What Other Programs Can Teach Us: Increasing Participation in Health Insurance Programs

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Many uninsured Americans are already eligible for free or low-cost public coverage through Medicaid or Children's Health Insurance Program (CHIP) but do not "take up" that coverage. However, several other public programs, such as food stamps and unemployment insurance, also have less-than-complete take-up rates, and take-up rates vary considerably among programs.

This article examines the take-up literature across a variety of programs to learn what effects nonfinancial features, such as administrative complexity, have on take-up. We find that making benefit receipt automatic is the most effective means of ensuring high take-up, while there is little evidence that stigma is important. (*Am J Public Health.* 2003; 93:67–74)

A RECURRING PUZZLE IN incremental insurance expansion is that many uninsured Americans—4.7 million children in 1996—are already eligible for free public coverage through Medicaid or Children's Health Insurance Program (CHIP).[1] Understanding why they do not take up this coverage is critical if further insurance expansions are to fulfill their promise. Analysts cite the stigma attached to public programs, the time needed to participate, the difficulty of the forms and process procedures, lack of interest in health coverage, and lack of information about the availability of particular programs as reasons for less-than-complete take-up. While some qualitative, self-reported evidence indicates that these factors do matter,[2,3] there is virtually no quantitative evidence available that would tell us how much they matter.

One way to get a better understanding of the magnitude of these impediments to take-up is to look outside health insurance. Many public programs have low take-up rates. Indeed, food stamps, unemployment insurance, and Aid to Families With Dependent Children (AFDC; now TANF) all have take-up rates similar to that of Medicaid (Table 1). In trying to improve health insurance programs, it is worth seeing what lessons can be learned from the take-up of other programs.

FACTORS THAT MIGHT INFLUENCE TAKE-UP

Take-up refers to participation in a program among those who are eligible. Our policy interest in how to design programs that have greater take-up drives our interest in the underlying factors that influence take-up. Therefore, although there are many individual characteristics (such as education) that are predictors of take-up, these characteristics per se are not our focus, although they are relevant for informing program design. To examine evidence from a variety of sources, including individual predictors of take-up, we need a conceptual framework on the fundamental factors that influence take-up.

TABLE 1—Comparison of Take-Up Rates of Various Public Programs

Program	Take-Up Rate, %
Medicare part A	99
Medicare part B[a]	95.5
Employer-sponsored insurance[b]	80–87
Earned income tax credit[c]	80–86
Food stamps[d]	54–71
Unemployment insurance[e]	65–83
Rental assistance[f]	64
SSI (elderly)[g]	50–56
Medicaid (eligible uninsured children)[h]	50–70
AFDC (female heads of household)[i]	45–70
QMB and SLMB (Medicare assistance)[j]	43

Note. SSI = supplemental security income; AFDC = Aid to Families With Dependent Children; QMB = Qualified Medicare Beneficiary program; SLMB = specified low-income Medicare beneficiary. Take-up rates are for a variety of different years (1975–1996) and in some cases different countries (rental assistance in the Netherlands, unemployment insurance in Canada as well as the United States). Some program figures include multiple studies.
[a]Authors' calculations are from Health Care Financing Administration data: the number of people who have part A but not part B coverage divided by the number who have part A coverage.
[b]Long and Marquis,[4] Thorpe and Florence,[5] and Cooper and Schone.[6] Results are from 1987–1997. Note that for employer-sponsored insurance, about 10% of those who decline it have coverage from another source.
[c]Scholz.[7]
[d]Castner and Cody[8] and Blank and Ruggles.[9]
[e]Blank and Card[10] and Storer and Van Audenrode.[11]
[f]Koning and Ridder.[12]
[g]Warlick[13] and McGarry.[14]
[h]Currie and Gruber.[15]
[i]Moffitt[16] and Blank and Ruggles.[9]
[j]General Accounting Office.[3]

Conceptually, we expect eligible people to take up a program if its benefits to them exceed its costs. Benefits depend on the value the program provides to the recipient. Even for cash programs, where benefits would appear obvious, the value to potential recipients still depends on the size of the benefit relative to their general level of wealth and income and the opportunities forgone through participation (such as work income for welfare programs). For programs such as education or housing vouchers, assessing the value of benefits is even more complicated, since tastes for education and housing clearly vary. For health insurance, benefits depend on the potential recipient's health status, belief in the usefulness of health care, attitudes toward financial risk, and access to alternative sources of medical care (such as public hospitals).

The costs of program participation have been described by several writers, including Craig[17] and Dion and Pavetti.[18] Working from their frameworks, we characterize the possible influences of take-up (other than financial cost) as program benefits, inconvenience, stigma,[19–23] and information.

STUDY METHODS

In this article, we examine the literature of take-up across health insurance and other programs, including a wide variety of both public and private programs, to learn what we can about the magnitude of different nonfinancial impediments to take-up. Our purpose is not to summarize fully or do justice to each of the articles we examine. Rather, we seek to extract from each article information about the effects of nonfinancial program characteristics on take-up. In many cases, the relevant portion of an article may be a single sentence or table entry. Thus, our approach is akin to that of a meta-analysis, although we cannot do a formal meta-analysis because of insufficient structure and commonality across both programs and estimation strategies.

To find take-up studies outside health care, we conducted searches at the end of 2001 of Econlit, PAIS International, and Social Science Abstracts using the keywords "take-up," "takeup," and "program participation." We also conducted searches using the term "enrollment" but found few relevant hits. The searches resulted in a total of 345 hits

from Econlit, 94 from PAIS, and 152 from Social Science Abstracts. The overwhelming majority of studies were eliminated because examination of the title or abstract revealed that the subject was not the take-up of public or private programs but rather, for example, industry "take-up" of a particular new technological innovation, job take-up, and so forth. We also tried searching PsychInfo and Sociological Abstracts but found no relevant studies when searching with the same keywords. We also asked colleagues, including those on list servers in the policy field, about studies and searched the Web sites of various policy research organizations. This last method enabled us to find many articles not in the peer-reviewed literature, although of course we could have missed other relevant articles. We obtained and read roughly 100 articles.

For each article, we searched for any evidence of the quantitative magnitude of nonfinancial program features. Although many articles examined the level of take-up and even predictors, we restricted our attention to those that were informative about *program features* or the mechanisms that affected take-up. We also restricted our attention to those studies that considered the magnitude of these effects, although we did not require them to have quantitative data. These exclusion criteria eventually reduced the relevant articles to the 37 discussed. In many cases, the main focus of a study was not the effects of program features on take-up, but

nonetheless information relevant for our review was in the article.

For each article, we then determined the method used to identify the effect. As in a formal meta-analysis, the quality of the identification of an estimated effect is critical to the emphasis placed on that estimated effect. We included in our review randomized controlled experiments, longitudinal studies that exploit variation in program features over time owing to a natural experiment, longitudinal studies that exploit observational variation over time, and cross-sectional studies. In a few cases, we also included the results of qualitative surveys.

Only one randomized controlled study was identified that examined impediments to take-up. To examine the impact of information on the take-up of food stamps, Daponte et al.[24] sampled low-income people eligible on the basis of income and family size. Half the sample was randomly assigned to be fully screened for eligibility and informed about the program and the other half was randomly assigned to be controls.

Four studies used natural exogenous variation over time or across groups to examine impediments to take-up. Madrian and Shea[25] examined a change in the way one company administered its 401(k) plan. Before the policy change, employees had to actively elect to be in the program, filling out forms and making allocation decisions. Following the policy change, employees had to actively decline to participate in the 401(k) plan. If employees failed to decide, they received the default payroll deduction of 3% and the default allocation. Anderson and Meyer[26] used longitudinal data to show how unemployment insurance take-up fell after benefits became subject to income tax and to estimate the size of the effect of tax rate on take-up. Garrett and Glied[27] compared child supplemental security income (SSI) take-up before and after a Supreme Court ruling affecting eligibility and identified the effect of program benefit through state-level variation in SSI benefits. Yelowitz[28] used the introduction and evolution of the Qualified Medicare Beneficiary (QMB) program and its variation across states to identify how changes in eligibility for Medicaid as supplemental Medicare insurance affected take-up of this coverage.

A related approach is to use variation over time in take-up and its correlation with variation in other covariates to elucidate influences. Blank and Card[10] examined the correlation between state-level take-up of unemployment insurance with the generosity of those benefits and the unionization rate (thought to be a proxy for information). Moffitt[16] decomposed variation over time in state-level AFDC take-up rates into variation explained by benefit generosity and demographics and interpreted the residual as due to cultural factors.

A much larger number of studies (including those by McGarry,[14] Scholz,[7] Blundell et al.,[29] Blank and Ruggles,[9] Moffitt,[21] Diehr et al.,[30] and Stuber et al.[31]) have examined the correlation of individuals' characteristics with their decision to participate in a particular program. These studies relied on variation in the value of the same program characteristic across individuals. For example, the cost of spending time at administrative offices will vary from person to person owing to differences in wages, work opportunities, childcare responsibilities, and so on. If time spent enrolling is an important barrier, then people with high time costs will have lower take-up rates than those with low time costs, all else held equal.

There are 2 problems with this approach. First, as in all observational studies, it is difficult to separate correlation from causality. Cross-individual variation in the measured size of nonfinancial barriers may be influenced by individual benefits. For example, potential recipients may become informed about a program *because* they expect to receive high benefits. Second, it is difficult to draw specific inferences from individual characteristics. Consider education. Education probably lowers the cost of gathering information. It also probably lowers the cost of filling out forms, predicts future income, and is correlated with asset levels, which are imperfectly measured in the data set. Thus, the observation that education is a significant predictor of take-up does not provide clear answers to which nonprice features influence take-up and what the sizes of those effects are.

STUDY FINDINGS

Table 2 describes the quantitative evidence on the impact of each of the potential nonprice influences on take-up. Since not all authors used the same categories that we do, we reclassified variables where necessary.

Program Benefits

Many studies found that the size of potential benefits affects participation. The size of the benefit matters most when measured over the period of participation. For example, Blank and Ruggles,[9] using longitudinal data, found that women who ended up with shorter spells of unemployment were much less likely to sign up for unemployment insurance when they initially became eligible. The larger the benefits, the more likely potential recipients are to overcome other barriers and sign up for a program. Daponte et al.[24] found that potential recipients were more likely to be informed about food stamp benefits the larger the size of the benefits for which they were eligible. Anderson and Meyer[26] found that take-up fell with the taxation level of unemployment benefits. Blundell et al.[29] found that higher housing benefits in the United Kingdom were associated with higher take-up. Garrett and Glied[27] found that higher SSI benefits were associated with larger increases in take-up due to eligibility expansions. Ettner[32] found that elderly people with chronic functional limitations were 4 times likelier to take up Medicaid than those without such limitations. Table 2

TABLE 2—Evidence of Nonprice Effects on Take-Up, by Qualitative Feature

Program	Study	Method of Identification	Statistical Significance and Effect Size	Notes
Program Benefit—Statistically Significant Effects				
Unemployment insurance	Anderson and Meyer[26] (1997)	Longitudinal with exogenous variation	A 1.0–1.5 percentage point decrease in take-up from 10% decrease in after-tax benefits.	
Unemployment insurance	Blank and Card[10] (1991)	Longitudinal (state-level)	A 1% increase in the state replacement rate causes a 1.6% increase in the take-up rate.	
Housing benefits in UK	Blundell et al.[29] (1988)	Cross-sectional	A 0.52 percentage point increase per 1% increase in benefit size.	
Medicaid as supplemental insurance	Ettner[32] (1997)	Cross-sectional	Elderly with chronic functional limitations 4 times likelier to take up Medicaid as supplemental insurance.	Effect could be interpreted as owing to better information about program because of greater contact with medical providers.
Child SSI	Garrett and Glied[27] (2000)	Longitudinal with natural experiment	Change in eligibility rules results in a 0.427 percentage point increase in take-up per $100 increase in maximum SSI benefit.	Value of the benefit is identified by the extent that a higher SSI benefit increases the take-up effect of the eligibility expansion.
AFDC	Moffitt[21] (1983)	Cross-sectional (structural)	Participation rose by 11 percentage points from an increase in benefits to a national minimum of 65% of the poverty line.	
Program Benefit—Insignificant, No Significance Test Provided, or Both				
Food stamps and AFDC	Blank and Ruggles[9] (1996)	Cross-sectional	No statistical test. Length of eligibility or "need" an important determinant of take-up.	Longitudinal analysis used in study, but the effects of interest for us were identified cross-sectionally.
Earned income tax credit	Scholz[7] (1994)	Cross-sectional	Insignificant (borderline).	Author states that magnitude is consistent with substantial effect but is not statistically significant.
Medicaid as Medigap (QMB)	Yelowitz[28] (2000)	Longitudinal with natural experiment	Insignificant. Change in eligibility rules results in a 0.427 percentage point increase in take-up per $100 increase in maximum SSI benefit.	Value of benefit is identified by the extent that hospitalization increases the take-up effect of the eligibility expansion.
Program Benefit—Reverse Sign, Significant Results				
Subsidized health insurance	Diehr et al.[30] (1996)	Cross-sectional	Sign the reverse of what was expected.	Those with poorer health status and greater prior health care usage less likely to take up insurance.
Inconvenience				
Income support (UK)	Duclos[33] (1995)	Cross-sectional (structural)	Unobserved inconvenience costs could be as much as 20% of benefit level.	Indirect proxies for inconvenience could proxy for other factors.
Private pensions	Madrian and Shea[25] (2000)	Longitudinal with natural experiment	Statistically significant 49 percentage point increase in 401(k) participation due to change to presumptive enrollment.	Dramatic effect, but it may be due more to psychological factors than literal convenience.
SSI	McGarry[14] (1996)	Cross-sectional	Mixed statistical significance. Car owner: insignificant; same MSA: marginally significant; poor health: significant.	Car ownership, same MSA, and poor health all considered proxies for convenience. No marginal effects calculated.
Earned income tax credit	Scholz[7] (1994)	Cross-sectional	Statistically significant. Having no state income tax system lowers take-up by 7.6 percentage points.	

Continued

TABLE 2—Continued

Medicaid	Stuber et al.[31] (2000)	Cross-sectional	Statistically significant. Perceiving forms as long and complicated implies 1.8 times less likely to take up Medicaid. Perceiving hours as inconvenient implies 1.7 times less likely to take up.	Nongeneralizable sample.
		Stigma and Cultural Attitudes—Statistically Significant Effects		
Food stamps	Daponte et al.[24] (1998)	Survey questioning those who are eligible but not receiving	6.3% of eligibles not receiving cite stigma as a reason.	
SSI	McGarry[14] (1996)	Cross-sectional	Mixed significance; other welfare programs highly statistically significant; South (cultural proxy), not significant.	No marginal effects calculated.
AFDC	Moffitt[21] (1983)	Cross-sectional structural model estimation	Statistically significant; Stigma is a structurally identified and unitless function of race, education, and family size.	Interpretation as stigma is problematic.
Medicaid as long-term care insurance	Norton[34] (1995)	Comparison of the distribution of time to spend down with the distribution of times to spend down predicted by a separate survey of assets and income	Longer times to spend down than are predicted by assets, implying that residents are receiving asset transfers to avoid Medicaid.	Interpretation as stigma is problematic. Effect could be due to fear of worse treatment because of lower provider payments for Medicaid residents.
		Stigma and Cultural Attitudes—Insignificant and No test Results		
Medicaid	Stuber et al.[31] (2000)	Cross-sectional		Nongeneralizable sample
AFDC	Horan and Austin[19] (1997)	Cross-sectional		Small sample size; poor proxies for stigma
		Informational Barriers—Statistically Significant Effects		
Unemployment insurance	Blank and Card[10] (1991)	Longitudinal (state-level)	A 1% increase in the state unionization rate causes a 0.67% increase in the take-up rate.	Unionization is a poor proxy for informational barriers.
Food stamps	Daponte et al.[24] (1998)	Randomized experiment	36 percentage point increase in take-up due to information provided.	Preintervention distribution of information appears to be endogenous: those with greatest potential benefit unlikely to be uninformed.
Supplemental grant support (social fund) (UK)	Huby and Whyley[35] (1996)	Cross-sectional	Those who have heard about program from friends or family are 7.4 times more likely to apply.	
Qualified Medicare Beneficiary program (QMB)	Neumann et al.[36] (1995)	Cross-sectional	20 percentage point increase in take-up due to awareness; 60% of those eligible and with knowledge of program take up; 40% of those eligible and unaware of program take up.	Medicare beneficiaries merged with Medicare and QMB and Medicare data. Beneficiaries asked about awareness of program. Substantial take-up by those unaware of program suggests importance of providers in take-up.
Medicaid	Stuber et al.[31] (2000)	Cross-sectional	Confusion about Medicaid eligibility rules implies 1.8 times less likely to take up.	
Medicaid as Medigap (QMB)	Yelowitz[28] (2000)	Cross-sectional	Greater effect of lagged eligibility than current eligibility indicates the possible effect of learning over time.	Relative contributions of lagged eligibility indicate role of learning over time.

Note. SSI = supplemental security income; AFDC = Aid to Families With Dependent Children; QMB = Qualified Medicare Beneficiary program; MSA = metropolitan statistical area.

gives further examples of the impact of the value of benefits.

The importance of benefit size is also apparent in the many studies that looked at enrollment in linked programs (not shown in Table 2). For example, take-up of food stamps is greater when receipt is automatic upon enrollment in the AFDC program than when eligible people must apply for food stamps separately.[37] Take-up of Medicaid fell when the program became delinked from welfare during welfare reform.[38,39] Take-up of welfare, which automatically provides people with Medicaid, is, in turn, greater among people who expect high medical costs than among healthier applicants.[40,41] Take-up of SSI, which ensures Medicaid eligibility, increases with health care expenditures.[42]

However, differences do not always matter. For example, Yelowitz[28] examined participation in the QMB program, which serves poor Medicare beneficiaries and pays both the $50 monthly premium and any service-related co-payments, including the $760 deductible payable only by those hospitalized. He found that being hospitalized, and therefore subject to the deductible, does not make eligible QMB beneficiaries more likely to take up this supplemental Medicare insurance. In another example, Scholz[7] found that the size of the earned income tax credit is not statistically significantly associated with take-up. Diehr et al.[30] found in a survey that those with poorer health status are *less* likely to take up subsidized insurance.

Inconvenience

Several studies used proxies, such as having a car or filing a related form, to assess the effects of inconvenience on participation. As already discussed, the interpretation of such proxies is often problematic. (Studies with proxies whose interpretation is highly problematic are not included in Table 2.) Moreover, the effects of these proxies are frequently statistically insignificant. Their magnitudes, however, may be nonnegligible. One study of welfare benefits in Britain estimated that the aggregate magnitude of inconvenience costs could be as much as 20% of the total benefit for the average eligible person.[33] Stuber et al.[31] found that those who perceived the applications as long and complicated were 1.8 times less likely to take up Medicaid and that those who felt that the application hours were inconvenient were 1.7 times less likely.

Presumptive enrollment, which eliminates inconvenience costs, has an enormous effect on take-up. In the Madrian and Shea[25] study of a company's 401(k) plan policy change, moving from voluntary to automatic enrollment resulted in an increase in the participation rate from 37% to 86% among employees with less than a year of tenure. The value of automatic enrollment is also clear in the studies of newly delinked benefits. When enrollment into Medicaid and food stamps was an automatic corollary of welfare receipt, many more who were potentially eligible enrolled.[37–39,43]

Stigma

To compare studies, we adopted a definition of stigma that includes psychological feelings of shame or a social sense of disrespect associated with program participation. Studies used a range of proxies for attitudes and stigma. The proxies were hard to interpret, and the results were generally weak. This finding is consistent with the interviews that Daponte et al.[24] conducted with people eligible for food stamps who had been informed of their eligibility and yet had not signed up. Only 1 of the 16 households in this group replied with a reason related to stigma; most said that it was not worth the trouble for the small benefit. Stuber et al.[31] found that all stigma measures were insignificantly related to take-up of Medicaid.

Only one quantitative study found evidence consistent with stigma. Norton[34] compared the time a sample of nursing home residents took to "spend down" to become eligible for Medicaid long-term care coverage with the time the assets of a different sample of nursing home residents would have been predicted to last. He found that the actual times to spend down were *longer* than those predicted by the assets and incomes of the elderly in nursing homes, implying that the elderly were receiving transfers to avoid the stigma of participating in a public program. Whether this effect is a "true" stigma effect or reflects fear of worse treatment by providers who receive less payment for Medicaid

residents than for private residents is unclear.

Information

Cross-sectional analyses typically have weak proxies for the effects of information, such as educational attainment, and, perhaps in consequence, find weak results. Those that use survey information on whether and how people have learned about the program do find that information matters (see Huby and Whyley[35] for an example). These studies are, however, vulnerable to the objection that knowledge about the program may be a function of expected benefits. Thus, the experimental study by Daponte et al.[24] is particularly valuable here. They found that information does increase take-up of the food stamps benefit; 0% of those eligible but not already on food stamps who were not informed of the benefit by researchers took up food stamps, while 36% of those who were informed took up the benefit and another 10% said they planned to.

Other cross-sectional studies also found effects of providing information. Stuber et al.[31] found that those confused about eligibility rules were 1.8 times less likely to take up Medicaid. Neumann et al.[36] found from a survey of Medicare beneficiaries matched with Medicare data that while awareness of the QMB program was correlated with take-up of that program, many of those unaware of the program were actually enrolled. Presumably, providers looking to avoid bad debt for beneficiaries' share are an important impetus behind

take-up. Yelowitz[28] found that being eligible for QMB in the previous period made take-up more likely, possibly indicating some learning-over-time effect. Kenney and Haley[44] found that "88% of all low-income uninsured children had parents who had heard of either the Medicaid program or the SCHIP program," implying that knowledge of the program was not a major barrier. They also found that 18% of such parents thought, possibly mistakenly, that their children would not be eligible.

LESSONS FROM VARIATION ACROSS PROGRAMS

As Table 1 suggests, there is very large variation in take-up rates across programs. This variation can also help inform our understanding of what drives take-up. One very striking pattern emerges from the table. Those programs for which no "extra action" is required—Medicare part A, Medicare part B, and employer-sponsored insurance—have the highest take-up rates. Medicare does not require any sign-up. People are automatically enrolled when they reach age 65. They receive a form that they must return if they wish to *decline* part B coverage. Thus, it requires positive action to avoid part B, while everyone eligible receives part A no matter what. Employer-sponsored insurance is through payroll deduction and is generally performed automatically by the workplace benefits office. The earned income tax credit, which

does not require extra paperwork for those already filing income tax returns, also has a very high take-up rate. In contrast, other programs that do require extra action have much lower take-up rates.

Second, programs that have complex eligibility criteria, such as asset tests, appear to have more variable take-up across studies than simpler programs. Whether survey or administrative data are used appears to affect measured take-up rates. One of the key findings in many studies across programs is that estimated take-up rates are often a function of how eligibility is measured. Studies typically find both false positives (people who collect benefits but appear ineligible) and false negatives (people who do not collect benefits but appear eligible). Agencies evaluating eligibility make mistakes. More importantly, studies are based on surveys that allow only an imperfect assessment of individual eligibility.[33,45] For example, many surveys do not collect information on assets, but many programs have asset limits on participation. Studies that compare take-up both with and without incorporating asset information find large differences in estimated take-up. In one study examining take-up of SSI by the elderly, the measured take-up rate for some groups increased by 60% after asset limits were included in the eligibility determination.[45] Daponte et al.[24] found that after they performed a more accurate eligibility screening test on their sample (including assets and deduc-

tions), only about half of those families that initially seemed eligible for food stamps were, in fact, eligible. These results suggest that take-up rates in programs with complex eligibility criteria may not be nearly as low as the rates calculated by researchers using survey data. Survey data may not be sufficiently rich to capture all eligibility features, leading to underestimates of true take-up.

CONCLUSIONS

Our review suffers from several limitations. First, we may have missed relevant articles, particularly in the non–peer-reviewed literature or those whose primary focus was elsewhere but nonetheless contained relevant lessons. Second, our system of categorizing barriers to take-up in a functional way to guide program design could obscure relevant patterns. For example, language barriers could result in low take-up because of poor information, inconvenience, and cultural barriers, but focusing on the language issue rather than its consequences might be more informative for program design. Finally, our general conclusions could obscure population heterogeneity in the determinants of take-up. Informational barriers may be more important for some groups while stigma could be more important to others. Program design should be sensitive to regional and population variation. Despite these limitations, we can draw several conclusions about the literature and what is known.

The low take-up of health insurance programs is troubling to those concerned with insurance expansions. The limited extent of quantitative information available on barriers to take-up—even when we cast the net to include all social welfare and related programs—makes it very difficult to know how to design policy.

More research is greatly needed—especially experimental or quasi-experimental research that can be used to draw measurable and plausibly causal inferences about how such features as administrative complexity, renewal rules, and organizational structure affect participation. New studies must incorporate carefully developed measures of program characteristics, including qualitative features.

Nonetheless, looking across individuals and programs, several conclusions can be drawn. First, the size of a benefit—measured over time—is the most consistently important predictor of participation. One reason for low take-up of some coverage expansions may be that many spells of uninsurance are short and people do not anticipate a great benefit over time. Longer periods of coverage might lead to higher participation. Second, information can help, but how much information people absorb is related to potential benefits. Third, although the evidence is very limited, stigma generally does not seem to be important, with the one exception of Medicaid as long-term care insurance. Fourth, mismeasurement of eligibility may be an important contributor to poor take-up numbers. Finally and

most strikingly, reducing individual administrative barriers seems to have little effect, but moving from voluntary to automatic coverage is extremely effective. Looking broadly across many programs, it seems clear that automatic enrollment is the best way to increase take-up. ■

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