Overview of the Database of Research on the Human Impacts of the 2010 Deepwater Horizon Oil Spill

Elizabeth Thornton, RAND Corporation

Background

Since the 2010 Deepwater Horizon (DWH) oil spill, there has been extensive research activity across the Gulf of Mexico region to better understand the human impacts of the disaster.

In 2012, the National Oceanographic and Atmospheric Administration (NOAA) had established a database of all known DWH-related projects begun within the year following the spill. But whereas this database is still online at http://igulf.noaa.gov/collection/browse, it has not been updated for more than four years. Researchers and community members thus lack a single reference that lists studies that are being (or have been) implemented.

The Consortium for Resilient Gulf Communities (CRGC) sought to develop a database to help researchers, community members, and other stakeholders navigate the landscape of past and present research projects that examine the public health, social, and economic impacts of the 2010 DWH oil spill.

Objective

The objective of the *Database of Research on the Human Impacts of the 2010 Deepwater Horizon Oil Spill* (the Human Impacts Research Database, or HIRD) is to offer a searchable database to help researchers recognize what gaps still exist in this domain and where additional research efforts may be needed. The database has not been designed to offer an extensive, annotated review of projects; rather, it is an easy-to-navigate introduction to the array of ongoing or completed work. The database lists seven key characteristics of each project, including whom to contact to obtain more information.

Data Collection Strategy

CRGC researchers in December 2015 began documenting past and existing research projects that address the public health, social, and/or economic impacts of the DWH oil spill. Project identification continued through attendance at events such as the February 2016 Gulf of Mexico Research Conference in Tampa, Florida, and through outreach efforts interacting with community members across the Gulf States, meeting with cross-sector stakeholders, and

working closely with the Louisiana, Mississippi, and Alabama Sea Grant Consortia—partnerships between universities and the NOAA.

Additional methods that have been and will be used to identify projects include

1. Search of peer-reviewed literature: The research team conducts quarterly searches to monitor and identify relevant literature using resources including the Social Science Research Network (SSRN), PubMed, Google Scholar, and the RAND Library. The keywords "Deepwater Horizon oil spill" and "impact" are used, along with one of the following terms: "health," "economic," "social," "community," "mental health," or "seafood industry." The resulting publications are reviewed for acknowledgments of relevant research projects to add to the database.

Papers primarily concerning animals, ecosystems, environmental impacts, and other irrelevant topics are excluded, unless a human-related variable such as the aforementioned secondary keywords is included in the analysis.

2. Regular monitoring of institutions active in research related to human impacts of oil spills: The research team conducts monthly searches for relevant projects and grants awarded to or by institutions known for being active in research related to public health, social, and/or economic impacts of oil spills. Such entities include: (1) Federal, [Gulf] state, and local-level government agencies that address public health, social services, economic development and commerce, and/or environmental-related issues; (2) private foundations/sponsors and NGOs; (3) academic institutions; and (4) other entities that convene and/or provide resources to institutions/consortia, which conduct relevant research.

Please refer to the Appendix for a list of regularly monitored institutions (please note that the project team will make updates to this list if/when new institutions are identified as being active in human impacts—related research of the DWH oil spill).

- 3. **Mining the existing NOAA database**: Human impacts—related projects from the previously mentioned NOAA database were identified and updated where needed for inclusion in the database.
- 4. **Requesting suggestions via a webform**: When the database goes live, it will also include a form to enable site visitors to suggest projects for inclusion in the database. The research team will determine whether the suggestions meet HIRD criteria and will update the database if enough information is available.

Database Construction

Prior to developing the database, the research team identified several categorical domains and required criteria for inclusion. The domains included focus area (health, social well-being, economics, community resilience, and stress and mental health) and geography (the states covered by the research). Projects were initially added to an Excel spreadsheet, with data entered into each column based on publicly available project information such as project

summary, start and end dates, geographic scope, lead organization, funding source, and contact person(s). Details of each project are confirmed with the project contact person (usually the principal investigator) before the project is included in the web database.

Using the Database

The database is provided as an interactive, searchable section of the CRGC website. All projects are initially displayed, and users can filter the results by focus area(s), state(s), and keywords. By design, filters are additive; if a user selects "Health" and "Social Well-being" as focus areas, the resulting list will include only those projects that cover both topics. Including a state filter further limits the results to projects that take place in or affect that state. Keyword filters limit results to projects in the database where the keyword or phrase is present.

Limitations of the Database

The primary limitation to the database is the possibility that relevant research on human impacts of the DWH oil spill could be omitted in results obtained from the literature databases used. In addition, there could be research activities being conducted and/or funded by entities not included in the regular monitoring of relevant government agencies, private foundations, universities, and other institutions known for being active in research related to public health, social, and/or economic impacts of oil spills.

A "disclaimer" will be included on the database's webpage to notify users that this resource: (1) is dynamic and updated regularly, and (2) was not designed to be an extensive annotative review of human impact—related research studies of the DWH oil spill, thus it is possible relevant studies may be omitted. Due to this limitation, we invite users to send the research team information on studies not yet included in the database.

Institutions Monitored to Identify Relevant Research Activity for HIRD

(In no particular order)

(In no particular oraer)				
Government	Private Foundations/Sponsors and NGOs	Academic Institutions	Other	
National Oceanic and Atmospheric Administration	Gulf of Mexico Research Initiative	Alabama State University	Sea Grant Programs in Louisiana, Mississippi, Alabama, Florida, and Texas	
Federal Emergency Management Administration	Environmental Defense Fund	University of South Alabama	The Gulf States Collaborative Center for Health Policy Research (Gulf States CC)	
Environmental Protection Agency	National Science Foundation	Louisiana State University	Louisiana Seafood Promotion & Marketing Board	
National Institute of	National Fish and Wildlife	University of Southern	Coastal Alabama Partnership	
Environmental Health Sciences	Foundation	Mississippi		
Centers for Disease Control and Prevention	National Academy of Sciences	University of Mississippi	Coastal Recovery Commission of Alabama	
Substance Abuse and Mental Health Services Administration	National Geographic	Auburn University	South Mobile County Tourism Authority	
Gulf Coast Ecosystem Restoration Council	Louisiana Public Health Institute	Tulane University	Gulf States Marine Fisheries Commission	
Louisiana Coastal Protection and Restoration Authority	Gulf of Mexico Alliance	Columbia University	Organized Seafood Association	
Louisiana Oil Spill Coordinator's Office	Coalition to Restore Coastal Louisiana	University of Florida	Southeast Tourism Society	
Louisiana Office of Emergency Preparedness	Greater New Orleans Foundation	Florida State University	Gulf Region Health Outreach Program [DWH Medical Benefits Class Action Settlement]	
Louisiana Department of Natural Resources	Restore or Retreat, Inc.	University of Pennsylvania	Restore the Mississippi River Delta Coalition	
Louisiana Department of Environmental Quality	Foundation for Louisiana	University of Rhode Island		
Louisiana Department of Wildlife and Fisheries		Oklahoma State University		
Louisiana Department of Culture, Recreation and Tourism		University Cancer and Diagnostic Centers, Houston, TX		
Bureau of Ocean Energy Management		Texas A&M		
Chenier Plain Coastal Restoration & Protection Authority		University of New Orleans		
Lafourche Parish Government		University of Louisiana at Lafayette		
Plaquemines Parish Government				
Alabama Department of Conservation and Natural Resources				
Alabama Department of Public Health				

1	