© Health Research and Educational Trust DOI: 10.1111/j.1475-6773.2010.01202.x USING STATE-LEVEL EVIDENCE TO INFORM NATIONAL POLICY: RESEARCH FROM THE STATE HEALTH ACCESS REFORM EVALUATION (SHARE) PROGRAM

Measuring the Impact of Outreach and Enrollment Strategies for Public Health Insurance in California

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Objective and Study Setting. To evaluate the effectiveness of different approaches to outreach on public health insurance enrollment in 25 California counties with a Children's Health Initiative.

Data Source. Administrative enrollment databases.

Study Design. The use of eight enrollment strategies were identified in each quarter from 2001 to 2007 for each of 25 counties (county quarter). Strategies were categorized as either technology or nontechnology. New enrollments were obtained for Medi-Cal, Healthy Families, and Healthy Kids. Bivariate and multivariate analyses assessed the link between each strategy and new enrollments rates of children.

Data Collection. Methods Surveys of key informants determined whether a specific outreach strategy was used in each quarter. These were linked to new enrollments in each county quarter.

Principal Findings. Between 2001 and 2007, enrollment grew in all three children's health programs. We controlled for the effects of counties, seasons, and county-specific child poverty rates. There was an increase in enrollment rates of 11 percent in periods when technology-based systems were in use compared with when these approaches were inactive. Non-technology-based approaches, including school-linked approaches, yielded a 12 percent increase in new enrollments rates. Deploying seven to eight strategies yielded 54 percent more new enrollments per 10,000 children compared with periods with none of the specific strategies.

Conclusions and Implications. National health care reform provides new opportunities to expand coverage to millions of Americans. An investment in technologybased enrollment systems will maximize new enrollments, particularly into Medicaid; nontechnological approaches may help identify harder-to-reach populations. Moreover, incorporating several strategies, whether phased in or implemented simultaneously, will enhance enrollments.

Key Words. Outreach, health insurance, health care reform, Medicaid, Medi-Cal, CHIP, Healthy Kids, enrollment

BACKGROUND

Health insurance coverage is important to ensure that children have access to health care services (Cummings et al. 2009). Numerous studies have shown that insured children are more likely than uninsured children to have a regular source of care and obtain preventive and primary care; they also are less likely to delay or forgo needed services (Newacheck, Stoddar, Hughes, and Pearl 1998; Guendelman, Wyn, and Tsai 2002; Buchmueller et al. 2005).

California has two state-organized public health insurance programs for children in low-to-moderate income families: Medi-Cal, California's Medicaid program, and Healthy Families, California's Children's Health Insurance Program. Medi-Cal covers 3.4 million children, and Healthy Families covers 875,000 (Cousineau and Hughes 2009). Most children in families with low or moderate household incomes qualify for Medi-Cal or Healthy Families. Those ineligible are in families with incomes higher than 250 percent of the federal poverty level (FPL), or are not U.S. citizens or legal residents. To expand coverage to these children (with an upper income limit equal to 300 percent of FPL), 26 counties organized a third program called Healthy Kids, which are financed by public and private sources but with no state or federal participation. Healthy Kids programs provide comprehensive health benefits modeled after the Healthy Families program. Counties or multicounty regions independently operate Healthy Kids programs (Stevens, Rice, and Cousineau 2007). Separate agencies using distinct enrollment data management systems administer the three public insurance programs in California.

The percent of children uninsured in California declined from 10 percent in 2001 to <7 percent in 2007. This occurred even though employmentbased coverage for children similarly declined during this period. Declines in private coverage were offset by increases in enrollment in the three public programs. By 2007, an estimated 683,000 children did not have coverage in California; more than half of these children were not enrolled but eligible for Medi-Cal, Healthy Families, or Healthy Kids (Brown et al. 2009). To increase coverage of low and moderate income children, many California counties organized Children's Health Initiatives (CHIs). CHIs are coalitions formed to

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oversee the development of the Healthy Kids insurance products but also to coordinate state and private funding for outreach and enrollment activities. Their efforts like those elsewhere in the nation have led to innovative approaches for outreach designed to identify uninsured children, assist them in enrollment, retain their coverage, and obtain needed health care services after enrollment (Vistnes and Schone 2008). These programs showed early success in enrolling children and improving access to health care services (Howell and Trenholm 2007; Hill et al. 2008). Across California, the breadth of outreach has increased dramatically in the past 10 years, including the number of enrollment strategies. Counties now are using multiple strategies to identify and enroll eligible children into public health insurance programs and subsequently monitor their use of health care services (Cousineau, Stevens, and Farias 2009).

Increasing use of outreach and enrollment strategies has prompted policy makers, philanthropic organizations, and others to question the efficacy of some strategies. Several studies have described outreach and enrollment approaches (Barents Group LLC 2000; Castaneda et al. 2003; Cousineau 2006). However, little is known about the comparative effectiveness of different strategies or the impact of a multiple-strategic approach on enrollment.

Administrative data systems are limited in their ability to provide accurate information and gauge the effectiveness of different strategies. There are counties with information collected in local databases related to how people heard about the program, for example, but these efforts are not comprehensive. They often miss children who enroll in programs outside the outreach and enrollment system. Furthermore, enrollment data are not linked to outreach strategies, so it is not conclusively known which outreach strategy may have led to an enrollment.

In this paper, we attempt to fill the gap in evidence by linking enrollments in a county with data specifying whether each of eight strategies was deployed in a particular county. Outreach and enrollment strategies include technology-based and non-technology-based approaches. The latter includes media campaigns and provider in-reach. Counties use media campaigns (radio, newspaper/magazines, television, and billboards) designed to disseminate a central message and promote awareness of the health insurance programs. Counties also train and deploy community health workers or Promotoras de Salud as part of their outreach campaigns. These individuals live or work in the community and are linguistically and culturally compatible with the targeted uninsured and low-income population. In addition, many community health workers complete training to become knowledgeable about various health insurance programs. Provider or clinical in-reach target individuals who are already known by the agency or program. For example, patients in a clinic would be approached and asked to enroll. Another strategy uses school resources to identify and enroll children and families into health programs. This includes *expresslane enrollment* (Horner, Morrow, and Lazarus 2003) as well as conducting outreach and enrollment events in conjunction with parent nights and athletic events, using school nurses and counselors, and establishing partnerships between schools and community-based organizations. Matching potentially eligible children against lists of those enrolled in other public programs is the final non-technology-based strategy.

Three technology-based approaches were also assessed: Health-e-App, One-e-App, and county data systems. Health-e-App is a state online system that expedites enrollment after a person is identified as potentially eligible for Medi-Cal or Healthy Families. One-e-App offers a more comprehensive online screening and application program. Through a set of queries, One-e-App categorizes an individual into one or more health and other social programs based on a program's eligibility criteria. One-e-App cuts time between when a person applies and when he or she is actually determined to be eligible and enrolled in a program (The Lewin Group 2009). With some exceptions, online systems are available only to Certified Application Assisters (CAAs), individuals who complete special training certifying them as eligible to submit an enrollment application on behalf of people eligible for applying. Individuals are generally not able to access the electronic enrollment systems. This is true for both One-e-App and Health-e-App. Where available, One-e-App applications for Medi-Cal and Healthy Families are submitted electronically to the state through the Health-e-App portal; there is no direct line from One-e-App to the state's single point of entry, which is the mechanism for the state to receive applications for these programs. In some counties, One-e-App does have a direct link for locally organized Healthy Kids programs, but this also requires a CAA to formally submit the application on behalf of the client. Finally, some counties have developed their own data systems that help outreach workers track enrollments, follow up with clients, initiate reminders for renewals, and record their contacts with families. See Appendix SA2 for a complete list of strategies.

RESEARCH DESIGN AND METHODS

The study period was from 2001 to 2007 and focused on the impact of outreach and enrollment strategies on the number of new enrollments in public insurance programs for children in California counties with CHIs. Twentyfive CHI counties participated in the study including one county that eliminated its Healthy Kids program in 2007. Two counties participated as a region and were analyzed together. Data about the use of outreach and enrollment strategies were collected from group interviews with key stakeholders who in most cases included a staff member of the county CHI (usually a coordinator for outreach and enrollment). Interviewed stakeholders also included a representative from the county public health or health care services department, funders including the local First 5 Commission,¹ the administering health plan, school districts, and contracted outreach agencies.

Chairs of the coalition received a preinterview worksheet with questions about the use of each strategy. Research investigators conducted on-site group interviews in the fall and winter of 2008. Groups were guided through countyquarter ratings of whether a specific strategy was deployed in the study period. They answered yes or no as to whether they used each of eight outreach and enrollment strategies in each quarter. The unit of analysis, the county-quarter, means four quarters in a given year for each county. Thus, for each quarter for each county, we have a description of whether a specific outreach and enrollment strategy was in place as well as a count for the number of newly enrolled children in each of the three public insurance programs. In the end, there were 672 points of observation for the study (24 counties by 7 years by four quarters each year).

Enrollment data for each of the three programs, Medi-Cal, Healthy Families, and Healthy Kids, were obtained from public agencies.² The number of new enrollments in each quarter was determined by adding the total number of new enrollments from that period. In order to be considered a new enrollment for Medi-Cal or Healthy Families, a child must not have been enrolled in the program in the prior 12 months. For Healthy Kids, a child was counted as a new enrollment if he or she had submitted an application for a given month and was subsequently enrolled. A child who enrolls in a program after moving from a county in which he or she was previously enrolled is considered a new enrollment in that county. Only 23 counties supplied new enrollment data for the Healthy Kids program. For the county that did not supply data, the new enrollments for Healthy Kids were considered to be zero. For Medi-Cal, there are a total of 158 aid codes that describe categories of enrollment based on eligibility criteria. Analysis for Medi-Cal data were limited to 15 aid codes determined to be sensitive to outreach and enrollment strategies and distinct from aid codes that reflect mandatory enrollments based on receiving cash assistance (e.g., Cal Works or Supplemental Security Income).

ANALYSIS

The dependent variable was the number of new enrollments (Medi-Cal, Healthy Families, and Healthy Kids) per 10,000 children (age < 19) in each county quarter. The key independent variable came from each of the eight specific strategies measured for each county quarter to produce dichotomous utilization (yes versus no) for each county quarter. Bivariate analyses were conducted to correlate new enrollments with the presence of each strategy in a particular county quarter.

We applied multivariable analyses to study the likelihood of being newly enrolled in a public insurance program per 10,000 children. In the model, we controlled for county differences by including a variable for county (n = 24), the effects of other types of strategies used in the county, and the percentage of children age < 19 living in poverty (below 100 percent FPL). The percentages of children living in families with household incomes at or below 100 percent FPL were acquired from the California Department of Finance for each county from 2001 to 2007. Yearly population counts of children (age <19) living in each county were obtained from U.S. Census data. From the descriptive statistics, we noted a cyclical trend in new enrollments and controlled for seasonal effects in the model by including a variable for quarter (1–4). As an independent variable, we also examined the effect of the number of enrollment strategies on new enrollments by adding the number of strategies used in each county quarter. For the multivariate model, we utilized the GENMOD procedure of *SAS* version 9.2.

We also analyzed the interactions between the deployments of certain strategies with the use of One-e-App. We could not assess the impact of these interactions on enrollments in the model primarily due to sample size limitations. We used a Poisson regression to model our data for two reasons. First, the dependent measure is count data (i.e., numbers of enrollments), which typically require Poisson regression. Second, enrollments were not normally distributed over the county quarters. New enrollments were higher in later years, indicating a negatively skewed distribution that is best fit by a Poisson regression. After analyzing the interaction variables, the negative binomial was used to account for overdispersion in the Poisson regression models.

PRINCIPAL FINDINGS

Expansion of Outreach

During the study period, counties increasingly adopted one or more approaches to outreach and enrollment. In 2001, only three counties used some type of

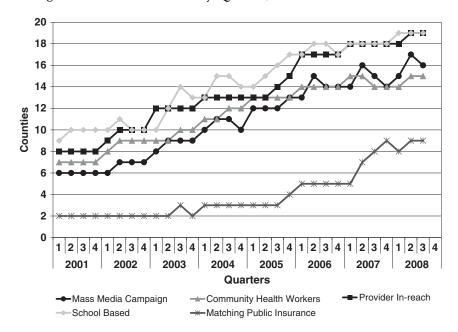


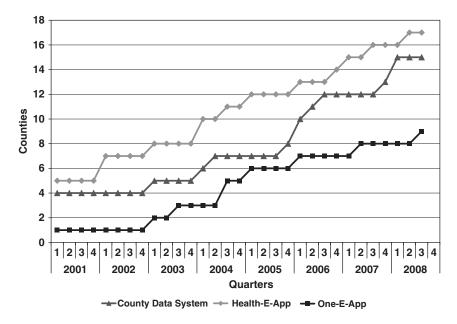
Figure 1: The Deployment of Nontechnology Outreach and Enrollment Strategies in California Counties by Quarters, 2001-2008. N = 24 counties*

*Although 25 counties participated in the study, two counties participated as a region and were analyzed together; therefore, n = 24.

school-based strategy increasing to 19 by 2008. Similar findings corresponding to different time frames were reported for the use of community health workers, which increased from 7 to 15 counties in the 8-year period. The use of different forms of media to advertise public health insurance programs increased from 6 to 16 counties in the period. In-reach or provider-oriented strategies increased from 8 to 19 counties, and matching potential enrollees against existing public programs increased from two to nine counties (see Figure 1).

Technology-based approaches also increased but more slowly. In 2001, one in five counties in the study used Health-e-App as an enrollment tool. This increased to 17 counties by 2008. In 2004, four counties had implemented One-e-app as an enrollment tool. Today, nine counties are in some phase of implementing One-e-App. Initially, only four counties used county-organized data systems, but this jumped to fifteen by 2008 (see Figure 2).

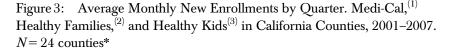
Figure 2: The Use of Technology Tools for Outreach and Enrollment in California Counties, 2001-2008. N = 24 counties*

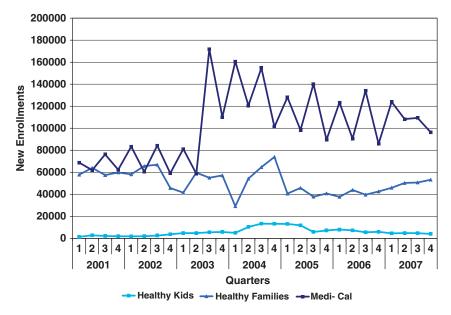


*Although 25 counties participated in the study, two counties participated as a region and were analyzed together; therefore, n = 24.

Expansion of Enrollment

From 2001 to 2007, enrollment grew steadily in all three programs (Cousineau and Hughes 2009). Total monthly enrollment by quarter for Medi-Cal increased from 819,568 in the first quarter of 2001 to more than 1.5 million in the fourth quarter of 2007, an 87 percent increase over the study period (California Department of Health Services 2009). Healthy Families enrollment increased from 311,112 in the first quarter of 2001 to more than 677,000 in the fourth quarter of 2007, a 118 percent increase (Managed Risk Medical Insurance Board 2009). Healthy Kids enrollment also steadily increased through 2006 as more counties organized Healthy Kids programs. However, enrollment in the Healthy Kids program declined somewhat from 90,094 total enrollments in 2006 to 84,803 enrollments in the fourth quarter of 2007 because counties steadily closed enrollments to children 6–18 years of age due to a lack of funding for children in this age group.





Source: Enrollment data were provided separately for each program. They include the following: (1) California Department of Health Services, Medi-Cal Division, (2) Managed Risk Medical Insurance Board, (3) Healthy Kids Enrollment data were provided by each participating health plan.

*Although 25 counties participated in the study, two counties participated as a region and were analyzed together; therefore, n = 24.

Total enrollments are a product of new enrollments and retention. To estimate the impact of outreach and enrollment on new enrollments, we obtained new enrollments for all three programs (see Figure 3). The number of children enrolled in Medi-Cal who had no prior enrollment in the past 12 months increased the monthly average by 96,268 between 2001 and 2007. In the first quarter of 2001, there were 68,864 new enrollments for Medi-Cal, increasing to 96,268 new enrollments in the fourth quarter of 2007. The number of new enrollments surged dramatically in 2003, from 58,694 in the second quarter to 171,826 in the third quarter. There were consistent increases in new enrollment for Medi-Cal every first and third quarter of each year. The

number of new enrollees in the Healthy Families program grew by an average of 51,415 from 2001 to 2007. There is some variation in a few quarters during this period, with new enrollments generally declining between 2001 and 2003. However, the year 2004 marked a shift upward in new enrollments for the Healthy Families program with new enrollments totaling 29,124 for the first quarter of 2004 and increasing to 73,932 for the fourth quarter of the same year. The number of new enrollments in Healthy Kids increased from 150 in the first quarter of 2001 to more than 13,000 in 2005 as additional counties organized Healthy Kids products and began to enroll children. The number peaked in late 2005 as counties cut back on enrollments particularity for older children due to funding constraints (Stevens, Rice, and Cousineau 2007).

LINKING ENROLLMENT WITH OUTREACH AND ENROLLMENT ASSISTANCE STRATEGY

Bivariate Analysis

Table 1 shows the rate of new enrollments per county quarter in which each of the eight strategies was used for enrolling children into Medi-Cal and Healthy Families and Healthy Kids. County quarters with One-e-App had the highest rate of new enrollees for all programs followed by Health-e-App, countydeveloped data systems, school-based strategies, media, provider in-reach, matching public programs, and use of community health workers.

Multivariate Analysis

We developed two regression models to determine the independent effects of the number of strategies as well as the effects of each individual strategy type on new enrollments (see Table 2). For the first, we examined the impact of deploying one to two, three to four, five to six, or seven to eight strategies compared with quarters in which none of the identified strategies were deployed. Covariates include any county effect such as the fixed effects or unique characteristics associated with a specific county. This could reflect, for example, the size and scope of the safety net of health providers relative to the uninsured population, varying levels of political or philanthropic support for children's coverage, or other factors within a county irrespective of the type of outreach being deployed that might affect the outcome. Other covariates include season (quarter one versus quarter four each year) and the percent of the county's child population less than poverty.

	N (Number of County Quarters)	Mean Number of Enrollments per County Quarter			Mean Number of Enrollments per County Quarter
Strategy		New Medi-Cal	New Healthy Families	N (Number of County Quarters)	New Healthy Kids*
One-E-A	рр				
Yes	98	14,492	5,756	78	1,247
No	574	2,468	1,518	481	128
Health E	-App				
Yes	341	7,206	3,465	297	498
No	331	1,146	767	262	42
County-d	leveloped data syster	n			
Yes	201	7,244	2,826	176	537
No	471	2,931	1,842	383	168
School-ba	ased strategy				
Yes	4,270	5,638	2,686	365	365
No	245	1,751	1,178	194	132
Media ut	ilization				
Yes	334	5,947	2,689	266	455
No	338	2,516	1,589	293	129
Provider	in-reach				
Yes	405	5,075	2,276	317	437
No	267	2,925	1,925	242	84
Matching	g public programs				
Yes	99	2,788	1,178	61	313
No	573	4,469	2,302	498	281
Commun	nity health workers				
Yes	369	5,555	2,620	336	461
No	303	2,596	1,548	223	18

Table 1: Average Number of Enrollments per Quarter in County Quarters with and without Each of Eight Outreach Strategies for Medi-Cal,⁽¹⁾ Healthy Families,⁽²⁾ and Healthy Kids,⁽³⁾ 2001–2008

*Excludes the following counties: Alameda, Fresno, and Merced.

Source. Enrollment data were provided separately for each program. They include the following: (1) California Department of Health Services, Medi-Cal Division, (2) Managed Risk Medical Insurance Broad, and (3) Healthy Kids. Enrollment data were provided by each participating Health Plan.

New enrollments were directly correlated with the number of outreach strategies. County quarters with one to two strategies saw a 4 percent increase in the rate of new enrollments over county quarters without any funded strategies in place. As the number of strategies increased, new enrollments also increased. County quarters with three to four strategies saw an 11 percent Table 2: Rate Ratios of Newly Enrolled in Medi-Cal,⁽¹⁾ Healthy Families,⁽²⁾ and Healthy Kids⁽³⁾ per 10,000 children, Ages 0–18 Years for County Quarters, 2001–2007

Strategy Use (Yes Versus No)	Rate Ratio	p-Value
Health-e-App	1.11	.02
One-e-App	1.11	.14
School-based	1.12	.01
Community health worker	0.96	.41
Matching public programs	0.98	.59
Provider in-reach	1.04	.39
Media utilization	1.04	.26
County developed system	1.10	.09
Number of	Strategies Per County Quarter	
0	Reference	
1-2	1.04	

0	Reference	
1-2	1.04	.54
3-4	1.11	.16
5-6	1.24	<.01
7–8	1.54	<.001

Note. Controlling for county effects, season (quarters), and percent estimates of poverty.

Source: Enrollment data were provided separately for each program. They include the following: (1) California Department of Health Services, Medi-Cal Division, (2) Managed Risk Medical Insurance Board, and (3) Healthy Kids. Enrollment data were provided by each participating Health Plan.

increase in enrollment rates over quarters without any funded strategy. However, these were not statistically significant. County quarters with five to six strategies saw a 24 percent increase over baseline (p<.01), and seven to eight strategies were associated with a 54 percent increase over quarters without any funded strategy (p<.001).

When considering the type of strategy used, we examined the impact of each technology-based and non-technology-based strategy identified in the study, controlling for the number of strategies deployed, county, seasonal differences, and percent estimates of poverty in each county (Table 2). Technology-based strategies had the largest independent effect on new enrollment rates, including Health-e-App, with an 11 percent increase in the new enrollment rate (p < .02). Similarly, county quarters with county-developed systems in place showed an 10 percent increase (p < .09), while school-based approaches were associated with a 12 percent increase in new enrollments (p < .01). Provider in-reach strategies using prepopulated enrollment forms and media had smaller effects ranging from 3 to 5 percent but were not

statistically significant. There was no apparent value added using community health workers or matching potential applicants to existing databases.

DISCUSSION AND IMPLICATIONS

The increase in enrollments in public insurance programs in California can be a product of many factors, including the efforts of the local county outreach and enrollment programs. Although outreach funding has been unstable, counties have been creative in piecing together a set of strategies that provide a comprehensive approach to identifying uninsured children and enrolling them into an appropriate health insurance program. This study asks which of these various strategies were most effective. Data suggest that during the study period, technology-based approaches resulted in significant increases in new enrollments. Our analysis showed an increase in the rate of new enrollments of 10-11 percent in periods when online application systems, including One-e-App and Health-e-App, were used compared with periods in which these approaches were not active. The use of county data systems had similar results. These results were all higher than nontechnological approaches with the exception of school-linked systems which were equally effective, showing a 12 percent increase in the rate of new enrollments over county quarters without school-based strategies. Thus, to ramp up a program quickly and produce higher yields in enrollments, state and local governments should embrace expanding new technology that streamlines and automates the application and approval processes. Several philanthropic foundations are promoting technology to aid in the simplification of the enrollment process by showing the cost effectiveness of robust and comprehensive online enrollment systems (Karp 2008).

There are limitations to this study. First, there are factors other than outreach and enrollment that affect enrollment. These include policy and programmatic changes affecting eligibility requirements, copayments and coinsurance, monetary commitments to pay for public health insurance expansions, and insurance redetermination. These factors can increase the number of uninsured and eligible children who are unable to apply for coverage regardless of the extent of outreach and enrollment assistance. In addition, other outreach strategies not measured in this study may have had an impact but were masked in this analysis. Second, the analysis only reflects how the presence of a strategy affects enrollment—not the different intensity levels of an outreach approach. For example, a county with one community health worker will be scored the same as a county with two or more community workers regardless of county size. This will be addressed in future studies using these data.

Third, the data do not enable an assessment of the temporal effect that is the relative impact of the ordering of a set of strategies deployed in a county on rates of new enrollments. This may be important for future studies because counties tended to use nontechnology strategies before the technology approaches. Nontechnology strategies provided outreach teams with the experience of building relationships with individuals, host organizations, and communities, as well as first-hand knowledge about the rules and criteria governing enrollment and experience in actually enrolling children into programs. However, this study does not tell us about whether this sequencing of deployment had a unique effect on enrollment rates. Fourth, children who move are considered a new enrollment even if they are enrolled in a program before they move because data systems are unable to track enrollments based on transfers. While the number of transfers is likely small, they still reflect the activities of outreach and enrollment assistance. Fifth, this study measures the overall volume of enrollments but not how the strategy may impact population groups who are being targeted for enrollment differently. Technology approaches might yield higher volumes of people, but one-on-one encounters may be more effective than media or technology-based approaches in identifying harder-to-reach families. In addition, the one-on-one approach might be more effective later in campaigns as the pool of easier-to-reach families declines, leaving those who are more isolated, more fearful, and more difficult to enroll. However, such interventions would require a more focused prospective design in which investigators have more control over the independent variable and more is known about the sociodemographic characteristics of the target population than can be linked to outcomes. Finally, data on costs of deployment were not included in this study and during the planning phases investigators determined that they were not available from the individual counties. However, future studies should include costs to help funders and policy makers compare not only the efficacy of using a specific strategy but their comparative cost effectiveness.

Still the study shows the value of using multiple strategies for identifying and enrolling uninsured children. Deploying several strategies simultaneously is likely to produce a significantly higher yield as compared with less comprehensive approaches that depend on media and other nontechnology enrollment assistance. County quarters in which seven to eight different strategies were deployed enrolled 54 percent more children compared with quarters using none of the strategies in this study. During site visits, coalition leaders often described not only how strategies were deployed simultaneously but also how they often worked together. For example, it was often described how school-based personnel and community health workers in many counties increasingly used One-e-App as a tool for enrolling children into the three health insurance programs.

Health care reform promises more opportunities for covering uninsured people. The provision expanding Medicaid to all individuals over 133 percent of poverty will undoubtedly require new efforts to identify and enroll low-income uninsured individuals quickly and cost effectively. This study suggests that as national health reform is implemented, state, local government, and community-based organizations should launch a widespread campaign using a variety of strategies but increasingly emphasizing technology and online application processing systems in order to yield higher numbers. When focusing on children, using schools and school-linked programs to enroll them may also be more or equally effective.

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NOTES

- First 5 Commissions were established in California after the passage of Proposition Ten, which levied taxes on the sale of tobacco taxes to support state and local health, social services, and educational programs for children ages 0–5 years. Both state and local commissions use part of these funds to support premiums for children in Healthy Kids programs in 24 counties.
- 2. Medi-Cal data were obtained from the California Department of Health Services, Medi-Cal branch and analyzed as part of the Covering California's Kids initiative for the California Endowment. Healthy Families Data were obtained from Managed Risk Medical Insurance Board (MRMIB). Accessed December 2009. http://www.mrmb.ca. gov/MRMIB/HFP/Nov_09/HFPRptSum.pdf Note. Data for Healthy Kids have been obtained annually from each Children's Health Initiative t.

REFERENCES

- Barents Group LLC. 2000. Final Report on Evaluations of Outreach for Public Health Insurance and Selected Other Programs. Prepared for Agency for Healthcare Research and Quality Center for Organizational and Delivery Systems.
- Brown, E. R., R. Kronick, N. A. Ponce, J. R. Kincheloe, S. A. Lavarreda, and E. Peckham. 2009. "The State of Health Insurance in California: Findings from the 2007 California Health Interview Survey" [accessed on November 2009]. Available at http://healthpolicy.ucla.edu/pubs/Publication.aspx?pubID=374
- Buchmueller, T. C., K. Grumbach, R. Kronick, and J. G. Kahn. 2005. "The Effect of Health Insurance on Medical Care Utilization and Implications for Insurance Expansion: A Review of the Literature." *Medical Care Research and Review* 62 (1): 3–30.
- California Department of Health Services. "Data & Statistics" [accessed on December 2009]. Available at http://www.dhcs.ca.gov/dataandstats/Pages/default.aspx
- Castaneda, X., Z. Clayson, T. Rundall, L. Dong, and M. Sercaz. 2003. "Promising Outreach Practices: Enrolling Low Income Children in Health Insurance Programs in California." *Health Promotion Practice* 4 (4): 430–8.
- Cousineau, M. R. 2006. Reaching In and Reaching Out: Understanding Efforts to Identify and Enroll Uninsured Children into Health Insurance Program. The California Endowment.
- Cousineau, M. R., and D. Hughes. "Children's Health Coverage in California: Facts and Figures." California Healthcare Foundation [accessed on November 1, 2009]. Available at http://www.chcf.org/topics/healthinsurance/index.cfm?itemID=122730
- Cousineau, M. R., G. D. Stevens, and A. J. Farias. 2009. Use of Outreach and Enrollment Strategies in California. Robert Wood Johnson Foundation.
- Cummings, J., S. A. Lavarreda, T. Rice, and E. R. Brown. 2009. "The Effects of Varying Periods of Uninsurance on Children's Access to Health Care." *Pediatrics* 123: e411–8.
- Guendelman, S., R. M. Wyn, and Y. W. Tsai. 2002. "Children of Working Poor Families in California: The Effects of Insurance Status on Access and Utilization of Primary Health Care." *Journal of Health Society and Policy* 14 (4): 1–20.

- Hill, I., L. Dubay, G. M. Kenney, E. M. Howell, B. Courtot, and L. Palmer. 2008. "Improving Coverage and Access for Immigrant Latino Children: The Los Angeles Healthy Kids Program." *Health Affairs* 27 (2): 550–9.
- Horner, D., B. Morrow, and W. Lazarus. 2003. "Express Lane Eligibility." The Future of Children 13 (1): 224–9.
- Howell, E. M., and C. Trenholm. 2007. "The Effect of New Insurance Coverage on the Health Status of Low-Income Children in Santa Clara County." *Health Services Research* 42 (2): 239–55.
- Karp, S. 2008. Enrollment Modernization: Changing Culture, Organization and Structure of Health Program Enrollment. Key Note Address to the Conference on Building Blocks for Universal Health Care in New York: Bridging Coverage Gaps with Information Technology, May 2008.
- Managed Risk Medical Insurance Board (MRMIB). 2009. "HFP Enrollment Reports" [accessed on December 1, 2009]. Available at http://www.mrmib.ca.gov/ MRMIB/HFPReports.shtml.
- Newacheck, P. W., J. J. Stoddard, D. C. Hughes, and M. Pearl. 1998. "Health Insurance and Access to Primary Care for Children." New England Journal of Medicine 338 (8): 513–9.
- Stevens, G. D., K. Rice, and M. R. Cousineau. 2007. "Children's Health Initiatives in California." *American Journal of Public Health* 97 (4): 738–43.
- The Lewin Group. Using Web Technology for Public Program Enrollment: Assessing One-e-App in Three California Counties. The California Health Care Foundation [accessed on June 2009]. Available at http://www.chcf.org/topics/medical/ index.cfm?itemID=133960
- Vistnes, J., and B. Schone. 2008. "Pathways to Coverage: The Changing Role of Public and Private Sources." *Health Affairs* 27 (1): 44–57.

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix SA1: Author Matrix. Appendix SA2. Definitions of Outreach/Enrollment Strategies.

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