# NIHHIS Rio Grande-Rio Bravo 2017 Summer Meeting: Evaluation, Knowledge Sharing, and Next Steps Summary

## Introduction

In July, 2016, academics, practitioners, and individuals in all scales of government, met in El Paso, Texas to discuss the intersection of the Rio Grande/Bravo region's climate and weather with factors affecting public health risks related to extreme heat. This initial conference, *Developing an Integrated Heat-Health Information System for Long-Term Resilience to Climate and Weather Extremes in the El Paso-Juárez-Las Cruces Region*, was the formal launch for the National Integrated Heat Health Information System (NIHHIS) Southwest regional pilot, where topic-focused working groups ("work streams") were created. A summary of this initial workshop can be found on the project website. After the July 2016 conference, working groups held regular teleconferences, and then met again in person in January 2017, to advance the priorities identified during the July 2016 conference. At these two meetings, participants recommended specific tasks including:

- 1. Developing a state of knowledge assessment for extreme heat and public health in the region that includes:
  - a. A summary of existing literature related to climate/weather and public health;
  - b. A database of climate/weather and public health regional expertise;
  - c. A meta-database of existing climate/weather and public health datasets; and
  - d. Results from community surveys in each city that will determine existing knowledge of extreme heat within the community and their capacity to cope with extreme heat events.
- 2. Creating a project website, to provide an online presence for the project when applying for funding opportunities. The website will also be a connection between project partners and the public, and a tool for project partners to communicate with each other.
- 3. Creating a Binational Heat-Health Task Force, composed of organizations in each of the three cities, with a common mission to identify and address capacity building and public education needs, and to communicate information and messages in both English and Spanish.

The project committee and work streams met again, on August 14, 2017 to assess progress on the recommendations described above, discuss acquired and potential funding opportunities, and determine next steps for the project. This workshop summary, from the August meeting, focuses on project progress thus far, and provides a roadmap for sustaining the initiative.

Participants identified immediate next steps for the initiative, in order to maintain momentum, including: 1) holding bimonthly teleconferences with the steering committee and other interested parties, and 2) holding annual meetings, such as this workshop, to document progress, share ideas, and create and maintain partnerships. In breakout groups, participants identified ideas for sustaining the initiative, including:

- Support in developing a heat-health communication plan for El Paso and Ciudad Juárez
- A long-term integrated plan, with connections to short-term activities, that serves as an overarching framework for integrating multiple elements of the initiative, in order to

define and implement activities that will lead to useful outputs, outcomes, and policy impacts

- Public awareness campaigns that allow for improved understanding of how heat-health information flows through the community, including an evaluation component
- Syndromic surveillance of public health outcomes of extreme heat episodes
- Tracking personal exposure to extreme heat

## **Project Updates**

Work stream participants have worked diligently over the past year on projects focused on building awareness, assessing current knowledge, and developing new maps (e.g., urban heat island, social vulnerability). This section briefly outlines each of these projects.

#### Project Website

University of Arizona partners created a website (<u>www.borderheat-healthpartnership.org</u>) for the entire project. To date, the website contains information about the initiative, NIHHIS, the July workshop, and 2017 heat season activities. It also provides safety tips for dealing with extreme heat, and descriptions of each of the work streams, including a link to join a group. Future plans for the website include: 1) A resources tab that includes links to local, regional, national, and international resources related to heat and health, 2) Summaries of at-risk populations, 3) Bios for each of the steering committee and work stream members, 4) Databases of climate/weather and public health expertise and metadata, and 5) A chat forum for participants to discuss progress and ask questions.

#### Heat-Health Assessment

University of Arizona partners have created an updated bibliography of climate/weather and public health literature in the region. They plan to implement the bibliography as an online, publicly available resource, on the project website. They plan to complete the assessment summary, describing existing heat-health knowledge in the region, by September 30, 2017. They also created two databases—(1) a regional heat-health expertise database and (2) a database of climate and public health metadata—with input from a survey deployed in 2017. At the workshop, participants recommended publicly accessible implementation of the databases on the project website, as searchable, relational databases.

#### Funding

## Achieved

Project participants, from University of Arizona (UA), University of Texas at El Paso (UTEP), University of California San Diego (UCSD), and National Oceanic and Atmospheric
Administration (NOAA), applied for and received funding from the <u>Agnese Nelms Haury</u>
<u>Program for Environment and Social Justice</u>. The project, called *Hot Spots for Heat Resilience in Border Cities: A Pilot Study in El Paso, TX*, aims to increase capacity to prepare for and respond to heat-health risks, at the neighborhood level. Working with a community partner, <u>AYUDA</u>, the team will train community health workers (promotoras) and maternal health providers (doulas and midwives) on the risks associated with extreme heat and methods for reducing vulnerability. The promotoras, doulas, and midwives will then share information with community members, and garner information about residents' perceptions of heat-health risks, and learn about their experiences. The project focuses on El Paso and the colonias of San Elizario, TX. Team

members from AYUDA will lead an effort to demonstrate low-cost passive cooling techniques, such as weatherization and small retrofits, in several San Elizario homes. The project began in July 2017, and will be completed by December 2018. A brief description of the project is available on the <u>Haury Program website</u>.

## Pending

Two teams submitted applications to the EPA Border 2020 Program via the Border Environmental Cooperation Commission. The first team will expand the work of the project outlined above into Ciudad Juárez. This project is entitled "Enhancing Literacy and Capacity Building for Binational Heat Resilience." The team, led by Dr. Patricia Juarez at UTEP, proposes a partnership between academic investigators, community health workers (promotoras), and others, in order to expand the base of information to prepare for extreme heat, and improve community-level communication of heat risks. The proposal includes academic investigators from the UTEP, Universidad Autonoma de Ciudad Juárez (UACJ), UA, government agency collaborators from NOAA, and community partner Aqua 21, A.C. The project, proposed to start October 2017 and end December 2018, will 1) identify areas or neighborhoods with higher levels of risk and vulnerability to extreme heat utilizing GIS; 2) conduct training for community health workers, maternal and health educators, and community leaders; 3) conduct outreach and demonstration projects to the community on how to avoid the impacts of extreme heat; and 4) propose recommendations for the development of a Binational Heat Action Plan for the Paso del Norte region.

The second project, led by La Oficina de Resiliencia de Ciudad Juárez, hopes to develop a Master Plan for Green Infrastructure in the region in order to mitigate extreme heat. The project team would utilize knowledge sharing between El Paso and Ciudad Juárez to create a resilience strategy that reduces the urban heat island (UHI) and improves quality of life for all residents. For more information on this proposal, contact Diana Talavera with La Oficina de Resiliencia de Ciudad Juárez.

# 2017 Heat Season Recap

During the summer of 2017, all three cities focused efforts on building awareness of the health impacts of extreme heat. The mayors of each city declared May as Heat Awareness Month, and the cities shared resources, such as brochures, at local events. In this section, we describe the activities that each city convened during the summer, and then discuss lessons from these activities and methods for future evaluation.

## Las Cruces

At the local farmers market, the Las Cruces Office of Sustainability set up a table to distribute materials about extreme heat. They estimated that about 150 people came to the booth, and some people were very engaged on the topic. In addition to this outreach event, the City distributed a community vulnerability survey, and developed maps of UHI and other indices—each are described in more detail below.

## Community Vulnerability Survey

The City of Las Cruces distributed a heat-health neighborhood survey in a particularly vulnerable neighborhood in Las Cruces, referred to as Nevada Neighborhood. Additionally, the

City has placed temperatures sensors in some of these homes and along the street, and this neighborhood has also been ear-marked for a one-mile cool corridor implementing green infrastructure.

New Mexico State University (NMSU) students went door-to-door and hand collected 180 responses. The survey questions were related to residents' knowledge of heat, their ability to cool off, and their social cohesion. Interestingly, the students found that they received more survey responses if they identified themselves as students, rather than from the City of Las Cruces. The following are some of the key results:

- 77% of respondents are bothered by extreme heat
- 23% of respondents have central A/C, 75% have evaporative coolers
- 43% say their house isn't cool
- 33% of respondents can't afford to do more to cool their home, and 16% say their landlords won't allow them to do more
- 68% do not go to a cooler place
  - 17% wouldn't feel comfortable going to a cooling center and 15% have no transportation
- 49% say that heat keeps them from performing daily functions
- Many respondents said they can call on people in Las Cruces if they need help, but very few respondents had neighbors that they could call on

Ciudad Juárez and City of El Paso plan to replicate this survey in their cities, keeping in mind the lessons learned from the Las Cruces survey (e.g., students identifying with the university as opposed to the City).

# NASA DEVELOP Project

The Las Cruces Office of Sustainability received a NASA DEVELOP grant that supported undergraduate students at Arizona State University, who, in close collaboration with the Las Cruces Office of Sustainability, produced maps of the city's UHI, impervious surfaces, and vegetation and social vulnerability indices. The maps will inform the City's transportation plan, with the hopes of encouraging cool corridors and a strategic approach for shade canopy. For more information on this project and the maps that were developed, contact Lisa LaRocque with the City of Las Cruces Office of Sustainability.

## El Paso

In addition to the mayoral proclamation for the city, and a press conference at the beginning of the heat season held by the Extreme Weather Task Force (EWTF) and National Weather Service, the City of El Paso Sustainability Office received a summer intern from UTEP. This intern combined heat and green infrastructure to produce maps of cooling stations and bus stops, overlaid with UHI and downtown tree canopy cover. Additionally, she created a heat-health curriculum that can be used for multiple audiences, including K-12 students and colonia residents. The curriculum includes videos, pamphlets, and instructions for teaching, and they are currently working on getting the curriculum certified with the State of Texas. Also during the summer, the City of El Paso incorporated a resilience and green infrastructure plan into the City's long-term strategic plan.

#### Ciudad Juárez

In Ciudad Juárez, La Oficina de Resiliencia de Ciudad Juárez focused their efforts on outreach activities, and held 10 actions in 10 days. These actions included:

- Mayoral proclamation
- Outreach at an elementary school in a vulnerable area
- An art event, in cooperation with NGOs, where participants created murals
- A web-casted, binational heat-health conference with 200 viewers
- Tree planting event with help from local police officers
- Developing brochures
- Social Media campaign

#### Reflection and Lessons Learned

After reviewing the actions performed by each city, workshop participants spent time reflecting on what worked and what didn't, and what they would do differently in future years. For example, participants expressed that the mayoral proclamations were not worth the effort, especially in Las Cruces and El Paso. It was suggested that it would be more useful to have a celebrity or local TV meteorologist as the spokesperson. In Ciudad Juárez, the proclamation did help somewhat, but it was very difficult to get the mayor to pay attention. Something that was agreed on by everyone, however, is that what is most important is having the press at the event, not necessarily the mayor. It was also agreed upon that a summer heat awareness campaign, with someone that can make heat a charismatic topic, would be very beneficial, as well as leveraging other existing events. There should be a promotional campaign after the EWTF press event, and then this should be maintained throughout the summer, essentially expanding the efforts of the EWTF for two months, in coordination with the border heat-health partnership. Representatives from Ciudad Juárez also suggested that a more specific, cute icon would grab people's (and especially children's) attention better (e.g., an evil sun with sunglasses). For children, it was suggested that we produce a coloring book on heat, with the cute icon, and pass out stickers. Additionally, a jingle, one in English and one in Spanish, that is catchy, would stick in people's minds more. Most important, perhaps, is to maintain communication and knowledge exchange between all of the cities.

## Evaluation

Workshop participants also spent some time discussing how to evaluate heat month activities in the future. Some metrics were suggested, such as the number of people that attend events and how much media coverage there is. But these metrics don't really help us understand how the perceptions and subsequent actions were changed because of the activity. To address this question, participants suggested answering questions like: "Were there policy changes after the events?" "Did the health departments receive less illness reports related to heat?" For these types of questions, there needs to be a baseline to begin with. Another helpful question is whether there was a measurable change in behavior. However, participants suggested that we not rely on self-reporting to answer this question, as people tend to give answers that make them look better. Instead, using personal monitoring devices that detect sweat could prove useful. Also, focus groups tend to be more informative about changes in behavior than surveys.

# Border Learning Network

A portion of the meeting agenda was devoted to presentations and a discussion on developing a border-wide heat-health practitioners' and researchers' learning network, or "border learning network." The essence of the network is to establish a communication between other Mexico and U.S. border communities working on heat-health issues, in order to promote exchange of ideas, promising practices, and bilingual materials for education, outreach, and research. The *Hot Spots* project proposal described above includes a small amount of effort to test interest in developing a network during the 2018 heat season. If successful, then we can pursue funding for the border learning network.

## Presentations

# Heidy G. Rivasplata Maldonado (Commission for Environmental Cooperation [CEC])

Heidy Rivasplata, Environmental Quality Project Lead for the CEC, described the mission and priorities for CEC work on monitoring health impacts from extreme heat events. The CEC, an intergovernmental organization established by the governments of Canada, Mexico, and the United States, to implement the North American Agreement on Environmental Cooperation. The CEC facilitates collaboration and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations. The three main focus areas for CEC's 2015-2020 strategic plan are climate change mitigation and adaptation, green [economic] growth, and sustainable communities and ecosystems.

Ms. Rivasplata described a project that was part of the CEC's 2015-2016 Operational Plan, similar to the NIHHIS Southwest regional pilot initiative, called *Helping North American Communities Adapt to Climate Change: Pilot Syndromic Surveillance System (SSS) for Extreme Heat Events (EHE).* The project aimed to establish real-time syndromic surveillance systems for extreme heat events in three North American communities—one per country. The project enhanced existing SSSs in the U.S. state of Michigan and Ottawa, Ontario, Canada, and established a SSS in Hermosillo, Sonora, México, the first one in the country. The pilot projects have established real-time surveillance, and developed knowledge transfer on the use of operational SSS for extreme heat. Also, the CEC developed a <u>Guide for Syndromic Surveillance for Heat-Related Health Outcomes in North America</u>. The guide was presented at a <u>recent</u> workshop in Hermosillo, which was organized by the CEC. (Note: presentations from this Southwest regional pilot workshop participant José Herrera participated in the Hermosillo workshop. He is a member of the CEC Steering Committee for the current CEC project described below).

In their 2017-2018 Operational Plan, the CEC plans to (a) establish SSS in three additional communities, (b) develop an evaluation framework for SSS developed during the first phase, and (c) develop an online training course on SSS, for a public health practitioner audience. CEC is considering the following communities and states for the second phase of SSS implementation: Manitoba, Canada, Chihuahua, México, and Arizona, United States. Ms. Rivasplata mentioned that CEC would like to work with a native or indigenous community, or a health agency serving an indigenous community, during the second phase of SSS implementation.

For more information:

- Website: <u>http://cec.org/</u>
- Email: <u>info@cec.org</u>
- Twitter: @CECweb
- Youtube: <u>https://www.youtube.com/user/CECweb</u>

Barbara Warren (Physicians for Social Responsibility [PSR])

Dr. Barbara Warren (Chapter Coordinator, PSR, Southern Arizona Chapter) presented about an initiative with communities in the Tucson, Arizona region, called Building Resilient Neighborhoods. Building Resilient Neighborhoods (BRN) was developed by interested participants in the vulnerable neighborhoods breakout group in a 2013 climate and health conference called Climate Smart Southwest. BRN aims to increase resilience to extreme heat events, through providing information, training interested residents, and increasing neighborhood social cohesion at the neighborhood level. With initial federal funding from the Centers for Disease Control and Prevention (CDC), they have developed a training protocol informed by feedback from focus groups convened in several neighborhoods. With the CDC funding, they have focused on highly vulnerable neighborhoods and populations, with characteristics such as low socio-economic status, a high proportion of elderly or disabled residents, and ethnic minority communities (including Hispanic Americans and Native Americans). In addition, they have developed a Citizen's Guide for Readiness for Climate Extremes in the Desert Southwest (Guía de Preparación Ciudadana Los Extremos Climáticos en el Desierto del Suroeste), which contains a combination of general information on planning for heat emergencies and specific contact information for the Tucson area. BRN has trained 40 facilitators and convened workshops in 16 neighborhoods in or near Tucson, AZ. They are interested in expanding their efforts to other states.

A key focus of the BRN initiative is preparedness for the combination of an extreme heat wave and a power-outage emergency—which would require sheltering-in-place. Dr. Warren mentioned that the BRN initiative has been most successful when working with trusted members of the community and local advocates; they provide child care, food, and useful small gifts for participants in their workshops. They follow up at monthly intervals with trainers and neighborhoods. BRN members are currently following up with evaluations of their work. Dr. Warren is supportive of the border learning network, and she (or a BRN representative) will participate in the learning network communication during the 2018 heat season.

For more information:

- Website: https://www.buildingresilientneighborhoods.org/resources
- Email: <u>Extremeweatherchallenge@gmail.com</u>
- Building Resilient Communities Guides (English and Spanish) for convening and facilitating workshops <u>http://www.psr.org/chapters/arizona/climate-smart-southwest/working-groups.html</u>

# Sustaining the Initiative

During the morning of the August workshop, participants separated into three groups, in order to discuss steps to sustain the NIHHIS Southwest regional pilot initiative. The groups brainstormed on goals and activities, with an emphasis on prioritizing efforts based on the importance of the outcome, enthusiasm for the ideas presented, and the feasibility of implementing the ideas. Groups also discussed potential funding opportunities for sustaining the initiative through proposed activities, and roles and responsibilities of participants, in order to maintain momentum and provide some level of accountability for implementing proposed activities. Reports from the three breakout groups are summarized, below.

## Group 1

Group 1 emphasized short-term activities to improve understanding of risk perception, enhance public communication, and assist in efforts to implement green infrastructure plans and projects.

## Needs Assessment and Communication Plan

The group described a plan to support the City of El Paso in spearheading the development of a heat-health communication plan. Elements of the activity include:

- Survey
  - Design and implement a survey to assess the specific needs of low socioeconomic status neighborhoods. Use existing publicly available data (e.g., income, census demographics) to determine neighborhoods for initial efforts. Convene focus groups at public meetings, with an initial participant target of community leaders.
    - The survey would require 1-2 years to complete.
- Communication Plan El Paso
  - Design and implement a communication plan to raise awareness of heat-health risks, and to aid in preparedness and planning. The plan should include guidelines for electronic, print, and oral communication. The City of El Paso is willing to host the communication plan efforts, and has the legitimacy to implement communication planning for the U.S. side of Paso del Norte.
    - The plan could be achieved in 6-12 months.
    - Potential resources available to develop the plan include summer interns:
      - EPA's environmental health and communications efforts [Carlos Rincon])
      - UTEP School of Public Health student 360-hour community internship
    - Jenny Hernandez (City of El Paso) agreed to write a prospectus for hiring an intern

# • Communication Plan – Ciudad Juárez

 La Oficina de Resiliencia de Ciudad Juárez is in the process of developing a resilience and green infrastructure plan. The deadline for completion of the plan is December, 2017. Survey implementation and communication planning would aid this effort, as would further information on the effectiveness of green infrastructure. To support this initiative, the group identified the following potential resources and assistance: UTEP Center for Environmental Research & Management [CERM] (Bill Hargrove), UTEP College of Health Sciences/Public Health Sciences (Carla Campbell [Master's of Public Health Director] and Maria Duarte-Gardea [Department Chair]), and follow up with the Border Environment Cooperation Council (BECC).

• Gina Posada agreed to reach out to BECC, to inquire about the effectiveness of BECC-funded green infrastructure projects.

#### Group 2

Breakout Group 2 outlined a *long-term integrated plan* (Figure 1), with connections to shortterm activities (Table 1), in order to sustain the initiative. Group 2 members articulated two basic tenets underpinning the integrated plan: 1) the initiative will be most effective if it leads to lasting, long-term change, and 2) extreme heat is not a charismatic topic, whereas resilience, vulnerability, and urban issues generate more interest among potential funders and collaborators. Group 2 envisioned activities that could be funded by industry and private businesses, in a private-public partnership, along with federal funds for some activities. Another foundation of Group 2's plan is for the initiative to aim for outcomes that are lasting, specific (e.g., focusing on a particular geography, vulnerability or element of continuity), accessible, measurable, financially feasible, and that create positive or "win-win" situations among multiple interest groups or objectives.

Participants of Group 2 described five integrating themes, under which the 16 activities they identified could be grouped. The five themes are *infrastructure* (including housing and green infrastructure), *training*, *policies* (including stakeholder professionals and community leaders), *tracking* (resilience, vulnerability, heat, climate, health forecasting), and *engagement* (neighborhood, trusted individuals). Activities and themes are described in Table 1, below.

40 45 S
POLICIES
7
INFEASTZUCTURE BEST PRACTO
Training
Monitoring Engagement
industry funding + private bus.

**Figure 1**. Breakout Group 2 **Integrative Framework for Maintaining Heat-Health Initiative Progress**. With sufficient private sector funding, activities (training, engagement, monitoring) combine with a focus on infrastructure in a way that leads to policy adoption and the desired outcome of long-lasting change.

**Table 1.** Breakout Group 2 themes, activities, and ideas to sustain the initiative and achieve long-lasting outcomes.

ACTIVITIES and IDEAS	THEMES
A. Disaster preparedness	Training, Engagement, Policies
B. Community engagement (including individual preparedness, and neighborhood preparedness)	Training, Engagement, Policies
C. Green infrastructure and permeable pavement	Infrastructure
D. Track health outcome – both interventions and trends	Tracking
E. Training for health professionals (e.g., coaches, nurses, midwives, senior leaders, construction workers)	Training, Engagement
F. Training facilitators	Training, Engagement
G. Data sets about cities with a survey to stakeholders	Tracking
H. Housing – public and sustainability	Infrastructure, Policies
I. Regional vulnerability studies	Tracking
J. Mitigation, prevention tied to climate change and long-range	
planning	Infrastructure
K. Safety - kids, and pets, in cars	Training

L. UHI – more trees included in design standards	Infrastructure, Policies
M. Recruit builders to sustainable housing	Engagement
N. Policies and ordinances for Green Infrastructure, trees, etc.— including building codes, solar-ready housing	Infrastructure, Policies, Engagement
O. Monitoring in school neighborhood hubs (as part of school science curricula)	Training, Tracking, Engagement
P. Solar panels in parking lots	Policies

A particular program with which our initiative could align, that would help to achieve outcomes recommended by Group 2, is the 2030 District initiative <u>http://www.2030districts.org/</u>. 2030 Districts are private-public partnerships, led by the private sector, that aim to reduce building energy use, water consumption, and transportation emissions by 50% by the year 2030.

## Group 3

Breakout Group 3 focused on three areas to sustain the initiative, including public awareness, syndromic surveillance of public health outcomes of extreme heat episodes, and tracking personal exposure to extreme heat.

- **Raising Awareness** As articulated by Group 3, awareness campaigns would aim for improved understanding of how heat-health information flows through the community, and better understanding of public perceptions of risk expressed in the information. Private companies would be engaged to contribute public awareness messaging (e.g., through products, like water bottles). Awareness activities would be accompanied by evaluation, including surveys and reports. La Oficina de Resiliencia de Ciudad Juárez would take the lead on awareness campaigns.
- Syndromic Surveillance. Group 3 noted that Syndromic Surveillance for extreme heat is necessary for the region, and would require funding from multiple public sector sources. Possible funding sources include UTEP's Interdisciplinary Research (IDR), which provides ~\$20,000 in seed funding, as well as state health departments, and other universities. Vince Pawlowski (University of Arizona) agreed to serve as a point-of-contact for this activity. The U.S. Centers for Disease Control (CDC) bio-sense platform is a possible counterpart to this activity.
- **Personal Exposure to Heat.** In order to track personal exposure to extreme heat, Group 3 recommended development of an initiative to combine individual heat sensors with an alert system, similar to those used in Alzheimer's disease work. This may involve development of a new device, which would provide incentive for university participants to develop patentable products. The group identified potential funding from Small Business Innovation Research programs associated with NASA, NOAA, and EPA in the United States. Ivonne Santiago (UTEP) and Gilberto Velázquez (UACJ) agreed to lead this effort.

## Synthesis of Breakout Group Recommendations

The breakout group recommendations were fairly distinct, with Group 1 focusing on communication planning and improving understanding of public perception, Group 2 focusing

on training, infrastructure, and policy, and Group 3 focusing on heat-health monitoring and outreach. The Group 2 framework suggests the following coordination and consolidation of proposed activities (Table 2):

	Group 1	Group 2	Group 3
Engagement	Perceptions Survey, Communication Plans	Disaster preparedness, schools, community, builders, health professionals, policy- makers, sustainability professionals	Awareness Campaigns
Training		Health professionals, facilitators, home safety, individuals, neighborhoods, schools	Awareness Campaigns
Tracking		Health outcomes, schools, vulnerability	Syndromic Surveillance
Infrastructure	Green infrastructure effectiveness	Green infrastructure, UHI reduction, housing	
Policies	Communication Plans	Housing, solar, UHI, green infrastructure, disaster preparedness	

Table 2. Synthesis of Activities and Coordination among Groups

# Next Steps

Before adjourning the meeting, participants discussed specific next steps for continuing the initiative. Some participants suggested aligning efforts with existing organizations, such as the U.S.-Mexico Border Health Coalition health councils (COBINAS). Others noted that our heat-health initiative has a specific and unique focus; thus, participants determined that it would be more beneficial to keep the specialized initiative moving forward on its own, in the form of a task force. The following steps were proposed, in order to maintain the momentum of the initiative:

- 1. Hold bimonthly teleconferences with the steering committee, and other interested parties. Responsibility for leading and convening each bimonthly meeting will rotate among partner organizations. University of Arizona partners will set up a calendar, where other members of the initiative can sign up to lead a teleconference. Leading involves sending the announcement, creating an agenda, leading the call, and taking and distributing notes.
- 2. A proposed second step forward involves holding annual meetings, such as this workshop, to document progress, share ideas, and create and maintain partnerships. The meetings will be open to everyone, including the public and policy-makers. A subcommittee of task force members will take responsibility for documenting initiative progress and partnerships, and will distribute the document at the workshop. Members of the task force will also share responsibilities for planning the annual meetings. Further discussion is needed to outline how to garner funding for annual workshops.

3. Breakout Group 2 described an overarching framework for integrating multiple elements of the initiative, in order to define and implement activities that will lead to useful outputs, outcomes, and policy impacts (Figure 1). We will aim to integrate this framework with NIHHIS objectives, in order to coordinate future activities. We acknowledge that some activities may be highly collaborative, and others may be less collaborative, working in parallel. The overarching framework will allow for coordination of efforts, and tracking of outcomes.

# NIHHIS Rio Grande-Rio Bravo 2017 Summer Meeting: Evaluation, Knowledge Sharing, and Next Steps

August 14, 2017 City of El Paso, 911 Emergency Management Center 6055 Threadgill Ave. El Paso TX 79924

Objectives:

- Informal assessment of 2017 heat season awareness efforts, including results from Las Cruces community vulnerability survey; discuss lessons learned and methods for evaluating the effectiveness of activities.
- Status update on heat-health assessment and public health data collection. Develop plans for further data collection of health outcomes and weather/climate, and replication of Las Cruces community vulnerability survey in El Paso and Ciudad Juárez.
- Share knowledge of heat awareness activities across the entire border region, including effective strategies and lessons learned.
- Discuss next steps and ideas for maintaining momentum through new funding.

TIME	ТОРІС	FACILITATOR NOTES	
8:00-8:30A	Registration	Pastries/Coffee Provided	
8:30-9:00	Welcome and Introductions	• Brief welcome, with goals for the day, review	
		agenda	
		Introductions	
9:00-10:00	Project Updates	<ul> <li>Update on assessment and data collection</li> </ul>	
		<ul> <li>Discuss plans for further data collection</li> </ul>	
		Update on UTEP intern	
		Update on website	
		<ul> <li>Updates on funding</li> </ul>	
		<ul> <li>Initial results from Las Cruces vulnerability survey</li> </ul>	
		<ul> <li>Discuss plans for replicating survey in El Paso</li> </ul>	
		and Ciudad Juárez	
10:00-10:15	Break		
10:15-11:15	Sustaining the RGB/Paso del	In breakouts:	
	Norte NIHHIS Initiative	<ul> <li>Brainstorm ideas for next steps and how to</li> </ul>	
	(Breakout Sessions)	maintain momentum	
		• For top 3 ideas:	
		<ul> <li>Prioritize – outcome, enthusiasm,</li> </ul>	
		feasibility	
		<ul> <li>Potential funding opportunities</li> </ul>	
		<ul> <li>Roles/responsibilities – lead person or</li> </ul>	
		organization	
11:15-12:00	Report Back/Discussion	Groups report back on their top 3 ideas for next steps	
		(10 min. each)	
		Roles and responsibilities	
		<ul> <li>Role of steering committee –</li> </ul>	
		commitment to keep momentum	
		<ul> <li>Timeline for upcoming year activities</li> </ul>	

12:00-12:45	Lunch	
12:45-1:45	2017 Heat Season Recap	<ul> <li>Short presentation from each city on their heat season activities <ul> <li>El Paso</li> <li>Ciudad Juárez</li> <li>Las Cruces</li> </ul> </li> <li>Discuss: <ul> <li>Lessons learned from activities – what worked, what didn't work, what would you change for next year?</li> <li>Metrics and methods for evaluation</li> </ul> </li> </ul>
1:45-2:30	Border Learning Network	<ul> <li>Share knowledge and lessons of heat awareness activities across the entire border, with partners from AZ</li> <li>Barbara Warren – AZ Physicians for Social Responsibility</li> <li>Heidy Rivasplata, Comminsion for Environmental Cooperation</li> <li>Who wants to be involved?</li> <li>Who else should we contact?</li> </ul>
2:30-3:00	Wrap Up	<ul> <li>Steering committee</li> <li>How often should we convene phone meetings?</li> <li>Who is willing to take leadership?</li> </ul>