

Pan African Health Informatics Association (HELINA)

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1 HELINA 2023 Conference

The HELINA 2022 was rescheduled due to COVID-19 related travel uncertainties. Although global travel bans had been lifted, many potential participants were still cautious. The conference is now scheduled to take place in Cape Town, South Africa between October 30th – November 3rd 2023 and will be hosted by the South Africa Health Informatics Association (SAHIA). The theme of the conference is *“Effective Implementation, Meaningful Use and Sustainability of Digital Health Interventions: The Role of Health Informatics and Imaging Informatics in Africa”*. The conference details, including the registration portal, can be found at <https://helina.samrc.ac.za//>.

Accepted and presented full research papers will be published in a special edition of the Journal of Health Informatics in Africa (JHIA) – <http://www.jhia-online.org> – and the accepted work-in-progress papers, case studies/experience papers will be electronically published in the conference Proceedings with ISBN by Koegni-eHealth and made available on the conference website. The conference will also feature pre-conference workshops and sponsored side events by HELINA's partners.

2 Working Group Activities

2.1 Education Working Group

There was a change of leadership in the Education Working Group (EWG) where Clive Daniel of the In2pacs Academy and chairman of SAHIA succeeded Prof. Martin Were of Vanderbilt University, TN, USA as the working group chairman. Clive is a qualified electrical engineer with more than 30 years of experience in the medi-

cal imaging field. Prof. Frank Verbeke of the EWG was actively involved with the Burundi Health Informatics Association where the “Soirées d’informatique médicale” were organized in May and September 2022 around the themes “electronic medical record” and “hospital computerization”. In collaboration with the military hospital of Bujumbura, 2 “Matinées d’informatique médicale” also took place discussing the themes “Smart glasses enabling tele-expertise” and “Digital medical imaging in low resource settings”. Both presentations offered a number of solutions to the important shortages of medical skills in the rural areas of the country.

Furthermore, BHIA actively participated in 2022 in the organization of a series of post-graduate courses in digital health, in collaboration with the National Institute of Public Health (INSP) in Bujumbura and the Campus Numérique de la Santé (CNS) in Lubumbashi, DRC. This resulted in an Applied Health Informatics Certification (CISA) program that was enrolled by 84 post-graduate students. The program developed courses in 4 different tracks:

- A **programmers track** targeting DHIS2, OpenClinic and Biomedical Inventory and Maintenance solutions (GMAO);
- A **system administrators track** covering (i) Virtual private networks, (ii) Data security, (iii) Optimization of wifi networks and automatic roaming, (iv) Firewalls and network address translation and (v) DNS and DHCP network services;
- A **data managers track** focusing on (i) Statistics and dashboards in DHIS2, (ii) Validation of electronic data sources for PBF purposes, (iii) Dynamic dashboards in OpenClinic and GMAO, (iv) Hospital performance metrics, (v) Statistics with R, (vi) Introduction to SQL and (vii)

Generating reports with Jasper Reports;

- A **hospital users track** with the development of a set of video-tutorials on (i) Health insurance management, (ii) Clinical decision support, (iii) Electronic referral and counter-referral, (iv) Advanced clinical documentation in OpenClinic and (v) Mobile health applications for the hospital environment.

34 participants obtained sufficient credits to be certified in the CISA program.

SNCSU 2022

The most important BHIA activity in 2022 was the HELINA Special Topic Conference “SNCSU 2022” on

22 and 23 November 2022 at the Royal Palace hotel in Bujumbura, focusing on the role of digital health in achieving universal health coverage (UHC). The main objective of this conference was to share and capitalize on field experiences with digital tools for implementation of UHC in Sub-Saharan Africa.

This conference brought together 254 participants from 13 different African countries. 48 of them attended the pre-conference workshops on “Smart glasses and telemedicine for bridging the clinical competence gaps” and “Evaluating digital health project risks and opportunities using social network analysis”. The main conference started with an overview of different national e-health strategies in African countries presented by health experts and authorities from Burundi, DRC, Mali, Senegal, Guinea, Tanzania and Benin. The first day, parallel sessions hosted presentations on:

- (i) Data warehousing, monitoring and evaluation
- (ii) Ontologies and nomenclatures and
- (iii) Telemedicine

The second day of the conference 3 sessions ran in parallel with contributions on:

- (i) Hospital information management systems
- (ii) Clinical decision support
- (iii) Education and training in digital health,
- (iv) E-health enterprise architectures
- (v) Demonstrations of real-world UHC solutions and finally
- (vi) A track with a series of presentations in English (because the main language of the conference was French).

A very interesting keynote was addressed by the representative of the UNDP project on mental health in Mali (SANDI), more specifically on the use of telemedicine for assisting with mental health issues in remote and security constrained areas.

The scientific program of the conference was in the hands of the Institute of Public Health of Burundi and the Digital Health Campus of Lubumbashi, DRC. A total of 49 abstracts, demonstrations and scientific papers were peer-reviewed by 31 reviewers which resulted in the acceptance of 38 presentations of which 2 scientific full papers to be published in HELINA's Journal of Health Informatics in Africa (JHIA).

2.2 Policy and Governance

The Policy and Governance activities were mainly implemented through partnerships with the *Transform Health*, a global coalition committed to achieving Universal Health Coverage through the use of digital technologies and data. The activities focused on promoting the Health Data Governance (HDG) Principles in the African region. National societies from Botswana, Kenya, Ghana and Cameroon collaborated with academic and other partners in their respective countries to conduct landscape surveys on pressing digital health issues including Governance & Leadership; Strategy & Investment; Legislation, Policy & Compliance; Workforce; Standards & Interoperability; Infrastructure; Services & Applications. The findings and advocacy activities were summarized in a regional report which will be part of the material needed to lobby WHO to include an agenda for the World Health Assembly to adopt a resolution for the development of a global HDG Framework.

Besides the reports, a manuscript titled *"Assessment of Stakeholder Perceptions and Attitudes Toward Health Data Governance Principles in Botswana: Web-Based Survey"* authored by Kagiso Ndlovu *et al.* was published in Journal of Medical Internet Research (JMIR). (It can be accessed here : <https://pubmed.ncbi.nlm.nih.gov/36912870/>).

HELINA also worked with Transform Health on the development of a Conceptual Framework for Increased Investment in Digital Transformation of Health Systems that was launched at the World Health Summit in Berlin, Germany in October 2022. HELINA, in partnership with Africa-CDC, shared the highlights of the conceptual framework with digital health stakeholders at the African Health Tech Summit held in Kigali, Rwanda in October 2022.

2.3 Standards and Interoperability

The Standards and Interoperability working group formalized partnerships with HL7 International through the signing of an MOU which makes HELINA the African regional HL7 partner. This is a key milestone that will ensure that the HELINA region is fully engaged with the global community in the use of open standards for health information exchange. The Standards working group is working with Africa-CDC and other partners to organize a series of training workshops on HL7-FHIR through a collaboration called *"Africa on FHIR"*. Preliminary work from this collaboration will be presented at the HELINA 2023 conference where other hands-on training activities have been planned as part of the pre-conference workshops.

3 Partnerships

HELINA established new partnerships and maintained the existing ones. Some notable projects have been executed with partners on over the period. These are outlined below:

Transform Health Coalition: Two activities were conducted with the Transform Coalition. A Health Data Governance landscape survey was conducted in four countries; Ghana, Kenya, Botswana, and Cameroon. Ministries of Health and major health agencies were surveyed and encouraged to endorse the Health Data Governance Principles.

The second activity was to support the development of a conceptual framework for investments in digital transformation of health systems. Data were obtained for all four countries leading to a report that supports investment in digitally enabled primary health care. Through this, HELINA contributed to a global framework to guide actions towards health for all in digital age. HELINA also co-hosted a side event at the World Health Summit in May 2022 (Conceptual Framework for Digital Health Investments in LMICs) with Transform Health, RECAINSA and AeHIN.

The Health Data Governance Advocacy is ongoing with some activities planned for 2023.

Strengthening Institutional Capacity of Health Informatics Associations for Digital Health Transformation (SICHAT):

This project is funded by GIZ with the aim of strengthening HELINA's Secretariat and operations and supporting the growth of member associations through country led digital health projects. Besides strengthening HELINA secretariat, other key activities are: (1) Promote digital health knowledge, (2) Support national convergence workshops aimed at identifying and documenting best practice and providing a sharing platform across countries, (3) Collaborate with WHO on the implementation of the Digital Health Atlas in Africa, and (4) Conduct an assessment of business models for open-source solutions in limited resource settings in Africa.

OpenIMIS: As part of activities to enhance the use of digital public goods in Africa, HELINA has partnered with GIZ on the implementation of OpenIMIS, an open-source software which supports the administration of health financing and social protection schemes. National societies in 3-4 countries will pilot and assess various aspects in addition to establishing an OpenIMIS Community of Practice in Africa. Some experience-sharing from this activity will be shared at the HELINA conference 2023.

PAHIN/Africa-CDC Collaboration: Africa CDC proposes to establish the Pan-African Health Informatics Network (PAHIN) to complement the work that HELINA does. HELINA has been involved in the co-cre-

ation activities which have identified key areas of collaboration including capacity building (pre-service and in-service training of various levels health informatics professionals), standards and interoperability – going beyond the development of the policy and guidelines to the implementation and evaluation (examples include collaboration on the “Africa on FHIR” activity described above). HELINA will continue to work with Africa CDC on various flagship projects prioritized in the recently launched Africa-CDC Digital Transformation Strategy.

4 Membership

HELINA currently has eleven (11) active member associations. The newest members are the Tanzania Health Informatics Association (TAHIA) and Burkinabe Society of Medical Informatics and E-Health (SOBIMES). There are ongoing efforts to encourage the strengthening of existing societies establishment of n

5 Resource Mobilization and Secretariat Support

HELINA continues to identify strategic funding partners to enhance its work. In addition to GIZ and Transform Health Coalition, there are ongoing discussions with UNICEF and Global Fund on key areas of support which align with HELINA's goals of promoting education, implementation and research of digital health systems in Africa.

HELINA has obtained a grant from GIZ to support the setting up and operationalisation of its Secretariat. This grant has enabled HELINA to hire operational staff and support various coordination functions. Various consultants have been engaged to perform one-off activities such as drafting and review of policy and governance documents. Operating procedures have also been developed to

ensure efficient functions of the Secretariat. HELINA Board is currently discussing the creation of a CEO role, modelled after IMIA and other similar organizations.

6 HELINA Governance

HELINA engaged a lawyer to draft, review and revise the governance documents to ensure they aligned with strategic vision over the next 5 years. Of note, HELINA Board proposed the establishment of the Advisory Council consisting of Past Presidents and other committed past Board members to support the Board activities through resource mobilization, networking and strategic direction. The revised Governance documents were presented for reviewing and voting at the HELINA General Assembly held on 28th February 2023.

The members listed below are the current office holders and their terms will end on November, 2023 when elections are held to elect new officials:

- **President:** Frances Baaba Da-Costa Vroom, PhD, Lecturer at University of Ghana, Department of Biostatistics, Accra – Ghana;
- **President-Elect:** Steven Wanyee, MSc, Biomedical and Health Informatics Specialist, IntelliSOFT Consulting Limited, Nairobi – Kenya. Incoming;
- **Secretary:** Nicky Mostert, PhD, Professor in the Department of Software Engineering at Nelson Mandela University, Port Elizabeth – South Africa;
- **Treasurer:** Cheick Oumar Bagayoko, MD, PhD, Head of Innovation and Digital Health Center (Digi-Santé-Mali) University of Science, Technics and Technology of Bamako, Bamako – Mali;
- **Past President (IMIA Vice President for HELINA Region):** Tom Oluoch, PhD, FIAHSI, Health Scientist (Informatics), US Centers for Disease Control and Prevention, Kigali – Rwanda.

7 Obituary

On February 10, 2023, we learnt, with profound sadness, of the passing on of Prof. Graham Wright. Graham was a long-term leader, mentor and friend to many at HELINA. Graham inspired many of us and always wanted HELINA to shine on the global map. He passionately promoted Nursing Informatics and ensured it featured in HELINA's activities. He also ran a series of workshops during the annual HELINA conferences, the last being a scientific writing workshop at the 2019 conference in Gaborone, Botswana. Graham was an active member of HELINA's Education Working Group even after stepping down as the Chair two years earlier. He had initiated discussions on a process for identification of potential candidates for the Fellowship of the International Academy of Health Sciences – Informatics (FIAHSI) from the HELINA region and a structured mentorship program. HELINA remains committed to these ideals and will strive to continue the great work that Graham stood for.

In recognition of his outstanding work, HELINA intends to honor him during the 2023 conference in Cape Town, South Africa and look forward meeting with his widow - Dr. Helen Wright.

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