

Preassessment of Community-Based Organization Preparedness in Two Sectors, Human Services and Faith Based: New York City, 2016

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Objectives. To determine the level of preparedness among New York City community-based organizations by using a needs assessment.

Methods. We distributed online surveys to 582 human services and 6017 faith-based organizations in New York City from March 17, 2016 through May 11, 2016. We calculated minimal indicators of preparedness to determine the proportion of organizations with preparedness indicators. We used bivariate analyses to examine associations between agency characteristics and minimal preparedness indicators.

Results. Among the 210 human service sector respondents, 61.9% reported emergency management plans and 51.9% emergency communications systems in place. Among the 223 faith-based respondents, 23.9% reported emergency management plans and 92.4% emergency communications systems in place. Only 10.0% of human services and 18.8% of faith-based organizations reported having funds allocated for emergency response. Only 2.9% of human services sector and 39.5% of faith-based sector respondents reported practicing emergency communication alerts.

Conclusions. New York City human service and faith-based sector organizations are striving to address emergency preparedness concerns, although notable gaps are evident.

Public Health Implications. Our results can inform the development of metrics for community-based organizational readiness. (*Am J Public Health.* 2019;109:S290–S296. doi:10.2105/AJPH.2019.305141)

Most large-scale disasters have a public health impact. Generally, emergency management service personnel (firefighters, emergency medical technicians, and law enforcement and medical professionals) are first responders to human-made and natural disasters. However, preparing communities for effective responses to catastrophic events requires more than first responders. In 2011, the Federal Emergency Management Agency issued a report emphasizing the importance of bringing together disparate components of entire communities in the interest of public safety and protection.¹ The report highlights the critical role of building and maintaining multiorganizational partnerships for understanding and meeting actual needs of communities. Community and faith-based organizations (CFBOs) are vital resources to include in emergency management planning activities.^{1,2} Engaging and empowering

people and community organizations improves response capacity and strengthens overall preparedness.¹

CFBOs' intimate connection with local communities uniquely positions them to identify and address specific requirements for responding to public health emergencies, given their knowledge of the available resources and the specific needs of local populations.^{1–3} Many CFBOs provide comprehensive life-sustaining assistance and

care to populations affected or dislocated by catastrophic events. These services include housing, transportation, and translation services. CFBOs have a unique advantage point and can serve as bridges between public health agencies and communities and between communities and individuals.^{2–4}

Houses of worship, faith-based organizations, nonprofit organizations, and other community-based organizations provide essential services nationwide, in particular to New Yorkers, and are trusted messengers. After a disaster, these institutions are critical to response and recovery efforts, and many continue to play a major role in the long-term recovery of their communities for years after other efforts cease.² There are thousands of such organizations in the New York City (NYC) area that provide essential services to residents every day as well as during emergencies. These services were evident during and after high-profile emergencies, such as the September 11, 2001 terrorist attacks and Superstorm Sandy in 2012.⁵

NYC's Department of Health and Mental Hygiene (DOHMH) has more than 6000 employees. It is 1 of the oldest and largest public health agencies in the world, with more than 200 years of service and leadership in the field. DOHMH aims to protect and promote the health of more than 8.6 million diverse New Yorkers. These goals are accomplished with a broad range of services to limit morbidity and mortality and include

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public health emergency preparedness planning and response activities. DOHMH recognizes the value that CFBOs bring to their communities, especially during disasters. Therefore, DOHMH fortified a strategy for CFBOs to continue operations and provide critical services during an emergency, as well as supporting DOHMH response activities.⁶

COMMUNITY PREPAREDNESS PROGRAM BACKGROUND

Recognizing the importance of including CFBOs in preparedness activities, and embracing a “whole community approach,” the Office of Emergency Preparedness and Response, DOHMH’s preparedness arm, launched a community preparedness program (CPP) in 2016.¹ The CPP is a novel and systematic method for building community preparedness through a sector-based approach, with the understanding that sustainability is strongest when built on existing infrastructures. The model is also guided by the Center for Disease Control and Prevention’s (CDC’s) “Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal and Territorial Public Health.”⁷ Furthermore, the program recognizes that CFBOs know the populations they serve, hold trusted relationships, and are the first to respond in and last to leave affected communities after disasters; CFBOs have become crucial to ensuring effective response and recovery. The CPP acknowledges that a government-centric approach to public health emergencies is not sufficient to meet the challenges posed by a catastrophic incident. Government agencies should plan with communities to strengthen preparedness and improve collaborative efforts in response and recovery.

The goal of the CPP is to engage community partners in planning to prepare organizations and NYC communities to withstand, respond to, and quickly recover from public health emergencies. DOHMH selected community-based organizations through a competitive process to serve as sector lead organizations for faith-based and human services sectors. The faith-based sector principally provides spiritual services, whereas

the human services sector primarily provides social services to communities. The sector lead organizations build and strengthen partnerships in their sectors through emergency planning that better connects community organizations to the public health preparedness and recovery structure. We summarize findings from a needs assessment in key areas:

1. emergency management,
2. continuity of operations plan (COOP),
3. emergency communications,
4. emergency experience and practice, and
5. emergency resources important for NYC community preparedness and the future of the CPP.

METHODS

With the goal of guiding program design, the CPP engaged 2 established service provider advocacy organizations to serve as liaisons for administering needs assessment surveys among grassroots community organizations in each sector.⁸ One of these was the Human Services Council of New York, which has a network of 170 nonprofit human services organizations in a number of sub-sectors, including housing access and shelters, child and elder care, food pantries, mental health counseling, and disaster response. The other is New York Disaster Interfaith Services, a nonprofit faith-based federation of service providers and charitable organizations that established partnerships to provide disaster readiness, response, and recovery services to the city. In 2016, we administered 2 surveys that were similar but tailored for each sector via Survey Monkey to a convenience sample of participating human services and faith-based organizations. With these surveys, we captured agency characteristics such as funding and populations served; data on disaster planning, response, relief, and recovery capacity; and challenges.

Human services organizations responded from March 17 through April 12, 2016, and faith-based organizations had from April 11 through May 11, 2016 to respond. DOHMH partnered with the CDC to analyze the surveys and address the indicators that could be used to measure the readiness of a sector and the critical gaps in sector readiness. For

this survey, we defined a sector as the collective member organizations in the Human Services Council and New York and Disaster Interfaith Services.

The DOHMH and the CDC identified 5 areas of preparedness for each sector:

1. emergency management,
2. COOP,
3. emergency communications,
4. emergency experience and practice, and
5. emergency resources.

We identified minimal indicators of preparedness to assess the presence or absence of organization ability in each of the 5 areas of preparedness. We calculated the indicators as the proportion of organizations with that ability in place. We conducted bivariate analyses, including relative risk and the χ^2 test of association, to examine associations between agency characteristics and minimal indicators of preparedness in human service organizations and faith-based organizations. The agency characteristics we assessed included budget and funding sources; service area, staff size, and populations served; religious affiliation; and willingness to collaborate with government, secular, or religious organizations. We conducted all analyses using SAS version 9.3 (SAS Institute, Cary, NC). Using global information system-based analysis of agency service offerings, we mapped preparedness indicators across the 5 boroughs of NYC.

RESULTS

The Human Services Council invited 582 of their member organizations to participate in the survey; 210 community-based organizations responded, yielding a response rate of 36.0%. Among the 210 human services sector respondents, 61.9% reported that emergency management plans were in place and 51.9% reported that emergency communications systems were in place (Table 1). However, only 50.0% of the 210 responding organizations reported updating emergency plans in the past 24 months. Likewise, only 2.9% of respondents performed drills of emergency communication alerts. Only 10.0% of responding organizations reported having funds allocated for preparedness and

TABLE 1—Indicators of Emergency Preparedness Among Community and Faith-Based Organizations: New York City, 2016

Indicator in Place	Community-Based Organizations (n = 210), No. (%)	Faith-Based Organizations (n = 223), No. (%)
Emergency management (EM)		
EM plan in place	130 (61.9)	53 (23.8)
EM plan updated ≤ 24 mo ^{a,b}	105 (50.0)	
All staff trained in EM plan ^{a,b}	65 (31.0)	
Continuity of operations plan (COOP)		
COOP in place	68 (32.4)	82 (36.8)
COOP updated ≤ 24 mo ^a	59 (28.1)	
Emergency communications (EC)		
EC system in place	109 (51.9)	206 (92.4)
Practice EC alerts	6 (2.9)	88 (39.5)
Emergency resources (ER)		
ER assets identified	119 (56.7)	96 (43.0)
ER assets inventoried ^a	77 (36.7)	
Funds earmarked for preparation/response	21 (10.0)	42 (18.8)
Staff trained in disaster response	60 (29.5)	64 (28.7)
Plan for volunteers ^a	33 (15.7)	
Emergency experience/practice		
Experience in public health emergencies	134 (63.8)	139 (62.3)
Participate in community activities ^a	68 (32.4)	

^aIndicators not reported by the faith-based sector.

^bIndicators present ≥ 50% among the participant organizations surveyed.

response; 36.7% reported recent inventories of emergency assets; and 15.7% indicated plans in place for volunteers. Lastly, 32.4% of responding organizations had some experience with or practice in real-world emergency response.

Across the boroughs, only 29.5% of the participating 210 organizations reported having staff trained in disaster response specifically. Organizations could serve more than 1 borough, and examining by borough showed that organizations serving Staten Island (n = 109) had the highest percentage of staff trained in disaster response (32.1%), whereas those serving the Bronx (n = 137) had the lowest percentage (29.9%; Figure 1). In general, community-based organizations in the human services sector with larger budgets and staff that served a citywide area and those with city and state contracts were more likely to have indicators of preparedness in place (Table 2).

In particular, compared with CFBOs with budgets of less than \$500 000, organizations with budgets of \$50 to \$100 million were 2.8 (95% confidence interval [CI] = 1.4, 5.3) times as likely to have emergency management plans

in place and 7.4 (95% CI = 1.7, 31.0) times as likely to have COOP in place. These organizations were also 4.4 (95% CI = 1.9, 10.2) times as likely to have emergency communications systems in place. Compared with organizations with fewer than 10 staff members, organizations with staff sizes of more than 1000 were 2.6 (95% CI = 1.6, 4.1) times as likely to have emergency management plans in place, 3.3 (95% CI = 1.9, 5.8) times as likely to have emergency communications systems, and 2.1 (95% CI = 1.3, 3.3) times as likely to have identified emergency resources. CFBOs serving citywide or more were 1.6 (95% CI = 1.1, 2.2) times as likely as were those serving less than a borough to have emergency experience or practice. Also, organizations serving the elderly, medically vulnerable, or children were more likely to report COOP in place and to have emergency practice or experience.

New York Disaster Interfaith Services invited 6017 faith-based organizations to respond to the survey; 223 organizations responded, yielding a response rate of 4.0%. Of 223 faith-based sector respondents, 23.9% reported emergency management plans in

place. By contrast, 92.4% reported emergency communications systems in place. Only 39.5% of organizations drilled emergency communications alerts. Resources in this sector were also scarce, as just 18.8% indicated that they had funds available for preparedness and response activities. The faith-based survey participants indicated that 62.3% had experience or practice in responding to public health emergencies, whereas 28.7% of 223 organizations across all 5 NYC boroughs reported having trained staff in disaster response. Organizations could serve more than 1 borough. Examining by borough showed that organizations in Staten Island (n = 46) had the highest percentage (57.0%) of staff trained in disaster response and that Queens (n = 76) and Manhattan (n = 79) had the lowest percentages (38.0%; Figure 1).

In general, unadjusted risk ratios for the faith-based sector indicated that organizations with a larger number of clergy, staff, or volunteers were more likely to report preparedness indicators in place (Table 3). Compared with organizations with 2 or fewer clergy, organizations with more than 6 clergy were 2.0 (95% CI = 1.2, 3.3) times as likely to have COOP in place and one fifth (95% CI < 0.1, 0.6) as likely to have emergency experience or practice. Organizations with 6 to 24 volunteers were 1.6 (95% CI = 1.0, 2.6) times as likely as were those without volunteers to have identified emergency resources. Compared with organizations serving a borough or less, faith-based organizations serving more than 1 borough were also 2.9 (95% CI = 1.8, 4.5) times as likely to have emergency management plans in place, 2.0 (95% CI = 1.4, 2.8) times as likely to have COOP in place, and 1.6 (95% CI = 1.1, 2.2) times as likely to have identified emergency resources. Those with large foreign language-speaking populations in congregations were one third (95% CI < 0.1, 0.5) as likely to have identified emergency resources and one fifth (95% CI < 0.1, 0.4) as likely to have emergency experience or practice. Faith-based organizations were more likely to be interested in preparedness training when indicators were not in place.

DISCUSSION

To our knowledge, this project is the first attempt in the difficult task of measuring

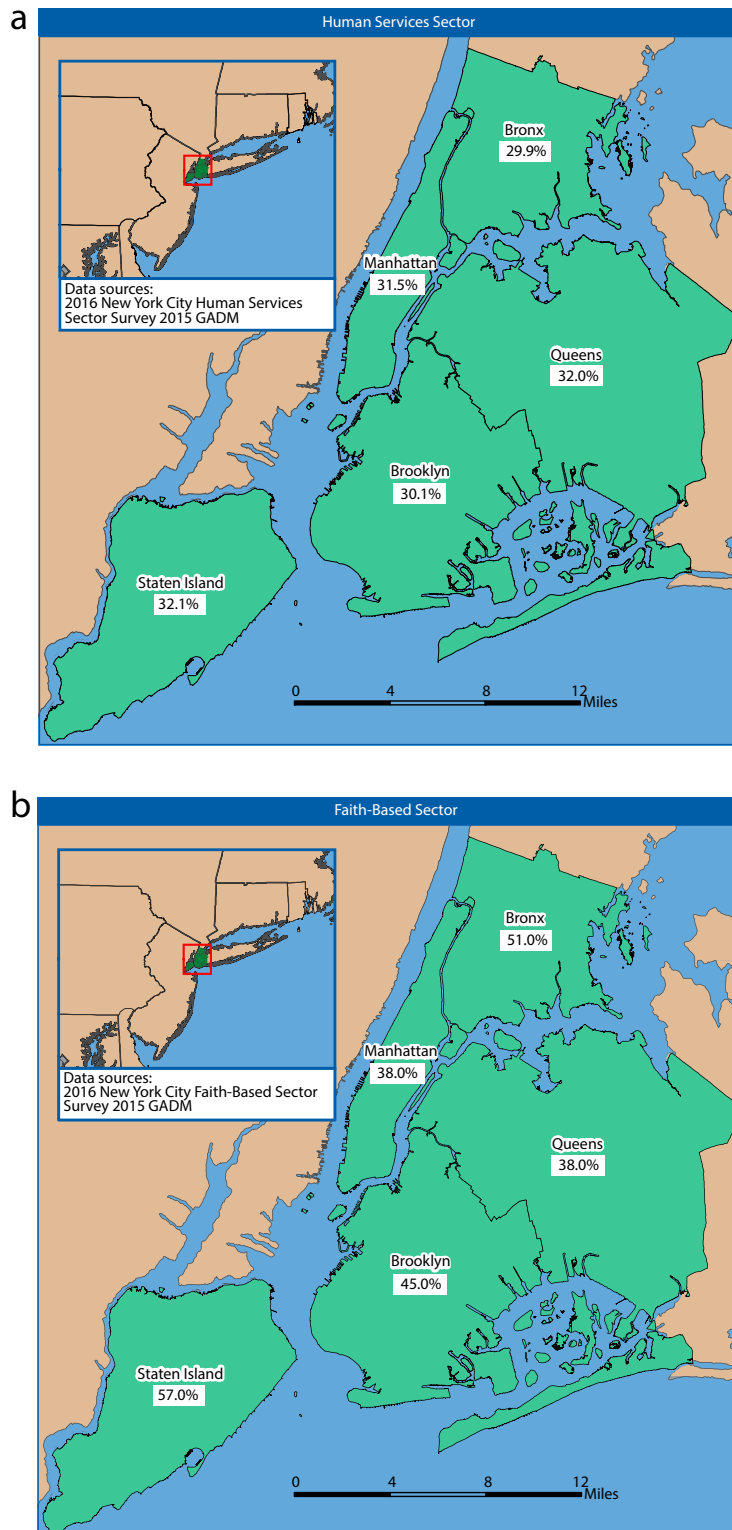


FIGURE 1—Maps of Relative Preparedness of New York City Boroughs Determined by the Percentage of Organizations With Staff Trained for Disaster Response: (a) Human Services and (b) Faith-Based Organizations: New York City, 2016

community preparedness from the standpoint of community and faith-based organizations in NYC. Our results suggest that surveyed human services and faith-based sector organizations in NYC are striving to address emergency preparedness concerns, although notable gaps are evident. The assessment results demonstrate the need for engagement and training among these organizations to increase awareness of preparedness strategies that can be implemented without much cost, including but not limited to continuity of operations and emergency planning. We recognize that many of these organizations are resource constrained and principally focus on providing services to populations in need.

CFBOs exist in the contexts of the people they serve; have knowledge of their social, economic, and cultural characteristics; are situationally aware; and comprehend unique problems and relationships among groups and local institutions. Having a history of serving a particular population provides great insight into the specific needs among those communities. The concept of emergency preparedness is essential when planning each CFBO's annual activities. Leadership at CFBOs plays a vital role in preparing the communities they serve for an emergency and positioning their organizations to assist when disaster strikes in catchment neighborhoods.

On the basis of our results from the needs assessment analysis, we have key suggestions for building organizational preparedness among nongovernment organizations.

1. Organizations may consider drafting an emergency procedure checklist, including a directory with emergency contact information and vital vendors, which are readily available during an emergency. Annual updates account for staffing and other changes in the checklists.
2. Organizations may develop and test their communication strategies to allow easy communication of important information during an emergency to all staff, vendors, and constituents. For example, a simple call or text tree (a hierarchical communication model used to notify individuals in the event of an emergency) could be developed and updated annually.
3. CFBOs are trusted partners and oftentimes the first to provide critical recovery services to their community during a disaster. Therefore, it is vital that these organizations

TABLE 2—Community-Based Organization Characteristics and Association With Emergency Preparedness, New York City, 2016

Organization Characteristics	% (n = 210)	Emergency Management Plan, RR ^a (95% CI)	Continuity of Operations Plan, RR (95% CI)	Emergency Communications System, RR (95% CI)	Emergency Resources Identified, RR (95% CI)	Emergency Practice/Experience, RR (95% CI)
Budget, \$						
< 500 000	14.3	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
500 000–2 million	22.2	2.1 (1.1, 3.9)	3.5 (0.8, 14.7)	2.3 (1.0, 5.5)	1.2 (0.7, 2.0)	1.1 (0.7, 1.7)
2–15 million	32.3	2.2 (1.2, 4.1)	5.8 (1.5, 22.5)	3.2 (1.4, 7.2)	1.4 (0.9, 2.4)	1.2 (0.8, 1.8)
15–50 million	15.9	2.7 (1.5, 5.0)	4.5 (1.1, 18.7)	3.4 (1.5, 7.9)	1.6 (0.9, 2.6)	1.4 (0.9, 2.0)
50–100 million	6.4	2.8 (1.4, 5.3)	7.4 (1.7, 31.0)	4.4 (1.9, 10.2)	1.8 (1.0, 3.2)	1.1 (0.7, 2.0)
> 100 million	9.0	2.2 (1.1, 4.3)	5.6 (1.3, 23.7)	3.8 (1.6, 8.9)	1.7 (1.0, 3.0)	1.2 (0.7, 1.9)
Contract with NYC	79.1	2.0 (1.3, 3.1)	2.0 (1.0, 3.8)	2.0 (1.2, 3.1)	1.0 (0.8, 1.4)	1.1 (0.8, 1.4)
Contract NYS	71.0	2.4 (1.6, 3.5)	2.4 (1.3, 4.3)	1.7 (1.2, 2.5)	1.3 (1.0, 1.8)	1.1 (0.9, 1.4)
Staffing, no. employees						
1–10	18.8	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref) ^b
11–25	16.8	1.7 (1.0, 2.9)	2.0 (0.6, 6.3)	1.6 (0.8, 3.1)	1.3 (0.8, 2.2)	
26–50	13.9	2.0 (1.2, 3.3)	3.8 (1.3, 10.8)	2.0 (1.0, 3.8)	1.2 (0.7, 2.1)	1.3 (0.9, 1.7)
51–100	12.0	1.7 (1.0, 3.0)	5.2 (1.9, 14.1)	2.4 (1.3, 4.5)	2.0 (1.2, 3.1)	1.1 (0.8, 1.6)
101–250	12.5	2.1 (1.3, 3.5)	2.7 (0.9, 8.2)	2.0 (1.0, 3.8)	1.3 (0.8, 2.3)	
251–500	9.6	2.2 (1.3, 3.6)	2.5 (0.8, 8.2)	2.8 (1.5, 5.1)	1.5 (0.8, 2.5)	
501–1000	8.2	2.5 (1.5, 4.1)	4.8 (1.6, 13.8)	2.4 (1.3, 4.7)	1.8 (1.1, 3.0)	1.1 (0.9, 1.4)
> 1000	8.2	2.6 (1.6, 4.1)	6.5 (2.4, 17.5)	3.3 (1.9, 5.8)	2.1 (1.3, 3.3)	
Service area						
Less than borough	27.7	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
Whole borough	10.2	0.6 (0.2, 1.5)	0.8 (0.3, 1.9)	1.1 (0.7, 1.8)	1.2 (0.8, 1.9)	1.3 (0.8, 1.9)
Several boroughs	13.1	0.8 (0.5, 1.3)	0.3 (0.1, 1.3)	1.0 (0.6, 1.7)	1.0 (0.6, 1.7)	1.4 (0.9, 2.0)
NYC (all 5 boroughs)	25.7	1.0 (0.7, 1.3)	1.1 (0.7, 2.0)	1.1 (0.7, 1.6)	1.2 (0.8, 1.7)	1.6 (1.2, 2.2)
NYC plus ≥ 1 counties	18.5	1.2 (0.9, 1.6)	1.8 (1.1, 3.0)	1.6 (1.1, 2.2)	1.6 (1.2, 2.3)	1.6 (1.1, 2.2)
All of NYS	4.9	0.6 (0.2, 1.5)	0.8 (0.2, 2.9)	0.3 (0.0, 1.7)	1.1 (0.5, 2.2)	1.0 (0.5, 2.1)
Religious affiliation	13.8	0.6 (0.5, 0.9)	1.2 (0.7, 1.8)	0.8 (0.6, 1.2)	1.1 (0.8, 1.4)	1.1 (0.9, 1.4)
Populations served						
General population	45.2	0.8 (0.6, 1.0)	1.0 (0.7, 1.5)	0.9 (0.7, 1.2)	0.9 (0.7, 1.2)	1.3 (1.1, 1.6)
Elderly	43.3	1.3 (1.1, 1.6)	1.5 (1.0, 2.2)	1.2 (0.9, 1.5)	1.1 (0.9, 1.4)	1.3 (1.1, 1.6)
Disabled/medically vulnerable	39.5	1.3 (1.1, 1.6)	1.8 (1.2, 2.7)	1.2 (1.0, 1.6)	1.2 (0.9, 1.5)	1.1 (0.9, 1.3)
Children	59.0	1.1 (0.9, 1.4)	2.1 (1.3, 3.3)	1.3 (1.0, 1.7)	1.1 (0.8, 1.4)	1.0 (0.8, 1.2)
Economically disadvantaged	40.0	0.9 (0.8, 1.2)	1.3 (0.9, 1.9)	1.1 (0.8, 1.4)	1.0 (0.8, 1.3)	1.5 (1.2, 1.8)
Communication disadvantaged: language/literacy barriers	36.7	1.1 (0.9, 1.4)	1.3 (0.9, 1.9)	1.1 (0.9, 1.5)	1.0 (0.8, 1.3)	1.4 (1.1, 1.6)
Collaborate with						
Faith-based	31.9	0.8 (0.7, 1.1)	1.2 (0.8, 1.7)	0.9 (0.7, 1.2)	1.0 (0.8, 1.3)	1.5 (1.3, 1.8)
Social service	44.3	1.1 (0.9, 1.4)	1.4 (1.0, 2.1)	1.3 (1.0, 1.7)	1.2 (1.0, 1.6)	1.4 (1.2, 1.7)
Government	79.0	1.8 (1.2, 2.6)	3.3 (1.4, 7.8)	2.0 (1.2, 3.1)	1.6 (1.1, 2.4)	2.3 (1.5, 3.5)

Note. CI = confidence interval; NYC = New York City; NYS = New York State; RR = risk ratio.

^aUnadjusted risk ratios estimated via log-linked binomial regression of having indicator in place on organization characteristic.

^bStaff sizes were grouped to increase cell sizes.

be able to maintain essential services and, therefore, develop a written continuity of operations plan that identifies essential services and clearly outlines roles and responsibilities and contingency plans to maintain essential operations.

4. CFBOs may train staff in emergency preparedness, including personal preparedness, continuity of operations, and crisis and emergency risk communications. Once staff are trained, organizations are able to conduct annual emergency drills or practice

sessions. For example, if an organization provides food and nutrition or medical services, they can practice their ability to continue these services in the face of a disaster, when critical city services (e.g., transportation) may be disrupted.

TABLE 3—Faith-Based Organization Characteristics and Association With Emergency Preparedness, New York City, 2016

Organization Characteristic	n = 223, %	Emergency Management Plan, RR ^a (95% CI)	Continuity of Operations Plan, RR (95% CI)	Emergency Communications System, RR (95% CI)	Emergency Resources Identified, RR (95% CI)	Emergency Practice/ Experience, RR (95% CI)
Own building	68.90	0.9 (0.5, 1.5)	1.0 (0.7, 1.5)	0.9 (0.8, 1.0)	0.9 (0.6, 1.3)	0.7 (0.6, 1.0)
Clergy, no.						
1–2	41.90	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
3–6	36.30	1.3 (0.7, 2.7)	1.2 (0.7, 2.1)	1.0 (0.9, 1.1)	1.3 (0.9, 2.1)	0.9 (0.7, 2.1)
> 6	21.80	1.4 (0.7, 3.1)	2.0 (1.2, 3.3)	1.0 (0.9, 1.2)	1.3 (0.8, 2.1)	1.2 (1.0, 1.6)
Staff, no.						
0	8.60	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
1	13.10	0.9 (0.3, 2.5)	1.2 (0.5, 2.7)	1.1 (0.9, 1.3)	1.0 (0.5, 1.9)	1.1 (0.7, 1.7)
2–4	26.60	0.6 (0.3, 1.7)	1.0 (0.4, 2.1)	1.0 (0.9, 1.2)	0.6 (0.3, 1.3)	1.0 (0.6, 1.5)
5–14	27.00	0.8 (0.3, 2.0)	1.1 (0.5, 2.2)	1.1 (0.9, 1.3)	1.0 (0.5, 1.8)	1.1 (0.7, 1.7)
> 14	24.80	1.2 (0.5, 2.9)	1.6 (0.8, 3.2)	1.0 (0.9, 1.2)	1.5 (0.9, 2.7)	1.2 (0.8, 1.8)
Volunteers, no.						
0	35.40	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
1–5	15.10	1.4 (0.7, 2.8)	1.1 (0.6, 2.1)	1.1 (0.9, 1.2)	1.5 (0.8, 2.5)	1.1 (0.8, 1.5)
6–24	24.00	1.0 (0.5, 2.0)	1.1 (0.7, 1.9)	1.1 (1.0, 1.2)	1.6 (1.0, 2.6)	0.9 (0.6, 1.2)
> 24	25.50	0.6 (0.3, 1.5)	1.2 (0.7, 2.0)	1.1 (1.0, 1.2)	1.5 (0.9, 2.3)	1.0 (0.7, 1.3)
Service area						
Whole borough	83.25	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)	1 (Ref)
> 1 borough	16.75	2.9 (1.8, 4.5)	2.0 (1.4, 2.8)	1.0 (0.9, 1.1)	1.6 (1.1, 2.2)	1.3 (1.0, 1.6)
Large foreign language population	65.02	1.0 (0.6, 1.6)	0.8 (0.6, 1.2)	1.0 (0.9, 1.1)	0.7 (0.5, 1.0)	0.8 (0.6, 1.0)
Interested in emergency preparedness trainings	72.65	0.3 (0.2, 0.8)	0.5 (0.3, 0.8)	0.8 (0.7, 0.9)	0.3 (0.1, 0.5)	0.4 (0.3, 0.6)
Trust for training and collaboration						
Government	56.05	0.8 (0.5, 1.3)	0.9 (0.6, 1.2)	0.9 (0.8, 1.0)	0.4 (0.3, 0.7)	0.8 (0.6, 1.0)
Secular	47.09	0.9 (0.5, 1.4)	0.9 (0.7, 1.3)	0.9 (0.8, 1.0)	0.6 (0.4, 0.8)	0.7 (0.5, 0.8)

Note. CI = confidence interval; RR = risk ratio.

^aUnadjusted RRs estimated via log-linked binomial regression of having indicator in place on organization characteristic.

- During the annual drill or practice session, agencies should be able to document challenges that occur and develop strategies for improvement.
- CFBOs may consider conducting town hall meetings among constituents and congregations to increase public awareness and identify needs regarding emergency preparedness. CFBOs' role is as a trusted bridge between the formal establishment (e.g., government and corporate organizations) and individuals in the community to enhance individual and community preparedness.

NYC's faith-based organizations. In addition, the nonprobability nature of these surveys further limits the generalizability of the results. Specifically, the findings of this needs assessment analysis may not accurately represent the incidence of gaps and preparedness practices among the city's CFBOs. Nevertheless, this first attempt at measuring community preparedness in NYC has led to an expanding partnership between the city's public health agency and its community organizations. The next steps are already in place to improve on the limitations in this first study.

Public Health Implications

Since 2016, the human services and faith-based sectors lead organizations have been strengthening and expanding community organization partnerships, supporting

emergency planning in community organizations, hosting trainings, and building and testing communication capabilities, as well as better connecting community organizations to the public health response structure. After this study, both sectors created expansive and diverse coordinating committees that advise on program implementation to improve translating findings into practice. In addition, both sectors developed a communications framework, including implementation and enhancement of mass communication technology, which was tested in 2018. Finally, both sectors implemented trainings that supported the development of emergency and continuity plans for 150 houses of worship and 80 human service providers.

The Office of Emergency Preparedness and Response is using the results from this study to inform the development of metrics

Limitations

This study has some limitations. The low response rates to these surveys limit the generalizability of the results, especially among

for community-based organizational readiness; it developed an online survey to measure progress in the 5 areas of preparedness, which was administered in the summer of 2018. Information collected is undergoing analysis, and results will guide future program implementation and inform the development of indicators for community preparedness.

Moving forward, the Office of Emergency Preparedness and Response is continuing to work with the human services and faith-based sectors and is launching 2 pilot projects with community-led coalitions in NYC. Community-led coalitions (e.g., Community Organizations Active in Disasters and Long-Term Recovery Groups) often form in the wake of complex disasters and are generally led by community-based service providers such as nonprofits, civic groups, businesses, congregations, and community members. Community-led coalitions offer a local perspective on community capabilities and needs; CFBOs' real-world experiences may also inform preparedness and response strategies and fill gaps in state and local plans. Further, results of future studies will continue to advance the Office of Emergency Preparedness and Response's effort to ensure wide coverage of NYC populations through the CPP. **AJPH**

CONTRIBUTORS

L. Rivera and B. M. Morgenthau planned the study. M. Pagaoa and N.-A. Molinari compiled and analyzed the data. T. T. LeBlanc drafted the article. All authors designed the study, edited the article, and approved the final version.

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CONFLICTS OF INTEREST

The authors of this article have no affiliations or financial involvement with any organization or entity with

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HUMAN PARTICIPANT PROTECTION

No protocol approval was necessary because no participant identifying information was shared with, submitted to, or collected by the New York City Department of Health and Mental Hygiene Department of Health and Mental Hygiene.

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