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Cross-sector partnerships to enhance disaster preparedness for older and vulnerable populations

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Disaster preparedness for older and vulnerable populations remains a critical yet underprioritized aspect of emergency management. Nearly half of the deaths from 2005 Hurricane Katrina were adults aged 75 and older (1) and approximately two-thirds of the 156 fatalities attributed to Hurricane Ian in 2022 were in individuals 65 and older (2). These examples underscore the disproportionate risks faced by older adults and others with disabilities, chronic illnesses, or socioeconomic disadvantages. These individuals often contend with mobility limitations, reliance on medical equipment, and social isolation, exacerbating their vulnerability during disasters (3). Despite the highlighted vulnerabilities of this population, traditional disaster planning frameworks frequently overlook the unique needs of older adults, leading to significant gaps in preparedness and response (1).

The Gerontological Society of America (GSA) recognizes the increased vulnerability of older adults in disaster scenarios and annually convenes the disasters and older adults special interest group (SIG) meeting to discuss emerging themes and evidence-based initiatives to inform change. During the recently completed GSA 2024 Disasters and Older Adults SIG convening, stakeholders, including gerontologists, social scientists, students, and community members, examined cross-disciplinary partnerships to better support and encourage disaster preparedness and response for older adults. The group collaboratively discussed projects and themes to direct a research agenda in this area. Collaborative multi-disciplinary discussions, such as these, are fundamental to identifying next steps both in research and policy implementation. This editorial synthesizes the gaps identified during this convention, as well as the solutions proposed to address them, which require empirical attention.

The session highlighted numerous isolated research and community initiatives grounded in *cross-sector partnerships*. Cross-sector partnerships refer to collaborations between public health agencies, non-profits, private sector entities, and academic institutions to address complex health challenges, pooling diverse expertise and resources and creating innovative solutions that improve community wellbeing. Forging these partnerships was highlighted as a vital strategy to not only address identified challenges, but to also ensure equitable disaster response.

Equity in disaster readiness and response encompasses both sociodemographic and institutional disparities, necessitating multi-level interventions to effectively address the social vulnerability of older adults in the context of disasters (4). A recent rapid review of empirical literature on extreme heat disaster preparedness and response among older adults highlights a significant gap in evidence regarding effective structural strategies, particularly in low- and middle-income countries (5). Older adults who are socially isolated or economically constrained face complex, multi-level challenges that require cross-sectional intervention development. Targeted attention to communication strategies, risk perception, and the strengthening informal ties at the individual and organizational level is essential (1). Moreover, prior research underscores the importance of disaster planning that addresses caregiver support, psychosocial needs, relocation assistance, and health care services for older adults (6). Successful disaster interventions will require the integration of the lived experiences of diverse older adults with scientific evidence (7).

A key theme underscored systemic gaps in disaster preparedness across public services. Many agencies that work directly with the public have limited capabilities in disaster recovery, including disaster housing and health and social services (8). For example, research in Central Ohio found that affordable housing community service coordinators, whose central role is helping residents access services, had limited training and resources to provide emergency services (9). Over half of the older adult residents, and their caregivers, who received services did not drive, 40% lacked evacuation plans, and 70% experienced prolonged power outages (9). Emergencies due to events such as flooding and winter storms compound existing socioeconomic challenges of vulnerable residents and their caregivers who are unprepared, underscoring the urgent need for targeted training of human services staff, interagency coordination, and resource allocation to strengthen disaster resilience in public services.

Another theme focused on solutions, highlighting cost-effective, community-driven initiatives like resource fairs organized through cross-sector collaborations. These initiatives provide older adults with tools to help them respond effectively to disasters. For example, in Iowa, local disaster management agencies, public health organizations, and aging service providers partnered in the development of Disaster PrepWise (DPW) to equip older adults with emergency resources and connect them to social services (10). Similarly, preparedness toolkits, co-developed with aging service providers and healthcare agencies, offered tailored guidance on securing backup power for medical devices, prescribing adequate medication refills, and arranging transportation. While resource constraints and rural outreach barriers persist, DPW demonstrates what can be achieved from community driven cross-sector partnerships.

A community-driven initiative in Houston, Texas, provided an example of the central value of local priorities and lived experience in shaping long-term disaster resilience. A geospatial-photoethnography dashboard, co-owned and developed by community members, serves as a low-cost, high-impact tool for tracking disaster impacts, housing insecurity, and mental health trends (11). In coordination with the local office of emergency management and public health departments, this

initiative leverages visual storytelling (12) and community conversations to identify gaps in emergency response and inform strategic planning. Updated weekly by local academic partners, the dashboard provides timely and reliable information in community centers, faith-based organizations and via an app to community residents. Tools like these demonstrate how to overcome the fragmentation of networks across communities and larger districts. Historically, such fragmentation and disconnection have left communities to navigate emergency events on their own, with minimal external support. By utilizing existing networks and fostering local engagement, community-based cross-sector approaches may enhance accessibility, improve disaster preparedness, and strengthen resilience without imposing significant financial burdens.

A final theme highlighted the value of including organizations often excluded from broader emergency frameworks, such as home health agencies and assisted living communities. Research from a large Veterans' Health Administration (VA) network described the creation of formalized collaborations among home health agencies, healthcare systems, and emergency management agencies to enhance the continuity of care in disasters (13). This VA-led initiative utilized strategies such as staff training, informational bulletins, and sharing of emergency plans. It illustrates how such low-effort, high-impact strategies can build resilience in those receiving home-based services and provide scalable models for other regions (13).

Cross-sector partnerships in disaster preparedness have the potential to ally groups with differing roles, responsibilities, and areas of expertise to ensure the protection of vulnerable populations at risk of harm in disasters. By virtue of their difference, however, the groups involved may be challenged to establish productive working relationships (14). The priorities and processes of service providers, such as social workers, are likely to vary from those with administrative or regulatory responsibilities, such as county-level emergency managers or public health officials. Related risks to cross-sector partnerships include power differentials among groups in which one faces pressure to adopt another's goals, or one group lacks the ability to hold the other accountable for results (15). Misaligned goals are a particular risk when organizations that serve older adults partner with those that lack knowledge of the needs of older adults (1) or have no practical experience with this or other vulnerable populations (16). Sustaining a partnership is uniquely difficult in disaster preparedness and response efforts, because collaboration often centers on a specific disastrous event or depends on time-limited grant funding.

The projects described in the present manuscript highlight initiatives that link community service providers with emergency management, public health, and health care organizations, including the VA, to enable older adults and others at risk to bolster their preparedness and resilience. They succeed partly through the central involvement of community leaders and academic partners and the use and sharing of existing resources to promote preparedness.

Further research is needed to assess their effectiveness and identify other promising strategies to create a framework to guide cross-sector partnerships in disaster preparedness for vulnerable populations. One recent study proposed strengthening existing

collaborations by improving communication and data sharing through a common information platform (17), similar to the community-based dashboard described in the present manuscript. Other research highlighted the need for cross-sector partners to build trust through working relationships that form before a disaster and focus on preemptive preparedness and building resilience, as do the projects highlighted in this manuscript (18).

Policy studies are also needed to assess the role that federal, state, and local governments play in encouraging or discouraging cross-sector partnerships to improve disaster preparedness and response, given the government involvement in this area through funding and regulation. A study of collaboration among aging service agencies found that federal funding criteria played a role in whether service providers chose to partner with health care organizations (15).

While a few theoretical frameworks and studies have begun to explore the dynamics of cross-sector partnerships in disaster preparedness (19, 20), there remains a need for a more comprehensive conceptual framework or “lessons learned” matrix that systematically outlines key components such as inputs, enablers, barriers, and outcomes for older adults. Although developing such a framework was beyond the scope of this work, this brief report highlights several critical factors—particularly barriers and enablers—that align with existing literature and underscore the complexity of intersectoral collaboration. To advance policy and practice, we additionally emphasize the need for concrete steps, including federal incentives for inter-agency training and mandatory preparedness audits for home health agency partnerships, that aim to strengthen coordination and readiness for serving older and vulnerable populations during crises.

In summary, by integrating diverse expertise and resources, these collaborations have the potential to address systemic gaps, improve emergency response, and foster long-term resilience. Future efforts should focus on scaling models like DPW, ensuring sustainability, and embedding community-driven solutions, driven by the experiences of older adults themselves, into regional disaster planning frameworks. Protecting vulnerable populations in times of crisis demands innovative, collaborative approaches that prioritize equity and inclusivity across the lifespan.

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