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# Spillover Effects of an Uninsured Population

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## Abstract

A lack of health insurance has long been associated with negative effects on individual and family health due to access barriers. However, we know little about how a lack of health insurance affects wider communities beyond health care. Based on in-depth interviews in two Los Angeles communities, we report how a lack of health insurance affects the functioning of religious institutions and schools from kindergarten to 12th grade. We find a negative spillover effect at the individual and institutional levels for schools experiencing greater absenteeism due to health insurance problems of pupils. However, we find that religious organizations are little affected by a lack of health insurance of adherents. Instead, churches offer health programs as a means to engage their communities. Besides documenting a negative and a positive spillover effect, we offer a conceptual framework for the qualitative study of health spillover effects and examine the policy implications of our findings.

## Keywords

conceptual framework, education, qualitative research, religion, spillover effects

Despite protracted political and legal battles, the United States is in the midst of implementing comprehensive health care reform. The Patient Protection and Affordable Care Act, signed into law in 2010, aims to expand public and private health insurance programs for about 30 million Americans through mandates, subsidies, and insurance exchanges (Congressional Budget Office 2012). Providing insurance to a previously uninsured population is expected to benefit individual and population health, but the impact will likely go beyond health access proper. Because health is a prerequisite for participation in much of social life, the consequences of the growing proportion of people with health insurance may penetrate deep into a community's social fabric to influence its ability to attract employers, hire employees, keep schools functioning, fill pews in churches, and cultivate a community's common sense of purpose. We can anticipate some of these changes by examining how a large uninsured population affects institutions, such as religious organizations and schools, prior to health care reform.

A study of the impact of a population lacking health insurance on institutions beyond health care is a query into a *spillover effect*. The notion of spillover or collateral effects emerged in neoclassical economics as a way to specify externalities, which refer to a cost or benefit that results from an activity or transaction and that affects an otherwise uninvolved party who did not choose to incur that cost or benefit (Laffont 2008).<sup>1</sup> Economic spillover effects can be negative, such as when a new factory contributes to increased pollution, noise, or congestion, or they can be positive, such as a technological innovation resulting in increased trade, consumer choice, and income. In the health literature, the study of spillover effects has been concentrated in health service studies of changes in health markets (e.g., Baker 2003; Pauly and Pagán 2007) or as part of

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cost-effectiveness studies (e.g., Deogaonkar et al. 2012).

Thinking of health in terms of spillover effects, as a concept removed from the context of neoclassical economics, constitutes a quintessential sociological approach to health because it broadens the study of health beyond the medical sector proper. Similar to the central premise of network studies (e.g., Liu and Bearman 2010), the sociological premise lies in the assumption that seemingly unrelated entities are connected and produce intended and unintended health effects.

Here, we examine the effect of an uninsured population on schools and religious organizations. Both of these institutions have an interest in health. Faith-based organizations have long been involved in comforting the sick and dying (Cadge 2012), and many schools teach a health curriculum. Examining spillover effects of the uninsured, however, does not relate to religious or educational subject matters but to how problems in people's access to care affect the functioning of these institutions. Religious organizations and schools are largely institutionally distinct from clinics and hospitals but inhabit similar geographic spaces and have crosscutting membership and other ties. While neither of these institutions selects its members based on insurance status, both are likely to attract people with insurance statuses reflective of their communities, leading to higher concentrations of the uninsured in some schools and religious organizations than in others. We may thus expect that spillover effects are possible. In fact, researchers have documented how lack of insurance has affected school attendance for individuals (Howell et al. 2010; Jackson et al. 2011). Little is known, however, about the social mechanisms by which lack of insurance affects school life and whether uninsurance affects the broader school community beyond individual students. While public health researchers have examined African American and Korean churches as a conduit for health promotion and education (e.g., Jo et al. 2010; Markens et al. 2002), the effects of worshipping among a large uninsured or underinsured population have only been cursorily studied.

Our contribution to the social study of health is threefold. First, we document the existence, forms, and mechanisms of spillover effects of a large uninsured population on schools and churches. Because this is a qualitative, interview-based study, we are unable to assess the magnitude or statistical significance of the effects of a lack of health insurance. Instead, we provide insight into plausible social

mechanisms by which lacking health insurance may produce certain institutional outcomes as well as the ways these mechanisms may be neutralized. Second, we appropriate the concept of "spillover effects" from neoclassical economics, where it has been used largely to denote changes in health markets, as a means to examine a broader range of influences. Our study constitutes a "proof of concept" of spillover effects in qualitative health research. Third, this study also has policy implications. This pre-health reform study may anticipate some of the effects of increasing the pool of people with health insurance while also isolating issues that may persist even if insurance is made available and that may continue for those who still remain excluded from health insurance. One of the policy attractions of examining spillover effects is that results may show that health policies go beyond health to affect housing, employment, education, immigration, and civil participation. Alternatively, interventions may also produce intended or unintended health effects. More specifically, our study anticipates how health care reform may affect the functioning of educational and religious institutions.

## BACKGROUND

### *Spillover Effects of the Uninsured*

Health policy makers and social scientists have established that the 48 million uninsured children and nonelderly adults in the United States are at risk for negative health outcomes and downward social mobility because of gaps in health insurance and problems accessing health care delivery (DeNavas-Walt, Proctor, and Smith 2013). In spite of methodological limitations (Levy and Meltzer 2008), studies reviewing the impact of lack of health insurance have demonstrated that the uninsured have limited access to care; receive fewer preventive, ambulatory, and hospital-based services; and experience worse health outcomes compared with individuals who have insurance (Freeman et al. 2008; Hoffman and Paradise 2008; Institute of Medicine 2002, 2009; Ross and Mirowsky 2000). The uninsured are also more likely to delay seeking medical care and to receive care from emergency departments or outpatient clinics, are less likely to have a usual source of care, experience longer waits for treatment and less appropriate care for chronic conditions, and have more progressed disease states at diagnosis (Guendelman, Angulo, and Oman 2005; Ross et al. 2007; Seccombe and Amey 1995). Being uninsured is associated with premature death

(Institute of Medicine 2002:165). Not only does lack of insurance affect health outcomes, but the uninsured experience downward social mobility in the form of job loss and personal bankruptcy when health bills come due (Boushey 2005; Dranove and Milenson 2006; Himmelstein et al. 2009).

The sparse literature on how a lack of insurance affects communities has almost exclusively focused on health care delivery: how an uninsured population affects the availability, use, and quality of service for the insured population in the same community. Using data from the Community Tracking Study, Pagán and Pauly (2006) found that in communities with higher uninsurance rates, insured adults were more likely to report unmet medical needs in the previous year. The investigators also found that higher community uninsurance rates were associated with small but significant declines in the privately insured adult population's access to care (Institute of Medicine 2009:4–9). In addition, the shift in the proportion of the local insured population will have a negative effect on the quality of care provided by the remaining health service providers if the uninsured can only afford a lower quality level of care, again affecting the entire community regardless of individual insurance status (Pauly and Pagán 2007). Patients are less likely to trust their physicians in communities with high rates of uninsured, and physicians in such communities have lower levels of career satisfaction (Pagán, Balasubramanian, and Pauly 2007). Others confirmed that a high uninsurance rate had a negative effect on access to care and satisfaction with care among working-age persons with private insurance and among Medicare-enrolled seniors (Gresenz and Escarce 2011). Using panel data models of patient discharge for hospitals in California, Daysal (2012) found that uninsured patients have an economically significant impact on hospital expenditures that increases the mortality rate of insured heart attack patients.

Some studies, however, failed to detect a negative spillover effect of an uninsured to an insured population. Sabik (2012) found that an increase in the rate of people lacking insurance is associated with poorer access to necessary care among the uninsured but does not affect the insured. McMorro (2013) also did not find large or widespread negative spillover effects of a large uninsured population on a range of mortality outcomes of Medicare insured patients. She found few statistically significant results in small medical markets for highly intensive specialized neurological care, suggesting that providers in such areas have

limited ability to spread the fixed costs of shared quality investments.

The Institute of Medicine in 2003 and again in 2009 documented that little is known about the effects of an increase in a vulnerable uninsured population on the broader community structure beyond health care delivery, but the proportion of health insurance coverage and changes in health care services are likely to affect various community institutions. Social institutions such as schools may experience the spillover effect of a growing uninsured population with student absenteeism at the level of individual pupils. Uninsured children are more likely to have unmet health needs, are less likely to receive a timely diagnosis of serious health conditions, have more avoidable hospitalizations, and miss more days of school (Institute of Medicine 2009). In addition, a high level of uninsured may require school nurses and school-based health clinics to deal with delayed and unaddressed medical care, including mental health issues. Studies have shown that children with unmet dental needs are more likely to miss school days due to dental problems than those who can afford such care (Pourat and Nicholson 2009). Discomfort and pain due to unattended dental problems and emergencies may affect school performance independent of school attendance (Jackson et al. 2011). School absenteeism has been shown to be related to lower scores on assessment tests, lower grade retention, and school dropout, which, in turn, affect socioeconomic achievement later in life (Gottfried 2011; Summers and Wolfe 1977).

Religious institutions have a long history of ministering to the sick and dying (e.g., Butler-Ajibade, Booth, and Burwell 2012; Cadge 2012). An extensive literature has also examined the role of religion in physical and mental health (e.g., Chatters 2000). Little is known, however, about how a lack of insurance affects the programming, focus, and activities of religious services and programs. The Bush administration spearheaded the role of faith-based organizations when it set up the White House Office of Faith-Based and Neighborhood Partnerships as a means for religious organizations to provide federally funded social services.<sup>2</sup> The National Congregations Study found that 45% of congregations were involved in formal delivery of social services (Chaves and Anderson 2008). Among black and immigrant Latino and Korean churches, addressing health has long been part of larger community involvement aimed at decade-long efforts to fight poverty and racism (Arredondo et al. 2005; Asomugha, Derose, and Lurie 2011; Butler-Ajibade et al. 2012; Jo et al.

2010). Survey data indicate that the clergy remain the first treatment contact for approximately 25% of people with mental disorders and that the majority were seen exclusively by the clergy rather than by a physician or mental health professional (Wang, Berglund, and Kessler 2003). Support from church leaders for health promotion, however, may not always translate to community uptake of health services (Markens et al. 2002).

### *Spillover Effects: A Conceptual Framework for Qualitative Research*

Most of the health spillover research has been quantitative and drawn from neoclassical economics. Consequently, this literature subscribes to specific theoretical and methodological assumptions. Theoretically, this concept is part of a neoclassical synthesis that views people as rational decision makers responsive to incentives and costs and supports a limited role for government in economic policy. A spillover effect is then an effect, typically with economic repercussions, on a third party not privy to an economic transaction. Methodologically, this research has paid attention to issues of reverse causality, selection and sample bias effects, unobserved heterogeneity, and endogeneity bias. A sociological reappropriation using qualitative methods raises different methodological issues related to causality and different theoretical concerns (Timmermans 2013). Specifically, the method's ability to track social processes as people observe and experience them requires conceptual development for a study of spillover effects.

A sociological appropriation broadens our understanding of what qualifies as a spillover effect. A spillover effect presumes that seemingly unrelated entities (e.g., populations, institutions, communities, geographical areas) in fact influence each other positively or negatively. The quantitative literature of spillover effects of the uninsured has uniquely focused on how a large uninsured population affects the health care of the insured population. The effect thus spills from one group to another within the same institutional setting of health care and within the same geography. Spillover effects, however, may also affect the same individuals or groups in different institutional settings. Thus, issues related to health care may affect an uninsured religious adherent or student. It is possible that lack of insurance in schools and churches also affects those with insurance attending the same schools and churches. That would imply a double-spillover effect: between institutions and between populations. To document a

spillover effect requires showing the influence of one entity on another and should be evaluated as establishing a correlation.

The effect requires a carefully considered "from" (originating entity) and "to" (receiving entity). Considering that spillover effects may be ubiquitous in the sense that any entity may theoretically affect any other, one key issue in qualitative spillover research is to find the areas where people are more likely to observe and experience spillover effects. Because qualitative research depends largely on in-depth interviews and systematic observations, one way to locate spillover effects is to examine people's awareness of a spillover effect, where *awareness* refers to noticing, interpreting, and acting on an issue. In the health field, institutional processes may make people aware of insurance status, such as a doctor's note required for an excused absence from work. People may be fully aware of how two entities are related to the point that they use spillover effects for strategic purposes. They may perceive relationships where there are none but still act on their perception. Or they may largely be unaware until problems occur. Awareness of an influence in a different institution is related to the manifestation of the spillover effect. In qualitative research, this refers to the ways that actions in an originating entity affect the tasks, resources, and goals of the receiving entity. Regardless of awareness, the manifestations point to the specific kind of spillover effect at work.

Like other social researchers, qualitative health researchers are interested in systematically rather than randomly produced spillover effects. This means that besides identifying the actual effect, we need to map the social mechanisms by which the two entities indirectly influence each other. Social mechanisms specify the intermediate processes by which effects occur (Machamer, Darden, and Craver 2000). We can detect social mechanisms with qualitative methods by examining the steps people take when the normal problem-solving channels are no longer available (Gross 2009).

A positive spillover effect implies that the receiving entity obtains an added value from the activities in the originating entity. Positive spillover effects offer the receiving entity an opportunity to be more effective in its own goals or to add activities, goals, and resources. Besides tangential material results, this may take the form of additional social capital, collective efficacy, and social support. The result is an expanded spectrum of activities to make the entity indispensable.

A negative spillover effect means that activities in the originating entity cause problems and disruptions

for the receiving entity. Negative spillover effects will become apparent in the ways people need to solve problems because the typical problem-solving strategies that should have been available if the originating entity had been functioning properly are unavailable. Negative spillover effects, however, do not need to be unidirectional. Receiving entities may anticipate the influence from third parties on their activities and take steps to buffer this impact. Buffering may or may not be sufficient to moderate the spillover effects.

In sum, a qualitative, sociological appropriation of spillover effects focuses on people's observations and experiences when activities in one area of life are hindered or facilitated by activities or influences in another area. We are interested in perceivable influences and how people act on their perceptions of problems and opportunities. Taking anticipatory or reactive actions may further complicate the correlation between originating and receiving entity.

## DATA AND METHODS

We conducted open-ended, in-depth interviews in two communities in the Los Angeles area: Inglewood and Venice. Inglewood has a population of 111,200 people, mostly of Hispanic (51%) ethnic and African American (44%) racial background (Census 2010). Inglewood is part of the Inglewood Unified School District and contains 17 public schools, 101 churches (according to churchangel.com, the community includes 12 Baptist, 5 Lutheran, 3 Apostolic, 3 Methodist, 2 Pentecostal, 1 African Methodist Episcopal, 1 Catholic, 1 Latter-day Saints, 1 Presbyterian, 1 Seventh-day Adventist, 26 other Christian, and 43 nondenominational churches), and 1 mosque. About 24,000 children or 22% of the population are enrolled in schools from kindergarten to high schools, and about 8% go to private schools (ACS 2011). Inglewood has 1 hospital, several clinics, and multiple physicians' practices. Small area estimation suggests that Inglewood has an uninsurance rate of 31% (Yu et al. 2007). Venice has a population of about 28,300 people with the majority non-Hispanic white (66.6%) and Hispanic residents (20.0%) (Census 2010). Venice is part of the Los Angeles Unified School District (LAUSD) and has 3 elementary schools and 1 middle and high school. In addition, there are 2 private elementary schools and 1 charter high school. There are 15 religious institutions, which include 4 Baptist, 1 Catholic, 1 Christian Science, 1 Lutheran, 1 United Methodist, 3 other Christian, 2 nondenominational churches, and 2 synagogues. The major health care

provider within Venice is the Venice Family Clinic, a free clinic serving over 24,400 individuals each year, 97% of whom are low-income. The health uninsurance rate for Venice is difficult to estimate due to its small size, but health surveys suggest a rate between 7% and 12%.<sup>3</sup> About 2,850 children in Venice are enrolled in schools, with one-third going to private schools. Venice has about half the rate of Inglewood's poverty (11.4% vs. 21%) and half the rate of noncitizens (9.3% vs. 18.6%) (ACS 2011).

Because this is one of the first qualitative explorations of spillover effects, we opted to examine the commonalities rather than the differences between the two communities. If the effects could be found across such different communities, we felt confident that they would not be idiosyncratic to observed instances in one community. Although one may expect to find fewer spillover effects in Venice than in Inglewood, this was not necessarily the case. School officials in Venice complained that much poverty in Venice is officially invisible: Few mobile health vans or other health programs reached out to schools on the west side of Los Angeles, while many schools and churches in Inglewood had long-established relationships with safety net providers.

The data presented are part of a larger project in which we examine health spillover effects in three institutional areas. The data on the health spillover effects on small businesses will be presented separately because a lack of insurance affects business owners mostly through their employees. The quandary facing business owners is whether they should offer health insurance or not. For religious institutions and schools, spillover effects affect their clients (adherents/students). Data are drawn from 46 face-to-face interviews with school professionals ( $n = 34$ ) and church leaders ( $n = 12$ ) who were recruited via phone and in person. Of the school professionals, data are derived from interviews with principals ( $n = 21$ ), school nurses ( $n = 8$ ), and school administrators ( $n = 5$ ). The interviews span public elementary schools, middle schools, and high schools as well as parochial schools and a charter school. Of the religious leaders, data are drawn from interviews with church pastors ( $n = 9$ ) and church administrators ( $n = 3$ ).

Interviews averaged one hour in length and were performed on-site at the participant's place of work. The interview guide covered questions about tasks and responsibilities associated with jobs, health-related issues or concerns encountered in participants' work serving community members,



and other questions that sought to determine whether and how health insurance status affects the tasks and resources of community institutions. Interviews followed a semistructured format.

The majority of interviews were audio recorded and then transcribed by a transcription service, although respondents were also offered the choice to decline being voice recorded. For the few individuals who did not want to be recorded, detailed notes were recorded during the interview and later transcribed. We analyzed the data collectively using an abductive analysis approach, meaning that we systematically coded the empirical material to theorize surprising findings in light of the research literature on spillover effects (Timmermans and Tavory 2012). We met weekly to code the interviews and develop conceptual memos. The resulting analytical framework was developed by consensus. We worked iteratively with the interviews, refining concepts based on patterns found across interviews in earlier coding sessions, looking specifically for outliers to modify the conceptual framework.

## RESULTS

### *Schools and the Spillovers of an Uninsured Population*

A school nurse succinctly expressed a widely shared sentiment: “The bottom line is [kids] have to be healthy in order to come to school. And healthy means both mentally and physically.” From kindergartens to high schools, school nurses, teachers, school psychologists, and principals noticed kids missing school for health-related reasons and others underperforming because of unaddressed health needs, some of which were exacerbated by a lack of health insurance. For individual children, the lack of health insurance negatively affected school presence and performance. These absences and underperformance affected not only the individual child but also the entire school and learning environment, including the education of children with health insurance. The negative health spillover effect of a large uninsured population manifested itself at the institutional level in a loss of funding for the entire school, a diversion of staff time and resources to address pressing health needs, and unnecessary, lengthy interruptions in class dynamics due to absences.

Although special insurance programs aimed specifically at children are available (see below), a school nurse noted that lack of health insurance “is

a very serious problem that is under the surface.” Indeed, school personnel’s estimates of the proportion of kids without health insurance varied widely from less than 5% to more than 50%, reflecting likely differences between schools and the difficulty of knowing how many children lack health insurance. Although schools collected cards with emergency health information including insurance information from each student, this information was put on file and not widely known. Educators based their estimates on the number of children qualifying for free breakfast and lunches. In some schools, all kids qualified for free lunches. Although their parents may then also qualify for Medi-Cal (the California Medicaid program) or Healthy Families (California’s State Children’s Health Insurance Program), educators suspected that bureaucratic hurdles kept some families without health insurance.

Several incidents, however, made the lack of health insurance apparent. A year prior to the interviews, the state of California mandated a Tdap vaccination (vaccine against tetanus, diphtheria, and pertussis) for children entering grades seven and higher. Although such vaccines could be obtained in pharmacies, most schools expected an immunization record from a physician or clinic. An unvaccinated child had 10 days to obtain a Tdap shot before removal from the school. Problems in submitting the paperwork brought a lack of insurance to light. A principal observed, “Last year, I know a lot of the seventh graders had a problem when they were out of school for weeks at a time.” A colleague agreed: “Yeah, [lack of immunization] does affect their school attendance, which then affects their grade and so on and so forth.” Any health requirement for school attendance, such as a dental visit and a physical examination for elementary school kids within 18 months of school enrollment, can become a barrier. Nurses noted that parents asked for dental waivers not because they did not believe in dentists but because they lacked dental insurance.

Every nurse and principal recalled instances of how unattended medical issues spiraled out of control. A principal, for example, mentioned a student who suffered a stroke in school. A regular physical examination would likely have revealed the student’s elevated blood pressure. Especially in middle and high schools, educators listed unaddressed mental health issues as a major concern, blaming stigma as the major barrier to care seeking. Mental health issues were expressed as an unwillingness to go to school, depression, lashing out at others, or



interrupting the educational experience for large groups of students. The school district no longer had its own free dental clinics, and educators found kindergarten and elementary schoolchildren with “bottle rot,” dental caries due to continuously sucking on a bottle. Vision care also remained an issue. Only one Medi-Cal provider offered glasses, and it had a two-month waiting time. Even families with insurance typically qualified only for glasses once every two years. Concerned about the high cost and fragility of glasses, some parents told their kids to keep their glasses at home.

A manifestation of the spillover effect of a lack of insurance at the institutional level was to use the school nurse as a primary health care provider and thus divert the nurse from other school-related tasks. The mandate of school nurses was mostly administrative, a “gatekeeper of records” as a principal put it. The nurse was responsible for checking immunization records, checking kids for head lice and scoliosis, teaching staff about blood-borne pathogens, evaluating students with a special education plan, and evaluating to keep sick, contagious kids out of school and healthy kids in school. The ability of school nurses to address health problems directly was explicitly curtailed: Nurses had to administer medication at a physician’s request, but they could not initiate even quite basic treatments such as putting a bandage on a sprain. In those cases, they were required to alert parents to take their kids to the physician or, if immediate care was indicated, call an ambulance. A more proactive diagnostic approach may otherwise, as a nurse put it, “send a message to the family that [the problem] has been taken care of when it’s not true.” Their mandate suggests that school nurses functioned as specialized school administrators rather than as extensions of the health care system.

Despite the fact that nurses functioned primarily as administrators, parents regularly sent their kids to school with likely health problems in the hope of soliciting a medical opinion from the school nurse. A nurse elaborated: “It’s usually things like pink eye or a muscular skeletal injury, usually a strain or a sprain, something that’s not clear-cut. The kid’s not in enough pain to assume it’s a fracture so they haven’t taken him for medical attention. So they’ll come to me with some sort of makeshift wrap on. And they’ll say, ‘This happened over the weekend and my mother told me to come here and see you.’” A different nurse noted that staff and parents also accosted her with questions about other children or their own health.

Although nurses recommended a doctor’s visit, they realized that especially for the children lacking insurance this was not always the course of action. A nurse noted cases “when the parent comes in and says ‘yes I’ll take them to the doctor,’ but then decides to go home and not take them anywhere.” Consequently, extended absenteeism was a mechanism for the spillover effect of a lack of health insurance for elementary to high school kids. One of the responsibilities of school nurses and, if no school nurse was available, of secretarial staff or teachers was to decide when a child had to stay home due to illness. Schools had simple rules, a principal noted, such as “no fever, vomit or serious injury.” The LAUSD parent handbook<sup>4</sup> specified that any child with flu-like symptoms or a fever over 100 degrees Fahrenheit needed to be free of symptoms and fever for at least 24 hours prior to returning to school. Some schools required that the parents show proof of having visited a doctor prior to bringing the child in. One principal described what often happens in such situations: “Now if the child becomes ill with, with some unknown illness or something and it’s spreading in the classroom, we demand that they come and say, ‘I have taken the child to the doctor.’ Because we want to clear it up in case questions are asked by other parents. So we have to, want to give them an explanation. And I think in some cases, yes, I have heard parents saying, ‘Uh, Miss, I don’t have insurance.’” Here, the issue is not simply recovery but medical validation that the problem has been attended to. A principal acknowledged that this extra requirement might itself cause absenteeism: “Sometimes initially that can keep them away, but as soon as they bring a paper from the doctor, the doctor said ‘can return,’ and then we’ll accept them back.”

This diversion of resources is not limited to school nurses but also affects other administrative staff. In the recent round of budget cuts, many schools lost their full-time school nurse for a floating nurse who visits their school only one day a week. A principal observed wryly that the other days “I play nurse. My office manager is a nurse, and my office clerk is a nurse, so we’re the three nurses.” A different principal noted that since only nurses can administer diabetes medication, the lack of a school nurse affects her student with diabetes:

We have a nurse one day a week, and that’s also been an issue because we have a diabetic student that needs to be tested and given insulin

every day. The nurse is a floating nurse that floats around different school sites. [The student] has to come here at 11 o'clock, but [the nurse] also treats other diabetics in other schools. As a result, our little student has to sit and wait sometimes an hour to have his sugar level tested. He doesn't get to play, because he can't play until he gets his insulin.

Educators noted that the lack of health insurance led parents either to wait things out, to treat an illness with home remedies, or to go to the emergency room. Those strategies led to longer absences from the classroom. "It does," a nurse explained, "because when the kids are absent, they can't get the proper care. They stay out of school a little bit longer than what they really should. If they were given the proper care then they could be in school more rapidly. You take care of the problem, and you're back the next day." School principals and nurses also saw firsthand how self-medication might make things worse. A principal recalled a student with dental problems but without dental insurance who ended up with an abscess after taking over-the-counter pain medication to ameliorate cavity symptoms. Frequenting an emergency room inevitably came with long waits, which may affect school performance and attendance. A different principal said, "It also affects academics, for example, I had a student in here, yesterday. The teacher sent him into the office because he hasn't been doing his homework. When I questioned him as to why he hadn't done his homework, just the night before they were in emergency all night for another sibling." Seeking basic care in emergency departments often led to gaps in follow-up care, as a nurse explained:

What happens when you get your health care in the emergency room when you're gasping for breath because you have bronchitis, that's kind of the last ditch thing you can do. Rather than being out of school for three or four days then you're out of school for that time. But then you're back [sick again] and the nurse sends you home again. And you're going to sit around home [again] for three or four days before you finally end up back in the emergency room again. That's that cycle. And all of that time out of school impacts their achievement.

Consequently, absenteeism not only affected individual uninsured sick students and their siblings but also affected classroom dynamics. Waiting things out,

being unable to secure a physician's note, lack of access to dental and mental health care, and worsening unattended chronic conditions requiring emergency department visits conspired to produce longer than necessary absences from the classroom. School administrators noted that the classroom environment was affected when students returned because they needed to catch up. Kids with unaddressed mental, physical, or dental health issues risked further classroom interruptions. While the direct educational effects of absenteeism on peers was difficult to estimate, educators had little doubt that the recurring interruptions, late starts, unnecessarily long absences, and lingering health issues affected the collective learning environment, especially in already under-resourced schools.

School staff have no choice but to address their students' health needs; otherwise, the staff are unable to run the school. California public schools receive their largest source of funding based on daily student attendance and lose these funds when students are absent. While keeping students in classrooms goes beyond financial incentives to the core of the educational mission, the institutional link between schools and state funding is a major reason for a negative health spillover effect: Any individual student's absence due to lack of health insurance will affect funding available for the entire school.

Schools aimed to buffer the lack of access to health care due to insurance problems in two ways. First, the school nurses and principals distributed information about health insurance for kids to parents. A nurse explained, "There is no excuse in the state of California for anybody under the age of 18 not to have insurance because it is available to you free or at extremely low cost." A nurse proudly told us that she signed up 40 families for Medi-Cal and an additional 5 undocumented families for a program run by a private insurer. LAUSD had a call center to help enroll students in health insurance programs. Because these programs still charged a fee that could be out of reach for some families, a nurse advised families to take advantage of these programs even for a couple of months and do all the vision, dental, and medical check-ups in that time period. School athletes were required to carry health insurance and the district offered insurance tailored to athletes, which scholarships could cover as well.

The second way to buffer the effects of lack of health insurance on schools was to directly offer health services. The school district ran clinics for the health issues they considered most critical to school

attendance. The LAUSD, with about 700,000 students, offered three free immunization clinics for uninsured children. The district's Parent-Teacher Association organized a vision clinic where kids could obtain free glasses. Schools also partnered with mobile clinics, external nutrition and fitness programs, and community mental health counselors. They organized health fairs and obtained vouchers for braces and dental care. Some schools partnered with community health centers to have a satellite clinic on the school site. Many of these endeavors depended on proactive principals and school nurses who felt a moral obligation to tend to their students' needs beyond classroom teaching.

Still, educators found that some of these initiatives were underused. The available free health insurance programs often had cumbersome administrative requirements that acted as barriers to enrollment, especially for undocumented immigrants reluctant to fill out official forms. The programs generally were not well known, reached enrollment caps, and still carried a cost. Even if families lacked health insurance, they were reluctant to take advantage of free mobile clinics because of the stigma of being dependent on charity for health needs. Clinics in high schools struggled with the perception of catering to "promiscuous" students looking for birth control and treatment of sexually transmitted diseases. School nurses were allowed to refer kids only to public programs and not to private practitioners for fear of fee splitting. Another limitation was that in the school setting, health care access was narrowly viewed in light of the most pressing problems that may interfere with school attendance and performance.

The mission of the district's school nurses is to strengthen and facilitate the educational process by improving and protecting the health status of children and by identifying and assisting in the elimination or modification of health-related barriers to learning. Children will inevitably miss some school when they fall ill and need time to recover. In areas with large uninsured populations, however, kids will also miss class because they do not have straightforward access to medical care. For those children lacking a usual source of medical care, administrative requirements for immunizations or physical examinations become barriers to enrollment. When school nurses call parents with the news that their child is sick, those families may opt to wait things out or treat with home remedies. This may lead to longer school absences, especially because the parent does not receive the green light from a clinician that the child is ready to attend

school. Children whose health is not regularly followed may have simmering mental, dental, and physical health problems that turn into disruptive emergencies. A large uninsured population will affect the school community beyond the individual child: School nurses and administrators have to divert time and resources to attend to sick children, absenteeism directly affects school funding, and it interrupts the learning from all students when their peers fall behind due to absenteeism.

### *Religious Institutions and the Spillovers of an Uninsured Population*

Faith-based organizations are one of the institutions where disruptive spillover effects of inadequate health care access may also be expected to pool, but we found few negative spillover effects on the functioning of these institutions. Participants in religious organizations with unmet health needs may look for emotional, spiritual, and financial support for lingering health problems. Rather than experiencing this as a disruptive influence, clergy welcomed the opportunity to render their institution relevant.

The religious leaders admitted that they did not always know who lacked health insurance, being surprised by "self-employed people, driving the latest model cars," but who lacked health insurance. Unlike school administrators, leaders at churches, mosques, and synagogues do not routinely ask about emergency health information, and participation in religion is not legally mandated or officially tracked. Clergy often did not know whether people missed religious meetings because they were sick, because they were unable to get health care, or for other reasons. Still, pastors had some sense of who lacked insurance because their parishioners occasionally confided their difficulties in accessing care. Clergy generally made few distinctions between a lack of health insurance, unaddressed health needs (regardless of health insurance status), lack of access to quality care, and urban health problems. Religious leaders became aware of some health problems in the community because they conducted funeral services. They mentioned the toll of diabetes, hypertension, cancer, and obesity in their communities.

Contrary to our expectations based on the literature, the spillover effects of a lack of health insurance for religious institutions were largely positive rather than negative. Only one pastor articulated a negative spillover effect of worshipping in a community with a high uninsurance rate: "Well, the impact of people not hav[ing] access to health care

affects a lot of things. One because there's a terrible tax on those persons because a disproportionate amount of their income is either paid or tied up in health care costs. And secondly that impacts their ability to support financially the work of the church. And so the lack of health care is a significant tax on the income of leadership." This isolated insight is still important because it implies a set of indirect influences whereby adherents spent disposable income on health care rather than on church support. On a day-to-day basis religious leaders may not experience the effects of lack of insurance, but worshipping in a community with a large uninsured population may create a structural, financial disadvantage for the institution, affecting the entire faith community.

Our interviews show that no religious leader complained that he or she was unable to run the faith-based institution in particular ways because adherents lacked health insurance or that a lack of insurance interfered in religious programming. Indicating of a positive spillover effect, most religious leaders expressed great pride in their programs' ability to address urban health, including a lack of insurance.

When parishioners failed to get access to health care because of insurance problems or other barriers in the health care system, religious leaders presented themselves as part of alternative courses of action. They viewed their members' unmet health care needs due to lack of insurance as both a possible distraction and an opportunity. The distraction came from the realization that too strongly focusing on practical health concerns may divert religious purposes and blur traditional clergy roles. Generally, however, the engagement with health was part of the religious mission to tend to participants' souls and bodies. Parishioners approached clergy for issues typically within the spectrum of ministerial and religious training, such as comforting the bereaved and helping couples with marital issues. The step to helping people address problems related to a lack of health insurance or to help with unmet health needs was small once religious leaders were approached for religion-related counseling.

Religious leaders created an alternative social mechanism for accessing health care. Nowhere was this more apparent than in unmet mental health needs. A pastor thought that because of the closeness of the "mind, soul, and spirit issues" and because of lingering stigma surrounding mental health issues, he was more commonly approached about mental health-related issues than about

physical health issues. Among the attractions of clergy as a contact point for mental health is their cheap cost: Especially for people lacking health insurance, out-of-pocket payments can be a barrier to health seeking. One pastor noted, "I am the cheapest counselor around because I don't charge anything." Another reason is that clergy can be approached without referral, whereas mental health professionals often require an initial consultation with a referral source.

Indeed, religious leaders indicated that the strongest unmet health need in their community was for mental health services:

I find that the worst part, or the worst area, is the area of mental illness, because it's not like when you stub a toe and you go in and get it fixed. Mental illness needs counseling, and sometimes it needs medical intervention, prescriptions, which they don't have money for. And those medicines tend to be costly. So it goes untreated. And I find a certain percentage of our community has those issues. And they're basically not taken care of. It's a big problem.

Several of the religious leaders had taken courses in pastoral counseling, but others felt less prepared in addressing mental health issues.

Some clergy were careful to counsel people regarding mental health issues. One pastor articulated a boundary between his own and other expertise: "A couple of times a month people come to me for counseling on all different levels. And I do my best to survey the situation immediately and see if it's a spiritual issue I can help them with or if it's outside of my realm." A pastor said that when parishioners "come and unload everything on me, they don't stay much longer." Thus, setting boundaries not only specified a spiritual division of labor but also was a safeguard against losing parishioners due to role blurring.

Clergy aimed to further address the effects of lack of access to care with a combination of community-based health programs and individual aid in navigating the health system. Every religious institution in this study had some kind of health activity or program that was organized or conducted with a partner organization. Several institutions linked up with national and regional organizations that provided screening services, flu shots, blood drives, health fairs, health education, substance abuse counseling, teenage pregnancy and women's health care, and wellness awareness. The programs included exercise classes, workshops on alternatives

to violence, and programs focused on nutrition such as cooking classes and farmers' markets. One church had a dedicated parish nurse who visited once a month to meet with uninsured and underinsured parishioners.

Most of the individual care consisted of brokering and navigating, that is, linking people with health services by providing information, interpreting physicians' notes, or making phone calls to insurers or providers. Screening programs were popular because they constituted tangible forms of action that might reveal hidden health needs. Clergy reported that they referred people to individual counselors, to local clinics, to emergency departments, and to county health services. They might also prod some of their members in the health care field to reach out to people struggling with health problems. A pastor explained:

Just the other day, there are two people who both spent most of their careers in psychiatric nursing. They're talking about the struggle another person is having with their spouse who's experiencing early onset of Alzheimer's and so where can we get this person access, does she know where she needs to go? Does she know what's available to her? Does she know that she needs to have someone walk her through this? All that kind of thing happens on a regular basis.

Because, as a pastor put it, "likeminded people recognize each other," information sharing and referrals also occurred among church members.

Whether these community and individual initiatives could counteract the effects of lack of insurance depended not simply on health needs but also on the kind of religious institution and the sustainability of programs. The denominations differed regarding how central these health-related activities were to their mission. Some churches required their deacons to start a ministry, and one church had two health ministries as their deacon's projects. For certain denominations, such as Seventh-day Adventists, promoting nutrition and health was intrinsically part of the church's mission, to the point, as the pastor explained, that health promotion may even overshadow the religious aspects. A different church had organized an umbrella organization with four other churches to focus on health. The umbrella organization offered a series of health-related workshops and activities in the churches. Several other religious institutions started a food pantry and one established

a residency house for people with mental issues, which these institutions spun off as independent entities. Another church purchased a former community hospital and planned to turn it into a medical wellness center. A Christian Science Church, which relied on prayer rather than "medicine" for health issues, still referred people to local clinics (see also Gevitz 1991).

Religious institutions experienced problems in sustaining these initiatives. The health care provided through these venues was often inconsistent and depended on the energy of volunteers and contracts with partner organizations. Counseling effectiveness depended on the interests and energy of individual clergy. Often, grants were available for pilot projects but not for sustained programming. Other requirements were health care providers with a Christian or other faith-based slant. Some Christian counseling services for mental health were unable to prescribe medications. Other churches had restrictions on reproductive health services, including abortion. The church leaders agreed that no one is completely dependent on the church for health access. They noted that many people used home remedies, and some immigrants traveled to Mexico for health care (see also Ransford, Carrillo, and Rivera 2010).

"Although health is not our primary mission," a pastor explained, "a lack of health care affects the church because the church has to care for the people." This statement captures the belief that a lack of health insurance and care does not necessarily disturb the religious activities but falls under the moral mandate of caring for people. Pastors then saw health issues as an opportunity to become engaged in their communities and to engage their communities in religious life. While schools diverted resources to health-related issues in order to be able to educate children, religious leaders used health engagement as a means to make religion relevant in daily life. The positive spillover effect took the form of extensive health programming and individual counseling. Still, at least one pastor noted that a large uninsured population indirectly taxes the finances of the church.

## DISCUSSION AND CONCLUSION

We showed that schools and religious institutions are differently affected by the lack of health insurance due in large part to the social mechanisms and institutional ties between the two institutions. Schools with



financial incentives to enroll students, with strong regulations and mandates related to health, and with nurses and office staff preoccupied in keeping healthy children enrolled and sick children home had strong, direct ties to the health care system. The fallout of an additional health requirement for school participation was concretely experienced. The schools aimed to absorb some of the spillover with programs targeting the health areas considered most critical for attendance and performance, but after repeated rounds of budget cuts, these programs were staffed only minimally. Due to the institutionalized relationship with health care providers, schools thus experienced negative spillover effects at the individual and the institutional levels. Because of financing mechanisms, resource allocation, and classroom dynamics, the institutional effects were distinct from spillover effects on individuals.

Churches, in contrast, did not directly experience the fallout of a lack of insurance in their programming. This was due to the voluntary character of religious participation, the great variety of church commitments that could be found among parishioners, the wide range of possible health issues, the lack of health requirements to worship, and the lack of health gatekeepers. The institutional ties between the church and the health care system were loose and without concrete consequences for church activities. Pastors were only tangentially aware of parishioners lacking insurance. Lumping a lack of insurance with other health issues, pastors took pride in their engagement in health programs as a way to reach out to parishioners and neighboring communities. Clergy were particularly attuned to mental health and counseling issues and offered their services as a form of health ministry and alternative to secular, professional mental health services. Still, a population lacking health insurance may indirectly affect the financial resources available to a church.

Comparing spillover effects in schools and churches demonstrates that in the same communities, a lack of health insurance can become an escalating problem that keeps students out of schools and can be an opportunity to draw participants closer to religious institutions. The reason relates in part to the role of professionally authorized medical care in these institutions. To address any medical issue related to school enrollment or absenteeism due to sickness, parents had to obtain some form of medical authorization, which was much easier with health insurance. The alternative courses of action to visiting a primary care physician—waiting things out, administering home therapies, or using emergency

services—were time consuming and lacked follow-up care. In most instances, medical authorization did not have a clear health effect, but the school's dependence on the medical authority of the physician as a guardian of health and sickness enhanced the spillover effect (Zola 1972). Ironically, those best trained in health care—school nurses—have lost this valued medical authority. Not only have school nurses become “gatekeepers of records,” but their position also suggests that they are guardians of external professional medical power. Although they work in places of great health need, regulations have curtailed the diagnostic abilities of school nurses. The diminished authority of school nurses is part of a long history of preserving the power of health professionals against interference of third parties in the direct relationship between physician and patient (Starr 1982; Timmermans and Oh 2010). Schools' contributions to this professional project negatively affect children's attendance and performance and are a missed opportunity to take advantage of the medical expertise in their midst.

The negative spillover effects for schools and the mention of a tax for churches practicing in areas with large uninsured populations warn against drawing strong causal conclusions. We already showed that lack of insurance may be attenuated when schools and churches take on the role of health care providers, but the social mechanisms at work are likely even more dynamic. Because of our method's focus on awareness and manifestations at the individual and institutional levels, we have implied that a lack of insurance contributed to institutional spillover effects. This correlation does not necessarily imply causation. It is plausible that an uninsured population may not have been as disruptive if public schools had not experienced large budget cuts that made school nurses a luxury. State-level funding policies and the economic recession may thus spuriously affect both the uninsured population and the school and church budget. At the same time, lack of insurance likely coincides with other manifestations of urban poverty that may confound the relationship between the two institutions. Assessing such effects will demand a fuller examination of causal processes longitudinally. More generally, estimating the magnitude and significance of spillover effects of working in areas with a large uninsured population will require additional mixed methods research.

We can anticipate that health care reform expanding the number of insured Americans will have a positive impact on schools, their students, and the broader communities and a largely negative or neutral effect on the activities of churches (with

some potential positive effects on church financing if people direct financial savings from health bills to the churches). We would expect that with more accessible health care partners, schools will find it easier to request medical authorizations from parents, and churches will continue to refer people asking for help or address the blend of mental and spiritual needs. Some spillover effects may persist in spite of increased insurance. School and church officials mentioned mental health as a particularly sticky issue due to the stigma of seeking care in addition to financial barriers. Unless dental and vision care is included and accessible, unmet needs in these areas may still affect school attendance. School nurses noted that insurance will not help much if making appointments and visiting a clinician remain expensive and a bureaucratic aggravation (see also Hardeman, Garcia, and Pagán 2012).

Health spillover effect studies address whether health and health policies have an impact beyond their intended domain or whether a health status can be altered through activities in other domains. Although qualitative researchers have a long tradition of examining connections between adjoining domains (e.g., the extensive literature on biographical disruption; Bury 1982; Charmaz 1991), studying such indirect relationships as spillover effects draws attention to awareness, manifestation, social mechanisms, buffers, and limitations. The result is a fine-grained analysis of how two distinct but interdependent areas influence each other. Qualitative research is uniquely positioned to examine the everyday ways that health matters beyond professional care. The many mechanisms that adjoining institutions use to engage health issues may provide insight into barriers to health-seeking behavior, compliance with medical recommendations, and the continued reproduction of health and other social disparities. The barriers to health care access may affect housing, employment, education, and religion. Still, while qualitative health research can document the processes of spillover effects, it is limited in assessing whether the effects are gushing, trickling down, or merely rippling. The evidence suggests, however, that spillovers are going to be most concentrated not only in medical areas where access to care can make a difference—such as chronic conditions or emergencies—but also in areas with strong institutional links with health professionals.

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## NOTES

1. The study of spillover effects has also been strong in family sociology (work-family spillover effects), biology (cross-species transfer), and psychology (emotional contagion).
2. See <http://www.hhs.gov/partnerships/> (accessed October 15, 2013).
3. The 2011 Los Angeles county health survey reported 7.0% (confidence interval = 2.9%-11.1%) for the Service Planning Area (SPA) West LA, and the 2012 Community Health Interview Survey reported 11.5% (confidence interval 8.2%-14.7%) for the SPA West LA. These areas are larger than Venice.
4. The Inglewood Unified School District had a similar policy.

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