

African-Caribbean Cancer Consortium Scientific and Training Conference Meeting Report

Hotel La Bateliere in Scholcher, Martinique, the French West Indies

October 9-11, 2014

Camille Ragin PhD, MPH

1. Objective:

The purpose of this conference was to strengthen our global cancer research efforts and develop trans-disciplinary studies that will help to understand the reasons behind cancer health disparities in risk, outcome and survivorship and their impact on Black populations globally. The theme was “*Advancing Cancer Health Equity in Populations of African Descent.*” We anticipated that this conference would facilitate and support the development of research collaborations that will help to promote the highest level of health among Black populations worldwide. A general assembly of the AC3 membership provided opportunities to exchange ideas for future collaborative research studies and our Steering Committee meeting helped to guide the AC3 leadership on the overall agenda, which is to obtain extramural funding for our collaborative studies.

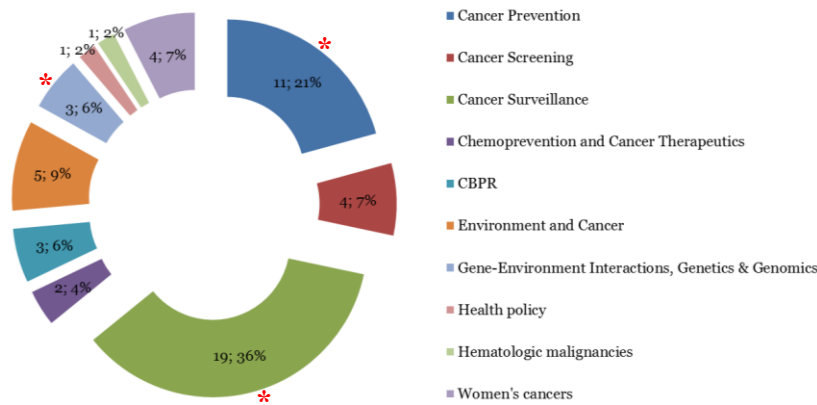
Conference participants had the opportunity to 1) present cancer research data and progress reports of newly funded studies or evaluate new research ideas for studies that focus on gene-environment interactions and cancer disparities in populations of African descent; 2) describe the health resources, screening and other preventive activities present or absent that may attribute to higher cancer incidence and mortality in their study populations; 3) formally discuss the coordination of current and future research collaborations; 4) learn about the grant writing process and how to seek funding to support studies of cancer risk, outcome and survivorship; 5) learn about research resources/tools and their applications in addressing cancer health disparities and 6) raise awareness throughout the general public about the importance of behaviors that promote cancer prevention, minority participation in research and clinical trials.

2. Results

The AC3 conference was held on October 9-11, 2014 at the Hotel La Bateliere in Scholcher, Martinique, the French West Indies. We selected this international venue (the Caribbean) because it facilitated added diversity to the conference participant roster (see Table 1), and addressed challenges and limitations surrounding international networking as well as the establishment and sustainment of global cancer research collaborations. In addition, since the majority of our AC3 membership in the Caribbean represents the English-speaking Caribbean, the conference venue in Martinique provided the appropriate environment to stimulate new collaborations and reinvigorated the current research interactions between French-speaking Caribbean islands and those in the English-speaking Caribbean islands, the United States (US) and Africa. The overall conference agenda and logistics was organized and sponsored by Fox Chase Cancer Center (FCCC) along with the French West Indies Cancer Registries in Martinique and Guadeloupe, representatives of which comprised the Technical Planning and Speakers Committee. Other planning committees included the Education and Training Committee (which was responsible for organizing and facilitating the training workshops), the Scientific Review Committee (responsible for the review and selection of scientific abstracts), the Scientific Awards Committee (responsible for coordinating and judging of the poster and oral presentation awards to junior investigators) and the conference support staff (representing FCCC and the University Hospital of Martinique). The conference advertisement and call for abstracts were widely distributed through AC3's international email listserv, other cancer consortia, FCCC announcements and press releases to the local community in Martinique as well as to universities with graduate and undergraduate programs in epidemiology/public health in the US and Caribbean as well as to research institutions in Africa. In addition the meeting announcement and call for abstracts was also published on the AC3 website (www.ac3online.org).

Fifty-five scientific abstracts and corresponding lay abstracts were received, two were withdrawn by the presenters because they were unable to attend the conference and three abstracts were selected for oral presentations leaving a total of 50 abstracts presented as posters. Figure 1 shows the abstract categories, revealing the majority of the presentation topics were on Cancer surveillance (n = 19, 36%) and Cancer prevention (n = 11, 21%). The selected oral presentations represented studies in Cancer surveillance, Cancer Prevention and Gene-environment interactions, genetics & genomics. Presenters represented 11 geographic areas which included the Caribbean (Barbados, Cayman Islands, Grenada, Guadeloupe, Jamaica, Martinique, Puerto Rico, St. Lucia and Trinidad and Tobago), Europe (France) and USA. Among the 53 abstracts, 20 (38%) were recommended by the Scientific Review Committee for press release.

Figure 1: Abstract Categories



* One abstract was selected as an oral presentation

Conference Attendees

The Conference was open to all, researchers, students and community participants. The Community Educational Sessions scheduled on Day 1 (October 9th) were tailored for the general public, there were approximately 280 attendees. The Scientific Program and Training sessions were tailored for researchers, clinician scientists, scientific support staff, students, post-docs and other health professionals. There were 109

registered attendees. Figure 2 shows the distribution of Scientific Program and Training session attendees according to professional status. The majority were Clinician Scientists (34%), PhD Scientists (24%) and Cancer Registrars and their personnel (18%). Scientific support staff and other health professionals comprised 8% of the attendees, followed by Students/Trainees (pre- and post- doctoral, and medical) (7%) and professionals who were not involved in research (Health Administrators, 6% and Physicians, 3%).

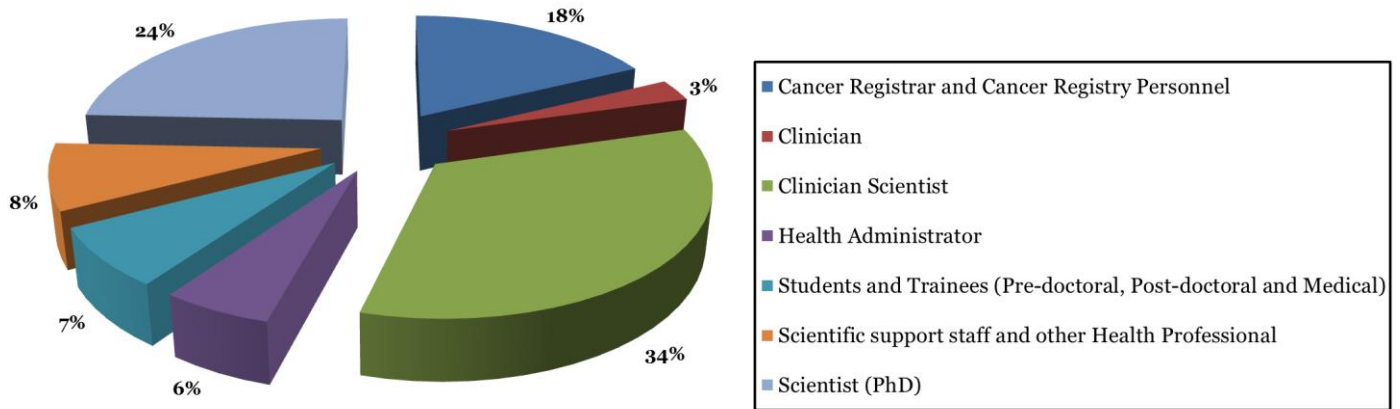


Figure 2: 2014 Professional status of the 2014 scientific/training program conference attendees

The majority of the participating community members resided in Martinique while participants of the Scientific/Training Conference represented academic institutions and medical centers from the US, Africa and the Caribbean (Table 1).

Table 1: Country and affiliated institutions of participating scientific professionals

Country	Institution
Anguilla	Anguilla Community College
Bahamas	Princess Margaret Hospital
	University of the West Indies, School of Clinical Medicine and Research
Barbados	Barbados National Cancer Registry
	University of the West Indies, Cave Hill Campus
Cayman Islands	Cayman Islands Health Services Authority
France	Institut National Du Cancer (<i>French National Cancer Institute</i>)
	L'Hôpital d'Instruction des Armées Percy - HIA Percy (<i>Military Training Hospital of Percy, France</i>)
	Institut National de la Santé et de la Recherche Médicale – INSERM (<i>French National Institute of Health and Medical Research</i>)
	Institut de recherche en santé, environnement et travail – IRSET (<i>French Institute for Health, Environment and Occupation</i>)
	Centre de Recherche Inserm - Institut de Santé Public, d'Epidémiologie et de Développement (ISPED), (<i>Bordeaux School of Public Health</i>)
	Université Paris Descartes (<i>Paris Descartes University</i>)

Table 1: Country and affiliated institutions of participating scientific professionals

Country	Institution
French Guyana	Centre Hospitalier Andrée Rosemon (<i>Andrée Rosemon Hospital Center</i>)
Grenada	St. Georges University, Grenada
Guadeloupe	Centre Hospitalier Universitaire de Guadeloupe (<i>University Hospital of Guadeloupe</i>) Observatoire régional de la santé de Guadeloupe (ORSaG) (<i>Guadeloupe General Health Observatory</i>) L'Association Guadeloupéenne pour le Dépistage des Cancers (<i>Guadeloupe Cancer Screening Society</i>)
Jamaica	University of the West Indies – Mona Campus
Kenya	Kenya Medical Research Institute
Martinique	L'Association Martiniquaise pour le Recherche Epidémiologique en Cancérologie (<i>Martinican Association for Epidemiological Cancer Research which is an overarching body that includes both the Martinique Cancer registry and the Martinique Cancer Screening Society</i>) Centre Hospitalier Universitaire de Martinique (<i>University Hospital of Martinique</i>) Agence Régionale de Santé de Martinique (<i>Martinique Regional Health Agency</i>) Cellule InterRégionale d'Epidémiologie Antille-Guyane, CIRE AG-InVS (<i>InterRegional Epidemiological Surveillance Unit, French Institute for Public Health Surveillance</i>) Université des Antilles et de la Guyane L'Association Médicale de Sauvegarde de l'Environnement et de la Santé (<i>The Medical Association of Environmental Safeguard and Health</i>) Centre de Pathologie du Patio de Cluny (<i>Pathological Laboratory of Cluny</i>) Plateforme Régionale d'Oncologie de la Martinique – PROM (<i>Regional Oncology Platform of Martinique</i>)
Nigeria	University of Ibadan/University College Hospital, Ibadan
Saba, Netherlands Antilles	Saba University School of Medicine
St. Lucia	Victoria Hospital
Togo	ASSOCIATION AEAT (<i>AEAT Association Environnement Art et Tourisme</i>)
Trinidad and Tobago	Caribbean Public Health Agency (CARPHA) Ministry of Health of Trinidad and Tobago South West Regional Health Authority
United Kingdom	University of Westminster, London International Network for Cancer Treatment and Research (INCTR), African Cancer Registry Network
USA	City of Hope Medical Center, CA Clark Atlanta University, GA Florida A & M University, FL Fox Chase Cancer Center, Temple Health, PA John F. Kennedy University, CA Nova Southeastern University College of Osteopathic Medicine, FL Puerto Rico Central Cancer Registry Comprehensive Cancer Center, PR National Cancer Institute, MD Temple University, PA The University of Alabama, AL University of Florida, FL Tripler Army Medical Center, HI University of Pittsburgh, PA University Nevada Las Vegas/Nevada Cancer Registry, NV

Both males and females were represented and although specific data on race/ethnicity were not collected, the majority of the attendees were of African descent (African-Caribbean, African or African-American). The 2014 conference engaged the most African, Caribbean and European countries and the most US states in comparison to earlier AC3 meetings¹⁻⁴ (Figure 3).

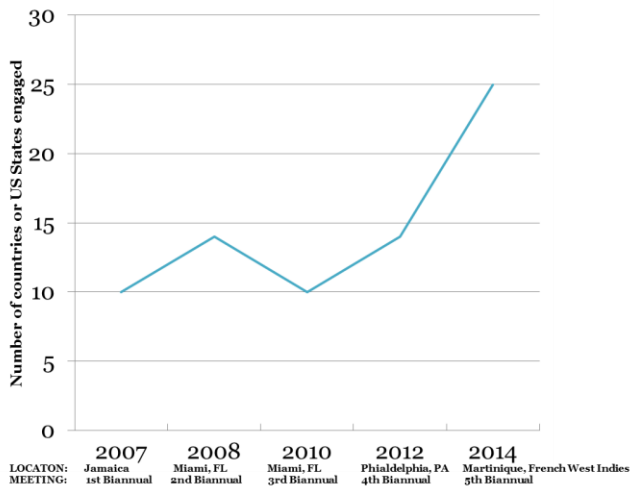


Figure 3: Trends of engagement of targeted regions from 2007-2014

Conference materials

All attendees were provided a scientific program booklet (French or English depending on the language preference) which included the conference agenda and scientific abstracts. Community participants also received a Community Abstract Booklet which included the abstracts in lay language in French or English. They were also provided cancer prevention brochures. Translation services from French to English and English to French was provided for all participants throughout the entire conference.

Sessions devoted to mentoring junior investigators and cancer registry personnel

A training faculty consisting of 14 esteemed professionals provided research skills and cancer surveillance training

workshops devoted to junior investigators and current and aspiring cancer registrars. Junior investigators were defined as researchers in training such as post-docs as well as research faculty with no prior history of substantial research funding (e.g. NIH RO1). Topics included grant writing (Research Skills Workshop I); Population Genomics (Research Skills Workshop II); Best Practices in Community-based Participatory Research (Research Skills Workshop III); and Cancer Surveillance (Workshops I-V). The cancer surveillance workshops goals were 1) to provide in depth technical training in cancer registration for persons who aspired to be Cancer Registrars, 2) strengthened the knowledge of staff of existing registries, and 3) provide the tools to inform quality collection of data (*see Table 2, agenda-at-a-glance*). The topics covered by the cancer surveillance workshops included: Planning, Organizational Structure and Management of a cancer registry; Variables, Case Finding, Data Abstraction and Confidentiality; Coding (International Classification of Diseases); Cancer Staging, SEER Summary Staging, TNM Staging; Data Analysis and Preparation of Annual Reports; and concluded with a special session by the Puerto Rico Central Cancer Registry on data quality and research in the Caribbean. The research skills training workshops were scheduled on Day 1 while the cancer surveillance training workshops were scheduled concurrent with the Scientific Program on Days 2 (*see Table 3, agenda-at-a-glance*).

Sessions devoted to community education

A half-day community education symposium on Day 1 provided a rich environment for interaction and knowledge-sharing between scientists, students and community participants (*see Table 2 agenda-at-a-glance*). All participants were provided Community Education Program Booklet which included the scientific abstracts in lay language in French or English. Participants were also provided cancer prevention brochures on colorectal cancer, cervix/HPV vaccination and breast cancer screening. The community education symposium included three cancer prevention sessions, a panel discussion on cancer vaccination and a session entitled “translating research to the community”. The cancer prevention presentations focused on healthy lifestyles to reduce cancer risk, cancer screening, risk and survivorship and the environment and cancer.

The Scientific Program, October 9th, 2014

The opening ceremony began with welcome and opening statements by the members of the conference technical planning committee and representatives from the sponsoring organizations of the conference. Patrick Escarmant, MD, Chief of Cancerology Hematology Urology Department, University Hospital of Martinique; Clarisse Joachim, MD, MPH, Martinique Cancer Registry, University Hospital of Martinique, Martinique; Jacqueline Deloumeaux, MD, PhD, Guadeloupe Cancer Registry, University Hospital of Pointe-à-Pitre, Guadeloupe; Luc-Louison Clemente, Mayor of Schœlcher, Martinique; Corinne Mence-Caster, PhD, President of French West-Indies University; a representative from the Martinique Regional Council; a representative from the Martinique General Council; a representative from the Regional Agency of Public Health, Martinique; Roger Salamon, MD, PhD, Président du Haut Conseil de Santé Publique (HCSP), France; Christine Berling PhD, MPH, French National Institute of Cancer, France; Damali Martin, PhD, MPH, Epidemiology, Genomics, and Research Program and Center for Global Health, National Cancer Institute, USA; and Camille Ragin, PhD, MPH, AC3 Conference Founding Chairperson, Fox Chase Cancer Center, USA. Subsequently the presentation of the inaugural Herma Glasgow Award was made to Dr. Donald Simeon, Director of Research Training and Policy Development, Caribbean Public Health Agency (CARPHA) for his dedication and major contribution to

Caribbean medical research but most importantly his facilitation of the establishment of the AC3. The opening ceremony concluded with the keynote address by Dr. Simeon. He described the history and role of CARPHA in support of research in the Caribbean, discussed the current collaboration between CARPHA and the NCI – Center for Global Health and also announced 1) that CARPHA would be the proposed cancer registry hub for the Caribbean and 2) that there was a planned release of an NCI-CARPHA funding opportunity to support Caribbean cancer research.

Scientific Program, October 10th 2015

The general scientific sessions opened on Day 2, October 10th, 2014 (see Table 3, agenda-at-a-glance). Scientific sessions topics included: Aerodigestive Cancers: Cross-cutting factors in aerodigestive cancers disparities; Urological Cancers: Translational biomarkers for cancer progression; Hematologic Malignancies: Familial myeloproliferative disorders, predisposition factors, mutation screening and immunotolerance; Women's cancers; and Gene-Environment Interactions, Genetics & Genomics.

Table 2: Thursday, October 9th, 2014- Schedule at a Glance	
11:00 - 5:00 pm Delegates and Speaker Registration, Poster Set-up	
Opening of Education & Training Workshops	
<i>Salle Lafitte</i> 12:00 – 12:45 pm Opening Remarks and Welcome Keynote Address: Roger Salamon, MD, PhD Président du Haut Conseil de Santé Publique (HCSP), France <i>“Politique de la France en matière de Cancer”</i>	
12:45 - 5:40 pm Concurrent Community Education & Research Training Sessions	
Community Sessions <i>*General public*</i> <i>Salle Lafitte</i>	Scientific Sessions <i>*Registered conference participants*</i> <i>Auditorium</i>
12:45 – 1:45pm Cancer Prevention Workshop I <i>Healthy lifestyles: Reducing cancer risk</i>	12:45 – 2:45 pm Research Skills Workshop I <i>Grant writing</i>
1:45 – 2:45pm Panel Discussion I <i>Cancer Vaccination</i>	
2:45-3:00pm Coffee Break	
3:00 – 3:55 pm Cancer Prevention Workshop II <i>Cancer Screening, Risk and Survivorship</i>	3:00 – 4:30 pm Research Skills Workshop II <i>Population Genomics</i>
3:55 – 4:30 pm Cancer Prevention Workshop III <i>Environment and Cancer</i>	
4:30 – 4:45 pm Coffee Break	
4:45– 5:20 pm Translating Research to the Community <i>Oral abstracts</i>	4:45- 5:40 pm Research Skills Workshop III <i>Best Practices in Community-based Participatory Research</i>
Opening Ceremony and Welcome Reception <i>* Registered Conference Participants Only*</i>	
<i>Salle Lafitte</i> 7:30 - 8:15 pm Welcome & Remarks	
8:15 - 8:45 pm <i>Presentation of the Herma Glasgow Award</i> <i>Keynote Address:</i> Donald T. Simeon, PhD Deputy Executive Director Director of Research, Training and Policy Development Caribbean Public Health Agency	
<i>West Indies Terrasse</i> 8:45 - 10:00 pm Reception	

**Table 3: Friday, October 10th, 2014
Scientific Program- Schedule at a Glance**

<p><i>Salle Lafitte</i> 8:00 – 8:30 am</p> <p align="center">Keynote Address: Annie Sasco, MD, PhD INSERM U897, Bordeaux Segalen University, France <i>“Cancer and Viruses”</i></p>	
<p>8:30 am - 1:15 pm Concurrent Scientific & Cancer Surveillance Training Sessions</p>	
<p align="center">Scientific Sessions <i>Salle Lafitte</i></p>	<p align="center">Cancer Surveillance Training Sessions <i>Auditorium</i></p>
<p align="center">8:30 – 9:15am Session I - Aerodigestive Cancers: <i>Cross-cutting factors in aerodigestive cancers disparities</i></p>	<p align="center">8:30 – 9:15am Cancer Surveillance Workshop I - <i>Planning, Organizational Structure and Management</i></p>
<p align="center">9:15 – 10:30am Session II - Urological Cancers: <i>Translational biomarkers for cancer progression</i></p>	<p align="center">9:15 – 10:30am Cancer Surveillance Workshop II - <i>Variables, Case Finding, Data Abstraction and Confidentiality</i></p>
<p align="center">10:30-10:45pm Coffee Break</p>	
<p align="center">10:45 – 11:45am Session III - Hematologic Malignancies: <i>Familial myeloproliferative disorders, predisposition factors, mutation screening and immunotolerance</i></p>	<p align="center">10:45 – 11:45am Cancer Surveillance Workshop III - <i>Coding (International Classification of Diseases)</i></p>
<p align="center">11:45 – 12:40 pm Session IV - Women's cancers</p>	<p align="center">11:45 – 12:40 pm Cancer Surveillance Workshop IV - <i>Cancer Staging, SEER Summary Staging, TNM Staging</i></p>
<p align="center">12:40 – 1:20 pm Session V - Gene-Environment Interactions, Genetics & Genomics</p>	<p align="center">12:40 – 1:20 pm Cancer Surveillance Workshop V– <i>Data Analysis and Preparation of Annual Reports</i></p>
<p align="center">1:30 – 2:30 pm Lunch <i>“Bleu Marine” Restaurant</i></p>	
<p align="center">2:30 – 4:00 pm <i>Salon Sapotille</i> POSTER SESSION</p>	<p align="center">2:30 – 3:00 pm Cancer Surveillance Special Session – <i>Puerto Rico Central Cancer Registry: Data quality and Research in the Caribbean</i></p>
<p align="center">6:30 – 9:30 pm AC3 General Assembly ** AC3 members Only**</p>	

AC3 General Assembly meeting

Day 2 ended with a meeting of the AC3 leadership, AC3 members and its steering committee. The AC3 Team Leaders include: **Cancer Registration** (Veronica Roach, SRN, HV, Trinidad and Tobago); **Women’s cancers** (Raleigh Butler, MD - School of Clinical Medicine and Research (CSMR), University of the West Indies, The Bahamas); **Urological cancers** (Clareann Bunker, PhD - Graduate School of Public Health, University of Pittsburgh, Pittsburgh, PA, USA and Robin Roberts, MD - School of Clinical Medicine and Research (CSMR), University of the West Indies, The Bahamas); **Upper aerodigestive tract cancers** (Samuel Gatherer, MD - Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, Africa and Camille Ragin, PhD, MPH, Cancer Prevention and Control Program, Fox Chase Cancer Center, Philadelphia, USA); **AC3-Research Ethics Review Committee (RERC)** (Delroy Loudon, PhD – *(RERC-Chairman)*, President Anguilla Community College, Anguilla, Maria Jackson, PhD - Department of Community Health and Psychiatry, University of the West Indies, Mona, Kingston 7, Jamaica, JoAnn S. Oliver, PhD - The University of Alabama, Capstone College of Nursing, Tuscaloosa, AL, USA, and Samuel Gatherer, MD - Kenya Medical Research Institute (KEMRI), Nairobi, Kenya, Africa).

Summary of general assembly meeting presentations: **Camille Ragin (AC3 PI)** provided and overall update on the AC3 mission, vision, goals/objectives and organizational structure. A summary of the overall accomplishments of the AC3 included a graphic representation of where our members are located, the upward trend in AC3 membership (N = 120) and summary of expertise represented, the number and type of publications (N = 50), community engagement activities and a recap of past international conferences and lessons learned over the past 8 years. **Delroy Louden (AC3 Research Ethics and Review Committee – Chairman)** described the role of the AC3-RERC, which is to review and approve all proposals for collaborative projects that will be conducted under the umbrella of the AC3. The review process was described and would be posted on the AC3 website (www.ac3online.org). **Robin Roberts (Urological Cancers Working group – Co-leader)** highlighted the cancers represented in this working group (prostate, renal cell, bladder, penis and testis), described the current and completed studies in prostate cancer and emphasized the importance of networking, collaboration and standardization. The Caribbean Urological Association (CURA)/AC3 collaborative project was also highlighted and involves the development of a standardized prostate cancer intake form which is designed to track incidence as well as document a Caribbean profile including epidemiology, diagnosis and treatment variables. This standardized form was expected to be implemented January 2015. The expected outcomes would be the establishment of guidelines for national and regional policies, screening programs, diagnosis, treatment protocols and a resource for allocation and prioritization. **Samuel Gatherer (Upper Aerodigestive Tract (UADT) Cancers Working group – Co-leader)** described the scope of the UADT working group (head and neck, and oesophagus). Completed pilot projects as well as planned projects were described and included secondary data analysis of head and neck cancer trends and variations involving Caribbean and African nations: *Cayman Islands, Jamaica, Trinidad and Tobago Guyana, Guadeloupe, Martinique, Barbados, Guyana, Kenya (Nairobi Cancer Registry and Eldoret Cancer Registry); Nigeria, Malawi, Uganda and Zimbabwe (help from the African Cancer Registry Network is ongoing)*. Other planned pilot studies involved investigations of HPV and other prognostic markers in head and neck cancer. **Raleigh Butler (Women’s Cancer Working group – Co-Leader)** provided an overview of various studies that had been conducted to date. These included HPV-related studies in Tobago³⁰, Jamaica^{31,42} and the Bahamas^{11,12}. Preliminary results suggest a higher prevalence of high-risk HPV types distinct from HPV 16 and HPV18. Further investigations for validation of this distinct HPV genotype distribution and implications for vaccination against other HPV genotypes are proposed either via generation of new data or pooling data from existing studies. A summary of other completed studies on advocacy, survival and decision-making (breast, endometrial and uterine) was also provided. Current challenges included funding; expansion of collaboration to other Caribbean islands and the need to strengthen our collaboration in Africa and the UK. **Veronica Roach (Cancer Registration leader)** highlighted the cancer registries that are represented in the AC3 network (Barbados, Cayman Islands, Guadeloupe, Guyana, Jamaica, Martinique, Trinidad & Tobago, Kenya (Nairobi) and Liberia (planning phase)). She also provided a recap of the publications and ongoing plans for analysis of cancer registration data for the Caribbean region and African nations. Cancers include head and neck, prostate, cervical and colon-rectal cancers. Updates on the AC3’s involvement in facilitating the development of the Liberian National Cancer Registry (LINCAR) in collaboration with the African Cancer Registry Network were also provided. The presentations ended with an open discussion with the membership.

The AC3 Steering Committee met with the AC3 leadership team following the general assembly meeting. The Steering Committee members included Christine Berling, PhD - INCA (French National Cancer Institute), Damali Martin, PhD, MPH – NCI/NIH (National Cancer Institute, National Institutes of Health), D. Max Parkin, MD – AFCRN (African Cancer Registry Network), Edward Partridge, MD – University of Alabama at Birmingham Comprehensive Cancer Center (*was unable to attend*), Donald Simeon, PhD – CARPHA (Caribbean Public Health Agency). The Steering Committee members congratulated the AC3 on progresses made and our ability to sustain collaborative research over the past 8 years and recommendations were made for future activities.

Scientific Program, October 11th, 2014

The scientific program concluded on Day 3, (*see Table 4, agenda-at-a-glance*) and included a keynote presentation by Dr. Christine Berling from the French National Cancer Institute, followed by sessions on Chemoprevention and Cancer Therapeutics - Innovative strategies for chemopreventive research and personalized medicine; Bioethics and International research - Ethical concerns, challenges and successful models for international cancer research involving low-resource countries; Cancer Surveillance and Research

Collaborations - Creating standards for population research in low-resource countries. The closing ceremony ended after the presentation of the poster prizes and a press conference.

Table 4: Saturday, October 11th, 2014 Scientific Program- Schedule at a Glance	
<i>Salle Lafitte</i> 8:30 – 9:00 am	Keynote Address: Christine Berling, PhD, MPH Head of Department for International Affairs, INCA, France <i>“Linking Global Health Strategy to Community Efforts in Cancer Control”</i>
9:00 - 11:30 am	Scientific Sessions <i>Salle Lafitte</i>
	9:00 – 9:45am Session VI – Chemoprevention and Cancer Therapeutics - <i>Innovative strategies for chemopreventive research and personalized medicine</i>
	9:45 – 10:30am Session VII - Bioethics and International research - <i>Ethical concerns, challenges and successful models for international cancer research involving low-resource countries</i>
	10:30-10:45pm Coffee Break
	10:45 – 11:45am Session VIII – Cancer Surveillance and Research Collaborations - <i>Creating standards for population research in low-resource countries</i>
	11:45 – 12:15 pm Closing, Awards and Poster Removal

Training Workshop Evaluations

For **Research Skills Workshop I, Grant Writing**, there were 18 participants. The majority, were Clinician or PhD scientists (7/18, 39%), followed by medical students (3/18, 17%) and other health professionals (2/18, 11%), cancer registrars or health administrators (1 each, 5% each). Four persons did not complete the pre-registration (professional status was unknown). The learning objectives were to 1) Understand the approach to writing a grant application to a private foundation or individual donor, as well as to federal/state agencies, 2) Distinguish between objectives and methods, 3) Understand the critical importance and components of the specific aims page, 4) Understand the role of the Director Investigator or the Principal Investigator, 5) Learn how to create a GANTT chart, 6) Learn how to estimate and present a grant application budget, 7) Understand some systems for grant application evaluation and scoring by funders, and 8) Gain experience in viewing an application through the reviewers’ eyes (mock grant review study section). The Course attendees who were currently preparing a grant application were encouraged to bring the Specific Aims page (one page only) for possible review by fellow course participants in a mock study section. A pre- and post-test survey was conducted. One question “*Cite 3 of the main components of a grant application*” and 9 true/false questions were asked to evaluate the level grant writing knowledge and knowledge gained after training. Of the 18 respondents, only 10 participants attempted to cite 3 of the main components of a grant application. Of these, only 40% (4/10) were able to correctly cite two or three grant components, but the majority, 60% (6/10) were only able to correctly cite one grant component. An increase in knowledge of the main components of a grant application was observed in the post training survey. The number of respondents to this question increased from 10 to 11/17 participants. Of these, 9/11 (82%) correctly cited two or three grant components of the main components of a grant application and 18% (2/11) cited one or none of the main components of a grant application. The pre- and post-test comparison of responses for the 9 true/false questions is depicted in Figure 4a-4b. In general while the knowledge of the main components of a grant application was modest, the majority Workshop participants were responded correctly to the true/false questions about grant applications (Figure 4a). Post training, knowledge improved (Figure 4b).

Figure 4a: Pre-test questions - Grant Writing Workshop

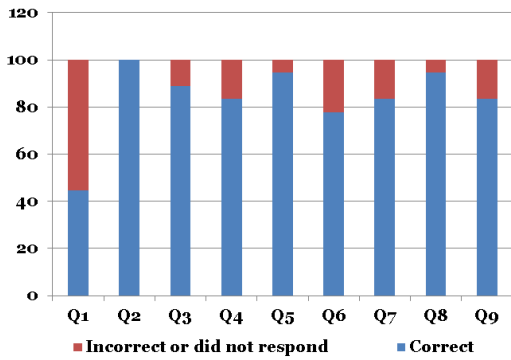
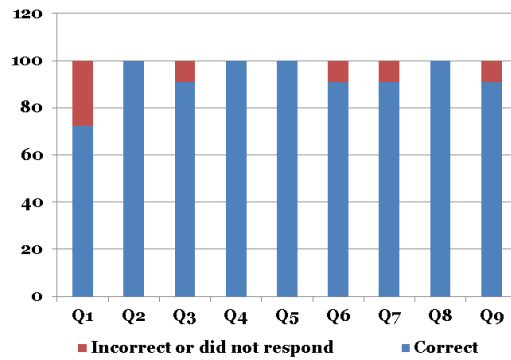


Figure 4b: Post-test questions - Grant Writing Workshop



For **Research Skills Workshop II, Population Genomics**, results from a pre-conference survey of pre-registered participants (n = 9) are summarized below (Figures 5-10). The majority of registered participants

Figure 5: Which best describes your current

Answered: 9 Skipped: 0

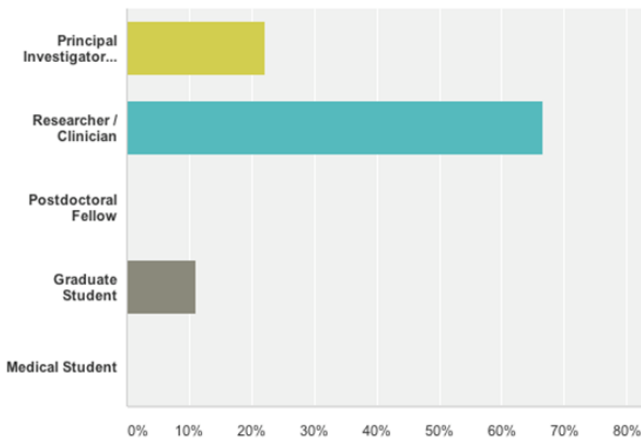
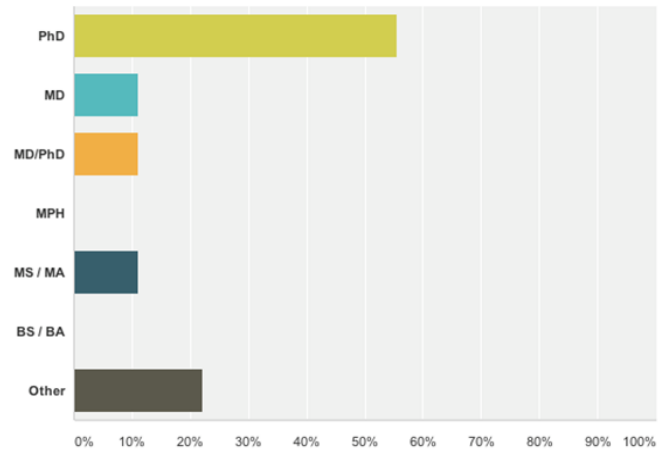


Figure 6: What are your highest received degrees?

Answered: 9 Skipped: 0



were Clinician/Researchers the majority were PhDs and a few were MD or MD/PhD (Figure 5-6). The majority of participants reported that they had taken genetics courses in college and approximately half the number of these participants reported that they also took introduction to biology and bioinformatics. However among these, and a smaller proportion reported having taken genomics and population genetics (Figure 7). The

Figure 7: Which of the following specialized courses have you taken during college (including post-graduate)?

Answered: 8 Skipped: 1

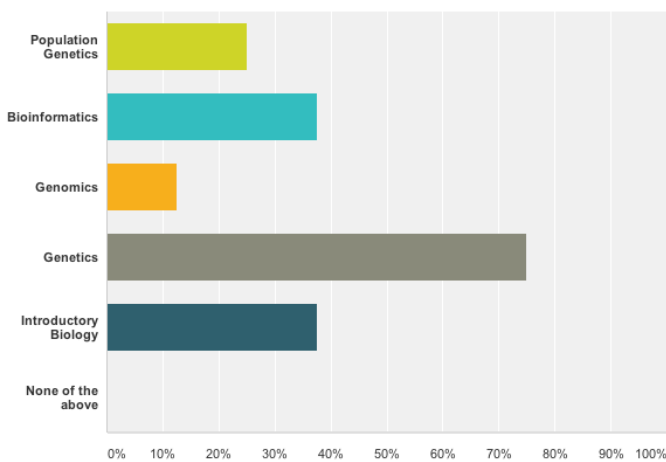
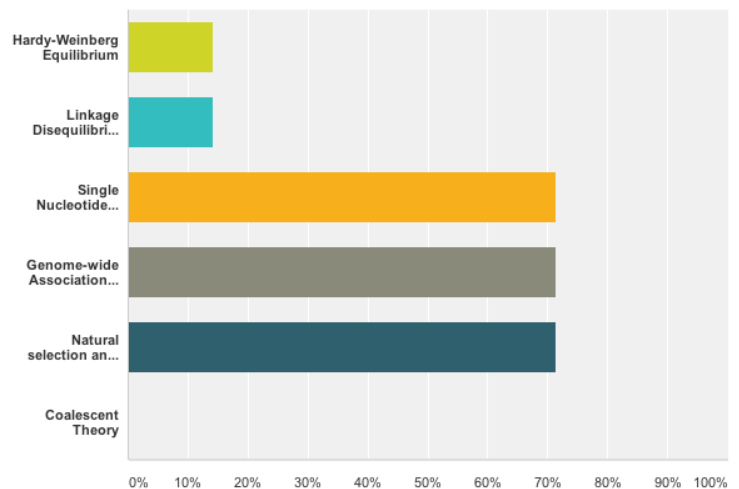


Figure 8: Which of the following population genetic concepts are you familiar with?

Answered: 7 Skipped: 2



majority of respondents were familiar with the genetic concepts, single nucleotide polymorphism, genome wide association study and natural selection (Figure 8). When participants were asked "What analysis tools have you

worked with?”, only 3/9 (33%) responded to this question and all reported that they worked with statistical packages only (Figure 9).

Figure 9: What analysis tools have you worked with?

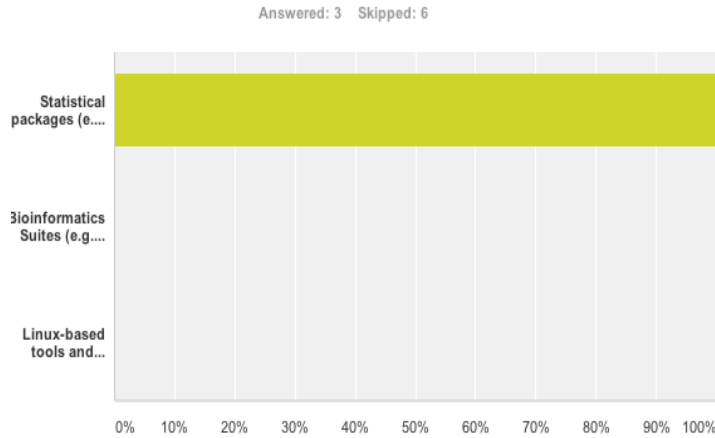
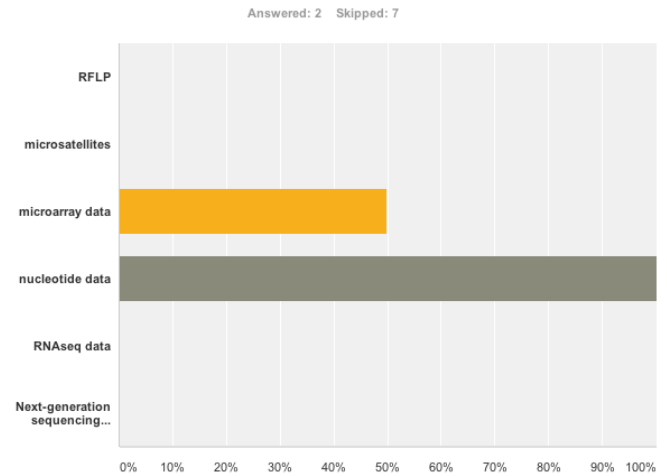


Figure 10: Which of the following data types have you worked with?



Of the 9 registered participants, two (22%) reported that they had prior experience working with microarray or nucleotide data (Figure 10). In addition to a pre-conference survey of registered participants, a pre- and post-test survey was also conducted for the Research Skills Workshop II *Population Genomics*. Six questions were asked to evaluate the level population genomics knowledge and knowledge gained after training. The majority

of participants either did not answer the question or answered incorrectly (Figure 11a). However after the training session, knowledge was increased (Figure 11b). Sixty percent of respondents answered Q1-Q2 and Q4-Q6 correctly in the post-test in contrast to 0%-25% in the pre-test; and 80% of respondents answered Q3 correctly in the post-

Figure 11a: Pre-test questions - Population Genomics Workshop

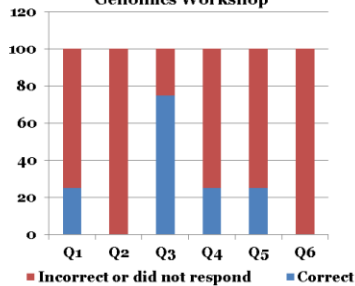
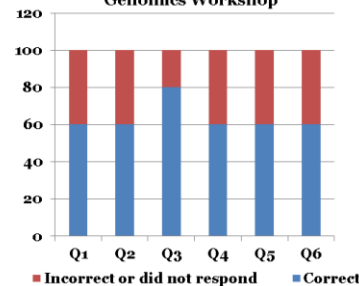


Figure 11b: Post-test questions - Population Genomics Workshop

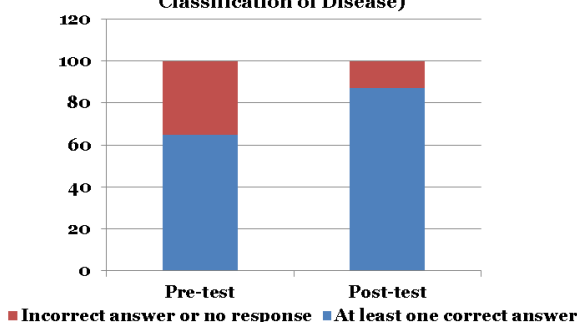


test in contrast to 75% in the pre-test.

For **Cancer Surveillance Workshops (I-V)**, there were 24 participants, of these, 7/24 (29%) were cancer registrars or cancer registry personnel, 7/24 (29%) were PhD scientists, 3/24 (12.5%) were clinician scientists, 3/24 (12.5%) were either other health professionals or scientific support staff, and there were 2/24 (8%) medical students and 1/24 (4%) was a health administrator (one person did not complete the pre-registration, professional status was unknown). Seven questions were asked to evaluate the level of cancer registration knowledge and the knowledge gained after training. The responses to each question was scored as follows: pre-test Q2 (post-test Q1) – 3 points, pre-test Q3 (post-test Q2) – 2 points, pre-test Q4 (post-test Q3) – 3 points, pre-test Q5 (post-test Q4) – 4 points, pre-test Q6 (post-test Q5) – 2 points, pre-test Q7 (post-test Q6) – 2 points, pre-test Q8 (post-test Q7) – 2 points. Therefore each participant survey could have a maximum score of 18 points. Comparison of pre- and post-test scores were done only for those who participated in all four cancer

surveillance workshops (pre-test, n = 8 and post-test, n = 9). For the pre-test surveys, the participant scores ranged from 7 to 16 points. Fifty percent of the participants received a score greater than 11 points (4/8, 50%). While the post-test participant scores ranged similarly from 7 to 15 points, in contrast to the pre-test, a slightly larger proportion of participants received a post-test score greater than 11 points (5/9, 55%). Among the 24 cancer surveillance participants, the majority, 17 (71%) participated in Workshop III – *Coding (International Classification of Diseases)*, 17 completed a pre-test survey and 15 completed a post-test

Figure 12: Pre- and post-test question (Coding International Classification of Disease)

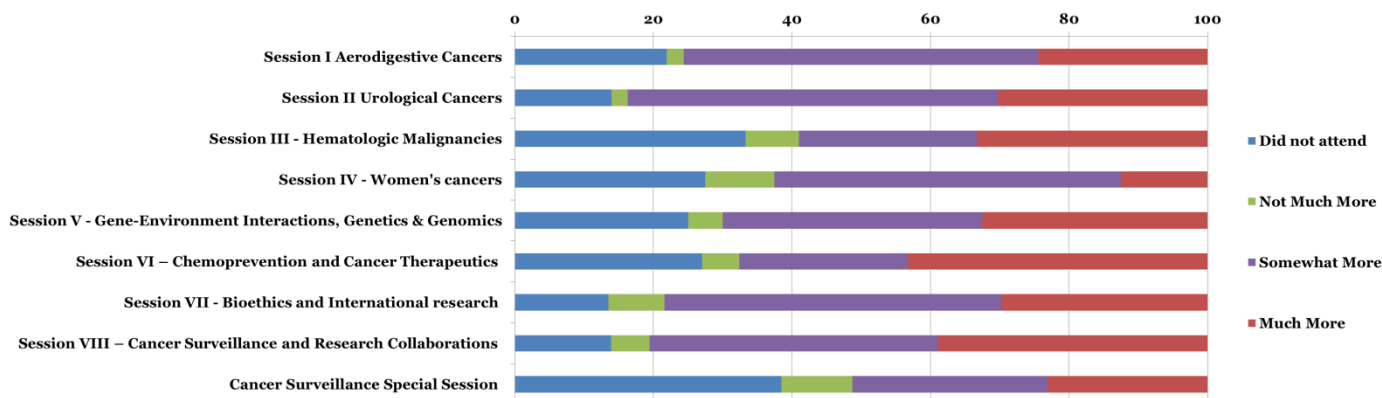


survey. To evaluate knowledge of coding and the knowledge gained after training, pre- and post-test scores for following question was compared “What are the international coding and staging used for data collection in cancer registries”. The correct answers were ICD-O 3rd edition and TNM 7th edition. Figure 12 shows that after training, there was an increase in the number of correct answers to this question.

General Conference Evaluation

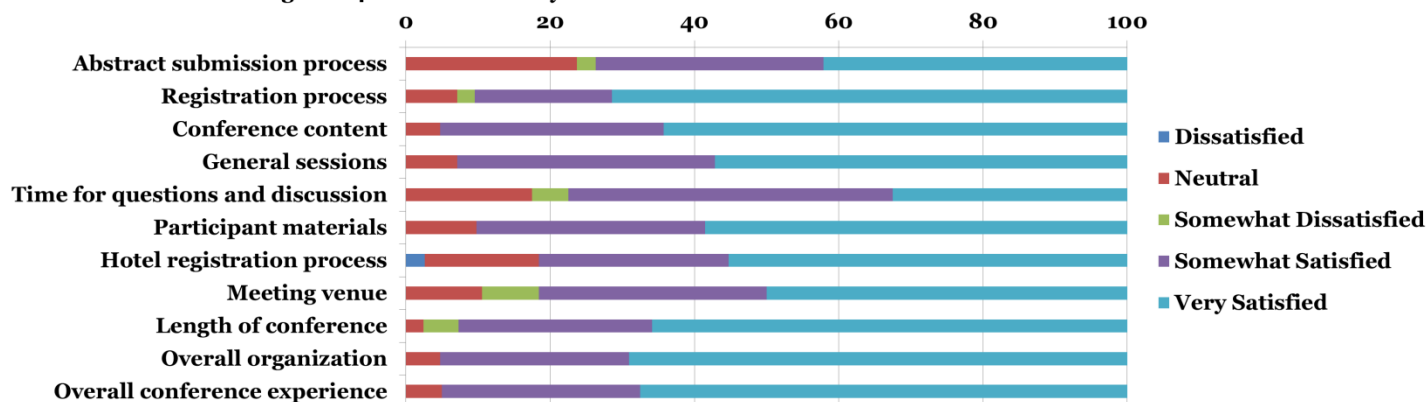
English and French translations of the conference evaluation forms were distributed for the two-day scientific program. Evaluation forms were completed by 48 (44%) of Conference attendees. For each session, attendee had the opportunity to answer questions rating (much more, somewhat more, not much more) for the knowledge gained from each scientific session (Figure 13). The majority of participants reported that they gained somewhat more knowledge after attending sessions I, II, IV, V, VII and VIII. For Session III - Hematologic Malignancies, the majority of participants reported that they gained much more knowledge after attending the session and a similar proportion also reported not attending the session at all. For Session VI – Chemoprevention and Cancer Therapeutics, the majority of participants reported that they gained much more knowledge after attending the session. The majority of participants did not attend the Cancer Surveillance Special Session and similar proportions reported that that the knowledge gained was either somewhat more or much more based on their knowledge prior to attending. The lack of attendance in this session was likely due to conflicts with the concurrent poster session.

Figure 13: Based on your knowledge prior to attending each session how much more did you learn?



The overall satisfaction of the conference was rated (very satisfied, somewhat satisfied, neutral, somewhat dissatisfied, and dissatisfied). Results are summarized in Figure 14. The majority of participants were very satisfied with the conference.

Figure 14: Please indicate your overall satisfaction of the conference



Specific questions were asked whether the conference fulfilled the participant’s reason for attending. Ninety percent (37/41) of the participants indicated “Yes-Absolutely”. Participants were also asked to provide their comments and feedback in short answers, such as the most beneficial aspect of the sessions, suggestions for improvement and suggestions for session topics at future conferences. These comments are summarized in Table 5). Based on the participants’ comments, enthusiasm was the overwhelming tone.

Table 5: Comments from conference participants highlighting the benefits, suggested improvements and suggested sessions for future conferences.

What are the most beneficial aspects of the conference?

“Conférence très intéressante et très bien organisée” (Very interesting and well organized conference)
“Très bonne qualité de présentation pour la session des hémopathies malignes” (Very good presentation for the session of hematological malignancies)
“Interaction and discussion between participants from diverse fields and geographical zones”
“Learning about new scientific advances”
“Learning about ongoing research”
“Deep insight about autologous stem cell transplant”
“Learning about the challenges and successes of the Puerto Rico cancer registry was very useful. I especially enjoyed the Cancer Surveillance Workshop II, Variables, Case Finding, and Data Abstraction & Confidentiality.”
“Grant writing workshop”
“The most beneficial aspects in this meeting is to meet new people and check possible collaborations. I think this was successful since I got to meet 3 new people who potentially could be partners.”
“Coding using ICD-O3”
“SNAIL was very exciting”
“The global and perspective of cancer interactions”
“The content and level of the presentation”
“Excellent topics challenging the audience”
“Networking opportunities to find ways of reaching African Caribbean communities”
“Excellent conference!! Great job ALL!”

Suggested improvements

“More time for questions - a panel discussion around the ethical issues would have been good”
“encourage the attendees to do effective and productive networking”
“more opportunity for personal contact”
“More time should be allocated to this session. It is an interactive session and should be allotted time to understand thoroughly”
“The session on TNM and SEER staging was way too long”
“Some of the Cancer Surveillance Workshops ran over their allotted time. This was a bit of an annoyance. But, since the information being shared was so valuable I don't think anyone minded terribly.”
“More time for discussion”
“Some of the training sessions clashed with the scientific sessions. This should be avoided in the future”
“Moderators should ask at least one question at end of each talk if no questions come from the floor”

What kinds of session would you like to see included at future conferences?

“Anything related to cancer registration and data abstraction”
“Hands on practical workshops”
“Workshops are an excellent idea...further development of this with both techniques and ideas e.g. genomic health, mutation analysis, population statistics”
“Include progress, similarities and dissimilarities with other developing countries”
“An opportunity for creating links e.g. speed dating between participants would be helpful to those who are not already in the AC3 consortium”

3. Significance

This meeting provided an opportunity for the AC3 investigators to gather in one place to present the products of this collaborative work and to discuss the future direction of these studies. Collaborative bridges between the French and English-speaking Caribbean investigators were built. Meeting participants became familiar with studies currently conducted in populations of African descent and increase their knowledge base on the current priorities for advancing cancer health equity in populations of African Ancestry. Community participants come away from this conference knowing more about the modifiable behaviors such as dietary intake, exercise, smoking, alcohol use and sexual behavior that contribute to cancer risk. New investigators benefited from research skills enhancement training on grant writing, community based participatory research and genomics. Cancer registrars and aspiring cancer registrars benefited from cancer surveillance training on how to establish and operate a cancer registry in low resource settings.

4. Future Plans

Our next step is to move forward with planning our next AC3 conference, confirming a date and location for the 2017 meeting. Analysis of the Research Skills Workshop II *Population Genomics* data revealed that there is a need for more research skills training in genomics. We plan to extend this and other training in future AC3 conferences. Suggestions from the conference evaluations for improvements of future conferences will be considered for incorporation in the next AC3 conference which is scheduled for 2017.

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