

Health in All Policies and Adaptive Governance: Complementary Frameworks

Summary of lessons learned in New Hampshire regarding CBPR, community engagement strategies, and alignment with adaptive governance principles¹

Engagement Strategy	Role as a 'Boundary Object' ² that bridges trans-disciplinary perspectives and methods	Alignment with adaptive governance Principles
Community Conversations	<ul style="list-style-type: none"> ●Explores the community's values and perceived vulnerabilities associated with climate change. ●Provides a forum for stakeholders to share perspectives, identify local assets, needs, and ideas to effectively plan for a changing climate ●Generates interest in more sustained participation for subsets of stakeholders (e.g., Citizens' Working Group). ●Promotes inter-generational dialogue ●Initiates co-production of boundary objects such as maps, narratives, and inputs for models 	<ul style="list-style-type: none"> ●Clarifies common goals with stakeholders ●Promotes collaborative learning and networking ●Develops a foundation for analytic deliberation (structured dialogue involving scientists, end-users, and interested citizens, informed by analysis of key information about socio-ecological systems (Dietz 2003, 2013).(See footnote 1 for paper with complete reference list).
Workshops with town staff	<ul style="list-style-type: none"> ●Enables the team to check in annually with town decision-makers, and to identify individuals who wish to be more involved in certain stages of the modeling process (e.g., checking discrepancies) ●Provides a mechanism for piloting and refining boundary objects (e.g., testing educational materials, explaining preliminary model results). ●Promotes opportunities for the CWG and the research team to interact with town leadership 	<ul style="list-style-type: none"> ●Builds on local governance and communication structures ●Enables climate change adaptation planning to be linked to specific local decisions ●Supports multiple connections between researchers and decision-makers ●Helps to ensure that scientific outputs will be viewed as credible, legitimate, and salient (Cash et al., 2002)
Experiential Activities	<ul style="list-style-type: none"> ●Connects technical and non-technical stakeholders ●Provides a 'bridge' to link various boundary objects (e.g., by connecting scientific information with community values and cultural memories; creating a diverse portfolio of activities that are not entirely dependent on model results ●Aligns with Carlile's (2002) pragmatic view of boundary objects as a means of representing, learning about, and transforming knowledge to support a public policy process 	<ul style="list-style-type: none"> ●Integrates complementary knowledge systems (e.g., local knowledge and scientific/external input) to inform planning and policy processes ●Promotes collaborative learning and networking ●Supports iterative interactions between scientists and decision-makers
Citizen's Working Group (CWG)	<ul style="list-style-type: none"> ●Provides a forum for 'vetting' boundary objects and experiences and tailoring them for different groups ●The CAPE CWG expressed interest in learning about what other communities in the state are doing in terms of hazard mitigation and climate adaptation planning. For example, other communities have enrolled in the National 	<ul style="list-style-type: none"> ●Clarifies common goals ●Builds on local communication and governance structures ●Facilitates connections between researchers and decision-makers across institutional levels (e.g., Board

¹Aytur S, Hecht J, Kirshen P. *Aligning Climate Change Adaptation Planning with Adaptive Governance: Lessons from Exeter, NH.* Journal of Contemporary Water Research and Education (Special Issue - Water Diplomacy) 2015; 155:83-98. http://ucowr.org/files/Journal/Issues/155/155_Aytur_et_al.pdf

² Lejano, R.P. and H. Ingram. 2009. Collaborative networks and new ways of knowing. *Environmental Science and Policy* 12(6): 653-662

	Flood Insurance Program's Community Rating System, which reduces insurance premiums in jurisdictions in which flood hazard mitigation activities are implemented (FEMA, 2014),	of Selectmen, Town Staff, clergy, manufactured housing communities). <ul style="list-style-type: none"> ●Integrates complementary knowledge systems ●Supports transfer/exchange of knowledge with other communities
Modeling and Scenario Analysis	<ul style="list-style-type: none"> ●Provide a scientific basis for adaptation planning; highly valued by stakeholders ●Models may be communicated and shared with diverse groups by 'nesting' them within a portfolio of boundary experiences (e.g., community conversations, experiential activities, workshops) and linking them to other boundary objects, such as a decision support tool ●Nesting may support adaptive governance by allowing stakeholders to connect <i>future</i> scenarios to past and present experiences, cultural memories, and town values. 	<ul style="list-style-type: none"> ●Integrates complementary knowledge systems ●Provides a foundation to support policy implementation and evaluation

Building Resilience Against Climate Effects (BRACE)-Details (Source: <http://www.cdc.gov/climateandhealth/brace.htm>)

Building Resilience Against Climate Effects (BRACE) framework is a five-step process that allows health officials to develop strategies and programs to help communities prepare for the health effects of climate change. Part of this effort involves incorporating complex atmospheric data and both short and long range climate projections into public health planning and response activities.

Step 1: Anticipate Climate Impacts and Assessing Vulnerabilities

Identify the scope of climate impacts, associated potential health outcomes, and populations and locations vulnerable to these health impacts.

Step 2: Project the Disease Burden

Estimate or quantify the additional burden of health outcomes associated with climate change.

Step 3: Assess Public Health Interventions

Identify the most suitable health interventions for the identified health impacts of greatest concern.

Step 4: Develop and Implement a Climate and Health Adaptation Plan

Develop a written adaptation plan that is regularly updated. Disseminate and oversee implementation of the plan.

Step 5: Evaluate Impact and Improve Quality of Activities

Evaluate the process. Determine the value of information attained and activities undertaken.



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