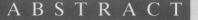
Care Denied: US Residents Who Are Unable to Obtain Needed Medical Services



Objectives. This study analyzed data on US residents reporting that they were unable to obtain needed care. Inadequately immunized children and women inadequately screened for breast or cervical cancer were also examined.

Methods. Data from the 1987 National Medical Expenditure Survey was analyzed.

Results. A total of 6375000 (90% confidence interval [CI] =6 039 000, 6 711 000) people could not get hospitalization, prescription medications, medical equipment/ supplies, or emergency, pediatric, mental health, or home care. Although the uninsured were more likely to forego care unavailable, three quarters of those unable to obtain services were insured, and 46% (90% CI = 42.4%, 49.6%) had private coverage. Of those reporting the reason why they failed to obtain care, 65.1% (90% CI = 61.7%, 68.6%) listed high costs or lack of insurance, including 60.7% (90%) CI = 57.1%, 64.3%) of the privately insured. More than a third of women had not had a breast examination in the previous 2 years, a fifth had not had a Pap smear within the previous 4 years, and half had never had a mammogram (ages 50-69 only). Of children 2 to 5 years old, 35.1% (90%) CI = 31.5%, 35.7%) were inadequately immunized. Medicaid recipients had measures of access to care similar to those of the uninsured.

Conclusions. Many US residents—most of whom have insurance—are unable to obtain needed care, usually because of high costs. (*Am J Public Health.* 1995;85:341–344)

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Introduction

Although diminishing the ranks of the uninsured is essential, health insurance is not synonymous with access to care. Nonfinancial barriers discourage many insured patients, and coverage often has gaps that make care unaffordable.¹ Conversely, some uninsured individuals obtain care through charity or by paying out of pocket.

In this paper, we present data on persons who were unable to obtain needed medical care or who failed to receive recommended preventive services during 1987.

Materials and Methods

We analyzed the 1987 National Medical Expenditure Survey, which collected demographic, health status, and medical care use and expenditure data on about 30 000 people. Data were collected at four quarterly rounds, and the survey was designed to provide unbiased estimates for the US civilian population, as well as for subgroups of analytic interest (e.g., minorities and the functionally impaired).²

The survey asked whether any household member needed but did not receive any of seven specific services during the previous year: emergency care; an overnight hospital stay; home care such as a visiting nurse, doctor, or therapist; mental health services; a pediatrician's care; prescription medications; or medical equipment such as eyeglasses, diabetic supplies, and orthopedic items. If so, respondents were asked why and whether they had actually tried to obtain the service. These questions represented the basis for our analysis.

We also analyzed National Medical Expenditure Survey data on selected preventive services. We considered children 2 to 5 years of age inadequately immunized if they had received fewer than two doses of the diphtheria/pertussis/ tetanus or polio vaccine or no doses of the measles/mumps/rubella vaccine. We classified women more than 17 years old as being inadequately screened if they had not had a Pap smear within the previous 4 years or had not had a breast examination by a health professional within the previous 2 years; women 50 to 69 years of age who had never undergone mammography were also classified as being inadequately screened.

We examined waiting times for primary care based on respondents' estimate of the average wait for an appointment at their usual source of care.

We considered individuals insured if they reported public or private coverage at the time of the survey or at the closest survey round that included insurance data. We classified people as having a history of severe illness if they had ever been told by a physician that they had diabetes/high blood sugar, cancer of any kind, stroke, emphysema, or myocardial infarction/heart attack.

Published standard error tables that adjusted for the complex sample design of the National Medical Expenditure Survey and yielded conservative estimates were

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Group	No. Unable to	Unable to	Unable to Obtain Service(s),		
	Obtain Service(s),	Obtain Service(s),			
	Millions (90% CI)	Group % (90% CI)	Total % (90% CI)		
US civilians	6.38 (6.04, 6.71)	2.7 (2.5, 2.9)	100		
Uninsured	1.69 (1.51, 1.87)	5.5 (4.8, 6.2)	26.5 (23.4, 29.6)		
Insured	4.68 (4.43, 4.93)	2.3 (2.1, 2.5)	73.4 (70.3, 76.5)		
Private coverage ^a	2.93 (2.72, 3.14)	1.8 (1.6, 2.0)	46.0 (42.4, 49.6)		
Medicare coverage ^a	1.16 (1.03, 1.29)	4.0 (3.3, 4.7)	18.2 (15.2, 21.2)		
Medicaid coverage ^a	0.94 (0.84, 1.04)	5.7 (4.7, 6.7)	14.7 (12.1, 17.3)		
History of serious illness ^b	1.27 (1.12, 1.42)	5.0 (4.3, 5.7)	19.9 (16.9, 22.9)		
Adults more than 17 y	5.25 (4.97, 5.53)	3.0 (2.7, 3.3)	82.3 (79.3, 85.3)		
Children less than 18 y	1.13 (1.00, 1.26)	1.9 (1.6, 2.2)	17.7 (14.7, 20.7)		
African Americans	1.12 (1.00, 1.25)	4.1 (3.4, 4.8)	17.6 (15.1, 20.1)		
Hispanics	0.63 (0.53, 0.73)	3.4 (2.7, 4.1)	9.9 (7.8, 12.0)		
Whites and others	4.62 (4.37, 4.87)	2.5 (2.3, 2.7)	72.5 (69.2, 75.8)		

TABLE 1—Persons Unable to Obtain One or More of Seven Selected Medical Services: United States, 1987

alndividuals may have more than one type of insurance coverage.

Diabetes/high blood sugar, cancer, stroke, emphysema, or myocardial infarction/heart attack.

used to calculate 90% confidence intervals (CIs).³

Results

During 1987, 6 375 000 (90% CI = 6 039 000, 6 711 000) people in the United States needed but could not obtain one of the seven specific services (Table 1): 945 000 (90% CI = 838 000, 1 052 000) people were unable to obtain emergency care; 436 000 (90% CI = 367 000, 505 000), hospitalization; 357 000 (90% $CI = 301\ 000,\ 413\ 000),\ pediatric\ care;$ 639 000 (90% CI = 537 000, 741 000), mental health care; 1 642 000 (90% CI = 1 482 000, 1 801 000), prescription medications; 3 263 000 (90% CI = 3 049 000, 3 477 000), medical equipment and supplies; and $445\,000$ (90% CI = 374 000, 516 000), home care.

The uninsured were more than twice as likely to have been unable to obtain care as the insured. Nonetheless, nearly three quarters of those forgoing care were insured, and 46% had private insurance. People covered by Medicaid were as likely to forgo care as were those who were uninsured.

While 1 100 000 (90% CI = 1 000 000, 1 200 000) children were unable to obtain care, a greater proportion of adults found care unavailable. Individuals with a history of serious medical illness were twice as likely as others to report an inability to obtain care, and they accounted for 20% of those reporting such access difficulties. Of those with a history of severe illness, 18% (90% CI = 14.2%,

21.8%) of the uninsured and 4.1% (90% CI = 3.4%, 4.8%) of those with coverage were unable to obtain care.

A higher proportion of African Americans (4.1%; 90% CI = 3.4%, 4.8%) and Hispanics (3.4%; 90% CI = 2.7%, 4.1%) than of Whites and others (2.5%; 90% CI = 2.3%, 2.7%) were unable to obtain care. Women were slightly more likely than men to forgo care. Not surprisingly, those classified as poor and near poor were at greatest risk (6.3% [90% CI = 5.6%, 7.0%] and 4.8% [90% CI = 3.6%, 6.0%], respectively). Yet, 755 000 (90% CI = 653 000, 857 000) of those in the top family income tercile went without needed care.

The proportion of individuals unable to obtain care was lowest in the Midwest (2.1%; 90% CI = 1.7%, 2.4%) and Northeast (2.2%; 90% CI = 1.8%, 2.5%) and highest in the South (3.1%; 90%CI = 2.9%, 3.3%) and West (3.5%; 90%CI = 3.2%, 3.8%). Rural residents were slightly more likely to report care denials (3.1%; 90% CI = 2.8%, 3.4%) than were those living in standard metropolitan statistical areas (2.6%; 90% CI = 2.4%, 2.8%).

People unable to obtain needed care were asked whether they had actually tried to obtain such care; 41% (90% = 37.4%, 44.6%) reported that they had done so. The uninsured were slightly less likely than the insured to have tried (36% [90% CI = 29.4%, 42.6%] vs 43% [90% CI = 39.4%, 46.6%]), largely because most Medicaid enrollees who were unable to obtain care (57%; 90% CI = 48.9%, 65.1%) had tried to do so. For 58% (90% CI = 50.1%, 65.9%) of children unable to obtain care, actual efforts had been made to do so; the corresponding proportion for adults was 37% (90% CI = 33.4%, 40.6%). A total of 487 000 (90% CI = 410 000, 564 000) people tried but failed to obtain emergency care.

Of those reporting a primary reason for not obtaining care, 65.1% (90% CI = 61.7%, 68.6%) cited high costs or lack of insurance, including 77.0% (90% CI = 71.1%, 82.9%) of those without insurance and 60.7% (90% CI = 57.1%, 64.3%) of those with insurance. Similar proportions of those with private coverage, Medicaid, and Medicare cited cost as the main factor. Other reasons given were lack of time (4.9% of respondents; 90% CI = 3.3%, 6.6%), refusal of clinic or physician (3.9%; 90% CI = 2.4%, 5.4%), nonsevere illness (3.0%; 90% CI = 1.9%, 4.2%), could not get an appointment (1.9%; 90% CI = 0.9%, 2.9%), and no transportation available (1.4%; 90% CI = 0.4%, 2.4%).

Seven percent (90% CI = 6.8%, 7.2%) of the population reported waiting longer than 2 weeks for an appointment with their usual doctor, and 1.1% (90% CI = 0.9%, 1.3%) waited more than 30 days. The proportion of those waiting 2 weeks or longer was lowest for the uninsured (3.7%; 90% CI = 3.0%, 4.4%), followed by those with private coverage (7.4%; 90% CI = 7.%, 7.7%) Medicaid (9.0%; 90% CI = 8.0%, 10.0%), and Medicare (9.7%; 90% CI = 8.7%, 10.7%).

Of women 50 to 69 years of age, 53.7% (90% CI = 52.1%, 55.3%) had never had a mammogram, including 70.7% (90% CI = 66.7%, 74.6%) of uninsured women, 63.4% (90% CI = 56.0%, 71.8%) of those with Medicaid, and 50.5% (90% CI = 48.4%, 52.6%) of those privately insured (Table 2). Fewer Blacks (37.8%; 90% CI = 33.0%, 42.6%) and Hispanics (38.3%; 90% CI = 31.2%, 45.4%) than Whites and others (47.7%; 90% CI =46.1%, 49.3%) had been screened. Women classified as near poor had the lowest rate of mammography (30.6%; 90% CI = 23.2%, 38.0%) while those in the top income tercile had the highest rate (56.6%; 90% CI = 54.1%, 59.1%). More than a third of women more than 17 years of age had not had a clinical breast examination within the previous 2 years, and nearly a fifth had not had a Pap smear within the previous 4 years. While the uninsured were at greater risk, insured

Group	Not Receiving Service		Those with Insurance Not Receiving Service		Those without Insurance Not Receiving Service		Those with Insurance as Proportion of All Not Receiving Service	
	%	90% CI	%	90% Cl	%	90% Cl	%	90% CI
Women 50–69 y never having had a mammogram	53.7	52.1, 55.3	52.1	50.0, 54.2	70.7	66.7, 74.6	88.9	87.4, 90.4
Women more than 17 y not having had a breast examination within 2 years	34.8	33.8, 35.8	33.6	32.6, 34.6	44.2	41.7, 46.7	85.8	84.6, 87.0
Women more than 17 y not having had a Pap smear within 4 years	19.2	18.4, 20.0	18.7	17.9, 19.5	22.7	21.2, 24.2	86.9	85.9, 87.9
Children 2–5 y inadequately immu- nized against polio, DPT, or MMR	33.6	31.5, 35.7	32.7	30.4, 35.0	38.8	34.0, 43.6	83.3	80.2, 86.4

TABLE 2-Persons Failing to Receive Selected Preventive Services: United States, 1987

Note. DPT = diphtheria/pertussis/tetanus; MMR = measles/mumps/rubella.

women accounted for more than 85% of those inadequately screened.

Only 52.8% (90% CI = 50.3%, 55.2%) of children 2 to 5 years of age were adequately immunized (Table 2); $4\,500\,000\,(90\%\,\text{CI} = 4\,300\,000, 4\,700\,000)$ were inadequately immunized, and the immunization status of 1 800 000 (90% CI = 1 600 000, 2 000 000) was unknown. Medicaid enrollees were most often inadequately immunized (55.8%; 90% CI = 50.7%, 60.9%), followed by the uninsured (38.8%; 90% CI = 34.0%)43.6%) and the privately insured (26.1%; 90% CI = 23.8%, 28.4%). Inadequate immunization was inversely related to income, falling from 47.6% (90% CI = 42.5%, 52.7%) among those classified as poor to 26.5% (90% CI = 21.9%, 31.1%) among those in the highest family income tercile. A total of 61.5% (90% CI = 56.6%, 66.4%) of Black preschoolers were inadequately immunized, in comparison with 47.6% (90% CI = 40.5%, 54.7%) of Hispanics and 26.3% (90%) CI = 23.2%, 29.4%) of Whites and others.

Discussion

Millions of Americans, including many with insurance, cannot obtain needed care. Indeed, three quarters of those unable to obtain services have coverage; nearly half have private insurance. Cost is the major barrier to care for both the insured and the uninsured. Moreover, other barriers—inhospitable, inconvenient, or inaccessible services and a lack of resources to seek care—also weigh most heavily on the poor. Since the National Medical Expenditure Survey inquired about the availability of only seven services, notably excluding physicians' visits for adults, our analysis probably underestimates the number of people unable to obtain needed care. Moreover, some very high-risk groups (e.g., homeless people and undocumented immigrants) were probably underrepresented in the survey sample.

The consequences of the forgone care are unknown since, by definition, no health professional was consulted for these episodes and the validity of the respondents' self-reports is uncertain. However, several factors suggest that many episodes were not trivial. Nearly a million people failed to get emergency care, of whom half actively sought it. A total of 1.3 million of those unable to obtain care had a history of stroke, cancer, myocardial infarction, emphysema, or diabetes.

Overt denials of care represent a small fraction of unmet medical needs: much of the population lacks preventive care. Less than half of the women in our study 50 to 69 years of age had ever had a mammogram. One third of all women had not had a recent breast examination, and a fifth had not had a recent Pap smear. A bare majority of preschoolers were known to be adequately immunized. As in previous studies,⁴ most of those forgoing preventive care were insured. Copayments, deductibles, and the failure of many insurance policies to cover screening and immunizations discourage preventive care.5

Medicaid recipients found care no more available than did the uninsured. Many providers eschew Medicaid patients because of low fees. In addition, all Medicaid recipients but only some of the uninsured live in poverty, which is itself a barrier to care. Finally, since many of those on Medicaid have serious illnesses (25% vs 7.8% of the uninsured), they need more care, resulting in more frequent opportunities for care denials.

Our findings are consistent with partial figures based on a more limited survey.⁶ A 1992 poll found that, in 10% of New Jersey households, someone had wanted to see a doctor but could not, including 36% of those without insurance and 7% of the insured.⁷ These high figures may reflect differences in survey methodology or an increase in uninsurance and underinsurance since 1987.⁸

Queues for medical services in Canada have garnered publicity and scholarly attention.9,10 Limited studies in the United States have documented long waits in some emergency department settings^{11,12} and longer waits in health maintenance organizations than in fee-forservice settings.^{13,14} At a Chicago public hospital, 10 000 patients are on a queue that exceeds 2 years for adult medical appointments (G. Schiff, MD, personal communication, September 1994). Although Canadian physicians report greater problems in obtaining timely specialty care for their patients than their US colleagues,¹⁵ the only direct comparisons between the two nations found less delay for breast cancer treatment in Canada¹⁶ but more delay for elective knee replacement.¹⁷ Our data show that many Americans, including more than 7% of those with private insurance, wait at least 2

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weeks for routine care. It is unclear whether such waits are harmful.

Data from the US Immunization Survey, which was discontinued in 1985, are consistent with our findings.¹⁸ Rates of mammography in the 1987 National Medical Expenditure Survey were lower than those reported in 1990,¹⁹ as a result of either survey methodology or secular change.

Expanding Medicaid, or even private coverage, would still leave millions unable to afford care. Inadequate Medicaid programs and gaps in private coverage—copayments, deductibles, and exclusions—restrict access to care, especially for the seriously ill. Our health care system fails many of those both with and without insurance. \Box

References

- 1. Bodenheimer T. Underinsurance in America. N Engl J Med. 1992;327:274-277.
- Cohen SB, DiGaetano R, Waksberg J. Sample Design of the National Medical Expenditure Survey-Household Component. Rockville, Md: National Center for Health Services Research.
- 3. National Medical Expenditure Survey: Health Insurance, Use of Health Services, and

Health Care Expenditures. Rockville, Md: Agency for Health Care Policy and Research; 1992.

- Woolhandler S, Himmelstein DU. Reverse targeting of preventive care due to lack of health insurance. JAMA. 1988;259:2872– 2874.
- Lurie N, Manning WG, Peterson C, Goldberg GA, Phelps CA, Lillard L. Preventive care: do we practice what we preach? *Am J Public Health.* 1987;77:801–804.
- Hayward RA, Shapiro MF, Freeman HE, Corey CR. Inequities in health services among insured Americans: do working-age adults have less access to medical care than the elderly? N Engl J Med. 1988;318:1507– 1512.
- 7. New Jersey: survey shows health care wants and woes. *Healthline*. July 22, 1992.
- Himmelstein DU, Woolhandler S, Wolfe SM. The vanishing health care safety net: new data on uninsured Americans. Int J Health Serv. 1992;22:381–396.
- Morris AL, Roos LL, Brazauskas R, Bedard D. Managing scarce services. A waiting list approach to cardiac catheterization. *Med Care*. 1990;28:784–792.
- 10. Naylor CD. A different view of queues in Ontario. *Health Aff.* 1991;10:110–128.
- Andrulis DP, Kellermann A, Hintz EA, Hackman BB, Weslowski VB. Emergency department and crowding in United States teaching hospitals. *Ann Emerg Med.* 1991; 20:980–986.

- Bindman AB, Grumbach K, Keane D, Rauch L, Luce JM. Consequences of queuing for care at a public hospital emergency department. JAMA. 1991;260: 1091-1096.
- 13. Davies AR, Ware JE Jr, Brook RH, Peterson JR, Newhouse JP. Consumer acceptance of prepaid and fee-for-service medical care: results from a randomized controlled trial. *Health Serv Res.* 1986;21: 429-452.
- 14. Wolinsky FD, Marder WD. Waiting to see the doctor. The impact of organizational structure on medical practice. *Med Care*. 1983;21:531-542.
- Blendon RJ, Donelan K, Leitman R, et al. Health reform lessons learned from physicians in three nations. *Health Aff.* 1993;12: 194–203.
- Katz SJ, Hislop TG, Thomas DB, Larson EB. Delay from symptom to diagnosis and treatment of breast cancer in Washington State and British Columbia. *Med Care*. 1993;34:264–268.
- 17. Coyte PC, Wright JG, Hawker GA, et al. Waiting times for knee replacement surgery in the U. S. and Ontario. *N Engl J Med.* 1994;331:1068–1071.
- Williams BC. Immunization coverage among preschool children: the United States and selected European countries. *Pediatrics*. 1990;86:1052–1056.
- 19. Elixhauser A. Public health focus: mammography. *MMWR*. 1992;41:454–459.