



CARIBBEAN EXPLORATORY RESEARCH CENTER 2016 INSTITUTE ON PUBLIC HEALTH AND CLIMATE CHANGE



**VI CERC 2016 INSTITUTE ON PUBLIC
HEALTH AND CLIMATE CHANGE: FINAL
REPORT**

DISCLAIMER

The CERC 2016 Health Disparities Institute was supported in part by funding from the National Institute on Minority Health and Health Disparities, Grant #P20MD0022286, the Department of the Interior's Office of Insular Affairs, Technical Assistance Grant #D16AP00050 TAP-USVIO2016-4, and the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS), Grant #UB6HP27878-01-00. The content of this report is solely the responsibility of the authors and does not necessarily represent the official views of the National Institute on Minority Health and Health Disparities, the Department of the Interior, or the Health Resources & Services Administration.

ACKNOWLEDGEMENTS

The Research and Planning Team from the Caribbean Exploratory (NIMHD) Research Center (CERC) wishes to acknowledge the participants that gave of their time and shared ideas about the readiness of the territory to conduct an assessment on health information and data that may be necessary for adaptation to climate change. We also acknowledge all who provided financial support, technical expertise, administrative support, and feedback on the drafts of the Final Report.

CERC TEAM:

Gloria B. Callwood, Noreen Michael, Janis M. Valmond, Deborah E. Brown, Lorna J. Williams-Sutton, LaVerne E. Ragster, Sherrika Industrious-Phillips

WRITING TEAM:

LaVerne E. Ragster, Noreen Michael

EDITORIAL TEAM:

Gloria B. Callwood, Noreen Michael, Janis M. Valmond

Suggested Citation: Ragster, L. and Michael, N. (2017). Final Report: Caribbean Exploratory Research Center 2016 Institute on Public Health and Climate Change. Caribbean Exploratory Research Center, University of the Virgin Islands, USVI 33 pp.

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CARIBBEAN EXPLORATORY RESEARCH CENTER 2016 INSTITUTE ON PUBLIC HEALTH AND CLIMATE CHANGE

FINAL REPORT

The University of the Virgin Islands Caribbean Exploratory Research Center (CERC) convened its 2016 Institute on Public Health and Climate Change on **October 27, 2016** at the UVI Administration and Conference Center First Floor Conference Room (UVIACC) on the St. Thomas Campus and the Great Hall on the Albert Sheen Campus on St. Croix. The theme of the institute was “Assessing Information Needs for Climate Change Adaptation to Ensure Optimal Public Health in the US Virgin Islands”.

The rationale for the thematic focus of the 2016 Institute began with the recognition that, globally, the World Health Organization has identified climate change as the largest public health challenge of the 21st Century. In addition, at the national level, the US Centers for Disease Control and Prevention (CDC) notes that because of climate change, “some existing health threats will intensify and new health threats will emerge”, and that the impact of climate change on health will vary depending on age, economic resources, and location (www.cdc.gov). Moreover, at the local level, it was recognized that the US Virgin Islands, like the rest of the Caribbean, has begun to feel the predicted manifestations of climate change, including increased air and water temperatures, droughts, and outbreaks of vector-borne diseases like Dengue Fever, Chikungunya, and Zika.

Of particular concern to CERC is the anticipation that a population with the high numbers of cases of cardiovascular disease, diabetes, cancer, obesity, and other health challenges seen in the Virgin Islands will require significant adaptation initiatives to ensure any improvement in public health under climate change induced high temperatures and drought conditions. The changing environment will have a disproportionately negative impact on the poor, the elderly, and people experiencing health disparities in the community. It was determined that the US Virgin Islands would need to identify the public health challenges that are emerging as a result of climate change and develop initiatives to address the challenges on individual and institutional levels if it is going to adapt to a changing environment.

Therefore, the 2016 CERC Institute was designed to provide the environment that would support Virgin Islands professionals possessing the training, experience, and knowledge about conditions and health data in the Virgin Islands to contribute to the discussions about climate change and the potential public health impacts for the US Virgin Islands. Further, the intent was that the discussions would yield outputs

necessary for the community to assess its readiness for adaptation to climate change impacts on public health in the Territory.

The Institute was seen as support for the implementation of the VI Climate Change Executive Order signed by Governor Mapp in 2015 (Executive Order No. 474-2015) through its three specific aims:

1. Provide an opportunity to identify and review the issues associated with the manifestations of climate change on public health in the US Virgin Islands and Caribbean.
2. Identify gaps and deficiencies in institutional and individual responses to the challenges to public health posed by climate change.
3. Generate a list of constructive and viable adaptation responses appropriate for VI institutions and individuals.

ORGANIZATION OF THE INSTITUTE

The Institute was organized into two phases and began with a brief Opening and Introduction session that included brief remarks from UVI CERC Director, Dr. Gloria Callwood, UVI Dean of the School of Nursing, Dr. Beverley Lansiquot, Provost (representing President Hall), Dr. Camille McKayle, and the two primary sponsors of the Institute, Director of UVI Community Engagement and Life-Long Learning (UVICELL), Ms. Ilene Heyward Garner and Director of the St. Thomas East End Medical Center Corporation (STEEMCC), Mr. Moleto Smith.

In Phase 1, the objective was to expand the knowledge base of the participants on climate change linkages to public health issues through videoconference of formal presentations from local and regional resource professionals. The three presenters addressed an overview of climate change and its linkages to public health, the state of the Virgin Islands health information and data on public health and climate change, and a review of the components of climate change adaptation that support good public health. The 47 invited participants (see attached Participants Lists), who included representatives of health providers, social science and natural science university faculty, environmental non-government organizations, the media, legislators and public sector decision makers, and members of the CERC Advisory Board, were distributed between the St. Croix (18) and St. Thomas (29) institute venues.

In Phase 2, participants in each venue were divided into Work Groups of 4-5 members. The Work Groups were asked to address the questions below and record their responses.

WORK GROUP QUESTIONS:

- A. What are the database or information sources in the Territory that you feel provide information on health status of the population? What are your

sources of data/information for incidences of illness or health statistics in the Territory?

- B. What do you see as the most critical gaps in information on health conditions and incidences of disease in the Territory?
- C. Do you have any recommendations for adapting to the various aspects of climate change that would help Virgin Islanders to improve or maintain their health?

Following two and a half hours of discussion and capturing information in each Work Group, the Institute participants reconvened in a final plenary videoconference session to report on the outcomes of their efforts. Participants were asked to provide feedback on the formal presentations, the Work Group experience, and the overall Institute through evaluation forms distributed with the activity packages.

SUMMARY OF PRESENTATIONS AND OUTCOMES

The sections of the report which follow provide a summary of the outcomes of the 2016 CERC Institute. The 2016 Institute Program, hyperlinks to presentations, and the raw information contributed by participants during the Work Group session are included for reference as appendices to this Final Report.

Presentations on Public Health and Climate Change

OVERVIEW OF CLIMATE CHANGE AND ITS LINKAGES TO PUBLIC HEALTH

Presenter, LaVerne E. Ragster, PhD

The overview defined climate change and the conditions driving its accelerated rate in the last 100 years. All of the expected manifestations of climate change were described and a case made for climate impacting all areas of life. The linkages between increased health challenges for Virgin Islanders, especially those with chronic diseases, and the expected climate change impacts of increased temperatures, longer periods of drought with periodic flooding from intense rainfall, and more intense hurricanes and storms were the foci of the presentation. The point was made that current increases in temperature trends and lengthy drought periods were linked with challenges to agricultural production and increased incidences of illnesses, including Chikungunya, Dengue Fever, Zika outbreaks associated with biological vectors like mosquitoes, as well as exacerbated levels of asthma and respiratory distress. The charge was given to identify and implement activities and institutional responses that would decrease the impacts of the changing environment on those who are most vulnerable because of prevalent Virgin Islands health challenges, including obesity, diabetes, cardiovascular disease, HIV/AIDS and cancer. To view the PowerPoint presentation, go to: [Overview to Climate Change linkages to Public Health](#).

STATE OF VI HEALTH INFORMATION AND DATA ON PUBLIC HEALTH AND CLIMATE CHANGE

Presenter, Esther Ellis, PhD

The presentation defined health surveillance, its importance, why it is a part of the work undertaken by the Department of Health, and its uses in addressing public health issues in the Territory. The US Virgin Islands is linked to the national health surveillance system at the US Centers for Disease Control and Prevention (CDC) through various agreements, regulations, and contracts. The USVI is now able to receive from and contribute data to the CDC National Electronic Disease Surveillance System (NEDSS).

The presentation addressed the range of sources from which data are collected from individuals and various types of official records. Further, there was a recognition of the need to link the data from various sources to facilitate monitoring conditions in the community as well as detecting pertinent behavioral changes and disease outbreaks. The elements of USVI health surveillance programs were described, including the sources of data and the types of studies that are undertaken. It was noted that the USVI has in the past and will again participate in the national Behavioral Risk Factors Surveillance System (BRFSS), the world's largest on-going telephone health surveillance system. Participation in the BRFSS means that USVI data are included in national trends and information, and that the Territory has specific information to use in monitoring USVI population health conditions and concerns. The steps involved in studying a disease outbreak were explained, beginning with the establishment of the existence of the disease through implementation of control and prevention measures and communications with the community.

The presentation outlined the specific studies conducted for the Chikungunya and Zika outbreaks, along with examples of the types of reports and articles generated based on the outbreaks. The take-home messages included the following three points and assurance that the USVI will continue to use surveillance in support of good public health:

- i) Surveillance provides information on the health of the community;
- ii) Public health relies on information from medical care providers and takes prevention-oriented actions based on information received; and,
- iii) Surveillance involves taking information in, analyzing and interpreting it, and disseminating it to those who need it.

To view the PowerPoint presentation, go to: [State of VI Health Information and Data on Health and Climate](#).

COMPONENTS OF CLIMATE CHANGE ADAPTATION THAT SUPPORT GOOD PUBLIC HEALTH

Presenter, Professor Fitzroy Henry, PhD

The comprehensive and connectivity-orientation of the presentation offered extensive information for participants to consider. The topics covered included the challenges of climate change, the potential impact on public health and food security, and strategic approaches to enhance public health in the Caribbean. The audience was reminded of the link between accelerated climate change and human activity and the predictions of impacts on the Caribbean, especially hurricanes, tropical storms, flooding, and drought. A strong case was made for climate change affecting all the social determinants of health, including income and social status, employment conditions, healthy child development, health services, and culture, among others. Professor Henry took the time to address the new evidence on climate change and health linkages. It was noted that the impacts will vary disproportionately, and center on the poor, indigenous peoples, children, the elderly, and women. He concluded that, based on the results of evaluating impacts of climate change on determinants of health, policies, plans, projects, and regulations should be prepared to strengthen the capacity of countries to minimize climate change impacts on health.

The presentation provided communication priorities and recommendations for addressing climate change impacts on health at the local and global levels. Ten actions were offered to policy-makers, beginning with recommendations to: a) advocate for strong and equitable climate change agreements; b) promote the need for “health-oriented” agreements; c) protect the most vulnerable; and d) strengthen health systems’ adaptive capacity.

The final section of the presentation focused on promoting understanding of the potential impact of climate change on food security in the Caribbean. Participants were reminded of the linkages between food security and a number of the impacts of climate change, including higher air and water temperatures, flooding, sea-level rise, and increased periods of drought. A number of strategic approaches designed to address the impacts of climate change on food security were presented, specifically: information management as the basis for decision-making; vulnerability assessment as the basis for hazard mapping; the use of education and public awareness campaigns; and disaster management planning. The point was made of the need to prepare for climate change impacts on fisheries, agriculture, agro-forestry, water resources, and food utilization.

The presentation laid the foundation for the need for assessment as part of climate change adaptation and reinforced the importance of addressing impacts on public health in the Virgin Islands and other Caribbean communities. To view the PowerPoint presentation, go to: [Climate Change Adaptation and Public Health](#).

Work Group Outcomes

The tables below offer a summary of the information shared by the participants at the Institute with respect to each of the three questions discussed by the Work Groups on both St. Thomas (STT) and St. Croix (STX).

QUESTION 1. WHAT ARE THE DATABASES OR INFORMATION SOURCES IN THE TERRITORY THAT PROVIDE INFORMATION ON HEALTH STATUS OF THE VIRGIN ISLANDS POPULATION?

The five Work Groups offered a diverse list of sources for health information and data, ranging from non-government organizations to VI Government departments, especially the Departments of Health, Human Services, and Education. Hospitals, the federally qualified health centers, and national databases were also seen as sources for health information and data in the Territory. The data/information sources were perceived as serving the entire Territory regardless of their geographic location. The data/information sources mentioned most often utilize technology, address confidentiality, and recognize the importance of maintaining qualified staff to collect and manage the data.

DATA/INFORMATION SOURCES ON HEALTH IN VI	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
1. VI Department of Health (Division of Mental Health, Division of Vital Statistics, Division of Maternal & Child Health, Division of Environmental Health) Program data and special databases <ul style="list-style-type: none"> a. Vital Records Information Management System (VRIMS) b. Electronic Health Records (EHR) c. Health Professional Service Area d. Autoimmune Registry e. Immunization Database f. Central Cancer Registry (currently being developed) g. Human Immunodeficiency Virus/Sexually Transmitted Diseases Program (HIV/STD Program) h. Women Infant and Children Program (WIC) i. Emergency Medical Services (EMS) j. Substance Abuse Program k. Family Planning Program 	1 & 2	3, 4 & 5
2. National Electronic Disease Surveillance System (NEDSS)	1 & 2	4
3. Behavioral Risk Factor Surveillance System - (BRFSS - CDC)	1 & 2	
4. Health Services Advisory Group/Quality Improvement Organizations (HSAG-QIO)	1 & 2	

DATA/INFORMATION SOURCES ON HEALTH IN VI	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
5. Roy L. Schneider Medical Center and Juan Luis Hospital	1 & 2	
6. Federally Qualified Health Centers - STT and STX (Uniform Data System)	1 & 2	4
7. Department of Human Services a. Medicare, SNAP, TANF, Head Start/Early Head Start programs b. Early Childhood Integrated Data System (ECIDS)	1 & 2	3 & 4
8. Department of Education - VI Virtual Information System (VIVIS)	1 & 2	3 & 5
9. Veterans Hospitals (VA)	1	
10. CIGNA- VI Health Statistics and Financial Data	1	4 & 5
11. Department of Licensing and Consumer Affairs	1	
12. VI Equicare	1	
13. VI Police Department	2	
14. VI Territorial Emergency Agency (VITEMA)	2	
15. Health Service Advisory Council	2	
16. VI Courts	2	
17. VI Fire Service	2	
18. VI Medical Institute	2	
19. VI Health Insurance Board	2	
20. Department of Labor - Worker's Compensation database	2	
21. UVI Caribbean Exploratory Research Center- data and studies on Intimate Partner Violence, women's health, breast cancer, HPV, etc.	2	
22. UVI Eastern Caribbean Center (Census data, VI Household Survey, etc.)	2	4
23. VI University Center for Excellence in Developmental Disabilities (VIUCEDD)	2	
24. Family service NGOs – Women's Coalition, Family Resource Center, Domestic Violence State Advisory Committee (DVSAC)	2	
25. Community or sector NGOs a. Community Foundation of the VI (CFVI) Kids Count Report b. AARP		3 & 4

QUESTION 2. WHAT ARE THE CRITICAL GAPS IN HEALTH INFORMATION, HEALTH CONDITIONS, AND INCIDENCES OF DISEASE IN THE VIRGIN ISLANDS?

The Work Groups produced a diverse list of perceived gaps in health information and data in the US Virgin Islands. It was noteworthy that all Work Groups spent time discussing the weaknesses in the current information and data systems in the Territory. There appeared to be agreement that the challenges and obstacles listed below were not new issues, but they needed to be addressed if the US Virgin Islands is to have a functional, integrated data and information system supporting public health research, policy, and practice.

- ❖ Insufficient data integration and interagency collaboration; centralization of information/data
- ❖ Inadequate data collection and analysis
- ❖ Slow transition from paper to electronic databases
- ❖ Low levels of self-reporting that arise from cultural taboos
- ❖ Increase in communication and dialogue with at risk sectors of the population
- ❖ Increase in levels of valid, reliable, non-duplicative data
- ❖ Consistent collection of surveillance data
- ❖ More effective health promotion programs
- ❖ Improvement of accessibility to data with attention to privacy concerns
- ❖ Development of a VI Public Health Strategic Plan
- ❖ Improve strategies and processes to resolve IT workforce development, unwillingness to use data to change policies, challenges in setting priorities, personal and political willingness to address a new health information system and general opposition to change.

GAPS IN HEALTH INFORMATION & DATA ON INCIDENCES OF DISEASE	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
1. Insufficient data on mental health		4
2. Poor data on “non-reportable” diseases	2	5
3. Insufficient data collection and input to current systems	1	
4. Inclusion of risk factors in the BRFSS	1	
5. Lack of information on underserved and vulnerable sectors (incarcerated, veterans, elderly, etc.)	1	
6. Limited data on men/very young men.	1	

GAPS IN HEALTH INFORMATION & DATA ON INCIDENCES OF DISEASE	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
7. Lacking data on food security/insecurity	1	
8. Lack of registries addressing mosquitoes and other vector-borne diseases, asthma and other respiratory diseases	2	
9. Consolidated data on overuse and abuse of the health care system	1	
10. Data on people lost to follow-up (e.g., non-US, undocumented foreigners, uninsured , uninsured veterans)	2	3
11. Additional data on spatial and temporal epidemiological incidences	2	
12. Insufficient information about tourists and sex-workers		3
13. Data on off-island health treatment of citizens		3
14. Tracking of chronic diseases and health disparities in population		5
15. Consolidated data on people with disabilities		5

QUESTION 3. WHAT ARE POSSIBLE RECOMMENDATIONS FOR ADAPTING TO CLIMATE CHANGE IN SUPPORT OF GOOD PUBLIC HEALTH IN THE US VIRGIN ISLANDS?

The recommendations offered by the Work Groups in support of adaptation to climate change impacts in the Territory focused on individual actions and initiatives for institutions and government agencies. Education/public awareness, collaboration, and improved, more effective infrastructure were dominant recommendations from the Work Groups.

RECOMMENDATIONS FOR ADAPTING TO CLIMATE CHANGE IN SUPPORT OF PUBLIC HEALTH	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
1. Focused and improved public education and awareness on climate change adaptation in areas like diet, exercise and lifestyles	1	
2. Inclusion of climate change in school curriculums, especially at the elementary level	1	
3. Focus on collaboration with agriculture industry, especially with respect to necessary future crops and the economics of adapting to changing environmental conditions	1	
4. Develop plans to address changes in infrastructure, land use, water use and storage, population relocation, landfill mitigation and relocation, waste management (e.g., incentives on recycling and reuse), revise building practices and codes, and produce health initiative to address climate change impacts	1	3, 4, & 5

RECOMMENDATIONS FOR ADAPTING TO CLIMATE CHANGE IN SUPPORT OF PUBLIC HEALTH	WORK GROUP SOURCE – SITE AND NUMBER	
	ST. CROIX	ST. THOMAS
5. Build the expertise for adaptation , including certified professionals and task force focused on data collection	1	3
6. Develop a communications strategy that will utilize a central data site with access regulations as well as responsible social media and include monitoring public environmental health practices, advocacy for health in all policies and advocacy for social and environmental changes		3 & 4
7. Seek collaborators for monitoring and needed data from Federal Agencies (e.g., CDC , USDA, etc.), private organizations (e.g., Red Cross) and other jurisdictions on climate change adaptation	1 & 2	
8. Prioritize the completion of the climate change vulnerability assessment, including a review of policies and appropriate technologies	2	3
9. Complete the Supplemental Environmental Project associated with the Hovenssa EPA settlement.	2	

CONCLUSION AND NEXT STEPS

Two-thirds of the health professionals and decision-makers that were invited participated in the 2016 Institute, and all participants were engaged and contributed to the discussions throughout the day. Feedback received during the wrap-up session and from the Institute evaluation indicates that the participants, despite their level of professional sophistication, found the three initial presentations useful and informative, and appreciated that the format allowed for meaningful engagement in information sharing. Though there was some concern that the discussion of adaptation strategies was not given adequate emphasis, participants conveyed appreciation for the information provided on climate change and its linkages to health, along with related initiatives underway at the VI Department of Health. All participants indicated that they felt it was important to assess the level of preparedness necessary for effective adaptation to climate change impacts and to begin the process.

The professionals participating in the Institute made it very clear that they wanted to see the Territory advance its efforts to assess the current capacity to manage initiatives in support of climate change adaption for good public health under changing environmental conditions. There was a stated understanding of the need to begin the required vulnerability assessment of the health sector directed by the VI Executive Order on Climate Change (Executive Order No. 474-2015). Participants expressed considerable concern about the number of weaknesses associated with collection, analysis, and dissemination of health-related data and information in the Territory. Identification of the weaknesses in the local health data and information systems was

followed by recommendations that more effort be made to include the VI in national databases accessible to the Territory. The importance of institutional and local-federal collaboration as part of an effective response to the infrastructure and assessment impediments was very apparent in the gaps in knowledge discussion and the recommendations offered by the participants.

The list of sources of health data and information compiled from the outputs of the Institute Work Groups includes a diverse collection of institutions. The diversity of potential sources of health data and information offers additional support to the recommendations that focus on effective centralization of health data and information in a regulated, accessible system. The changing environment will present increasing physical, mental, and economic difficulties for individuals with health challenges, and the need for accurate, accessible, and meaningful health information for prevention and treatment will become even more urgent. The list of recommendations generated by the 2016 CERC Institute speaks to improved information and data systems as critical, includes the effective communications and planning, and acknowledges the power and need for collaboration on a number of levels.

The most recent information that has been shared about the progress and projections of climate change impacts presents a sense of urgency to identify the information needed to put systems and initiatives in place that will allow people to live healthier lives in their more challenging and changed environments. The Virgin Islands is forced to tackle this assignment through the lens of small islands that are very vulnerable to extreme weather events and illnesses and diseases linked to increased temperatures and challenged water resources. An effective response will require assessment of the resources currently available and identification of the means to fill critical gaps in data, information, and processes. A meaningful response will require that the USVI acknowledge the underlying health disparities in the population, have difficult discussions, and make hard decisions regarding populations that are at the highest level of risk from the changing environment. A successful response to climate change impacts will result in the people and communities of the USVI adapting to a new, more hostile environment and living healthy lives.

The next steps in this initiative involve sharing this report and other information on the UVI CERC web page with the participants of the 2016 Institute, the USVI Climate Change Council, the Office of the Governor, the Governor's Cabinet, the Legislature of the USVI, and the general public.

The CERC 2016 Institute sought to begin the process of assessing the types of health information and data that currently exist, identifying gaps in sources and information, and offering recommendations on a viable way forward. We are grateful to the sponsors of this event - UVI Community Engagement and Life-Long Learning (UVI CELL), the St. Thomas East End Medical Center Corporation (STEEMCC), and the UVI Caribbean Exploratory (NIMHD) Research Center (UVI CERC) – and to the participants who shared their information and ideas for making it possible to achieve these goals.

There is much work yet to be done to prepare the USVI for the impacts of climate change, particularly with respect to public health. The work accomplished through the CERC 2016 Institute is a solid start.

APPENDICES

- I. Program
- II. List of Participants
- III. Work Group Outputs
- IV. Summaries of Evaluations

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APPENDIX I: Program




UNIVERSITY OF THE VIRGIN ISLANDS
CARIBBEAN EXPLORATORY
(NIMHD) RESEARCH CENTER OF
EXCELLENCE

2016 INSTITUTE
ON PUBLIC HEALTH AND
CLIMATE CHANGE

THURSDAY, OCTOBER 27, 2016
UNIVERSITY OF THE VIRGIN ISLANDS
ADMINISTRATION AND CONFERENCE CENTER
ST. THOMAS CAMPUS

GREAT HALL
ALBERT A. SHEEN CAMPUS

GLORIA B. CALLWOOD, PHD, FAAN,
RN
CERC DIRECTOR & PI

DAVID HALL, SJD
PRESIDENT

HOW TO CONTACT US

NAME	TITLE	EMAIL ADDRESS
Gloria B. Callwood, PhD	Principal Investigator & Center Director, Co-PI, A RICH VI	gcallwo@uvi.edu
Deborah E. Brown, PhD	Post-Doctoral Research Fellow, A RICH VI	deborah.brown@uvi.edu
Gwenevere Creque, BSc, MT	Project Director, A RICH VI	gwenevere.creque@uvi.edu
Sherika Industrious-Phillips, BA	Administrative Assistant III	shernika.industriousphillips@uvi.edu
Noreen Michael, PhD	Research Director & Lead PI, A RICH VI	nmichae@uvi.edu
LaVerne E. Ragster, PhD	Research Associate	lragste@uvi.edu
Alyssa C. Ryan, MS	Project Coordinator, CERC Phase II, Project I	alyssa.ryan@uvi.edu
Janis M. Valmond, MS, DrPH	Research Coordinator & Co-Investigator, A RICH VI	janis.valmond@uvi.edu
Lorna Williams-Sutton, MPA	Program Administrator	lsutton@uvi.edu
Vacant	Administrative Specialist, A RICH VI	

Quarters B, 3rd Floor
No. 2 John Brewers Bay
St. Thomas, VI 00802
340-693-1178 (V) 340-693-1148 (F)
http://cerc.uvi.edu

Albert A. Sheen Campus
RR1 Box 10000
Kingshill, St. Croix 00850
340-692-1176 (V)
http://cerc.uvi.edu

SPECIAL THANKS TO OUR SPONSORS

CERC acknowledges the **Community Engagement and Lifelong Learning (CELL)** Public Health Training Center for support of the Climate Change Institute. The Center is underwritten by a HRSA-funded Region 2 Public Health Training Center grant awarded to Columbia University's Mailman School of Public Health. Region 2 Centers are located at UVI, Rutgers University and the University of Puerto Rico. CERC also acknowledges the sponsorship of the **St. Thomas East End Medical Center Corporation (STEEMCC)**. This sponsorship was made possible through funding from the U.S. Department of the Interior, Office for Insular Affairs, Technical Assistance Program Grant #D16AP00050 TAP-USVI02016-4.

CERC IS FUNDED BY THE NATIONAL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES GRANT #P20MD002286

PROGRAM

8:30—9:00 AM	OPENING INTRODUCTIONS AND WELCOME <i>Gloria B. Callicott, PhD, PI & Director, CERC</i>
9:00—9:35 AM	OVERVIEW OF CLIMATE CHANGE AND ITS LINKAGES TO PUBLIC HEALTH <i>Laverne E. Ragster, PhD, President Emerita, UVI</i>
9:35—10:15 AM	STATE OF VI HEALTH INFORMATION AND DATA ON PUBLIC HEALTH AND CLIMATE CHANGE <i>Esther Ellis, PhD, USVI Department of Health</i>
10:15—10:30 AM	NETWORKING BREAK
10:30—11:30 AM	COMPONENTS OF CLIMATE CHANGE ADAPTATION THAT SUPPORT GOOD PUBLIC HEALTH <i>J. Fitzroy Henry, PhD, Professor, UTECH, JA</i>
11:30 AM—NOON	FORMATION OF WORKGROUPS AND ISSUANCE OF CHARGE <i>Laverne E. Ragster, PhD, President Emerita, UVI</i>
12:00—12:45 PM	WORKING LUNCH (GROUPS)
12:45—2:15 PM	WORK GROUP ACTIVITY <i>Facilitated by CERC staff members</i>
2:15—3:00 PM	WORK GROUP REPORTS AND DISCUSSION <i>Noreen Michael PhD, Research Director, CERC</i>
3:00—3:15	NEXT STEPS <i>Laverne E. Ragster, PhD, President Emerita, UVI</i>
3:15—3:30	VOTE OF THANKS AND CLOSING <i>Janis M. Valmond, DPH, Research Coordinator, CERC</i>

SPEAKER BIOGRAPHIES

ESTHER ELLIS, PHD, USVI DEPARTMENT OF HEALTH

Dr. Esther Ellis received her PhD in Tropical Medicine, Medical Microbiology and Pharmacology from the University of Hawaii's John A. Burn's School of Medicine in 2011. She completed a post-doctoral fellowship at Duke National University of Singapore in the emerging infectious disease department and most recently completed a two year Epidemic Intelligence Service fellowship with the Centers for Disease Control and Prevention focusing on the epidemiology of dengue virus. Dr. Ellis is now the territorial epidemiologist for the United States Virgin Islands department of health. She communicates research findings on various types of diseases to health practitioners, policy makers, and the public; oversees public health programs, including statistical analysis, health care planning, surveillance systems and public health improvement; plans and directs studies to investigate human or animal disease, preventive methods, and treatments for disease; provides expertise in the design, management and evaluation of study protocols and health status questionnaires, sample selection and analysis; and supervises professional, technical and clerical personnel.

J. FITZROY HENRY, PHD, UTECH, JA

Professor Fitzroy Henry joined the University of Technology, Jamaica in April 2013 as Professor of Public Health Nutrition in the College of Health Sciences and the School of Public Health and Health Technology. Previously, for 18 years, he was the Director of The Caribbean Food and Nutrition Institute—a specialized Center of PAHO/World Health Organization which served 17 Caribbean countries. He obtained his Doctorate from the University of London. His professional experience as Associate Professor/Scientist includes 5 years at Harvard University, 2 years in Nigeria, 7 years in Bangladesh; 2 years at London School of Hygiene and Tropical Medicine; and 5 years in St. Lucia, West Indies. He has published more than 100 scientific articles on Food and Nutrition in Illness, Wellness and Sports; Diarrheal Diseases; Chronic Diseases; Obesity and Public Health. He is the editorial advisor to several International Public Health journals and for 14 years, the Editor-in-Chief of the journal, CAJUNUS, and the newsletter, NYAM NEWS publications.

LAVERNE E. RAGSTER, PHD, UVI

Dr. Laverne Ragster is a retired Professor of Marine Biology and President Emerita of the University of the Virgin Islands. She has conducted research and training in the areas of algal physiology and natural resource management, presented and published in the areas of plant physiology, natural resource management and training, and obtained training and practical experience in institutional and leadership development over a 36 year span. Her service experience includes participation on the Congressional Black Caucus Brain Trust on Environmental Justice, the National Marine Fisheries Advisory Committee and National Ocean Observing Systems Advisory Committee. Projects in the Eastern Caribbean involved the United Nations Environmental Program and the Organization of Eastern Caribbean States. Service on boards over the past five years includes the Island Resources Foundation, VI Waste Management Authority and the Caribbean Natural Resources Institute (past chair). Current scholarly work at the UVI Caribbean Exploratory (NIMHD) Research Center addresses climate change adaptation and linkages to public health in the Caribbean.

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APPENDIX II: List of Participants



2016 Institute on Public Health and Climate Change
Thursday, October 27, 2016
St. Croix, VI

Name	Agency
1. Baumann, Aletha	University of the Virgin Islands
2. Barnes, Mona	VI Territorial Emergency Management Agency
3. Chakroff, Paul	Virgin Islands Conservation Society
4. Davis, Michelle	VI Department of Health
5. Ellis, Esther	VI Department of Health
6. Evangelista, Richard	Gov. Juan F. Luis Hospital and Medical Center
7. Francis Jr., Novelle	Legislature of the Virgin Islands
8. Gittens, Kenneth	Legislature of the Virgin Islands
9. Hall, Melissa	Legislature of the Virgin Islands, Rep. for Senator Sanes
10. Heyliger, Joyce	CERC Advisory Board Member
11. Michael, Noreen	University of the Virgin Islands, CERC
12. Navarro, Charlene	Frederiksted Health Care, Inc.
13. James, Neville	Legislature of the Virgin Islands
14. Rallings, Eurkres	CERC Community and Outreach Core
15. Saunders, Lois	University of the Virgin Islands
16. Soto, Christian	University of the Virgin Islands, CERC
17. Valmond, Janis	University of the Virgin Islands, CERC
18. Williams-Sutton, Lorna	University of the Virgin Islands, CERC



**2016 Institute on Public Health and Climate
Thursday, October 27, 2016
St. Thomas, VI**

Name	Agency
1. Alexandridis, Kostas	University of the Virgin Islands
2. Brown, Deborah	University of the Virgin Islands, CERC
3. Budsan, Jason	Virgin Islands Conservation Society
4. Callwood, Gloria	University of the Virgin Islands, CERC
5. Callwood, Karl	Climate Change VI
6. Crawford, René	St. Thomas East End Medical Center
7. George, Lynette	CERC Advisory Board Member
8. Grimes, Kristin Wilson	University of the Virgin Islands
9. Habtes, Yegin	University of the Virgin Islands
10. Harrigan Sr., Justin	Legislature of the Virgin Islands
11. Henry, Fitzroy	University of Technology, Jamaica
12. Industrious, Sherrika	University of the Virgin Islands, CERC
13. Jackson, Myron	Legislature of the Virgin Islands
14. Krigger, Rudolph	Legislature of the Virgin Islands
	Rep. of Senator Jean Forde
15. Millin Young, Janette	Legislature of the Virgin Islands
16. Morris, David	University of the Virgin Islands
17. Moses, Ivy	Advisory Board Member
18. Nowakowski, Kelsey	VI Source
19. Phillips-Dorsett, Taetia	VI Department of Health
20. Plaskett, Darice	Schneider Regional Medical Center
21. Ragster, LaVerne	University of the Virgin Islands, CERC
22. Roach, Tregenza	Legislature of the Virgin Islands
23. Ryan, Alyssa	University of the Virgin Islands, CERC
24. Spivey, Shermaine	Legislature of the Virgin Islands,
	Rep. of Senator Marvin Blyden
25. Smith, Moletto	St. Thomas East End Medical Center Corporation
26. Stagger, Nyala	Legislature of the Virgin Islands,
	Rep. of Senator Janette Millin Young
27. Thomas, Audria	St. Thomas East End Medical Center Corporation
28. Watlington, Roy	University of the Virgin Islands, Faculty Emeritus
29. Wright-Francis, Debra	St. Thomas East End Medical Center Corporation

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APPENDIX III: Work Group Outputs



**CARIBBEAN EXPLORATORY
NIMHD RESEARCH CENTER**
University of the Virgin Islands, School of Nursing



2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Croix

Group 1

Integration
Data Analysis
Data Input
Red Cross

Question 1. Data and Information

1. NEDSS
2. BRFSS
3. HSAG-QIO
4. VRIMS – Vital Records Info Mgmt System
5. HER – Electronic Health Records
6. Program Data- DOH HIV/AIDS, MCH, STD, Mental Health, Substance Abuse, Cancer Registry, Family Planning, EMS, Environmental Health, WIC
7. Licensing/ Con
8. Risk Mgmt
9. CIGNA- Health Stats (?), Financial Data (program)
10. FQHC –
11. Hospitals
12. VI Equicare
13. Dept. of Human Services- Medicare, medicare, SNAP, TANF, Headstart
14. Dept. of Education – VI-VIS (V1 Virtual) (Info System)
15. VA – Veterans Hospitals

Question 2. Gaps

1. Data Integration- Interagency
2. Data Analysis
3. Data Gathering/ Input
4. YRBSS- Risk Factors
5. Self reporting as taboo
6. Underserved/ venerable (incarcerated, veterans, elderly) ?
7. MERY Young men
8. Food Security/ Insecurity
9. Overusers/ abuse of HC system
10. Public Health Strategic Plan (?)



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Croix

Group 1

Question 3.

Recommendations:

1. Awareness/ Public Education
2. Education with respect to Climate Change in Schools, Start at Elementary
3. Collaboration with agriculture
4. Data from agencies we do not have, Red Cross
5. Plans – Land use, water use, population relocation
6. Periodic Policy Reviews- UVI
7. Certified professionals
8. Wellness Initiative – physical activity, nutrition
9. Public Planning – education on preparedness, response, mitigation recovery
10. Future Crop Growth – Economic \$\$
11. Recycling incentives / use of brown paper vs. plastic
12. Landfill mitigation/ relocation
13. Knowledge of Federal and other jurisdictions climate change plan

Group 2

Question 1.

Sources of Health Status Info

1. NEDSS
2. Hospitals (Intake + Discharge)
3. DOH (Central Cancer Registry, Autoimmune Registry, Encounter forms, Health Professional Service Area, Immunization Database, Vital Records, HIV (AIDS))
4. DHS (Early Childhood Integrated Data System)
5. VIPD
6. Courts
7. VITEMA
8. Fire Service
9. EMS
10. VI Medical Institute
11. Health Service Advisory Council



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Croix

Group 2 (cont'd)

Question 1. (cont'd)

Sources of Health Status Info

12. DOE (VI Virtual Info System)
13. CDC (BRFSS)
14. UVI CERC (IPV, HPV, Women's Health, Breast Cancer)
15. VI Univ. Center for Disabilities
16. UVI Eastern Caribbean Center
17. Health Insurance Board
18. Federally Qualified Health Centers (Uniform data system)
19. Women's Coalition, Family Resource Center, DVSAC
20. Dept. of Labor (Worker's Compensation)
21. DOH

Sources of Illnesses/ Health Stat

22. Insurance Board
23. VI University Center of Disabilities
24. Bureau Economic Research
25. UVI Eastern Caribbean Center
26. Disabilities Rights Center

Question 2.

Info Gaps on Health Conditions – Disease Incidence

1. Centralized public database
2. Valid, reliable, non-duplicative data
3. Consistent collection of surveillance
4. Non "reportable" diseases
5. Lost to follow-up (non-US, undocumented, uninsured, uninsured veterans)
6. URI, asthma, mosquito, vector-borne diseases
7. Spatial and temporal epi. Data



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Croix

Group 2 (cont'd)

Question 3.

Recommendations –

1. Complete Climate Change Vulnerability
2. Supplemental Environmental Project (SEP, Hovensa EPA settlement *5M)
3. National Monitoring Assistance (CDC, USDA)

No Regrets Actions

- Energy Conservation (govt., schools, UVI, public housing, homes)
- Renewable Energy
- Community Gardens
- Ocean and gvt set backs
- DPNR – DEE enforcement



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Thomas

Group 3

Question 1.

1. BRFSS
2. EHR (electronic health records)-private and government sector
3. UDS reports (unified data systems)
4. Kids count report
5. NEDSS (national electronic disease surveillance system)
6. Infrastructure challenges-Medicare, UHC, Cigna, Medicaid, Census Bureau

Question 2.

1. Lack of communication
2. Lack of accessibility
3. Lack of centralized repository
4. Lack of continuity, data disruption
5. Opposition to change
6. Unwillingness to use data to change policies
7. Mental health
8. IT workforce development (transition new-old codes)
9. Personal & political willingness
10. Challenges in setting priorities
11. Privacy issues

Question 3.

1. Define climate change for general public & how it affects health
2. Provide community education-especially children
3. Establish central data site with regulation
4. Task force for data collection
5. Advocating for social & environment changes
6. Advocating for health in all policies
7. Social media as a positive platform for climate change
8. Infrastructure changes (sidewalks, waste management)



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Thomas

Group 4

Question 1.

Data Sources-Health Status Illness

1. D.O.H Clinics {Division Of Mental Health, Reports of private physicians, Division of vital statistics, Maternal/child health}
2. Medicare/Medicaid
3. Dept./Human Services {Head start}
4. Dept. of ED {Kindergarten, 5th, 9th grade screenings}
5. US Census
6. UVI
7. CFVI AARP {NGOs}
8. F.Q. Health Centers
9. DOD-Veterans' Admin
10. GESC

Question 2.

GAPS

1. A centralized source of data/access path
2. Information about the undocumented, tourists, the uninsured, sex-workers, etc.
3. Off-island health treatment data
4. Health promotion program/process

Question 3.

Recommendations

1. Improved Public Education
 - a. -diet, exercise, lifestyles
2. Monitoring public environmental health practices
3. Planting healthy climate adaptable foods
4. Increase water storage capacity
5. Promote public awareness about environmental health
6. Build expertise for adaptation
7. Revise building practices and codes
8. Research/review impacts of technologies



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2016 Institute on Public Health and Climate Change

Work Group Outputs – St. Thomas

Group 5

Question 1.

Sources of information on health

1. Electronic Health Information system
2. CIGNA VI database
3. Department of Health
4. Department of Human ServicesDepartment of Education – VIVIS

Question 2.

Gaps in current information systems

1. Tracking of chronic diseases and health disparities
2. Need for consolidated data on people with disabilities

Question 3.

Recommendations

1. Develop plans to address needed changes in health infrastructure
2. Increase transparency in planning process and planning decisions

APPENDIX IV:

Summaries of Evaluations



**CARIBBEAN EXPLORATORY
NIMH RESEARCH CENTER**
University of the Virgin Islands, School of Nursing



2016 Institute on Public Health and Climate Change Evaluation

Theme: Assessing Information Needs for Climate Change Adaptation to Ensure Good Public Health in the USVI

Overall Evaluation of Institute (Did not participate in Work Groups)

	Strongly agree	Agree	Disagree	Strongly Disagree
Stated institute objectives/aims were achieved	5	0	0	0
The institute increased my understanding of health	5	0	0	0
Presenters were knowledgeable about their topics	5	0	0	0
Audiovisual and/or instructional strategies were effective	5	0	0	0
Physical facilities were conducive to learning	3	0	2	0
Overall, I was satisfied with the institute	5	0	0	0
What did you find most valuable about the Institute?	"Dr. Henry." "Working group sessions." "Great initiative."			
What did you find the least valuable about the Institute?	"All sessions were well done."			
I would recommend a future CERC institute to colleagues.	3 Yes	0 No		
I would attend a future CERC institute.	3 Yes	0 No		

Comments: "Needed media presence."

Demographics:

Organization: 1 University 1 Government 1 Health facility 1 Community based organization 0 Other
Occupation: 1 Faculty 0 Student 0 Health Care Provider 0 Community member 0 Other
*numbers vary because persons selected more than one category per row

Overall Evaluation of Institute (Participated in entire Institute)

	Strongly agree	Agree	Disagree	Strongly Disagree
Stated institute objectives/aims were achieved	15	3	0	0
The institute increased my understanding of health	12	4	1	0
Presenters were knowledgeable about their topics	13	5	0	0
Audiovisual and/or instructional strategies were effective	12	4	1	0
Physical facilities were conducive to learning	15	2	0	0
Overall, I was satisfied with the institute	15	2	0	0

What did you find most valuable about the Institute? "Knowledgeable Participants. Diversity of Participants." "Learning that people in key positions are concerned about this problem." "A/C to cold." "The focus on comprehensive conceptualization and planning." "Developing or seeing the people we need." "Dr. Henry's talk." "Discussion about climate change. New information and new ideas." "The information shared by the presenter further enlightened me on the impact of climate change." "Knowledge gained." "The initiation of collaboration on climate change." "The quantity of information shared was most valuable for now and later." "Breakout Sessions." "Speakers." "Most valuable to me was the discussions that led to a better understanding of where our current statistics can be sound." "Info from DOH on its initiatives."

What did you find the least valuable about the Institute? "N/A." Marketing and notification was the weaknesses." "Nothing." "Need more health providers." "No roast pork on the menu!! ☺"

I would recommend a future CERC institute to colleagues 16 Yes 0 No
I would attend a future CERC institute. 16 Yes 0 No

Comments: "This was an excellent and informative workshop." "We need to continue to collaborate to implement change and have a lot of databases but they don't talk to each other." "I am thankful that I happened to walk-in. I suggest using the 15 min radio time Abdul Ali has available for UVI." "Good job. Looking for action steps to come out of the institute." "Congratulations! Enjoy the proactive approach." "Missing some key participants."

Demographics:

Organization: 3 University 7 Government 3 Health facility 3 Community based organization 0 Other
Occupation: 2 Faculty 1 Student 2 Health Care Provider 2 Community member 1 Other
*numbers vary because persons selected more than one category per row



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2016 Institute on Public Health and Climate Change Evaluation

Theme: Assessing Information Needs for Climate Change Adaptation to Ensure Good Public Health in the USVI

Work Group Evaluation:

	Strongly agree	Agree	Disagree	Strongly Disagree
Stated work group objectives/aims were achieved	16	2	0	0
The work group was well organized	13	5	0	0
Work group facilitators were effective	11	6	0	0
Physical facilities were conducive to accomplishing objectives	12	6	0	0
Overall, I was satisfied with the opportunities for participation in a work group	13	5	0	0

What did you find most valuable about the work group in which you participated? "Sharing ideas and concepts with the interdisciplinary team." "Easels would have helped." "Opportunity for full group participation." "An opportunity to collaborate with people from different entities." Collaborative effort to come up with ideas." "Collaboration between persons in the group." "Opportunity to hear one another ideas." "Good exchange of ideas by diverse group." "Collaboration." "Opportunity to brain storm." "The expertise of each individual." "The diversity of the group the input."

What did you find at least valuable about the work group in which you participated? "Room temperature." "N/A- Too much time allocated for the project." "This was a little longer than needed." "Nothing." "N/A" "People arguing over each other." "N/A" "The groups could have been better mixed by disciplines."

Comments: "Much needed and I was able to attain much needed knowledge." "Great workgroup."

Demographics:

Organization: 1 University 4 Government 4 Health facility 2 Community based organization 0 Other
Occupation: 1 Faculty 1 Student 3 Health Care Provider 3 Community member 3 Other

*numbers vary because persons selected more than one category per row

