bivariate analysis showed that disabled Medicaid recipients were less likely than other Medicaid-covered women to have a maternity-related hospitalization in the past year, however, in the multivariate analysis, the opposite result was found.

CONCLUSIONS

Previous research has demonstrated the link between insurance coverage and access to health care services. Our results are consistent with prior research and indicate that insurance is important for access to and use of health care services. Uninsured women face significant barriers to care that are not being addressed by the safety net system. In particular, uninsured women had greater unmet need for medical or surgical services and dental services, were more likely to have no usual source of care, were more likely to be not confident in obtaining needed care for their family and not satisfied with care once received compared with women with public coverage. Uninsured women also had lower levels of health care use for almost all of the services that were examined compared with women with public coverage. Given that these women are equally likely to be in poor or fair health as women with Medicaid coverage, this lower level of service use is likely to reflect access problems.

As seen in Table 4, access and use did not differ greatly between Medicaid-covered and privately insured women, however. Of the five access measures we examined, we found a significant difference in only one measure—women with Medicaid coverage were 9 percentage points more likely to report unmet dental needs than those with private coverage. Of the nine utilization measures we examined, we found significant differences in only three of the measures. Medicaid-covered women had more health professional visits, were more likely to have had an emergency room visit, and were less likely to have had a dental visit than women with private coverage. These findings imply that, with the exception of dental care, Medicaid and private coverage provide fairly comparable access to health care services.

Within the Medicaid program, there appear to be large differences in both access and use between disabled and nondisabled recipients. Disabled Medicaid

recipients had greater access problems, on par with the uninsured, and used more services than non-disabled Medicaid recipients. With the exception of Pap smears and maternity hospitalizations, the differences in access and use identified in the bivariate analysis did not remain in the multivariate analysis, implying that once health status and other variables are controlled for, disabled and non-disabled Medicaid recipients do not have significantly different patterns of access and use. The finding of higher Pap smear rates, even after controlling for other factors, is consistent with other research on screening and preventive services for disabled individuals (Iezzoni et al., 2000). Nonetheless, the finding that disabled Medicaid recipients report relatively high levels of unmet need is important because these women constitute 25 percent of the Medicaid population. As such, this population of women may need greater support services, such as enhanced case management, specialized transportation services, and other accommodations to ensure that both their primary and specialty health care needs are being met.

Although women with public and private coverage had similar levels of unmet need, confidence in and satisfaction with care, and somewhat comparable levels of use, we cannot conclude that either group is accessing an appropriate amount of physician or hospital services. As noted in an analogous study on access and use for children, the greater use of physician services by Medicaid-covered women may be due to unmeasured health-status differences, overuse of these services by Medicaid-covered women, or underuse by women with private coverage (Dubay and Kenney, 2001). Moreover, there is some evidence that access problems exist under Medicaid. The higher use of the emergency room by Medicaid-covered women could in fact be attributable to lack of access to primary care. Further research is needed to assess whether low-income women, notwithstanding the source of their insurance coverage, are accessing an appropriate amount of health care services.

What is clear is that low-income women are receiving lower-than-recommended levels of preventive care, regardless of coverage. Compared with higher income women, low-income women have a lower probability of receiving the recommended level of Pap smears, clinical breast exams, and dental visits (Dubay, Almeida, and Ko, 2001). The American Medical Association recommends that women age 18 or over receive a Pap smear and clinical breast exam annually. We find that 46.2 percent of low-income women did not receive a Pap smear, compared with 32.2 percent of higher income women. Similarly, 56.0 percent of low-income women did not receive a clinical breast exam, compared with 39 percent of higher income women. The American Dental Association recommends adults see a dentist twice a year for preventive care. Compared with higher income women, more than twice as many low-income women did not see a dentist in the preceding year (44.5 percent of low-income women versus 20.7 percent of higher income women).

Factors that may be barriers to accessing care may differ depending on insurance coverage. The benefit packages offered through private insurance coverage can be narrow in scope; preventive services, such as routine physicals and dental services, may not be covered (KPMG Peat Marwick, 1996). Cost-sharing, including copayments, deductibles, and coinsurance, which can constitute significant barriers to care, are common in private coverage but largely absent in the Medicaid program (Nichols et al., 1997; KPMG Peat Marwick, 1996). In contrast, Medicaid covers a comprehensive

range of primary and preventive care services. Yet, there is evidence that access problems exist in the Medicaid program due to low provider reimbursement and participation. Moreover, while the Medicaid program has a comprehensive dental package for children under the Early and Periodic Screening, Diagnostic, and Treatment program, coverage of dental care is more limited for adults: Only 15 States cover full dental benefits for adults, while 18 States cover partial dental services, and 17 States and the District of Columbia cover no or emergency dental services only (U.S. General Accounting Office, 2000a). Moreover, it has been well documented that limited dentist participation in Medicaid has a negative impact on access to dental services for low-income individuals (U.S. General Accounting Office, 2000b). Finally, it may be that low-income women are not seeking appropriate amounts of preventive care, so that underuse of services may be partially due to low demand stemming from lack of knowledge about recommended levels of preventive care.

Given the apparent disadvantage of being uninsured, it is alarming that more than one-third of all low-income women were uninsured. This circumstance may have worsened with Federal welfare reform. Implementation of the PRWORA and the strong economy have lead to large declines in welfare caseloads. Although the majority of women leaving welfare are eligible for transitional Medicaid benefits, a recent study of the period before this legislation was enacted indicated that only 36 percent of women who recently left welfare retained their Medicaid coverage. Fully 41 percent of these women were uninsured, and 23 percent had private coverage (Garrett and Holahan, 2000). In April 2000, CMS issued guidelines to States to ensure those eligible for transitional Medicaid benefits receive them. Thus, increasing Medicaid participation among women leaving welfare is critical.

In addition, the PRWORA created a new category of Medicaid eligibility in section 1931 of the Social Security Act. Using section 1931, States now have the flexibility to cover parents in one- and two-parent families at much higher income levels (Guyer and Mann, 1998; Dubay, Kenney, and Zuckerman, 2000). A number of States are taking advantage of this option (Krebs-Carter and Holahan, 2000), which may increase Medicaid coverage of low-income women. Furthermore, the Family Care Initiative currently before Congress would allow States more flexibility in covering parents through the separate programs developed under the State Children's Health Insurance Program (SCHIP). Our results suggest that, regardless of whether such expansions in coverage occur through Medicaid or through SCHIP with benefit packages that look more like private coverage, uninsured women will be better off if public programs are expanded. It is important to recognize, however, that such expansions would only cover parents, leaving the 47 percent of low-income women who are not parents ineligible for public coverage.

Finally, a number of issues warrant further research. First, neither Medicaid nor the private coverage available to low-income women is homogeneous, and the nature and quality of this coverage varies considerably. The results presented here reflect average national differences in access and use between Medicaid and private coverage for the 1996-1997 period. There could be access and use differences within both Medicaid and private coverage related to whether a woman is enrolled in a managed care arrangement and, if so, the particular type of arrangement in which the women is enrolled. Future research

examining these differentials is critically important, given the growing reliance on managed care in both the public and private insurance sectors. Second, while the results of this study indicate that insurance can reduce financial barriers to care, nonfinancial barriers also need to be identified and addressed in order to improve access to care for low-income women.

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