



US religious congregations and the sponsorship of health-related programs[☆]

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ABSTRACT

Despite consistent evidence that religious congregations provide health-related programs for their members and residents of the local community, little is known about the distribution of congregation-based health programs across the United States. Using a nationally representative sample of US congregations ($n = 1230$) we employ bivariate analysis and logistic regression to identify patterns in the sponsorship of health-related programs by religious congregations; we then propose and test various explanations for these observed patterns. Our findings contradict the impressions given by case studies and the program evaluation literature and suggest: a) that congregation-based health programs may not be serving the neediest communities; and b) that congregations are not taking advantage of mechanisms intended to facilitate the provision of health-related services by religious congregations.

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Many studies have found a relationship between religious involvement and various dimensions of health, including mortality (Ellison & Levin, 1998; Hummer, Rogers, Nam, & Ellison, 1999; Koenig, McCollough, & Larson, 2001). One popular explanation for this association involves congregational social support (George, Ellison, & Larson, 2002; Idler & Kasl, 1997; Krause, Ellison, Shaw, Marcum, & Boardman, 2001), including informal exchanges of instrumental and socioemotional aid among coreligionists, as well as formal support through church programs including those dealing squarely with health issues. Formalized church-based health programs, including blood pressure screening and referral programs (Perry, 1981), weight loss programs (Kumanyika & Charleston, 1992), caregiver training programs (Haber, 1984), hypertension and diabetes detection (Hatch, 1981), cholesterol education programs (Wiist & Flack, 1990), smoking cessation (Stillman, Bone, Levine, & Becker, 1993), and chronic disease prevention (Lasaster, Wells, Carleton, & Elder, 1986) have been documented in predominantly African American churches. These religiously-based health intervention programs have received attention from both popular press and public health scholars. For example, program evaluation studies have been published in medical journals, and public health reports have been covered extensively by mainstream news outlets, appearing in publications

like *Essence*, *Women's Health Weekly*, *The Los Angeles Times*, *The Baltimore Sun*, and *The New Orleans Times-Picayune*, among many others. The rise in these partnerships is also evidenced by the numerous recently published guides for congregations wanting to institute health programs in their places of worship (see, for example, Hale & Koenig, 2003) as well as for health workers to establish partnerships with the religious organizations in their communities (e.g., National Heart, Lung, and Blood Institute, 1997).

Despite ample evidence that many congregations do sponsor health-related programs (Catanzaro, Meador, Koenig, Kuchibhatla, & Clipp, 2007; Chaves, 2004; Chaves & Tsitsos, 2001; DeHaven, Hunter, Wilder, Walton, & Berry, 2004), the organizational aspects of congregational involvement in the provision of health-related services have been largely ignored within the sociological literature. While both the efficacy and effectiveness of church-based health programs have been explored at both the micro and macro level (see DeHaven et al., 2004; Flannelly, Weaver, & Tannenbaum, 2005), little is known about how congregation-based health programs are distributed. For example, there is no consensus regarding the number of such programs, their physical locations, the type of congregation that is likely to sponsor a program, or their effectiveness in reaching the neediest populations. Such questions are relevant insofar as they address the compositional and contextual aspects of religious congregations and their health-promoting programs. Estimating the impact of the non-funded health system also denotes a core concern of social epidemiologists and medical sociologists regarding access and provision of care.

Our study contributes to this literature in several ways. First, we use nationally representative data to provide the first empirical

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assessment of the prevalence of such programs. Second, we construct a conceptual model for understanding the classes of factors associated with congregations that sponsor health programs. We identify seven classes of factors that may be associated with the distribution of health-related programs among religious congregations: network ties, congregational resources, resource mobilization, neighborhood context, congregational composition, leadership characteristics, and denomination. Third, we test hypotheses developed from this conceptual model using data from the 1998 National Congregations Study, a nationally representative sample of religious congregations in the United States.

Theoretical and empirical background

In exploring the characteristics of congregations that sponsor health programs, we consider the possible relevance of several classes of factors. Implicit in our discussion is the assumption that congregations, like other organizations, are faced with various opportunities and constraints posed by both internal factors and by external environments. We propose moving beyond strictly behavioral interpretations of organizations by examining the cultural and ecological factors that shape organizational actions. In doing so, we address the importance of the external environment such as neighborhood characteristics and inter-organizational links – and of intra-organizational factors such as resource base, congregational composition, leadership characteristics, and culture (in this case denomination).

Collaborative & network ties

A growing body of work illustrates that religious congregations exist and function within broader organizational fields. Indeed, borrowing core theoretical insights from the “new institutionalism” (Powell & DiMaggio, 1991), researchers have highlighted the impact of external environments and organizational connections on congregational practices (Ammerman, 2005; Chaves, 1999, 2004). This perspective is germane to understanding congregational sponsorship of health-related programming in several ways. For example, congregations and their leaders may have connections to local, regional, or national organizations – e.g., clergy associations, parachurch ministries – by which they may learn about health-related issues that affect their members and communities, as well as other churches’ experiences with programming in this area. Such contacts may spark interest in health programs, as well as circulate information about intervention strategies, and may broker contacts with health professionals and other experts. Of congregations sponsoring parish nurse programs in the US, the most commonly reported impetus for starting such a program was hearing about it from other clergy (Catanzaro et al., 2007). By learning what other churches and clergy are doing or thinking about, congregations may gain new insight about how to design, adapt and implement effective programs and collaborations.

In addition, religious groups may also serve as sites for the activities of other local (secular) organizations, including those concerned with health problems (e.g., addictions, mental health issues, diet, and exercise, etc.). Nnaan’s, Boddie, Handy, Yancey, and Schneider (2002) research on congregations in Philadelphia emphasizes the important role of religious congregations in providing space for various programs and groups engaged in community service. Wuthnow (2004) reports similar findings, emphasizing that congregations provide physical space for discussing community needs and planning programs to meet them. This, too, may spark interest within the congregation regarding sponsorship of health-related programs. Moreover, the proliferation of

extra-congregational linkages and memberships can reflect a broader culture of openness to new ideas and possibilities that may be absent from more insular congregations.

Collaborations represent another possible way in which network ties may relate to the provision of health-related programs. The intersections among congregations, religious organizations, and secular organizations are relevant to understanding the role of collaborations and coalitions in congregational sponsorship of health programs. Faith-based coalitions are more likely providers of social services than individual congregations (Ebaugh & Pipes, 2001; Pipes & Ebaugh, 2002; Wuthnow, 2004). Collaborations with secular organizations may be particularly important for sponsorship of health programs, since these types of programs require specialized expertise and infrastructure. The US Bureau of Primary Health Care has been actively promoting collaborations between religious congregations and community-health centers (Gee, Smucker, Chin, & Curlin, 2005) as part of the Bush Administration’s larger Faith-Based and Community Initiative. Unless a congregation has a number of healthcare professionals as active members, partnerships with extra-congregational elements (i.e., clinics, hospitals, medical schools, training facilities) would be a necessary precursor to provision of health-related programs. We, therefore, expect:

- H1a: Compared to congregations without network ties, those who collaborate with other organizations will be more likely to sponsor health programs.
- H1b: Compared to collaborations with other congregations, secular collaborations will have a stronger influence on the likelihood of a health program.

Congregational resources

The inclination of any given congregation to sponsor health programs may be enabled or constrained by material conditions. These programs require financial, logistical, and human resources for successful start-up and continued functioning. Access to these requisites may determine the extent to which a congregation can commit to service activities beyond their most immediate and compulsory responsibilities, e.g., regular worship services and religious education, life-cycle events such as baptisms, weddings, and funerals, and other needs of group members.

Which types of resources are most important? Overall, congregations with more members and larger annual budgets tend to sponsor more social service programs, specialized ministries, and other focused activities (Chaves, 2004; Chaves & Tsitsos, 2001; Trinitapoli, 2005; Wilcox, Chaves, & Franz, 2004). Parish nursing programs are most prevalent among large congregations (Catanzaro et al., 2007), as is the sponsorship of community-health initiatives (broadly speaking) among African American congregations (Thomas et al., 1994). In addition to financial support, health programs require space for a variety of activities including administration, screening, and the examination of clients. This logistical requirement may be met more easily by congregations that own their buildings, as opposed to those renting space. Ownership may also reflect financial capacity, i.e., the ability to secure credit for congregational and programmatic expansion.

Finally, health programs, like other initiatives, require labor, in the form of paid staff members and/or pools of volunteers. Health programs, perhaps especially those involving education and promotion components, may require personnel with specialized knowledge in this area (e.g., parish nurses), but the availability of lay volunteers is also likely to be important for the long-term success of these efforts (Catanzaro et al., 2007). Thus:

Hypothesis 2: Higher levels of congregational resources will increase the likelihood of sponsoring a health program.

Resource mobilization

The types of resources discussed above are necessary but insufficient prerequisites for sustaining congregational involvement in the health arena. Compared with those with limited levels of service or outreach engagement, congregations with a history of activism in other arenas may also be more likely to extend their programming to incorporate healthcare and/or health promotion. High levels of activity reflect a tendency toward innovation, openness to new ideas and ventures, and a corporate identity and sense of congregational mission that focuses on caring for others – congregation members and persons in the surrounding community. Thus, a track record of organizational dynamism, with active lay groups and formal service programs (non-health programs and non-health groups) makes it more likely that any given congregation will become involved with health-related programs.

Hypothesis 3: The number of formal programs and informal groups sponsored by congregations will increase the odds of sponsoring health programs.

Neighborhood characteristics

In addition to being influenced by internal factors, organizational behavior is also shaped by the external environment (Freeman & Audia, 2006). Characteristics of the neighborhood in which a congregation is located may influence the ability of the congregation to serve the needs of the larger community. Though prior research has not found the percentage of poor congregants to predict the provision of social service activities (Chaves, 1999), there is some evidence that congregations located in poor neighborhoods participate more actively in providing social services than congregations in non-poor neighborhoods (Chaves & Tsitsos, 2001). Location in a low-SES neighborhood may spur congregational action merely because the act of driving or walking through the area (not to mention meeting with neighbors, etc.) gives both the congregation's members and its clergy exposure to the health needs of the community. If it is true that congregations do, indeed, respond to the needs of their communities and that poor communities have more unmet health-related needs than non-poor communities, we would expect:

Hypothesis 4: Congregations located in poor neighborhoods will have increased odds for the sponsorship of health programs.

Congregational characteristics

Clergy members play an instrumental role in addressing the current health needs within their congregations (Catanzaro et al., 2007; Eng, Hatch, & Callan, 1985; Taylor, Ellison, Chatters, Levin, & Lincoln, 2000). Further, there is growing evidence that formal and informal linkages between clergy and health professionals are increasingly common. These bridges are evident in the joint degree programs between schools of public health and schools of theology and forging linkages between health professionals and seminaries, theology departments, and other institutions of pastoral training (Larson et al., 1988; Levin, 1986).

Leadership characteristics may both shape *and* reflect the nature of a congregation's commitments. Leaders' abilities to orchestrate the planning, promotion, and delivery of social goods are determined, in part, by their levels of experience and education, as well as their leadership skills, ideological orientation, and personal commitment to the endeavor. Previous studies have shown, for example, that congregations led by clergy holding graduate degrees are more involved with social service programs (Chaves & Tsitsos, 2001), and that the leader's level of education is one of the strongest predictors of involvement in community-health outreach activities (Thomas et al., 1994). Education may motivate involvement through additional mechanisms, such as: skill in seeking out new information, ability to connect with health specialists in the community to get their input and assistance, or through a greater awareness of health problems, issues, and their impact on church and community members. These findings suggest the following hypothesis:

Hypothesis 5: Congregations with leaders who hold graduate degrees will be more likely than others to sponsor health programs.

Though the factors determining levels of engagement in particular activities have not yet been clearly established, there is some evidence that congregational composition may be an important predictor of congregational behavior. For example, a study of church-based services for the elderly found, not surprisingly, that churches with high proportions of elderly members are more likely to provide services to older adults (Steinitz, 1981). The SES composition of a congregation is another factor that may influence sponsorship of health-related programs. Since many congregations explicitly state their commitment to serving the disenfranchised (Olson & Holman, 2003), and since both the poor and the elderly have been identified as having particularly salient health problems, we might expect congregations with high proportions of poor and elderly members to be most likely to sponsor health-related programs.

While it is true that churches with high proportions of elderly members are more likely to sponsor programs directed at the needs of this group (Trinitapoli, 2005), previous studies have found that the percentage of poor members is not related to the overall social service activity of religious congregations (Chaves & Tsitsos, 2001). Moreover, in a sample of northern African American churches, those composed primarily of lower-SES members were found to be less likely than middle-class congregations to sponsor health-related community outreach programs (Thomas et al., 1994).

This pattern may reflect deficits in social capital among lower-SES congregations. For example, they may have fewer healthcare professionals or others with specialized knowledge in their midst. They may also have fewer reliable lay volunteers, because members may have their own health or family problems or may experience conflicting work schedules or difficulties with mobility or transportation, which may be less common in middle-class churches. Furthermore, in comparison with more affluent congregations, lower-SES groups may embrace a more otherworldly orientation, emphasizing themes of morality or salvation while focusing only intermittently on political, economic, or social issues (Dredge, 1986). In synthesizing this conflicting evidence, we hypothesize that:

Hypothesis 6a: Congregations with a high percentage of elderly members will have increased odds of sponsoring health programs.

Hypothesis 6b: Congregations with a high percentage of poor members will have decreased odds of sponsoring health programs.

Denomination

Organizational culture is another internal factor that can influence the behavior of religious congregations. Denominations serve – formally or informally – as conduits of information, via which ideas and models of congregational action can circulate. For hierarchical or quasi-hierarchical traditions (e.g., Catholic, Episcopal, etc.), this may occur at the national level, but within all traditions, diffusion of information can transpire through networks of clergy or active laity within local communities, regions, parishes, or subjurisdictions. Though denominational subcultures are partially defined by shared network ties, they are not reducible to their structural configurations. Denominational differences are essentially cultural ones, in the sense that congregations rooted in distinctive religious traditions may operate according to divergent sets of scripts or schemata, which make some courses of action seem appropriate or natural, while others are ignored or rejected as implausible.

In articulating the characteristics of a uniquely “Catholic ethic” (parallel to Weber’s Protestant ethic) Tropman (1995, 2002) characterizes it as community-based and focused on helping. Both historically and contemporarily, in the preferential option for the poor, the Catholic ethic is sensitive to the neediest members of the community, with a parish-based model of local helping. Combined with the intensive professionalization of its clergy, this ethic may spur greater parish-level involvement with the provision of health services. Moreover, the Catholic Church and several of its monastic orders have historically played a vital role as healthcare providers in the US, especially via their sponsorship of hospitals. Such supra-congregational activities could increase the activities of local churches in the area of health by building expertise among both clergy and the laity and increasing familiarity with the community’s most relevant health issues in a more general way.

Black churches have long been a critical source of education and assistance regarding health matters (Billingsley, 1999; Lincoln & Mamiya, 1990). As noted earlier, case studies of church-sponsored health programs and public health intervention efforts have focused on African American congregations for precisely this reason (Chaves & Higgins, 1992; Eng et al., 1985; Levin, 1984). Furthermore, studies suggest that clergy in these churches sometimes take on more expansive roles in their communities and in the lives of church families, when compared with clergy from other traditions (Neighbors, Musick, & Williams, 1998; Taylor et al., 2000), which may translate into greater levels of church involvement in various services, including those dealing with healthcare and health promotion.

In comparison to the proactive health stance of Catholic and black Protestant congregations, white Protestant traditions (i.e., mainline and conservative) follow a different trajectory. Despite the outspoken advocacy of faith-based service delivery by conservative Protestant leaders, studies show that these congregations are less active than their mainline Protestant counterparts in social service provision overall and less willing to seek public sector support for the expansion of such programs (Chaves, 1999, 2004; Chaves & Tsitsos, 2001; Trinitapoli, 2005). These patterns are consistent with Wuthnow’s (1999) observation that compared with other religious communities and organizations, insular religious groups, and those that focus on otherworldly aspects of theology or individualistic notions of earthly well-being may deemphasize social service delivery. Parish nurse programs are particularly scarce among conservative Protestant congregations when compared to Catholic and mainline Protestant congregations (Catanzaro et al., 2007). These arguments lead us to expect sponsorship of health-related programs to vary by denomination, net of other factors, in the following ways:

Hypothesis 7: The sponsorship of health programs will be highest among Catholic and black Protestant congregations and lowest among conservative Protestant congregations.

Data & measures

The data for this study come from the National Congregation Study (NCS), a nationally representative sample of religious congregations in the United States. The NCS was collected in conjunction with the 1998 General Social Survey (GSS) using hypernetwork or multiplicity sampling (Chaves, 1998; Chaves, Konieczny, Beyerlein, & Barman, 1999). GSS respondents who reported attending religious services at least once a year were asked to report the name and location of their congregation. These named congregations comprise the initial NCS sample. Data on the congregations were collected through one-hour in-person and telephone interviews with a key informant from each congregation – clergy (75%), staff (16%), and non-staff congregational leaders (9%). The NCS response rate is 80%, with complete data from 1236 congregations. Tests comparing NCS congregations to non-cooperating and non-nominated congregations revealed no discernible non-response bias by tradition or region (Chaves et al., 1999). However there are weaknesses involved with relying on a single key informant to obtain characteristics of a congregation. Based on literature on the strengths and weaknesses of key-informant reports (Kalleberg, Knoke, Marsden, & Spaeth, 1996; Scott, 1992), the NCS questionnaire asked few questions that would be more subject to dispute, such as questions about the congregation’s goals and mission or the values and beliefs of its members and instead focused on concrete practices which are less vulnerable to this type of reporting bias (Chaves et al., 1999; McPherson & Rotolo, 1995). Because of the hypernetwork sampling design, it is possible for congregations to be named by more than one individual. We use a weight variable in our analyses to allow congregations to be proportionally represented according to the number of times they were nominated by GSS respondents.

Dependent variable

The dependent variable for this study is a dichotomous measure of sponsorship a health-related program. Key informants from each congregation were asked, “What projects or programs have you sponsored or participated in” and were allowed to name up to 20 programs, about which several other questions were asked. A team of coders used the verbatim program responses to classify programs by type – here we model presence of any program with the objective of delivering health-related services directly to their congregants or immediate community. This captures a wide variety of programs ranging from those aimed at the sick and disabled (AIDS ministries, support groups for cancer patients, depression support groups, addiction recovery, and assistance to families of the terminally ill) to health education and promotion programs like blood pressure screening, parish nursing programs, and wellness centers that provide yearly checkups and vaccinations.

Key independent variables

Network ties

Since congregations often participate in or sponsor programs in conjunction with other organizations, we utilize variables to measure the congregations’ collaborations on programs other than the health-related programs examined in this study. Four dichotomous variables indicate whether a congregation collaborates only with secular organizations, only with other religious organizations,

with both secular and religious organizations, or has no collaboration efforts. In order to distinguish congregations without collaborations from congregations without other programs, we include a dummy variable for congregations with no other programs. A dichotomous local affiliation variable indicates whether or not the congregation is affiliated with any local association of congregations, such as a local council of churches or denominational authority. We also include measures of the number of groups, programs or events not connected to the congregation that used or rented space in the congregation's building during the past 12 months.

Resources

To account for differences in availability of resources, measures of congregational size (logged number of regular adult participants) and congregational income (logged number of total money received from all sources) are employed in these analyses, as well as a measure of building ownership. In addition, a standardized measure for number of paid congregational staff was constructed by summing the reported number of full and part time employees (divided by two) and using its z-score. The proportion of regular attending members who volunteer in church programs also indicates a dimension of human resources available in a congregation. A continuous measure indicating the proportion of regular attending members who volunteer in church programs is employed here, as is a four-category quartile transformation of this variable for ease of interpretation for descriptive purposes. Finally, a dichotomous indicator of building ownership is employed as both an indicator of financial stability and a non-liquid resource base.

Resource mobilization

The number of other programs refers to the number of social service, community development, or neighborhood organizing projects the congregation has participated in or sponsored within the last year. This number excludes the health-related programs considered in the dependent variable. The number of groups refers to the total number of groups meeting at least monthly at the church for social, recreational, or spiritual purposes.

Congregational context

NCS congregations are attached to a census tract based on their location. Using 1990 census data, congregations located in census tracts where at least 30% of individuals are below the official poverty level are characterized as belonging to a poor neighborhood. Congregations in high-poverty census tracts are coded 1 for this characteristic; all others are coded 0.

Congregation leader

The NCS asked key informants to identify the highest education level of the head or senior clergy person. In cases where these data were missing, the overall mean level of education for congregational leaders (4 year college degree) was imputed. A five-category ordinal variable indicating the leader's educational attainment is employed in the bivariate analysis, while the multivariate analyses utilize a dummy variable indicating that the leader has obtained a post-baccalaureate degree.

Congregation characteristics

In order to distinguish congregations with high percentages of elderly and poor members from others, dichotomous variables for these characteristics were created for congregations in the fourth quartile of these measures. We define high-poverty congregations according to the percentage of regular adult participants living in households with income under \$25,000 per year; congregations reporting 30% or more were coded 1. Similarly, congregations in

which 40% or more of regularly attending adults are over age 60 were considered to have a high elderly population and were coded 1 for this characteristic.

Denomination

Congregations were aggregated into five denominational categories: Roman Catholic, conservative Protestant, mainline Protestant, black Protestant, and other (see Steensland et al., 2000). This taxonomy was used to distinguish mainline Protestant congregations from conservative Protestant ones in the NCS. Those Protestant congregations in which at least 80% of regular attending adults are black were categorized as black Protestant.

Analysis

Having identified classes of possible predictors in our hypotheses, we begin our analysis by testing their relevance in a preliminary way via bivariate analysis. Multivariate logistic regression models are then used to determine the estimated log odds of sponsorship for health-related programs among religious congregations in the United States; weights are used to account for multiple nominations of a single congregation. In each table, the variables are organized by the classes of factors hypothesized to affect sponsorship of health-related programs, as specified by our conceptual model. Classes of factors are introduced individually in each of the first four models, and the final model includes all four classes of factors.

Results

Table 1 presents both descriptive statistics for the congregations analyzed in this study (in the right-most column) and bivariate associations (chi-square tests) between independent variables and the provision of health-related programs. Ten percent of religious congregations in the US sponsor some type of health-related program, while about 45% of the congregations in our sample do not sponsor any other type of social service program. Among those that do sponsor other programs, almost half administers programs in collaboration with both secular and religious organizations. Overall, the provision of health-related programs is low when compared to the other types of social programs many congregations offer.

At the bivariate level, congregations that have ties with both secular and religious organizations are nearly twice as likely as congregations without any collaborative relationships to sponsor health programs. Membership with a local affiliation (or denominational authority) is positively associated with sponsoring such programs, but having ties with outside or non-related groups does not. Resource measures like income and size are related to sponsorship of health programs, as is the presence of both paid staff and volunteers. In examining measures of resource mobilization, we find that sponsorship of health programs is greatest for congregations that have many other programs and groups. Several congregational characteristics are significantly associated with congregational sponsorship of health programs. The leader's level of education significantly predicts sponsorship of health-related programs at the bivariate level. Congregational composition also appears to have some relationship to the sponsorship of health programs in the expected directions, with congregations with low proportions of poor members being more likely to sponsor such programs. Denominational differences are significant at this level, with Catholic and mainline Protestant congregations sponsoring more health programs than both conservative Protestant and black Protestant congregations. However neighborhood poverty context is insignificant at the bivariate level.

Table 1
Associations and descriptive statistics for select predictors.

	Health program sponsorship	% For all congregations
Total NCS congregations	10.03	
<i>Network Ties</i>		
Collaborations	$\chi^2 = 49.36^{**}$	V = 0.20
No Other Programs	4.12	45
No Collaboration	8.56	14
Secular Collaboration Only	15.47	20
Religious Collaboration Only	16.79	4
Both Secular & Religious Collaboration	18.48	18
Local Affiliation	$\chi^2 = 4.34^*$	V = 0.06
No	7.80	62
Yes	13.72	38
Outside Groups Sharing Space	$\chi^2 = 11.59$	V = 0.10
0	8.19	55
1–3	9.04	21
4–9	15.78	12
10 ⁺	10.03	12
<i>Resources</i>		
Yearly Income	$\chi^2 = 17.13^*$	V = 0.12
\$0–\$100,000	9.65	48
\$100,001–\$250,000	13.13	17
\$250,001–\$600,000	7.42	32
>\$600,000	27.32	3
Owns Building	$\chi^2 = 9.53^{**}$	V = 0.08
No	3.47	14
Yes	11.10	86
Size of Congregation	$\chi^2 = 33.19^{***}$	V = 0.16
0–99	7.36	71
100–199	13.21	15
200–499	17.79	10
500–999	29.32	2
>999	25.64	1
Number of Part Time Employees	$\chi^2 = 33.04^*$	V = 0.16
0	4.42	42
1	13.14	17
2	11.96	13
3 ⁺	15.67	28
Number of Full Time Employees	$\chi^2 = 11.31$	V = 0.10
0	8.60	40
1	9.42	35
2	7.06	9
3 ⁺	16.35	16
Proportion of Volunteers (quartiles)	$\chi^2 = 28.21^{**}$	V = 0.15
0%	1.90	52
1–3%	12.23	4
4–15%	13.35	17
16% ⁺	23.3	27
<i>Resource Mobilization</i>		
Number of Other Service Programs	$\chi^2 = 85.92^{***}$	V = 0.26
0	4.12	45
1–2	9.04	32
3–5	18.88	18
6 ⁺	34.38	6
Number of Groups	$\chi^2 = 36.18^{***}$	V = 0.17
0–2	7.82	52
3–5	6.17	24
6–11	20.50	15
12 ⁺	17.10	8
<i>Congregation Leader</i>		
Education of Leader	$\chi^2 = 61.13^{***}$	V = 0.22
Less than High School	0.00	5
High School Graduate	0.28	6
Some College	3.02	15

Table 1 (continued)

	Health program sponsorship	% For all congregations
College Graduate	6.61	32
Masters ⁺	17.45	43
<i>Congregational Composition (4th quartile)</i>		
Poor Members > 30%	$\chi^2 = 6.30$	V = 0.07
No	11.88	58
Yes	7.53	42
Elderly Members > 40%	$\chi^2 = 11.45^*$	V = 0.10
No	8.13	70
Yes	14.44	30
<i>Denomination</i>		
Below Poverty (>30%)	$\chi^2 = 23.99^*$	V = 0.14
White Mainline/Liberal	17.20	23
Roman Catholic	12.83	6
White Conservative	7.07	37
Black Protestant	8.39	25
Other	10.03	7
No	10.85	87
Yes	4.57	13

Independent variables define the rows, and the proportion of congregations having health programs are the dependent variables.

Pearson's chi-square tests are used to assess significant associations: ***p < .001, **p < .01, *p < .05, +p < .10.

Cramer's V reported for assessing strength of association.

N = 1230.

Table 2 presents exponentiated logistic regression coefficients (odds-ratios) for sponsorship of health programs among religious congregations in the United States. Model 1 assesses variables that measure a congregation's external linkages, specifically their collaborative relationships and other network ties. Contrary to our hypotheses, collaborations with secular or religious organizations do not predict sponsorship of health programs, nor does membership with a local affiliation or denominational authority. However, congregations that share their building with outside groups have increased odds of sponsoring health-related programs compared to those who do not, with each additional group increasing the odds of sponsorship by 3% (O.R. = 1.03, p < .05).

Model 2 examines measures of congregational resources and resource mobilization. Contrary to what we hypothesized, congregational income is negatively related to the sponsorship of health programs, but larger congregations are significantly more likely to engage in the provision of health-related services. While paid staff is not a predictor of sponsorship, the presence of volunteers as a proportion of the total congregation is a strong and significant predictor of sponsorship (O.R. = 3.68, p < .01). In support of Hypothesis 3, congregations that sponsor many other programs are most likely to also participate in health programs, with each additional program offered conveying a 23% increase in the odds of sponsorship (p < .001). The low AIC statistic for this model suggests that resources and resource mobilization are the best fitting of the four classes of factors examined here.

Model 3 includes only the coefficients for congregational characteristics – clergy background and congregational composition. The level of education of the congregational leader is a highly significant and robust predictor of sponsorship. Supporting Hypothesis 5, congregations in which leaders hold a graduate degree are over four times as likely to sponsor health programs as congregations in which the leader is not as highly educated (O.R. = 4.07, p < .001). Although the NCS does not collect data on the type of degree leaders hold, these degrees are likely to be the professional ministerial degree required for ordination in various

denominations. This suggests that recent efforts to integrate health-related components into pastoral training are, indeed, effective for mobilizing the potential health-related mission of local congregations. Contrary to our expectations, however, compositional characteristics are unrelated to program sponsorship.

Model 4 examines what we refer to as “cultural factors,” revealing that both black Protestant and white conservative Protestant congregations are only half as likely as Catholic congregations to sponsor health programs, and that congregations located in poor neighborhoods are less than half as likely (O.R. = 0.42, $p < .05$) as those located elsewhere to have health-related programming.

Once all four classes of factors are combined in Model 5, only a few key variables remain statistically significant. First, and most surprisingly, a congregation’s network ties have no bearing on their likelihood of sponsoring health-related programs. Despite evidence from previous studies that congregations with higher incomes are more likely to engage in the provision of social services, our analyses show that this does not hold true for health-related programs specifically. Resource mobilization, on the other hand, continues to be an important predictor of involvement with health-related programs. The presence of volunteers is an important and

significant variable associated with increased odds for sponsorship of health-related programs, as is the sponsorship of other types of programs. Taken together, these findings lead us to reconsider the importance of Hypothesis 3, which predicted that activist congregations – those sponsoring many non-health-related programs and groups – would be more engaged in health-related services as well. Congregations with programmatic experience are more likely to implement a health-related program, while congregations that do not sponsor other programs are unlikely to start with health-related programs. One particular congregational characteristic plays an important role in predicting sponsorship – congregations with a highly educated leader (O.R. = 2.71, $p < .01$) have increased odds of sponsoring health-related programs. Net of other factors, there are no significant denominational differences, but congregations located in areas with high concentration of poverty are unlikely to sponsor health programs (O.R. = 0.46, $p < .01$). Our analysis shows an important division between activist, outward-looking congregations and more insular ones. These congregations are characterized by their involvement in lots of other programs, highly educated clergy, and many volunteers.

Discussion

According to Chaves (2004), nearly one third of congregations have a group that is somehow involved with “physical healing,” which may mean anointing the sick with oil, conducting healing services, or offering prayers for the sick. Our analyses focus exclusively on the types of formal, programmatic efforts of congregations in the health arena. This focus almost certainly underestimates the extent to which religious congregations in the US are engaged in health-related activities more generally. Informal, member-to-member caregiving and informal member-to-member health-related advice-giving are not captured in our measure of health programs. Similarly, spiritual healing efforts and the work of prayer groups, which focus a large proportion of their time and energy on prayers for the sick, may be prevalent in American congregations – specifically in Pentecostal churches – but are not considered here.

Our analyses provide the first estimates of the role of congregations in formal health-related programming: 10% of US congregations report sponsoring at least one such program, and 18% of attendees frequent a congregation that offers such services. What factors appear to influence the likelihood that congregations will sponsor health-related programs? The effects of well-educated clergy appear to be an important predictor of sponsorship of health programs, though the magnitude of the effect is significantly reduced when other factors are simultaneously taken into account. Clergy with advanced degrees tend to work at larger, more affluent churches; these can pay higher salaries and offer greater potential for future professional rewards. Well-educated clergy may also stimulate greater, more efficient resource mobilization, and may foster greater openness to outside influences and new ideas.

Another striking finding was that resources per se –whether economic (congregational budget) or human (numbers of members, staff, and volunteers) – do not determine the health-related activities of congregations. Rather than resources themselves, it is resource mobilization ability – i.e., a record of successfully marshalling resources to initiate and sustain other (non-health) collective pursuits – that drives successful health programming. Specifically, the number of non-health-related programs sponsored by a congregation is a significant predictor of involvement in the health arena. This pattern may reflect several factors, such as (a) the prior existence of programmatic infrastructure, (b) the skills and lessons learned about program development and administration, deploying staff and recruiting volunteers, and other critical issues. But moreover, the number of

Table 2
Estimated net effects of congregational characteristics, culture, resources, resource mobilization, network ties, and covariates on the sponsorship of health-related programs.

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
<i>External ties</i>					
Collaborative Ties (No Collaborations)					
No other Programs	0.48			–	
Secular Collaboration	1.79				1.30
Religious Collaboration	1.98				2.08
Secular & Religious Collaboration	2.08				1.15
Network Ties					
Member of Local Affiliation	1.38				1.11
Number of Outside Groups Sharing Space	1.03*				1.00
<i>Resources & resource mobilization</i>					
Income (logged)		0.75**			0.74*
Number of Adults (logged)		1.54*			1.47
Staff		1.16			1.10
Volunteers		3.68**			4.83**
Number of Other Service Programs		1.23***			1.16*
Number of Groups		0.99			1.00
<i>Congregational characteristics</i>					
Congregation Leader					
Post-Baccalaureate Degree			4.07***		2.71**
Congregation Composition					
>30% Poverty			0.66		0.64
>40% Elderly			1.65		1.94
<i>Culture</i>					
Denomination (Catholic omitted)					
Mainline Protestant				1.07	0.83
White Conservative Protestant				0.39*	0.80
Black Protestant				0.46*	1.00
Other Denomination				0.83	0.98
<i>Context</i>					
>30% Poverty				0.42*	0.46*
Model Chi-square	17.99	63.48	23.90	18.68	90.09
AIC	757.26	719.09	743.74	782.89	699.37
R-Squared	0.07	0.12	0.08	0.04	0.18

Note: cell entries represent exponentiated logistic regression coefficients (odds-ratios).
Two tailed tests: * $p < .05$, ** $p < .01$, *** $p < .001$.
N = 1230.

other (non-health) programs may tap the extent to which the congregation has an entrepreneurial, innovative, open organizational culture.

Somewhat surprisingly, the membership composition of congregations has no bearing on the likelihood of health-related programming. This observation, combined with information on contextual effects (or lack thereof) paint a somewhat discouraging picture of the extent to which religious congregations serve populations that are underserved by the formal healthcare system. The poverty level of the surrounding neighborhood is inversely related to congregational decisions to offer health-related services. In cases where the congregation's membership does not reflect the surrounding neighborhood, few are offering such programs in response to the needs of their underprivileged and underserved neighbors. Poor congregations in poor neighborhoods may direct their efforts at meeting more immediate concerns (e.g., food pantry, homeless shelter, or employment services). Our findings indicate that the individuals and groups that could benefit most from congregation-based health programs (i.e., those with the greatest numbers of health problems, riskiest health behaviors, least access to medical care or insurance) are not being reached adequately.

Two remaining sets of null (or nearly-null) findings are noteworthy. Contrary to recent research emphasizing the importance of collaboration among congregations and between congregations and secular non-profits and/or public agencies, we do not find any of these forms of collaboration to be positively related to the likelihood of sponsoring health programs. Congregations appear to rely heavily on internal expertise (leader in particular) and experience for developing and sustaining health-related programs. Second, there are no meaningful denominational variations in the provision of health programs. Although many evangelical leaders have been outspoken advocates of church-based delivery of social services, especially as a long-term substitute for public sector programs, there is no tendency for conservative Protestant congregations to sponsor more health programs than others. Indeed, at the bivariate level, they appear to be less engaged in this arena. This finding is also inconsistent with the impression that has been left by the burgeoning array of case-based studies and descriptive (mostly journalistic) accounts of health education and promotion programs being implemented in black churches across the United States.

Together, these non-findings suggest that congregations conceive of and execute health-related programming in a distinct way compared to the other, more traditional, social service programs they sponsor. Although a strong literature on the devolution of state-sponsored social service programs to religious congregations and other faith-based organizations informed our hypotheses, these findings lead us to believe that health-related programming in religious congregations is, in many ways, distinct from the well-established patterns in the delivery of traditional social services.

The findings discussed here bring into sharp relief the need for additional investigation of several issues. This study has addressed only the supply-side aspect of congregational delivery of health-related programs. We also need information on who uses (i.e., which types of people are being served by) these activities. One significant question concerns the extent to which church-related programs serve congregation members, as opposed to persons from the wider community. Our dichotomous measure of program sponsorship is admittedly crude. The degree of congregational involvement in health-related activities varies widely; it is likely that while some congregations we classify as "sponsoring" congregations host a health fair once each year, while others conduct regular and ongoing programs to monitor members' blood pressure, support addiction recovery, and promote sexual health. Health programs also vary considerably in the number of people

they serve and the types of services they can actually provide. The NCS data are intended to provide a broad overview of the characteristics and activities; while these data are not suitable for providing answers to these questions, this research could be extended through ethnographic studies of American congregations and ecological studies that consider the roles of both secular and religious institutions in promoting health and well-being within their communities.

Such studies may also shed important light on the importance of these programs for the recipients. How much – and in what ways – they are being helped? To what extent do congregational health programs really fill in gaps in the healthcare system? This question is particularly relevant for understanding the role of congregation-based health programs in the lives of persons who may, for a variety of reasons, distrust the secular healthcare system. Congregation-based health programs may be especially important for intrinsically religious persons who interpret their personal difficulties through a theological (rather than medical or psychological) perspective or for members of minority groups who have experienced officially sanctioned mistreatment under the guise of therapy (e.g., African Americans living in the aftermath of the Tuskegee Syphilis Study).

This also raises additional questions. Could the expansion of congregational activity in this arena really have a significant impact on population health and well-being? To what extent do these formal health programs help to explain research findings that individual-level religious involvement – especially organizational participation – seems to have salutary implications for health and well-being? Finally, since these findings underscore the apparent importance of congregational decision-making processes and internal dynamics, as opposed to resource availability or religious culture, we need to know more about how congregations decide to sponsor health programs. How are these efforts initiated? Who decides? What factors (e.g., more information on levels of need and successful program models, increased levels of specific resources) might encourage greater congregational activity in this domain?

Although these and other questions remain, our study has broken new ground by developing a theoretical model of factors that are likely to influence congregational sponsorship of health programs, and testing relevant hypotheses derived from this model using nationwide data on US religious congregations. The results have cast fresh light on a widely-acknowledged, but woefully understudied issue. Given the intellectual and political salience of both debates over faith-based service delivery and concerns about access to healthcare in the US, it is hoped that this topic receives greater scrutiny from social scientists in the future.

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