CONFERENCE REPORT

13th ANNUAL CONFERENCE OF THE NATIONAL CATHOLIC HEALTH SERVICE (NCHS)



Theme:

"Patient Safety & Modern Health Technologies"

DATE: OCTOBER 12-15, 2015

VENUE: BISHOP KONNINGS GUEST HOUSE &

CHANCES HOTEL, HO

ORGANIZER: NATIONAL CATHOLIC HEALTH SERVICE

(DIRECTORATE OF HEALTH)

CO-SPONSORS:

- NCHS DIRECTORATE;
- NCHS FACILITIES &
- CHRISTIAN HEALTH ASSOCITION OF GHANA (CHAG)

1.0 INTRODUCTION

he 13th Annual Conference of the National Catholic Health Service officially opened on Tuesday, 13 October, 2015 at 9am with a Holy Mass. The Main Celebrant was Most Rev. Joseph Afrifah-Agyekum, Bishop Responsible for Health.

The Chairperson for the Conference was the newly installed Bishop for Ho diocese – Most Rev. Emmanuel Kofi Fianu SVD. A welcome address was given by the Ho Diocesan Health Service Director, Msgr. Ebgi. There were fraternal messages by representatives from CHAG, Catholic Relief Service (CRS), and the Volta Regional Directorate of Health.

The theme for the 13th Annual Conference was "Patients Safety & Modern Health Technologies". Health technologies are deployed for health care provision in almost all units of a modern health facility on a daily basis. Raising the discussion at the level of the Annual Conference was intended to draw attention of Managers and staff to the importance of patient safety and modern health technologies and the need to take issues about them seriously.

The seminar sessions dealt with various components of the theme. The session also demonstrated the Church's concern for patient safety and dignity of the human person. Participants were enlightened on the need to refrain from harm and injury to patients where preventable, appreciate what health technologies always do depending on how, who, where and when they are used.

A world café session was organized into three thematic areas i.e. Governance, Technical, and Human Factor. Participants were randomly allocated to the three groupings. Feedback from the World Café Sessions were presented at a common forum. Most participants had opportunity to make input into the individual reports.

Special Awards were presented with Citations to four distinguished staff of the Service.
Special presentations were made by pharmaceutical companies such as Sunshine Healthcare
Ltd, Pharmanova Ltd, and
The total number of facilities represented during the 13 th Annual Conference was In

The Conference was climaxed with a dinner dance and presentation of certificates to all participants on 16th October, 2015.

all 150 personnel of the service took part in the Conference.



A group photograph showing participants after the Opening Ceremony



Participants at the Opening Ceremony



Dignitaries at the Opening Ceremony



Dignitaries at the Opening Ceremony

2.1 WELCOME ADDRESS BY THE HO DIOCESAN HEALTH SERVICE DIRECTOR, MSGR. EGBI



oday, the health worker has to be careful because of the rise in medico-legal cases. These are some of the concerns for which the workers in the Catholic Health Service have gathered for these few days to deliberate on how to marry advancement in technology with the provision of quality health care and thus give meaning to life. Technology is supposed to serve man and man cannot afford to be a slave to technology.

I wish to welcome you therefore to the 13th Annual Conference of the National Catholic Health Service. The Diocese of Ho has tried to provide facilities that will make you feel comfortable and create an enabling environment for full and active participation. If things do not work out the way you would want them to, forgive us and consider our efforts. Ho is friendly and welcoming; savour this unique characteristic of Ho. Ho is a home outside home, feel at home. Ho is picturesque, enjoy the beauty! When you leave Ho, leave with happy and long lasting memories that would make you want to come back. Akwaba! miawoe zor! Welcome! Thank you."

2.2 KEYNOTE ADDRESS BY MOST REV. JOSEPH AFRIFAH-AGYEKUM, BISHOP RESPONSIBLE FOR HEALTH (EXCERPT)

y dear Health Workers, the reality is that health technologies will go through further transformation every now and then and we should be open to accept them for the benefit of our patients. One way to embrace these is the ability to use or apply them effectively and this can only come if you are open to training and learning new skills.

A number of them will work against our values as a Church and people. This is where we will require the relevant Laws and enforcement agencies to control them and to protect values, ethics, standards and even cost. You of course will play the gatekeeper role in this and bring such issues to the attention of the Church leadership to resolve them".

2.3 ADDRESS BY GEORGE A. ADJEI, ESQ., DIRECTOR, NATIONAL CATHOLIC HEALTH SERVICE AT THE OPENING CEREMONY OF THE 13TH ANNUAL CONFERENCE, BISHOP KONNING PASTORAL CENTRE, HO



y Lord Chairman, Your Lordship the Bishop Responsible for Health of the Ghana Catholic Bishops Conference, Honourable Regional Minister, Regional Director of Health Services, Executive Director CHAG, Diocesan Executive Secretaries and Directors of Health, District Directors of Health, the Press, Heads of Institutions present, Exhibitors, Invited Guests, Fellow Workers of the NCHS, Ladies and Gentlemen!

I may not be wrong to state that this is the first public ceremony to be chaired by His Lordship Most Rev. Emmanuel Fianu, SVD the new Bishop of Ho and we are privileged to have you in the chair. Please join me to welcome him with a round of applause to show our appreciation for his presence. We want to assure you My Lord Bishop of our support in whatever way in your work in health.

Our gathering like this for the annual conference, as you know is the only one that brings all of us together as a Service. Apart from helping to promote our identity, it strengthens our union because all institutions from all Arch/dioceses are represented – Training Colleges, Hospitals, Clinics, Diocesan Health Pharmacies and the specialized institutions. We look forward to another successful Conference so that the Conferences will continue to be platforms for learning and sharing.

The Catholic Church continues to be a strong partner of government in health care provision in Ghana. I am happy to announce to you that since the last annual Conference, two new clinics have joined our Union. They are St. Anne Clinic and Maternity, Tagadzi in the Keta Akatsi

Diocese and the St. Francis Clinic, Saviefe Agorkpo in the Ho Diocese. We extend a special welcome to them into our fold. Benito Menni Clinic, Dompoase has developed and been elevated to a Hospital status with all the basic services. I am also aware that plans are far advanced to upgrade two more clinics into hospitals next year by this time. Again, two Nursing training colleges are expected to be open soon in the Keta-Akatsi and the Wiawso Dioceses. Today, the NCHS network has 35 hospitals, 73 Clinics, 10 Nursing & Midwifery Training Colleges, three Diocesan Health Pharmacies, The Catholic Medicines Centre, and 2 specialized institutions. Indeed contribution of the NCHS towards health care delivery in Ghana is second only to the Ghana Health Service. Thanks to the Church and the Arch/dioceses.

Others have also celebrated various anniversaries recently- St. Francis Xavier Hospital, Assin Foso celebrated their 50th anniversary; St Martin de Porres Hospital, Eikwe their 50th too; and Holy Family Hospital, Techiman their 60th. St. Matthias Hospital, Yeji will celebrate their 50th anniversary too and you are all invited to join them on 31st October, 2015.

My Lord Chairman, we also remember some of our colleagues who have passed on since the last Conference. They have been mentioned already during the Mass and as we always do, may I crave your indulgence to stand up so that we observe a minute of silence in their memory.

On behalf of all the institutions and everyone, I thank the Ghana Catholic Bishops Conference for their support for our work at the Directorate, the Arch/diocesan Secretariats and facility levels in this past year.

We similarly extend our thank you to our own Bishop Responsible Health. As always, he has been active with his guidance and support for our work at every level. Next we acknowledge and thank our service provider partners, the Ghana Health Service and our colleagues from the Christian Health Association of Ghana network.

On Projects, Grand Challenges Canada is working with us in some institutions to pilot innovations in mental health, with specific emphasis on epilepsy and maternal depression. We are at the end of the pilot phase and we look forward to approval for the scale up phase which is expected to include twenty more facilities.

Again, Novo Nordisk is assisting five institutions to set up complete diabetic clinics with furnished buildings and relevant equipment in phases. The project in the first two hospitals is completed. Construction in the third is about starting.

We are also in partnership with Georgetown University, (Washington DC, USA) to study and intervene in health issues in an urban slum. This project is still at the feasibility stage and we will update you more next year on its direction and deliverables.

We look forward to a great working relationship and collaboration with these and other partners to serve Ghanaians.

Our long association with the Institute for Healthcare Improvement, (Boston, Massachusetts, USA) on our flagship Project, Project Fives Alive!, is gradually coming to a close at the end of the year. You will attest to the fact that this Project has since 2008 achieved tremendous success accelerating reduction in under five mortality in our institutions and communities across Ghana. Today, Ghana has reduced under-five mortality by over 30% and we are certainly part of this story. As NCHS we are proud to have played host to this star project and we thank all our partners for the cooperation we received.

Thanks especially to the Bill & Melinda Gates Foundation for sponsoring the Project. We also want to acknowledge and thank the staff of this Project, a group of well trained and highly motivated professionals who traversed our country day and night supporting teams to post the results I just reported. They are heroes and heroines in saving lives. God Bless them all. W ealso want to put on record that through this Project, the NCHS is connected to a number of international institutions in health care in several countries for which we are grateful.

Colleagues, the Project Fives Alive! has left us with two resources. The first is highly trained officers at all levels of the NCHS to teach improvement skills. Next is the skills of improvement science itself which we have taught in other health systems. The Ghana Health Service institutions have deployed it strongly and are achieving successes with it. Recently the Nkwanta South District Hospital won the national best poster award at a national forum held in Accra. The Goaso Government hospital also gave an impressive presentation on how they have saved under-five lives using continuous quality improvement. Our institutions are also involved in a number of such projects and we look forward to doing more with continuous quality improvement in health care delivery. Happily, the Ministry of Health and the Ghana Health Service at the recent Quality Forum have both endorsed quality improvement science as the way to go to improve care and they expect the NCHS to play a lead role to build capacity across the country.

The dwindling development partner funds is now a reality as most of our traditional sponsors have withdrawn from Ghana. It is therefore our responsibility to respond to this by starting

local initiatives that can help us broaden our revenue base so that our work will not suffer in any way.

To do this, we require data and information from our work to decide which initiatives to venture into for our mutual benefit as a Service. This, My Lord Chairman is hardly forthcoming from some Managers.

My Lord Chairman the need for submission of data from our facilities has always been a challenge and we have expressed this in very many ways but unfortunately the situation has worsened in the last few years. Some hospitals have even stopped submitting annual reports. For us at the DoH, we think that such officers are not worth working as leaders within our system because this is what we require to take any form of decision and one wonders what they purport to be doing in decision making at their facilities. As requested of us last year by the Bishop Responsible for Health, we have a list of those Managers who, if retained can only lead the institutions into collapse.

We are also picking signs from some hospitals regarding poor team work. We have tried since 2008 to train Managers in teamwork. The manuals developed to guide the management of the institutions all have in-built guidelines to promote this. Other Managers too are not pro-active and do little or nothing in supervision. Thanks be God we have developed another team work approach ("huddle") which has shown tremendous capacity to promote good working relationship by sharing information on service delivery and management in real time in a non-intimidating way. The Catholic Hospital, Battor has successfully piloted it and we have shared the guide on it with your respective Arch/diocesan Executive Secretaries and Directors to assist every institution to use it as well.

Again, we urge you to take advantage of other programmes aimed at reducing the cost of providing care thereby building a wealth of resources to expand and develop. Our Pooled Procurement Programme, even though fraught with issues of the delay in paying suppliers as a result of the delays on the side of the NHIA's payments, has recorded an average of 30% reduction on the cost of medicines in the last three years. The savings on non-drug medical consumables is even higher yet we have some Managers of the Service who choose not to, or find reasons to not patronise it for whatever reason and go ahead and purchase these items at exorbitant prices and pay instant cash. Such Managers need to be reminded that the other focus of the Programme is to check and eliminate counterfeit medicines from our system. On this too, we have a list of some Managers that need to be censured by the Bishops Conference.

My Lord Chairman, as regards health technologies, particularly the self-administered ones in the hands of patients, we have a duty to actively and continuously educate patients on their proper use to serve them well. Let us also revise our notes on planned maintenance of all technologies in our care to ensure that they function properly at all time. The Directorate is also prepared to obtain information and support interested Arch/dioceses to equip their respective institutions with relevant medical technologies to improve patient care.

Colleagues, the Ebola Virus Disease threat has not gone away permanently in the West African sub-region. We therefore urge you to keep your monitoring systems still on high alert and report any suspected case to your respective District Directors and the National Ebola Response Team Secretariat for immediate action.

We want assure the Bishops Conference that their institutions will continue to offer opportunities for our staff to teach, practice their professions, maintain a vital family life and have strong ties with their respective communities.

We will also continue to innovate for the good of our staff and patients. We will continue to test ideas and share positive results for other health systems to either adopt or adapt locally and on the international front as we have done in the past.

We therefore appeal for support from the Bishops Conference to achieve a deeper cohesion in our work because collaboration creates better results.

More than ever we are relating better with the Ghana Health Service especially at the national and regional levels as a good entry point for deeper collaboration at the District and sub-district levels.

Colleagues, we ask for your continuous assistance, dedication and commitment at both the Arch/diocesan and institutional levels to help improve health outcomes of the people we serve.

Only in God is our help and Health so we trust we can do it!

Long Live the National Catholic Health Service! Long Live the Catholic Church! Long Live Ghana! I thank you.

2.4 ADDRESS BY THE EXECUTIVE DIRECTOR, CHRISTIAN HEALTH ASSOCIATION OF GHANA (EXCERPT)



y Lord, the adoption of Modern Health Technologies could potentially improve access to healthcare, improve patient safety and ultimately enhance clinical outcomes and cost effectiveness. Therefore, the choice of this Conference Theme "Patient Safety and Modern Health Technologies" couldn't be more appropriate. It resonates very well with CHAG's vision of excellence and creativity in service provision. Therefore, CHAG would continue to support the NCHS in improving quality of care at all times.

I must, however, add that the tangible hardware of health technologies, which includes visible and sophisticated equipment are the easiest part. The human factor which is the intangible software of modern health technology, is indispensable and much cherished by patients. We need dedicated professional health workers, who are compassionate and charitable in the provision of healthcare."

2.5 ADDRESS DELIVERED BY DR. YAW OFORI YEBOAH ON HEHALF OF THE VOLTA REGIONAL DIRECTOR FOR HEALTH SERVICES (EXCERPT)

atient safety is currently an emerging health care discipline that emphasizes the reporting, analysis and prevention of health care errors that often lead to disability and death. Indeed, the delivery of health care has become more effective but complex with the use of modern

technology. However, unexpected or unwanted events or errors occur that are due to failures in the health care system. The majority of these errors are preventable if the necessary precautions are followed.

Patient safety events may arise from problems in practice, products, procedures, systems and human error. Exposure of patients to avoidable risk is a worldwide problem. Every year several millions of patients suffer injuries and deaths as a result of unsafe care. The WHO estimates about 50% of medical equipment in developing countries is unsafe and 77% of drugs are counterfeit or substandard. The World Health Organization (WHO) has described patient safety as an endemic concern.

In Ghana and in our own Volta Region, we are not immune from these mishaps. Issues such as inadequate staff, poor staff attitude, inadequate knowledge, poor supervision, Poor communication, non-adherence to protocols, poor handling of emergencies and malfunctioning equipment are prevalent and may all lead to adverse events related to Injection and Waste management, Medication Errors, Blood Transfusion, Hospital Acquired Infections, Environmental hazards, Surgical and Anaesthetic Care, and Wrong or Late Diagnosis. Meanwhile, our clients are now very demanding, more knowledgeable about health and also conscious of their rights. The lawyers are also waiting for us.

There is, however, no doubt that technology has made health care more effective than ever before. Indeed, proper use of technology can contribute to the reduction of health care errors. The use of electronic records systems, for example, has helped hospitals to check prescriptions for conformity to standards.

We should all strive for an effective Patient Safety System in our health care organizations that aims to improve quality of care and patient safety. Health facilities should provide an environment that heals and is safe, functional and effective for patients, staff and visitors."

2.6 ADDRESS BY THE VOLTA REGIONAL MINISTER (EXCERPT)

s much as we may have very well trained health personnel in the Health Services in the Country, the employment of modern health technologies has helped to bring many significant benefits to the health care industry and I am happy that the theme for the conference is seeking to explore more ways to improve upon this.

Advancements in diagnostic tools for instance allow doctors to identify diseases and conditions early, increasing the chances of a successful treatment and saving lives.

Advancements in medicines and vaccines have also proven extremely effective, nearly eradicating diseases like measles, diphtheria and smallpox that once caused massive epidemics. Modern medicine also allows patients to manage chronic conditions that were once debilitating and life-threatening, such as diabetes and hypertension. Technological advancements in medicine have also helped extend lifespans and improve quality of life for people worldwide."

3.0 HIGHLIGHTS OF SEMINAR PRESENTATIONS

A two-day seminar was organized as part of the 13th Annual Conference.

3.1 WORKING DEFINITIONS

- 3.1.1 **Health Technology** is the application of organised knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to help solve a medical problem and improve quality of life.
- 3.1.2 **Patient Safety** practices are those that reduce the risk of adverse events related to exposure to medical care across a range of diagnoses or conditions.

3.2 HUMAN FACTOR IN HEALTH TECHNOLOGIES

Presentation by Dr. Nicholas Adjabu – (Deputy Director, Clinical Engineering Department, Ghana Health Service)

Health technologies cannot operate or efficiently without human interaction. Every technology has an in-built inefficiency which needs quality interaction with humans for optimum operation. Given that even the human being is not perfect, conscious effort must be made to handling these technologies to ensure safety and efficiency.

The sophisticated nature and the sensors on most health technologies eg. Life Support Machines make the care environment hostile, intimidating, confusing and overwhelming to some Practitioners, yet they must use them for the care of patients.

Take Away Message: Hospital Managers must ensure that the human resource to handle this equipment are adequately trained and the equipment are in good working conditions. This would be ensured through;

- Procurement
- Installation and Commissioning
- Continuous staff training
- Operation (accessories and consumables)
- Maintenance
- Decommissioning

3.3 HEALTH TECHNOLOGIES; PRESENT SITUATION AND FUTURE OUTLOOK FOR HEALTH DELIVERY

Presentation by Mr. Joseph Zeinaa – (Biomedical Engineer, Clinical Engineering

Department, Ghana Health Service)

Health Technology as defined as the application of organized knowledge and skills in form of devices, medicines, vaccines, procedures and systems developed to help solve a medical

problem and improve quality of life has come a long way from 1700 where it used to be called Medical Engineering.

Some technologies like medicines and their forms (solution, capsule, tablet, ointment, injection) have not seen as marked change or innovation over the years as compared to medical devices. Devices like the X-Ray and the ECG have improved remarkably. In operating the first X-Ray machines, the patient had to hold their films and the source of the rays had to be applied so close to the body but today, X-Ray results/photos are printed on papers and patients can be filmed at quiet a distance from the source.

From the fast pace of innovation and development of health technologies, it can be predicted that robots will attend to patients in the near future. Health Technologies are built to operate at the highest optimum levels with minimal errors and inefficiencies which can be observed if operating normally. However, in the case of humans, errors cannot be estimated and this makes technology an important "member" of the healthcare team. The point must be made that they cannot replace human being in care giving.

Take Away Message: The future outlook of Health Technology for health delivery is bright, will continue to see more sophistication and expensive. Managers must plan their technological needs appropriately, go through the right processes of procuring quality equipment, ensure that equipment are handled by the right calibre of staff and develop a positive culture of maintenance of acquired equipment.

3.4 PRACTICAL ISSUES IN HEALTH TECHNOLOGY-AIDED TREATMENTS-A PATHOLOGIST'S PERSPECTIVE

Presentation by Dr. Paul Poku Ossei Sampene – (Consultant Pathologist, Komfo Anokye

Teaching Hospital)

Technology today affects every single area of modern society - transportation, communication, security, banking or healthcare. However, nowhere is the immense impact more apparent than in the field of medicine and healthcare.

Advances in medical technology like robotics, computing, artificial intelligence, genetics, neuroscience and biotechnology undoubtedly hold potential to radically transform medical practice and the world.

Technological breakthroughs are revolutionizing the way healthcare is being delivered: from widespread adoption of electronic medical records, to advances in biomedical engineering and technology, modern healthcare and its delivery methods are changing at an ever increasing rate. Medical technology is advantageous to medical practice worldwide and in Ghana in that:

- a. "Electronic health records" has resulted in significant savings in healthcare costs as well as improved patient wellness and safety;
- Patient files are kept in databases that can be accessed from anywhere in the facility (eg. PHIS, HAMS);
- c. It has come as a time saver and results in better data keeping;
- d. Diagnostics have been made easier and better especially with advances in areas such as nuclear medicine. Other methods of imaging allow for easy patients' examination without any invasive procedures; and
- e. Minimally invasive surgeries, especially within cardiovascular and thoracic surgeries and gynaecology have become more common in recent years.

As promising as the future of medical technologies seem/is, it is not entirely free from risk like every other aspect of medical practice. It is reported that about 10,000 patients are killed in the UK each year under technology related circumstances. In a study (yet to be published) by Dr. Ossei and others at Komfo Anokye Teaching Hospital, it's been found that about 300-700 patients are killed annually from technology related errors in Komfo Anokye alone. A lot more patient suffer other safety events from these technologies that go unreported and unrecorded. The internet also poses danger to the public as medical knowledge or information placed on some sites are not always accurate leading to self-diagnoses with its attendant avoidable risks and complications.

Reasons and causes of these events are numerous among which are:

- a. Poorly trained/inadequate training of personnel to handle the highly sophisticated technological equipment
- b. Procurement and/or importation of sub-standard or outmoded equipment
- c. Lack of maintenance culture
- d. Patient/Personnel compliance
- e. Wrong calibration and interpretation of results generated
- f. Over reliance on medical reports by Health Practitioners

g. Persistent power interruptions/outages leading to damage to equipment and resultant effect on reports/results.

Take Away Message: Healthcare Practitioners must question all disparities between clinical findings and technological/laboratory findings, consult colleagues and reference books when in doubt and go back to the basics of clinical care - history taking, clinical examination, investigations and treatment whenever possible.

3.5 MAINTENANCE AND EFFICIENCY OF HEALTH TECHNOLOGIES

Presentation by Dr. Nicodemus Gebe – (Head, Biomedical Engineering Unit, Ministry of Health)

Medical equipment maintenance should pre-occupy all Managers and be raised to higher levels of priority at a higher level than other types of maintenance to ensure that they operate at the optimum efficiency for patient safety. The consequences of equipment breakdown could lead to reduced safety, such as unavailability of equipment for patient care; high down-times; and repair costs. Lack of maintenance also leads to loss of potential equipment life, reduced reinvestment years and increased replacement cost.

As much as the maintenance of the equipment is necessary, the authority maintaining them is also important: Original Equipment Manufacturer, Independent Service Organization or Inhouse Servicing. The Original Equipment Manufacturer provides the best services of all however the cost of engagement is high so decisions on this must be assessed carefully.

Take Away Message: Frequently, failure to maintain physical assets of the health service is blamed on lack of financial resources, lack of qualified personnel or organizational and managerial deficiencies. There is need for the NCHS and an organization to intervene in:

- regularizing inputs;
- introducing electronic inventory management;
- standardization across institutions;
- establishing technical training facilities;
- quality assurance; and
- post warranty budgeting and contracting.

3.6 SELF-ADMINISTERED HEALTH TECHNOLOGIES - ROLE OF THE DOCTOR?

Presentation by Dr. Osei Bonsu – (Resident, Department of Family Medicine, Komfo

Anokye Teaching Hospital)

Advancement in medical technology has revolutionized healthcare by increasing operational efficiency, reducing cost, providing real time assistance in the form of telemedicine and providing up-to-date medical information about patients.

The benefits of the advancement in medical technology should come with an equal measure of responsibility and care in deploying them and all stakeholders in healthcare should share this responsibility of keeping patients safe. When self-administered technologies are deployed, a patient's safety rests on the patient, the deployed technology, the environment, and the Healthcare professional. It is the Healthcare professional that oversees all these areas.

The Healthcare professional deploys the technology and so he/she must be well trained to handle the technology, trained to train the patient on its use and set up a system of monitoring, reporting and communicate with provider.

The Practitioner needs to consider the environment in which the deployed technology would be operated. He would need to consider electric power, heat, humidity and temperature stability. Again interactions with other equipment, children or family and culture and its waste disposal needs to be considered by the Practitioner.

Considerations need to be given to radiation and heat emissions, software (especially ones that compromise patient confidentiality), instructions/labelling/packaging issues and calibration of deployed equipment.

Finally the practitioner needs to consider the Patients ability to understand and use the device, patient's appreciation of the limits of benefit, ability to monitor for errors and the channels of reporting and communication.

4.0 WORLD CAFÉ (GROUP) SESSIONS

This part of the Seminar grouped participants around three thematic areas with defined set of questions that would provoke thought and guide the discussions. The outcome of the group discussions are reported below:

4.1 Role of Governance in Ensuring Safety of Medical Equipment

Governance refers to the processes and decisions which defines actions, grants power and get things done in the appropriate manner. The Group identifies that in any health institution the role of governance in ensuring safety of medical equipment are found in purchasing, usage and maintenance and post-usage handling.

Purchasing: It is recommended that before purchasing any medical device, a good needs assessment should be performed considering the scope of services provided, calibre of staff to operate it (staff should be consulted), disease patterns of the catchment area and standards of the appropriate regulatory bodies. Managers are encouraged to apply local data to every decision process.

Usage/Maintenance: Training of key personnel to handle the acquired device is necessary to ensure safety, good handling and training of other staff to use it. Managers should ensure that personnel handling acquired device pay attention to device specifications and manual instructions to ensure optimum performance of device. A system for reporting harm, near misses, errors and safety events associated with these devices must be devised. Every facility needs a proper maintenance system for all acquired devices and a proper inventory of all devices should be made.

Post-Usage Handling: Managers should ensure that devices that have lived their potential life spans follow the right processes of substitution, replacement or decommissioning. During the period of operation, managers are encouraged to develop a plan for replacement right from the time of acquisition.

4.2 Technical Issues in practice with Modern Technologies

The Group had a video documentary on some technology aided safety events that happen around the hospital and concluded that most of the safety events arose are due to errors/shortcomings from the technical brains (professional) behind the application of the technology.

The issues centre on Patient Identification, Diagnosis and Treatment and Medication errors. The following are suggested:

- I. Technology should be employed in managing and storage of patients' hospital records;
- II. Name tags or body sensors may be employed in identification of patients at every point in the care pathway;
- III. Managers of facilities should ensure the availability of basic and functional examination kits at all levels of the care pathway;
- IV. Ensure that quality devices are procured;
- V. Users should ensure preventive maintenance of all devices;
- VI. When necessary, devices should undergo substitution, replacement or decommissioning; and

VII. The capacity of staff should be built appropriately.

4.3 Human factors

The role of the healthcare personnel in the application of health technologies to ensure patient safety is the focus of the discussion. The healthcare person does not harm a patient/client in the course of work intentionally, however some actions and inactions may affect the safety of the client negatively.

Healthcare personnel should therefore be encouraged to be extra vigilant and respectful towards patients and their relatives or caretakers.

Managers should also be tasked to develop a policy for mobile phone usage in all facilities because it has been identified as a major distracting factor in the work of health professionals. This will prevent staff from making personal calls during work and listening to music or the radio while attending to patients.

4.4 Key Issues for Consideration

- i. Re-establishing equipment servicing units with trained staff
- ii. Pooled procurement of equipment
- iii. Sourcing and purchasing medical devices should involve users
- iv. Medical devices should only be purchased with technical advice and from credible companies with track record of performance on after sales support and services.
- v. Collaboration with Manufacturers
- vi. Develop a Mobile Phone use policy

4.5 NEXT STEPS

4.5.1 Role of Directorate of Health

- a) Policy development on mobile phone use at work.
- b) Facilitate Pooled Procurement of medical devices
- c) Develop a protocol for patients to collect data for self-administered medical devices for use by health professionals.
- d) Develop a protocol for reporting near misses, adverse events and medical errors.

4.5.2 Role of CHAG

a) Support NCHS to establish Biomedical Resource Centres (3) across the country

b) Facilitate allocation of medical devices to NHCS institutions from the Ministry of Health

4.5.3 Role of Dioceses/Institutions

- a) Monitor and implement policy on Mobile phone usage while on duty
- b) Develop institutional 3-year planned maintenance plan for all equipment
- c) Plan and train users on functioning of medical devices after each major servicing.
- d) Plan replacement for all equipment.
- e) Ensure staff, patients and visitors are not exposed to dangers and risks associated with use of devices such as X-Rays
- f) Managers should ensure that staff counsel patients on the benefits, risks and dangers of devices, especially those used by patients.
- g) Report near misses, adverse events and patient safety issues.

4.6 CONCLUSION

Management of medical technologies is still an untapped field in Ghana and the National Catholic Health Service wishes to take the lead role in the organisation/inventory of existing equipment, management of old and faulty ones and provision of training (Biomedical Resource Centre) for staffs by engaging with its mother body the Christian Health Association of Ghana. A protocol would be developed and submitted to the Director of Health, National Catholic Health Service by the end of November 2015, for the collection of patient data for self-administered health technologies.

The three days conference ended with the award of certificates to participants.

5.0 CITATIONS

5.1 CITATION IN HONOUR OF REV. MSGR. CLETUS FRANK EGBI

everend Monsignor Cletus Frank Egbi, you were born at Lolobi Kumasi in the Volta Region on 27th April, 1952. You are currently the Executive Secretary for the Diocesan Health Service, Ho, a position you have held since January 1995 while combining with your pastoral duties as a Catholic Priest. You have also held the same position under different names (Diocesan Health Administrator and Ag. Executive Secretary) for the periods 1987-95 and then January-June, 2005.

You earned your GCE Ordinary Level certificate in 1972 at St. Mary Seminary/Secondary School from where you proceeded to St. Teresa's Minor Seminary, Amisano obtaining the GCE Advanced Level Certificate in 1974. You then entered St. Peter's Regional Seminary, Pedu in the same year and graduated in 1980, leading to your ordination as a Catholic Priest at

Likpe Mate on 26th July, 1980 for the then Keta-Akatsi Diocese. You also studied Theology at the Urbaniana University in Rome, Italy. In addition to these, you hold certificates in Human Resources Management, Public Administration and Pastoral Counselling.

Your pastoral work saw you serve as Associate Priest at the Sacred Heart Cathedral Parish, Ho and St. Michael Parish, Kete-Krachi between 1980 and 1983. As a Parish Priest, you worked in five Parishes, including your current post at St. Cecilia Parish, Ho-Dome since 2013 combining this with your role as Executive Secretary.

You have also held very enviable positions within the Priestly fraternity; notably Member-Diocesan Priests Senate 1992-97 and then 2002 to date; Member-Diocesan Development Committee (1986-2005); and Member-College of Consultors (2002 to date). Other positions you held with distinction include Chairman-National Catholic Health Council (1996-2001); Board Member Catholic Drug Centre – 1988-2001; Board Member CHAG – 1987-2001; Board Chairman, CHAG 1998-2001; and one more time Board Chairman 2008- March 2014.

Without doubt you have had a consistent and distinguished career not only as a Priest but also as a seasoned senior officer of the faith-based health system in Ghana, rising to the highest governance levels twice as a Board Chairman of the Christian Health Association of Ghana. Under your watch, a good number of health professional have benefited from both pre- and inservice training that have become invaluable to care giving in the Ho Diocese and beyond. You also facilitated and promoted establishment of a number of institutions, the latest being the St. Francis Clinic at Saviefe Agorkpo which was commissioned as the latest institution to join the NCHS.

You have given the Ho Diocese, the NCHS and CHAG what is expected of any committed leader and more. Your key role in the creation of the National Catholic Health Service in the early 2000s is also on record.

Today the National Catholic Health Service celebrates you for your dedicated and meritorious service and wishes you God's blessings as you continue to carry out your mission to Ghanaians.

Ayekoo





ou are a native of Chaama in the Central Gonja area of the Northern Region. You are married with three children. You currently work as Accounts Officer at the West Gonja Hospital Damongo.

You have worked in the West Gonja Hospital since 1997 starting as Ward Assistant, then Office Girl in the Matron's office, Cashier and now an Accounts Officer. You attended Salaga Senior High School where you obtained your GCE Ordinary Level Certificate in 1987. You also studied at the Tamale Polytechnic where you obtained Diploma in Business Studies.

In these roles, you have endeared yourself to your colleagues and supervisors. You are known to have excellent interpersonal skills, creative, loyal and very reliable. You are also noted to work satisfactorily even under pressure. These qualities won you the Best Worker for your Department in 2007 and later the Diocesan Best Worker (Junior Category) in 2010.

You are on record to have organized educational sessions for your Church members on the need to enroll on the NHIS. You are also a marriage Counsellor and you speak English, Gonja, Hausa and Twi.

Your appraisal reports have been consistently exceptional. Most Rev. Peter Paul Angkyier, Bishop of Damongo had admirable praise worthy words in his recommendation for this award and the entire National Catholic Health Service associates itself with those sentiments.

Today the National Catholic Health Service celebrates you for your dedicated and meritorious service and wishes you God's blessings as you continue to carry out your mission to Ghanaians.

Ayekoo!

5.3 CITATION IN HONOUR OF MS. GERTURDE DANU



s. Gertrude Danu you were born in 14th October, 1955 at Dzelukope near keta in the Volta Region. You have worked in the National Catholic Health Service for the past thirty-seven years.

You trained as an Enrolled Nurse at the then Enrolled Nursing Training School at Margret Marquart Hospital, Kpando graduating in 1978. Thereafter you proceeded to take the Midwifery course at the St. Patrick Midwifery Training College, Offinso in 1987. In 1999, while in service, you also earned the GCE Ordinary Level certificate as a private candidate. In your quest to attain the best professional training in Nursing, you enrolled in the State Registered Nursing course at the Nursing and Midwifery Training College, Cape Coast and qualified in 2006. You further studied Health Administration and Management at the Ghana Institute of Management and Public Administration in 2010 thus preparing you for the current leadership role you play.

As a Nurse you rose through the grades of Senior Enrolled Nurse, Senior Staff Nurse, Nursing Officer and currently Senior Nursing Officer in charge of the Maternity Ward of the St. Anthony Hospital, Dzodze.

Your records show that you have demonstrated great passion for your job, especially in maternal care, neo-natal and children under five care. You are also an excellent team player and have a commendable commitment to duty. These qualities earned you a Diocesan Best Worker Award recently.

Ms. Danu, even though you are widowed with two dependent children, you assist pregnant women in need with food and register patients from the community on the National Health Insurance Scheme with your personal resources.

It is therefore no surprise that Most Rev. Anthony Adanuty, Bishop of the Keta-Akatsi Diocese recommended you highly for a national award.

Professionals like you offer a beacon of hope for sustainability of Church health services in Ghana. Today, the NCHS is acknowledging your good deeds at the National Level as the Best Worker, Senior Staff Category. Receive this citation in appreciation as you continue your mission to Ghanaians.

Ayekoo!

5.4 CITATION IN HONOUR OF MR. JAMES NAABIL TOBIGA



r. James Naabil Tobiga you were born on 15th April 1960. You are married with four children and until July 2015 you were the Diocesan Director of Catholic Health Service, Navrongo-Bolgatanga Diocese, a position you have held since 2000. You are a practicing Catholic, a Chorister and an active Member of the Noble Order of the Knights of St. John International.

You earned your Ordinary and Advanced Level Certificates in 1981 and 1983 from the Nkoranza Secondary Technical School and Ghana Secondary School, Tamale respectively. You then enroll in the Nurses' Training College, Tamale and obtained the State Registered Nursing Certificate in 1989. You again studied at the University of Ghana School Nursing where you were awarded the Bachelor of Arts degree in Nursing Tutorship and Psychology in 1995. You also hold the Master of Public Health Degree from the University of Ghana awarded in 2004.

You started your carrier as a Nurse at the Tamale Regional Hospital in 1989 and transferred after a year to Bolgatanga Regional Hospital where you spent four years (1991-1994). You then worked as a Tutor for the period 1995 – 2000 when you joined the National Catholic Health Service as a Diocesan Director.

As a Nurse you rose through the ranks and you are now a Deputy Director of Nursing Services. You are also a Member of Ghana Registered Nurses' Association and held the Regional Secretary position - 1999 - 2003. You are again an examiner for the Nurses and Midwives Council of Ghana.

Mr. Tobiga you served for two consecutive times as the Assembly Member for the Wakii Electoral Area in the Talensi/Nabdam District. During the period you also served an Executive Committee Member of the Assembly. You are also a Member of District Health Committee of Talensi/Nabdam.

You have participated in several trainings, seminars and workshops too many to list. Notable among these are workshops on Disease Outbreak Investigation (2004); Save the Children Planning Workshop (2002); International Workshop on the Dilemmas Facing Church Workers, Netherlands (2006); Improvement Advisor Professional Development Course, Accra (2010); Impact Assessment Conference, Netherlands (2010); and "TASO TEACH" Programme, Uganda (2011).

You also held membership of so many societies. Some are IMCS PAX Romana; Talensi Studies Union, University of Ghana Alumni Association, Ghana Red Cross Society (Upper East Region), Bolgatanga Church Choirs Union, Board Member of Christian Health Association of Ghana and Board Member – Sirigu Mother of Mercy Babies Home.

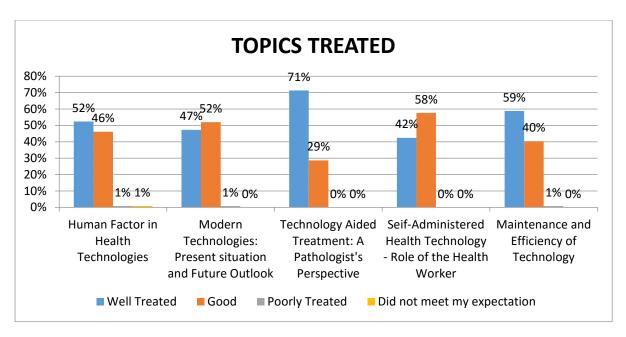
Your leadership skills transformed and developed the Diocesan Health Service in the Navrono-Bolgatanga Diocese.

Professionals like you offer a beacon of hope for sustainability of health services in Ghana. Today the National Catholic Health Service celebrates you for your dedicated and meritorious service and wishes you God's blessings as you continue to carry out your mission to Ghanaians.

Ayekoo!

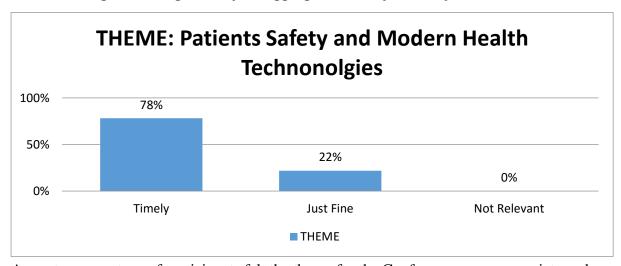
6.0 SEMINAR APPRAISAL REPORT:

6.1 Participant's Perspective of How the Five Topics Were Treated



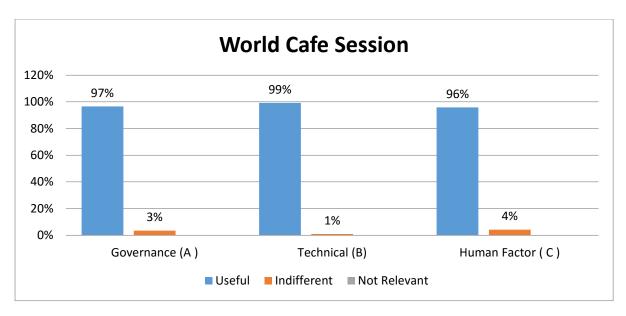
Most participants scored the delivery of the following three sessions; *Human factor in Health Technologies; Technology Aided Treatment – A pathologist's perspective; and Maintenance and Efficiency of Technology* as **well treated**, whereas a great percentage of participants felt that the remaining two topics; *Modern Technologies – Present situation and future outlook; and Self-administered health technology – role of the health worker*, were **satisfactorily** treated.

6.2 Participant's Perspective of the appropriateness of the Conference Theme



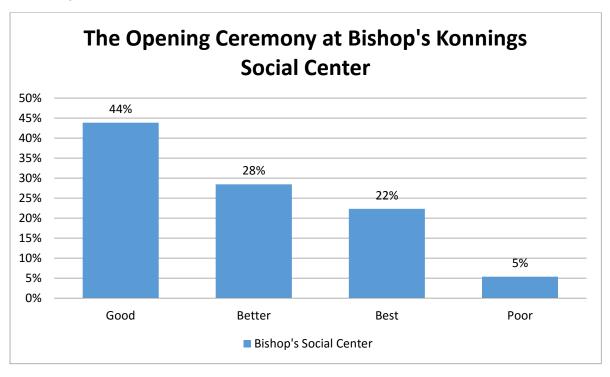
A greater percentage of participants felt the theme for the Conference was appropriate and *Timely*. Few participants think it was *just fine*.

6.3 Participant's Perspective of the usefulness of the World Café Session:



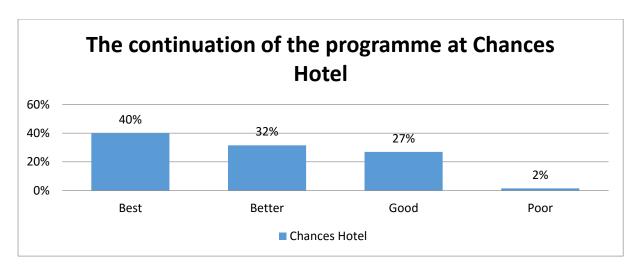
Almost all participants felt the World Café Sessions on Governance, Technical, and Human Factor issues related to the theme were *Useful*.

6.4 Participant's Perspective of the appropriateness of the Centre for the Opening Ceremony:



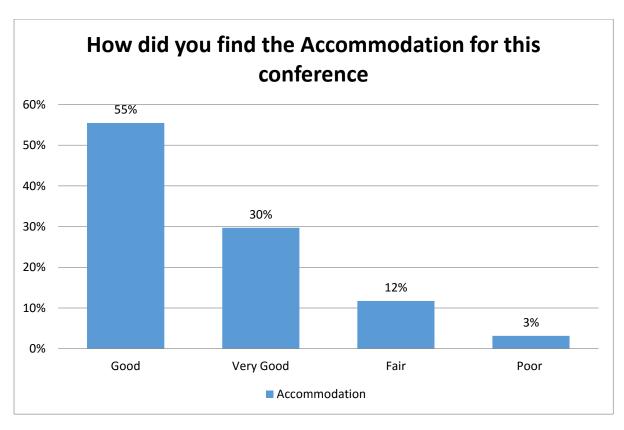
A good number of participants felt the choice of Bishop Konning's Social Centre for the Opening Ceremony was appropriate.

6.5 Participant's Perspective of Co-hosting the Conference at Chances Hotel



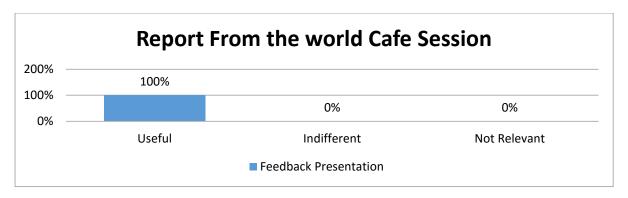
A good number of participants felt the decision to co-host the Conference at Chances Hotel was appropriate.

6.6 Participant's Perspective of Arrangements for accommodation:



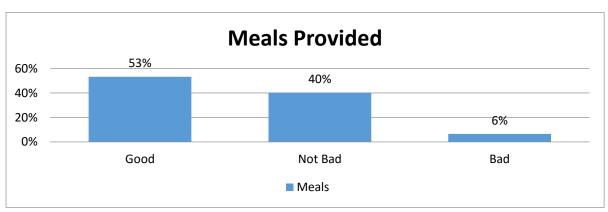
There were few dissenting views on suitability of the Accommodation for the conference, with majority thinking that the accommodation was appropriate.

6.7 Participant's Perspective of the Usefulness of the World Café Feedback Session:



All participants expressed overwhelming support for the usefulness of the feedback session of the world cafe

6.8 Participant's Perspective of Meals Served:



There were few dissenting views on suitability of the meals provided for the conference, with majority thinking that the meals were appropriate.

6.9 Participant's Overall Assessment of the Conference:



The expectations of most participants were met.

Appendix 1: PARTICIPANTS LIST - NCHS 13TH ANNUAL CONFERENCE

DIOCESE	NAME OF INSTITUTION		NAME OF PARTICIPANT	TEL NO.	
ACCRA	Catholic Hospital, Battor	1	Cosmos Agbodza	249319308	
KOFORIDU	St. Joseph's Hospital,	2	Beatrice Addai Kwaning	0243270484/020999683	
A	Koforidua	3	Benedicta Dagbatsa	206705621	
	Holy Family Hospital,	4	Juliana J. A. Nimo	244672757	
	Nkawkaw	5	Bernard Nii Torgbor	206300817	
		6	Daniel A. Bempong	244206725	
			Isaac Sarsah	208820715	
			Godwin Adzakpah	244170155	
	St. Martin de Porres	9	Theresah Yeboah	501282321	
	Hospital, Agormanya	10	Braimah Alhassan	244878422	
		11	Osei O. Bempah	549246214	
	St. Joseph's Hospital,	12	Benedicta Dagbatsa	206705621	
	Koforidua	13	Beatrice Addai Kwaning	0243270484/0209996983	
		14	Gyekyi Samuel	244853060	
	St. Joseph's Clinic and	15	Sr. Mary Nkrumah	209575519	
	Maternity, Kwahu-Tafo	16	George Boateng	2097779806	
	Holy Family NTC,	17	Olivia Pomah	209208265	
	Nkawkaw	18	Vera Love Otoo	243640525	
	Notre Dame Clinic	19	Philip Quarshie	244653956	
	St. John's Clinic &	20	Sr. Florence Adzakpah	244436562	
	Maternity, Akim-Swedru	21	Daniel Agbo	543772877	
		22	Sr. Mary Catherine	24854070	
			Akordu		
	St. Michael's Clinic &	23	Sr. Rosaline Amedeker	242108525	
	Maternity	24	Danso Appiah	542093125	
	St. Martin de Porres	25	Osei O. Bempah	549246214	
	Hospital, Agormanya	26	Tetteh Comfort	546980518	
		27	Bernadette Bruce	249339829	
	OTC, Nsawam	28	Lambon Peter Jabik	242777868	
	BTPOTC, Nsawam	29	Amuzu Dzamashie J	207889787	
НО	Catholic Hospital, Anfoega	30	William Ladzaka	209492557	
			Dr. Vishnu Abayateye	202640400	
			Cynthia Akapko	245041871	
			Ashipofy	2 12000 10 1	
		33	Philis Ampeh	243088404	
	Mater Ecclesiae Clinic,	34	Sr. Evelyn Claudia	243558208	
	Sokode	35	Afriyie Sr. Faustine J. Ntem	208109841	
	Margaret Marquart Hospital,	36	Emmanuel H. Torde	243085277	
	Kpando	37	Conrad Adjiolil	243083211	
	Kpando	38	Emmanuel Tormeti		
JASIKAN	St. Joseph's Hospital,	39	Sr. Lucy Dumenu	243667872	
JASIKAN	Nkwanta	40	Sr. Georgina Quayson	247627245	
	TVKWanta	41	Dr. Omale G. G.	246529161	
	C4 Marry Thomas Hamital		Amexo Robert	245009632	
	St. Mary Theresa Hospital, Dodi-Papase	42	Ohene Believe		
	Dour-1 apase	43	Ayesu Michael	244921128 201812330	
	St. Luke's Clinic, Chinderi	44	Ebenezer Bigonu	201812330	
	St. Luke's Cliffic, Cliffidell	47	David Amewudii		
	DHS, Jasikan	48		249101475 242809834	
	DIIS, Jasikan	40	James M. Lapon	242007034	

KETA-	Comboni Hospital, Sogakope	49	Paul Gagbe	203323577
AKATSI		50	Animdife Walter	509614717

	Sacred Heart Hospital, Abor	51	Kanku Frank	245383638
		52	Edward Akapko-Ashiadey	243622761
		53	Divine Gomado	242269418
	St. Anne's Polyclinic, Tagadzi	54	Avorgbedor Richard	245197708
		55	Stella Akpe-Doe	244984098
	St. Anthony's Hospital, Dzodze	56	Rev. Sr. Bernice Gbegbeawu	209186429
	St. 1 menony s 110spital, B20d20	57	Christian Akoto-brown	243339535
		58	Rev. Fr. Harry Barawusu	243112039
	Cuniberto Clinic and Mat., Lume	59	Rev. Sr. Mary-Consolata S. Ntenye	243482798
	New Look OPT. Centre,	60	Kportufe Peter Kwame	209091771
	Dzelukope	61	Dogbatsey Wisdom	243576890
KUMASI	St. Peter's Health Centre, Ntobroso	62	Irene Hagan	544133133
	St. 1 etcl 5 ficultin centre, 1 (tobloso	63	Joshua Kewura	54204487
	St. Patrick's Hospital, Offinso	64	Christine A. Adonu	246586911
	St. 1 atrick's Hospital, Ollinso	65	Charles Gyimah	273642800
		66	Pearl Bema Poku	274884546
	St. Patrick's Hosp. NMTC, Offinso	67	Dora Lumor	201579778
OBUASI	St. Michael's Hospital, Pramso	68	Ben Kwabena Sintim	206814495
OBUASI	St. Michael's Hospital, Franso		I.	
		69	Christabel Serwah Denkyi	244241288
	G. D. J. M. J. J. J.	70	Isaac Yaw Asamoah	205833033
	St. Benito Menni Hospital,	71	Kennedy Nti Gyakah	0205616347
	Dompoase	72	Sr. Florence Adevor	543809447
		73	Dr. Henry Dzackah	244539271
	St. Martins Hospital, Agroyesum	74	Rev. Fr. Livinus Onwuzurike	240798087
		75	Sr. Mary Assumpta T.	244293323
		76	G. Yempeh Cosmos B.K.	249103301
	St. Peter's Hospital, Jacobu	77	Francis Barnie-Asenso	541125283
		78	George Kusi-Appiah	245362222
		79	Paulina Priscilla Ofei	243932136
TECHIMAN	Abease Health Centre	80	Gyan Kwasi Bernard	244548636
	Holy Family Hospital, Techiman	81	Christopher Akanbobnaab	244841247
		82	Rita Yeboah	208636270
	Holy Family NMTC, T'man	83	Margaret Mary Alacoque	207698967
	St. Theresa's Hospital, Nkoranza	84	Francis Tawiah	207716806
		85	Rev. Fr. Benjamin Benneh	201845767
GOASO	St. Edward's H/C, Dwinyama	86	Sr. M. Laetitia Ofoma	244823473
	St. John's H/C, Domeabra	87	Sr. Esther Adzah	208149631
	St. Elizabeth's Hospital, Hwidiem	88	Dr. Kofi Boakye	243885907
		89	Sr. Comfort Apedzi	208194626
		90	Bright A. Okyere-Sekyi	246931577
	St. John of God Hospital,	91	Mary B. Naaeke	209320249
	D'Nkwanta	92	Abass Sagoe A.	208252900
		93	John Nyame Darko Otis	208190046
SUNYANI	NMTC, Berekum	94	Florence Agyei-Boafo	208169137
~ C1 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Holy Family Hospital, Berekum	95	Dr. Martin K. Attu	208148924
	J zamily zzospian, Berekani	96	Quaque Peter	208220711
			Rev. Sr. Ann	209038144
	St. Matthew's Clinic, Apenkro	97 98	Sr. Mercy Mathew	241084168
	St. Mary's Hospital, Drobo	99	Sr. Femina George	505679220
	5 Mary 5 Hospital, D1000	100	John Asomah Brown	0242172883
		100		243489375
	St. Joseph's Clinic Verra		Kyere bridget R.	
	St. Joseph's Clinic, Koase	102	Mercy Ampomaa	207615064

	102	James Ohene Acheampong	242245036

	Our Lady of Grace Hospital, Breman-Asikuma	103	Paulina Essuman	244047128
	St. Francis Xavier Hospital, Assin	104	Sr. Lourdes Sanz	244934302
	Foso	105	Mavis A. Taylor	240563657
CAPE		106	Patricia Asare	244601033
COAST	Mercy Women's Hospital,	107	Felix bawuo	202640429
	Mankessim	108	Frank K. Money	20656622
	St. Luke's Catholic Hospital, Apam	109	Sr. Mary Magdalene A.	206848952
			Mensah	
		110	Ruth Obeng Boakye	201218754
SEK	Holy Child H/C, Fijai	111	Sr. Anastasia G. Acquaye	248528680
TAKORADI	F.T.A.R.M Hospital, Asankragwa	112	Stephen Owusu-Ansah	209122989
		113	Nyarkoh Caleb	244211724
		114	Emmen Kanawetey	248141511
	St. Theresa's Clinic, Nope	115	Benjamin Miezah	247839420
	St. Martin D'Porres Hospital, Eikwe	116	Dr. Paul Coper	246011825
WIAWSO	St. John of God Hosp., Sefwi-Asafo	117	Susana Asantewa	245096529
		118	Oppong K. Davies	249844285
TAMALE	St. Lucy Polyclinic	119	Grundow Emmanuel	207229933
DAMONGO	Martyrs of Uganda H/C, Bole	120	Sutaa Francis	0243481500/
				0208679879
	St. Joseph's H/C, Kalba	121	Sobitey George	0245685657/
				0266306583
	West Gonja Hospital	122	Remy F. Nyewie	507122363
YENDI	St. Joseph's Clinic & Mat, Chamba	123	Sr. Stephany Ayamah	243409468
		124	Christopher Sunkwa Tamal	245743275
	Tatale Polyclinic	125	Samson Adjei Tayare	0246968070/
				0201044554
		126	Clement Obah	0209421993
WA	St. Joseph's Hospital, Jirapa	127	Diana Adama	203072195
		128	Sr. Elizabeth Abrafi	246192003
	St. Evarist H/C, Ullo	129	Christina Ankrah	242011808
	St. stella H/C, Karni	130	Marcella Kantabe	246294846
	Queen of Peace H/C, Sabuli	131	Vitaleria Langpuur	206166198
	St. Paul H/C, Kundugu	132	Rainer B. Kunnie	248310645
	Wa DHP	133	Francesca Bonur	208238755
	Eremon H/C	134	Twumasi Prosper	503277255
	St. John's H/C, Funsi	135	Owusu Boadum Evans	206617486
	St. Christopher's H/C, Dapuori	136	Huadji Isaac	0541380092/
	Nadowli	105	2 1 1 1	0508090585
	St. Gregorus H/C, Nanvilli-Nadowli	137	Paul Abediwura	541131762
	Our Lady of Lourdes H/C, Yagha	138	Mubarik Shahid	506320154
	Catholic Health Secretariat, Wa	139	Yere David	505769253
	St. Gerhard H/C, Fielmuo	140	Beatrice Namoaley	242513643
	St. Theresa's Hospital, Nandom	141	Bakura Raphael	207440556
	Nativity of Our Lady Polyclinic,Ko	142	Zabogi Fidelis	205506186
	St. Joseph's MTC, Jirapa	143	Dery Anthony	207026317
	St. Joseph's MTC, Jirapa	144	Gordon Dzibuzie	209231079
	St. Joseph's MTC, Jirapa	145	Daborikwu Eric	203636192
	St. Ignatius H/C	146	Nantomah Majeid	205441841
	Immaculate Conception H/C, Kaleo	147	Sr. Edith Dogfobaare	243187317