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2013/14





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### Message from the University President

To the implementation of a very useful medical equipment known as Computed Tomography Scan abbreviated as CT scan. On behalf of the management of Wachemo University and myself, I would like to congratulate Nigist Eleni Mohamed Memorial Comprehensive Specialized Hospital on the successful installation and Commissioning of the CT scan services after a long and tidious process to secure the equipment. It has been some years since the University sought to get CT scan considering its importance to provide evidence-based care and expand access to more medical as well as surgical services.

I would like to extend my appreciation to the Management of the Hospital and the community for the resilience and persistence throughout the process and collaborative attitude in Serving all customers and stake holders in all stances.

The field of Medicine is ever changing, dynamic and fast evolving in science with ever advancing technologies both for diagnosis and treatment. At this era, it is important to cope up with this in order to improve the quality of health care. In this regard, we are always committed to our motto, 'Let your light Shine in the Society" and we are doing our best to serve the community with the most capacity and honesty.

The University aspires to become one of the top 10 first class Universities in Ethiopia. Accordingly, we are making great efforts to transform the University with special focus in the College of Medicine & Health Science. With this in mind, the University has given a pro-

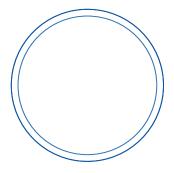
ority to investing in capacity building projects like modern medical equipments, infrastructure and human resources development. There are several projects in the pipeline with a reliable progress in realization. Among them are: CT-Scan, Major City Emergency & Critical Care Illness Project (MEICIP), Medical Oxygen Plant, Maternal Neonatal & Child Health (MNCH) Complex and residential house for staff, just to mention some. Recently the Hospital has also launched Specialty Education Programs in Obstetrics & Gynecology and General Surgery. I hope more Specialty Training Programs will be started by the coming years.

I would again like to appreciate all employees of the Hospital from support staff, junior professionals to Senior Physicians for the determination to serve the community, in transfering your knowledge and skill to fellow medical students and remind you to keep the momentum and work spirit with required Ethical and professional Standards.

Lastly, I would like to confirm that the University has an ambitious plan for the Hospital and it is my firm belief, it is possible and within our reach provided we work harder and together in all service areas.

Moreover; I would like to congratulate the Hospital and remind the staff to keep the success attained thus far and work harder to be champion of the National competition.

May God bless Ethiopia!



Tamirat Tagesse (Ph.D) Vice President, Buisness Development

## Message from Chairman of Hospital's Governing Board

am delighted to say congratulations to all members of the Management Team and the Hospital Staff at large on this special occasion of inauguration of CT-Scan Examination Service. It is my pleasure to extend my appreciation to the Leadership of Wachemo University and the College of Medicine & Health Sciences for the rent less efforts to secure key Instruments and Imaging Modalities for the Hospital, which was demanding.

The University is making great effort to transform the Hospital to be a better institution for the patients and staff, and to make it excellence Center in Medical Service. The University has a long term plan to make the Hospital Center of Medical Tourism for all citizens of Ethiopia and beyond. So, get up, work together and strive for new heights and horizons in medical care and research.

I know that the Hospital was aspiring to secure advanced diagnostic and imaging services and has achieved it after long time because of several reasons. This is attributed to the commitment and hardworking staff in the Hospital and the attention given by Wachemo University.

I would like to appreciate all stake holders and partners who contributed in one way or the other, for successful installation of CT-Scan machine. The determination and dedication of the University Leadership in general and that of the President in particular deserves special recognition because the achievement thus far is because of the strong leadership.

I am hopeful that the Hospital climbs to new heights after the installation of the Oxygen plant and the residency program will be a big opportunity for the Hospital.

Finally I want to thank the university President and the management team for their support to the Hospital and believe that would be maintained until the end. Once again I remind the staff to keep on working hard and be vigilant in all service areas in the Hospital. Wish you all the best.

God bless Ethiopia.



Dr. Ayano Shanko Assistant Professor of Internal Medicine

### Message from the Chief Executive Director

s I congratulate you on this special occasion of inauguration of CT-Scan, I feel blesses and humbled by the Hospital staff and the community .I hope it will be just the first step towards realization of the other major projects that we are striving for so as to expand access to basic medical services and improve service quality. Medical Oxygen Plant will be installed soon and other major projects would be effected once we complete CT-Scan and refocus on the other issues.

We are honored to serve the community with all the respect and compassion and I would like to acknowledge the contribution of all Staff towards realization of our mission and the betterment of our Hospital with revitalizing our commitment to improve the Quality of care we provide. It is clear for the community and the care providers in our Hospital that CT-Scan Examination was one of the main reasons for patient referral to other Hospitals. Moreover, we were not able to initiate Neurosurgery and oncology services because we had no CT-Scan or other advance Imaging Service.

It is my pleasure to congratulate the Hospital Staff and Members of the Management Team for the achievements so far. The Hospital has made a significant progress over the last few years and we are on the right track to transform the Hospital. The construction of additional blocks and the renovations made to the

old buildings, Installation of CT Scan, Oxygen Plant installation and MECIP is just to mentioned some, has brought a good opportunity to serve our community with better compassion and initiate advanced surgical care including Neurosurgery and ENT Surgeries.

The other important mile stone is the project on water source development and installation, which will solve the main challenge of the Hospital with provision of adequate water to maintain the cleanliness of the Hospital and to make the Hospital more comfortable to the patient.

Finally, I want to thank the university management for the attention given to the Hospital with regard to the Oxygen Plant, Water source development, additional building for Maternal Child Health Services and the construction of Staff residence which has direct impact on the quality of care we provide and reduce staff turnover. Once again I would like to thank all stake holders and partners.

With Regards



Dr. Adane Desta Assistant Professor of Surgery

### Message from the Chief Executive Director

hospital staff and community that we have managed to install our first computerised tomography or often known as CT scan machine. This was historic. The absence of such technical capacity was one of the reasons for patient referrals to other destinations. This enhanced capacity is going to enable us to deliver critical services of saving lives, and both material and immaterial costs.

I am pleased to have spent the last few years in this institution as chief clinical director. This time, we are witnessing tremendous changes. Those changes were made possible due to our committed management and staff. I want to mention a few milestones we have achieved together.

One of the main problems in our hospital was the lack of minimum yet basic investigative modalities. That was the case due to a lack of quality laboratory and imaging services. Diagnosing patients with precision was a hurdle we suffered so long. Now, our hospital and university management made a leap as we determined to equip ourselves within the financial resource capacity of the institution. We have managed to furnish our hospital with a high caliber chemistry machine, hormone analyzer, coagulation profile analyzer, endoscopy, colonoscopy, histopathology services, and not least CT scan machine.

Investing in the increased diagnostic potential of the hospital was a worthy investment as it is benefiting a larger proportion of the community.

We have also worked relentlessly to expand services in sub-specialty levels like plastic and reconstructive surgery, ENT, maxillofacial surgery, neurosurgery, and neurology.

With our motto of "zero referrals to any other longer destinations," we are well underway to achieve that motto and goal by integrating diagnostic potential with expanding infrastructures such as the orthopedics and other subspecialties mentioned above.

We used to hear clients' grievances when being referred to other cities for CT Scan and other sophisticated examinations. The most common complaint was

an argument pointing to the age, the grandeur, and experience of this hospital. Our clients are right partly because other facilities in their infant age are much better than ours. Much of the stagnation of progress that this hospital suffered from is now becoming history as much hardworking staff of the hospital and the university administration transform every problem into an opportunity.

It was continuous and committed hard work and good leadership that led to an increased expertise pool, expanded infrastructure, and furnishing medical equipment. Those transformations have led to the recognition of our hospital to the status of comprehensive specialized (the highest-level grading hospitals in our country). On this occasion, I would like to thank our university president, management, and staff. Without hard work and optimism, no one would have given this recognition to our hospital. Fully understanding previous success and subsequent impacts of previous successes is always key for our future achievements.

Our staff need recognition and encouragement because they are serving a huge number of patients daily beyond fatigue, with meager resources and many limitations

Now we are teaching a comprehensive specialized hospital with a future plan of having an oxygen plant and more subspecialty services. Currently working tirelessly on commencing oncology services together with chemotherapy and radiation facility, renal services including dialysis.

Service automation and making sure equity of service provision for our customers will also get due attention. Despite a few turbulences we might face, we are in motion to realize our vision of building an easy and transparent system in the hospital, making the hospital one of best hospitals in the country.

I take this opportunity to call upon all stakeholders to support our sincere effort of building a modern and efficient serving hospital and teaching centre.

Together We Can!

May God bless all of us!!



Dr Wondimu Assefa Abero (MD, Assistant Professor of Internal Medicine)

### Message from Quality Assurance and Enhancement Directorate Director

I want to say congratulations for Wachemo University President & his management, College & Hospital management, staffs and community in general for successful installations and service commission of long waited CT Scan inauguration. Nigist Eleni Mohammed Memorial Hospital (NEMMH) is Comprehensive Specialized Hospital under Wachemo University, which is public higher education institution established in 2011in Hossana. The Hospital provides clinical services in different departments and is used as teaching facility for undergraduate health science students and doctor of medicine. The Hospital is giving services in different departments at Emergency, Outpatient, Inpatient and Critical care areas in all major departments and additionally at Orthopedics, Psychiatry and Ophthalmology departments. Dermatology, ENT, Dentistry, Urology, Pathology, Neurology and Neurosurgery are other departments where service is being given. To improve patient care the University & Hospital management has expanded diagnostics like CT-scan, EEG, Endoscopy and Biopsy in addition to basic laboratory and radiology services. Currently Oxygen plant with its related packages is already on the way of coming.

In academic wing the college has more than nine undergraduate programs and three master's program on going already. The college has got grant for starting specialty programs on general surgery and obstetrics and gynecology, and will accept residents this year. The Academic wing is thriving to improve in all aspects including strengthening practical laboratories, digital libraries, and community attachment programs. The college has planned to expand postgraduate programs in different masters and specialty programs in the coming years.

The college of medicine and health science quality assurance and enhancement is upgraded to Quality directorate with aim of empowering and

increasing effort to increase attention towards quality as it is current concern of Ministry of Education as well as Ministry of Health. It is also aimed to integrate academic and clinical wings in terms of quality of education being given and quality of service given and trying to improve based on gaps identified. Quality directorate is comprised with good health expertise at different departments including senior physician, general practitioners, and public heath masters with different background, pharmacist and laboratory professionals. In clinical wing quality directorate is on work with aim of attaining and keeping healthcare standards based on EHSTG, HSTQ and different quality packages (SALTs, MCC, EHAQ, CASH & CATCH-IT) while regularly monitoring and helping respective departments on improvements through trainings, Clinical audits, QI projects. Currently we have launched Evidence Based Care as new quality package (EBC-IT) with aim of achieving its targets. In academic area the directorate is working with academic director and departments to ensure quality of programs according to curriculum for respective departments and HERQA standards through internal self-evaluation of programs and accreditation though external evaluations. Additionally trainings are given for academic staffs on essential teaching skills, problem based learning, exam blue printing and item preparation for ensuring better quality teaching and student assessment.

It is my pleasure to serve the CMHS as a consultant Internist and Quality assurance and enhancement directorate director and will keep delivering and improving quality of the college in clinical services, academic areas and other departments in the college in collaboration with quality directorate staffs and responsible officials.

With regards



Teshome Nunede (MPH)

### Message from Chief Adminstative and Business Development Director

Telcome to Wachemo University College of Medicine and Health and Sciences where we are preparing the future health professionals, who are motivated, competent and compassionate for the patient. In addition, we provide medical care to our patients with compassion, empathy and respect that distinguish us from other institutions. With these values, we continue to carry out our commitment to the betterment of our hospital in all aspects of the Services.

Through innovative and participatory approach, the Hospital is striving to serve the society, with the limited resources. We offer a wide range of curative and rehabilitative care and we have been providing Training for undergraduate medical students. We have successfully graduated 3 batches of Medical Doctors and we are preparing for the 4th batch.

Our dedicated faculty staffs are among the university's most valuable resources. They are committed to academic excellence and to the success of our students. The Hospital is making progress in all service areas and striving to become centre of medical tourism. We were challenged by lack of Imaging Services

like CT scan and MRI and we have still shortage of water for the Hospital. We know that there is higher demand for services but we could not cope with the demand. I hope this scenario would change soon and we will be in a position to tackle all the problems.

I would like to encourage all Staff to work hard and to be compassionate, respectful and caring for the clients and patients we serve. I would like to call up on all parties to work hand in hand to achieve our common goal.

With regards



Dr Habitamu Tamirat, MD, FCS-ECSA, Assistant Professor of Orthopedic Surgery

### Message from Chief Academic Director

achemo University College of Medicine and Health Science commenced its function in 2012 admitting students in four departments (Public Health, Midwifery, Nursing and medicine).

Currently, the college have three schools (School of Medicine, Public Health and Nursing) and eleven departments (Medicine, Comprehensive Nursing, Paediatrics Nursing, Surgical Nursing, Public Health, Anaesthesia, Midwifery, Medical Laboratory Science, Pharmacy, Doctor of Dental Medicine and Health Informatics). There are also four postgraduate programs in the school of public health and two specialty programs in school of medicine. We have finalized the proposal and need assessment for four UG and four PG Programs in school of Public Health and Nursing in each and one PhD program in Epidemiology. Further Specialty Program expansion proposal is being conducted in the school of medicine.

The university have made its own determined efforts in renovation and expansion of NEMMCSH to make it conducive for clinical, academic, professional trainings, and research and community services with the mission of improving medical care; health and wellbeing of the public through academic, clinical and community service and to serve as a centre

for technology transfer and capacity building in medical research and training.

The college of medicine and health science is working vigorously aiming to be a center of excellence in education, health promotion and disease prevention, and the delivery of health care, undertaking all activities with the highest ethical standards maximizing our human, intellectual, and fiscal resources with Proactive and sound decision making and satisfying the needs of the public.

Due to Wachemo University Management Support and attention on academic, clinical, research, community service and technology transfer activities, the college is delivering evidence-based best practices and technology in teaching, research, and patient/client care extending opportunities for health care education to all segments of the population, attracting and retaining faculty, staff, and students that reflect WCU diverse population in Collaborations and partnerships within the CMHS, WCU and with outside institutions, and communities striving for the development of our college through a commitment to lifelong learning and achievement.



adiya zone, named after the Hadiya people, is one of the adminstrative zones in the Southern Peoples Nation and Nationalities regional state. Hosanna town, capital of the zone, is located 232 km South west from Addis Ababa. The zone has 14 adminstrative woredas and city adminstration. Hadiya zone is neighboured by Silte, guraghe, kembata and wolayita zones.

Based on 2007 Ethiopian's national census report, Hadiya zone is inhabited by over 1.2 M peoples. Out of these, 1.09 M people lives in rural part of the zone.

Hadiya zone has a number of government owned healthcare and related service providers. There is one comprehensive, and specialized hospital. in addition there are three district hospitals and over 65 health centers. There is also other healthcare and related service providers such as healthcare science college, blood bank service provider and community based health insurance service providers in the zone.

Nigist Elleni Mohammed Memorial comprehensive specialized hospital is one of the comprehensive specialized hospital in the country. it was established in Hidar 09, 1976 EC. it was constructed with the inkind and financial contributions made

by the people, the then government and locally situated non-governmental organizations.

Nigist Eleni Mohamed Memorial hospital was first established in 1976 E.C by the name of Mengistu Hailemariam Hospital after the then president of Ethiopia. After the downfall of the Derge regime, it was renamed to Kambata and Hadiya providince hospital and later to Hossana Hospital. Eventually its name was changed to Nigist Elleni Mohammed Memorial Hospital.

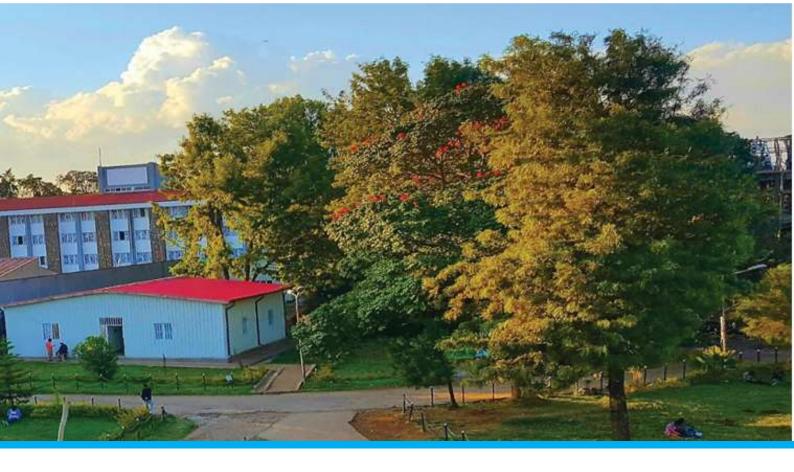
Our hospital provides healthcare services to people living in four zones. It provides services to Hadiya zone, Kembata-Tembaro zone, Silte zone and Guraghe zone. It serves over 3.5 M catchment population.

Nigist Elleni Mohammed Memorial hospital was serving as general hospital until its amalgamation with Wachemo University in 2008. Since 2013 E.C our hospital became a comprehensive specialized hospital and increased its capacity and services.

### Our Mission

We are committed to promote the health and wellbeing of our catchment population by providing equitable, safe, effective and efficient preventive, curative and promotive healthcare servies.

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### Our vision

We envisioned to see a healthy, productive and prosperous population in our catchment area and become center of excellence in medical care by 2020 E.C.

Nigist Elleni Mohammed Memorial Hospital has over 10 buildings. It has separate G+1 Emergency building, separate orthopedics building, inpatient wards and outpatient department building.

There are over 350 inpatient beds in the inpatient ward. There are 10 operation theaters with different capabilities.

Our hospital is staffed with over 1350 varied professionals. There are both healthcare professionals and administrative and supportive staffs.

We have over 600 varied types of health professionals. There are subspecialist, specialists, medical doctors, public health specialists, specialty nurses, environmental health officers, nutritionists, laboratory professionals, pharmacists, radiographers, physiotherapists, BSC nurses, midwives, health

officers, public health officers and other health professionals. Such diversity helped our hospital in providing scope-based services to our clients.

Clients are provided with general and speciality services in our hospital. Patients get emergency, outpatinet and inpatient services in different speciality area. We are expanding the scope and quality of the our services. In addition, to previously available services, the hospital also initiated ENT, plastic and reconstructive services, neurosurgical services, Endoscopy and maxillofacial surgery services.

In 2013/14 EFY our hospital provided its services for a huge number of clients. There was 262,917 outpatient attendance and 10,881 inpatient admission in 2013 EFY. In addition 25,691 emergency visits were attended in our hospital emergency department.

Our maternity and child healthcare services are well known for its delivery services. In 2013 EFY, 10,195 deliveries were attended in our hospital's labor and delivery room. Inaddition 2,024 cesarean deliveries occurred in 2013 EFY. This makes our hospital a leading hospital with high delivery volume.

In addition to the regular services, our hospital was committed in providing COVID 19 services to our population. COVID 19 samples were tested for 18,850 patients and 577 COVID 19 positive patients obtained inpatient service at the treatment center.

We were recognized by the Regional health office, as best performing COVID center.

In 2013/14 EFY, the hospital achieved alot of success and improved its capacity and services.

The Ethiopian Hospital Alliance for Quality (EHAQ) is an initiative that aims to promote collaborative learning between hospitals. Our hospital ranked as the top 10 hospitals in the country based on FMOH's evaluation and was awarded with 3 M ETB.

Our hospital also obtained comprehensive specialized hospital license in 2013 EFY. After passing thru difficult evaluation process, our capacity was verified by FMOH and

we were given the liscence to serve as comprehensive and specialized hospital. This make us one of the few comprehenseive specialized hospital in the country.

It was not unusual for patients from our catchment area to travel to Addis Ababa or Hawasa seeking endoscopic and Electroencepahlogy. in 2013 endoscopic and EEG machines were purchased and health professionals were employed. Now patients are getting both services in our hospital with less than a week appointment schedules.

A separate 4 stories height orthopedic building was inaugurated in 2013 and started providing its services. The department has 45 inpatient beds suitable for orthopedic patients. With 2 orthopedic and trauma surgeons and other health professionals over 973 major orthopedic surgeries were performed in 2013 EFY.

Our hospital is elected as implementation site for the national Major Cities Emergency and Injury Prevention (MCEIP) project. After it got the chance, the hospital is arranging its facilities and is developing the required materials for its successful implementation.

CT-scan was one of our major reasons to refer patients to other health facilities. It was found that 15% of referral reasons were for obtaining CT imaging. After striving for years, CT-scan was purchased, installed and started services. Due to this we expect a reduction in the number of referral and an increase patient satisfaction.

For the last 37 years, our hospital was purchasing medical oxygen from Addis Ababa. Notwithstanding its importance, it was a culture to face interruption in supplies. In addition, it incurred the hospital over - M ETB annually. After the university understand the issue and convinced higher officials and the required budget was secured.

The planned oxygen plant is not limited to providing medical oxygen only. It produces Oxygen, Nitrogen, Carbon dioxide, medical gases and vacuum suction. In addition, it also has solid and liquid waste treatment and provide clean water supply for laundry and kitchen after treating liquid waste.

The installation and other process are commenced. Now equipment and supplies required for its installation arrived at our hospital.

Medical equipment play vital roles in health services. But due to inadequate workshop for biomedical engineering department, medical equipment were not adequately maintained. To solve the problem biomedical workshop was renovated.

Due to shortage of rooms, speciality outpatient serices are provided overlapping with each others. To alleviate such problems and improve the availability of speciality outpatient services, a G+1 outpatient building is under construction. When it is completed, the number of OPDs increases by 12 and it also has its own laboraoty waiting area and toilet facility.

In relation to human resource management, recognition to employees was provided. Employees with good performance and achievement were acknowledged and given recognitions.

The hospital also finished the construction of employees' residency. A G+3 residency building with 28 separate rooms were distributed to specialist docotrs in our hospital. It is believed it will increase employees' satisfaction and can increase service quality.

Wachemo University, our parent institution, facilitated to initiate free medical services to employees' and their parents. Now implementation guideline is developed and employees registration already started.

For the last 37 years our hospital shared water from the town deep well and always fought from the nearby



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- $1\ \mbox{Our}$  hospital's CED and CCD with HE Dr Lia Tadesse, Minster of FMOH, after receiving awards.
- 2 Our hospital's CED and CCD after receiving awards.
- 3 A radiology technologist operating a CT scan.
- $4\ \mbox{Commencement}$  of the drilling of a separate deep well for hospital's water sources.



community to access water because of different manmade reasons. According to the world health organization recommendation, our hospital water supply for outpatient and inpatient services has less than 5%. To alleviate this problem the hospital together with the SNNPR water construction office construct a 350 meter deep well, 5 km far from the hospital at Bobicho kebele. Water pipe line construction to the hospital compound is under construction.



Newly constructed staff's residency.



Partially arrived items equipment for oxygen plan and healthcare waste management system.

### **OUTPATIENT SERVICES**

Our hospital's outpatient department is one of the service area in the hospital. It is well known for its high patient flow and annually over 262,000 patients' visits occur to the department.

The department has over 20 regular and specialty service provision areas. There are medical, surgical, pediatrics and gynecology regular OPDs. In addition, there are also multiple referral specialty and subspeciality clinics. The OPD services are supported with fully functioning 300000 laboratory, radiology. pathology and pharmacy services. 250000

Scope-based practice is exercised at the hospital's 150000 OPD. Subspecialists, specialists, general practitioners, medical interns and nurses are involved in the service provision. The OPD is led by a designated team of coordinators that include a general practitioner and two nurses.

In alignment with the hospital's efforts, the OPD initiated new services in 2013. Neurology with EEG services, ENT services, plastic and reconstructive surgery and neurosurgical referral services were few to mention.

The OPD also established a separate pain management room. The room is dedicated to provide pain management and handle other procedures. In the room, patients with a complaint of pain are evaluated and managed accordingly.

Patients are triaged at a central triage, located with a vicinity to the medical record department. The central triage makes a quick assessment and triage to their destination. Patients with appointments or on chronic follow ups go directly to their specific OPD without triaging.

It is evident that the department and its services are strained by the high patient volume. To reduce overcrowding in the OPD, the department started initiating its services earlier before 7am. This early initiation of our services has brought some changes in major OPDs and chronic follow increment from time to time. As it is seen from the graph, there is a serial increase in outpatient visits in 9 years.

All of the patients who visited our OPDs are seen on the same day. The number of patients not seen on the same day remained zero for the past two years. The level of patients' satisfaction is 82% and 89.5% in 2013 and 2014 half year respectively.

The outpatient department is striving to expand its services.

As lack of premises is major problem to our services, the hospital is constructing new building. This G+2 new building has 12 examination rooms, laboratory room, toilet rooms and waiting areas. In addition, it also has meeting hall.

up OPDs.

In addition to providing the routine services, the department is involved in service improvement activities. A clinical audit on outpatient diabetic care was done and findings were communicated

with stakeholders. The department also developed and implemented QI projects to establish cough OPD and improve outpatient diabetic care.

Our OPD attendance is showing

The department also has a plan to improve its non-communicable care. A dedicated internist is assigned as focal personal to oversee our NCD care. In addition to the number of cares we provide to our clients, we will work harder to improve the quality of care each patient receives.

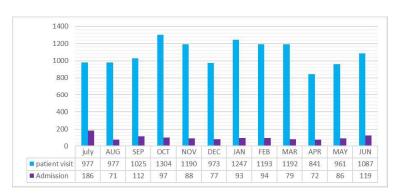


Clients at the outpatient department's waiting area.

### EMERGENCY AND CRITICAL CARE SERVICES

The emergency and critical care unit is under the observation of the clinical director as one of the corner stones of the patient care. The unit is comprised of the adult emergency, ETAT and central ICU. The adult emergency located on its own one story building, is equipped with its own pharmacy, laboratory and minor OR. In the year 2013 the adult emergency provided service for 25660 patients, 1087 were in the adult emergency and 12,969 visited ETAT, with emergency mortality rate of 0.35%. The central ICU admitted 190 patients with annual mortality rate of 35.4%. In the first half of the year 2014 the adult emergency had 6564 cases and the ETAT had 4774 patient visits. The mortality rate of the emergency in the first half of the year was 0.54%. The central ICU had 114 admissions with mortality rate 35.15%.

The emergency and critical care unit is overseen by a designated coordinator. The adult emergency, as one subunit of the ECC unit, provides service with an internist, a general surgeon and an emergency and critical care specialist as consultant. Five general practitioners and 13 nurses provide the care during each shift. The adult emergency also has 3 cleaners and 2 security guards during each shift acting as supporting staff. The unit is equipped with side lab and pharmacy. The ETAT is staffed with consultant paediatrician, two general practitioners and 6 nurses during each shift. The



clinical services of the central ICU are provided by an anaesthesiologist, as a consultant a general practitioner and 5 nurses during each shift.

In the year 2014 the emergency and critical care unit hired a full time emergency and critical care

physician, terminating the contractual hires and advancing the care. The ECC unit also acquired two critical care nurses. The unit also plans to add more nurses to the adult emergency and ETAT. Training of both the ICU and emergency staff is also one of the major areas of focus.



### Major City Emergency and Critical care Improvement Project (MECIP)

Major city emergency and critical care improvement project one of the strategies developed by MoH. It is one of the strategies to improve universal health coverage. In the year 2013 the project was initiated in five major cities of the country. In these cities the outcome showed significant promise in early identification and management emergen-

cy illnesses. In the year 2014 the MoH is extending its reach to cover more cities. The city of Hosanna is the new up and coming focuses for this project. Due to the high traffic flow and wide catchment area as well as the significant rate of trauma and RTA, the city is an ideal hub for a project targeting emergency and critical care.

The project is patients centred, by engaging the community to be part of the prevention, control and early treatment of emergency and trauma cases. The project aims to bring about improvement in several areas including

pre-facility, emergency, ICU and referral care. From the site of injury or illness to the facility is the new and main area of activity of the project. Here the community will inform the health care system regarding injury and illness activating the dispatch centre. The dispatch centre will arrive at the site of trauma and initiate early intervention as well as transport the patient to the appropriate level of health care.

The project also aims to strengthen the facility based care using different systems like human power training, adequate equipment and supply provision as well as renovation of the emergency and central ICU. By standardizing data gathering and information management system the project aims to realize early identification of data gaps and designs of quality improvement projects.

MECIP Hosanna is in the early phases of initiation with site selection, renovation plan drafts. Dispatch centre site has been selected and agreement has been reached with Hosanna city mayor office. EMT professionals have been trained and implementation guidelines have been developed for each area of implementations. Renovation plans for emergency and ICU subunits has been

developed and presented. The next plan is to provide in-depth training for the unit staffs.



A nurse attending his patient at the ICU.

### INTERNAL MEDICINE

Internal medicine is one of the pioneer and most crucial departments in our comprehensive hospital. The facility located at the third floor of main hospital building. Both the clinical and academic services are given by 9 consultant internists, 1 consultant Neurologist and 15 General Practioners. There are 3 morning sessions and a presentations by junior doctors to continually practice evidence based medicine.

The department has been intensely working to support patients in coordinated fashion. The facility has 33 bedded inpatient unit and 6 bedded ICU, including Isolation room and covid ward. In addition there are three outpatient units and one referral clinic lead by assigned senior. Moreover this skilled manpower was ecstatically respondent to the pandemic we've been dealing with in recent years.

The department serves the preponderance of patients who come to the hospital. 350 inpatients, 128 ICU patients, and 126 cases of covid inpatients have been served in the last six months. Patients who have been discharged from the inpatient unit will be scheduled for an appointment at the Medical Referral Clinic.

The accessibility of EEG, which will be read by a neurologist, the presence of computed tomography, plus exercising screening echocardiography for patients with indications by our consultants were all major updates. Critical and emergency care has improved dramatically after the recruitment of emergency & critical care physicians and anaesthesiologists on board.

Often Caveats are related with laboratory investigation availability i.e. microbiology study, body fluid analysis and hormonal analysis and better imaging modalities like MRI needs to be available.

The department in collaboration with school head and other departments need planned to start residency training program by full filling the minimal requirement set according to the HERQA. The establishment of a new ICU in conjunction with the MECIP project is considered as a step forward.

### SURGICAL SERVICES AND Salt

Safe surgery has been an essential component of health care for years. However, the increasing incidence of traumatic injuries, cancers and cardiovascular diseases continue to raise the impact of surgical intervention in public health systems. In fact, safe surgery is the second global patients' safety challenge next to health-care-associated infections.

Disorders that could be managed by surgery constitute a significant portion of the global disease burden (Debas et al. 2015). Annually, injuries kill nearly 5 million people, and about 270,000 women die from complications of pregnancy. Many of these injury-related and obstetric-related deaths, as well as deaths from other causes (e.g., abdominal emergencies and congenital anomalies), could be prevented by improved access to surgical care (Debas et al. 2015).

An estimated 234 million major surgeries are performed around the world each year, corresponding to one surgery for every 30 people alive. Yet, surgical services are unevenly distributed with 30% of the world's population receiving 75% of major operations. Lack of access to high quality surgical care remains a significant problem in much of the world despite the fact that surgical interventions can be cost effective in terms of lives saved and disability averted.

The number of surgeries done in Ethiopia is not more than 200,000 a year with 250 general surgeons, 300 gynecologists', 50 orthopedic surgeons, and 100 ophthalmologists, which is inadequate to reach the unmet need of 5,000,000 surgeries per year. The waiting time for surgery extends up to four years, especially in referral hospitals.



Our hospital provides General, Obstetrics and gynecology, Orthopedics, Maxillofacial, ENT, Neuro, Urologic, and Ophthalmic surgery for Hadiya and the nearby populations. Before two years except for the general and obstetric surgery, the people travelled greater than 230 kilometers to get the above listed surgical

services. The rural Hadiya zone population got emergency surgical services at three district hospitals in three woredas. To increase the availability and accessibility of surgical service our hospital deploys a team of surgery at shone primary hospital to provide major surgeries for the population and we have a plan to extend this service to Homecho and Gimbichu primary hospitals.

In 2013, 4,132 major surgeries were performed by using 19 surgeons in our hospital. To increase the volume of surgery and productivity of the surgeon, the hospital renovated as well as constructed a new operation theatre and hired surgeons for maxillofacial, ENT, and neurologic surgery services.

There were improvements made in our operation theaters in 2013/14. We increased our operation theater from 5 to 7 and renovated ophthalmic and endo-surgery operation rooms. Operation theaters are arranged according to national guideline and classified into zones. In addition, drapes and gowns number is increased to 400. A means of communication between operation rooms is established.

Health professionals code of ethics was developed and training was provided to them. It includes dressing codes and other issues important to maintain sterility in the operation theaters.

A QI projects was implemented to improve time of initiation of elective surgeries. It aimed to initiate surgeries before 2:30 am and after implementing change ideas, it brought about changes. The QI project team is currently planning to devise a sustainability plan.

Our hospital has a plan to strengthen its services in different ways. It plan to strengthen its residency program and establish simulation and advanced surgical skill labs. In addition, we have a plan to start minimally invasive surgeries and laparoscopy after arranging short term trainings to our professionals.

The department also has a plan to establish a separate surgical ICU with adequate equipment and supplies. In order to increase our capacity, we are ready to start a sandwich fellowship programs in selected fields and establish partnerships with ACS and other volunteers.

1 A team attending major ophthalmic surgery.

### MATERNAL, NEONATAL AND CHILD HEALTH SERVICES

The Obstetrics and gynaecology department is one of the busiest departments in our hospital giving a broad spectrum of services for pregnant women including prenatal care visit, delivery, postnatal care and follow up visits. In addition, it gives surgery and inpatient services for non-pregnant women.

Its services are located at ground floor of older building and newer orthopaedics building and hut for high risk services. It has its own dedicated operation theatre and procedure room.

There are 8 certified obstetric and gynaecologist who can give wide range of service including teaching, follow up and surgery. In addition, there are 16 General practitioner with few of the be able to give emergency obstetric surgical services. Above all the Department have more than 70 midwives.

Our department is the only department who have 7 days of morning session for discussion of patient condition and scientific update with consultants, final year residents from Hawassa university, General practitioners and medical interns.

The department have given ANC service for 2501 mothers, skilled delivery for 6052 and caesarean delivery for 1087 mothers over the last 6 months addition it gave family planning services for 881 mothers.

Our department is on the verge of starting building MCH centre which can solve all the space problem and start different subspecialty programs. Our first residentship program will be started in the coming few months with 5 residents which will moves our teaching and clinical services to the next level.

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### OUR PERFORMANCE









The pediatric & child health department is one of the major departments in NEMMRH, Wachemo University; Hossana town. Its mission and vision is consistent with the University, Hospital and Ministry of Health as it strives to give quality and timely care to patients in the pediatric age group inhabiting in Haddiya zone & surrounding areas. In addition to services, it is the site for practical teaching of health science students of our university including nursing, health officer, anesthesia and medicine at different stages of their clerkship attachments. Our department also serves as site of practice of different trainings held in our town that are pertaining to pediatric care.

Our department is comprised of 05 main working sites staffed with nurses, Internship medical students, General Practitioners and consultant pediatricians. The two sites for incoming patients are 02 outpatient Departments working at the weekdays and Emergency Triage and Treatment (ETAT) working 24/7. There are 03 main wards namely Neonatal Intensive Care Unit (NICU) for newborns and infants below 28 days, pediatric general ward for patients above 28 days and a High Dependency Unit (HDU) for critical patients fulfilling the admission criteria. We also have a Referral Clinic operated by a General Practitioner and a consultant pediatricians working on Tuesday ,Wednesday and Thursday Morning that sees patients on follow up and those who were admitted and then appointed for check-up.

In the neonatal ICU, there is a total of 3 designated pediatricians 4 GPs, 3 Interns, 2 Neonatal Nurses and 16 BSC nurses. There is a total of 26 beds at the NICU and additional 4 KMC beds reserved for those extremely preterm newborns.

There are a total of 6 beds, 2 pediatricians working full time 2 GPs 1 Intern 3 pediatrics and 6 Bsc Nurses in pediatrics HDU. There are a total of 48 beds at general pediatrics ward with 2 pediatricians, 3 GPs , 3 Interns and 11 nurses at pediatrics ward

There are a total of 6 beds for admission 1 room for triage 2 on call seniors 2 GPs and 12 Bsc Nurses in pediatrics ETAT

In order to meet the sustainable development Goal criteria on pediatric and child health we have a renovated NICU that is fully equipped with and fully functional.

In the past years we have also started doing Echocardiography for outpatient and Inpatient clients that have improved the level of care we are giving to cardiac patients and has decreased unnecessary referrals for our patients.

- 1 Patients and families recieving care in child friendly pediatrics ETAT
- 2 A newborn admitted to and recieving care in the Neonatal ICU.
- 3 A Nurse providing care to a newborn in the Neonatal ICU.
- 4 A child playing in the hospital's playing ground for children.

### PHARMACY SERVICES

Pharmacy service is an essential component of health care delivery. It contributes to improved treatment outcomes through ensuring availability and rational use of quality, safe and effective medicines. Provision of effective pharmacy service is also crucial for early recognition & prevention of medication errors, adverse drug events and for the prevention and containment of antimicrobial resistance. It also promotes optimal use of meager resources thereby improving quality of care resulting in better health outcomes. Accordingly, pharmacy services should provide assurance that quality and safety is maintained at all stages of service provision and clients' satisfaction is given of utmost importance. Hospitals should establish convenient work environment and workflow that elicits confidence to patients and the 100 staff.

Our hospital pharmacy department provides the service to improve and increase the client satisfaction and to improve the availability of medicine. To implement the quality of pharmacy service the hospital and pharmacy department establish different subunit like outpatient pharmacy service unit, inpatient pharmacy service unit, emergency pharmacy service unit, maternity pharmacy service unit and ART pharmacy service unit, in addition our department also has Compounding Unit, Drug Information Center, clinical pharmacy services and pharmaceutical supply management unit.

Our department is staffed with over 44 professionals. There are 28 pharmacists and 16 Druggists. In addition, there are 3 pharmacy accountants.

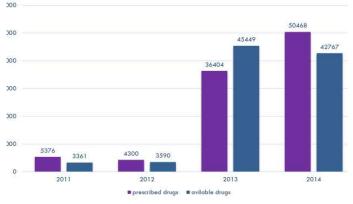
To increase accessibility of medicine and medical supply the hospital and the community, our department was able establish the community pharmacy service since 2013. Our community pharmacy is planned to provide our community by providing adequate supply of medicine at affordable prices. It also prevents stock out of supplies and can generate income to the hospital.



Hospital's newly inaugurated model community pharmacy.

Our department is involved in the provision of patient centered care to our clients. There are clinical pharmacists in inpatient wards, outpatient OPDs and emergency department. They participate in decision making and medication selection. Our clinical pharmacists are also engaged in identification and management of drug-therapy problems.

To improve the inpatient clinical pharmacy services, our department developed and implemented a quality improvement project. After the implementation of the QI project, we were able to increase the percentage of inpatient admitted patients who get appropriate clinical pharmacy services from 48% to 93% within 5 months.



Trends in medications availability.

In addition, the quality improvement project was able to bring about positive changes in different ways. DTP detection, intervention and acceptance and ADR reporting increased.

We established a Drug Information Center (DIC) and provided information to our health professionals and the community. We started using Telegram to provide unbiased and well-referenced pharmaceutical information and advices to health professionals. In addition to serving our employees, we expanded and promoted our services to encourage nearby hospital to use it.

Pharmacovigilance activities are given due attention in our department since 2013. We conducted seminar presentation on pharmacovigilance activities and increased our employee's knowledge. After that we observed an increase in detection and reporting of adverse drug reactions. Even though we are witnessing good performance, it is evident that much has to be done to improve pharmacovigilance activities in the hospital.

It is believed that hospitals should prepare sterile preparations which are not available commercially but needed for patient care. We established a separate compounding unit and staffed it with a trained and certified pharmacist. The unit has provided services to dermatologic patients and prepared alcohol-based hand rubs that helped us in the fight against COVID-19 infection.

The pharmacy department applies APTS in all of its service area. This made the department to have accountable, transparent and responsible pharmacy practice. It also helped us to optimize

utilization of budgets and improve access to medicine and decrease wastages. After learning a lot from the system, the department is planning to adapt similar system in laboratory and radiology services.

Our hospital has Drug Therapeutic Committee (DTC) that involves members as per national guideline. The DTC is involved in preparation of our hospital's list of medicine and SOP and guidelines. The DTC is also involved in the disposal of expired medicines and other supplies.

We marked the World pharma-

cy day on Tikimt 2014 in our department. We provided recognition to our employees for providing compassionate services to clients. We also acknowledged important stakeholders and provided certificate to them.

In 2013 our hospital's pharmacy department ranked first based on a validation done by FMOH. We met 92% of the standards required by pharmacy department in comprehensive specialized hospital.

We actively support our hospitals and health centers in our catchment area. We provided medications to Homecho hospital, Gimbichu hospital and Shone hospital. There is functional collaborative network that is helpful to share medication among hospitals.

The department has a plan to improve its service access and quality. We have a plan to establish a separate pharmacy unit at orthopedics and operation rooms.



Groups of members of pharmacy department after celebrating world pharmacists day.



### አሜጋ ዲያግኖስቲክ መካከለኛ ክሊኒክ OMEGA DIAGNOSTIC MEDIUM CLINIC

በአዲስ መልክ የአገልግሎት አድጣሱን በጣስፋት በቅርቡ ከዚህ በፊት ይሰጥ የነበረውን ሕክምና አገልግሎት በተጨጣሪ

ከአንንት በላይ ሕክምና ስፔሻሊስት ሐኪም (Head and Neck Surgeon)

- የጆሮ ችግር ላለባቸው ሙሉ ምርመራና ሕክምና
- የአፍንጫና ሳይነስ
- የቶንሲል ቀዶ ሕክምና
- ሌሎች የአንገት በላይ እባጮችና አጠቃላይ ከአንገት በላይ ሙሉ ምርመራና ሕከምና

የሥነ ደዌ ምርመራ በሥነ ደዌ ስፔሻሊስት ሐኪም (Pathologist)

- FNAC በአባዌ ላይ ምርመራ
- Peripheral Morphology

#### የራዲዮሎጂ አ7ልግሎት በስፔሻሊስት (ራዴዮሎጀስት)

- የአልትራሳውንድ ምርመራ ስነፍሰጡር እናቶችና ሌሎች ምርመራዎን ስሚፊልጉ
- የልብ አልትራሳውንድ (Echocardiography)
- ዶፕለር አልትራሳውንድ
- የራጅ፣ CT scan እና MRI ንባብ አገልግሎት





ሙሉ የላብራቶሪ ምርመራ አገልግሎት

- መሉ የደም ቆጠራ (CBC)
- ሙሉ የንጥረ ነገሮች ምርመራ ( Electrolyte)
- ሙሉ የሰውነት ኪሚስትሪ ምር*መ*ራ
- ሙሉ የደም መርጋት ምርመራ (Coagulation Profile)
- የሆርሞን ምር*መራ*ር
- የመካንነት ችግር ላለባቸው (LH, FSH, Progestrone, Serum B-hCG)
- የእንቅርት ችግር ላለባቸው (TSH, T4 and T3)
- የልብ ችግር ላለባቸው ( CK-MB, Cardiac Tro-

የፕሮስቴት አሔ ላለባቸው (PSA) እና ለሌሎችም ሙሉ የሆርሞን ምርመራ

ስልክ ቁጥር: 0911 8525 88

### LABORATORY SERVICES

Our laboratory department is structured in a way to provide holistic services to our clients. There are 5 laboratory services area in our hospital. This includes central laboratory, inpatient laboratory, emergency laboratory, maternity laboratory and hospital's miniblood bank. In addition to the above service areas, the department is planning to establish new service areas.

The department is staffed with varied types of lab professionals. There are 7 lab technicians and 28 laboratory technologists. There are 2 professionals with MSc in parasitology. The department also 08 supportive staffs and over 7 professionals are attending education.

The department provides over 73 different types of laboratory services. There are clinical chemistry, hematology, hormonal assay, TB and bacteriology, virology, urine and body fluid studies, parasitology and serology.

In 2013, the department started providing services which were once unavailable. Coagulation profile, cardiac injury markers, tumor markers, female hormones, electrolytes and other tests were initiated since past years.

Our previous biochemistry machine has limited capabilities. After the installation of COBAS C311 in 2013, the number of tests we do increased significantly. The machine has the ability to run 96 types of tests. It helped us to improve our service delivery and patients' satisfaction.

Similarly, we installed a better hematology analyzer machine, Beckman Coulter 800, in last year. It has 5

differentials with reticulocytes and can run body fluid analysis.

To increase our health professional's capacity trainings were provided. Our employees attended trainings on urine and body fluid analysis, how to operate machines, reagent preparations and IQA preparation and monitoring.

We actively participate in EQA- PT. We test our machine qualities based on controls sent to us three times in a year. We also receive feedbacks and take corrective measures. We scored 100% in all of our machines. We are processing to obtain SLIPTA accreditation.

In order to improve our service delivery and reduce patients' complaints, we developed and implement a quality improvement project. The project aims to reduce the number of laboratory test results that are lost.

In the future we plan to adhere to national and international standards, meet customer needs and expectations our laboratory implemented by Internal Quality Assessment (IQA), External Quality Assessment (EQA and Step wise Laboratory Quality Improvement Process Toward Accreditation (SLIPTA). We also plan to make stock out to zero and improve patients' satisfaction.



Group of members of the laboratory department at work.



A lab professional working on the new Beckman Coulter machine.

### PATHOLOGY SERVICES

The understanding about pathology and the role of pathologists by the general population as well as most health professionals is vague. As we are in the era of evidence based medicine pathology is essential and the gold standard diagnostic method in providing definitive diagnosis which is vital for Evidence Based Patient Care.

The department of pathology provides basic diagnostic services in the hospital playing a major role in making correct and timely diagnosis crucial for early management of patients. The services provided include histopathology, cytopathology (fine needle aspiration cytology and fluid cytology) and peripheral blood morphologic evaluation. addition to this, the department also conducts teaching activities including providing pathology lectures to two sections of medical students and other health science students in the department of Pharmacy, Anaesthesia, Public health, Midwifery and Nursing.

Currently the department is functional with three full time pathologists, 2 general practitioners and four laboratory technicians trained on histotechnology together with other supporting staffs.

In 2013EC, we performed 1948 FNACs, 188 fluid cytologies and 480 peripheral blood morphologic examinations. In the contrary, in the past 6 months of 2014EC we managed to perform 1000 FNACs, 111 fluid cytologies and 240 peripheral blood morphologic examinations apart from the processing of 390 Surgical Biopsy Specimens. This shows the increment in the number of patients benefitting and improved reliance of physicians on our services.

As it is well known the hospital is serving the community since its establishment in 1984 by provid-

ing outpatient as well as inpatient clinical services. In its long history the hospital failed to initiate pathology services forcing referral of patients to Addis Ababa and other areas but in February 2009 the hospital has managed to establish pathology unit with recruitment of a pathologist and started to provide the services mainly focusing on Fine needle aspiration cytology, body fluid cytology and peripheral morphologic evaluation. The services provided by the unit were partial due to lack of adequate rooms, material (machines and instruments) and personnel but since 2013 the department has



been relocated to the renovated old emergency building creating a better working environment. This coupled with the recruitment of two additional pathologists and training of four permanent laboratory technicians on techniques of tissue processing, the department launched histopathology service in the hospital at the end of 2013 evaluating surgically resected specimens. Overall these changes resulted in a significant improvement in the services provided by the department.

The achievements in the department can be assessed in terms of decreasing the number of referrals, providing accurate and timely diagnosis which is vital for early management of patients and in terms of patient satisfaction. Previously the hospital used to refer patients or

send their specimens to other institutions to get the services which resulted in a significant delay in a patient management. Now with the services provided in the department these problems are reduced improving patient care and satisfaction.

The department plans to initiate new services like bone marrow aspiration, cervical cancer screening and with time immunohistochemistry in addition to the plans to improve the already existing services. The department also aspires to start residency program in pathology in the near future.

Despite the new

developments and achievements the department faces a number of challengwhich hinder service provision and improvement. The challenges we confront are due to lack adequate working space & staff office, unavailabili-

ty of essential instruments and the shortage as well as delayed supply of chemicals/reagents. Even though we have the essential expertise, we are unable to start new services like bone marrow aspiration and biopsy due to absence of inexpensive diagnostic sets.

In conclusion, although the recent improvements in our department are promising, the services rendered by our staff can be strengthened further with a slightly improved investment so that we may enhance the services we provide to benefit both staffs & patients with the general aim of improving diagnostic acumen, decreasing unnecessary referral and meeting the requirements for initiation of residency program in the near future.

### BLOOD BANK SERVICES















Our hospital has a separate and well-equipped hospital mini-blood bank. The blood bank has its own focal personnel and assigned laboratory professional. In the blood bank there are standard refrigerator with its own temperature monitor and platelet agitator.

In 2013, the blood bank supplied different departments with around 1971 units of blood.

There is a hospital transfusion committee (HTC) that oversees the blood use in the hospital. It is led by the hospitals CCD. The HTC conducts blood safety audits and assess our blood utilization practices.

Our HTC in collaboration with the university, helped the regional blood bank to initiate component therapy. Now component therapy, that includes as packed RBC (PRBC), Platelet Concentrate and Fresh Frozen Plasma (FFP), service is provided by our blood bank.

In addition to providing blood to clients, the blood bank and the HTC are involved in collecting bloods. We mobilized blood donation campaigns and collected bloods.

We maintain a blood donors database. O negative blood donors are identified and separately maintained in our database. The services provided by the blood bank is increasing significantly. The demand for blood is also increasing from time to time. Due to imbalance between demand and supply, our mini blood bank is intermittently facing blood shortages.

In order to permanently alleviate the shortages of blood supply, our blood bank and HTC planned to established self-running voluntary blood donation club. The club will be delegated to mobilize blood donation campaigns and increase health professionals' awareness and attitude towards blood donation.

### RADIOLOGY AND IMAGING SERVICES

Diagnostic Radiology is a discipline that deals with imaging of different parts of patient to reach at a diagnosis. Since its inception in late 18 th century, it has contributed and is playing significant role in the diagnosis and treatment of patients.

In today's world it is difficult to think of medicine without the input from the diagnostic radiology. The radiologists was increased from one to two after the university hired one with contract.

Currently, the radiology unit is equipped with 3 color Doppler ultrasound machines, one digital x ray machine, one fluoroscopy machine and newly installed 64 slice GE CT scanner. From the 3 color Doppler ultrasound machines,

to 6 per day.

This service has impact on reducing the referral of patients to other institutions which facilitates the management of patients, saves the money of the patients and generates new income for the hospital.

There is high patient load in x-ray and ultrasound services. This







arsenal of today's radiology imaging encompasses x-ray, ultrasound, fluoroscopy, Computed tomography, mammography and MRI.

The radiology service in hospital was commenced with the establishment of the hospital. Since that then x ray service was being used for diagnosis of pathologies. Though it is not possible to trace back when it came into practice, ultrasound service was also in use.

Till 2005/6 E. C, there was no radiologist to help in the diagnosis of patients using ultrasound or x ray. Senior physicians were specifically scanning obstetrics and gynecology patients but the rest were being referred to Wolyta Sodo, Hawassa and Addis Ababa for ultrasound scanning. But after that year referral for ultrasound stopped which has played significant role in diagnosis of diagnosis, reducing money expenditure of patients and practice of physicians.

In early days, the number of patients who were being scanned with ultrasound was not that much big. Through time, the need for ultrasound imaging dramatically increased and patients were in waiting list for 2-3 months. To solve this mismatch, the number of

one of them is not in use because of damage on the linear probe.

Fluoroscopy machine also has not yet been operational due to missed parts.

The MRI machine is also hopped to arrive in foreseeable future which will take diagnosis of diseases to away further. The room is made ready for the machine.

The number of staff in the department has also increased in number from time to time. Currently there are 4 senior radiologists from which one is working on contractual basis and the rest are staffs. There are also 3 radiographers and 5 medical radiology technologists.

The number of patients who get service from the imaging department is increasing. In 2013, 30,704 patients were x-rayed and 8213 patients were seen using ultrasound. The waiting list for ultrasound has significantly decreased when compared with the similar season in previous years.

It has been only one month since the CT scan became operational. During this short period of time more than 170 patients are scanned with average number of patients up needs increasing the number of machines and professionals to meet the growing number of patients.

The fluoroscopy machine also needs to be operational by purchasing the part which is lacking.

There is no server for the unit with high memory capacity. Due to this the images of patients cannot be kept in the hospital computers for more than 3 months. The other challenge we are facing is lack of PACS (picture archiving and communication system). Images can be viewed from different working stations without physical appearance to the imaging unit if we had the system.

The department can grow to the one of the residency training sites for medical doctors if the current momentum is kept on. To this end, the university needs to increase the number and subspecialty trained personnel in the department.



### NURSING AND MIDWIFERY SERVICES

Nursing and midwifery department takes more than half of the total work-force in our hospital. It is obvious that their contribution to the hospital activities is enourmous.

Our hospital's nursing and midwifery service follows its own managment structure. There is chief nursing and midwifer director, vice nursing and midwifery director, nursing and midwifery senior supervision team, ward and unit head nurses. We also have nursing and midwifery audit committee and nursing standard sub quality improvement team (QIT).

To improve and monitor our nursing and midwifery service, we conduct supervision. We conduct daily, weekly, bi-weekly and monthly supervision. We also conduct a monthly mini nursing care audit and three month major nursing and midwifery care audits.

In addition we will plan to add nursing and midwifery management structure they are delegated by letters like nursing care plan standard and evidence based care committee and shift focal. Also we are wishing from our hospital top leaders, nursing and midwifery management structure will be in directorate level then we will have nursing and midwifery case-team directors.

Currently we have 186 generic BSC nurses, 10 diploma nurses, 2 BSC emergency and critical care unit nurses, 7 BSC paediatric nurses, 7 BSC surgical nurses, 2 BSC neonatal nurses, 2 diploma ophthalmic nurses, 2 BSC psychiatric nurses, 6 BSC optometrist, 17 BSC health officers, 4 MSC in maternity and neonatal nursing speciality nurses, 2 MSC in emergency and critical care practitioner nurses, 65 BSC midwifery's and 3 diploma midwifery's. Totally 315 health care professionals under nursing directors. In addition we will need more nurses and midwifery's in speciality level because as you know our hospital care services are comprehensive and huge.









### ORTHOPEDIC SERVICES

The Orthopedics and Traumatology department is one of the highly expanding departments in our hospital. Located on its brand new, immensely functional and aesthetically pleasing building, the department has helped a lot of patients medically and socially. It has 45 in-patient beds and operates in two separate operating theatres. It also has an isolated minor operation room to manage cases that do not warrant major procedures.

Scope based service is provided in our hospital by different health professionals. There are two consultant orthopedic surgeon and over 8 medical doctors. In addition, there are specially trained nurses who are involved in the service provision.

Our orthopedics and traumatology department conducts digitalized morning sessions in the hos-



pital to discuss patients' information and scientific facts with medical students, intern doctors, General practitioners, final year orthopedic residents from Addis Ababa Black Lion Hospital and consultant Orthopedic surgeons.

The department reached lots of patients since its inception. In the past one year (2021) there were 973 inpatient admissions to the department. 1159 major operations were done and 2073 patients were provided outpatient services in the past one year.

Patients admitted to the orthopedic ward are patients who need inpatients treatment and those who need procedures are taken to the operating theatres. In the orthopedic referral clinic patients who are on follow up from the outpatient departments or patients previously admitted who are

now on follow up are seen. The above data is graphically presented below.

The department's achievements are seen in patients' satisfaction with the appropriate and timely services given. Patient complaints whenever they arise are dealt with swiftly to improve the quality of service even more.

The Department has achieved many goals since it was established as a department. It has a close communication with international institutions like ADFA (Australian Doctors for Africa) and SIGN international. Sign nails are used to treat different types of fractures and were brought to the department with cooperation with SIGN International who manufacture the implants and are now readily available. ADFA supplies OR



tables, anesthesia machines, patient & recovery beds and orthopedic machines and implants. Other achievements include starting hemiarthroplasty services, Wound vac usage for optimal wound handling, availability of plastic surgeon, CT integrated treatments and many more.

The department was involved in standing for the peace and stability of the country by providing standard and timely treatment for military personnel wounded in the conflict.

The department is in the process of acquiring Fluoroscopic units (C- arms) which will increase the level and quality of service to a whole new level. Also, the department is planning to start residency programs in Orthopedics and Traumatology in the coming next year.

### PALLIATIVE AND REHABILITATIVE SERVICES

Rehabilitation of people with disabilities is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Whilst, palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering. This is achieved by treating pain and other problems, physical, psychosocial and spiritual. Rehabilitation and palliative care should be set up as separate services.

Our hospital provides both rehabilitation and palliative care services for our catchment population. In 2013, the department provided service for 1,075 new patients.

In 2014 half year, 715 patients' visits occurred to the department. were visited the hospital for physiotherapy services. 50 children with club foot were treated and all of them were cured.

Our department provides community-based rehabilitation services. It increases its success; we effectively communicate other departments.



A Child with club foot recieving care at the rehabilitation center.

### COVID 19 PREPAREDNESS AND RESPONSE

Over the past two years, COVID-19 pandemic has caused huge stress on the health care system of many countries in the world. Public and private health care giving institutions were overloaded and many lives were lost across the globe.

Initially there was a cluster of cases of pneumonia of unknown cause detected in Wuhan City, Hubei Province, China (late December 2019) that was described as a novel coronavirus (2019 nCOV) after taking sample specimens from patients. After WHO recognized it as global public health emergency (pandemic disease), wachemo university has shown a steady and high commitment to contain it before it causes significant damage to the community based on national guidelines.

Initially Wachemo University established COVID 19 Emergency Preparedness and response taskforce. The task force has main stirring committee that was chaired by the university's president There were three sub committees: Resource mobilization and allocation, Social mobilization adn information disseminations and Screening, early detection and case-management subcommittees.

Wachemo University was one the treatment and isolation centre in the country as it undertake all responsibilities to combat and prevent the expansion and rapid transmission of the pandemic in five major areas. These areas were quarantine, pre-triage, triage, isolation, treatment and diagnostic centre.

### Quarantine Centre

Our quarantine center was established in main campus with capacity to accommodate four thousand clients. About 197 individuals were quarantined. Among the quarantined individuals two clients were found to be SARS- COVID -19 positive and transferred to treatment centre in the hospital. Different professionals were assigned in the centre which consists of two physicians, six nurses, two guards, two food providers and six cleaners.

### Pretriage and triage

Screening all patients for the major symptoms of COVID-19 was mandatory to prevent and halt the spread of the pandemic in the hospital. Therefore, the hospital has established separate pre-triage and cough outpatient department which will give its services for 24 hours a day and 7 days a week. Around 1.3 million clients were screened at pretriage. 18,250 patients from pretriage & central triage were linked to triage (chest OPD). Three physicians, six nurses, two laboratory professionals, one spray man, one cleaner and one guard were assigned at a time per day.

### Isolation and treatment centre

The hospital has established three fully dedicated buildings for isolation, treatment and staff residence to combat of the pandemic. The buildings were furnished with necessary materials like patient beds, monitors, mechanical ventilators, suction machine, glucometer, BP cuff, different type of drugs and supplies used to treat COVID-19 and comorbid conditions. The materials were mobilized from different departments in the hospital in addition to materials provided by MoH/RHB or support by donation from USA Hossana task force .

Once the staffs are mobilized to the unit they work in the unit for one month and replaced by other trained





group. Those who have completed the term of shift were taken to hotel for quarantine for a couple of weeks until their results arrive. All the necessary accommodations like cafeteria, per-diem, duty and risk payment were covered by the university.

Over the past two years 557 patients were isolated & 197 patients were found to be positive for SARS-COV2. The center is serving as regional referral site for severe and critical patients .

### SARS-COV- 2 Diagnostic center

During the establishment it the 4th at regional level and established at main campus with a total of 24 staffs. Totally at the diagnostic centre 25,549 samples were collected & from this 1540 samples were tested be positive. The centre gives the service for guarage, kambata & silt zones.

### Infection prevention and control (IPC)

Infection prevention and control is one of the main activities to control the spread of covid-19. Some of the IPC activities like human traffic control started to reduce overcrowding in the hospital. Hand washing facilities were prepared with hand-touch free pedal hand washing during entry and exit from university and hospital. Digital spray for disinfection of cars were installed at main gates.

There was disinfection of every and specific working units in the hospital. The university and hospital started producing sanitizers and distributed to health professionals and other institutions.

To improve the knowledge of our community health education was provided. Light boards with updated information about COVID 19 were displayed and over 5000 flyers and posters were printed and distibuted to the community.

The COVID 19 response and case-management efforts faced so many challenges. Due to lack of operation theatre in the treatment center and lack of mobile digital x-ray prevented us from working at our maximal potential. In addition there was problem in PCR machine and laboratory reagent supply.



### TB AND HIV SERVICES

Ethiopia is among the 17 high MDR-TB burden countries in the word with roughly 3000 MDR-TB cases annually. Effective MDR-TB prevention through patient management of over 100,00 annual TB cases is one of the most important activities to stop the spread of hard to treat MDR-TB which develops resistance to TB treatment when patients fail to complete the initial TB treatments.

The U.S agency for international Development (USAID) TB CARE project, handed over a newly renovated facility for treatment of MDR-TB to SNNPR regional health bureau, WUNEMMCH to day. The new MDR-TB facility is to be one of the centres of excellence for the SNNPR delivering referral service, consultation, mentorship and supervision to all healthcare providers in region with MDR-TB patients. Additionally, the facility will deliver practical MDR-TB training for health professionals and facilitate research on MDR-TB in the region.

The inpatient section has a total of 15 rooms (for male and female) with self-contained showers and rest rooms, two wards (male and female), and a capacious veranda. The outpatient wing has a total of 4 rooms including 2 examination rooms, and dispensary room, and one duty rooms with showers. The two wings are connected and adjoin the hospital and have a garden setting to enhance the healing environment

The model TB clinics also provided professional development training and National exchange to improve diagnosis and treatment, and supported the operations to promote public awareness, provide guidelines and support to health workers, supply respirators, improve TB infection control service in different facilities.

Isolation rooms were provided for the treatment of potentially infectious patients like MDRTB. The room should have negative ventilation, a room with scrubup facilities and be self-contained, or has en-suite facilities.

The hospital provides an adequate supply of clean blankets, bed sheets and patient gowns. The mattresses with plastic covered and without any holes. Beds made every 48 hours, and more frequently, if a need arises. All admitted patients wear patient gowns and patient clothes stored in a corner, inside a cabinet, or shelf with sealed partitions, to avoid cross infection.

Achievement of MDR and TB clinics are Improved access of DOT service, Increased diagnosis and treatment service, Increased TB contact screening service, Increased IPT service, Catchment area meeting was managed timely with all treatment follow up centres, All TB diagnosis patient were investigated with G/xpert, Supportive Supervision and monitoring was done, Increased MDR TB screening, Promoted TB infection control at MDR TB clinics, Cough triage was identified, Increase cure rate and success rate of TB and MDR

Future plan of MDR-TB clinics are To prevent the development of MDR TB, To increase community awareness on TB transmission, prevention, and treatment, To increase TB and MDR TB detection, To increase contact TB tracing, To identify and prompt referral of TB suspect for early diagnosis and initiation of treatment, To promotion of TB infection control, To prevent relapse of TB, To cure the patient from TB and decrease transmission of TB

### NEWLY ESTABLISHED SERVICES

Otorhinolaryngology (Ear, Nose and Throat

ENT service was not available in Our Hospital and patients were referred to Hawassa or Addis Ababa for ENT Services. It has been a big challenge for the community because most cannot afford to go to Addis or Hawassa. In addition, there was delay for intervention even after

referral to ENT Specialist.

ENT service has been started and the Hospital is trying to standardize the service. All necessary instruments are under procurement process. The OPD rooms dedicated to ENT and Senior Physician recruited on contractual basis. Moreover, surgery is started. Given the installation of CT scan and

expansion of Operation Room, the number of beneficiaries will be higher and patient referrals in search of ENT Speciality service will be halted.

Neurology and Neurosurgery

The Hospital has secured neurological service by respective senior physicians. Previously there was no neurologic exam-

ination Modality like Electro Encephalogram and the Hospital was referring patients to Addis for EEG. Now the EEG is functional and there is consultant Neurologist in our Hospital. Moreover, the Hospital has started Neurosurgery recently and it will be strengthened by dedicating separate Operation Theatre and expansion of Intensive Care

Unit.

Endoscopic Service

Endoscopic examination was one of the reasons for patient referral. Many patients who need endoscopic evaluation or sometimes endoscopic intervention were referred to Addis for many years. In collaboration with St Paul Comprehensive Specialized

Hospital, we have managed to provide gastro enterology services 2 days per week. Flexible endoscopy and colonoscopy has been done for patients with indications. Moreover, the physician provides consultancy services at Gastro-enterology Clinic. The Service needs to be strengthened.







Endoscopy machine

### DENTAL AND MAXILLOFACIAL SERVICES

Dental and maxillofacial services is one of the service area that has got an increased emphasis in the past years. Our hospital demonstrated a great deal of emphasis to the unit and for its development.

The unit has shown a continued development in the past years. Previously the unit had one dental chair which is not fully functional. There were only two dental surgeons and the premise is not suitable to provide adequate services.

Now our unit has the necessary equipment and human resources. The premises of the unit were reinovated. There are two fully functional dental chairs. In regards to trained professionals, there are four dental surgeons, one oral and maxillofacial surgeon and one

Dental and Maxillofacial Clinic visits from 2006-13, NEMMCSH

4500

4000

3890

3700

3000

2563

2538

2500

2000

1131

1000

500

0

2006

2007

2008

2009

2010

2011

2012

2013

professor of oral oncology.

After its renovation, the volume of services rendedred increased significantly. With the objective of improving access to oral health services and providing quality services, the unit and its members are working relentlessly.



A new dental chair at the dental and maxillofacial unit.

### OPHTHALMOLOGIC SERVICES

phthalmology department is one of the departments in Wachemo University College of Medicine & Health Sciences. It is located behind pathology department in the compound. It gives major and minor operation services; outpatient services and has 12 beds for inpatient services. There are two ophthalmologists,4 optometrists,2 ophthalmic nurses and 2 Bsc nurses in the department.

The department has extended its service by having additional and new ophthalmic equipment like fundus camera, YAG Laser & one operating microscope with teaching arm since 2013.



with its long time US partner NGO, Himalayan Cataract project (HCP). Each year, TT and cat-

> aract surgeries done for free for patients in hosanna & its catchment areas in campaign and out reaches.

> The major challenges in the departments are lack of adequate human resource, ophthalmic instruments, inaccessibility of spare parts, lack major ophthalmic medications and consumables in hospital pharmacy. The department is planning to have the necessary equipment &

facilities with the responsible bodies so that it maximizes eye care services for the needy ones in the community. It also has a plan to establish optical workshop & to open undergraduate study in ophthalmic nursing.



Group of clients recieving care at a high volume cataract surgery campaign.

Operation theatre was renovated appropriately & Procedures under general anesthesia, are also being given for pediatrics patients, which avoided unnecessary referrals.

The department is also doing sight saving campaign and outreach activities in collaboration

## MENTAL HEALTH SERVICES

Even though mental health is an integral part of humans' wellbeing, attention to the sector is lacking in our country.

Our hospital's psychiatric unit was established long years ago. But it was providing its services in unsuitable conditions. Since 2013, we moved our service to a separate setup that has two separate rooms for the admissions and one outpatient room.

Currently the unit is staffed with experienced health professional in the care. There are psychiatrists, masters psychiatric nurses, psychiatrist nurses and assigned general practitioner in the unit.

We provide different type of mental health services. There is outpatient evaluation and treatment of mental health condition. There is inpatient admissions and emergency evaluation and treatment. Our services are provided to children, adolescents and adults of both sexes.

In addition to psychiatric evaluation and treatment, our unit is providing psychotherapy and counseling services.

in 2013/14 EFY, out unit provided mental healthcare services to patients and their families. Patients and their families received psychoeducation and psychotherapy. We were able to witness the satisfaction of our clients and returned our clients ability to function

in their daily living activities.

Our society used to have less favorable attitude towards mental health and its services. But after conducting awareness creation and providing psychoeducation to our clients, such attitude is changing. Now a lot of patients are seeking our services and recommending other to visit our unit.

In 2013 we established inpatient services and emergency services. We increased our human resource capacity by employing psychiatric doctor. In addition, psychotherapy was started in 2013.

Even though we are providing good mental healthcare to our clients, we are not free from challenges. The room is not well suited to handle psychiatric patients, thus we plan to construct a well-designed and separate building.

In addition, we also have plans to initiate additional services. We plan to start rehabilitation services, Electroconvulsive therapy, a better emergency and treatment.

Our plan is not limited to improve the care we provide to our clients. We also plan to start teaching and learning activities and create our societies awareness about mental health and mental healthcare services.

## DERMATOLOGY SERVICES

Our Dermatology and venerology unit is a recently established unit in the hospital. It is staffed with three dermato-venerologists, general practitioner and nurses.

In 2013 and 2014 6 months over 7800 patients are provided with our services.

Shortage of dermatologic medications was creating sig-



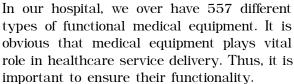
Dermatologists in their office.

nificant problem in our services. In 2013, we initiated compounding services and attempted to solve the problem. Now patients are receiving the services in their vicinity and we are witnessing improvement in their satisfactions. In addition, we also increased our human resource profile by employing an additional one dermatologist in 2013.

In the coming years, we have a plan to initiate new services and improve our capacity. We have a plan to start cryotherapy services. We also plan to establish an inpatient ward for inpatient management of leishmaniasis.

## BIOMEDICAL ENGINEERING SERVICES





Our in-house biomedical engineering department is delegated with different responsibilities. We perform regular preventive maintenance (PPM), inspection and calibration, need assessment of ward, perform corrective maintenance, install newly arrived equipment, update inventory, prepare and evaluate technical specification, document history file for the installed machines, provide onsite training for end users, and gives technical training for biomedical intern students.

We are committed to maintain and restore the health of medical equipment in the hospital. Depending on the work order which comes from service areas, we provide corrective maintenance for medical equipment. We have also preset schedule to perform planned preventive maintenances (PPM). We were able to significantly reduce medical equipment failure and improved service quality.

We participated in the procurement and purchase of medical equipment. We prepared specifications and participated in procurement. After the purchase of equipment, we also evaluate the quality





and attributes of medical equipment.

In 2013/14 We participated in the purchase, evaluation and installation of medical equipment. We were actively engaged in establishing the pathology unit, dental unit, installation of YAG Laser III, fundus camera, surgical microscope, anesthesia machine, Endo urology machines, endoscopy and CT scan machines.

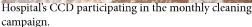
Since all medical equipment are maintained by hospital biomedical engineers, we able to give remarkable service. In the past two years by reducing the need for outsourced maintenance, we were able to save millions of birrs for the hospital.

After conducting a baseline assessment to analyze the use of medical equipment by end users, we planned to develop and implement a Quality improvement project to improve medical equipment utilization. We aimed to improve the proper utilization of medical equipment from 16% to 87% by the end of Megabit 2014.

Photo: [Left] Hospital's Biomedical engineers attending orientation on CT scan. [Right] Hospital's biomedical engineering during installation and maintenance of medical equipment.









Hospital's cleaner cleaning medical equipment.

## INFECTION PREVENTION AND CONTROL ACTIVITIES

Effective implementation of IPC practices in health care facilities requires that appropriate strategic intervention to be put in place. A comprehensive and effective approach to IPC consists of establishing IPC programs with strong links to other national programs, for example, those addressing quality and safety and antimicrobial resistance. The presence of an IPC program is a necessary, but not a sufficient condition to achieve safe and high-quality health care. In addition, at the facility level, an adequate built environment (including the necessary infrastructure, materials and equipment, appropriate inpatient service, adequate human resources or staffing and workload) represents the foundation enabling the implementation of all other core com-

ponents and the achievement of hospital's leaders participate safe practices. in it. In addition to cleaning

Our hospital strives to protect the patient, health care providers, attendants, visitors, and the nearby community from hospital-acquired infections.

Our hospital's IPC department is organized and staffed with 5 environmental health officers. They are involved in infection prevention and control activities. Our staffs are also engaged in providing technical consultations and supportive supervision to different service areas.

The IPC department regularly conducts cleaning campaigns in different service areas. The cleaning campaign is conducted monthly and all professionals in the hospital including hospital's leaders participate in it. In addition to cleaning our working environment, such campaign helped us to improve health professionals' knowledge and attitude towards IPC activities.

Our team also provided health education services to attendants. We conducted attendant forums to teach attendants on infection prevention activities.

We supplied departments with the necessary equipment and supplies. We also provided IPC training to hospital's cleaners and laundry professionals. In addition, we supervise their performances and provide them with guidance.

# Ethiopian Hospital Alliance for Quality (EHAQ)

The Ethiopian Hospitals Alliance for Quality (EHAQ) is a platform that is meant to transform our healthcare system into one that works better for the Ethiopian people.

EHAQ is learning collaborative where health facilities are clustered in small groups to exchange knowledge, best practice and resources with each other. This initiative will empower all health facilities to develop quality improvement initiatives.

Each network consists of a lead hospital which is selected based on performance in the last cycle of the EHAQ Cycle, a group of member hospitals to which the lead and co-lead hospitals provide direct assistance in implementing health service quality improvement initiatives.

So far two cycles, focusing on improving patient satisfaction and MNCH services, have been successfully completed and many public hospitals have tremendously improved their healthcare services delivery through graduating, (being recognized and awarded as best performing hospitals and clusters across the country). The last cycle focused on CATCH-IT (Clean and Timely Care in Health Facilities for Institutional Transformation ) and our Hospital was a Champion!

### EHAQ CYCLE

Our hospital has been a lead Hospital for two EHAQ cycle. During the first EHAQ 1st cycle our Hospital supported six hospitals from the region, Arbaminch, Jinka, Gidole, Sawla, and Konso Karat. Currently Shone Primary Hospital, Gimbichu Primary Hospital and Homecho Primary Hospital are members of our cluster.

EHAQ 3rd Cycle was a success for our Hospital. During the National as well as the Regional Validation process, our Hospital succeeded to join the top 10 Hospitals recognized as 'Champions of Champions '. We won the title and other awards from Ministry of Health and Regional Health Bureau. A 3 million Ethiopian Birr , a Crystal Trophy and Certificate was awarded from Ministry of Health and 750 thousand Ethiopian Birr, Crystal trophy and a Certificate from Regional Health Bureau. This is to be used for service quality improvement activities.

EHAQ Network has been an important platform for supporting each other. For instance Nigist Eleni Mohamed Memorial Comprehensive Specialized has been supporting member Hospitals with medical supplies and equipment. Shone primary Hospital was supported with construction of incinerator and Gimbichu Primary Hospital was given power transformer to solve the problems with electricity.

Nigist Eleni Mohamed Memorial Comprehensive Specialized Hospital, as lead Hospital, supports the member Hospitals technically. There is Quarterly performance review meeting and Supportive supervision with coaching. It has been a good opportunity for all to learn from one another and scale up and spread best experiences.

Currently member Hospitals have signed Memorandum of Understanding (MoU) and approved both Term of Reference (ToR) and Joint action plan for the year 2021/2022. More over the 4th Cycle of EHAQ, which focus on Evidence Based Care (EBC), is launched jointly and we are striving to achieve the targets. So far baseline assessment is done and subsequent preparations are under way.

# HEALTHCARE QUALITY







- $1\ \mbox{Members}$  of our EHAQ cluster hospitals after attending our quarterly review meeting.
- $2\ \mbox{Our hospital's quality team presenting graduated QI projects to other hospital at the regional quality summit.}$
- $3\ Our\ hospital's\ quality\ team\ after\ attending\ the\ regional\ level\ launching\ ceremony\ of\ EHAQ\ 4th\ cycle\ project.$

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# QUALITY IMPROVEMENT PROJECTS

As a tool for improving healthcare quality improvement (QI) projects are endowed with attention in our quality assurance directorate. We developed our own triphasic quality improvement project development approach and a training schedule aligned with our approach. We also have developed quality improvement project development guideline and evaluation tools.

Here is a list of QI projects developed by using our three stage development approach. They are developed in a three days session conducted from Tikimt-Hidar 2014. They are under implementation since then.

# Project Title: QI project to improve timeliness of OPD services

Problem statement: An observation done in Tikimt 2014 showed that only 255 of OPDs start their services at 8:30 am. This can result in prolonged waiting time and patients' dissatisfaction.

Aim Statement: The QI project team aim to increase the proportion of OPDs that start their services before 8:30 am to 100% by the end of Yekatit 2014.

# Project Title: Quality improvement to increase TB contact screening

Problem statement: Based on 2014 EFY 1st Q data, only 35% of TB contacts were screened. This can result increased transmission int the community.

Aim Statement: The TB QI team aim to improve TB contact screening from 35% to 95% by the end of Yekatit 2014.

### Project Title: Quality improvement to prevent loss of laboratory test results

Problem statement: Based on a baseline assessment done on Sene 2013 at the central laboratory using a locally developed tool, 6.5% of laboratory test results are lost. This can compromise service quality, increase hospi-

tal's cost and results in patients' dissatisfaction.

Aim Statement: The Lab QI team aim to reduce the loss of laboratory test results from 6.5% to less than 1% by the end of Yekatit 2014.

## Project Title: QI Project to improve the proper utilization of medical equipment

Problem statement: Based on a baseline assessment done on Tikimt 2014 using a locally developed standards and criteria, only 16% of medical equipment are properly utilized.

Aim Statement: The Biomedical Engineering QI team aim to improve the proper utilization of medical equipment from 16% to 87% by the end of Megabit 2014.

# Project Title: QI Project to improve admission and discharge process

Problem statement: Based on a survey done on Meskerem 2014, 21.3% of inpatient admissions and 16.2% of discharges occurred with-

out passing thru liaison and social services. This prevented the hospital from collecting around 1 M ETB income from annual admissions.

Aim Statement: The Liaison and social services QI team aim to increase the percentage of liaison registered admission and discharges to 100% by the end of Yekatit 2014.

# Project Title: Quality improvement to reduce neonatal mortality in the NICU

Problem statement: Based on 2014 EFY 1st Q HMIS data, there is 9% neonatal mortality in the NICU.

Aim Statement: The pediatrics QI team aim to reduce NICU neonatal mortality rate from 9% to less than 5% by the end of Megabit 2014.





# Our Initiatives

### Quality Team Learning (QTL)

Our Quality Team learning is a platform to enhance collaborative learning among our team members. It is conducted on weekly basis. In a QTL, assigned team member shares his/her readings and experiences to the team and generate new idea to our problem.

Using our QTL, we discussed topics that are important to improve healthcare quality. Topics presented in QTL includes: Influencing departments HSTG performances, Healthcare expenditure at time of war, adapting APTS into laboratory and radiology services and others.

# Patient Complaint Report (PCR) and Patient complaint score (PCS)

Patients feeling and idea about the services they received is an important source of information for healthcare quality improvement. Despite its importance, there is no established mechanism to analyze patients' complaint and use the data generated from complaint analysis report.

To solve the problem and use patient compliant data, we formally prepared a taxonomy of patients' complaints and list of issues in each category. patients' complaints are now analyzed based on our categories of complaint. In addition, departments receive patient complaint score that is intended to measure their complaint burden.

The patient complaint report and score have multiple advantages. Unlike patient satisfaction survey, they do not require distribution of questionnaires or conducting inter-

views. The PCR is easily generated from the complaint registration and a calculated score is easily assigned.

In addition, the PCS which measures department's complaint burden, can be used to compare departments and measure progress. It is helpful to create a friendly competitive environment among departments.

### Adapting APTS-like system to laboratory and radiology services

All activities in hospitals have financial counterparts, they generate incomes and incur expenses. For hospitals to provide their services it important to generate revenue.

The APTS already applied to pharmaceutical department, has obviously showed improvement in income collection and pharmaceutical services quality. Thus, we believed it is a good initiative to adapt the lessons learnt from the system into other departments and improve our income collection.

# Service Improvement Participation (SIP) Score

It is obvious that all professionals should participate in service improvement activities. Notwithstanding this only limited number of employees are engaged in such activities. This problem arose from multiple issues and lack of objective measurement of involvement and its integration with recognition and opportunities are one of them.

Our SIP score is an objective measurement of health professionals' involvement in service improvement activities. It measures health professionals' participation in clinical audits, QI projects, guideline and protocol development and other activities.

HSTQ 4, evidence-based care, requires evidences generation, practicing according to guideline and evaluation of performance. Thus, our SIP score is meant to improve health professionals' participation in such activities and will help us to fulfil the initiative.

#### Clinical Audits

Our department has conducted and lead different clinical audits. In addition to this, we developed a clinical audit guideline and attempted to improve our working environment for clinical audits.

It is important to share audit findings with important stakeholders. To improve our communication, we created a telegram based online repository for clinical audits and other reports.

You can learn more about our initiatives on our telegram channel @ nemmh\bilibrary

## **FORUMS**

#### Staff Forum

Nigist Eleni Mohamed Memorial Comprehensive Specialized Hospital Staff Forum is held on Quarterly basis and the overall performance of the Hospital is evaluated jointly by staff and Members of the Management Committee. The ideas and concern of the Staff is incorporated into the Hospital plan. This forum is one of the important forums for service quality improvement there by increasing both staff and client satisfaction.

#### Clinical Forum

This is a forum chaired by the Chief Clinical Director and held fortnightly. The major activities of departments and case team are discussed and any challenge faced by teams would be addressed. The decisions and main issued discussed in the Clinical forum is

documented in minute book and some ideas could be directed to the Management committee either to endorse or discuss and decide.

In the academic domain, there is daily morning session in all departments with discussions on each cases and management of specific cases. Sometimes, case presentation session is held with medical students and senior physicians.

#### Patient Forums

There are several patient and client forums held in the Hospital. We have Diabetic Patients forum, ART Clients Forum, Pregnant Mothers forum, and Mothers Support group forum. Each forum has its own target group and objectives to attain. The diabetic patients' forum is a good example of how members can help one another. Moreover, some stake holders provide support to

such forums and associations.

The Hospital has a plan to organize more forums and patient groups including Hypertensive patient's forum, neurologic patient's forum and the like.

#### Community forum

This is meant to serve as a contact point for the Hospital and the community that the Hospital serves. It is supposed to be held on quarterly basis but because of COVID pandemic, it has been suspended for more than a year. The main issue here is that members of the community can raise any issues to the Hospital and the Hospital uses the comments for quality improvement. In addition to this, the Hospital mobilizes additional resources from the community.







## **CELEBRATIONS**





Creating sense of belongingness among our employees is given emphasis in our hospital. We believe our professionals should feel the hospital like their home. Its a culture to celebrate holidays and mark professional days in our hospital.

Our hospital marked international professional days such as world pharmacist day, world anesthesia day, world nurse day and others. in 2013.







# HEALTHCARE QUALITY











# CRC ACTIVITIES









## **EVIDENCE-BASED CARE**



Launching event of EHAQ 4th cycle (Evidence based care) held at our hospital.

Ministry of Health through the second Health Sector Transformation Plan (HSTP-II) envisions all of its citizens to enjoy the quality and equitable access to all types of health services. Ethiopian Hospital Alliance for Quality (EHAQ) is a learning collaborative based on a model that involves hospitals exchanging various resources mainly best practices including knowledge, materials and professional sharing with each other in which supporting and empowering hospitals for service improvement will be assured. So far, EHAQ has passed three implementation cycles with major focus areas selected for each cycle improving client satisfaction, CASH & MNCH services, and the CATCH IIT respectively. Evidence-based hospital care is identified and made to be the focus area for the national EHAQ Program 4th cycle with the aim to improve hospital adherence to evidence-based decision-making practices as a central piece of service delivery working culture in hospitals.

Evidence-based care (EBC), a fundamental element and key indicator of high-quality patient care, is paramount to meeting the quadruple aim in healthcare. It improves the patient experience through providing quality care, enhances patient outcomes, reduces costs, and empowers clinicians, leading to higher job satisfaction.



The key intervention for EBC has

After the official launching of EBC at the ministry of health and regional health bureau level, our hospital launches EBC service together with district hospitals. Baseline assessment was done. Training will be coming soon.

# OUR COLLEGE OF MEDICINE AND HEALTH SCIENCES



Dr. Habtamu Tamirat Chief Academic Director



Alula Seyoum Dean, School of Nursing



Dr. Lombamo Liranso Dean, School of Medicine



Demelash W/Yohannis Dean, School of Public Health

achemo University College of Medicine and Health Science commenced its function in 2012 admitting students in four departments: Public Health, Midwifery, Nursing and Medicine.

Currently, the college have three schools (School of Medicine, Public Health and Nursing) and eleven departments (Medicine, Comprehensive Nursing, Paediatrics Nursing, Surgical Nursing, Public Health, Anaesthesia, Midwifery, Medical Laboratory Science, Pharmacy, Doctor of Dental Medicine and Health Informatics).

There are 1.258 male, 836 female and a total of 2.094 students in the college of medicine and health sciences both in undergraduates and postgraduates programs. The college has a total of 370 academic and administrative staffs with 4PhDs, 15 Assistant Professors, 48 Specialists, 160 Lecturers and other staffs. There are also four postgraduate programs in the school of public health (General MPH, Epidemiology, RH and Health Education) and two specialty programs (General Surgery and Obstetrics and Gynaecology)

in school of medicine. We have finalized the proposal and need assessment for four undergraduate and four postgraduate prorams in school of Public Health and Nursing in each and one PhD program in Epidemiology. Further Specialty Program expansion proposal is being conducted in the school of medicine.

The university have made its own determined efforts in renovation and expansion of NEMMCSH to make it





Members of the college providing care to injured ENDF members.



Members of the college providing care to injured ENDF members

## COLLEGE OF MEDICINE AND HEALTH SCIENCES

conducive for clinical, academic, professional trainings, and research and community services with the mission of improving medical care; health and wellbeing of the public through academic, clinical and community service and to serve as a centre for technology transfer and capacity building in medical research and training.

The college of medicine and health science is working vigorously aiming to be a center of excellence in education, health promotion and disease prevention, and the delivery of health care, undertaking all activities with the highest ethical standards maximizing our human, intellectual, and fiscal resources with Proactive and sound decision making and satisfying the needs of the public.

Due to Wachemo University Management Support and attention on academic, clinical, research, community service and technology transfer activities, the college is delivering evidence-based best practices and technology in teaching, research, and patient/client care extending opportunities for health care education to all

segments of the population through ELearning platform which is established in the college of medicine and health science with the effort of Wachemo University in collaboration with GIZ Germany and MoH which will enable all students, academic and clinical staffs to read lectures, watch videos and case scenarios through their mobiles, tablets and laptops or desktops. The University have also equipped well-structured skill laboratories in each schools, departments and have provided access for multiple pre-service trainings which were being given by the commitment of the academic staffs of the college to address the health care need of the community.

The college have been attracting and retaining faculty, staff, and students that reflect WCU diverse population in Collaborations and partnerships within the CMHS, WCU and with outside institutions, and communities striving for the development of our college through a commitment to lifelong learning and achievement.



Members of the college attending training on problem based learning.







## SCHOOL OF NURSING

School of nursing is one of Schools in College of Medicine and Health sciences (CMHS) with welcoming work environment and producing nationally competent and kind-hearted nurses. The school was stablished in 2021 to strengthen academic excellence, quality of nursing service and expansion of programs.

Nursing education as Wachemo University started in 2013, enrolling around 50 students in generic nursing program and in 2017 launched post basic undergraduate program in surgical nursing and pediatric and child health nursing. There were around 50 graduates from post basic and around 500

graduates from generic program. In this year there are more than 400 students including new enrolling batch with three programs.

Our simulation laboratory which is dramatically renovated with commitment of the college and top managers of the university in 2022, which is potentially comparable with any skill labs in country side with separate rooms and station for each competency areas (medical, surgical, obstetrics and gynecology, pediatrics and neonatal nursing). We are also providing preservice trainings to our students in major nursing skill and on updated national guidelines like IMNCI, TB HIV, and ETAT\(\mathbb{I}\). As

we are implementing Competency based curriculum our staffs are trained on PBL and they are in good progress on case development and implementation starting from this semester. The school is also working hard to integrate nursing system in our teaching hospital to strengthen quality of nursing service to patients and application of evidence-based nursing practice in clinical area.

Capacity development vision of the school is also with attractive progress to launch 3 postgraduate and 2 additional undergraduate programs in 2022/23 to play our role on local and national demand of nurses to learn.









## SCHOOL OF PUBLIC HEALTH

Public Health as a discipline is constantly evolving, not in the face of emerging and re-emerging challenges from infectious disease and chronic disorder, but also as a result of modern complexities arising from socio-economic shifts and cross-border political situations.

School of Public Health (SPH) was established in 2021, in response to a growing demand of Public Health practitioners who will provide leadership in Public Health reforms in the country primarily to train Public Health Practitioners.

School of Public Health enables these highly trained health professionals perform effectively at district, Regional and national levels within governmental, quesi-governmental, non-governmental and private organizations. Over the year, the school has introduced new programmes as its effort at meeting the specialized skills needed for the transformation of the health sector.

Currently our school has been providing four postgraduates (MSc) and one undergraduate program. In near future we have planned to launch additional four postgraduate (three masters and one PhD) and two undergraduate (Environmental Health and Health Informatics) programs. Also our school implements significant scientific research activities within national and international projects focus on research that improves the health of population in Ethiopia and beyond. In the next leg of this journey, the school will extend its reach to more partners in Africa to jointly tackle present and new public health challenges. I invite towards turning discovery into healthier communities.

We have facilitated number of trainings such as statistical modelling and research, software STATA, Epi Info to supplement knowledge and skill of our staff

In this academic year, more than 331 students enrolled at School of Public Health including foreign students from East African Countries for both undergraduate and postgraduate programs. We are implementing competence based curriculum and supplemented with problem based learning at school level.







Uiversity's professionals attending trainings provided by school of public health.

# COLLEGE OF MEDICINE AND HEALTH SCIENCES



Group of newly qualified medical interns after completing their qualification examination.

## SCHOOL OF MEDICINE

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# CONTINOUS PROFESSIONAL DEVELOPMENT DIRECTOR



Lolamo Kelbiso Director, CPD

The Federal Ministry of Health (FMOH) of Ethiopia has launched a Continuing Professional Development (CPD) to continually develop the competency of health professionals through standardized in-service training. The primary goal of the CPD program is ensuring quality health service by competent health professionals and linking the continuing education unit (CEU) with license renewal requirements. Health professionals must maintain, update and enhance their knowledge, skills, and attitude to adequately deliver quality health care. Thus, Federal Ministry of Health developed directives and guidelines to implement in service training program for heath workforces working in facilities to develop their knowledge and skills since 2011.

Wachemo University (WCU), College of Medicine & Health Science (CMHS) is a registered CPD provider in Ethiopia since July, 2021. Currently, the col-

lege is almost satisfied the requirements set by the Federal Ministry of Health for Accreditorship certificate & going to secure in the coming few weeks. And different trainings have been given to 420 health care professionals from mixed disciplines based on the need for the healthcare system which is assessed by top-down and bottom-up approaches in clinical setups & a capacity building training has given for 80 academic staffs in statistical modelling & PBL method for enhancing quality service delivery & improving career advancement.

Even though the CPD director office is very young to its age, has established its own website and database for the ease of accomplishing tasks & moreover to be closer for the professionals at local, national and international levels to provide up-to-date information in all aspects. It has also a dedicated faculties and well-or-

ganized panel of expertise from various disciplines who are engaged in capacity building, needs assessment, monitoring, and evaluation activities.



Hospital employees attending QI project development workshop



Specialist doctors attending Problem Based learning (PBL) training



# RESEARCH AND COMMUNITY SERVICE DIRECTOR



Abebe Alemu Anshebo Assistant Professor Director, RCSD

In college of Medicine and health Science, there are 227 highly motivated academic staffs with academic rank of lecturer and above who has been actively engaging in research and community service activities in Wachemo University.

In 2013 E.C, there were Eighteen (18) research and Eight (8) community service proposals were approved and granted, and also in 2014E.C, around sixty (60) research proposals were submitted, but ninety (19) research proposals were approved and granted and the research work is going on. Similarly, four (4) community service proposal was approved and granted. The College of Medicine and Health science has high potential of expertize pool that has been contribut-

ing much in the scientific community by publishing research findings in reputable scientific journals.

As part of community service, College of Medicine and health science has been working to strengthening the linkage of Nigist Eleni Mohammed Memorial Comprehensive specialized Hospital with Health Institutions in the catchment area to expand and improve health care service in the health facilities by aiming to assure satisfaction of the customers on health care service in the community level.

IN 2013



RESEARCH PROPOSALS

19

RESEARCH PROPOSALS
APPROVED & GRANTED

4

COMMUNITY SERVICE PROPOSAL GRANTED

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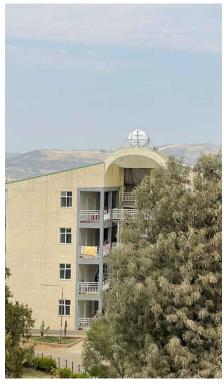
























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