ICT AND HEALTH FORUM

Improving Health through ICT: the role of the Health Assistant

The Ghana Information Network for Knowledge Sharing held ICT and Health forum to usher Students of Midwifery Health Assistant's Training School (MHATS) at Pantang to some of the modern ICT trends in improving quality of healthcare delivery in the world.

Opening the forum, the Coordinator of GINKS, Mr. Ibrahim Inusah said he hope that exposing students to these tools will go a long way to influence their attitude towards ICT and by making good use of the various resources available on the internet.

He said GINKS is an NGO which promotes ICT as a tool for development through both online and offline platforms and also produces quarterly newsletters to share with the public useful resources on some of its activities. He added that GINKS also conduct researches into ICT related matters, provide capacity building training etc.

The first facilitator, Mr. Joseph Kpet. of GINKS spoke on ICT and its relevance in the 21st century for Healthcare and why it is important for health workers and students in particular to embrace it with positive attitude. He lamented that most people do not find search information useful in their searches because they do not use the right approach and right search techniques or strategies such as the Boolean operation.

He moved on to define ICT as Information and communication technologies and said ICT is not limited to computers only but includes radio, television, as well as newer digital technologies such as the Internet.

He explained why Ghana's Healthcare System must be ICT enabled Ghana utilize benefits of ICT for better and efficient healthcare delivery thereby saving lives. He emphasized that Information and Communication Technologies (ICT) play important role in supporting our daily life in today's **digital society** and as well as help in delivering better healthcare services to people all over the world and Ghana must not be left out.

It is important for Health Assistant to be able to manipulate the ICT tools to provide assistant to doctors remotely instead of travelling miles to the physical location to remove a single file for a doctor in the hospital. All over the world, people are benefitting from the ICT tool for development in all areas of life and the health sector is no exception.

"ICTs have an ever-growing impact on our work and private lives, and the healthcare sector is no exception"

Talking about eHealth, he mentioned that it is the way forward for Ghana as there are attempts to deploy eHealth applications in Ghana.

He said the term **e-Health** refers to health services and information delivered through the Internet and related technologies or ICT tools and services for health.

With eHealth, doctors can access patients' medical records more easily, get immediate access to test results from the lab, and deliver prescriptions directly to pharmacists.

Speaking on some benefits of eHealth, he said ehealth is very powerful and changing the way of healthcare delivery in the 21st century.

Advantages of ehealth includes

- **Efficiency** - one of the promises of e-health is to increase efficiency thereby decreasing costs.

- **Enhancing quality** of care – ehealth helps in improving quality of healthcare.

- **Evidence based** - e-health interventions are evidence-based. They are not assumed but proven by scientific evaluation.

- **Empowerment of patients:** e-health opens new avenues for patient-centered medicine, and enables evidence-based patient choice.

- **Encouragement** of a new relationship between the **patient** and health **professional**. He said this very vital as people see Doctors as unapproachable human beings and are most often afraid or do not have the courage to interact with doctors to create that doctor-patience relationship but with eHealth that barrier will be broken and patients' will effectively communicate and interact with the doctors.

Examples of Ehealth include:

- Health information networks

- Electronic health records

- Telemedicine services

- Health portals and many other ICT-based tools assisting disease prevention, treatment, health monitoring etc.

He said the internet is a powerful resource hub for worthy information, he defined Internet as a global **network** connecting millions of computers all over the world. He added that one get useful information on the internet on varied subjects but most often we turn to use wrong techniques in our search queries. There are a number of search strategies that health assistant must know and use in conducting their researches online to generate best and useful results.

There are various kinds of search engines present on the internet but the most commonly know is google. He exposed students to some other kinds of search engines and urged them to take advantage and use it in their research. He said when you want to find out more about specific topic, you use search engine. Most people find useful health information on the Internet by using search engines www.google.com, www.bing.com, www.search.yahoo.com, www.altavista.com, www.excite.com, www.lycos.com etc.

Demonstrating how the Boolean operator works, he explained the Boolean operators AND, OR, NOT, NEAR. He explained that these operators are used to combine search terms when doing research. You can also use brackets to combine boolean searches. He usher them to do simple exercise on the various operators urging them to employ such techniques in their researches.

Explaining the Boolean operator AND he said it will **limit** the results of a search because all the keywords have to be present in order for an item to be retrieved. If you enter two words without a boolean operator, most search engines assume you mean AND.

He however said that using the OR operator results in either or both of your search terms appearing in your results. Using the OR operator will result in a larger number of retrieved items and therefore expands the search.

The NOT operator on the other hand forbids the word after it from appearing in the items resulting from your search and will result in a larger number of retrieved items and therefore expands   the   search. The Not helps to limit your search because it takes out a category of undesirable results. NOT thus narrows a search by excluding the keyword immediately following it.

He expressed the hope that the various search techniques will help students in their academic research works and urged them to use it often in their searches to save time surfing through millions of pages.

The second facilitator Mr. Hammond Sarkwah from the Ghana Health Service (G.H.S) took the podium and spoke on the use of ICT as a tool for better healthcare focusing on the situation on the health sector in Ghana. Hammond said it is important to use ICT and that will help students to be season health assistants' stressing that to be a better health assistants' in the world, they must use ICT. He said they can't do away with ICT in their duty post as Ghana Government and some health institutions in Ghana have started rolling out ICT enabled environment for better healthcare delivery.

Speaking on components of eHealth and current developmental projects in the health sector in Ghana, he defined eHealth as the use of ICT in health. He said when you take electronic communication and information technology and combined the two then you are using what is termed as eHealth.

Hammond listed the 3 pillars of eHealth namely Technology, Application and Decision making. He said empathically that when students are able to combine ICT in their job, they will be better than their colleagues who have no ICT skills.

Expanding on Technology as the first pillar he said it comes with computers, servers, mobile devices, networking, connectivity and multimedia. The mobile devices are the ipads, smart phones, android etc. In some regions in Ghana such as Volta region, Ghana Health Service for

instance has established what is called N-Computing which helps to access information remotely through a centralized computer called server.

Technology is application that is used in science and technology cannot work alone but work on application (OS) such as windows, ubuntu etc which enables the computer to work. He further stated that the Health Management Information System is software on the computer used for data entry purposes. Information gathered by the HMIS can be forwarded to the head office to inform decision. If we have the technology and the applications are running on the technology it will help us make inform decision. He cited an example of a software in Mamobi polyclinic called **Nneama** (literally meaning– **things** or **items**) which inform authorities of what items the polyclinic is running out of which is helping tremendously in decision making.

Such technology also helps in the billing system which falls under eHealth that helps in making management of the hospital or clinic facilities better and also offer patient's the opportunity to have easy access to their medical records everywhere.

He listed some current development in the Ghana Health sector NHIS, HMS, DHMS, Mhealth-MOTECH, MVP, eGovernance Project –Telemedicine, Teleconsulting. He mentioned that these facilities help in data gathering and processing which has the potential to affect decision making in the health sector to a greater extend.

He said MOTECH is one of the e-health applications currently being used in Ghana and uses mobile phones to run such application for pregnant women. The MVP-Millennium Verification Project program helps patients to limit or know how to control problems in their health.

The MOTECH service enables pregnant women and their families to receive SMS or voice messages that provide time-specific information about their pregnancy each week in their own language. This information is a mixture of: Alerts and reminders for care seeking (e.g., reminders to go for specific treatments, such as prenatal care or a tetanus vaccination). Actionable information and advice to help deal with challenges during pregnancy (e.g., tips for saving money for transportation to deliver at a health facility, what is needed for a birthing kit, nutrition information).

He entreats students to also visit the Ghana Health Services website for useful health information and resources vital for health workers in Ghana. Ending his presentation, he urged students to let the authority build network for the ICT centre and have at least basic ICT training in typing and data entry to enable them have great access and brighter carreer after school. He said there will

be computers in the consulting room in the near future and it is expected that health workers must know how to operate them efficiently.

The Coordinator of GINKS, Mr. Ibrahim Inusah made a presentation on Evaluating Internet Research Sources. He said the internet has a host of information but not all information on the internet is authentic and as students it is important to use authentic and current information in their work.

There are all sort of information on the internet and some are facts, opinions, stories, interpretations, statistics with the aim to inform, to persuade, to sell, to present a viewpoint, and to create or change an attitude or belief.

He stressed that it is important and worth knowing that people post all sorts of information on the internet but it should be based on a continuum of reliability and quality. He said the first step is evaluating information is to do pre-evaluation before selecting sources likely to be reliable.

There are questions and techniques to apply in order to know you are selecting authentic information from the lots such as what source or what kind of source would be the most credible for providing information in this particular case?" Which sources are likely to be fair, objective, lacking hidden motives, showing quality control? He added that reliable information is power and the **CARS Checklist** also help us check for credibility, accuracy, reasonableness, support in all our research works.

"Not all websites are credible but most websites are credible" Ibrahim

In evaluating quality of information, one way is to check for whether it is peer-reviewed in terms of journal, article, publications etc.

If you write a book as author, you must apply some quality control before posting it out there on the internet. He further listed some indicators of lack of accuracy as: no date on the document, vague generalizations, old date on information, very one sided view that does not acknowledge opposing views. If a journal, article or publication etc has neither date nor name of the writer, you must be careful about that information.

Some indicators of lack of credibility are anonymity, lack of quality control, negative meta information. If all the reviews are critical with bad grammar or misspelled words then be careful in using such information.

It is important students check all the sources of their information before using it in their academic work else the teacher will not accept it. Students should not present paper without balance with every aspect critical. He urged students to avoid any information that has an unfriendly tone in its writing style. Avoid conflict of interest information where the writer is serving two purposes in the same writing.

He introduced students to some authentic health related websites and urged them to use them more effectively. As health professionals it is very important to use websites such as Eldis, PubMed Central, BioMed Central, Science Development Network, UNdata, WHO etc to conduct health related researches.

In his closing remark, Mr. Ibrahim Inusah thank students and said he hope the meeting is the beginning of good relationship with the school. He urged them to put what they have learnt into practice and make use of ICT in their studies and on the job to help improve and help build a better Ghana for all.