RUFKATU DANJUMA MATERNITY & KURU DANJUMA HOSPITAL FOR CHILDREN

PROJECT REPORT YEAR 4

PROJECT OF: TY DANJUMA FOUNDATION

MANAGED & OPERATED BY: DEVELOPMENT AFRICA
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IMPACT HIGHLIGHTS

DECEMBER 2017 - NOVEMBER 2021
COMBINED YEARS STATISTICAL OVERVIEW

- New Patient Registrations: 9,016
- Outpatient Consultations: 18,570
- Inpatient Admissions: 4,108
- Ultrasound Scans: 4,028
- Deliveries in Total: 1,649
- Sets of twins/triplets delivered: 37
- Deliveries Caesarean: 489
- Surgical Procedures (other): 548
- Immunisations Given: 24,350
- Laboratory Tests: 42,857
- EMT Ambulance Journeys: 2,332
Lt. Gen. Theophilus Yakubu Danjuma

Lt. Gen. Theophilus Yakubu Danjuma (Rtd.) GCON is the Chairman and Founder of TY Danjuma Foundation. He is from Takum Local Government Area in Taraba State. Lt. Gen. Danjuma had an illustrious career in the Nigerian army retiring as Chief of Army Staff. He has also held top advisory positions to previous and the current president of Nigeria as Chairman of Presidential Advisory Councils. Lt. Gen. TY Danjuma is an astute, successful businessman and philanthropist. It is his impressive track record of philanthropic giving that culminated in the establishment of the TY Danjuma Foundation.

PATRONS

His Excellency, Arc. Darius Dickson Ishaku

His Excellency, Arc. Darius Dickson Ishaku, the Executive Governor of Taraba State, was elected to office in 2015. He was born in Lupwe in present Ussa Local Government Area of Taraba State on 30th July 1954 to the family of Mr. and Mrs. Naomi and Ishaku Istifanus. In the area of community service and health care, His Excellency has been passionate and committed. This was affirmed through the support and collaboration with TY Danjuma Foundation and Development Africa to reduce infant mortality in the State and improve maternal health in rural areas. For this purpose, the Taraba State Government provided the land for the Rufkatu Danjuma Maternity, sponsored a laboratory, donated a keke ambulance, seconded State medical personnel, provided four additional accommodation units for doctors and medical personnel at the RDM, and sponsored a tennis court as part of a recreational facility to encourage medical personnel from across Nigeria to serve at the hospital.

Hon. Dr. Osagie Emmanuel Ehanire

Dr. Osagie E. Ehanire is the Minister of Health of Nigeria, a Specialist in General Surgery and Orthopaedic Trauma Surgery. He attended Ludwig Maximillians University of Munich in Germany and Medical Residency in North Rhine.

He also holds a Diploma in Anaesthetics from Royal College of Surgeons Ireland. Dr. Ehanire worked with University of Benin Teaching Hospital, Benin City Nigeria, with Shell Petroleum Development Company of Nigeria as Divisional Surgeon at the Company Hospital in Warri, (Niger-Delta) Nigeria, and as a private Consultant Trauma Surgeon. He was appointed to President Buhari’s cabinet as Nigeria’s Minister of State for Health in 2015 and to the President’s second cabinet in 2019 as Minister of Health.

Dr. Ehanire was a Founding Trustee of the TY Danjuma Foundation and served on the Board from 2009 to 2021. He is passionate about advancing Universal Health Coverage and Emergency Medical Services.

Dr. Osagie Emmanuel Ehanire
Nigeria is a 'country of the young' with almost half the 180 million - strong population – 46% – currently under the age of 15. The current total for children under the age of 5 stands at nearly 31 million while each year at least 7 million babies are born. While a little over one in three of Nigeria's population lives below the poverty line, among children this proportion surges to 75%.1

From its inception in December 2017, the team at the Ruffatu Danjuma Maternity and the recently opened Kuru Danjuma Hospital for Children have been working together to make each stage as positive an experience as it can be, ensuring that both mothers and their children are safe, healthy, and well cared for.

1https://www.unicef.org/nigeria/situation-women-and-children-nigeria

INTRODUCTION

DECEMBER 2020 - NOVEMBER 2021
YEAR 4 STATISTICAL OVERVIEW

- New Patient Registrations: 2,432
- Outpatient Consultations: 5,342
- Inpatient Admissions: 1,236
- Ultrasound Scans: 1,111
- Deliveries in Total: 299
- Sets of twins/triplets delivered: 17
- Deliveries Caesarean: 179
- Surgical Procedures (other): 260
- Immunisations Given: 5,880
- Laboratory Tests: 17,257
- EMT Ambulance Journeys: 823
Throughout the past year, the Rufkatu Danjuma Maternity (RDM) and the Kuru Danjuma Hospital for Children (KDHC) have provided exceptional maternity and paediatric care and services to the people of Takum and its environs.

In 2021, the economic effects of the Covid pandemic continued to mount globally and in Nigeria. Inflation and resultant price increases have created additional hardship as many of Nigeria’s population have struggled with lack of resources to afford quality medicine and medical treatment. Ability to access good health care has been a struggle for many all over Nigeria. Throughout the challenges, the RDM and KDHC doctors, nurses and staff have worked diligently to provide stable and accessible services for all members of the community, regardless of their financial struggles, while ensuring that each patient was kept safe while in their care.

The RDM and the KDHC received a steady stream of patients throughout 2021 and between December 2020 and November 2021, 2,432 new patients registered at the RDM and KDHC, bringing the total number of registered patients to 9,016.
The RDM/KDHC is run by an 82-person team of doctors, paediatrician, surgeon, midwives, nurses, sonographer, laboratory scientist and technicians, administrative, cleaners and gardeners to handle the property as well as a dedicated crew of security to make sure that everyone is safe. In addition, a consultant Obstetrician/Gynaecologist, Medical Officer, and other nursing staff have been seconded to the RDM/KDHC from the Taraba State Ministry of Health.

As the RDM/KDHC is equipped with high-quality medical equipment, the medical team have the tools they need to provide efficient, effective, and quality health care services to the patients.

With the addition of the new Laboratory building, complete with a fully equipped laboratory and blood bank, the RDM/KDHC investigates medical conditions as well as provides full blood supply/storage services on the premises. This further elevates the hospital’s capacity to provide optimal and comprehensive maternal, infant and paediatric medical care for the region.
The hospital facilities are open every day, including weekends and public holidays. It is open 24-hours and attends to outpatients, inpatients and emergencies that are related to pregnant women and children.

- Outpatient Clinic: open 24 hours
- Child Outpatient Clinic: open 24 hours
- Antenatal Care and Training: Training is on Tuesdays and Thursdays
- Immunisation Service: Wednesdays
- Ultrasound Services: Mondays to Saturdays
- Medical and Surgical Emergencies: 24 hours
- Deliveries: open 24 hours
- In-house Admissions: open 24 hours
- Laboratory Investigations: open 24 hours
- Emergency Mobile Transport (EMT) keke ambulance services

Three Emergency Mobile Transport (EMT) keke ambulances transport patients to the hospital; these patients may be women in labour or very ill patients who are otherwise unable to move. These vehicles also transport patients who are weak but otherwise fit for discharge from hospital to their homes. 823 trips were made using the keke ambulances from December 2020 to November 2021.

<table>
<thead>
<tr>
<th>Emergency Mobile Transport</th>
<th>Total: 823</th>
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<tr>
<td>Journeys (OPEN 24 HOURS)</td>
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<td>Dec -20</td>
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<td>Jan -21</td>
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<td>Feb -21</td>
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<td>Nov -21</td>
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The delivery teams of doctors and midwives are available at all hours of the day, rapidly and appropriately responding to changes in the clinical states of those admitted to the wards and delivery suites. Emergency surgical interventions including caesarean sections, are used where necessary to ensure the best outcome for the mother and the newborn.

From December 2020 to November 2021 the medical staff successfully delivered seventeen (17) sets of twins. Although multiple gestations are considered high risk pregnancies, all 34 babies were born alive, were successfully resuscitated, and they and their mothers remain alive and well. In addition to the twins, there were 478 singleton new-borns during the same period making it a total of 512 babies born at the RDM in between December 2020 and November 2021.

The RDM infant care is front and centre of the thoughts of the RDM staff. Members of the staff ensure that the pregnant mothers who visit the facility get the best care and counselling possible using the most appropriate personnel and technology.

While the maternal and neonatal care provided to patients by the Rufkatu Danjuma Maternity play a vital role in reducing child mortality and in providing children with a stable and healthy start in life, sustained paediatric and child healthcare beyond the neonatal period is essential for the children’s continued well-being. The Kuru Danjuma Hospital for Children encourages the efficient transfer of care from the neonatal phase to the paediatric phase through providing quality healthcare for children from infancy all the way to late adolescence. The paediatric services cover all manner of treatment from common childhood ailments to surgical and emergency intervention. The addition of the KDHC services in 2021 has increased trust and confidence in the expanded facility on the part of mothers and other family members as they can return to the same location for attention from pregnancy to neonate care, to paediatric services. This has encouraged consistent and sustained care throughout the vulnerable years of their children’s development.
Before the establishment of the RDM, women who had preterm babies either ultimately lost them, or had to go to Jalingo to get care to keep them alive - if the babies survived the 4- to 5-hour long trip to the state capital. Initially, the clinical team at the RDM worked in the absence of incubators to keep these babies alive, with great success stories, including the preservation of a baby who was born at 26 weeks and who was eventually discharged to the family in good health.

In 2021, the RDM received two brand new incubators sponsored by the TY Danjuma Foundation. The incubators significantly help with the care of our preterm or high-risk newborns and it has become easier to nurse babies who are born several weeks before their due date. Children admitted to the incubator can be monitored in real time, with the machines taking different clinical progress data from them and making these data immediately available to the healthcare team. Our doctors and nurses use the information to better tailor their care to the specific needs of each patient. The use of these machines in obtaining vital information about these patients has also made it possible for the clinical staff to devote more time and attention to the coverage of other areas of care that the machines are not designed to cover, such as labwork and intermittent feeds. Most importantly for the babies, the incubators provide an environment in which they can thrive, with the temperature, humidity, and other parameters artificially regulated to give them an environment that replicates the natural intrauterine environment as closely as possible. This ensures that they are able to make the transition from intrauterine to extrauterine life as seamlessly as possible. This has resulted in more of our patients being able to have their children stay alive, even if the babies have come a little (or a lot) early.
Immunisation continues to play a big role in providing a better life for children at the RDM/KDHC. With the new hall provided for vaccinations, many more mothers can be accommodated when they bring their children to the facility for vaccinations against various diseases. Working in collaboration with the government immunisation team, in the fourth year in operation a total of 5,880 vaccinations were given. These services are provided free of charge to all attendees and even to patients who are not registered at the RDM/KDHC.

Globally, pregnancy and childbirth are significant events for women and their families even though they represent a period of heightened vulnerability for both women and their unborn babies. Every day, preventable causes related to pregnancy and childbirth lead to the deaths of over 800 women, with 99% of these maternal deaths occurring in low and lower middle-income countries. As part of reproductive healthcare, antenatal care (ANC) presents a unique and lifesaving opportunity for health promotion, disease prevention, early diagnosis, and treatment of illnesses in pregnancy using evidence-based practices. To ensure optimum care, the World Health Organisation recommends that every pregnant woman should have a minimum of eight ANC visits throughout the pregnancy with the first visit occurring in the first trimester of pregnancy. 

The staff at the RDM/KDHC work hard to provide the necessary measures to ensure that the expectant mothers see the importance of visiting the RDM/KDHC for regular check-ups and attend antenatal check-ups. The antenatal education provided to RDM patients delivers information on subjects such as good hygiene, dietary habits and healthy nutrition during pregnancy, postpartum recovery, exclusive breastfeeding, adequate rest and work management, multiple infant care for twins and triplets, pregnancy and foetal danger signs, pregnancy complications, signs of labour, etc.

Comprehensive antenatal care and education teach mothers what to expect during pregnancy and delivery, and potential signs of distress or complications. This knowledge plays an important role in preventing complications that could arise from delayed presentation to the hospital when in labour or if problems arise during pregnancy.
The RDM/KDHC laboratory in its expanded capacity can quickly detect and therefore properly manage a wide range of clinical conditions. The 24-hour services provided by the laboratory include haematological tests such as complete blood count, blood grouping and crossmatching, genotype testing, and clinical chemistry tests like renal function tests, liver function tests, tests of lipid metabolism, etc. Microbiological testing including culture and sensitivity studies are also carried out. The appropriate use of modern machinery and technology, and frequent quality control checks help to ensure that the testing methods are error-free and results obtained are as accurate as possible. Simultaneously, these tests continue to be provided at minimal cost, ensuring that all users of the facility have access to comprehensive healthcare in optimal conditions.

Since the commencement of operations at the laboratory, 42,857 non-imaging tests have been performed, with the largest number of these tests (11.97%) being HIV tests. Similar proportions have been noted for VDRL, anti-HCV, and HBsAg tests.
Nigeria’s 40 million women of childbearing age (between 15 and 49 years of age) suffer a disproportionately high level of health issues surrounding birth. While the country represents 2.4% of the world’s population, it currently contributes 10% of global deaths for pregnant mothers. Latest figures show a maternal mortality rate of 576 per 100,000 live births, the fourth highest on Earth. Infant mortality currently stands at 69 per 1,000 live births while for under-fives it rises to 128 per 1,000 live births. More than half of the under-five deaths – 64% – result from malaria, pneumonia or diarrhoea. Investment in this sector has been high in recent years although the proportion of patients able to access appropriate treatment remains low.²

**HUMAN INTEREST STORIES**

**Mrs Nwaniji Aisha Timothy**

Mrs Nwaniji Aisha Timothy registered for antenatal care at the Rufkatu Danjuma Maternity at 20 weeks gestation. At the time, she was a 26-year old primigravida. The word "primigravida" means that this was her first pregnancy. Mrs Timothy herself is a physically challenged patient with numerous congenital skeletal deformities affecting her lower limbs and pelvic bones. This would ordinarily make it impossible for her to have children, and in any case would make a successful natural delivery impossible.

She had an uneventful pregnancy period under close monitoring and was subsequently counselled on the need for an elective caesarean section at 38 weeks gestation; this advice was given on account of her skeletal system problems which would make a natural delivery very risky and likely impossible.

The patient subsequently had a caesarean section and was delivered of a live female neonate with birth weight of 2.4kg. She and her baby had an uneventful postoperative period and were subsequently discharged from inpatient care five days later. Mother and baby are doing well.

**Emmanuelle Andesiw-Rimam**

Emmanuelle Andesiw-Rimam was a 7-month old child who was brought to the Kuru Danjuma Hospital for Children for complaints of frequent passage of watery stools, but who was actually a victim of one of the harmful cultural practices that we see occurring in the communities.

Per the history obtained from the parents, Emmanuelle Andesiw-Rimam had been passing watery stools for two weeks and in that time, her parents had been placing her buttocks in hot water to try to control the diarrhoea. By the time they presented to the hospital, the child had sustained mixed thickness burns and extensive perineal ulcers involving the anus and the labia majora. There anal sphincters had also been damaged and the child was at risk for overwhelming infection and severe dehydration.

Although the gravity of the skin and underlying tissue trauma was apparent, it was clear that infection and dehydration were a clear and present danger to her life. Therefore, she was resuscitated with fluid infusions and blood transfusions, and was also placed on antibiotics, intensive wound care, and close surveillance. Meanwhile, we impressed upon the parents the importance of shunning harmful traditional practices that put children’s lives at risk and pose a great danger to society.

Eventually, her clinical condition stabilized and now, months later, Emmanuelle Andesiw-Rimam is back to being an active, cheerful girl with a now completely healed perineal scar being a constant reminder to her parents why these kinds of practices should never happen again.
Baby Luka Wanderimam

Our centre is known for the care of not just the seemingly ‘big’ babies, but also the ‘very tiny’ ones. Baby Luka was one of those very tiny ones. She was delivered to a 27yr old un-booked woman at 31 weeks gestational age, or 7 months pregnancy (‘un-booked’ here means that the mother did not attend Antenatal Care for the pregnancy, and as such is prone to more pregnancy/childbirth challenges as compared to her booked counterparts).

The mother presented with vaginal bleeding on account of major placenta previa, which was revealed using an ultrasound scan following admission. A placenta is said to be previa when it is attached to the lower segment of the uterus, with implications for mode of childbirth. Although the initial plan was to defer the delivery for 2 weeks to allow some more time for foetal maturity, the bleeding resumed three days on admission, necessitating an emergency caesarean section. During surgery, the baby was extracted limp and unable to cry. The obstetric team promptly set to work successfully resuscitating and stabilising her. Luka was very tiny, with birth weight of 1.2kg, which came with some special demands: a befitting environment (incubator), keeping warm, ensuring oxygenation, preventing infections, and ensuring proper feeding. The presence of the incubator made it easier to manage her with minimal handling thereby reducing the risk of infection. While on admission in the incubator, she received antibiotics, supplements, fluids, and feeds via a tube.

Eventually, she was successfully weaned off the incubator. The availability of the neonatal incubators in the facility has so far transformed the care of the ‘very tiny’ ones from being a herculean task to being something along the lines of a walk in the park. The incubators help perform numerous functions, including especially helping to regulate the temperature and relative humidity of the immediate environment for our preterm newborns. Other vital functions include the monitoring of essential parameters, like the weight (and weight gain), and plotting temperature trends.

The 2021 TYDF outreach on Glaucoma Intervention was a follow-up on the work done the previous year. The outreach for this year held from 9-10 April 2021 and 83 people being managed for glaucoma were attended to. The intervening team comprised of consultant ophthalmologists and specialized nurses from the University of Nigeria Teaching Hospital, Enugu alongside our medical team within the facility.

The event began with a health talk on the essence of Eye Care and impacts of glaucoma on livelihood. Subsequently, all participants underwent a clinical ocular examination (including tonometry). Thereafter, those whose conditions necessitated medications were prescribed the required medications. The prescribed medications were then administered/issued to the patients. Thereafter, the people were encouraged to maintain healthy living and adhere to follow up visits.

In 2021, the T.Y. Danjuma Foundation and Development Africa met with community representatives to discuss community engagement, to listen to their suggestions, and answer questions pertaining to RDM/KDHC procedures. Several changes to procedures and new initiatives were enacted due to community recommendations, such as a joint outreach programme between community leaders and RDM/KDHC staff to sensitize community members on recommended medical procedures and practices that differ from cultural/traditional practices, the appointment of female security guards to more sensitively enforce security protocols for female visitors to the hospital complex, and stricter safety protocols for visitors and visiting hours to the wards.
STAFF TRAINING

To provide the best medical care, staff at the RDM and KDHC undergo frequent training to update their knowledge on global improvements in the areas of specialized obstetric, neonatal, and paediatric care.

In 2021, staff were trained on the following subject areas:
- Management of Life-Threatening Emergencies
- Management of Bronchopneumonia in Infancy
- Managing Workplace Interpersonal Tensions and Conflicts
- Management of the Preterm VLBW Neonate
- Blood Transfusions in a Maternity: Indications and Precautions
- The Place of Cloud Storage in Management of Patients’ Records
- Customer Relations: Handling Uncooperative Patients and Relatives
- Customer Relations: Communicating Fees to Patients
- Incubator use in preserving lives of preterm babies
- SCBU: Minimizing nosocomial infections in the special Care Baby Unit

MEDICAL INTERNSHIPS

The RDM and KDHC are active participants in the teaching of the next generation of medical professionals in Taraba State and Nigeria through the provision of internship opportunities ranging from two weeks to six months, to students of relevant subjects from the College of Health Technology, Takum. In 2021 the RDM/KDHC provided internship opportunities for 21 students on two-month rotations.

The internship opportunity provides a hands-on experience for the students in the management of patients as they observe all steps of hospital-patient interactions, from when they present, either to the Emergency Room or to the Outpatient Unit, to the taking of vital signs and the provision of emergency resuscitative measures, the conduct of certain laboratory investigations, and the care of admitted patients on the wards.

The interns are encouraged to ask questions about concepts that they see in practice as they attend sessions. The training provided during these internship sessions allows them to see in practice many of the concepts that they have been taught in class but for which they have hitherto not found real-world applications. Feedback we have received from those who have passed through the internship programme is that, because of their time spent at the RDM/KDHC, they return to their studies with a clearer insight into their subject matter and are therefore better motivated as they continue their respective courses of study.
The staff have been enjoying the recreational facilities that were set up a year ago, sponsored by the T. Y. Danjuma Foundation and Taraba State Government. The equipment and facilities have proved invaluable in promoting the mental and physical well-being of hospital staff. These new facilities include a staff hall and canteen, a fully equipped gym and staff lounge, and a full-sized tennis court.

In July 2021, a tennis coach came from Jalingo and held a five-day tennis camp for RDM/KDHC staff, that was scheduled around their regular shifts in order to maximize participation without impacting productivity.

Management of medical waste is a critical issue in most hospitals that face the challenge of safely disposing large quantities of pathogenic waste. To counter this challenge, incineration is one of the most viable and sustainable options, and the new incinerator installed at the RDM/KDHC that is fired up a few times a week, has eradicated the issue with medical waste and provides a sustainable method for safe disposal.

The renewable energy system continues to run smoothly. Between December 2020 and November 2021, it provided the RDM/KDHC with 73.95MWh of solar power. During the same period, the RDM/KDHC complex consumed 84.91MWh power in total. This means that the RDM/KDHC derived 87% of its power from renewable (solar) energy, resulting in minimum generator usage, reduced costs, and a greatly reduced environmental impact.
PROJECT OF:

TY DANJUMA FOUNDATION

COLLABORATION WITH:

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