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Designing a Medicare Drug Benefit: Whose Needs Will Be Met?

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Which Medicare beneficiaries need prescription drug coverage the most? Whose needs are greatest? The answers, of course, depend on how one defines "need." As this *Policy Brief* shows, if poverty income alone is used to determine need, only a minority of Medicare beneficiaries would qualify for prescription drug coverage. If a broader definition of need were employed—to include beneficiaries without continuous and stable coverage, those with high expenditures, and those with multiple chronic conditions—nearly 90 percent would qualify.

A review of recent proposals to add a Medicare drug benefit shows that annual income in relation to the federal poverty level (FPL) is clearly the leading criterion for defining need. A plan devised by Reps. Michael Bilirakis (R-FL) and Collin Peterson (D-MN), for example, would limit eligibility for drug benefits to Medicare beneficiaries with annual incomes below 200 percent of FPL. President Clinton's plan, meanwhile, promises universal entitlement with a government subsidy for half the premium for beneficiaries above 150 percent of FPL; between 150 and 135 percent of FPL, the premium declines to zero on a sliding scale. The recent House-passed Medicare Rx 2000 Act (H.R. 4680) and the Breaux/Frist (Medicare Prescription Drug and Modernization Act) and Snowe/Pallone (Seniors Prescription Insurance Coverage Equity Act) proposals also offer fully subsidized coverage for the poor, but they provide lower subsidies than the President's plan for middle—and upper-income beneficiaries.[1] Other proposal will be put forth by the 107th Congress, and these will likely contain similar provisions.

But is income in relation to FPL the best measure of need? A study by the AARP demonstrates that beneficiaries' out-of-pocket

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spending for prescription drugs should also be taken into consideration.[2] It shows that Medicare beneficiaries with low incomes do bear a heavy burden in out-of-pocket drug expenditures, but so do all beneficiaries, irrespective of income, who are older, in poor health, or who lack prescription drug coverage.

The following analysis attempts to shed additional light on the question of Medicare beneficiaries' relative need for prescription coverage. First, we propose five explicit criteria, in addition to income, for defining need. Second, we characterize and compare the population groups meeting each need criterion. Third, we compute the proportions of Medicare beneficiaries in each need group that would be eligible and ineligible for coverage or a subsidized premium under the various Medicare drug proposals. Finally, we examine the relationship among the different need criteria.

Defining Need for a Prescription Drug Benefit

The idea that people with very low incomes should receive subsidized health care is shared by most Americans. It provides the rationale for Medicaid and the Children's Health Insurance Program. Medicare, on the other hand, was conceived as a universal entitlement program with no means test. The rationale for universal coverage is solidarity, not need. This suggests that when there is a conflict between need and solidarity in the Medicare policy arena, a convincing measure of need is key.

Listed below are the six facets of need we considered for this study (Figure 1). The data used to define these criteria come from the 1995 and 1996 Medicare Current Beneficiary Surveys.

Annual income in relation to the federal poverty level. For this time-tested measure of need, we specify three beneficiary income categories: less than or equal to 100 percent of FPL, 101 to 150 percent of FPL, and greater than 150 percent of FPL. These are essentially arbitrary

FIGURE 1

Alternative Definitions of Need for Prescription Drug Assistance by Medicare Beneficiaries

	Concept	Operational Measure
Income-based need	Poverty	Annual income ≤100% of FPL
	Near-poor	Annual income is 101%–150% of FPL
	Other low-income and above	Annual income is >150% of FPL
Coverage-based need	Lack of access to affordable coverage	Lack of any drug coverage for two consecutive years
	Lack of access to stable coverage	Lack of stable drug coverage for two consecutive years
Spending-based need	High out-of-pocket drug spending	Annual out-of-pocket drug spending is above one standard deviation of the population mean
	High total drug expenditures	Beneficiaries in the top quintile of total drug expenditures for two consecutive years
Health-based need	Heavy burden of chronic disease	Beneficiaries reporting three or more chronic conditions

cut points, but they are widely employed as the basis for income comparisons of the sort conducted here.

Lack of access to affordable prescription coverage. Lack of access is not the same as being without coverage. Some Medicare beneficiaries may choose not to enroll in an affordable plan offering prescription benefits. Unfortunately, we have no good way to distinguish those who voluntarily remain without drug coverage from those who cannot find or afford prescription benefits. One proxy measure is persistent lack of drug coverage over an extended period—two full years for this study. While this measure still includes some non-needy beneficiaries and potentially excludes some needy ones, it does weed out anyone with spells of drug coverage who might have access to good drug benefits but chooses not to maintain them on a regular basis.

Lack of stable drug coverage. The access measure described above excludes individuals who lack coverage for short periods of time and fails to capture the needs of individuals who unwillingly lose it for shorter periods of time. Medicare beneficiaries who have gaps in their prescription drug coverage may interrupt their drug therapy and, as a result, must contend with any adverse health consequences. These beneficiaries use fewer prescription drugs and spend more for them out-of-pocket than those with continuous coverage.[3] Moreover, Medicare beneficiaries who drop drug coverage voluntarily are at risk for not being able to reinstate it.

High out-of-pocket spending. Most health insurance plans pay only a portion of incurred drug expenses—and that portion varies widely depending on the source of coverage. We propose two criteria for assessing need based on drug spending. The first uses a common statistical measure of variability to identify beneficiaries whose out-of-pocket drug spending is at the high end of the range of out-of-pocket spending for all Medicare beneficiaries.[4] Based on the pattern of prescription drug spending in 1996, any beneficiary who spent $805 or more annually out-of-pocket would meet this criterion.

Total drug expenditures is our second spending criterion. The elderly who have consistently high total spending are at some risk even if insurance covers a substantial part of the liability. If all sources of prescription coverage offered to Medicare beneficiaries guaranteed renewable benefits at affordable premiums, then this would not be an issue. However, that is not the case today. Our operational definition for consistently high expenditures is being in the upper 20 percent of spenders for two years in a row. In 1995 and 1996, 12.4 percent of beneficiaries met this criterion, averaging $2,085 in annual drug expenditures over the two years.

Chronic disease burden. Chronic disease is associated with long-term and, in many cases, lifelong need for expensive drug therapy. Consequently, the chronically ill are especially vulnerable to erosion in prescription coverage and rising premium rates. For this study, we defined this need criterion as having three or more chronic conditions from a list of 10 reported in the Medicare Current Beneficiary Survey. These include Alzheimer's disease, arthritis, cancer, chronic lung disease, diabetes, heart disease, hypertension, mental disorder, osteoporosis, and stroke.

Findings: Income vs. Other Measures of Need

Overall, slightly more than a quarter of the Medicare population had annual incomes below the poverty level in 1996, with another 17 percent falling between 100 and 150 percent of FPL.[5] Several beneficiary characteristics are related to the income measures of need:

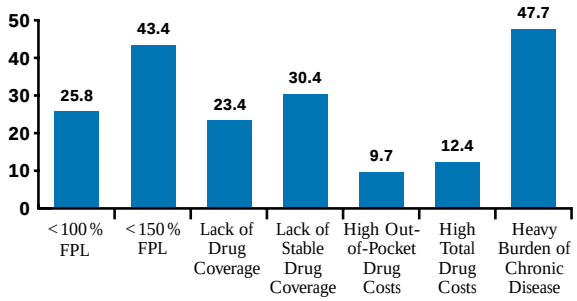
- Nearly half of all disabled Medicare beneficiaries (those under age 65) were below FPL, and more than half of the oldest elderly—those over age 80—were below 150 percent of FPL.
- Two-fifths of single beneficiaries and more than half of black and Hispanic beneficiaries were in the lowest income group.
- Female beneficiaries were slightly more likely than males to be poor.
- Nearly one-third of middle-income Medicare beneficiaries fall below 150 percent of FPL, since federal poverty guidelines take household size into account.
- People in poor or fair health are more likely to live in poverty.

However, in our analysis using the five alternative need criteria, we find that the proportion of beneficiaries that would be classified as "needy" under any one criterion is very different from the proportions under the various income categories (Figure 2). The share of Medicare beneficiaries meeting the need definition varies from less than 10 percent to nearly 50 percent.

Furthermore, each of the need criteria defines substantially different eligible populations in relation to each other (Figure 3). For example, compared with disabled beneficiaries under age 65, a greater percentage of the elderly age 80 or older meet the criteria of lack of any drug coverage (29% vs. 21%) or heavy chronic disease burden (59% vs. 45%). If need, however, is defined as lack of stable drug coverage, high-out-of-pocket costs, or high total drug costs, the percentage of disabled beneficiaries who are needy is greater than that of the 80-plus age

FIGURE 2

Extent of Medicare Beneficiary Need for Prescription Drug Assistance
Percent of noninstitutionalized Medicare beneficiaries enrolled in both 1995 and 1996



Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

FIGURE 3

Characteristics of Noninstitutionalized Medicare Beneficiaries by Need Factors in 1996*

Beneficiary Characteristics in 1996	All beneficiaries	Federal Poverty Levels			Need Factors				
		0–100%	101%–150%	>150%	Persistent lack of any drug coverage	Persistent lack of stable drug coverage	High out-of-pocket drug costs	Persistently high total drug costs	Heavy burden of chronic disease
ALL BENEFICIARIES	100.0%	25.8	17.6	56.6	23.4	30.4	9.7	12.4	47.7
AGE									
under 65	10.9	49.5	19.0	31.5	20.9	31.0	13.8	21.1	45.1
65–79	66.7	21.0	15.8	63.2	22.1	30.8	8.4	11.0	44.3
80+	22.4	28.5	22.3	49.3	28.5	28.7	11.3	12.3	59.2
GENDER									
Female	55.7	29.8	18.9	51.3	24.0	28.0	10.2	13.6	50.8
Male	44.4	20.8	15.9	63.3	22.6	33.3	9.0	10.9	43.9
RACE									
White	85.7	21.1	17.5	61.4	23.9	30.9	10.3	12.9	48.1
Black and other	14.3	53.9	18.0	28.0	20.2	27.3	5.5	9.5	45.5
MARITAL STATUS									
Married	53.6	13.5	14.8	71.7	22.0	31.8	9.9	12.3	45.5
Single	46.5	40.0	20.8	39.1	24.9	28.7	9.3	12.5	50.2
ANNUAL INCOME									
$10,000 or less	27.3	81.2	18.8	0.0	24.8	28.2	7.7	12.7	50.3
$10,001–$30,000	52.0	7.0	24.0	69.0	25.7	32.2	11.1	11.7	48.3
$30,001+	20.7	0.0	0.0	99.9	15.6	28.6	8.6	13.6	42.8
SELF-REPORTED HEALTH									
Excellent to good	74.3	21.4	16.3	62.4	23.9	30.1	7.3	9.2	40.3
Fair to poor	25.7	38.6	21.5	39.9	22.0	31.0	16.6	21.6	69.2
ANY SOURCE OF DRUG COVERAGE									
Employer plan	32.1	11.4	13.6	75.0	0.0	25.3	3.7	16.3	48.0
Individual Medigap	11.9	16.7	14.8	68.5	0.0	55.8	14.1	13.0	48.6
Medicaid	7.9	73.6	12.2	14.2	0.0	21.1	3.5	12.2	51.9
QMB/SLM Plus	4.5	80.9	12.4	6.8	0.0	10.6	6.2	19.8	57.1
Medicare HMO	11.0	19.4	19.6	61.2	0.0	36.4	1.9	7.0	44.5
Other plan	8.7	31.7	22.7	45.6	0.0	30.6	8.1	18.3	55.9
Coverage not reported	4.7	23.3	20.6	56.2	0.0	100.0	16.6	14.4	61.8
NO DRUG COVERAGE	32.5	25.8	21.9	52.3	84.0	16.0	18.0	7.7	42.6

**Noninstitutionalized beneficiaries enrolled in Medicare throughout 1995 and 1996.*

Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

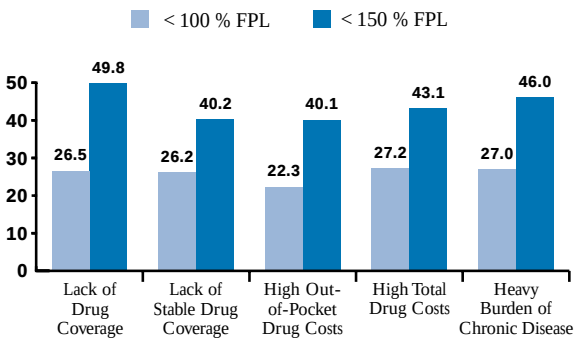
group. Similarly, males are more likely to have stable drug coverage, but females are more likely to meet all the other need criteria. And though people in good to excellent health are just as likely to lack any drug coverage or stable drug coverage as those in fair to poor health, sicker people are more likely to meet the criteria for all other need factors. Clearly, these definitions all identify different groups of needy individuals.

Compared with income-based criteria, our alternative criteria also offer a very different view of need. Black beneficiaries, for example, are much more likely to be needy based on income criteria. Yet based on the other five need factors, *whites* are more likely to be needy.

If the government implemented an income-based eligibility system for a Medicare drug benefit, what percentage of beneficiaries in each alternative need category would be covered? The answer varies between 22 and 50 percent, depending on the need criterion and income level selected (Figure 4). No prescription drug proposal targeting just those with incomes below FPL would cover more than 27 percent of the population in need, based on alternative definitions. Raising the bar to 150 percent of FPL increases the proportion of needy beneficiaries covered to between 40 and 50 percent. More than half of the Medicare population meeting any one of the alternative need criteria would be excluded from coverage if the eligibility limit were set at 150 percent of poverty.

FIGURE 4

Poverty Status of Medicare Beneficiaries with Need for Prescription Drug Assistance
Percent of noninstitutionalized Medicare beneficiaries with specific need



Note: FPL is Federal Poverty Level in 1996.

Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

Mean drug expenditures highlight another dimension of need (Figure 5). In four of the five alternative need categories, average total drug spending is higher for those with income above 150 percent of poverty—unsurprising, since the greater one's income, the greater one's means to purchase both prescription coverage and medications. This finding suggests that actual spending levels probably understate the true needs of low-income beneficiaries. Were drug coverage universal, these differences would likely diminish, if not disappear entirely.

Figure 6 most clearly illustrates the widespread need for subsidized prescription drug coverage. By more simply defining need as either income-based (less than 150% of poverty), coverage-based (lack of any or stable coverage), spending-based (high out-of-pocket or total spending), or health-based (three or more chronic conditions), we find that nearly nine of 10 (86%) Medicare beneficiaries require prescription drug assistance.

FIGURE 5

Distribution of Noninstitutionalized Medicare Beneficiaries Meeting Alternative Definitions of Need for Prescription Drug Coverage by Income Class in 1996*

Beneficiary Income in Relation to the FPL Bands in 1996	Percent of Beneficiaries by Definitions of Need and Income Class				
	Persistent lack of any drug coverage	Persistent lack of stable drug coverage	High out-of-pocket drug costs	Persistently high total drug costs	Heavy burden of chronic disease
All beneficiaries	23.4%	30.4%	9.7%	12.4%	47.7%
≤100% FPL	26.5%	26.2%	22.3%	27.2%	27.0%
101%–150% FPL	23.3%	14.0%	17.8%	15.9%	19.0%
>150% FPL	50.2%	59.9%	59.9%	56.9%	53.9%
Mean Total Spending on Prescription Drugs in 1996					
All beneficiaries	$455	$590	$1,937	$2,307	$907
≤100% FPL	$406	$577	$1,870	$2,358	$824
101%–150% FPL	$470	$568	$2,018	$2,315	$866
>150% FPL	$473	$603	$1,938	$2,279	$962

**Noninstitutionalized beneficiaries enrolled in Medicare throughout 1995 and 1996.*

Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

Our study also highlights the weakness of using any one measure of need. Any one of the four need criteria described above captures between 17 and 53 percent of the total Medicare population (Figure 7). Since 86 percent of the Medicare population meet at least one of the criteria, using any single need criterion misses at least one-third of the population that might be considered in need by an alternative definition.

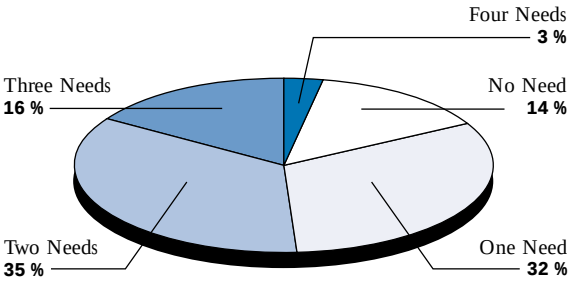
Discussion

Our findings show that Medicare beneficiaries' need for consistent and stable prescription drug coverage does not cleave neatly to annual income as a percent of the federal poverty level—or, for that matter, to any single measure of need. In fact, we have demonstrated that this need is both multidimensional and pervasive. While there is no question that individuals faced with a combination of low income, lack of coverage, and high prescription drug bills have the most urgent need under current Medicare policy, that is not a compelling argument for tying eligibility for a Medicare drug benefit to annual income. Whatever income level might be chosen as the cut-off, a significant proportion of beneficiaries with true needs will be left out. In short, means-testing eligibility can neither assure that people equally in need are treated the same, nor assure that those with different levels of need receive assistance in proportion to their need.

In addition to means-testing of program eligibility, other drug benefit design features have the ability to affect which Medicare beneficiaries will have their needs addressed and which will not. One very important benefit feature, in this regard, is the level of beneficiary contributions required and, conversely, the level of government subsidy provided. Most of the current proposals

FIGURE 6

Multiple Needs for Prescription Drug Assistance by Medicare Beneficiaries
Percent of noninstitutionalized Medicare beneficiaries enrolled in both 1995 and 1996



Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

for a Medicare drug benefit take a different tack on means-testing by testing the premium subsidy rather than the eligibility requirement. Beneficiaries above defined income levels will pay 25 percent of an actuarially determined premium under some proposals and as much as 75 percent under others. There is nothing inherently inequitable about that. High-income people pay a larger dollar amount during their working years in payroll taxes to finance Medicare than do low-income individuals. But if means-testing the premium were to have the effect of denying drug coverage to large segments of the Medicare population, then an equity issue would arise.

Given the experience with Medicare Part B (which has a 75 percent premium subsidy), most beneficiaries would probably sign up for a prescription drug program offering the most generous subsidy. Near-universal enrollment is important to assure that all beneficiaries who need the benefit have reasonable access to it. A premium subsidy of only 25 percent will likely attract primarily high-cost beneficiaries; drug spending tends to be highly persistent from year to year, and beneficiaries with anticipated drug expenditures below the 75 percent share of the premium will have less financial incentive to sign up.[6] Furthermore, if the beneficiaries with the lowest actuarial risks fail to enroll in the program, the concentration of high-cost beneficiaries will erode the risk pool.

Most experts believe that a stand-alone, private-sector drug benefit could not survive under these circumstances. The same fate would await a publicly administered risk pool, as well. If only high-cost beneficiaries enroll, premiums will spiral upward, making coverage unaffordable for all except those with low income whose costs are fully subsidized. For this reason, getting the premium subsidy right is critical to the success of any Medicare drug plan.

Since data for this analysis were taken from the 1995 and 1996 Medicare Current Beneficiary Surveys, one might wonder whether these findings are still relevant to the current political debate. From 1996 to 1998, incomes of households headed by adults over age 65 rose by less than 12 percent, while spending on prescription drugs rose 31 percent.[7,8] The federal poverty level, meanwhile, has risen less than 10 percent from 1996 to 2000.[9] Considering these developments, an *even smaller* percentage of beneficiaries would qualify for income-targeted benefits than described here. The overall need for drug coverage, furthermore, is greater than ever at all levels of beneficiary income.

FIGURE 7

Relationship Between Type of Need for Prescription Drug Assistance and Presence of Multiple Needs Among Medicare Beneficiaries in 1996*

Population	Percent of beneficiaries	Percent by number of needs				
		0	1	2	3	4
All Beneficiaries	100.0%	13.6	31.7	36.2	15.9	2.6
1. Beneficiaries with Income-based Need (≤150% FPL)	43.4	0.0	16.1	49.5	28.4	6.0
2. Beneficiaries with Coverage-based Need (Persistent lack of any or stable drug coverage)	53.7	0.0	26.7	43.3	25.2	4.8
3. Beneficiaries with Spending-based Need (High out-of-pocket or persistently high total drug costs)	17.3	0.0	7.9	37.6	39.6	15.0
4. Beneficiaries with Health-based Need (3 or more chronic diseases)	47.7	0.0	18.9	44.4	31.4	5.4

**Noninstitutionalized beneficiaries enrolled in Medicare throughout 1995 and 1996.*

Source: B. Stuart et al., calculated from the 1995 and 1996 Medicare Current Beneficiary Surveys.

In conclusion, the need for prescription drug assistance among Medicare beneficiaries is driven by a complicated combination of income, access to drug coverage, drug costs, and health status. No simplistic solution to targeting benefits will assure that beneficiaries' needs are met in an equitable fashion. More complex methods of linking subsidies to need may score better on equity grounds, but they will be expensive to administer—if they work at all. As the debate over a Medicare prescription drug benefit continues, policymakers and others need to remember to balance the benefits that might be achieved from employing a simple assessment of need against costs—in terms of the many truly deserving beneficiaries who would be excluded from coverage and the loss of social solidarity that undergirds the Medicare program itself.

Notes

[1] Health Policy Alternatives, Inc., *Prescription Drug Coverage for Medicare Beneficiaries: A Side-by-Side Comparison of Selected Proposals*. Menlo Park, CA: Henry J. Kaiser Family Foundation, March 2000.

[2] M. J. Gibson, N. Brangan, D. Gross, and C. Caplan, *How Much Are Medicare Beneficiaries Paying Out-of-Pocket for Prescription Drugs?* Washington, D.C.: AARP Public Policy Institute, September 1999.

[3] B. Stuart, D. Shea, and B. Briesacher, *Prescription Drug Costs for Medicare Beneficiaries: Coverage and Health Status Matter*. New York: The Commonwealth Fund, January 2000.

[4] Individuals with out-of-pocket drug spending that was more than one standard deviation above the mean spending for the Medicare population as a whole were considered to have high out-of-pocket drug spending.

[5] These rates are much higher than those reported by the Census Bureau in the 1996 Current Population Survey, which found that 10.8 percent of people age 65 and older were below the poverty level, counting all sources of household income (U.S. Census Bureau, *Statistical Abstract of the United States*, 1999). The major reason for the discrepancy is that the Medicare Current Beneficiary Survey counts only income received by the beneficiary or spouse, not income of other household members. This limited definition of income is appropriate for our study because the proposals for means-testing a Medicare benefit also exclude income from other household members. Substantial income underreporting in MCBS is also believed to contribute to the discrepancy with CPS (M. Moon, T. Waidmann, and M. Storeygard, *Differences in Estimates of Poverty for Medicare Beneficiaries: Comparing the MCBS and the CPS, A Research Note*, The Urban Institute, April 2000). (Numbers reported in this paper may differ slightly from findings of other researchers using MCBS since our analysis is restricted to a subgroup of Medicare beneficiaries who were enrolled from January 1995 to December 1996.)

[6] Unlike other health services, prescription drug spending tends to be quite persistent from year to year. This is particularly true for the elderly; see N. E. Coulson and B. Stuart, "Persistence in the Use of Pharmaceuticals by the Elderly: Evidence for Annual Claims," *Journal of Health Economics* 11(3) (October 1992): 315–328. The research for this paper also found a high degree of persistence. Of those with drug spending in the highest quintile in 1995, 64 percent were in the highest quintile in 1996, and an additional 24 percent were in the next highest expenditure quintile. At the other end of the spectrum, 67 percent of those in the lowest quintile in 1995 were also in the lowest quintile a year later, and 23 percent were in the next lowest quintile.

[7] U.S. Census Bureau Current Population Report P60–206, *Money Income in the United States: 1998*. Washington, D.C.: U.S. Government Printing Office, 1999.

[8] K. Levit, C. Cowan, H. Lazenby, A. Sensenig, P. McDonnell, J. Stiller, A. Martin, and the Health Accounts Team, "Health Spending in 1998: Signals of Change," *Health Affairs* 19 (January/February 2000):124–132.

[9] http://aspe.hhs.gov/poverty. Information downloaded in May 2000.