TOPIC: Enhancing Coastal Community Resilience and Well-being in the Gulf of Mexico Region

Key Dates

Letter of Intent

- July 27, 2016 Online Submission of Letter of Intent Opens (CLOSED)
- August 11, 2016, 11:30am-12:30pm ET: Informational webinar (watch the recording)
- October 5, 2016, 5:00pm ET: Letter of Intent Due (CLOSED)

A Letter of Intent is required for this funding opportunity.

Full Proposal

- October 6, 2016: Online Submission of Full Proposal Opens (ONLY open to Applicants who submitted a Letter of Intent) (CLOSED)
- December 14, 2016, 5:00pm ET: Full Proposal Due (CLOSED)

July 2017: Award Announcement

Questions: Email gulfgrants@nas.edu

Grant Type Description

These grants support scientifically-sound research and practice projects that will develop and test information and strategies that can be used immediately by the public, public agencies, educators, community groups, policymakers and other decision makers and individuals to guide actions and plans. Proposed projects should bring together researchers, practitioners, and users of the information and strategies generated so that all relevant perspectives inform possible approaches to advancing the science and practice. Projects must be hypothesis-driven and seek to improve both the science and the practice. Research for which pathways for translation, application, implementation, and dissemination are not clear would not be a good fit for this grant type.

Who We Are

As part of its mission, the Gulf Research Program seeks to strengthen the health and resilience of communities in the Gulf region of the United States. The GRP was created in 2013 as a result of the Deepwater Horizon disaster, yet the oil spill and its many significant human and ecological impacts are just one of many acute and longer-term environmental challenges that are testing the substantial resilience of the region's communities and natural ecosystems. Over its 30 year duration (2013-2043), the GRP will fund grants, fellowships, and other activities that harness the strengths of the Gulf region

and the Nation to navigate complex challenges associated with interconnecting human, environmental, and energy production systems in regions along the US outer continental shelf.

For more than 40 years, the Robert Wood Johnson Foundation has worked to improve physical and mental health and health care. Now, the Foundation is working with others to build a national Culture of Health – a society that gives every person an equal opportunity to live healthier lives—whatever their ethnic, geographic, racial, gender, socioeconomic, or physical circumstance happens to be. The Culture of Health Action Framework (www.cultureofhealth.org) seeks to broaden the discussion about health and focus efforts and mobilize action by individuals, communities, and organizations – beyond health researchers and practitioners, to include engineers, environmental scientists, educators, and others.

Background

Enhancing Coastal Community Resilience and Well-being in the Gulf of Mexico Region is a funding opportunity of the Gulf Research Program of the National Academies of Sciences, Engineering, and Medicine developed and funded in collaboration with the Robert Wood Johnson Foundation. Our collaboration builds upon our common interest in:

- fostering the development of scientifically-sound research and practices that improve people's lives and the environments in which they live; and
- understanding the many complex factors that influence health and well-being, such as where people live, how they work, the safety of their surroundings, and the strength and resilience of families and communities.

A total of $10 million is available for an anticipated 3-6 projects of up to 36 months in duration.

Purpose

Grants will support the development of research and practices that focus on the human dynamics of resilience. Specifically, we are interested in projects that enhance community resilience and well-being by accounting for the influence of social, cultural, and health factors on a community's capacity to adapt and thrive as part of efforts to mitigate and respond to the adverse impacts of climate change, severe weather, and major environmental disasters.

Proposed projects should bring together researchers, practitioners, and individuals from communities, including those from community organizations, state and local government, industry, and local businesses, so that all relevant perspectives inform possible approaches to advancing the science and practice of resilience. Involvement of local leaders and community members, particularly those substantially affected, is strongly encouraged.

Projects should result in a stronger evidence-base for the kinds of strategies and approaches that can enhance community resilience in ways that also improve well-being. Projects should produce information that is actionable –in that it can be used immediately to benefit the residents of the U.S. Gulf of Mexico region, which includes the states of Alabama, Florida, Louisiana, Mississippi, and Texas. Projects should seek to develop sustained capacity at the community level for enhancing resilience.

Resilience is broadly defined here as the ability to prepare and plan for, absorb, recover from, and more successfully adapt to stressors from acute and longer-term adverse events (NRC, 2012). At a community level, resilience is characterized as an ongoing process of accounting for vulnerabilities and developing capabilities that aid a community in responding to stressors in ways that maintain a community's self-sufficiency (at the same or an improved level of health and social functioning), and using experience from past responses to strengthen the community's ability to withstand future stressors (Chandra et al., 2011).

Context and Challenges

From droughts that devastated fishing communities, to a series of powerful hurricanes, to the Deepwater Horizon (DWH) oil spill, communities in the U.S. Gulf Mexico region have recently experienced a variety of challenges with significant human and environmental impacts. Differences in how communities were affected by these events and the extent of their recovery are often related to the reliance of many Gulf communities on coastal natural resources. These differences also offer potentially important insights into the human dynamics of community resilience – the community attributes, including health, cultural, economic, and social factors, that influence a community's capacity to successfully adapt and thrive when confronted with adverse events. Finding ways to nurture and harness these attributes could enhance a wide range of efforts in the Gulf region to strengthen resilience to a variety of existing and emerging environmental challenges.

The effectiveness of responses to environmental challenges is influenced by social, health, and cultural factors that characterize communities; yet these challenges and factors are often not considered together. Gulf communities face many chronic challenges, including persistent health and social disparities, high levels of chronic disease, and growing inequalities that adversely affect resilience. Social determinants of health – defined here as the circumstances in which people are born, grow up, live, work, and age – can powerfully influence the vulnerability of communities to adverse events. Thus, identifying ways to build health equity – i.e., to eliminate differences in health and its modifiable determinants that adversely affect socially disadvantaged groups (DHHS, 2011) — into efforts to address environmental challenges may be important opportunities to enhance resilience. Community attributes can also be positive factors; for example, efforts that account for local experiences, knowledge, and strengths can lead to more effective solutions. Finding ways to harness these attributes may be another important but underused strategy for enhancing community resilience.

The Gulf region also faces complex environmental challenges. To compound those related to oil spills and natural disasters, the consequences of a changing climate are bringing new and difficult to address challenges (USGCRP, 2014). These challenges present opportunities to develop and test new approaches and strategies for enhancing community resilience and well-being that will work for decades to come. Coastal regions are particularly vulnerable to rising sea levels. In parts of the Louisiana and Texas coast, the sinking of land along with the rise of the ocean has resulted in rates of land loss that are some of the highest worldwide; threatening inland sources of freshwater, valuable coastal ecosystems, and coastal communities. The accelerating pace of environmental change poses profound questions about how best to support the integrity of natural resources and of the populations that depend upon them. Other consequences of a changing climate are anticipated to become more apparent in the coming decade,

with storms of increased intensity and adverse impacts on the region's weather patterns, air and water quality, and stability of ecosystems and natural resources that support the region's residents and major industries (USGCRP, 2016).

These impacts will disproportionately affect those who are already highly vulnerable, such as the poor and marginalized, young children, and older adults, as well as those whose health and livelihoods are tightly linked to natural resources. Understanding these linkages and how they influence a community's perceptions of risk or adaptive capacity, may improve the effectiveness of responses to these challenges. More broadly, strategies for responding to environmental challenges may provide unexpected opportunities to also address underlying social, health, or economic factors that give rise to vulnerabilities.

A variety of programs seek to address a range of environmental challenges in the Gulf region, including, but not limited to, efforts to mitigate the adverse environmental impacts of climate change and to restore and maintain natural resources damaged by the DWH oil spill and other major environmental hazards. Likewise, many efforts are underway to better understand the human dynamics of resilience, from the influence of social determinants of health and health equity on resilience, to how climate change will impact the health and well-being of communities, to efforts to assess local health needs and account for vulnerabilities in disaster preparedness and recovery planning. This opportunity seeks to bring together those involved and affected by these lines of research and action to further advance the science and practice of resilience.

Some examples of challenges that fit well with the aim of this RFA are the following:

How do social determinants of health and health equity influence resilience? How about issues related to economic opportunity or workforce? How could an understanding of these influences improve strategies used by community organizations, state and local agencies, industry, or local businesses seeking to enhance resilience to the adverse consequences of climate change, severe weather, and major environmental disasters?

How might existing or planned approaches to minimizing or repairing the environmental impacts of climate change, severe weather, or major environmental disasters be enhanced so that they also produce additional "co-benefits" for communities – for example improving physical or mental health, or social well-being? What kinds of research and monitoring are needed to evaluate and demonstrate the effects at the local level?

How can cultural traditions and priorities be reflected in resilience programs and policies? How should cultural and community identity be harnessed to further build community resilience to the impacts of climate change, severe weather, and major environmental disasters?

How does place, local culture, social networks, or other social attributes, such as the cohesiveness, connectedness, or empowerment of communities affect perceptions and communications about risks, vulnerabilities, and steps that can be taken to enhance resilience to environmental challenges? How can these factors be incorporated into disaster response, restoration planning, climate change mitigation and adaptation planning, or other resilience-building efforts?

What we are looking for

This is a broad call for scientifically-sound research and practice projects that will develop information, test strategies, and provide evidence that can be used by communities to enhance their resilience to the adverse impacts of climate change, severe weather, and major environmental disasters, such as oil spills, in ways that also improve well-being. There are a variety of approaches to achieving the aims of this RFA. The context and challenges described in this RFA are intended to stimulate thoughtful proposals. They are not meant to serve as rigid guidelines, and investigators are encouraged to think broadly about critical challenges and opportunities in the Gulf region and to submit innovative proposals that use appropriate methods for the proposed project.

We anticipate that successful proposals will involve the following:

Integrative teams: Because these grants seek to improve both the science and practice of resilience, project teams should bring together blends of perspectives from different types of institutions (i.e. academic, community-based, non-governmental, industry and local businesses, and state and local governmental) and different frames of reference—reaching as broadly as anthropology, behavioral science, business, coastal planning, community development, economics, education, emergency preparedness, engineering, environmental health, environmental justice, environmental sciences, epidemiology, geology, health equity, history, housing, industry, information sciences, medicine, nursing, natural resource management, policy, physicians, psychology, public administration, public health, social justice and equity, social work, sociology, urban planning, workforce development, etc.

Community involvement: Projects should involve those that are directly affected by a problem of concern and local leadership (i.e. elected, religious, business, etc.) in the proposed activities designed to address the problem. The level of engagement can depend on the nature of the project; ranging from community members informing or carrying out aspects of the research to community-based participatory research, which is an equitable partnership among community members, researchers, and other personnel in all aspects of the research process, including setting the research agenda, and in which all partners contribute expertise and share decision making and ownership. Projects that involve communities and local leadership early in the project, including as initiators of the project, are likely to produce more actionable information.

Actionable information: Research should yield information that is actionable in that it can be used immediately by the public, public agencies, educators, community groups, policymakers and other decision makers and individuals to guide actions, plans or strategies. That is, research for which pathways for translation, application, implementation, and dissemination are not clear is not a good fit for this opportunity.

Scientifically valid research: The project team will propose to carry out qualitative, quantitative, or mixed-methods tools and approaches that are appropriate to the research question and that will yield data and results suitable for publication in peer-reviewed journals. Projects must be hypothesis-driven and seek to improve both the science and the practice (i.e., addressing implementation challenges; testing and evaluating strategies at the community-level) of resilience, but projects may emphasize one aspect over the other depending on the state of scientific research and existing evidence base for practice.