GINKS ICT IN HEALTH SEMINAR REPORT

Analysis of e-health implementation in low resource settings

Ghana Information Network for Knowledge Sharing (GINKS) in a joint collaboration with Council for Scientific and Industrial Research (CSIR) - Institute for Scientific and Technological Information (INSTI) organized a knowledge sharing seminar on telemedicine in Accra.

The seminar under the theme **"Odyssey in Search for telemedicine Knowledge"** was presented by Mr. Ebenezer Afari-Kumah. Mr.Ebenezer Afari-Kumah work with INSTI (Research, Innovation and Development) and also a phD student in Information Technology with special focus on Telemedicine and e-Health.

The seminar brought together the general public, staff of CSIR as well as GINKS network members to share and learn experiences and lessons through various researches conducted.

The chairman, Mr. Christian Lettu opens the seminar by saying that telemedicine is new to many people in Ghana making us lack its immerse benefits. He urged all to pay attention and learn from Afari's research and try to be an agent of change by creating telemedicine awareness.

Mr. Ebenezer Afari-Kumah starts his presentation by explaining that he has made series of research in the area of telemedicine both in Ghana and in other countries like India where he has learnt a lot of experiences on how to make telemedicine projects works. He said when giving the needed attention, telemedicine will level the playing field giving both non physicians and patients access to medical knowledge.

He stated emphatically that Information and Communication Technology (ICT) can play a key role in healthcare provision. Using ICT for healthcare delivery will facilitate treatment of patients particularly in remote areas and more generally home care.

He defined eHealth and telemedicine as any electronic exchange of health related data through electronic connectivity for improving efficiency and effectiveness of health care delivery.

In developing world or regions with limited infrastructure such as Ghana, telemedicine will mainly be used in applications that link mobile service providers based at health centres, referrals hospital and tertiary centres.

He said most telemedicine initiatives do not survive the pilot or proof of concept phase or they become a failure in daily practice. (Tanriverdi & Lacono, 1988).

- Telemedicine implementation often remains in the pilot phase and do not succeed in scaling up to robust products that are used in daily practice. There are practical obstacles to evaluating telemedicine and suggested further exploration of this field in order to

facilitate an evidence based approach to the wider introduction of this new approach to telemedicine.

Today we have more mobile phones than landlines. Access to internet is no longer the privilege of few. We now talk of healthcare providers not doctors, of empowered consumers not patients.

He said his travel to India to conduct research partially on telemedicine fieldworks at various districts in India like Channai, Vellore, Kochi, Chandigarh, New Delhi, Shimla, Cuttack and Bhubaneswar was beneficial. His desire for telemedicine information took him to India where he visited a number of project site.

He added that his research covers seven (7) states and one Union Territory-Chandigarh. These states are Haryana, Himachal Pradesh, Kerala, Odisha, Punjab, Tamil Nadu and Uttar Pradesh and the people are very focused on their work.

His research focused on Analysis of e-health implementation in low resource settings: actor network approach. He mentioned some of the modern trends in healthcare provision and what they do in the healthcare delivery system.

e-Health - Healthcare practice supported by electronic processes and communications

TeleHealth - To support long-distance clinical health care, patients and professional health - related education and training, public health and health administration.

mHealth - Term used for practice of medicine and public health supported by mobile devices.

Telemedicine

Telemedicine is the process of proving or delivery healthcare where distance is a crucial factor. There are 2 types of telemedicine namely; real time and store and forward method.

With the store and forward type, picture of the ailment can be taken and posted online for other doctors to examine and prescribe medication and possible way of treatment. Tanzania has a network that deals with store and forward method of telemedicine and very effective. Real time is the live medical care where the patience must be personally present at the hospital for treatment.

He stated that with telemedicine one can do lots of things to make greater impact. He cited an incident where a doctor was shouting at a patience simple because the doctor thinks the patience must be quiet for him (doctor) to treat the patient but in Telemedicine there is nothing of the sort.

Telemedicine gives the patient the opportunity to have a free flow in-depth conversation with the doctor on how he/she feels about the illness without any bias.

Afari said he was particularly amazed at the level of development by the Indian people in the area of health particularly telemedicine, he even had the opportunity to enter some of the theatres to see the operations and surgeries in session.

Some Benefits of Using ICTs in Health care delivery

Telemedicine have positive and immense benefits for Health care Professionals**,** General Practitioner, Corporate Hospital/ Business man and Government etc

Benefits for the Health care professionals

- improved diagnosis and better treatment management

- Continuing education and training

- Quick and timely follow-up of discharged patients

- Access to computerized comprehensive data of patients, both offline and real time.

Benefits for the General Practitioner

- Better diagnoses of diseases due to availability of specialist opinions

- Reduction in nosocomial infections due to increase OPD and domiciliary care.

- Increased and better monitory of chronic cases.

- Ability to update oneself

- Ability to discuss cases with peers and request advice from specialists.

Benefits to Government

- Better management of disease

- Reduce visits to specialty hospital

- Early detection of disease

- Reduced burden of morbidity and many more

- Improve preventive healthcare measures

Benefits to Corporate Hospital/ Business man

- Increased profits from increased virtual specialist referrals

- A profitable franchise

- Increased utilization of specialists

- Reduced requirement of super specialists

- Reduced cost of Medicare

- A positive public relations exercise

- Tax write offs, as telemedicine schemes are generally encouraged by many states

Afari reiterate that activities undertaken at the various Indian hospital institution are in various degree such as:

- Study and Research

- Observation of Tele-health/ e-Health

He said in the various hospital in India there were cameras mounted at various vantage points that captures and projects real theatre operations on big screens for students to watch the surgery real time and learn from as it takes place. There is also a broadcast studios with video conferencing facilities for training and learning and also have robust servers to backup their data.

The three (3) medical colleges in the Cuttack district in India are fully connected. Afari urged that Ghana should also have a strong outsourcing companies to managed certain aspect of the health industries to enable the health system to be more powerful, productive and efficient.

He added that some districts in India just like in some parts of Northern Ghana do not have network coverage /connectivity at all making it difficult for this systems to run effectively. He however mentioned that some of this challenges and interventions should be addressed by using satellite applications and other interventions as we are living a global village etc.

He said what will help Ghana to do well on telemedicine landscape is to do more research, create awareness (Ghana biomedical convention), GINKS as agent, Ministry of Health Seminars and get mobilize people to sell the idea to the public.

He said GINKS is a vibrant platform championing quality healthcare delivery using ICT and hope it will continue the good work. Ministry of Health must be made aware of some of these technologies and incorporate it. They must know the basic things .

Afari said as part of his effort he has been able to formed telemedicine group. The groups is called telemedicine and ehealth working group, Ghana (TeHWGG). This is an online networking group which he formed on the 8th May 2012 on Linkedin.

The Telemedicine and eHealth Working Group, is an online networking group with the aim of providing educational and advocacy guidance towards the effective use and deployment of eHealth/Telemedicine tools and services in Ghana. The Group provide educational and advocacy guidance towards the effective use and deployment of Health/Telemedicine tools and services in Ghana. For details about the group visit http://linkedin.com/groups/Telemedicine-eHealth-Working-Group-Ghana-4434236/about?trk=anet_ug_group

Mr. Afari also informed participants that he is currently conducting researches in the following areas in Ghana:

- ICT for improved health care (Health Information in rural Ghana) in the south Tognu district

- Community-based e-health promotion for safe motherhood, linking maternal health needs with health services system in senya breku, awutu area

- HIV/AIDS Virtual Library at CSIR-INSTI, Accra

- Analysis of eHealth implementation in Kumasi, Sene district etc.

Observations made in India

- Hardworking and time management

- Managers make presentations wherever they come back from a conference

- Academic programs on offer at most of the telemedicine centres include CME programs, Guest Lectures etc

- Patient's Care services provided by most of the institutions include tele-consultation, tele-diagnosis, offering expert opinion on super specialty services, public awareness programs, case follow-ups (post surgery) and case discussions

- Computer maintenance and servicing has been outsourced in all the facilities

- Technical staff at the centres maintain regular schedule for testing telemedicine equipment

In conclusion, Mr. Afari hinted that his travel to India has broadened his intellectual horizon placing him in a better position to champion any telemedicine projects in Ghana.

The chairman Mr. Christian Lettu head of thematic mapping at INSTI thank Mr. Afari and participants and applauded the presentation adding that there are a lots that can come from telemedicine to benefit us and must not be taken for granted in any away but rather embrace it with all seriousness.

There are numerous benefits that the patients and the nation as a whole can derived from using telemedicine in health care delivery.

Ghana has the e-health strategic document but not effectively in used but the advantage we have is that most of the young doctors coming out of medical school are computer literate. The older doctors have problem accepting the computer systems but with time, it will work out fine. One of the strategist helping us in the direction of awareness creation is the participants themselves.

One of the key reason why telemedicine projects fails is that the money for the project will be used elsewhere forgetting about the most necessary things.