

Access to Cancer Screening Services for Women

ABSTRACT

A major effort in preventive care for women has emphasized the obtaining of Pap smears and mammograms. This paper uses survey data from one state to examine issues of access to Pap smears and mammograms. Poor women receiving health care through a managed-care Medicaid program received these services at the same rate as women with other types of health insurance, while the uninsured were less likely to have had either type of service. (*Am J Public Health*. 1992;82:733-735)

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Introduction

One preventive care emphasis for women is obtaining Pap smears and mammograms to detect cancer at an earlier, more curable stage. Recent studies have particularly linked poverty to cancer risk.¹⁻³ This paper uses survey data to examine issues of access to Pap smears and mammograms. Of particular interest is whether poor women receiving health care through the Arizona Health Care Cost Containment System (AHCCCS), a unique, managed-care Medicaid program, receive these services at the same rate as women with other health insurance. Earlier studies reported that poverty, age, no health insurance, and no recent visit to an obstetrician/gynecologist related to lack of Pap tests and that poverty, low education, and age related to lack of mammograms.³⁻⁹ This analysis compares AHCCCS women with uninsured women and women with other types of insurance. Unique to this analysis is the inclusion of use of each service (Pap smear, mammogram) in the model for the other service. Previous studies have generally focused on only one aspect of screening services.

Until 1981, Arizona had no Medicaid program. AHCCCS, a managed-care/health maintenance organization alternative to traditional fee-for-service Medicaid, was designed to provide cost-effective care that avoids excessive costs from overuse. The program operates through a network of capitated, managed-care plans with primary-care physicians as gatekeepers who coordinate all needed services. Plans competitively bid and negotiate for contracts and are at financial risk for overuse. Eligible recipients must obtain all care from their selected plan.

Methods

Survey data were collected in 1989. About 3100 randomly selected adults were interviewed about themselves, and 1100 about a randomly selected child. Interviews were conducted in English or Spanish. Further details on this survey have been published elsewhere.¹⁰ Four measures of access to cancer screening services were examined. In addition to a di-

chotomous variable of whether a woman ever had a test, women who had been screened by each test were asked when it occurred. Women who had received each service were split into those receiving it within 2 years prior to the survey and those 3 years or more before the survey. We also examined whether women who had a Pap smear were more likely to have a mammogram, and vice versa. Mammogram analyses included only women over 40, since mammogram services are not recommended at regular intervals before age 40.¹¹

In addition to examining the impact of insurance status and the AHCCCS program, other variables were hypothesized to affect use of preventive services. The different cultural values of Latino women may lead to different use patterns. (Numbers are too small to allow analyses of African-American and Native American women.) Latino women interviewed in Spanish were expected to have differences from those interviewed in English, with language of interview serving as an acculturation proxy. Educational attainment would affect receptivity to cancer screening messages, with less-educated women reporting lower use. Women with no usual health care source would have lower use of cancer screening services than women with a usual source. Women who needed health care but were unable to obtain it were expected to have lower Pap smear/mammogram use. Number of visits with health providers was expected to increase the likelihood of receiving cancer screening services, possibly nonlinearly. Lastly, age would have a varying effect, depending on the specific service.

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TABLE 1—Occurrence of Pap Smear, Arizona Anglo and Latino Women, 1989

Measure	Pap Smear within Last 2 Years, %	Pap Smear 3 or More Years Ago, %	Never Had Pap Smear, %	χ^2	P
Insurance status				16.45	.002
No insurance	44.3	42.2	13.5		
AHCCCS	72.9	20.4	6.7		
Other insurance	69.9	21.3	8.8		
Education				13.92	.008
Less than high school	62.0	23.3	14.7		
High school	67.6	23.4	9.1		
More than high school	74.9	20.8	4.4		
Usual source of care				27.45	<.001
No	51.9	33.4	14.7		
Yes	72.9	19.7	7.4		
Need but not receive medical care				7.52	.023
Yes	53.4	33.3	13.3		
No	69.6	21.8	8.6		
Ethnicity and language of interview				2.48	.659
Anglo	67.8	23.7	8.5		
Latino and English interview	70.5	20.0	9.5		
Latino and Spanish interview	78.1	11.0	10.9		
All respondents	68.1	22.8	9.0		

Note. AHCCCS = Arizona Health Care Cost Containment System.

TABLE 2—Occurrence of Mammogram, Arizona Anglo and Latino Women, 1989

Measure	Mammogram within Last 2 Years, %	Mammogram 3 or More Years Ago, %	Never Had Mammogram, %	χ^2	P
Insurance status				44.51	<.001
No insurance	9.0	7.2	83.2		
AHCCCS	53.6	3.9	42.5		
Other insurance	49.6	11.5	38.9		
Education				4.76	.313
Less than high school	42.4	10.0	47.6		
High school	46.8	10.2	42.9		
More than high school	50.7	12.5	36.9		
Usual source of care				24.51	<.001
No	30.4	14.1	55.6		
Yes	51.8	9.8	38.4		
Need but not receive medical care				5.74	.057
Yes	36.1	18.3	45.5		
No	47.9	10.1	42.0		
Ethnicity and language of interview				7.80	.099
Anglo	47.6	11.6	40.8		
Latino and English interview	45.2	7.1	47.7		
Latino and Spanish interview	34.1	1.5	64.5		
All respondents	46.9	10.8	42.3		

Note. AHCCCS = Arizona Health Care Cost Containment Service.

Results

Overall, 68% of women had a Pap smear in the 2 years prior to the survey,

23% had a Pap smear 3 years or more prior to the study, and 9% never had a Pap smear. Exploratory cross tabulations

showed statistically significant differences by insurance status, education, usual source of care, and needing but not receiving medical care (Table 1). Overall, 47% of women had a mammogram in the 2 years prior to the survey, 11% had a mammogram 3 years or more prior to the study, and 42% never had a mammogram. Only insurance status and usual source of care were significantly related to use of mammograms (Table 2).

Logistic regression was used to model the dichotomous measures. The results were transformed into odds ratios and 95% confidence levels. Variables without significant odds ratios are not presented, except for insurance. Women who had a mammogram were far more likely to have had a Pap smear than women without a mammogram, and women who had a Pap smear were far more likely to have had a mammogram than women without a Pap smear. Uninsured women and women with no usual source of care were far less likely to have had either service than women with conventional insurance, in AHCCCS, or with a usual source of care. Latino women were less likely to report a Pap smear, with no difference in mammograms (Table 3).

Women who had a mammogram were far more likely to have had a Pap smear within 2 years of the survey than women without a mammogram, and vice versa. Uninsured women and women with no usual source of care were far less likely to have had either service within 2 years of the survey than women with other insurance, AHCCCS, or a usual source of care (Table 4).

Discussion and Conclusion

Several important conclusions emerge from these analyses. The insignificant AHCCCS term indicates that a managed-care Medicaid-type model led to more appropriate use of preventive health services in cancer screening. AHCCCS women had no difference in access to these two preventive health services as compared with women with other insurance. Uninsured women and those with no usual source of care were less likely to have ever had the services or to have had them within the previous 2 years. In addition, older women and Latino women were less likely to have ever received a Pap smear. A recent editorial about race, poverty, and cancer concluded that poor Americans constitute a high-risk group for cancer.¹² This paper demonstrates that managed-care Medicaid programs can

ilar rates of use as the general population of insured women. □

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TABLE 3—Odds Ratios on Service Use

Model/Variable	Odds Ratio	95% Confidence Interval
Have had a Pap smear		
AHCCCS	0.83	0.41-1.70
Uninsured	0.44	0.32-0.60
Latino	0.56	0.44-0.72
No usual source of care	0.61	0.49-0.76
60-70 years old	0.36	0.27-0.49
70 and older	0.19	0.14-0.25
Have had a mammogram	3.73	2.93-4.75
Have had a mammogram		
AHCCCS	0.95	0.60-1.52
Uninsured	0.29	0.23-0.38
No usual source of care	0.55	0.46-0.66
No. of visits (relative to a woman with no visits)		
1	1.03	1.02-1.04
2	1.07	1.04-1.10
4	1.15	1.09-1.20
7	1.26	1.16-1.38
10	1.39	1.22-1.58
20	1.79	1.34-2.40
70 and older	0.69	0.59-0.81
Have had a Pap smear	3.64	2.86-4.63

Note. AHCCCS = Arizona Health Care Cost Containment Service.

TABLE 4—Odds Ratios on Recency of Service Use

Model/Variable	Odds Ratio	95% Confidence Interval
Had Pap smear within last 2 years		
AHCCCS	0.75	0.44-1.29
Uninsured	0.54	0.41-0.70
No usual source of care	0.54	0.44-0.65
Needed but did not receive care	0.51	0.40-0.65
60-70 years old	0.49	0.40-0.61
70 and older	0.35	0.29-0.44
Have had a mammogram	3.12	2.63-3.70
Had mammogram within last 2 years		
AHCCCS	1.42	0.63-3.17
Uninsured	0.36	0.23-0.56
No usual source of care	0.38	0.29-0.51
Have had a Pap smear	2.44	1.59-3.75

Note. AHCCCS = Arizona Health Care Cost Containment Service.

help direct resources to people at higher risk. Some studies have emphasized the need for motivational programs to encourage usage.⁴ In contrast, this study provides

evidence that, without special motivational programs, if poor women receive health care services within a managed-care model with a preventive approach they have sim-