

EAST AFRICAN COMMUNITY
EAST AFRICAN HEALTH RESEARCH COMMISSION



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6TH EAST AFRICAN HEALTH AND SCIENTIFIC CONFERENCE & INTERNATIONAL
HEALTH EXHIBITION AND TRADE FAIR

***“Preparedness for, and control of disease outbreaks, epidemics, and pandemics,
in the context of climate change, globalization, and gaps in health systems”.***

29-31 March 2017 at Ecole Technique Professionnelle de Bujumbura
Republic of Burundi

CONFERENCE REPORT

- **Message from the Secretary General of the East African Community**



The East African Community (EAC) is convening the 6th Health and Scientific Conference & International Health Exhibition and Trade Fair from 29th to 31st March 2017, in Bujumbura, Republic of Burundi. For the first time, this event is being organized by the East African Health Research Commission (EAHRC) in collaboration with the EAC Partner States through their respective National Ministries responsible for Health, EAC Affairs and other relevant institutions and bodies.

Over the years, the East African Health and Scientific Conference and International Health Exhibition and Trade Fair has contributed towards strengthening regional cooperation in health in line with Article 118 of the Treaty for the establishment of the EAC as well as relevant provisions of the EAC Common Market Protocol. In this regard, EAC Secretariat is committed to continue to support this event. I take the opportunity to encourage EAC Partner States to continue to support it too.

Since the last 5th Health and Scientific Conference and International Health Exhibition and Trade Fair held in March 2015 in Kampala, Republic of Uganda, our Community has been engaged in a number of notable activities such as the operationalization of the East African Health Research Commission and implementation of recommendations from the Conference.

The main theme for this year's conference is **“Preparedness for, and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems”**.

The 6th Health and Scientific Conference will provide an opportunity to share research findings on the theme of the conference, and related symposia will be organized to discuss the main issues from the conference in order to propose to Partner States concrete recommendations and strategies to implement them.

I am grateful to the Republic of Burundi for accepting to host the 6th East African Health and Scientific Conference and International Health Exhibition and Trade Fair. I also thank the other EAC Partner States and various Development Partners for actively contributing towards the success of this event.

I am delighted and pleased to welcome you all to the 6th Health and Scientific Conference and International Health Exhibition and Trade Fair in the beautiful city of Bujumbura, in the Republic of Burundi.

Ambassador Liberat Mfumukeko
Secretary General

- **Message from the Executive Secretary of the East African Health Commission**



I am honoured to welcome you to the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair.

The Health and Scientific Conference and International Health Exhibition and Trade Fair is organized on a rotational basis within the EAC Partner States and is convened as part of the regional cooperation and integration in the health sector as stipulated under Article 118 of the Treaty establishing the East African Community (EAC).

The East African Health Research Commission (EAHRC), an Institution of the EAC, which was established in 2007 and operationalised in 2015, coordinates this event in cooperation with the host nation and all EAC Partner States. This year the event is hosted by the Republic of Burundi, and we appreciate the cooperation that we have been accorded in the preparation of this important EAC event. We appreciate the financial and in-kind support that we have received from EAC, USAID, and others for this event.

Globalisation and climate change are two main factors that will characterise this millennium and profoundly influence health and wellbeing more than at any time before in the entire history of mankind. They will influence disease outbreaks and epidemics; while we are grappling with the HIV pandemic for over three decades now, Ebola, Zika, and Bird flu have shown us just how vulnerable we are, and exposed the weakness of our health systems. Epidemiological data and predictions are indicating that certainly there will be more similar catastrophes in

the future. To-date, of the ten causative agents of the most deadly epidemics in the history of the world, seven of them are still prevalent, and they can be the foci for other deadly epidemics. It is from this background that the East African Health Research Commission synthesized the main theme of this year's event to be: **“Preparedness for, and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalisation, and gaps in health systems”** which, through six sub-themes, will allow sharing of available information and set stage for discussion on various aspects of the theme. The conference through organised symposia, will provide fora for in-depth discussion by experts on key areas and generate recommendations, and strategies for their implementation.

The event is expected to bring together more than 500 experts and stakeholders from within and outside the EAC region; this includes EAC Ministers responsible for EAC Affairs, EAC Ministers of Health, members of parliament, development partners, private sector, researchers, health professionals, policy makers, practitioners, etc.

Alongside the conference, there will be an international health exhibition and trade fair. This will allow participants to showcase health-related activities and products from research, academia, healthcare services and the health sector in general. The exhibition and trade fair will allow exhibitors to access the regional market, create new contacts, and promote their profile and business.

This conference is another avenue for EAC integration that enhances free movement of people, services, and goods: I humbly and with pleasure welcome all of you to the 6th chapter of the East African Health and Scientific Conference.

Prof. Gibson Kibiki
Executive Secretary – EAHRC

- **Message from the Chair of the Conference**



Dear participants,

As chair of the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair, it is a great honor and an immense privilege for me to address my warmest welcome to all the participants to this conference. Special thanks go to participants from neighboring countries who decided to come and spend the next three days in Bujumbura.

The recent and unprecedented epidemic of Ebola that struck three West African countries has exposed the extent of unpreparedness and the extreme fragility of the health systems. Our Region and most of the African countries, still under the burden of both infectious and chronic diseases are facing emerging threats related to the climate change.

The Main Theme: **“Preparedness for and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems”** offers to the researchers, the pharmaceutical industry, the civil society and the policy makers the appropriate forum to exchange on these priority and interlinked issues.

This conference is the opportunity to better know the nature of the burden of disease and the readiness of the health systems in the East African countries.

I do hope that the participants to this conference will reach a consensus around some relevant recommendations to strengthen the health systems and enable them to cope with the triple burden of infectious diseases, chronic diseases and the emerging challenges associated with Climate change and globalization.

With your permission, I would like to finish by thanking all the people who contributed to the success of this event among them the government of the host country under the leadership of his Excellency the President of Republic, the partner States, the East African Community Secretariat, the East African Health Research Commission Secretariat, all the sponsors acting on behalf of the respective governments or on behalf of international or national organizations, the civil society, the National and Regional steering committees and last but not least all the participants including the exhibitors.

On behalf of the Organizing Committee, we wish you a warm welcome and promise to do everything possible to ensure that your stay becomes an unforgettable experience both in terms of science and hospitality.

Prof. Bazira Ildegarde
Chair of the Conference

- **Acronyms**

- AHC: Academic Health Center
- AMR: Antimicrobial Resistance
- CAMEBU: Centrale d'Achats des Médicaments Essentiels, des Dispositifs Médicaux et des Produits et Matériaux de Laboratoire du Burundi
- CHUK: Centre Hospitalo-Universitaire de Kamenge
- EAC: East African Community
- EAHRC: East African Health Research Commission
- EAHSC: East African Health and Scientific Conference
- EAHRJ: East African Health Research Journal
- ECSA East, Central and Southern Africa Health Community
- EPT: Emerging Pandemic Threats
- IAVI: International AIDS Vaccine Initiative
- INSP: Institut National de Santé Publique
- KEMRI: Kenya Medical Research Institute
- MCM: Management Committee Meeting
- NFP: National Focal Point
- NIMR: National Institute for Medical Research
- RBC: Rwanda Biomedical Center
- RMNCAH: Reproductive, Maternal, Newborn Child Adolescent Health
- RSC: Regional Steering Committee
- SACIDS: Southern African Center for Infectious Disease Surveillance
- UNHRO: Uganda National Health Research Organization

- **The East African Health Research Commission**



The East African Community has a number of semi-autonomous institutions that are the implementing part of the Community. As provided by the provisions of Article 118 of the Treaty for the Establishment of the EAC, Partner States resolved to co-operate with one another in the area of health by establishing the “East African Health Research Commission” (EAHRC) as an institution of the Community.

The Protocol for the establishment of EAHRC, signed by the Heads of State of the EAC Partner States in 2008, marked a new era of close cooperation in health in the region.

EAHRC is established as a mechanism for making available to the Community, advice upon all matters of health, and health-related research and findings that are necessary for knowledge generation, technological development, policy formulation, practice, and other related matters. EAHRC is the principal advisory institution to the EAC on Health Research and Development (R&D).

The vision of the Commission is a healthy and prosperous community built on evidence-driven policy and practice, which emanate from high quality research.

The Mission of the Commission is to improve health and well-being of the citizens of the Community by generating, accessing, capturing, assessing, synthesizing, sharing, disseminating, and utilising health research and findings, as well as technological development that are suitable and relevant to the Community and its people. The motto of the EAHRC is “Research for Health and Prosperity”.

The Commission's core values are: Professionalism, Accountability, Transparency, Teamwork, Unity in Diversity and Allegiance to EAC ideals.

EAHRC focuses on improving health of the citizens of EAC as a tangible approach towards poverty eradication. It coordinates efforts that guide provision of safe, quality, affordable, and effective healthcare services in the region.

These efforts include establishment of relevant research programs, development of capacity for health, improvement of health research environment, and creation of effective knowledge management platforms.

As part of knowledge management, EAHRC has established the East African Health Research Journal (EAHRJ) and is in the process of improving the concept and organization of the health and scientific conference so that it enhances the Community's capacity to implement its objectives in matters of research for health.

- **Report Committee**

- Professor Gibson Kibiki, EAHRC Executive Secretary
- Dr Jean de Dieu Ngirabega, EAHRC Deputy Executive Secretary (Research)
- Dr Novat Twungubumwe, EAHRC Principal Health Officer
- Dr Fabian Mashauri, EAHRC Principal Health Officer
- Ms Roselyne Ogweni, EAHRC Accountant
- Ms Betty Nankya, Senior Personal Secretary to the Executive Secretary

- Conference Sponsors

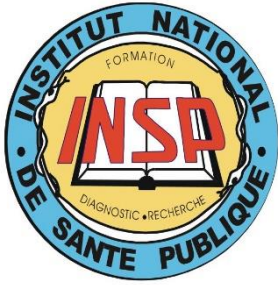




Preparedness & Response
ONE HEALTH IN ACTION



A Healthy People. A Wealthy Nation



1. Introduction

1.1. East African Health and Scientific Conference & International Health Exhibition and Trade Fair

The East African Health and Scientific Conference & International Health Exhibition and Trade Fair was approved by the 12th Ordinary Session of the EAC Council of Ministers in the year 2006, to be convened in East Africa and hosted on a rotational basis by the EAC Partner States through their respective National Ministries responsible for EAC Affairs, the Ministry responsible for Health, and other relevant institutions and bodies, and in close collaboration with regional and international health-related NGOs, civil society organizations, individuals, and other stakeholders in the region. The first East African Health and Scientific Conference (EAHSC) was hosted by the Government of the Republic of Uganda, in March 2007 on the theme “*Responding to Health Challenges in East Africa*”; the second was hosted by the Government of the United Republic of Tanzania in March 2008 on the theme “*Addressing poverty and health in East Africa: Challenges to meeting the Millennium Development Goals*” and the third was hosted by the Government of the Republic of Kenya in March 2009, on the theme “*Climate change, Environment and Health*”. The 4th EAHSC was hosted by the Government of the Republic of Rwanda from March 31 to April 2, 2013 on the theme “*Regional Health Priorities and Opportunities: Evidence for Action in the Changing Global Financial Situation*”. The 5th Conference was hosted by the Republic of Uganda from 25th -27th March 2015 under the theme “*Investing in health through strengthening regional health systems, and institutions towards the prevention and control of communicable and non-communicable diseases*”. The East African Health and Scientific Conference and International Health Exhibition and Trade Fair contributes towards strengthening regional cooperation in health in line with Article 118 of the Treaty for the establishment of the EAC as well as relevant provisions of the EAC Common Market Protocol.

1.2. Sixth East African Health and Scientific Conference & International Health Exhibition and Trade Fair (6th EAHSC)

The 10th ordinary meeting of the EAC Sectoral Council of Ministers of Health held in Arusha, on 16th October 2014, approved the hosting of the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair in 2016 by the Republic of Burundi (EAC/Health/SCM-10/Decision 006).

However the 6th EAHSC was postponed to the year 2017 and the 12th Sectoral Council of Ministers of Health held in Arusha on 23rd June approved the main theme and subthemes of the conference as well as the dates of the conference. The conference was held at the " *Ecole Technique Professionnelle de Bujumbura*", from 29th -31st March 2017.

1.3. Handover of EAHRC activities to EAHRC Secretariat

Based on the Protocol establishing the East African Health Research Commission (EAHRC), the Commission is tasked with the responsibility of coordinating the East African Health and Scientific Conference & International Health Exhibition and Trade Fair. The EAHRC Secretariat was operationalized since May 2017 with the appointment of the Executive Secretary, the Deputy Executive Secretary in charge of Research and an Accountant. The new Secretariat was given right away the responsibility of starting activities of preparedness for the conference. These activities were previously carried out by the EAC Secretariat through the department of health.

2. Objectives of the 6th EAHSC

The objective of the 6th EAHSC was to share knowledge and to enhance the capacity of EAC Partner States health systems for preparedness for, and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems”.

Specific objectives of the 6th EAHSC were to review the progress made by EAC Partner States

Specifically, the conference aimed at reviewing the progress made by countries in the EAC with regard to:

- Emerging, re-emerging infectious, and zoonotic diseases
- Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases
- Antimicrobial resistance
- Health systems in control of outbreaks, epidemics, and pandemics
- Social mobilization for control of outbreaks, epidemics, and pandemics
- Occupational health and safety, climate change.

3. Development of main theme, sub-themes, symposia for the 6th EAHSC

3.1. Proposal by EAHRC

The development of the theme for the 6th EAHSC was initiated when the outbreak of Ebola was raging through West Africa. Considering the situation, the EAHRC Secretariat proposed that the upcoming conference focus on preparedness for and control of outbreaks, epidemics, and pandemics in East African Community. The EAHRC Secretariat proposed the main theme, subthemes and symposia for the 6th EAHSC and submitted them, for consultation, to the EAC Regional Meeting of Health and Legal Experts to review the draft bill on the establishment of the East African Health Research Commission and related matters held in Kigali, Rwanda from 21st to 24th September, 2015. The EAC Regional Meeting of Health and Legal Experts discussed and inputted the main theme and sub themes of the 6th EAHSC. The

proposed themes and sub themes were further submitted to the Sectoral Committee of Health held in Kigali from 12th-16th October, 2015 for consideration.

3.2. Approval by the Sectoral Council

The main theme, subthemes and symposia discussed by the EAC Regional meeting of Health and Legal Experts held in Kigali (21st -24th September 2015) and submitted to the Sectoral Committee (Kigali 12th -16th October 2015) were considered by the Coordination Committee preparing for the 12th Sectoral Council of Ministers. After input, they both approved the main theme, sub themes and symposia and recommended to the EAHRC to submit the proposed theme, sub-themes and Symposia for the “6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair” to Partner States for review and inputs. This was done during the visits of the EAHRC Secretariat to Partner States to operationalize the National Focal Points (NFP) and the national Stakeholders. The 12th Ordinary Meeting of the EAC Sectoral Council of Ministers of Health held in Arusha on 23rd June 2006, approved the main theme, subthemes and symposia of the 6th EAHSC.

3.3. Approved main theme, sub themes and symposia

The main theme, subthemes and symposia approved by the 12th Sectoral Council of Ministers are the following:

3.3.1. Main Theme

“Preparedness for, and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems”.

3.3.2. Sub-themes

- Subtheme 1: Emerging, re-emerging infectious, and zoonotic diseases
- Subtheme 2: Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases
- Subtheme 3: Antimicrobial resistance
- Subtheme 4: Health systems in control of outbreaks, epidemics, and pandemics
- Subtheme 5: Social mobilization for control of outbreaks, epidemics, and pandemics
- Subtheme 6: Occupational health and safety, Climate change

3.3.3. Symposia

- Lessons learnt from Ebola and Highly Pathogenic Avian Influenza H5N1: Way forward for Preparedness for and control of outbreak
- Lessons learnt from HIV pandemic: Preparedness for and control of the adverse events associated with chronic administration of ARV agents.
- Managing recurrent epidemics: Experiences and opportunities for strengthening preparedness and control of epidemics in EAC.
- Antimicrobial agents use, antimicrobial resistance and policy on antimicrobial agents in the East African Community
- Mitigating impact of globalisation and climate change on health
- Integrated Reproductive Maternal New-born Child and Adolescent Health (RMNCAH) and HIV/AIDS

Two symposia were added thereafter to be part of the symposia of the conference. These are:

- Strengthening collaboration between civil society and key research stakeholders in promoting health research and innovation in Africa
- Academic Health Center: important part of the health improvement agenda in low and middle-income countries

4. Preparations activities

4.1. Nomination of steering committees

The Ministerial Session of the 12th Ordinary Meeting of the EAC Sectoral Council of Ministers of Health held at the EAC Headquarters in Arusha, Tanzania on Wednesday, 23rd June 2016 directed the East African Health Research Commission to activate the EAC Regional and National Organizing Committee of the East African Health and Scientific Conferences & International Health Exhibition and Trade Fair. In accordance with the decisions of the 5th ordinary Meeting of the EAC Sectoral Council of Ministers of Health held in Arusha, Tanzania on 21st January 2011, each of the EAC Partner States is required to constitute and nominate three (3) members of the EAC Regional Steering Committee who should come from the relevant national ministries and institutions.

The primary responsibility of the regional steering committee is the oversight and organization of the East African Health and Scientific Conferences & International Health Exhibition and Trade Fair. It works with National steering committees, and in particular the national steering committee of the host country, to ensure a dynamic conference programme.

The Executive Secretary of EAHRC requested the Partner States to constitute and for purposed of commencing preparations for the conference nominate the members of the regional and national steering committees by the letter INS/6/18/16 dated 29th April 2016. By July 2016 all EAC Partner States had nominated Members the EAC Regional and National Steering Committees **(Annex I &II)**.

4.2. Meeting of steering committees

4.2.1. National Steering Committees.

Following a background paper drafted by the EAHRC and forwarded to all National Focal Points, national steering committees of the 6th EAHSC were launched in all Partner States during the month of August 2016. Specifically for the Host Nation, the inaugural meeting of the national steering committee was held from 23rd to 24th August 2016 and attended by the EAHRC Secretariat. National steering committees continued to be organized until the day of the conference in March 2017. For the Host Nation, the EAHRC attended another national steering committee meeting on 28th January 2017 to assess the progress of preparations at host country level. It was an evaluative meeting that focused on the status of confirmation of key note speakers, finalization of the process of abstracts assessment, status of confirmation of symposia organizers, status of preparation of the international health exhibition and trade fair, programme of the conference, the status of mobilization of funds and the site visit of the venue. This meeting was also preparing for the 2nd meeting of the regional steering committee.

4.2.2. Regional Steering Committees

Two Regional Steering Committees were organized in preparations for the 6th EAHSC. The first Regional Steering Committee was organized on 25th-26th August in Bujumbura, Burundi. The purpose of the first meeting of the regional steering committee was to commence Regional Preparations for the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair and give guidance to the National Steering committees and EAHRC Secretariat on the way forward. It considered the Terms of Reference (TORs) for the Regional Steering Committee and National Steering Committee, the report of the National Steering Committee of the Host Country as well as reports of

other partner states, the venue of the conference, the indicative budget for the conference, and the road map of activities to be done until the date of the conference.

The second regional steering committee, opened by Dr Josiane Nijimbere, Minister of Public Health and Fight against AIDS of the Republic of Burundi was held in Bujumbura from 17th to 18th February 2017. The purpose of the 2nd meeting of the regional steering committee was to review the progress of the preparations for the 6th EAHSC in order to give guidance on the way forward. The meeting reviewed the implementation of the recommendations of the 1st Regional Steering Committee and was updated on the preparations for the conference by the NSC of the Country, other NFPs and the EAHRC Secretariat. All sub committees of the NSC of the Host Country submitted a progress report to the RSC. The 2nd RSC also considered the Conference Programme and the venue for the conference. The meeting commended the work done by the EAHRC Secretariat and NFPs in mobilizing researchers to submit abstracts and addressed a number of recommendations to the National Steering Committee of the Republic of Burundi and to the EAHRC Secretariat to improve preparations for the conference. Recommendations were mainly related to information strategy for awareness so that the general public nationally, regionally and globally is well informed about the conference; mobilizing funds to support researchers to attend the conference and to mobilize exhibitors for the international health exhibition; speeding up the process of inviting all Ministers of Health, Members of Parliament in Partner States and EALA Members; and to the preparations of the subcommittees of the national Steering Committee. The meeting adopted the programme of the conference.

4.3. Conference publicity

The 6th EAHSC was advertised at regional and partner state level.

- Regional level

A web page was opened on the EAC website. This webpage provided information on the conference including call for abstracts and forms to submit abstracts. A press conference was organized by EAC Secretariat in collaboration with the EAHRC Secretariat on 16th March 2017 and targeted East African media including radios, TVs and the press. The EAHRC Secretariat also used other means to advertise the conference such as emails, banners, and meetings in Partner States.

- Partner States level

All National Focal Points and some National Stakeholders have advertised the 6th EAHSC using their websites. National Focal Points have organized meetings to inform national stakeholders on the conference.

4.4. Abstracts

4.4.1. Call for abstracts

A call for abstracts indicating the main theme of the conference, subthemes and symposia, was prepared. It also indicated the venue, the preconference meetings, and the deadline of abstracts submission and modalities of registration to the conference. The call was widely communicated through the webpage of the EAHRC, all the websites of National Focal Points, and other means of communication. The deadline for abstracts submission was put on 30 November 2016 with a plan to notify acceptance of abstracts to author on 31st December 2016 and to receive final submission of abstracts on January 31st 2017. A form for abstract submission accompanied the call for abstract.

4.4.2. Abstracts submission

By November, 2016, abstracts submitted were very few (less than 10). The 13th Sectoral Council on Health held in Nairobi on 18th November 2016 took note of the progress of the preparations for the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair and directed the EAHRC to collaborate with EAC Secretariat to sensitize prospective presenters to submit abstracts timely in order to ensure success of the conference (EAC/Health/SCM13/Directive). It also directed the EAHRC in collaboration with the EAHRC Commissioners, Regional Steering Committee and the Republic of Burundi to review the progress of preparation especially extending the deadline for submission of abstracts, and brainstorm on possible ways to address the financial gap (EAC/Health/SCM13/Directive). Following the decision of the Sectoral Council on Health, the EAHRC Secretariat organized an urgent general meeting of NFPs from which resolutions were made to mobilize national scientists for submission of abstracts. The EAHRC Secretariat organized also visits to universities in the region and held meetings with the leadership, academic staff, researchers and residents to present the conference and the East African Health research Journal (EAHRJ). At the end of January 2017, a total number of 175 abstracts was submitted.

- Table 1: Submitted abstracts and posters by subtheme

Subtheme	Number of abstracts submitted	Number of posters	Total
Emerging, re-emerging infectious, and zoonotic diseases	18	3	21
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	16	0	16
Antimicrobial resistance	18	0	18
Health systems in control of outbreaks, epidemics, and pandemics	58	18	76
Social mobilization for control of outbreaks, epidemics, and pandemics	21	0	21
Occupational health and safety, Climate change	6	1	7
Unclassified	16	0	16
Total	153	22	175

- Table 2: Submitted abstracts and posters by partner state

Subtheme	Partner State					Total
	Burundi	Kenya	Rwanda	Tanzania	Uganda	
Emerging, re-emerging infectious, and zoonotic diseases	1	9	4	4	3	21
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	0	9	0	5	2	16
Antimicrobial resistance	2	7	0	4	5	18
Health systems in control of outbreaks, epidemics, and pandemics	4	31	2	20	19	76
Social mobilization for control of outbreaks, epidemics, and pandemics	1	8	3	5	4	21
Occupational health and safety, Climate change	1	2	0	2	2	7
Unclassified (proposed for EAHRJ)	3	7	0	0	6	16
Total	12	73	9	40	41	175

4.4.3. Abstracts review

Given the time available to review the abstracts and notify the decision to authors, the Management Committee Meeting (MCM) of the EAHRC Secretariat decided to use the scientific committee of the EAHRC Secretariat as reviewers and to submit the outcomes to the scientific subcommittee of the host Country. Using criteria put in place, the EAHRC scientific committee was urged to insist on comments that could improve the quality of the work and encourage the author. Accepted abstracts were classified for oral or poster presentation.

Taking into account the fact that the sessions of the conference were able to accommodate a limited number of for oral presentation, 72 abstracts out of 159 were accepted to be presented during the sessions. After the review process, abstracts could be accepted for oral presentation without any correction required or accepted for oral presentation with minor corrections. Authors of abstracts accepted for oral presentation were notified and requested to send a power point to EAHRC Secretariat.

Authors of abstracts not accepted for presentations during the sessions was also notified, advised on what corrections to do and requested to submit an abstract for poster presentation.

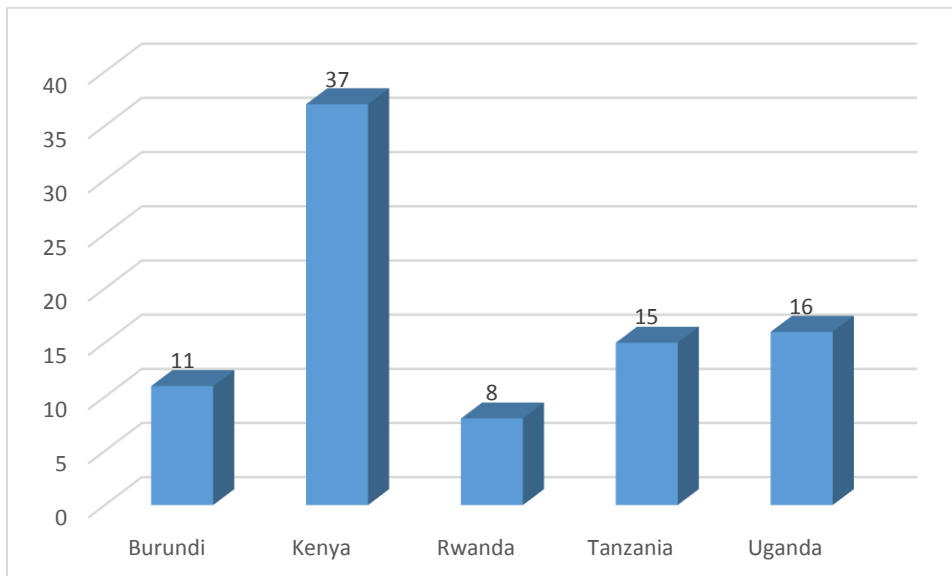
4.4.4. Abstracts proposed for oral presentation

After review, 72 abstracts were proposed to be oral presentations, 87 abstracts to be posters, and 16 abstracts not classified in any of the subthemes of the conference. Authors of abstracts that were not linked to any subtheme of the conference were advised to submit a full manuscript to the EAHRJ.

- Table3: Abstracts accepted for oral presentation after review, by subtheme and partner state

Subtheme	Burundi	Kenya	Rwanda	Tanzania	Uganda	Total
Emerging, re-emerging infectious, and zoonotic diseases	0	5	2	2	3	12
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	1	6	0	4	1	12
Antimicrobial resistance	2	3	0	3	4	12
Health systems in control of outbreaks, epidemics, and pandemics	2	7	2	3	4	18
Social mobilization for control of outbreaks, epidemics, and pandemics	1	5	1	3	2	12
Occupational health and safety, Climate change	1	1	0	3	1	6
Total	7	27	5	18	15	72

- Figure 1: Abstracts accepted for poster presentation after review by partner state



4.5. Guidelines and instructions

In order to guide the presenters, chairs and rapporteurs of sessions, symposia organizers, speakers and participants, the EAHRC Secretariat developed a number of instructions and guidelines to be used for the conference (**Annexe III**). The following tools have been developed:

- Guidelines for symposia organizers
- Guidelines for chairs, speakers and rapporteurs
- Guidelines for abstract presenters
- Guidelines for poster presenters
- Instructions for the master of the opening ceremony
- Guidelines for chairs, rapporteurs and time keepers
- Instruction for the master of the closing ceremony

5. Resource mobilization

5.1. Revenues

The EAHSC is jointly organized and financed by EAC and the respective host country. The EAHRC Secretariat and the host country have the responsibility to mobilize resources for the conference. Other EAC Partner States also have the responsibility to mobilize resources and participants for the conference.

The 6th EAHSC was financed by EAC Partner States through EAC appropriated budget FY2016-2017, the development partners and the Government of Burundi, being the host country. The funding was direct, indirect or in-kind.

The indicative budget developed by the EAHRC Secretariat and submitted to the Regional Steering Committee was valued to US\$669,695 (**Annex IV**). The estimates considered funds for logistical preparation, arrangement and procurement of relevant materials required for the conference (abstracts books, banners, poster stands, brochures, conference bags, media, website), convening of preparatory

meetings of the conference (national steering committees, regional steering committees), convening of the actual conference (venue, invitees, organizers, chairs of sessions, refreshments, lunch, gala dinner, security, awards and event manager), preconference meetings and a 10% contingency.

- Table 4: Indicative budget for the 6th EAHSC

Description	Total Cost USD
Logistical preparation, arrangement and procurement of relevant materials required for the 6 th EAC Health Scientific Conference	154,932
Convene preparatory meetings of the 6 th East African Health and Scientific Conference	52,800
Convene the actual 6 th Annual East African Health and Scientific Conference Bujumbura Burundi	394,832
Pre Conference Meetings of Boards and Council and the 13 th Meeting of the Sectoral Council on Health	6,250
Contingency (10%)	60,881
Total	669,695

- Table 5: Detail of shared budget between the EAHRC and the Government of Burundi

	Value	Shared between EAHRC and Burundi	Contingency	Total
EAHRC Share	379,050	33,216	41,227	453,492
Burundi	163,332	33,216	19,655	216,203
Total	542,382	66,432	60,881	669,695

- Mobilized budget by the EAHRC Secretariat

The EAC Partner States budget allocated US\$149,886 for the organization and convening of the 6th East African Health and Scientific Conference & International Health Exhibition and Trade Fair. The EAHRC Secretariat mobilized an additional US\$150,000 from USAID for conference and post conference activities giving a total of US\$299,886.

- Other funders of the 6th EAHSC
 - o PATH supported a symposium by contributing US\$5,000
 - o Ministry of Public Health, Burundi: funded two symposia
 - o EDCTP-TWENDE: funded a symposium
 - o ECSA : funded a symposium
 - o USAID EPT2 Project: funded a symposium
 - o EAC Health Department: funded a symposium
 - o Aga Khan University Nairobi: funded a symposium

- Participants Registration and Exhibitors fees

Participants to the 6th EAHSC were expected to pay registration fees by electronic fund transfer or cash upon arrival. Exhibitors were also expected to pay for the exhibition booth.

- Table 6: Registration and exhibitors fees

Description	Amount (USD)
Registration (EAHRC Secretariat)	3,895
Registration (Host Country)	---
Hiring of exhibition booth (EAHRC Secretariat)	6,000
Contribution of PATH to the symposium	5,000
Total	14,895

5.2. Expenditures

- Table 7: EAHRC expenditures of the 6th EAHSC

Description	Amount (USD)
Procurement of Conference Materials including Advertising, Branding and Publishing of the 1 st and Supplementary Issue of the EAHRJ and courier costs (EAHRC Secretariat)	44,900
Air Travel and Ground Transport (EAHRC Secretariat)	53,021
Conference Package i.e. Teas & Snacks, Lunch, Gala Dinner(EAHRC Secretariat)	45,509
Printing , Photocopying and Other Logistics (EAHRC Secretariat)	4,516
DSA	94,020
Total	241,966

6. Invitations

6.1. Guest of Honor

The Guest of Honor of the 6th EAHSC was His Excellence (H.E.) Pierre Nkurunziza, President of the Republic of Burundi. On 8th March 2017, the EAC Secretary General requested the Ministry to the Office of the President Responsible for East African Community Affairs, to invite H.E. the President of the Republic of Burundi to officiate at the 6th East African Health and Scientific Conference and International Health Exhibition and Trade Fair as the Chief Guest. This request was approved.

6.2. Key note speakers

In accordance with the rules in force, the key note speaker for the main theme of the conference comes from one of the EAC Partner States on a rotational basis and should not be from the hosting country. Taking into account the previous conference, the URT was requested by the Executive Secretary of the EAHRC to appoint the keynote speaker of the conference.

Accordingly Professor Japhet Kilewo of Muhimbili University was appointed by the Ministry of Health, Community Development, Gender, Elderly and Children. The EAHRC Secretariat decided also to invite a keynote speaker for each subtheme of the Conference.

- Table 8: Key note speakers of the 6th EAHSC and their affiliation.

Theme/subtheme	Key note Speaker	Affiliation
Preparedness for and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems	Prof. Japhet Kilewo	Muhimbili University , Tanzania
Emerging, re-emerging infectious, and zoonotic diseases	Prof. Mark Rweyemamu	Southern African Centre for Infectious Disease Surveillance (SACIDS), Sokoine University of Agriculture, Tanzania
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	Dr. Kamali Anatoli	Regional Director Africa International AIDS Vaccine Initiative, Kenya
Antimicrobial resistance	Prof. Sam Kariuki	Kenya Medical Research Institute, Kenya
Health systems in control of outbreaks, epidemics, and pandemics.	Dr. Andrew Kitua	Director, East and Central Africa Region, USAID EPT2 Preparedness & Response Project, Kampala, Uganda
Social mobilization for control of outbreaks, epidemics, and pandemics	Dr. Sam Okware	Director General Uganda National Health Organization, Uganda
Occupational health and safety	Dr Pierre Claver Kariyo	WHO AFRO
Climate Change	Mr. John Gakumba	Coordinator, Nile Basin Discourse Forum, Rwanda

6.3. Government Officials from EAC Partner States

Invitations were sent to the following Officials from EAC Partner States and EAC Secretariat:

- EAC Partner States
 - o Chair of the Council
 - o Members of the Sectoral Council of Health (including the Coordination Committee and Sectoral Committee)
 - o EAHRC Commissioners
 - o Members of Parliament from EAC Partners States including Zanzibar
 - o Senators from EAC Partner States
 - o Members of EALA General Purposes Committee.
 - o Heads of EAHRC National Focal Points
 - o Members of the Regional Steering Committee
 - o National Health Professional Boards, Councils, Associations, Societies and Federations

- EAC Secretariat and Institutions
 - o EAC Executives
 - o Speaker of EALA
 - o President of the Court of Justice
 - o Executive Secretaries of EAC Institutions
 - o Director of Social Sectors
 - o EAC Health Department staff

6.4. Presenters and other participants

All presenters and all participants who registered to the conference were sent an invitation letter by the Executive Secretary of the EAHRC.

7. The conference

7.1. Conference programme

The programme of the 6th EAHSC was drafted by the Scientific Committee of the EAHRC in consultation with the National Steering Committee of the Host country and submitted respectively to the Regional Steering Committee and the 3rd meeting of Commissioners for approval. The programme was composed of a master programme and a detailed programme (**Annex VI**).

The development of the program took into account the number of days of the conference and symposia, the time for the opening/closing ceremony, the number/duration of sessions, and the time allocated to each presentation. It was decided that each subtheme will have two sessions of 6 abstract presentations, each abstract presentation 10 minutes with 40 minutes of discussions after each session. For 6 subthemes, the conference was divided into 12 sessions. Two subthemes were discussed in parallel sessions. Parallel sessions were introduced by keynote speeches on the concerned subthemes before breaking out into sessions. Thus the first two days of the conference were divided into the opening ceremony (3h30), 12 sessions of 60 minutes for abstract presentations and 40 minutes of discussion, and 3 plenary sessions of 40 minutes. The last day was dedicated to the eight (8) symposiums of the conference organized in parallel rooms, each symposium lasting for 2 hours. A plenary to outline general recommendations of the conference and 1 hour closing ceremony ended the conference.

7.2. Chairing Sessions

The EAHRC Management Committee decided that all plenary sessions and parallel sessions will be chaired by the EAHRC Commissioners. Co-chairs of sessions and rapporteurs came from the National Steering Committee of the Host Country, the Republic of Burundi. The EAHRC Secretariat took care to

inform all chairs, co-chairs and to obtain their consent. Instructions on chairing sessions and reporting were sent to all of them beforehand.

7.3. Rapporteurs

The National Steering Committee of the Host Country has appointed teams of rapporteurs to cover the 6th EAHSC. Each session and symposium was covered by two rapporteurs and 1 time keeper. The National Steering Committee appointed rapporteurs and time keepers.

- Table 9: rapporteurs of the 6th EAHSC

Rapporteur/Time Keeper	Institution
Prof. Joseph Nyandwi	Faculty of Medicine of Bujumbura
Prof. Paul Bizimana	National Public Health Institute of Burundi
Mr. Ferdinand Ncabwenge	Faculty of Medicine of Bujumbura
Dr. Zacharie Ndizeye	Faculty of Medicine of Bujumbura
Mr. Leonard Ntakarutimana	National Public Health Institute of Burundi
Dr. Prosper Niyongabo	National Public Health Institute of Burundi

7.4. Opening ceremony



The opening ceremony of 6th EAHSC was officiated by His Excellency, Pierre NKURUNZIZA, President of the Republic of Burundi, in presence of Ministers from EAC Partners States, Cabinet Members from the Republic of Burundi, EAC Secretariat and Institutions Executives, Members of the East African Legislative Assembly (EALA), Members of Burundi Parliament, Members of Diplomatic and Consular Corps accredited to Bujumbura, Development Partners, the leadership and staff of EAC Secretariat, Policy makers, Health professionals, Researchers, Scientists and Academicians, Civil Society Organization representatives, private sector, medical students and exhibitors. The opening ceremony included remarks of the Chair of the conference, the Executive Secretary of the EAHRC and co-chair of the conference, the EAC Secretary, H.E. the Ambassador of the USA in Bujumbura (Representative of development partners), the Minister of Public Health and fight against AIDS of the Republic of the Burundi, the Minister of Health, Community Development, Gender, Elderly and Children of the United Republic of Tanzania (Chair of the EAC Council), and the opening speech of the Guest of Honour. The opening ceremony also included the launch of the EAHRC National Focal Points, the swearing in of the EAHRC Commissioners and a the keynote address by Prof. Japhet Kilewu, from Muhimbiri University, on “Preparedness for and control of disease outbreaks, epidemics, and pandemics, in the context of climate change, globalization, and gaps in health systems”.

The Master of Ceremonies was Ambassador Zephyrin Maniratanga, Chief State Protocol, and Republic of Burundi.

7.5. Sessions

7.5.1. Plenary sessions

The conference had three plenary sessions meant to introduce the subthemes. The first plenary session introduced sessions on the subtheme “ Emerging, re-emerging infectious, and zoonotic diseases”, with Prof. Mark Rweyemamu from Southern African Centre for Infectious Disease Surveillance (SACIDS) Sokoine

University of Agriculture as key note speaker; and the subtheme “Health systems in control of outbreaks, epidemics, and pandemics” with Dr. Andrew Kitua, Director, East and Central Africa Region, USAID EPT2 Preparedness & Response Project, Kampala, Uganda, as key note speaker. The second plenary session introduced sessions on the subtheme “Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases” with Dr Kamali Anatoli, the African Regional Director of International AIDS Vaccine Initiative (IAVI) as key note speaker, and the subtheme “Social mobilization for control of outbreaks, epidemics, and pandemics” with Dr Sam Okware, the Director General of Uganda National Health Organization (UNHRO), as key note speaker. The third plenary session introduced sessions on the subtheme “Antimicrobial resistance”, with Dr John Ndemi from Kenya Medical Research Institute replacing Prof. Sam Kariuki, as key note speaker; the subtheme “Occupational health and safety , Climate Change” with Dr Ciza Alphonse from WHO Burundi and Mr. John Gakumba, the Coordinator of Nile Basin Discourse Forum as key note speakers.

- Plenary sessions of the 6th EAHSC and Keynote Speakers

Five (5) out of seven (7) key notes speakers invited were present. The two invited key note speakers who were not available proposed speakers to deliver their key note speech.

- Table 10: Response of Keynote Speakers of the 6th EAHSC

Plenary sessions	Keynote speaker
Emerging, re-emerging infectious, and zoonotic diseases	Prof. Mark Rweyemamu
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	Dr Kamali Anatoli
Antimicrobial resistance	Prof. Sam Kariuki represented by Dr John Ndemi
Health systems in control of outbreaks, epidemics, and pandemics.	Dr. Andrew Kitua
Social mobilization for control of outbreaks, epidemics, and pandemics	Dr San Okware
Occupational health and safety	Dr Pierre Claver Kariyo represented by Dr Alphonse Ciza
Climate Change	Mr. John Gakumba

7.5.2. Parallel sessions

After each plenary session introducing the two subthemes to be discussed in parallel sessions, two breakout sessions were organized for abstract presentations on each subtheme. Similar to the plenary sessions, the breakout sessions for abstract presentations had a chair person (EAHRC Commissioner), a co-chair (National Steering Committee) and rapporteurs. In general 86.1% of abstracts planned to be presented during the sessions were effectively presented by their authors.

- Abstracts presented on the subtheme on “emerging, re-emerging infectious, and zoonotic diseases”

Out of 12 abstracts planned to be presented on the subtheme “emerging, re-emerging infectious, and zoonotic diseases”, nine abstracts (75%) were effectively presented by their authors.

- Table 11: Status of presentation of abstracts of the session 1 on “emerging, re-emerging infectious, and zoonotic diseases”

Abstracts	Author	Status after the conference
Comparative efficiency of <i>Biomphalaria pfeifferi</i> and <i>B. sudanica</i> as intermediate host snails for <i>Schistosoma mansoni</i> and its implications on transmission of schistosomiasis in Kenya.	Mutuku Martin Wambua Kenya Medical Research Institute, Kenya	Presented
Mapping hotspots of chikungunya and dengue transmission in Northeastern Tanzania using disease exposure and vector data.	Kajeguka Debora Charles Kilimanjaro Christian Medical University College, Tanzania	Presented
The prevalence of <i>Leptospira</i> bacteria in rodent and shrew species and potential for its transmission to both humans and animals in and around Queen Elizabeth National Park	Bigala Erick Evans Kigai Makerere University, Uganda	Presented
Prevalence and factors associated with hepatitis B and C infection in persons living with HIV enrolled in care in Rwanda	Umutesi Justine Rwanda Biomedical Center, Rwanda	Not presented
Prevalence and Intensity of <i>Schistosoma haematobium</i> pre-post treatment with praziquantel in pre-school age children of Kwale County, Kenya	Kimani Bridget Wanjiku Kenya Medical Research Institute, Kenya	Presented
A false reported typhoid outbreak due to inadequacies in Typhoid surveillance	Kusiima Joy Fellow, Field Epidemiology Training Program Ministry of Health / Uganda Cancer Institute, Uganda	Presented

- Table 12: Status of presentation of abstracts of the Session 2 on “emerging, re-emerging infectious, and zoonotic diseases”

Abstracts	Author	Status after the conference
Cluster of meningococcal meningitis in a rural district of Western Province, Rwanda, 2015.	Jean Leonard Hakizimana Rwanda Biomedical Center, Rwanda	Not presented
Surveillance for Acute Flaccid Paralysis (AFP), National Stop Transmission of Polio Mission in Kasese District, Western Uganda, September 2015	Alice Namugamba Makerere University, School of Public Health, Uganda	Presented
CESSARI: A research initiative on Cystic Echinococcosis in sub-Saharan Africa	Mbae Cecilia Kenya Medical Research Institute, Kenya	Presented
Protecting people and animals from high-impact disease threats – FAO's component of the USAID's emerging pandemic threats phase – 2 (EPT-2) programme	Fasina Forunso ECTAD/FAO Kenya, Uganda & Ethiopia, Tanzania	Not presented
Identification and Characterization of Black <i>Aspergillus</i> fungi Isolated from Maize in Aflatoxigenic Hot Zones in Kenya	Mashedi Olga Kenya Medical Research Institute, Kenya	Presented
The effect of a developed insecticide in protecting maize grains against maize weevils and weight loss under semi-field condition	Emidi Basiliana Kilimanjaro Christian Medical University College, Tanzania	Presented

From presentations and discussions on the subtheme “emerging, re-emerging infectious and zoonotic diseases” emerged that the importance of interaction and mobility of humans, animals and plants as well as the increasing infectious disease burden, are leading to a complex health management situation. It was also observed that health systems are still in need of skilled health workers while the laboratory capacity for the diagnostic remains weak. In addition, the response to emerging and re-emerging infectious and zoonotic diseases is not yet enough integrated. Some emerging or re-emerging diseases such as Leptospirosis, Chikungunya, Schistosomiasis, are still neglected and not adequately addressed.

Recommendations such as to strengthen health systems capacity through laboratories diagnostic capacity reinforcement and health workers training, to invest in research for evidence-based and integrated strategies to address emerging or re-emerging diseases in both humans and animals, and to implement a Regional One Health Research and Training Platform (Centre of Excellence) were formulated.

- Abstracts presented on the subtheme on “vaccines, diagnostics, and antimicrobial agents in control of communicable diseases”

Out of 12 abstracts planned to be presented on the subtheme “vaccines, diagnostics, and antimicrobial agents in control of communicable diseases”, ten abstracts (83.3%) were effectively presented by their authors.

- Table 13: Status of presentation of abstracts of the Session 1 on “vaccines, diagnostics, and antimicrobial agents in control of communicable diseases”

Abstracts	Author	Status after the conference
Plasmodium falciparum causing febrile infections express EPCR-binding PfEMP1	Mkumbaye Sixbert Kilimanjaro Christian Medical University College, Tanzania	Presented
Bacterial superglue generates VLP based full-length CSP protein virus-like particle vaccine capable of inducing high and durable antibody responses	Matondo Sungwa Kilimanjaro Christian Medical University College , Tanzania	Presented
Synthesis of a novel trioxaquine with potential to replace artemether-lumefantrine (alu) for malaria chemotherapy	Wamakima Hannah N. Mount Kenya University, Kenya	Presented
Laboratory evaluation of antileishmanial activity of pyrethrin extracts of Chrysanthemum cinerariaefolium (Asterales: Asteraceae) plant.	Ruttoh Reuben Kipyegon Kenya Medical Research Institute, Kenya	Presented
Hospital Epidemiology Of Methicillin – Resistant Staphylococcus aureus (MRSA) In A Tertiary Care Hospital In Moshi Tanzania As Determined By Whole Genome Sequencing	Kumburu Happiness Houka Kilimanjaro Christian Medical University College, Tanzania	Presented
Quality of antibiotics-amoxicillin and co-trimoxazole in Nairobi County; Number of brands circulating in selected Nairobi retail and hospital pharmacies.	Irungu Beatrice Njeri Kenya Medical Research Institute, Kenya	Presented

- Table 14: Status of presentation of abstracts of the Session 2 on “vaccines, diagnostics, and antimicrobial agents in control of communicable diseases”

Abstracts	Author	Status after the conference
Antimicrobial activity of Moringa oleifera, Aloe vera and Warbugia ugandensis extracts on multidrug resistant Escherichia coli, Pseudomonas aeruginosa and Staphylococcus aureus	Kirira Peter Gakio Mount Kenya University, Kenya	Presented
Management of Acute Gastroenteritis (AGE) in adults at the University Hospital Center of Kamenge (UHCK).	Ngomirakiza Jean Baptiste University of Burundi, Burundi	Presented
Impact of an intervention to minimize over diagnosis of malaria cases in a Low risk Kenyan Sub County.	Menge Daniel Aids Health Care Foundation, Kenya	Not presented
Impact of kdr gene frequencies on major malaria vectors' host blood meal preferences in Teso sub counties, western Kenya.	Githinji Edward Kareithi Kenya Medical Research Institute, Kenya	Presented
Efavirenz is related to depression among adults living with HIV but not among adolescents living with HIV in Kilimanjaro, Tanzania	Sumari-de Boer Lise Marion Kilimanjaro Clinical Research Institute, Tanzania	Presented
Population-based surveillance systems for pharmacovigilance and antimicrobial drug use as well as resistance monitoring in resource limited countries like Uganda	Kajungu Dan Makerere University Center for Health and Population Research, Uganda	Not presented

Discussions on the subtheme “Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases” underlined that there are no efficacious vaccines for the most recent emerging epidemics including HIV/AIDS and often no adequate facilities and capacities of evaluating potential vaccine candidates. Challenges were highlighted such as health workers training in vaccines management, waste and toxic reagents management, protective gears, unstable electrical supply, and efficient and timely diagnostic technologies especially in remote facilities. The drug resistance and multidrug resistance are rising as a major public health concern.

Nevertheless, there are some promising vaccine candidates, new drugs to fight against some infectious diseases like malaria and leishmaniasis.

Recommendations such as to strengthen continued monitoring of antimicrobial agents and insecticides resistance to better inform policy makers, to strengthen research capacity for development of innovative vaccines, evaluation of vaccine candidates and potentialities of herbal medicine as a solution to anti-microbial resistance emerged from the discussions.

- Abstracts presented on the subtheme on “antimicrobial resistance”

All the twelve (12) abstracts planned to be presented on the subtheme “antimicrobial resistance” were effectively presented by their authors.

- Table 15: Status of presentation of abstracts of the Session 1 on “antimicrobial resistance”

Abstracts	Author	Status after the conference
Frequency of uropathogens and antimicrobial susceptibility in childhood urinary tract infection at Kamenge university hospital.	Nyandwi Joseph University of Burundi, Burundi	Presented
Fitness cost of resistance for lumefantrine and piperaquine-resistant Plasmodium berghei in a mouse model	Gimode Winnie R. Kenya University , Kenya	Presented
Prevalence, Aetiological Agents and Antimicrobial Sensitivity Pattern of Urinary Tract Infection among Children Admitted at Kilimanjaro Christian Medical Centre, Moshi, Tanzania	Joshua G. Gidabayda Kilimanjaro Christian Medical Centre, Tanzania	Presented
Antimicrobial Susceptibility Testing in Uganda: Preliminary Results and Challenges	Ejobi Francis Makarere University, Uganda	Presented
Antimicrobial Susceptibility Patterns of Mastitis Staphylococcus Aureus from Bovine and Caprine in Peri-Urban Nairobi, Kenya	Kimeli Peter University of Nairobi, Kenya	Presented
A Situational Analysis of Multi-Drug Resistance Among Clinical Isolates of Staphylococcus aureus in Mbale Regional Referral Hospital-Uganda	Iramiot Jacob Stanley Busitema University, Uganda	Presented

- Table 16: Status of presentation of abstracts of the Session 2 on “antimicrobial resistance”

Abstracts	Author	Status after the conference
Meta-analysis of proportion estimates of Extended-Spectrum-Beta-Lactamase-producing Enterobacteriaceae in East Africa hospitals.	Sonda Tolbert Kilimanjaro Clinical Research Institute Tanzania	Presented
From antiretroviral therapy access to provision of third line regimens: evidence of HIV Drug resistance mutations to first and second line regimens among Ugandan adults.	Namakoola Ivan Bernard Meya MRC/UVRI Uganda Research Unit on AIDS, Uganda	Presented
Patterns of infections, aetiological agents, and antimicrobial resistance at a tertiary care hospital in northern Tanzania.	Kumburu Happiness Houka Kilimanjaro Clinical Research Institute, Tanzania	Presented
Antimicrobial Susceptibility and Resistance Patterns of Salmonella Typhi During the 2015 Typhoid Outbreak in Kampala Uganda	Nsimire Juliet Sendagala MRC/UVRI Uganda Research Unit on AIDS, Uganda	Presented
Prevalence and Antimicrobial Susceptibility Patterns of Shigatoxin-Producing E.coli in patients presenting with diarrhoea at Kitale County Referral Hospital Trans-Nzoia County, Kenya	Too Rael Kenya Medical Research Institute, Kenya	Presented
Evaluation on regulation of antibiotics consumption in Bujumbura.	Makuraza Fiacre University of Burundi, Burundi	Presented

From presentations and discussions on the subtheme antimicrobial resistance, derived that antibiotic resistance, including resistance to artemisinin combination therapy (ACT), is a major public health concern. Although the resistance is a phenomenon that occurs naturally, the misuse of antibiotics in humans and animals is an accelerating factor. Participants to the sessions on antimicrobial resistance recommended to strengthen policies, programs for infection prevention and control, and to improve surveillance of antibiotic-resistant infections, regulate and promote the appropriate use and disposal of quality medicines.

- Abstracts presented on the subtheme on “health systems in control of outbreaks, epidemics, and pandemics”

Out of eighteen (18) abstracts planned to be presented on the subtheme “health systems in control of outbreaks, epidemics, and pandemics” fifteen abstracts (83.3%) were effectively presented by their authors.

- Table 17: Status of presentation of abstracts of the Session 1 on “health systems in control of outbreaks, epidemics, and pandemics”

Abstracts	Author	Status after the conference
Leveraging Horizontal Models to Develop Healthcare Capacity: LifeNet International's Conversion Franchise Innovation.	Patricia Odera AMREF Health Africa, Kenya	Presented by Gloria Havyarimana
Modeling the Disease Burden of Hepatitis C Virus (HCV) Infection in Burundi	Ntagirabiri Renovat University of Burundi, Burundi	Presented
A measles outbreak propagated by children congregating at water collection points: Mayuge District, Eastern Uganda, October 2016	Majwala Robert Kaos Public Health fellowship Program, Uganda	Presented
Tuberculosis infection control capacity and influencing factors among private facilities in Mbale district, Eastern Uganda	Odikro Magdalene Akos. Makerere University, Uganda	Presented
Economic Impact of Contagious Caprine Pleuropneumonia and Peste des Petits Ruminants in small ruminants in Pastoral communities: Case of Ngorongoro and Coastal Districts, Tanzania	George Janeth The Open University of Tanzania, Tanzania	Presented
NGO Practical Experiences on Implementing One Health Zoonotic Research: Case studies of Brucellosis and Leptospirosis Sero- Survey in the Albertine Ecosystem, Hoima District, South Western Uganda	Mugisha Lawrence Conservation and Ecosystem Health Alliance, Uganda	Presented

- Table 18: Status of presentation of abstracts of the Session 2 on “health systems in control of outbreaks, epidemics, and pandemics”

Abstracts	Author	Status after the conference
Factors Affecting Access to Health Services at the Busia (Kenya/Uganda) Cross-Border area.	Muroki Dorothy FHI 360, Kenya	Presented
Patient's perspectives on use of mobile phones in HIV patient-care support: a descriptive study at Kibera and Baba Dogo Health centers, Nairobi.	Igunza Patrick Nagide AMREF Health Africa, Kenya	Presented
The use of information communication technologies to support specific disease surveillance and management: using cholera as an exemplar disease in Tanzania	Karimuribo Eron Sokoine University of Agriculture, Tanzania	Presented
The HIV Infant Tracking System (HITSsystem): EID outcomes from 23 health facilities in Kenya	Odera Irene Global Health Innovation, Kenya	Presented
Assessing Health Care Services Delivery for Sexually Transmitted Infections in Selected Health Facilities in Rwanda, 2014	Justine Umutesi Rwanda Biomedical Center, Rwanda	Not presented
Community-based one health participatory disease surveillance using digital and mobile technologies in Tanzania	Sindato Calvin National Institute for Medical Research, Tanzania	Presented

- Table 19: Status of presentation of abstracts of the Session 3 on “health systems in control of outbreaks, epidemics, and pandemics”

Abstracts	Author	Status after the conference
The Policy Context and Health Service Delivery to Key and Vulnerable Populations at Cross Border Sites: Experience from CB-HIPP Project, Kenya.	Muroki Dorothy FHI 360 , Kenya	Presented
Cholera outbreak caused by drinking lakeshore water contaminated by feces washed down from a hill-side residential area: Kaiso Village, Uganda, October 2015	Oguttu David Were Uganda Public Health Fellowship, Uganda	Presented
Effectiveness of expanded delivery mechanisms/ channels and empowerment of caregivers in improving access of ORS and Zinc in Narok County, Kenya	Nyagero Josephat AMREF Health Africa, Kenya	Presented
Prevalence and factors associated with self-reported STIs among HIV-positive individuals aged 15-49 years in Rwanda (2014-2015)	Umutesi Justine Rwanda biomedical Center, Rwanda	Not presented
Piloting at-birth point of care HIV testing strategies in Kenya	Lwembe Raphael Global Health Initiative , Kenya	Presented
Assessment of the exclusive breast-feeding in HIV's prevention mother to child transmission	Ndirahisha Eugene, Centre Hospitalo Universitaire de Kamenge, Burundi	Not presented

Discussions on the subtheme “health systems in control of outbreaks, epidemics, and pandemics” observed that EAC partner states are highly vulnerable to epidemics and outbreaks. The Rift Valley and the Congo Basin host rich ecological systems offering close interactions between environment, wild animals, domesticated animals and humans. The risk of epidemics is fostered by the lack of awareness and customs or practices. In addition, the health systems are weak to respond properly to the epidemics.

Finally, the few available research findings are poorly translated into policies and practices. The early detection of animal disease within communities with a high animal husbandry may limit the occurrence of human diseases and its cost especially in case of outbreaks or epidemics. Populations living in cross-border areas are constantly crossing the border to seek for better health services, and contribute to the spread of communicable diseases and increase of disease burden within host communities. The use of Innovative technologies like mobile phones can contribute to improve patient's access to health care. According to prediction models, some infectious diseases like Hepatitis C are silently increasing in the region.

Participants recommended to strengthen the capacity of human resources for health (public and private) in outbreak and epidemic management; to harmonize health policies and practices across the EAC partner states; to stop the brain drain from EAC towards overseas countries by improving social and economic conditions for health workforce within the EAC; to use the One Health approach in fighting outbreaks and epidemics; to welcome and make use of innovative technologies to increase patient access to health care; and to promote evidence based decision making by doing research and advocating for research translation into health policy and practices.

- Abstracts presented on "Social mobilization for control of outbreaks, epidemics, and pandemics"

Out of twelve (12) abstracts planned to be presented on the subtheme "social mobilization for control of outbreaks, epidemics, and pandemics" eleven abstracts (91.7%) were effectively presented by their authors.

- Table 20: Status of presentation of abstracts of the session 1 on “social mobilization for control of outbreaks, epidemics, and pandemics”

Abstracts	Author	Status after the conference
Explorative survey of socio-epidemiological determinants of cutaneous leishmaniasis in an endemic focus in Gilgil, Kenya	Odiwuor Samuel Kenya Medical Research Institute, Kenya	Presented
Factors determining the utilization of impregnated mosquito net for Malaria prevention in Burundi. A quantitative study.	Niyongabo Prosper National Institute of Public Health, Burundi	Presented
Evaluating adherence to testing and treatment procedures by Community health Volunteers in Community Case Management of Malaria, Bungoma County, Kenya	Jerop Mable. AMREF Health Africa, Kenya	Presented
Association between House construction materials and malaria fever. a clue along a journey to determine underlying factors for malaria hotspots in Tanzania	Rumisha Susan Fred National Institute for Medical Research, Tanzania	Presented
Uptake of second dose of measles-containing vaccine among children in Kakamega County, Kenya	Makokha Fredrick M. Jomo Kenyatta University of Agriculture and Technology, Kenya	Presented
The Use of Disability Adjusted Life Years to Evaluate Health Programs; A Case Study for a Tuberculosis Program that Utilised Community Health Workers to Support Treatment Adherence	Ong'ang'o Jane Rahedi Kenya Medical Research Institute, Kenya	Presented

- Table 21: Status of presentation of abstracts of the session 2 on “social mobilization for control of outbreaks, epidemics, and pandemics”

Abstracts	Author	Status after the conference
Engagement of Community Health Workers in Prevention of Mother-to-Child Transmission of HIV (PMTCT): A qualitative study from Fishing Communities of Musoma Rural and Sengerema Districts	Maseke Richard Mgabo Kilimanjaro Christian Medical University College, Tanzania	Presented
Noncompliance and associated factors leading to the prevalence of multi-drug resistant tuberculosis in Uganda	Ssemanda Bosco Bugema University, Uganda	Presented
Effectiveness of family support group initiatives in promoting the health of HIV positive mothers participating in EMTCT programmes	Kizito Henry Uganda Martyrs University, Uganda	Presented
Risk factors for Cholera in Kayonza District: Results from a matched case control study, Rwanda, 2016	Hakizimana Leonard Rwanda Biomedical Center, Rwanda	Not presented
Client satisfaction with Community Case Management of Uncomplicated Malaria in Bungoma County, Kenya	Okutoyi Chrysanthus AMREF Health Africa, Kenya	Presented
Using smart phones coupled with intelligent mobile and web apps for electronic system of disease surveillance in Tanzania	Beda Eric Southern Africa Center for Infectious Disease Surveillance. Sokoine University of Agriculture, Tanzania	Presented

From presentations and discussions on the subtheme “social mobilization for control of outbreaks, epidemics, and pandemics”, participants concluded that social mobilization is a capacity building process through which communities carry out and evaluate activities on a participatory and sustained basis to improve health or to address other needs on their own initiative or stimulated by others. Community mobilization is an important tool in fighting against outbreaks and epidemics. However, community mobilization needs to be well organized to be effective. Strong community leadership helps to get community acceptance of measures to contain an outbreak or an epidemic.

Delays in case notification and long turn-around time in case of outbreak or epidemic undermine outbreak management activities. The use of mosquito nets and consequently the risk of malaria are influenced by factors like housing, living conditions, alcohol consumption and smoking, insecurity, gender-based violence, mosquito nets availability. Innovative technologies like mobile phones can help to manage outbreaks and epidemics by reducing case notification duration and turn-around time. They emphasized that the involvement of men in women social initiatives is an asset. They recommended to make use of innovative communication technologies in community mobilization to fight outbreaks and epidemics, and to use sector-wide approach in running community-based interventions.

- Abstracts presented on “Occupational health and safety, Climate change”

Out of six (5) abstracts planned to be presented on the subtheme “Occupational health and safety, Climate change”, five abstracts (83.3%) were effectively presented by their authors.

- Table 23: Status of presentation of abstracts on “occupational health and safety, climate change”

Abstracts	Author	Status after the conference
Needlestick and Sharps Injuries among final year Bachelor of Veterinary Medicine Students at The University of Nairobi, Kenya.	Kimeli Peter. University of Nairobi, Kenya	Presented
Occupational safety and health needs in Uganda: training and policy priorities	Ndejjo Rawlance Makerere University, Uganda	Presented by Edwinah Atusinguize
Fluconazole resistant opportunistic Candida sp isolates on the external surfaces of hospital cockroaches.	Mloka Doreen Anna Sophia Muhimbili University of Health and Allied Sciences, Tanzania	Presented
Knowledge, opinion and practices relative to occupational risk of viral diseases in Bujumbura.	Ntagirabiri Renovat University of Burundi, Burundi	Presented
Assessment of Cardiorespiratory Fitness among University Students	Irene Jonathan Muhimbili University of Health and Allied Sciences, Tanzania	Not presented
Climatic Spatial Models to Guide Surveillance and Prevention of Epidemic Arboviral Infections in Tanzania	Mweya Clement N. National Institute for Medical Research, Tanzania	Presented

From presentations and discussions on the subtheme “occupational health and safety, participants noted that African countries and more specifically EAC countries face many challenges in meeting needs related to occupational health and safety at work. Health workers are exposed to infectious agents and nosocomial diseases are a reality in EAC health facilities; workers in agriculture and industry are exposed to injuries or illness from chemicals and machines; there is noise, heat, sometimes cold at work. These conditions are currently aggravated by new technologies; health workers in general and pregnant women in

particular experience fatigue and stress; child labour favoured by poverty within household has become a reality in Africa and within EAC; health professional run constantly the risk to get contaminated by infectious diseases via human body fluids. Occupational Safety and health guidelines are not implemented in many EAC countries. Participants recommended to advocate for the implementation of WHO occupational safety and health needs guidelines in EAC countries, and to fight against insect and pet vectors or reservoirs for microbe source for nosocomial infections in health facilities.

7.5.3. Poster sessions

Poster sessions were part of the 6th EAHSC. Of 82 posters accepted for poster presentation, 38 posters (46.3%) were displayed during the conference. A poster session was organized the first day of the conference. Thereafter participants could visit the posters at their convenience during the conference.

7.5.4. Symposia

The EAHSC is organized with symposia as side meetings. Eight symposia were organized as side meetings of the 6th EAHSC of which the following were directly linked to the main theme:

- Lessons learnt from Ebola and Highly Pathogenic Avian Influenza H5N1: Way forward for Preparedness for and control of outbreak
- Lessons learnt from HIV pandemic: Preparedness for and control of the adverse events associated with chronic administration of ARV agents
- Antimicrobial agents use, antimicrobial resistance and policy on antimicrobial agents in the East African Community
- Mitigating impact of globalisation and climate change on health

The following symposia were also organized during the 6th EAHSC:

- Managing recurrent epidemics: Experiences and opportunities for strengthening preparedness and control of epidemics in EAC
- Strengthening collaboration between civil society and key research stakeholders in promoting health research and innovation in Africa
- Academic Health Centre: Important part of the health improvement agenda in low and middle income countries
- Integrated Reproductive Maternal Newborn Child and Adolescent Health (RMNCAH) and HIV/AIDS.

- Table 24: Symposia of the 6th EAHSC and organizers

Symposium	Organizer
Lessons learnt from Ebola and Highly Pathogenic Avian Influenza H5N1: Way forward for Preparedness for and control of outbreak	USAID EPT2 - Preparedness & Response Project
Lessons learnt from HIV pandemic: Preparedness for and control of the adverse events associated with chronic administration of ARV agents	Ministry of Public Health and Fight against AIDS, Burundi
Antimicrobial agents use, antimicrobial resistance and policy on antimicrobial agents in the East African Community	TWENDE Consortium
Mitigating impact of globalisation and climate change on health	Ministry of Public Health and Fight against AIDS, Burundi
Managing recurrent epidemics: Experiences and opportunities for strengthening preparedness and control of epidemics in EAC	ECSA
Integrated Reproductive Maternal New-born Child and Adolescent Health (RMNCAH) and HIV/AIDS	EAC Secretariat Health Department
Strengthening collaboration between civil society and key research stakeholders in promoting health research and innovation in Africa	PATH Kenya
Academic Health Centre: Important part of the health improvement agenda in low and middle income countries	Aga Khan University Nairobi

7.5.5. Key points and recommendations from symposia

- Lessons learnt from Ebola and Highly Pathogenic Avian Influenza H5N1: Way forward for Preparedness for and control of outbreak

The symposium highlighted that health systems in EAC Partner States are fragmented, and characterized by weak laboratory capacity, poor preparedness and response system, lack of adequate funds, inadequacy in human resource both qualitatively and quantitatively, thus gaps in addressing many emerging and reemerging infections and threats both in human and animals such as Ebola, Marburg, wild polio virus, malaria, AIDS, HPAI, H5N8, H1N1.

The symposium recommended that EAC Partner States should always have arrangements in place for emergency access to stocks of drugs; human and logistical capacity needs to be strengthened to manage human cases by assessing & providing ambulatory services, equipping hospitals, training staff to manage isolation units at the regional hospitals in the districts and in public and private hospitals. Sentinel surveillance sites should be set up for wild migratory birds to monitor occurrence of the influenza virus and its possible spread to domestic poultry.

Other recommendations were related to strengthening laboratory capacity to ensure availability of adequate supplies/equipment and human resources in order to confirm diseases without delay; establishing an emergency fund or a mechanism to easily and quickly access funds to respond to such outbreaks; a response plan and a funding mechanism to provide immediate assistance to partner states and to coordinate other EAC partner states to respond jointly to trans boundary diseases. The symposium highlighted that the East African Initiative of Disease Surveillance Networking (EAIDSnet) regional strategy has potential in EAC partner states to take common action aiming at identifying concerted key

actions and best strategies to prevent emerging and reemerging pathologies in the EAC. One Health Approach and EAIDSnet should promote regional synergy teams and expertise. The symposium concluded that new information and communication technologies should be used to inform health situation both in and outside the countries.

- Lessons learnt from HIV pandemic: Preparedness for and control of the adverse events associated with chronic administration of ARV agents

The symposium raised the issues of delay in HIV detection, poor access to continuous ARV treatment, and complications occurring in prevention and management of cervical cancer in HIV positive patients or patients co-infected with HIV and HBV/HCV.

The symposium recommended that the HIV/AIDS 90/90/90 policy should be reinforced in all EAC partner states and that all EAC partner states should guarantee full access to treatment of HBV and HCV in patients living with HIV/AIDS. It also recommended that vaccination against HCV should be generalized and integrated both in the HIV/AIDS management programme and early detection and treatment of cervical cancer. All HIV positive and HBV negative patients may get access to HBV vaccine.

- Antimicrobial agents use, antimicrobial resistance (AMR) and policy on antimicrobial agents in the East African Community

The symposium observed that most policies on antimicrobial agents' usage and AMR control exist in EAC Partner States. However, the policies are poorly or not at all implemented. Research evidence on the burden and drivers of AMR in the region is quite scattered making it difficult for evidence-based policy making and intervention planning. The symposium made recommendations on governance and financing, awareness, regulatory framework, training, and

research development. The symposium recommended a 10-year USD \$20 - 50 million fund allowing to establish a state-of-the-art AMR surveillance system with headquarter in on one of the EAC member States supported by a network of surveillance nodes across the region. The head quarter should be empowered with a secretariat staffed with experts in microbiology, epidemiology, social sciences, public communication and information technology; to build both microbiological and pharmaceutical analysis laboratory capacity to ensure rapid diagnosis of microorganisms and assessment of medicines quality and safety. The laboratory capacity development should include development of critical mass of experts to run and sustain high quality service delivery; to undertake research to determine the burden and drivers of AMR. In addition, investment should be made to research leading to discovery of medicines and diagnostics by research institutions in the EAC; and to conduct a well-planned coherent public awareness programme to reach every community in the EAC. Invest in creative means of communication both print, digital and audio-visual media such as Radio, Television etc. Effort should be made to translate messages into languages that understood by the target community (ies). These interventions should take a health systems approach to ensure full integration and sustainability.

- Mitigating impact of globalisation and climate change on health

The symposium observed that climate change is one of the most important future health risks of the 21st century, with a direct impact on morbidity and mortality. Global warming, more extreme weather events and changes in air quality are highly likely to have negative impacts on many existing health concerns such as cardio-respiratory diseases, temperature-related health effects, malnutrition, vector-borne diseases, and waterborne diseases. Meanwhile, an indirect effect of climate change on human health & safety will be the growing difficulty for many regions in accessing sufficient food, clean water and sanitation and other

issues such as climate-induced migration. The symposium recommended to implement an EAC platform to manage the effects of climate change on health; to integrate disaster risk reduction into health education and to strengthen health workers capacity in disaster risk reduction; and to advocate for an accurate management of cross-sectoral and trans-boundary biological hazards.

- Managing recurrent epidemics: Experiences and opportunities for strengthening preparedness and control of epidemics in EAC

The symposium observed that the burden of communicable diseases is high in all EAC Partner States. Over 60% of the increasingly emerging and re-emerging diseases are zoonotic and over 80% of reported illnesses are associated with environmental sanitation. The health systems of the EAC Partner States are not adequately prepared. Improving health systems of EAC Partner States for disease surveillance requires well-equipped and functional laboratories, the participation of communities and the establishment of joint strategies for the exchange of health information, early detection, immediate response and epidemic surveillance. Human, animal and environmental health must be considered as one health. The symposium recommended to EAC Secretariat and the Partner States to share disease surveillance information across the borders and that health should be integrated and be recognized as a constitutional right in the EAC Partner States. The EAC Secretariat was recommended to develop a guide or framework to support the countries in harmonizing/strengthen the community involvement in disease surveillance and response; to develop a harmonized EAC Regional curriculum for the community health workers; to standardize the nomenclature for the community health workers in the EAC Partner State and to allocate resources and standardize the terms of service for the community health workers in the EAC Partner States.

The symposium recommended to EAHRC to promote utilization of operational research findings to inform the health care interventions; and to implement “One Health One Medicine” as a model to be used for supporting the costing, budgeting, financing and national strategies development of the health sector in developing countries with a focus on integrated planning and strengthening health systems.

- Strengthening collaboration between civil society and key research stakeholders in promoting health research and innovation in Africa

The Objective of this symposium was to engage experts from across sectors and disciplines on a discussion on strengthening the role of civil society in promoting health research and development, including advocacy for creation of an enabling policy and investment environment to drive research and innovation in Africa. The lack of collaboration between Researchers, Civil societies and Policy makers was highlighted. The symposium recommended to implement a collaborative framework between all stakeholders in order to improve the understanding of community needs; to fully involve civil societies in surveillance of medicines to improve quality and dwindle antimicrobial resistance; and to create a regional health forum for National civil societies to improve their financing. It recommended to Civil Societies to catalyse partnerships at local, national and regional levels that engage governments and help communities understand and integrate research outcomes.

- Academic Health Centre: Important part of the health improvement agenda in low and middle income countries

The symposium stressed that academic health centres can provide the foundation to build system of care with long-term sustainability even in poor resources settings and are also key to developing sustainable health systems as well as being important economic drivers to the communities and regions they serve. It observed that there is a lack of enough academic health centres in the region and of a framework between AHC and policy-makers.

The symposium recommended to provide regional networking opportunities for academic health centres; to promote the exchange and adoption of best practices; to provide evidence and generate knowledge to inform policy, strategic development and planning for the EAC Partner states; and to conduct research and provide clinical care from basic health care services to the most advanced.

- Integrated Reproductive Maternal New-born Child and Adolescent Health (RMNCAH) and HIV/AIDS.

The symposium reflected about “Integration of Reproductive Maternal New-born, Child and Adolescent Health and HIV/AIDS: Opportunities, progress made, challenges, lessons, and best practices – Africa Regional and Global Perspectives.” It highlighted that the main challenge is to ensure that the Integration Approach is targeting the “ organization and management of health services so that people get the care they need, when they need it, in ways that are user-friendly, achieve the desired results and provide value for money”, “the organization and management of different services or operational programs that can be joined to ensure and maximize collective outcomes”, and “the

organization and management of different services based on the need to offer comprehensive services that are client focused".

The symposium recommended that integration of RMNCAH and HIV/AIDS should be pursued at all levels including policy, planning, investments, programming, infrastructure and service delivery; EAC Organs and Institutions as well as Partner States should ensure that their integration agenda (in terms of scope) is clearly defined and adequate resources are allocated to fulfil the objectives; integration is key to improving the health of adolescents and young people and must be given their special vulnerabilities; integration should be natured through the education systems especially incorporation of the concept in pre-service training as well as in service training of health professionals; advocacy and capacity building interventions on matters of integration should be supported by robust social media dissemination plans; and Partner States to invest actively in generation of evidence on integration in the health sectors and dissemination of the results therefore. The symposium launched a number of EAC sector policies, strategies and accountability instruments.

7.6. Participation to the conference

7.6.1. Government Officials

The 6th EAHSC was officiated by H.E. the President of the Republic of Burundi and Members of Cabinet of the Republic of Burundi, Ministers of Health from EAC partner states in presence of all diplomatic corps accredited to the Republic of Burundi were represented at high level during the opening and closing ceremonies of the conference. The conference was attended by the EAHRC Commissioners, the Permanent Secretaries and Senior Officials who attended the 14th Sectoral Council of Ministers of Health, and members of the regional steering committee of the conference.

7.6.2. EAC Secretariat organs and institutions

The EAC Secretariat was represented by the EAC Secretary General, the Deputy Secretary General in charge of Political Federation, the Council to the Community and a lot of senior staff of the EAC Secretariat. The East African Court of Justice was represented by its Registrar. All EAC Institutions were represented at high level by Executive Secretaries, Deputy Executive Secretaries or senior staff in the institutions. Members of the East African Legislative Assembly, in particular from the Republic of Burundi, attended also the conference.

7.6.3. Key note speakers

Six out of eight invited keynote speakers for the 6th EAHSC were present to deliver their key note speech including the main key note speaker of the conference. Two of them delegated a representative to deliver their key note speech.

7.6.4. Presenters

83% of scientists expected for oral presentation as per the established programme of the 6th EAHSC delivered their presentation.

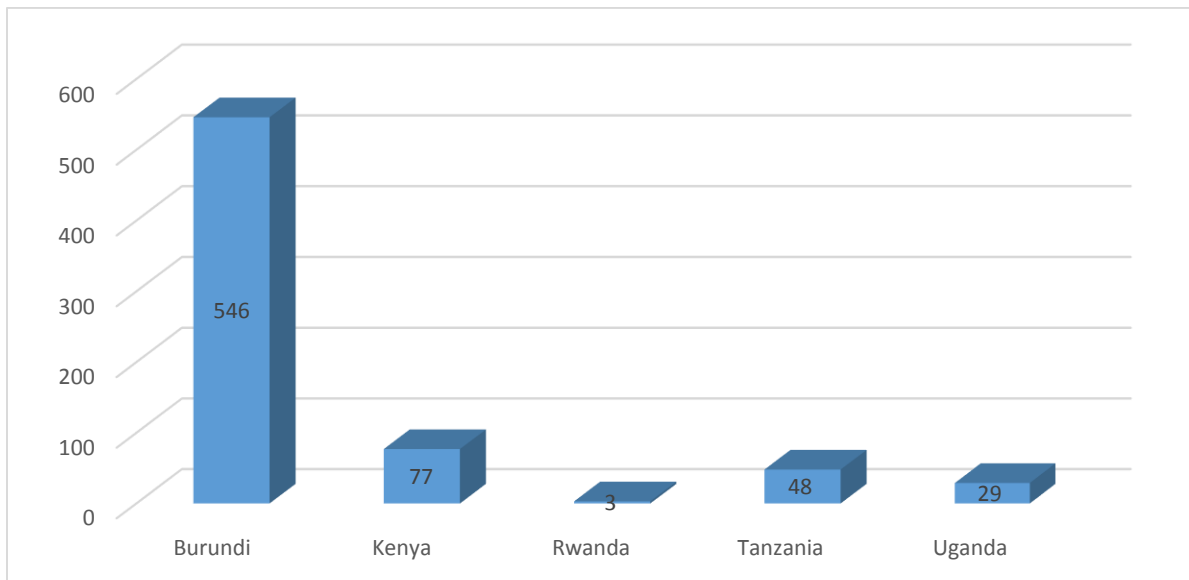
7.6.5. Participants

The Conference was expecting 500 participants from EAC partner states. According to the registry data base of participants who received the badge to access the conference venue, more than 1000 persons were given the badge. They include the real participants to the conference, security officials, ushers, cleaners, all technical persons who supported the conference, artists for

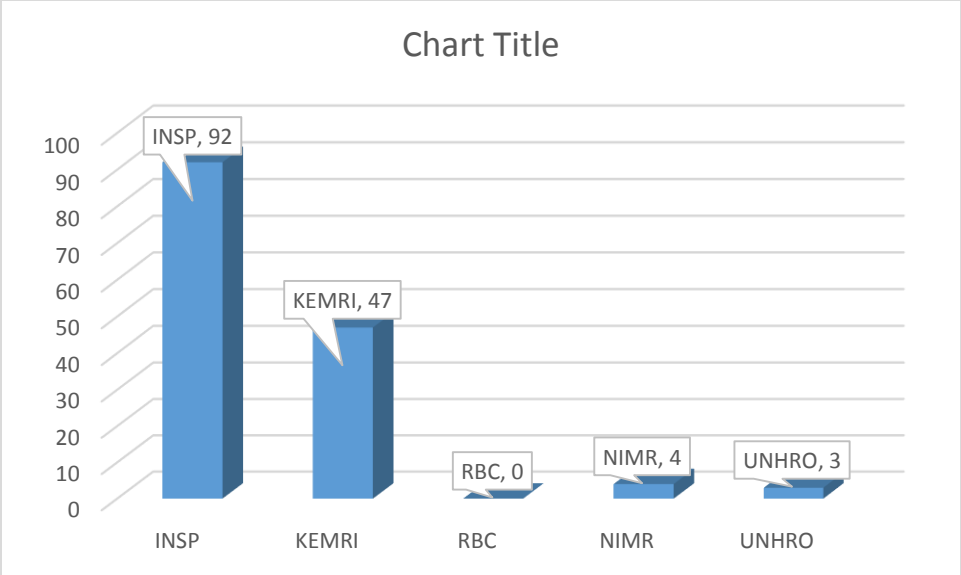
entertainment at opening and closing ceremony, and staff for coffee breaks and lunch.

According to the register of the EAHRC of participants who registered on 29th September to access the main conference room for the opening ceremony, 704 participants were recorded of which 546 participants (77.6%) are from the Republic of Burundi and 158 (22.4) from other EAC partner states. The Republic of Kenya represented 10.9% of all participants, the United Republic of Tanzania 6.8%, the Republic of Uganda 4.1% and the Republic of Rwanda 0.4%.

- Figure 2: Participants of the 6th EAHSC by EAC partner state



- Figure 3: Participants from EAHRC National Focal Points



7.6.6. Exhibitors and Trade Fair

The International Health exhibition and Trade Fair was attended by 33 institutions of which 24 were from the Republic of Burundi. The following are institutions that came from out of Burundi.

- Table 26: Regional institutions that exhibited during the 6th EAHSC

Institution	Country
National Institute of Medical Research (NIMR)	United Republic of Tanzania
SACIDS(Southern Africa Centre for Infectious Diseases), Sokoine University	United Republic of Tanzania
Muhimbili University of Health & Allied Sciences (MUHAS)	United Republic of Tanzania
Kilimanjaro Clinical Research Institute (KCRI)	United Republic of Tanzania
Kenya Medical Research Institute (KEMRI)	Republic of Kenya
Kenya Medical Training College (KMTTC)	Republic of Kenya
The Aga Khan University Hospital (AKU)	Republic of Kenya
John Hopkins Bloomberg School of Public Health / K4Health	United States of America
East African Community	United Republic of Tanzania
East African Health Research Commission	Republic of Burundi

- Box : Burundi institutions that exhibited during the 6th EAHSC

- CHUK (Centre Hospitalo-Universitaire de Kamenge)
- CAMEBU
- Axis Pharma
- Mutuelle de la Fonction Publique
- Ascoma
- Université du Burundi
- Karire Product
- ABACUS
- ALCHEM
- Hope University
- INSP
- SOCABU
- Chimio
- Multiphar
- Pharmacie Eben-Ezer
- Association des Etudiants en Médecine
- SIPHAR
- Glori Pharma
- Clinique Van Norman
- Université de Ngozi
- NCPK
- Pharmacia Salama
- Laboratoire d'analyses de biologie médicale

7.7.Speeches

- Opening speech by H.E. the President of the Republic of Burundi



H.E. Excellence Pierre Nkurunziza, the President of the Republic of Burundi started by thanking the Almighty God whose unflagging mercy and kindness have enabled participants to the 6th EAHSC to meet in Bujumbura. The President mentioned that beyond being an honour for his country, the organization of the 6th EAHSC is highly significant for Burundi. It is a strong indication that peace and stability are a reality in the country, contrary to the lies conveyed by some malicious gossips.

H.E. the President recalled that at a time when concepts such as integration and globalization are at the heart of discussions in various platforms, it is bitterly that vulnerable and disadvantaged people have more difficult access to care, fall sicker and die younger than people with a more privileged social status throughout the world. He also recalled the main theme of the 6th EAHSC and emphasized that with free movement of people, goods and ideas, science is an essential competitive advantage, while research for development brings about solidarity and innovation. The President called upon health care providers to be holistic when managing cases and to remember that they cannot solve all problems, reminding scientists that only God can.

H.E. the President ended his speech by officially opening the Sixth East African Health and Scientific Conference; International Health Exhibition and Trade fair and wishing participants fruitful discussions during the three days of the conference. He called participants to count on his prayers, encouragement and unwavering support **(Annex VI)**.

- Remarks by the EAC Chair of the Sectoral Council of Ministers of Health



Honorable Ummy Mwalimu, Minister of Health, Community development, gender, elderly and Children and Chair of the Sectoral Council on Health, expressed a great pleasure to join participants to the 6th EAHSC conference jointly organized by the East African Health Research Commission, an Institution of the East African Community, in collaboration with the Republic of Burundi and all other EAC Partner States. She reiterated that the East African Health and Scientific Conferences are contributing towards strengthening regional

cooperation in health in line with Article 118 of the Treaty for the establishment of the EAC as well as relevant provisions of the EAC Common Market Protocol. She informed that EAC has joined the world to commit to the 17 Sustainable Development Goals (SDGs) to eradicate extreme poverty, fight inequality & injustice, and fix climate change. EAC has a role to play if it's going to achieve these goals of a more prosperous, equitable, and sustainable world. The EAHSC is one of the tools that will allow the Community to achieve the Sustainable development Goals. She emphasized the fact that research findings can be useful if only there are translated into policies implementable at community level. She thanked the Government of Burundi and the East African Community Secretariat and all those who have contributed in one way or another to the 6th EAHSC. She ended her remarks by inviting His Excellence the President of the Republic to address the participants **(Annex VII)**.

- Remarks by the Minister of Health, Republic of Burundi



Honorable Josiane Nijimbere, Minister of Public Health of the Republic of Burundi, expressed her happiness and welcomed the presence of His Excellency the President of the Republic of Burundi among participants.

On behalf of the East African Health Research Commission, the National Steering Committee, and on her own behalf, she sincerely thanked the President for having accepted that the regional health event be placed under His High Patronage. She extended a warm welcome to her fellow Ministers and to all the participants who came to Bujumbura.

The Honorable Minister informed that the debate on the theme of “Preparedness and Fight against Emerging Diseases, Epidemic and Pandemic Diseases in the Context Climate Change, Globalization and Gaps in Health Systems.” provides an opportunity for the Member States of the East African Community to exchange experiences in prevention and response but also to share the results of research in these specific areas. She informed participants on the achievements of the Republic of Burundi with regards to the main theme of the conference but also to primary health care in general. She thanked the sponsors of the Scientific Conference on Health and an international trade exhibition of health products in the East African Community **(Annex VIII)**.

- Remarks by the Representative of development partners



H.E. Anne Casper, the U.S. Ambassador to the Republic of Burundi, on behalf of development partners expressed her appreciation to His Excellency President Pierre Nkurunziza, and the Government of Burundi for hosting this key regional event in Bujumbura. She also expressed her gratitude to the East Africa Health Research Commission for inviting her to share her thoughts with participants. She reiterated that the EAHSC, like others conference organized by the East African Community, is about strengthening partnership in pursuit of the region’s common

goals. The people of every country in EAC region face challenges in health and other areas. They each bring unique perspectives, special expertise and tireless commitment to address these challenges and transform today's landscape to reach a better tomorrow. The EAHSC provides an invaluable opportunity for East African leaders, academics, healthcare providers and private sector representatives to explore together responses to disease outbreaks and how to improve the health of all East Africans **(Annex IX)**.

7.8. Launchings

7.8.1. EAHRC Commissioners

The EAHRC Secretariat has operationalized the Commission by appointment of Commissioners by all Partner States and the 1st meeting of Commissioners was held in March 2016. A swearing in ceremony of EAHRC Commission was organized during the opening ceremony of the 6th EAHSC and officiated by H.E. the President of the Republic of Burundi in presence of the Registrar of the East African Court of Justice.

7.8.2. EAHRC National Focal Points

The National Focal Points of the EAHRC, operationalized during the first semester of the financial year 2015-2016, were launched during the opening ceremony of the 6th EAHSC. All Heads of NFPs were officially given the symbols of their role, namely the EAHRC logo and a plaque, by the President of the Republic of Burundi.

The EAHRC NFPs are:

- Institut National de Santé Publique (INSP), Republic of Burundi
- Kenya Medical Research Institute (KEMRI), Republic of Kenya
- Rwanda Biomedical Center (RBC), Republic of Rwanda
- National Institute for Medical Research (NIMR), United Republic of Tanzania

- Uganda National Health Research Organization (UNHRO), Republic of Uganda

7.8.3. EAHRC Logo

The EAHRC logo approved by the 13th Sectoral Council of Ministers was launched during the dinner organized by the Government of Burundi on the first day of the conference.

7.8.4. East African Health Research Journal (EAHRJ)

The first issue of the EAHRJ and a supplementary issue on the 6th East African Health and Scientific Conference were launched during the 6th EAHSC during a dinner organized on the evening of the first day of the Conference.

The launched journal qualified to have a digital object identifier (DOI) and has become a member of Cross Ref which allows all manuscript submitted to be tracked wherever there are cited. The EAHRJ print publication has been recorded permanently in the *International Standard Serial Number (ISSN) Register* as follows: ISSN 2520-5277. Key title: East African health research journal (Print). Abbreviated key title: East Afr. health res. j. (Print). Parallel title: EAHRJ

7.8.5. Book of abstracts on Antimicrobial Resistance

A compilation of abstracts from East African literature related to antimicrobial resistance as one of the subtheme of the 6th EASHC was done and published for distribution during the conference to complement and synergize with the discussions of experts on the subtheme during sessions and symposiums.

7.9. Branding of the EAHRC

At the occasion of the 6th EAHSC, the EAHRC Secretariat developed a number of material to brand the Commission. Brand materials such as banners, briefcases and key holders were developed.

7.10. Exhibition by EAHRC

The EAHRC was among the exhibitors of the 6th EAHSC. The Commission exhibited its new materials such as the EAHRCJ, the book of abstracts on antimicrobial resistance, logo, the key holder, and the EAHRC calendar 2017.

7.11. Awards and Certificates of appreciation

The best presenters and exhibitors of the 6th EAHSC were awarded as decided by the Regional Steering Committee. The chair, co-chair and rapporteurs of each session held a selection of the best presenter after each session. They submitted their report to the scientific committee of the host country national steering committee that compiled all reports and held a jury to decide on the best presenter for each subtheme. The national steering committee of the host country put also in place a system to identify the best exhibitors.

- Table 27: Best presenters of the 6th EAHSC

Subtheme	Best presenter	Institution	Abstract
Emerging, re-emerging infectious, and zoonotic diseases	Kamani Bridget W.	KEMRI	Prevalence and Intensity of Schistosoma haematobium pre post treatment with praziquantel in pre-school age children of Kwale County, Kenya
Vaccines, diagnostics, and antimicrobial agents in control of communicable diseases	Wamakima Hannah N.	Mount Kenya Univesity	Synthesis of a novel trioxaquine with potential to replace artemether lumefantrine (alu) for malaria chemotherapy
Antimicrobial Resistance	Joseph Nyandwi	University of Burundi	Frequency of uropathogens and antimicrobial susceptibility in childhood urinary tract infection at Kamenge university hospital.
Health systems in control of outbreaks, epidemics, and pandemics	Oguttu David Were	Uganda Public Health Fellowship	Cholera outbreak caused by drinking lakeshore water contaminated by feces washed down from a hillside residential area: Kaiso Village, Uganda, October 2015
Social mobilization for control of outbreaks, epidemics, and pandemics	Kizito Henry	Uganda Martyrs University	Effectiveness of Family support group initiatives in promoting the health of HIV (+) mothers participating in EMTCT programmes.
occupational health and safety, climate change	Mloka Doreen Anna Sophia	MUHAS	Fluconazole resistant opportunistic Candida sp isolates on the external surfaces of hospital cockroaches

The first, second and third best exhibitor of the 6th EAHSC were ALCHEM (Burundi), Muhimbili University of Health and Allied Sciences (MUHAS) and Human Burundi respectively.

7.12. Social events

The conference was marked by social events such as dinner and entertainment jointly offered by the Government of Burundi and the EAHRC on the first day of the conference. The last day of the conference was also marked by a cocktail and entertainment activities organized by the Government of Burundi. Burundian artists entertained participants at these two occasions.

7.13. Outline of recommendations

The 6th EAHSC outlined the following recommendations:

- General recommendations
 - o Partner States, EAC Secretariat, East African Health Research Commission, are urged to sustain their support to the organization of the next “health and scientific conference & international health exhibition and trade fair” and to facilitate the implementation of the recommendations from the health and scientific conferences.
 - o Partner States, EAC Secretariat, East African Health Research Commission to establish a regional health competitive fund to support research and innovations.

- Specific recommendations
 - o To strengthen the routine, integrated and cross-border surveillance system capacity for early detection, identification and monitoring of infectious diseases of humans, animals, ecosystems and their interactions by notably taking advantage of the advanced and innovative technologies.
 - o To establish a regional centre of excellence for management of outbreaks, epidemics and pandemics

- To strengthen laboratories capacity to perform the diagnosis of infectious diseases including culture sensitivity and other tests.
- To promote one health approach for the generation of intersectoral data and the implementation of an appropriate strategy for the surveillance and the response to antimicrobial resistance.
- To strengthen the human resource capacities at all level so as to build a skilled workforce that can ensure effective management of outbreaks.
- To stop the brain drain of health workforce and bring back high skilled staff working in developed countries to allow them contribute towards addressing challenges in their home country health systems.
- To implement relevant strategies to control potential epidemics or rapidly evolving diseases such as Hepatitis B and C, TB, Ebola, HPV... .
- To improve the community involvement (inclusive and gender sensitive) in the management of outbreaks, epidemics and pandemics.
- To promote a policy for the safety of health workers and patients exposed respectively to professional risk and nosocomial infections.
- To sustain the Integration of RMNCAH and HIV/AIDS at all levels including policy, planning, investments, advocacy, capacity building, evidence management, project management, and infrastructure and service delivery.
- To promote the exchange of best practices, networking opportunities, knowledge management to inform policy and practice.
- To consider regional policies for EAC partner states to assist and support one another during outbreaks, and epidemics, including provision of technical experts, laboratory services, etc.

- To implement an EAC platform to manage the effects on health of climate change and globalization, disaster risk reduction and cross-sectoral and transboundary biological hazards.

7.14. Closing ceremony



The closing ceremony of the 6th EAHSC was officiated by H.E. Joseph Butoyi, the Second Vice-President of Burundi. The ceremony included the presentation of the recommendations of the conference, awards to best presenter for each subtheme, and best exhibitors, remarks from the Minister of Public Health and fight against AIDS of the Republic of Burundi, a vote of thanks and invitation to the 7th East African Health and scientific Conference & international Health Exhibition and Trade Fair by the Permanent Secretary representing the Minister of Health, Community development, gender, elderly and Children of the United Republic of Tanzania and the closing speech by the Second Vice-President of the Republic of Burundi.

8. Host Nation

8.1. Brief about Burundi

The Republic of Burundi joined the East African Community in July 2007. The country hosts the East African Health Research Commission (EAHRC). The Republic of Burundi is a landlocked country in the African Great Lakes region of East Africa, bordered by Rwanda to the north, Tanzania to the east and south, and the

Democratic Republic of the Congo to the west. Burundi is part of the Albertine Rift, the western extension of the East African Rift. The country lies on a rolling plateau in the center of Africa. The source of the Nile River is in Bururi province, and is linked from Lake Victoria to its headwaters via the Ruvyironza River. Lake Victoria is also an important water source, which serves as a fork to the Kagera River, while Lake Tanganyika is located in much of Burundi's southwestern corner. The Capital City is Bujumbura.

The country has a population of 10.5 million on an area of 27,834km² with a GDP (nominal) of US\$ 3.1 Billion. The currency is the Burundi Franc (BIF). Kirundi and French are the official languages, and Kiswahili and English are widely spoken. The main international airport is Bujumbura International Airport in Bujumbura. The Country code is 257.

It has a moderate tropical climate with average temperatures between 23 and 24°C, a fortunate average for a country located near the equatorial area which is renowned for high temperature and humidity.

8.2. Preparations by the Host Nation

8.2.1. Documentary film

In preparations for the conference, the Government of Burundi produced a documentary film of 15 minutes on health research in EAC partner states and in Burundi in particular. The documentary film described the objectives, organs and institutions of the EAC; EAC partner States health systems; the objectives of East African Health and Scientific Conference; the status of health research in EAC partner states and in Burundi in particular; and health challenges in the Republic of Burundi.

8.2.2. National Steering Committee

The Government of Burundi appointed a national steering committee chaired by the Director General of INSP, which is the EAHRC National Focal Point. The national steering Committee was comprised of senior officials from the Ministry of EAC Affairs, the Ministry of Public Health, the National Institute of Public Health (INSP), Faculty of Medicine, Teaching Hospitals, and WHO Burundi.

The National steering Committee appointed the following sub committees:

- Scientific sub-committee
- Resource Mobilization, administration and Finance sub-committee
- Procurement and logistic sub-committee
- Protocol and security sub-committee
- International health exhibition and trade fair sub-committee (all countries)
- Communication (media, advertisement etc.), ICT and audio visual sub-committee
- Welfare and social events sub-committee

The subcommittees reported to the National steering committee. Reports of the national steering committee were sent to the Ministry of Health and the EAHRC Secretariat. The national steering committee and subcommittees held a lot of meetings during the preparation period. They reported on progress to the regional steering committee at two occasions during this period.

8.2.3. Subcommittees of the national steering committee

Subcommittees worked on specific issues of the conference. They managed all logistics related to the organization of the conference such as transport of participants, badges for registration, ushers, exhibition booths and posters hangers, security of the venue, translation during the conference, food and drinks, health services as well as entertainment. They organized all this aspects ensuring procurement processes and implementation.

9. Media coverage

The 6th EAHSC was well covered by national, regional and international TVs such as TV Burundi, ITV, National TV Uganda, National TV Kenya, and Al Jazeera

All national radios in Burundi, newspapers such as citizen, monitor, and “*le renouveau*” as well as social media (twitter, Facebook) also covered the 6th EAHSC.

10. Ways to implement the recommendations: post conference meetings

In follow up to the recommendations of the 6th EAHSC, the EAHRC Secretariat has outlined a lot of recommendations requiring to be implemented for improving health in the region. The EAHRC secretariat has put into context the outlined recommendations from the 6th EAHSC, the EAHRC Strategic Plan, the EAC Vision 2050, and the prevailing situation and needs. It has thus synthesized key thematic areas that will require in-depth discussion, and then develop concrete and comprehensive implementable road maps. Four thematic areas emerged from the conference namely “One Health”, “Digital Health”, “Health research financing and accessing”, and “Health Policy and Implementation”. The process to develop these 4 roadmaps has started with the digital health and baseline assessments are undergoing in preparation of the development of the roadmaps for the three other thematic areas.

11. SWOT analysis of the conference

	Strengths	Weaknesses	Opportunities	Threats
Preconference activities				
Preparations	<ul style="list-style-type: none"> -High level commitment of the Host Country -Commitment of the EAHRC Secretariat -Commitment of NFPs --Support of EAHRC Commissioners 	<ul style="list-style-type: none"> -Delay of the Burundi National steering Committee to kick of -Delay of procurement processes 	<ul style="list-style-type: none"> -Presence of NFPs and Coordinators 	<ul style="list-style-type: none"> - Insufficient financial support to NFPs from EAHRC Secretariat
Abstracts	<ul style="list-style-type: none"> -Call for abstracts largely disseminated in different ways - Involvement of NFPs in calling abstracts -Commitment of EAHRC Scientific Committee to review the abstracts 	<ul style="list-style-type: none"> - low number at the beginning -Some NFP did not sufficiently mobilize researchers for abstracts submission 	<ul style="list-style-type: none"> - NFP committed 	<ul style="list-style-type: none"> - Delay to submit abstract -Insufficient time to review abstracts
Funding	<ul style="list-style-type: none"> -Funding from EAC -Funding from the Host Country -Indirect funding from NFP 	<ul style="list-style-type: none"> -Insufficient funding from EAC compared to previous conferences - Host country delayed to commit resources -Low collection of registration fees - 	<ul style="list-style-type: none"> -Development partners committed 	
Logistics	<ul style="list-style-type: none"> -Transport of all participants from airport and during the conference -Security at the venue -Badges for all participants 	<ul style="list-style-type: none"> - Quality of food - Delay during registration 		
Conference				
Participants	<ul style="list-style-type: none"> -High participation 	<ul style="list-style-type: none"> -No data base constituted -Registration was poorly managed 		
Programme	<ul style="list-style-type: none"> -Detailed programme available for participants -IT support - Instructions for participants -Time keeper 	<ul style="list-style-type: none"> -Insufficient programme books -Insufficient time allocated to discussions 		

Attendance	-High attendance of invited guests with HE the President of the Republic as Guest of Honor - High attendance of local training institutions	-Poor registration		
Launchings	-Launching of the NFP -Launching and swearing in of the Commissioners			
Presentations	-Guidelines for presentation -The majority of presenters attended the conference -The timing has been respected	- Few senior researchers presented -Insufficient time for discussions		
Symposia	-Instructions for symposia -All planned symposia were made -High attendance to symposiums		Stakeholders interested to organize symposia	
Posters		-Insufficient time to visit posters -Small space for poster hangers that were both sides		
Exhibition	High participation of institutions from Burundi	- Low participation of institutions		
Transport and accommodation of participants	-Transport availed by the Host Country - Hotels identified and participants informed	-Long waiting time at airport on arrival		
Media coverage	- High national coverage	-Few international media		
Post conference				
Report	-Rapporteurs for each session			-Language
Conference evaluation	-	-No evaluation by participants		
Outline of recommendation	-Recommendations outlined on each subtheme - Synthesis of the recommendations by the EAHRC Scientific committee into main thematic areas to be considered in the post conference	-Strategies to implement recommendations not identified by the conference	-Post conference meeting planned	

12. Concluding Remarks

Although the 6th East African Health and Scientific Conference was organized with a very reduced budget from EAC Secretariat compared to previous conferences, it had a strong support by the Government of Burundi, host country, with a strong involvement from the High Office of the Republic of Burundi. It also had a strong support from the partner states national health research institutions which are the National Focal Points of the East African Health Research Commission. The 6th EAHSC was coordinated by the EAHRC Secretariat, a new institution of EAC which was freshly operationalized. It has been a test for this new institution, which still had a very lean staff. It was also a new experience for the host country.

The conference was characterized by a high participation of the keynote speakers and presenters. Oral presentations and discussions during the sessions were highly scientific.

The 6th EAHSC issued a lot of recommendations that the Commission will consider for implementation in short, medium and long term. Some of them have already retained the attention of the EAHRC Secretariat such as those related to digital health technology, health research financing and accessing, health policy making and implementation, and on health.

From a SWOT analysis performed after the conference, the EAHRC Secretariat started the process to mitigate challenges met during the preparation processes for better organization of the future conferences. In this regards a concept note on the organization of EAHSC has been developed to guide future conferences. It also incorporates the organization of symposia and side meetings of the conference defining their specific objectives and focusing them to the objectives of the conference.

The EAHRC Secretariat takes the opportunity to thank all individuals and institutions who have directly or indirectly contributed to the success of the 6th East African Health and Scientific Conference.