

# Access to Care for the Uninsured: Is Access to a Physician Enough?

## ABSTRACT

Arch G. Mainous III, PhD, William J. Hueston, MD, Margaret M. Love, PhD, and Charles H. Griffith III, MD, MSPH

**Objectives.** This study examined a private-sector, statewide program (Kentucky Physicians Care) of care for uninsured indigent persons regarding provision of preventive services.

**Methods.** A survey was conducted of a stratified random sample of 2509 Kentucky adults (811 with private insurance, 849 Medicaid recipients, 849 Kentucky Physicians Care recipients).

**Results.** The Kentucky Physicians Care group had significantly lower rates of receipt of preventive services. Of the individuals in this group, 52% cited cost as the primary reason for not receiving mammography, and 38% had not filled prescribed medicines in the previous year.

**Conclusions.** Providing free access to physicians fills important needs but is not sufficient for many uninsured patients to receive necessary preventive services. (*Am J Public Health.* 1999; 89:910-912)

An estimated 42 million Americans have no health insurance.<sup>1</sup> Lack of health insurance has been shown to be related to a decreased likelihood of obtaining preventive services<sup>2,3</sup> and having a usual source of care.<sup>4,5</sup> Although, in several studies, access to care has been defined in a general way as the ability to "obtain needed medical care,"<sup>6,7</sup> recent evidence has indicated that access to care must be seen as more than simply access to a physician.<sup>8</sup> In particular, ancillary services such as prescription drugs and diagnostic tests extend care needs beyond those met by the physician's services.

Individuals in Kentucky are addressing health care access for the uninsured with the Kentucky Physicians Care program, a referral system for patients with income below 100% of the federal poverty level who are ineligible for Medicaid or any other type of governmental medical program. Participating physicians volunteer to see patients at no charge for the first visit and may see them for subsequent visits. The program encourages continuity, but the physician is not obligated to continue providing free care to the patient beyond the first visit.

The program provides only physician personal services, primarily for routine office visits. The program will not pay for emergency room visits or ancillary services such as laboratory tests or x-rays. A variety of pharmaceutical companies currently donate medications to the program if a program physician writes the prescription by name.

Although some data exist on access to care for uninsured individuals, the effectiveness of programs such as Kentucky Physicians Care in regard to receipt of prescription medications and preventive services that require additional cost beyond physicians' services (e.g., mammography) is unknown. The purpose of the present study was to investigate the effectiveness of this statewide private-sector program providing health services to the uninsured.

## Methods

### Procedure

Data were collected in a statewide telephone survey conducted in April and May 1997. Subjects were randomly selected adults

(older than 18 years of age) in the Kentucky Physicians Care program who had received a referral through the program in 1996, adults with health insurance chosen by random-digit dialing selection with Waksberg clustering, and randomly selected adults in the Kentucky Medicaid program. The survey procedure allowed for up to 3 callbacks to a selected household number. Recipients of either the Kentucky Physicians Care or Medicaid program must provide a telephone number for contact, whether the phone is located in their residence or not. Because not all selected individuals had telephones in their home, the interviewer asked the contact person to arrange a time when the recipient of Kentucky Physicians Care or Medicaid would be available.

The project was approved by both the University of Kentucky's Medical Institutional Review Board and the Commonwealth of Kentucky's Cabinet for Health Services Institutional Review Board.

### Measures

The survey contained a variety of questions regarding health care use. First, having a usual site and provider of care were measured by items from the National Health Interview Survey (NHIS).<sup>9</sup> In addition, use was measured by asking about contact with a physician in the previous 12 months. Individuals in the Kentucky Physicians Care program were asked whether each contact was within the program.

The respondents were asked whether medications had been prescribed for them in the previous 12 months and whether they had filled them. If they reported that they had not filled the prescribed medications, they were asked the reason.

Arch G. Mainous III and William J. Hueston are with the Department of Family Medicine, Medical University of South Carolina, Charleston. Arch G. Mainous III is also with the Center for Health Care Research, Medical University of South Carolina. Margaret M. Love is with the Department of Family Practice, and Charles H. Griffith III is with the Department of Internal Medicine, both at the University of Kentucky, Lexington.

Requests for reprints should be sent to Arch G. Mainous III, PhD, Department of Family Medicine, Medical University of South Carolina, 171 Ashley Ave, Charleston, SC 29425 (e-mail: mainouag@musc.edu).

This paper was accepted December 7, 1998.

The respondents were asked about several preventive diagnostic tests that represented non-physician services. The items were based on the 1993 NHIS but updated to the recommendations of the second edition of the US Preventive Services Task Force *Guide to Clinical Preventive Services*.<sup>10</sup> The preventive services questions focused on 3 issues: (1) whether the individual had ever undergone the test, (2) whether the individual was up to date in terms of screening, and (3) reasons for not being up to date. The preventive services were mammography, Papanicolaou test, fecal occult blood test or flexible sigmoidoscopy, and cholesterol level check. Questions were asked only of individuals recommended for the service (e.g., mammography in women 50 years and older).

Demographic variables collected were age, sex, race, area of residence (rural/urban), education, and annual total household income. We also measured functional health status according to the Medical Outcomes Study 12-item Short-Form Health Survey.<sup>11</sup> The survey's physical and mental health indexes were standardized to a range of 0–100, with higher scores indicating better functional status.

### Analysis

Because of the complex survey design, the data were analyzed with SUDAAN.<sup>12</sup> Bivariate analyses for categorical data were computed via  $\chi^2$  tests. Analysis of variance makes the assumption that every observation has the same variance, an assumption that could not be made in the present sampling design; thus, we used dummy regression as a substitute for analysis of variance.

### Results

The response rates were as follows: 51% for the private insurance group (811/1589), 86% for the Kentucky Physicians Care group (849/991), and 77% for the Medicaid group (849/1106). Table 1 indicates that participants in the Kentucky Physicians Care program were less educated, more likely to be members of minority groups, and more likely to live in rural areas than those in the other groups. The functional health status results indicate that the Kentucky Physicians Care recipients scored lower than their counterparts on both the physical and mental health domains of the Short-Form Health Survey.

The Kentucky Physicians Care group was less likely to use private physicians' services than were those with private insurance (Table 2). Also, individuals in this group exhibited less consistency between where they reported they normally went and where they

**TABLE 1—Demographic Characteristics of Participating Adults, Kentucky, 1997**

	Insurance (n = 811)	KPC (n = 849)	Medicaid (n = 849)	P
Male, %	46.4	30.4	9.2	<.0001
Ethnic background, %				<.0001
White	94.3	85.2	84.7	
African American	4.6	12.2	13.7	
Hispanic	0.4	0.2	0.1	
Other	0.8	2.4	1.5	
Education, %				<.0001
Less than high school	11.4	44.8	39.6	
High school or general equivalency diploma	36.3	38.6	40.1	
More than high school	52.4	16.7	20.3	
Residence in metropolitan statistical area, %	53.8	32.4	33.8	<.0001
Age, y, %				<.0001
18–34	23.4	29.7	50.6	
35–49	39.6	42.4	28.1	
50 or more	37.1	27.9	21.3	
Annual income, \$, mean $\pm$ SE	39300 $\pm$ 600	9700 $\pm$ 250	12700 $\pm$ 350	<.0001
Physical health status score, mean $\pm$ SE	77.6 $\pm$ 0.8	36.7 $\pm$ 1.0	58.4 $\pm$ 1.1	<.0001
Mental health status score, mean $\pm$ SE	76.1 $\pm$ 0.6	46.3 $\pm$ 0.8	60.1 $\pm$ 0.8	<.0001

Note. KPC = Kentucky Physicians Care.

had gone on their most recent visit. In terms of using the program, only 45.2% of Kentucky Physicians Care participants had done so for the most recent visit in the previous year.

For each of the preventive services examined, Kentucky Physicians Care participants received services at a lower rate than either privately insured individuals or Medicaid recipients (Table 3). Cost (identified by more than 45%) was the primary reason that Kentucky Physicians Care respondents' were not up to date in terms of Papanicolaou tests and mammograms. These respondents were more likely than those in other groups to cite cost as a major factor for not being up to date in these 2 services ( $P < .0001$ ).

Kentucky Physicians Care participants were most likely to have had medications prescribed; they were also most likely not to have filled prescriptions (38% not filling a prescription vs 21% in the Medicaid group and 9% in the private insurance group;  $P < .0001$ ). The primary reason for Kentucky Physicians Care individuals not filling a prescription was the cost of the medication (77%).

### Discussion

Our findings provide insight into the difficulty of providing health care for the uninsured. On one level, the Kentucky Physicians Care program has been extremely successful.

Through the program, 1729 physicians in Kentucky currently volunteer services to uninsured patients at no charge. Since 1985, Kentucky Physicians Care has provided 290 000 visits to uninsured patients. Although a majority of patients involved in the program are receiving preventive services and medications that they otherwise would not be able to obtain, Kentucky Physicians Care participants still lag behind individuals with private or public insurance. Participants frequently cited additional cost barriers to obtaining needed medications or preventive services. Physician voluntarism of care for the uninsured meets many needs but appears insufficient to fully address important preventive care needs.

One of the major issues facing a program such as Kentucky Physicians Care is persuading individuals to use the program. Less than half of the Kentucky Physicians Care group had used the program for their most recent visit. This may account for the substantial proportion of Kentucky Physicians Care recipients' who did not receive prescribed medications, even though many medications are free within the program. Increasing use of the program may be difficult, because individuals are accessing it for acute problems. This may account for the greater use of emergency rooms by the Kentucky Physicians Care participants than the other groups for their most recent visit, even though emergency rooms are not covered

**TABLE 2—Access to Care, Kentucky, 1997**

	Insurance	KPC	Medicaid	P
Usually receive care at a particular place, %	84.4	84.6	91.2	<.0001
Currently see a particular person at usual site, %	88.7	72.2	73.7	<.0001
Type of usual site, %				<.0001
Doctor's office	93.3	69.3	76.1	
Clinic	4.3	22.9	19.2	
Emergency room	1.6	7.6	4.2	
Urgent treatment center	0.8	0.3	0.4	
Type of site for most recent visit, %				<.0001
Doctor's office	92.5	74.6	77.7	
Clinic	3.4	14.1	15.2	
Emergency room	3.3	10.6	6.8	
Urgent treatment center	0.8	0.7	0.3	
Type of usual site matches type of site of most recent visit, %	93.8	77.7	86.8	<.0001
Site of most recent visit in same county as residence, %	76.9	74.1	79.2	.05
No. of contacts with doctor in last year, mean ± SE	2.64 ± 0.07	3.82 ± 0.07	3.62 ± 0.08	<.0001

Note. KPC = Kentucky Physicians Care.

**TABLE 3—Use of Preventive Services, Kentucky, 1997**

	Insurance	KPC	Medicaid	P
Papanicolaou test, %				
Ever	95.7	95.3	96.6	.54
Current	89.3	77.9	87.1	<.0001
Mammogram, %				
Ever	84.0	73.6	73.3	.02
Current	69.1	54.2	59.2	.01
Colon cancer test, %				
Ever				
Blood stool	48.7	31.3	49.4	.0001
Flexible sigmoidoscopic	33.5	23.8	31.1	.05
Current	24.5	16.3	28.0	.01
Cholesterol test, %				
Ever	81.7	70.1	78.2	.0002
Current	78.1	65.2	76.6	.0001

Note. Values are based on individuals eligible for current use of services. KPC = Kentucky Physicians Care.

by the program. Similarly, the issue of continuity of care is a problem, with only 2.5% (105/4098) of individuals who use the program in a given year having multiple visits to the same provider. Incentives to physicians to maintain continuity with patients may be a useful strategy to improve care.

This study has several limitations. First, the data were based on self-reports. In an effort to increase the reliability and validity of the questions, we used items from the NHIS. Second, while telephone surveys tend to exclude individuals with low incomes, we used recipient lists, with both Medicaid and the Kentucky Physicians Care program pro-

viding response rates of more than 75%. Third, the study focused on a program in a single state. This may limit the generalizability of the findings, but at the same time it provides information on a unique private-sector initiative. Fourth, although we selected Kentucky Physicians Care individuals on the basis of records indicating program access, we were unable to determine whether these individuals had actually seen the referred physician. This may have played a role in the limited proportion of Kentucky Physicians Care respondents who had used the program for their most recent visit. Finally, these results may underestimate the value of the

program, because data were not available to compare the Kentucky Physicians Care group before and after referral or to compare the group with other uninsured individuals.

In summary, the Kentucky Physicians Care program provides needed services to uninsured indigent persons through altruistic efforts by individuals in the private sector. As state and federal policy continues to focus on the uninsured as a vulnerable population, integration of this private-sector program into a partnership with the public sector may be beneficial. □

## Contributors

A. G. Mainous participated in study conception and design, data analysis and interpretation, and writing the paper. W. J. Hueston and C. H. Griffith participated in study conception and design and data interpretation. M. M. Love participated in data analysis.

## Acknowledgments

This study was funded in part by Health Kentucky Inc and the Good Samaritan Foundation Inc. We wish to thank J. Scott Judy for his help in the study.

## References

- Carrasquillo O, Himmelstein DU, Woolhandler S, Bor DH. Going bare: trends in health insurance coverage, 1989 through 1996. *Am J Public Health.* 1999;89:36-42.
- Bindman AB, Grumbach K, Osmond D, Vranizan K, Stewart AL. Primary care and receipt of preventive services. *J Gen Intern Med.* 1996;11:269-276.
- Health insurance coverage and receipt of preventive health services—United States, 1993. *MMWR Morb Mortal Wkly Rep.* 1995;44:219-225.
- Needleman J, Arnold J, Sheila J, Lewin LS. *The Health Care Financing System and the Uninsured.* Washington, DC: Lewin/ICF; 1990.
- Schoen C, Lyons B, Rowland D, Davis K, Puleo E. Insurance matters for low-income adults: results from a five-state survey. *Health Aff.* 1997;16:163-171.
- Bindman AB, Grumbach K, Osmond D, et al. Preventable hospitalizations and access to health care. *JAMA.* 1995;274:305-311.
- Donelan K, Blendon RJ, Hill CA, et al. What ever happened to the health insurance crisis in the United States? Voices from a national survey. *JAMA.* 1996;276:1346-1350.
- Berk ML, Schur CL, Cantor JC. Ability to obtain health care: recent estimates from the Robert Wood Johnson Foundation National Access to Care Survey. *Health Aff.* 1995;14:139-146.
- Benson V, Marano MA. Current estimates from the National Health Interview Survey, 1993. *Vital Health Stat 10.* 1994;No. 189.
- US Preventive Services Task Force. *Guide to Clinical Preventive Services.* 2nd ed. Baltimore, Md: Williams & Wilkins; 1996.
- Ware JE Jr, Kosinski M, Keller SD. A 12-item short-form health survey: construction of scales and preliminary tests of reliability and validity. *Med Care.* 1996;34:220-233.
- Shah BV, Barnwell BG, Bieler GS. *SUDAAN Software for Analysis of Correlated Data: User's Manual. Release 6.40.* Research Triangle Park, NC: Research Triangle Institute; 1995.