

A REPORT ON
STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME
(SIWES)

UNDERTAKEN AT
DOVE DIAGNOTIC CENTRE, IRE AKARI
MOWE OGUN STATE

IN
DEPARTMENT OF NUTRITION AND DIETETICS FROM
AUGUST TO DECEMBER, 2024

BY
MATRIC NO: ND/23/NAD/PT/0008

CERTIFICATION

This is to certify that this report was compiled by **OGUNTAYO SHERIFAH OMOWUMI**, a student of the Department of Nutrition and Dietetics, FACULTY OF APPLIED SCIENCE, KWARA STATE POLYTECHNIC, ILORIN, KWARA STATE, NIGERIA on completion of the Student Industrial Work Experience Scheme (SIWES).

SIWES COORDINATOR

SIGNATURE/DATE

HEAD OF DEPARTMENT

SIGNATURE/DATE

DEDICATION

This report is dedicated to Almighty Allah, my beloved parents Mr. and Mrs. Oguntayo, my brother, Oguntayo Tajudeen; My Husband, Mr. Adeleke Sodiq and my course mates for their supports. May Almighty Allah continue to bless them and uphold them all.

ACKNOWLEDGEMENT

Glory be to Almighty Allah, the most gracious, the most merciful for his guidance and protection on me throughout my SIWES program. I am indeed grateful to the entire staff of Nutrition and Dietetics of Dove Diagnostic Centre, Ire Akari Mowe Ogun State for their motherly, fatherly care throughout my training. Sometimes there was need for them to be strict, it was all for our goodness, a way of bringing out the better individual in us.

SIWES OVERVIEW

The Federal Government of Nigeria introduced the students industrial work experience scheme (SIWES) in 1973. This program was an acceptance skill acquisition which forms part of the approved minimum academics standard in the various degree programs for all the Nigerian polytechnics. Industrial training usually expose students to equipment, professional work methods, ways of safeguarding the work areas and workers in the industries and other organization.

The minimum duration for SIWES should normally be 24 weeks. The scheme is a tripartite program involving students, the polytechnic and the industry. It was founded by the federal government of Nigeria and jointly coordinated by the Industrial Training Fund (ITF), NBTE and the National Universities Commission (NUC).

My Student Industrial Work Experience (SIWES) was held at Dove Diagnostic Centre, Ire Akari Mowe Ogun State. General introduction to all staff and already present trainees from various schools was carried out on my first day of resumption which was on 5th of August 2024. I worked at nutrition and dietetics, record, immunization and triage department of the organization which forms the basis of this report.

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CHAPTER ONE

INTRODUCTION

1.1 Background of SIWES

Nutrition and dietetics play a fundamental role in human health, influencing overall well-being, disease prevention, and management. Proper nutrition is essential for growth, development, immune function, and recovery from illnesses. The increasing prevalence of nutrition-related diseases such as obesity, diabetes, cardiovascular diseases, and malnutrition has heightened the need for professional dietary interventions. The study of nutrition and dietetics equips individuals with the knowledge and skills required to provide scientifically backed dietary recommendations, create meal plans tailored to specific health conditions, and educate the public on the importance of proper nutrition.

Over the years, the field of nutrition and dietetics has evolved significantly, driven by advancements in research, technology, and a deeper understanding of the relationship between food and health. Scientific studies have consistently demonstrated that poor dietary habits contribute to the development of chronic diseases, while a well-balanced diet can help prevent and manage various health conditions. The role of nutritionists and dietitians has therefore become increasingly vital in healthcare systems, with their expertise sought after in hospitals, clinics, diagnostic centers, fitness centers, and public health institutions.

The importance of nutrition extends beyond individual health, influencing societal and economic factors. Malnutrition, both undernutrition and overnutrition, has profound effects on productivity, cognitive development, and the economic stability of nations. Poor nutrition in early childhood, for example, has been linked to stunted growth, reduced cognitive function, and increased susceptibility to infections. On the other hand, excessive consumption of

unhealthy foods has led to a rise in obesity and associated metabolic disorders, placing a significant burden on healthcare systems. Addressing these challenges requires a multi-faceted approach, including public health initiatives, nutrition education, and the integration of dietetics into mainstream medical practice.

The study of human nutrition encompasses various aspects, including macronutrient and micronutrient requirements, dietary guidelines, metabolism, food science, and meal planning. Macronutrients—carbohydrates, proteins, and fats—serve as the body's primary sources of energy and are essential for growth and maintenance. Micronutrients, including vitamins and minerals, play critical roles in enzymatic reactions, immune function, and overall cellular health. Understanding these components enables nutritionists and dietitians to assess dietary intake, identify deficiencies, and develop appropriate interventions to improve nutritional status.

One of the major concerns in modern healthcare is the increasing prevalence of non-communicable diseases (NCDs) linked to poor dietary habits. Diseases such as hypertension, type 2 diabetes, and heart disease are often the result of unhealthy food choices, sedentary lifestyles, and genetic predisposition. Research has shown that dietary modifications, such as reducing salt and sugar intake, increasing fiber consumption, and incorporating nutrient-dense foods, can significantly lower the risk of developing these conditions. Nutritionists and dietitians play a crucial role in formulating personalized dietary plans that cater to individuals' specific health needs, thereby contributing to disease prevention and management.

Beyond clinical applications, nutrition and dietetics are essential in community health programs aimed at addressing food insecurity, malnutrition, and public health concerns. In many developing regions, micronutrient deficiencies remain a pressing issue, with conditions such as iron-deficiency anemia, vitamin A deficiency, and iodine deficiency disorders affecting millions of people. Nutrition

professionals are instrumental in designing and implementing interventions to combat these deficiencies, including food fortification programs, nutrition education campaigns, and supplementation initiatives. Their expertise ensures that populations receive adequate nutrients to support healthy growth and development.

The relationship between food and health is also influenced by cultural, social, and economic factors. Dietary patterns vary widely across different regions, shaped by traditions, food availability, and economic conditions. While some cultures emphasize plant-based diets rich in fiber and antioxidants, others rely heavily on processed foods high in saturated fats and sugars. Understanding these cultural influences is essential in developing nutrition interventions that are both effective and culturally appropriate. Nutritionists must consider these factors when advising individuals and communities, ensuring that dietary recommendations align with cultural preferences and socioeconomic realities.

Technological advancements have further transformed the field of nutrition and dietetics, enabling more precise dietary assessments and personalized nutrition plans. The development of digital tools, such as mobile nutrition apps, wearable devices, and advanced laboratory techniques, has made it easier to monitor dietary intake, analyze nutritional status, and track health progress. These innovations have enhanced the ability of nutritionists and dietitians to provide evidence-based recommendations and improve patient outcomes. Additionally, research in nutrigenomics—the study of how genes interact with nutrients—has opened new possibilities for personalized nutrition, allowing dietary plans to be tailored to an individual's genetic makeup.

Education and awareness are key components of effective nutrition and dietetics practice. Many health conditions related to poor diet can be prevented through proper education on healthy eating habits, portion control, and the benefits of a balanced diet. Public health campaigns, school nutrition programs, and workplace

wellness initiatives have been instrumental in promoting healthier lifestyles. By providing individuals with the knowledge and resources needed to make informed food choices, nutrition professionals contribute to long-term health improvements at both individual and community levels.

Food safety is another critical aspect of nutrition and dietetics, ensuring that food products are safe for consumption and free from contaminants. Foodborne illnesses, caused by bacteria, viruses, and chemical contaminants, pose significant health risks worldwide. Proper food handling, storage, and preparation techniques are essential in preventing these illnesses. Nutritionists and dietitians play a role in educating the public on food safety practices, working alongside regulatory agencies to enforce food safety standards, and conducting research to identify potential foodborne hazards.

The role of nutrition in maternal and child health is particularly important, as proper nutrition during pregnancy and early childhood sets the foundation for lifelong health. Pregnant women require increased nutrient intake to support fetal development, while infants and young children need adequate nourishment to achieve optimal growth and cognitive function. Malnutrition during these critical periods can have irreversible consequences, including developmental delays and increased susceptibility to diseases. Nutritionists and dietitians provide guidance on prenatal nutrition, breastfeeding, and complementary feeding to ensure that both mothers and children receive essential nutrients.

Dietary management is also a key component of recovery and rehabilitation for patients with medical conditions requiring specialized nutrition care. Patients undergoing surgery, chemotherapy, or treatment for chronic diseases often experience changes in metabolism and nutrient absorption. Clinical dietitians develop individualized nutrition plans that address these challenges, ensuring that patients receive adequate nutrients to support healing and recovery. The

integration of nutrition into medical treatment plans has been shown to improve patient outcomes, reduce hospital stays, and enhance quality of life.

Sports nutrition is another growing area within the field, focusing on optimizing dietary intake to enhance athletic performance and recovery. Athletes have unique nutritional needs based on their training intensity, body composition, and performance goals. Proper hydration, macronutrient balance, and timing of meals play crucial roles in maximizing energy levels and muscle recovery. Nutritionists working with athletes develop specialized meal plans that support endurance, strength, and overall physical fitness.

Sustainable nutrition is an emerging concept that highlights the need for dietary choices that are not only health-promoting but also environmentally sustainable. The increasing demand for food production has led to concerns about resource depletion, deforestation, and greenhouse gas emissions. Nutritionists and dietitians are now advocating for plant-based diets, locally sourced foods, and sustainable agricultural practices to reduce the environmental impact of food consumption. Educating the public on sustainable eating habits helps promote both human and planetary health.

The integration of nutrition and dietetics into various sectors, including healthcare, education, sports, and public policy, underscores its importance in modern society. As the field continues to evolve, there is a growing need for well-trained professionals who can address the diverse nutritional challenges faced by individuals and communities. By combining scientific research, technological advancements, and cultural understanding, nutritionists and dietitians can play a pivotal role in shaping healthier societies..

1.2 Objectives of SIWES

- To expose students to practical applications of classroom knowledge.

- To help students acquire technical skills and experience in their respective fields.
- To foster an understanding of workplace ethics and professional conduct.
- To bridge the gap between theory and practice in various professional fields.
- To develop students' problem-solving and decision-making abilities in real work settings.

The Student Industrial Work Experience Scheme (SIWES) is an essential component of technical and vocational education, designed to bridge the gap between theoretical knowledge acquired in classrooms and practical applications in real-world industries. It aims to equip students with hands-on experience, technical skills, and a deeper understanding of their chosen fields by exposing them to workplace settings, professional environments, and industry-specific challenges. Through structured training, SIWES enhances students' competence, prepares them for future careers, and contributes to the overall development of the workforce.

One of the primary objectives of SIWES is to provide students with practical exposure to industrial operations and work ethics. Many academic programs focus on theoretical knowledge, but without adequate exposure to real-world applications, students may struggle to integrate their learning into professional settings. By undergoing industrial training, students gain firsthand experience in their fields, observe industry standards, and develop practical problem-solving skills. This experience enables them to bridge the gap between academic knowledge and professional requirements, ensuring they are better prepared for the demands of the workforce.

SIWES also aims to enhance students' technical competencies by allowing them to apply classroom knowledge to real-life situations. Different disciplines require specialized skills that cannot be fully developed through theoretical instruction

alone. For example, engineering students need to understand machine operations, laboratory procedures, and design principles, while nutrition and dietetics students must familiarize themselves with food preparation techniques, dietary planning, and nutritional assessment tools. The hands-on experience gained during SIWES helps students develop the necessary technical expertise that will be beneficial in their careers.

SIWES also plays a crucial role in helping students make informed career decisions by allowing them to explore their fields of study in a practical setting. Many students enter their academic programs with theoretical knowledge but limited understanding of the daily realities of their professions. Industrial training helps students assess their interests, strengths, and areas for improvement, enabling them to refine their career goals. By experiencing different aspects of their fields, students can determine their preferred specializations and make more informed choices about their future professional paths.

One of the long-term objectives of SIWES is to strengthen the relationship between academic institutions and industries. Universities and polytechnics benefit from direct engagement with industries, allowing them to update curricula, align academic programs with industry needs, and enhance research collaborations. Through SIWES, institutions receive valuable feedback on students' performance, industry expectations, and areas where curriculum improvements are necessary. This continuous exchange of knowledge and expertise ensures that graduates are better prepared for the evolving demands of the workforce.

SIWES also promotes a culture of continuous learning and professional development. During industrial training, students are exposed to mentorship, professional development programs, and industry best practices. These experiences instill a lifelong commitment to learning, encouraging students to pursue further training, certifications, and professional development

opportunities after graduation. Continuous learning is essential in today's fast-changing world, and SIWES serves as an early foundation for this mindset.

In addition to technical and professional skills, SIWES helps students develop critical thinking, adaptability, and problem-solving abilities. Industrial environments often present challenges that require innovative solutions, and students are encouraged to think critically, adapt to new situations, and apply their knowledge effectively. These skills are essential for professional success, as employers seek individuals who can analyze complex problems, propose solutions, and demonstrate flexibility in dynamic work environments.

Moreover, SIWES serves as a platform for students to build professional networks and establish industry connections. During industrial training, students interact with professionals, supervisors, and fellow trainees who can provide guidance, mentorship, and future career opportunities. Establishing professional relationships during SIWES can lead to job placements, internship extensions, and recommendations for further studies or employment. Networking is a vital aspect of career growth, and SIWES provides students with early exposure to industry contacts that can benefit them in the long run.

SIWES also prepares students for the realities of the labor market by exposing them to job expectations, industry standards, and performance evaluations. Many students enter the workforce with limited knowledge of employer expectations, leading to challenges in securing and maintaining jobs. By participating in SIWES, students become familiar with performance metrics, work discipline, time management, and productivity expectations. This experience helps them transition smoothly into professional roles after graduation.

The integration of SIWES into academic programs also ensures that students meet graduation requirements and gain industry-recognized experience before entering the workforce. Many employers prioritize candidates with practical training, and

SIWES serves as an official record of students' industrial exposure. By completing SIWES, students enhance their resumes, demonstrate their industry experience, and increase their employability prospects.

1.3 Overview of Dove Diagnostic Centre

Dove Diagnostic Centre is a state-of-the-art medical facility dedicated to providing high-quality diagnostic and healthcare services to individuals, families, and communities. It is equipped with modern medical technologies and staffed by highly trained professionals committed to delivering accurate and timely diagnostic results. The facility plays a crucial role in preventive medicine, early disease detection, and the management of various health conditions by offering a wide range of medical tests and examinations.

The centre is designed to meet the growing demand for reliable diagnostic services, ensuring that patients receive the best possible care through advanced medical assessments. It provides essential support to physicians, specialists, and healthcare providers by offering precise diagnostic findings that aid in treatment planning. The facility is structured to accommodate various medical needs, including laboratory testing, imaging services, and specialized screenings that contribute to comprehensive healthcare delivery.

At the core of its operations, the centre is committed to maintaining high standards of accuracy, reliability, and efficiency in medical diagnostics. It employs cutting-edge technology and follows strict quality control measures to ensure that all test results meet international standards. The facility integrates automated systems and sophisticated diagnostic tools that enhance the precision of medical evaluations, making it a trusted choice for both patients and medical professionals.

The centre serves a diverse clientele, including individuals seeking routine medical checkups, patients with chronic conditions requiring ongoing

monitoring, and healthcare providers who rely on timely test results for effective treatment. It also caters to corporate organizations that require pre-employment medical screenings, health assessments for staff, and workplace wellness programs. By offering a wide spectrum of diagnostic services, the centre contributes significantly to public health and disease prevention efforts.

The laboratory department is a fundamental component of the centre, conducting various tests that range from basic blood analysis to complex molecular diagnostics. It is equipped with modern laboratory instruments that allow for rapid and accurate testing of samples. The laboratory professionals are trained to handle specimens with utmost care, ensuring that test results are not only precise but also delivered within the shortest possible time. This efficiency is particularly critical in cases requiring urgent medical intervention.

In addition to laboratory services, the imaging department is another key area that enhances diagnostic capabilities. The facility offers high-resolution imaging technologies such as X-ray, ultrasound, CT scans, and other radiological examinations. These imaging services assist healthcare providers in diagnosing internal medical conditions, detecting abnormalities, and monitoring disease progression. The integration of advanced imaging techniques allows for non-invasive assessments, minimizing discomfort for patients while providing essential insights into their health.

Nutrition and dietetics services form an essential part of the centre's healthcare offerings. This department is dedicated to promoting proper nutrition and dietary habits that contribute to overall well-being. Qualified nutritionists and dietitians provide individualized dietary counseling, meal planning, and nutritional therapy for patients with specific health conditions. The services are particularly beneficial for individuals managing diabetes, hypertension, obesity, and other lifestyle-related diseases that require dietary modifications.

The facility also prioritizes patient education, ensuring that individuals understand their health conditions, diagnostic results, and necessary lifestyle changes. Through counseling sessions and health awareness programs, the centre empowers patients with knowledge on disease prevention, nutrition, and healthy living. This holistic approach to healthcare extends beyond diagnostics, fostering a culture of wellness and proactive health management.

To enhance accessibility, the centre is strategically located in a well-connected area, making it convenient for patients to visit. The facility is designed to accommodate a high volume of clients while maintaining a comfortable and patient-friendly environment. The reception area is well-organized, ensuring smooth registration and minimal waiting times. Each section of the centre is structured to provide privacy, confidentiality, and ease of access for individuals seeking medical evaluations.

The professional team at the centre comprises medical laboratory scientists, radiologists, nutritionists, and administrative staff who work collaboratively to ensure seamless service delivery. Each department operates with a high level of coordination, allowing for efficient processing of diagnostic tests and timely communication of results. The staff is trained to adhere to ethical standards, ensuring that patient information is handled with the utmost confidentiality and professionalism. In response to technological advancements in healthcare, the centre continually upgrades its equipment and adopts innovative diagnostic techniques. Automation, digital record-keeping, and telemedicine integration are some of the advancements that improve service efficiency. The facility leverages digital platforms to streamline appointment scheduling, results retrieval, and medical consultations, providing a seamless experience for patients.

Quality assurance is a fundamental principle guiding the operations of the centre. Rigorous internal and external quality control measures are implemented to maintain the integrity of test results. The facility undergoes regular assessments

and accreditation processes to ensure compliance with industry regulations and best practices. By maintaining these standards, it builds trust among healthcare providers and patients who rely on its services. In addition to serving individual patients, the centre collaborates with hospitals, clinics, and healthcare institutions to provide specialized diagnostic support. Physicians and medical practitioners refer patients to the facility for advanced testing, ensuring comprehensive healthcare management. These partnerships strengthen the healthcare system by promoting accurate disease diagnosis, effective treatment planning, and improved patient outcomes.

Community engagement is another aspect that defines the centre's role in public health. Through health outreach programs, free screening initiatives, and community awareness campaigns, it extends its services beyond the confines of the facility. These programs focus on educating the public about common health issues, encouraging regular checkups, and advocating for early detection of diseases. Such initiatives contribute to the prevention and control of illnesses within the community. The centre also emphasizes continuous professional development for its staff, ensuring they stay updated with the latest trends and advancements in diagnostic medicine. Training sessions, workshops, and certification programs are regularly conducted to enhance the expertise of laboratory technicians, radiographers, nutritionists, and other healthcare personnel. This commitment to professional growth ensures that the facility remains at the forefront of medical diagnostics. Patient satisfaction is a priority, and the centre actively seeks feedback to improve its services. Mechanisms such as patient surveys, suggestion boxes, and follow-up consultations allow for continuous assessment of service quality. By addressing patient concerns and implementing necessary improvements, the facility ensures a positive healthcare experience for all clients.

The centre's operational structure is designed to maximize efficiency while maintaining high standards of care. Well-defined workflows, systematic procedures, and effective resource management contribute to smooth service delivery. The administrative team plays a crucial role in ensuring that all departments function cohesively, enhancing overall productivity. Emergency response preparedness is another key aspect of the centre's operations. In cases requiring urgent medical attention, the facility is equipped to handle emergency diagnostic procedures promptly. Collaboration with nearby hospitals and emergency medical services ensures that critical cases receive immediate intervention. This readiness to address urgent healthcare needs further solidifies its role as a trusted medical facility. Sustainability and environmental consciousness are integrated into the centre's operations. Waste disposal procedures adhere to environmental regulations, ensuring that medical waste is managed responsibly. Energy-efficient equipment, water conservation measures, and eco-friendly initiatives contribute to a sustainable healthcare environment. The facility recognizes the importance of environmental health in overall well-being and incorporates best practices in its operations.

Overall, the centre serves as a vital pillar in the healthcare system, providing essential diagnostic services that contribute to disease prevention, early detection, and effective medical management. With a strong commitment to accuracy, professionalism, and patient-centered care, it continues to play a significant role in improving health outcomes and advancing medical diagnostics.

CHAPTER TWO

DESCRIPTION OF THE ORGANIZATION

2.1 History and Background

Dove Diagnostic Centre was established as a response to the growing need for high-quality, accessible, and reliable diagnostic services in the healthcare sector. It was founded with the vision of providing state-of-the-art medical diagnostic solutions to individuals, healthcare institutions, and corporate organizations. The centre was created to bridge the gap in medical diagnostics by offering a wide range of laboratory, imaging, and nutritional assessment services that ensure early detection, effective treatment, and proper management of various health conditions. From its inception, the centre aimed to redefine diagnostic excellence by integrating modern technology, skilled professionals, and patient-centered services. It was built on a strong foundation of medical expertise, innovation, and dedication to quality healthcare. The founders envisioned a facility where patients could receive comprehensive diagnostic services with a high level of accuracy, speed, and efficiency. This vision led to the development of an institution that continues to set standards in the medical diagnostics field.

The centre's establishment was driven by the increasing demand for specialized diagnostic services that go beyond routine medical tests. In many healthcare settings, the absence of advanced diagnostic tools had long been a major challenge, leading to delays in diagnosis and treatment. Recognizing this gap, the founders sought to create a facility that would leverage cutting-edge technology to provide precise and timely diagnostic results. During its early years, the centre focused on setting up a robust infrastructure that could support a wide range of diagnostic procedures. Investments were made in acquiring modern laboratory equipment, high-resolution imaging devices, and advanced medical software to streamline operations. The recruitment of highly trained professionals, including

medical laboratory scientists, radiologists, nutritionists, and administrative staff, played a crucial role in establishing a strong foundation for the facility.

As the centre expanded, it continuously upgraded its services to meet the changing needs of the healthcare industry. New diagnostic techniques were introduced, allowing for more accurate and efficient testing. The incorporation of digital record-keeping, automated testing systems, and telemedicine consultations further improved service delivery. These advancements positioned the centre as a leading provider of diagnostic solutions in the region.

The facility's strategic location was carefully chosen to ensure accessibility to a wide range of patients. Situated in an area with good transportation links, the centre serves not only individual patients but also referrals from hospitals, clinics, and healthcare practitioners. This accessibility has made it a preferred destination for patients seeking reliable diagnostic services without the need to travel long distances. Over the years, the centre has expanded its scope of services to accommodate various medical needs. The laboratory department, which started with a few basic tests, has grown into a fully equipped diagnostic unit capable of handling complex medical investigations. The imaging department has also undergone significant development, incorporating advanced radiological techniques that enhance the accuracy of medical assessments.

Nutrition and dietetics services became an integral part of the centre's offerings as awareness about the role of nutrition in health management increased. Recognizing the importance of dietary habits in preventing and managing chronic diseases, the centre introduced specialized nutritional counseling programs. These programs help patients adopt healthier eating patterns, manage weight, and control conditions such as diabetes, hypertension, and cardiovascular diseases.

The centre has also been actively involved in community health initiatives, conducting medical outreach programs and free health screenings. These

initiatives aim to promote preventive healthcare and educate the public on the importance of regular checkups. Through partnerships with healthcare organizations, corporate bodies, and government agencies, the centre has played a key role in advancing public health awareness. Continuous professional development has been a priority at the centre, ensuring that staff members stay updated with the latest advancements in medical diagnostics. Regular training sessions, workshops, and certification programs are organized to enhance the skills and knowledge of healthcare professionals. This commitment to excellence has contributed to the centre's reputation as a trusted provider of diagnostic services.

With a strong emphasis on quality assurance, the centre has implemented strict protocols to ensure the accuracy and reliability of test results. Internal and external quality control measures are regularly conducted to maintain high standards in medical testing. The facility has also undergone accreditation processes, further validating its commitment to excellence in diagnostic healthcare. The centre's operational model is designed to prioritize patient convenience and satisfaction. Efficient appointment scheduling, minimal waiting times, and streamlined service delivery have been key factors in its success. Feedback mechanisms are in place to assess patient experiences and make continuous improvements. By maintaining a patient-focused approach, the centre has built lasting relationships with clients who trust its services. In addition to serving individual patients, the centre collaborates with healthcare institutions to provide diagnostic support. Hospitals, clinics, and specialist doctors rely on the facility's expertise to obtain accurate test results for their patients. This collaborative approach enhances the overall healthcare system by ensuring that medical professionals have access to reliable diagnostic data.

The adoption of digital healthcare solutions has further strengthened the centre's service delivery. Online appointment booking, electronic medical records, and

remote result access have made diagnostics more convenient for patients. These technological advancements reflect the centre's commitment to innovation and continuous improvement in healthcare services. Sustainability and environmental responsibility have also been key considerations in the centre's operations. Waste management protocols are strictly followed to ensure proper disposal of medical waste. Energy-efficient equipment and eco-friendly practices have been integrated into daily activities to minimize the environmental impact of diagnostic procedures.

As part of its long-term vision, the centre continues to explore opportunities for expansion and diversification. Plans are underway to introduce new diagnostic specialties, expand facilities, and enhance service offerings. By staying ahead of emerging trends in medical diagnostics, the centre aims to maintain its position as a leader in healthcare innovation. Throughout its history, the centre has remained committed to its core values of integrity, accuracy, efficiency, and patient care. These values guide every aspect of its operations, ensuring that patients receive the highest standard of diagnostic services. The dedication of its staff, the trust of its clients, and the support of the healthcare community have all contributed to its growth and success. Looking to the future, the centre is poised to make even greater contributions to the healthcare industry. Advancements in artificial intelligence, molecular diagnostics, and personalized medicine are expected to play a significant role in shaping the future of diagnostics. By embracing these innovations, the centre will continue to enhance its capabilities and provide even more precise and effective healthcare solutions.

2.2 DEPARTMENTS AND SERVICES

The hospital consists of several key departments, including:

2.2.1 NUTRITION DEPARTMENT (HANDLING CHILD NUTRITION AND DIETARY COUNSELING)

Proper nutrition is fundamental to the growth and development of children, as it plays a crucial role in their overall health and well-being. The focus on pediatric nutrition stems from the understanding that early dietary habits significantly impact a child's physical, cognitive, and immune system development. The Nutrition Department at the hospital serves as a pivotal unit dedicated to addressing the nutritional needs of children, ensuring that they receive the required nutrients for healthy growth. This department is instrumental in both preventive and curative healthcare, aiming to reduce malnutrition, promote healthy eating habits, and manage diet-related diseases.

One of the primary functions of this department is nutritional assessment. Every child admitted to the hospital undergoes a thorough evaluation to determine their nutritional status. This process includes measuring weight, height, body mass index (BMI), and other anthropometric parameters. These assessments help identify cases of malnutrition, undernutrition, or overnutrition, which can affect a child's growth and development. Malnutrition, whether in the form of protein-energy malnutrition or micronutrient deficiencies, remains a significant challenge among children, necessitating targeted interventions to address these issues effectively. Nutritional counseling is another vital component of the department's operations. Parents and caregivers are educated on the importance of proper nutrition and how to provide balanced meals for their children. Many cases of childhood malnutrition arise due to a lack of awareness about dietary requirements and poor feeding practices. Through counseling, caregivers are taught about appropriate weaning foods, food combinations, and the significance

of including essential nutrients such as proteins, vitamins, and minerals in their children's diets. The department also provides guidance on breastfeeding, emphasizing its benefits for infants in terms of immunity, digestion, and overall development.

Therapeutic nutrition is a specialized aspect of the department, focusing on children who require dietary interventions due to medical conditions. This includes children suffering from metabolic disorders, food allergies, gastrointestinal diseases, and chronic illnesses such as diabetes and kidney diseases. In such cases, nutritionists and dietitians develop personalized meal plans tailored to the specific needs of each child. These meal plans are designed to ensure that the child receives adequate nutrients while managing their medical condition effectively. The department works closely with pediatricians to ensure that dietary recommendations align with the child's overall treatment plan. Micronutrient supplementation is an essential strategy used by the department to combat deficiencies that are common among children. Many children suffer from deficiencies in iron, vitamin A, zinc, and iodine, which can lead to serious health complications. For example, iron deficiency can cause anemia, which affects cognitive function and energy levels, while vitamin A deficiency can lead to vision problems and increased susceptibility to infections. To address these deficiencies, the department administers supplements and educates parents on natural dietary sources of these essential nutrients.

The department also plays a critical role in managing severe acute malnutrition (SAM) and moderate acute malnutrition (MAM). Children suffering from SAM often require inpatient care, where they receive therapeutic feeding in the form of specially formulated nutrient-rich foods. These include ready-to-use therapeutic foods (RUTF), fortified milk-based formulas, and high-energy pastes designed to restore nutritional balance. For children with MAM, outpatient care is provided, where they receive nutrition support and regular monitoring to track their

progress. The department ensures that caregivers are trained on how to continue appropriate feeding practices at home to prevent relapses. Breastfeeding promotion is a key initiative within the department, recognizing the immense benefits of exclusive breastfeeding for infants during the first six months of life. Exclusive breastfeeding helps protect infants against infections, promotes healthy weight gain, and enhances brain development. However, many mothers face challenges in maintaining exclusive breastfeeding due to work obligations, lack of support, or misinformation. The department offers breastfeeding education, lactation support, and counseling to help mothers overcome these challenges. Lactation specialists guide mothers on proper breastfeeding techniques, address issues such as low milk supply, and provide solutions for common breastfeeding difficulties.

Weaning and complementary feeding programs are also emphasized, ensuring that children transition smoothly from exclusive breastfeeding to solid foods. Many caregivers struggle with introducing complementary foods, often providing inadequate or unbalanced meals. The department educates caregivers on appropriate weaning foods, meal timing, portion sizes, and food textures suitable for different age groups. Special attention is given to children at risk of malnutrition, ensuring that their complementary feeding meets their energy and nutrient needs. Food fortification programs are implemented to enhance the nutritional quality of commonly consumed foods. Fortified staples such as flour, cereals, and cooking oils help bridge the gap in micronutrient intake, particularly for children who have limited access to diverse diets. The department collaborates with public health initiatives to ensure that fortified foods are accessible and affordable for families. Additionally, the use of locally available, nutrient-rich foods is encouraged to promote sustainable and culturally appropriate dietary practices.

Education and community outreach are integral components of the department's efforts to improve child nutrition. Regular workshops, seminars, and campaigns are conducted to raise awareness about the importance of proper nutrition. These initiatives target mothers, caregivers, school teachers, and community health workers, empowering them with knowledge on child feeding practices. Community-based nutrition programs focus on early childhood nutrition, adolescent nutrition, and maternal nutrition, as the health of mothers directly impacts the nutritional status of their children. Collaboration with other hospital departments ensures a multidisciplinary approach to child nutrition. The department works closely with the immunization unit, recognizing the strong link between nutrition and immunity. Malnourished children are more vulnerable to infections, and ensuring adequate nutrition enhances the effectiveness of vaccines. Additionally, the department collaborates with the record unit for data collection and monitoring trends in child nutrition. Accurate data helps in identifying patterns of malnutrition and designing targeted interventions to address specific challenges.

The department also engages in research and innovation to improve pediatric nutrition. Studies on local food consumption patterns, nutritional deficiencies, and the impact of dietary interventions help in formulating evidence-based strategies. Research findings contribute to policy recommendations aimed at improving child nutrition at the community and national levels. The department actively participates in pilot programs testing new nutritional products, feeding techniques, and dietary supplementation approaches. Emergency nutrition response is a critical aspect of the department's work, particularly during periods of food insecurity, disease outbreaks, or natural disasters. In such situations, children are at heightened risk of malnutrition due to reduced access to food and healthcare. The department implements emergency nutrition interventions, distributing high-energy food supplements and providing urgent medical care for

malnourished children. Rapid assessment and response teams ensure that children in crisis situations receive immediate nutritional support.

Growth monitoring and nutritional surveillance are ongoing activities conducted to track the health status of children. Regular growth monitoring helps detect early signs of malnutrition, enabling timely intervention before conditions worsen. Parents receive feedback on their child's growth patterns, along with recommendations for improving their diet. The department uses this data to assess the overall nutritional trends within the population and adjust its programs accordingly. Nutritional rehabilitation programs focus on helping children recover from malnutrition and sustain healthy growth. Children who have experienced severe malnutrition require long-term support to prevent relapse. The department provides follow-up care, including periodic assessments, dietary modifications, and ongoing counseling for caregivers. Nutritional rehabilitation is often integrated with psychosocial support, recognizing that food insecurity and caregiving challenges contribute to malnutrition. As part of its future plans, the department aims to introduce advanced nutritional therapies, expand its outreach programs, and enhance research capabilities. There is a growing emphasis on integrating digital tools for dietary tracking, using mobile applications to help parents monitor their child's nutrition. Training programs for healthcare workers continue to be strengthened to ensure that nutrition remains a priority in pediatric healthcare. By staying committed to innovation and evidence-based strategies, the department continues to play a vital role in shaping the future of child nutrition and overall well-being.

2.2.2 IMMUNIZATION DEPARTMENT (ADMINISTERING VACCINES AND PREVENTING CHILDHOOD DISEASES)

Immunization is one of the most effective public health interventions designed to prevent infectious diseases, reduce child mortality, and promote long-term health. The immunization department plays a vital role in protecting children against vaccine-preventable diseases by ensuring timely vaccination, monitoring vaccine efficacy, educating caregivers, and implementing government-led immunization programs. Through structured immunization schedules and community outreach initiatives, the department significantly contributes to improving public health and enhancing the overall well-being of children. The department is responsible for administering vaccines to infants, toddlers, and young children according to national and international immunization guidelines. The immunization schedule typically includes vaccines for diseases such as tuberculosis, polio, diphtheria, pertussis, tetanus, hepatitis B, Haemophilus influenzae type B, measles, rubella, yellow fever, and pneumococcal infections. Each vaccine is carefully administered based on age-specific recommendations to provide optimal protection against infectious diseases. Vaccine storage and handling are critical aspects of the department's operations. Vaccines require proper storage conditions to maintain their potency and effectiveness. The immunization department is equipped with cold chain storage facilities, including refrigerators and freezers that maintain vaccines at the required temperature. The department follows strict guidelines to ensure that vaccines are stored, transported, and administered safely without compromising their efficacy. This includes regular temperature monitoring, proper stock rotation, and adherence to expiry dates to prevent wastage and maintain vaccine quality.

One of the major responsibilities of the department is conducting routine immunization services. These services are provided on designated days to ensure that all eligible children receive their vaccines according to schedule. Caregivers

are informed about the importance of timely immunization and the need to complete the full vaccine series to achieve maximum protection. Each child's immunization record is carefully maintained to track their progress and ensure follow-up for missed doses. Parents are encouraged to adhere to vaccination appointments to prevent delays that could compromise immunity. Outreach immunization programs are conducted to reach children in remote and underserved communities who may not have easy access to healthcare facilities. Mobile immunization teams are deployed to provide vaccinations in rural areas, marketplaces, schools, and community centers. These outreach programs help bridge the gap in immunization coverage, ensuring that every child, regardless of location or socioeconomic status, receives essential vaccines. Community mobilization efforts involve collaboration with local leaders, religious organizations, and non-governmental organizations to increase awareness and participation in immunization campaigns. Vaccine-preventable disease surveillance is another crucial function of the department. The team monitors the prevalence of vaccine-preventable diseases and reports suspected cases to health authorities. Surveillance activities include data collection, case investigations, and laboratory confirmations to track disease trends and assess the impact of immunization programs. If an outbreak is detected, the department works closely with health agencies to implement targeted vaccination campaigns, contain the spread of infections, and provide post-exposure prophylaxis when necessary.

Health education and advocacy play a significant role in promoting immunization uptake. The department organizes health talks, workshops, and informational sessions for caregivers, emphasizing the benefits of vaccination and addressing misconceptions. Misinformation about vaccines can lead to hesitancy and refusal, putting children at risk of preventable diseases. The department actively engages in public awareness campaigns to dispel myths, reinforce vaccine safety, and encourage parents to prioritize their children's immunization. Messages are

conveyed through various channels, including posters, radio broadcasts, community meetings, and social media platforms. Collaboration with maternal and child health services enhances the effectiveness of immunization efforts. The department works closely with antenatal and postnatal care units to ensure that newborns receive their first vaccines before leaving the hospital. Pregnant women are educated on the importance of immunization during pregnancy, particularly vaccines such as tetanus toxoid, which protects both mother and baby from neonatal tetanus. Integrating immunization with maternal and child healthcare services ensures a seamless continuum of care, improving vaccine coverage rates and overall child health outcomes.

Adverse event monitoring and management are essential to ensure vaccine safety and public confidence in immunization programs. While vaccines are generally safe, some children may experience mild side effects such as fever, swelling, or redness at the injection site. The department is trained to recognize and manage any adverse reactions that may occur. Parents are educated on common post-vaccination symptoms and advised on appropriate care. In rare cases of severe reactions, immediate medical attention is provided, and reports are submitted to the appropriate health authorities for investigation and necessary actions. The department also plays a key role in implementing special immunization campaigns, such as National Immunization Days (NIDs) and Supplementary Immunization Activities (SIAs). These campaigns are conducted to boost immunization coverage, especially for diseases such as polio and measles. Mass vaccination drives target large populations within a short period, ensuring that as many children as possible receive booster doses to strengthen herd immunity. These campaigns often involve door-to-door vaccination efforts, temporary immunization posts, and intensive community mobilization strategies.

Data management and record-keeping are integral to the success of the immunization department. Every vaccinated child's details, including name, date

of birth, vaccine received, and next scheduled dose, are recorded in immunization registers and electronic databases. This systematic documentation allows healthcare workers to track coverage rates, identify gaps, and plan effective immunization interventions. Data-driven decision-making enables the department to allocate resources efficiently, predict vaccine demand, and address challenges in vaccine delivery. Integration with global immunization initiatives helps align the department's efforts with international health goals. Collaborations with organizations such as the World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), and Gavi, the Vaccine Alliance, provide technical support, funding, and vaccine supply. These partnerships strengthen immunization programs, enhance disease control strategies, and contribute to global efforts to eradicate vaccine-preventable diseases.

Emergency response and outbreak control are crucial aspects of the department's work. In times of disease outbreaks, such as measles or meningitis epidemics, the department mobilizes rapid response teams to conduct mass immunization campaigns. Emergency vaccination efforts aim to contain the spread of infections, protect vulnerable populations, and prevent fatalities. The department coordinates closely with epidemiologists, public health officials, and healthcare providers to implement timely interventions and safeguard community health. Training and capacity building for healthcare workers ensure the sustainability of immunization programs. The department provides ongoing training for nurses, midwives, and vaccinators on vaccine administration techniques, cold chain management, adverse event monitoring, and effective communication with caregivers. Strengthening the skills and knowledge of healthcare personnel enhances service delivery, improves vaccine confidence, and ensures the success of immunization initiatives.

Research and innovation in immunization practices contribute to the continuous improvement of vaccine delivery. The department participates in studies on vaccine efficacy, immunization coverage, and community acceptance of vaccines. Findings from research inform policy decisions, optimize vaccination strategies, and address emerging challenges in immunization services. Innovations such as electronic immunization registries, mobile health applications, and new vaccine formulations help streamline immunization processes and enhance accessibility. The department's commitment to sustainability and long-term impact is reflected in its efforts to promote self-sufficient immunization systems. Strengthening local vaccine production, improving healthcare infrastructure, and advocating for government investment in immunization programs are key priorities. By fostering a culture of immunization awareness and ensuring continuous access to vaccines, the department contributes to building a healthier and more resilient society.

Looking ahead, the department plans to expand its reach, enhance digital record-keeping, and implement advanced immunization tracking systems. Future initiatives include introducing new vaccines, scaling up community engagement efforts, and leveraging technology to improve vaccine delivery. Through these strategic approaches, the immunization department remains dedicated to protecting children from preventable diseases and fostering a future where every child has access to life-saving vaccines.

2.2.3 RECORD DEPARTMENT (MAINTAINING PATIENT RECORDS AND DOCUMENTATION)

The record department plays a crucial role in the efficient operation of any healthcare institution. It serves as the backbone of hospital administration, ensuring that patient information is accurately documented, stored, and retrieved when needed. In a specialist hospital dedicated to children's healthcare, the importance of the record department is even more pronounced, as the department

is responsible for maintaining detailed medical histories, immunization records, growth monitoring data, and other essential health records of pediatric patients. One of the primary functions of the record department is patient registration. Whenever a new patient visits the hospital, the department is responsible for capturing and recording personal details, including the child's name, date of birth, gender, guardian's information, contact details, and medical history. This information forms the foundation of the patient's medical record and is essential for tracking their health progress over time. Returning patients have their records retrieved to ensure continuity of care. Efficient documentation of medical history is a critical task of the record department. The department ensures that every diagnosis, treatment, medication, immunization, and test result is accurately documented in each patient's medical file. This systematic approach helps healthcare providers track a child's medical journey, identify recurring health issues, and develop personalized treatment plans based on past medical data. The availability of comprehensive health records enables pediatricians to make informed clinical decisions and provide high-quality care.

Another vital function of the department is the management of hospital admission and discharge records. When a child is admitted to the hospital for treatment, the record department documents all necessary details, including the reason for admission, attending physician, treatment administered, and any surgical procedures performed. Upon discharge, the department ensures that discharge summaries are accurately recorded, detailing the patient's progress, prescribed medications, follow-up appointments, and post-discharge care instructions. These records are essential for both medical and administrative purposes, ensuring that healthcare providers and parents have access to relevant information about the child's hospitalization. The department is also responsible for maintaining outpatient records. Pediatric patients who visit the hospital for consultations, vaccinations, and routine check-ups require well-organized documentation of

each visit. The record department ensures that outpatient records are updated with relevant details, including vital signs, symptoms, diagnoses, prescribed medications, and recommended follow-up visits. Proper documentation of outpatient records enhances continuity of care, allowing doctors to review past consultations and assess the effectiveness of previous treatments. One of the key administrative responsibilities of the record department is the coding and classification of diseases and treatments. Hospitals follow internationally recognized coding systems, such as the International Classification of Diseases (ICD), to categorize medical conditions and treatments. Accurate coding is essential for statistical reporting, research, and billing processes. By assigning appropriate codes to diagnoses and procedures, the department ensures consistency in medical documentation and facilitates efficient data retrieval for healthcare analysis and policy development.

Confidentiality and security of medical records are paramount in the record department. Patient records contain sensitive personal and medical information that must be protected from unauthorized access. The department implements strict protocols to ensure data security, including restricted access to medical files, password-protected electronic records, and secure storage of physical documents.

2.2.4 TRIAGE DEPARTMENT (ASSESSING AND PRIORITIZING PATIENT CONDITIONS)

The triage department plays a critical role in the hospital by ensuring that patients receive timely and appropriate medical attention based on the severity of their condition. It is the first point of contact for patients arriving at the hospital, where trained healthcare personnel assess, prioritize, and direct cases to the appropriate units for further medical intervention. In a children's specialist hospital, the triage process is particularly crucial, as pediatric patients often require urgent and specialized care based on their age, symptoms, and medical history.

Upon arrival at the hospital, children and their guardians are received by triage nurses or medical personnel trained in assessing pediatric emergencies. The department follows a structured triage system to classify cases into categories based on urgency. Patients with life-threatening conditions, such as severe respiratory distress, high fever, convulsions, or unconsciousness, are given immediate priority and referred to the emergency unit without delay. Those with moderate conditions, such as dehydration, minor infections, or mild fever, are directed to the appropriate outpatient or specialist clinic for further evaluation. Stable patients with non-urgent conditions are provided with scheduled appointments or guided to the necessary department for routine care. Vital signs assessment is a fundamental aspect of the triage process. The department is responsible for measuring key physiological indicators, including body temperature, heart rate, respiratory rate, and blood pressure. These parameters help in determining the severity of the child's condition and guide healthcare professionals in making informed decisions about the next steps in medical care. Accurate measurement and interpretation of vital signs are essential for identifying children who require immediate stabilization or advanced medical intervention. Triage nurses are also responsible for conducting preliminary medical assessments. This involves gathering important information about the child's symptoms, medical history, allergies, previous hospital visits, and any ongoing medications. By obtaining a detailed medical history, the department ensures that healthcare providers have the necessary background to diagnose and treat the child effectively. Pediatric triage often requires specialized knowledge, as children may not be able to express their symptoms clearly, making it essential for healthcare workers to rely on clinical observations and input from parents or guardians. The triage department also plays a key role in managing pediatric emergencies. Children with conditions such as seizures, severe dehydration, respiratory distress, traumatic injuries, or allergic reactions require immediate attention. The department is equipped with emergency response protocols,

ensuring that life-saving interventions such as oxygen administration, intravenous fluid resuscitation, or airway management are initiated promptly. In critical cases, patients are stabilized before being transferred to the emergency or intensive care unit for specialized treatment.

Infection control is a major consideration in the triage department, particularly in a children's specialist hospital where patients are more vulnerable to contagious diseases. The department implements strict hygiene and sanitation protocols to minimize the spread of infections within the hospital environment. Children presenting with symptoms of infectious diseases, such as measles, tuberculosis, or respiratory infections, are identified early and isolated if necessary to prevent cross-contamination. Proper hand hygiene, sterilization of medical equipment, and adherence to personal protective measures are standard practices in the department. In addition to medical assessments, the triage department serves as an information hub for parents and guardians. Triage personnel educate caregivers on basic home care practices, the importance of follow-up visits, and when to seek emergency medical attention. Clear communication with parents is essential to ensure they understand the urgency of their child's condition and comply with medical advice. The department also provides guidance on hospital procedures, directing families to appropriate service points such as laboratory testing, pharmacy, or specialist consultations. Effective communication and teamwork are vital in the triage process. The department collaborates closely with other hospital units, including the emergency department, pediatric wards, and outpatient clinics, to ensure seamless patient flow. In cases where specialized treatment is required, triage personnel facilitate referrals to appropriate specialists or diagnostic departments. Coordination between healthcare teams ensures that patients receive timely and comprehensive care without unnecessary delays.

Documentation is a crucial function of the triage department. Every patient assessment, vital sign measurement, and triage decision is recorded in the

hospital's medical database or patient records. Accurate documentation enables healthcare providers to track a child's medical history, assess trends in patient presentations, and improve hospital efficiency. Electronic record-keeping systems have improved the speed and accuracy of data entry, allowing for real-time updates on patient conditions and referrals. Pediatric pain assessment is another important responsibility of the triage department. Unlike adults, children may not always be able to describe their pain accurately. Triage personnel use specialized pediatric pain assessment tools, such as the FLACC scale (Face, Legs, Activity, Cry, Consolability) or Wong-Baker FACES Pain Rating Scale, to determine the level of discomfort a child is experiencing.

Each department plays a vital role in ensuring quality healthcare delivery to children.

2.3 FUNCTION AND SERVICE

2.3.1 Function and Service of Nutrition Department

1. The nutrition department plays a fundamental role in promoting the health and well-being of pediatric patients in a specialized children's hospital. It is responsible for ensuring that children receive adequate and appropriate nutrition to support their growth, recovery from illnesses, and overall development. Nutrition is a key component of pediatric healthcare, as children require a balanced intake of essential nutrients for optimal physiological and cognitive function. The department provides a range of services, including dietary assessments, individualized meal planning, nutritional counseling, therapeutic diets, and specialized feeding programs for children with medical conditions.
2. One of the primary functions of the department is the assessment of children's nutritional status. Every child admitted to the hospital undergoes a thorough evaluation to determine their nutritional needs based on age,

weight, height, medical condition, and dietary history. The assessment process includes anthropometric measurements such as body weight, length or height, mid-upper arm circumference, and head circumference for infants. These measurements provide important indicators of malnutrition, undernutrition, stunting, or overweight issues. For critically ill children, additional biochemical tests may be conducted to assess nutrient deficiencies or metabolic imbalances.

3. Another critical function of the department is the formulation of individualized meal plans tailored to each child's health condition. Pediatric patients with specific medical needs require special dietary interventions to support their treatment and recovery. For example, children with gastrointestinal disorders may require easily digestible meals, while those with diabetes need carefully monitored carbohydrate intake. Children recovering from severe malnutrition are placed on high-caloric, nutrient-dense meal plans designed to promote weight gain and restore nutritional balance. The department ensures that every meal provided in the hospital meets the highest dietary standards while taking into account medical recommendations, cultural dietary preferences, and food safety protocols.
3. Therapeutic nutrition is another essential service provided by the department. Many pediatric conditions require medically supervised nutritional therapy to prevent complications and improve health outcomes. For instance, premature infants or low birth weight babies may need specialized feeding regimens, including fortified breast milk or formula designed to enhance growth. Children with severe food allergies or metabolic disorders require specialized dietary modifications to avoid triggering adverse reactions. In cases of malabsorption disorders, therapeutic diets are designed to include nutrient-rich alternatives to

compensate for deficiencies. The department works closely with pediatricians to ensure that therapeutic diets align with the overall treatment plans of patients.

4. The nutrition department also plays a crucial role in enteral and parenteral feeding support for children who are unable to consume food orally. Pediatric patients with conditions such as cleft palate, neurological disorders, or post-surgical complications may require tube feeding to receive adequate nutrition. Enteral feeding involves the administration of liquid nutrients directly into the stomach or small intestine through a nasogastric or gastrostomy tube. In severe cases where the digestive system cannot process food, parenteral nutrition is provided intravenously, ensuring that essential nutrients reach the bloodstream directly. The department is responsible for monitoring these feeding regimens, adjusting nutrient composition as needed, and preventing complications associated with long-term tube or intravenous feeding.
5. Nutritional counseling and education are key components of the department's services. Many childhood health conditions are linked to poor dietary habits, and parents often require guidance on proper nutrition for their children. The department provides educational programs for parents and caregivers, emphasizing the importance of balanced meals, breastfeeding, food hygiene, and age-appropriate feeding practices. Special counseling sessions are offered for parents of children with chronic illnesses, teaching them how to prepare and manage medically prescribed diets at home. The department also collaborates with community health initiatives to raise awareness about malnutrition, anemia, and other common pediatric nutritional challenges.

Overall, the nutrition department serves as an essential pillar of pediatric healthcare, addressing both immediate and long-term nutritional needs of

children. Its wide-ranging functions, from individualized meal planning to therapeutic feeding interventions, play a significant role in enhancing patient outcomes and promoting healthy development. Through collaboration with healthcare professionals, community outreach efforts, and ongoing research, the department remains committed to providing the highest level of nutritional care for children.

2.3.2 Function and Service of Immunization Department

1. A core function of the immunization department is the administration of vaccines to newborns, infants, and children. Immunization schedules are carefully planned based on medical research and public health recommendations to ensure that children receive necessary protection at different stages of development. Vaccines administered include those against measles, polio, tuberculosis, diphtheria, whooping cough, tetanus, hepatitis B, and pneumonia, among others. Each vaccine is designed to stimulate the child's immune system to recognize and fight specific pathogens, thereby preventing infections before they occur.
2. Proper vaccine storage and handling are essential responsibilities of the department. Vaccines are biological products that require specific temperature conditions to remain effective. The immunization unit ensures that vaccines are stored in refrigerators or cold chain storage facilities, maintaining the required temperature range. This prevents vaccine spoilage and guarantees the potency of each dose administered. Regular monitoring of temperature logs, proper handling of vials, and adherence to expiration dates are crucial tasks performed by healthcare workers in the department.
3. Education and counseling of parents and guardians form an integral part of the department's services. Many parents lack adequate knowledge about the importance of immunization, leading to vaccine hesitancy or missed

appointments. The department provides detailed information on the benefits of vaccines, possible side effects, and the importance of completing the immunization schedule. Health workers engage in one-on-one discussions with caregivers, addressing concerns, dispelling myths, and reinforcing the significance of vaccination in preventing severe childhood illnesses.

4. The immunization department also manages outreach programs to ensure that children in remote or underserved communities receive necessary vaccines. While many parents bring their children to the hospital for scheduled immunizations, some families face barriers such as distance, financial constraints, or lack of awareness. To bridge this gap, immunization teams conduct community-based vaccination campaigns, reaching infants and young children in rural areas, schools, and healthcare centers. Mobile clinics and vaccination drives are organized to ensure that no child is left unprotected due to logistical challenges.
5. The department actively participates in health promotion and advocacy campaigns aimed at increasing public awareness of the importance of vaccination. Health talks, media campaigns, community sensitization programs, and school-based vaccination awareness initiatives are conducted to encourage immunization uptake. By engaging with community leaders, educators, and parents, the department helps to combat vaccine misinformation and reinforce the role of immunization in disease prevention.

Overall, the immunization department plays a vital role in the hospital's public health initiatives by providing essential vaccines, educating caregivers, tracking immunization records, responding to disease outbreaks, and ensuring the overall well-being of pediatric patients. Its extensive services contribute significantly to reducing child mortality and morbidity, preventing the spread of infectious

diseases, and improving community health outcomes. By maintaining high vaccination coverage, the department supports the hospital's mission of delivering quality healthcare services and safeguarding the future of children through effective disease prevention measures.

2.3.3 Function and Service of Record Department

1. Functions of the record department is patient registration and documentation. Upon a patient's arrival at the hospital, their demographic information, medical history, and other relevant details are documented. This process involves capturing essential data such as the patient's name, date of birth, address, next of kin, medical history, and reason for visiting the hospital. Proper documentation ensures that each patient has a unique medical record that can be accessed whenever they seek medical care.
2. The department is also responsible for managing outpatient and inpatient records. Outpatient records are created for patients who visit the hospital for consultations, medical tests, or minor treatments without being admitted. These records contain details of diagnosis, prescribed medications, laboratory test results, and follow-up appointments. On the other hand, inpatient records document the entire treatment process of patients who are admitted for more extended medical care. These records include admission dates, treatment progress, surgical procedures, discharge summaries, and post-hospitalization care plans.
3. Another critical function of the record department is maintaining the accuracy and integrity of patient records. Ensuring that medical records are free from errors is essential for effective diagnosis and treatment. The department employs trained personnel who review records for completeness and correctness, ensuring that no critical information is omitted. Errors in documentation, such as incorrect medication history, can

have serious implications for patient care. Therefore, stringent quality control measures are implemented to guarantee the reliability of medical data.

4. Confidentiality and security of medical records are key responsibilities of the record department. Patient records contain sensitive information that must be protected against unauthorized access. The department enforces strict policies and procedures to ensure compliance with data protection regulations. Physical files are stored in secured areas with restricted access, while electronic records are protected with encryption and password authentication systems. Staff members handling medical records are trained on confidentiality protocols to prevent breaches of patient privacy.
5. The record department is responsible for managing the retention and disposal of medical records. While some records must be retained indefinitely due to their significance in patient care, others may have a specific retention period based on hospital policies and legal requirements. Once the retention period expires, outdated records are safely disposed of through shredding or digital deletion. Proper disposal methods ensure that patient confidentiality is maintained even after records are no longer needed.

2.3.4 Function and Service of Triage Department

1. Functions of the triage department is patient assessment. Upon arrival at the hospital, every patient undergoes a structured evaluation by trained healthcare professionals. This assessment involves collecting essential information, such as the patient's name, age, presenting complaint, medical history, and any known allergies. The initial evaluation enables the triage nurse to categorize patients based on the severity of their condition and assign them to the appropriate level of care.

2. The triage department plays a crucial role in prioritizing emergency cases. Since hospitals often experience high patient volumes, it is essential to determine which patients require immediate medical attention and which can wait for treatment. Patients with life-threatening conditions, such as severe trauma, heart attacks, strokes, or respiratory distress, are given top priority and are immediately referred to emergency medical teams. Less critical cases, such as mild infections, minor injuries, and routine consultations, are scheduled for later treatment based on availability.
3. Vital signs monitoring is a core responsibility of the triage department. Healthcare professionals measure and record key physiological indicators, including body temperature, heart rate, respiratory rate, and blood pressure. These vital signs provide crucial insights into the patient's overall health status and help determine the level of medical attention required. Abnormal readings, such as dangerously high or low blood pressure, rapid heart rate, or difficulty breathing, indicate the need for urgent intervention.
4. Another significant function of the triage department is the classification of patients based on the severity of their medical conditions. Many healthcare institutions use standardized triage systems, such as the five-level triage scale or color-coded categorization, to streamline patient assessment. These systems enable healthcare providers to allocate resources effectively and ensure that critically ill patients receive immediate care.
5. The triage department also serves as an information hub for patients and their families. Upon arrival, patients are informed about the expected waiting time, the process of medical evaluation, and the next steps in their treatment. In cases where patients require specialized medical attention, the triage team provides guidance on referrals to other departments or external healthcare facilities.

CHAPTER THREE

WORK DONE DURING MY SIWES PROGRAM

3.1 Nutrition Department

In the Nutrition Department, my responsibilities included:

- Assisting in the assessment of children's nutritional status using weight and height measurements.
- Educating parents and caregivers on proper child nutrition, including breastfeeding and complementary feeding.
- Participating in nutritional counseling sessions for malnourished children.
- Learning about food supplements provided to children suffering from malnutrition.
- Assisting in the preparation of dietary plans for children with special medical needs.

Through this experience, I gained insight into the importance of balanced diets in child growth and development. I also learned how malnutrition affects children's health and the role of proper nutrition in preventing diseases.

3.2 Immunization Department

In the Immunization Department, I was involved in:

- ✓ Assisting in the administration of routine childhood vaccines such as BCG, OPV, DPT, Measles, and Hepatitis B.
- ✓ Educating mothers and caregivers on the importance of immunization and vaccine schedules.
- ✓ Recording vaccine administration details and maintaining immunization registers.
- ✓ Assisting in the management of vaccine storage to ensure proper handling and effectiveness.

- ✓ Observing and learning how healthcare workers handle cases of adverse reactions to vaccines.

My time in this department gave me a better understanding of immunization as a preventive healthcare strategy. I learned how vaccines protect children from life-threatening diseases and the role of public health initiatives in disease prevention.

3.3 Record Department

In the Record Department, my duties included:

- ❖ Organizing and updating patient files for easy retrieval.
- ❖ Registering new patients and documenting their medical histories.
- ❖ Assisting in data entry and hospital record management.
- ❖ Observing how patient confidentiality is maintained.
- ❖ Learning how hospital records are used for research and medical decision-making.

This department exposed me to the importance of proper record-keeping in hospitals. I learned how medical records help track patient progress, improve hospital efficiency, and ensure quality healthcare delivery.

3.4 Triage Department

In the Triage Department, I was responsible for:

- Assisting in the initial assessment of incoming patients.
- Measuring vital signs such as temperature, pulse, and blood pressure.
- Helping to prioritize emergency cases based on severity.
- Learning how medical staff determine the urgency of different cases.
- Observing how healthcare workers handle emergency situations efficiently.

This department taught me the importance of quick and accurate patient assessment in medical emergencies. I learned how triage helps in prioritizing treatment, ensuring that critical patients receive urgent care.

3.5 PICTORIAL REPRESENTATION OF SOME LABORATORY EQUIPMENT USED IN NUTRITION UNIT, IMMUNIZATION UNIT, RECORD UNIT AND TRIAGE UNIT AND THEIR USES



Fig 1- Weighing scale

Uses

- i. Used to measure patients' weight, which is crucial for determining their nutritional status.
- ii. Weight measurements are used alongside height to determine BMI, which helps assess whether a person is underweight, normal weight, overweight, or obese.
- iii. Regular weight checks help track growth patterns in infants and children, ensuring they meet developmental milestones.



Fig 2- MUAC TAP

Uses

- i. MUAC is used to quickly assess malnutrition, especially in children under five, pregnant women, and lactating mothers. It helps identify individuals who are undernourished or at risk of malnutrition.
- ii. The tape has color-coded indicators (green, yellow, and red) that classify individuals as well-nourished (green), at risk of malnutrition (yellow), or severely malnourished (red).
- iii. Is used to track changes in arm circumference over time, helping to monitor recovery in malnourished patients undergoing nutritional interventions.



Fig 3- Lensometer

Uses

- i. Is used to measure the length of infants and young children to monitor their growth patterns and ensure they are developing appropriately.
- ii. Is used for Length measurements, combined with weight data, help in determining Weight-for-Length (WFL) or Height-for-Age (HFA) indices, which are used to assess undernutrition, stunting, or wasting.
- iii. It helps detect stunting (low height-for-age), a sign of chronic malnutrition, which is crucial for early intervention in children's health.



Fig 4- Vaccine Bottle

Uses

- i. Is used to safely store liquid vaccines, preserving their potency before administration. They are designed to maintain vaccine stability under recommended storage conditions.
- ii. It contain the vaccine doses required for immunizing individuals against diseases such as polio, measles, hepatitis, and tuberculosis. Healthcare workers extract the vaccine from the bottle using syringes.
- iii. It is labeled with batch numbers and expiry dates, allowing immunization staff to track vaccine quality and ensure expired doses are not used.

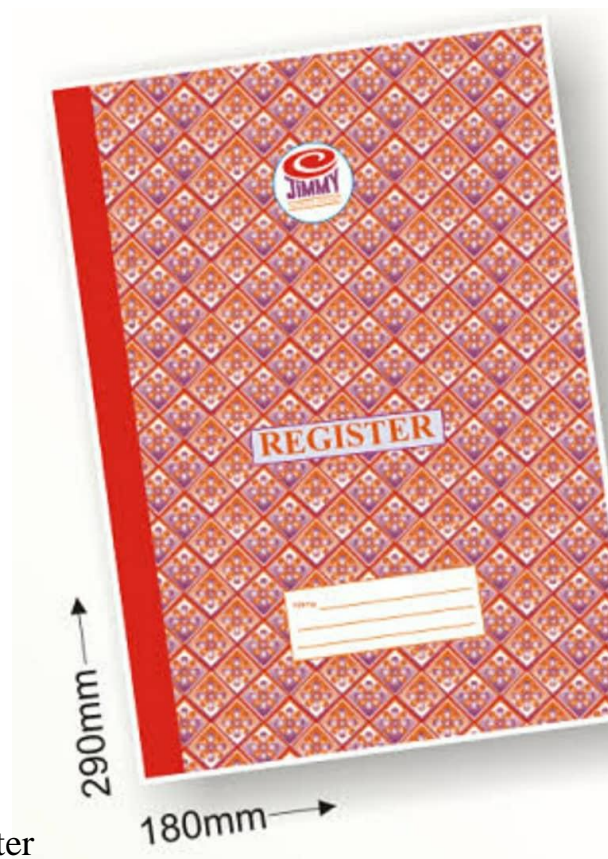


Fig 5- Register

Uses

- i. It is used to document details of individuals who receive vaccines, including their names, ages, and the type of vaccine administered.
- ii. It helps healthcare workers monitor and follow up on patients who need additional doses, such as booster shots for polio, measles, or hepatitis.
- iii. It provide statistical data on the number of people immunized, helping in assessing vaccine coverage within a community or healthcare facility.



Fig 6- Giostyle

Uses

- i. It helps keep vaccines at the recommended temperature (usually between +2°C to +8°C) during transport, preventing spoilage.
- ii. It is used to carry vaccines safely from storage facilities to remote vaccination sites, ensuring they remain potent.
- iii. In field immunization programs, Giostyle serves as a temporary vaccine storage unit, keeping doses at the correct temperature throughout the session.



Fig 7- Folder

Uses

- i. It used to store individual patient records, including personal details, medical history, and treatment information.
- ii. It help organize documents systematically, making it easier for healthcare workers to access patient records when needed.
- iii. It keep medical records safe from damage, dust, or loss, ensuring long-term preservation of important information.



Fig 8- Table

Uses

- i. It provide a flat surface for writing, sorting, and updating patient records, making documentation easier.
- ii. They serve as a place to arrange folders, registers, and other documents for quick access and easy retrieval.
- iii. Tables hold computers, printers, and other electronic devices used for digital record-keeping and data entry.



Fig 9- Shelf

Uses

- i. It used to systematically store patient files, making them easy to access when needed.
- ii. Different shelves can be designated for various categories of records, such as outpatient files, inpatient files, and immunization records, ensuring better organization.
- iii. It keep files off the ground, protecting them from dust, moisture, and physical damage.



Fig 10- Sphygmomanometer

Uses

- i. It use for Measures systolic and diastolic blood pressure to determine if a patient has normal, high (hypertension), or low (hypotension) blood pressure.
- ii. It helps identify patients at risk of conditions such as stroke, heart attack, or shock due to abnormal blood pressure levels.
- iii. It is used to regularly check the blood pressure of patients in serious conditions, ensuring timely intervention if their condition worsens.



Fig 11- Pulse Oximeter

Uses

- i. It helps identify conditions like shock or poor blood circulation by monitoring oxygen levels and pulse rate.
- ii. Helps healthcare workers decide whether a patient needs oxygen therapy, ventilation, or immediate medical attention.
- iii. It is used for trauma patients, unconscious individuals, or those suspected of cardiac or respiratory failure to monitor their oxygen levels in real time.

CHAPTER FOUR

CHALLENGES FACED

During my SIWES training, I encountered several challenges, including:

- **Limited Practical Experience:** Some tasks required expert knowledge, and I was only allowed to observe rather than actively participate.
- **Workload Pressure:** The hospital had a high patient turnout, making it challenging to keep up with the demands of different departments.
- **Communication Barriers:** Some caregivers spoke only local dialects, making patient education difficult at times.
- **Data Management Issues:** Manual record-keeping sometimes led to delays in retrieving patient files.

Despite these challenges, I was able to adapt and learn valuable problem-solving skills.

CHAPTER FIVE

SUMMARY, CONCLUSION, RECOMMENDATION

5.1 SUMMARY OF THE SIWES REPORT

This chapter provides a comprehensive summary of the Students Industrial Work Experience Scheme (SIWES) carried out at Children Specialist Hospital, Ilorin. The training aimed to bridge the gap between theoretical knowledge and practical experience in a professional healthcare setting. The hospital, known for its specialization in pediatric healthcare, provided a suitable environment for learning about various aspects of medical services, particularly in the Nutrition Department, Immunization Department, Record Department, and Triage Department. The SIWES experience was invaluable in understanding hospital operations, patient care, and administrative processes.

Throughout the training, significant insights were gained into how a healthcare institution functions in delivering medical services, handling patients, and ensuring proper record-keeping. The experience also highlighted the importance of teamwork among healthcare professionals, the role of technology in medical documentation, and the critical need for efficiency in a high-pressure medical environment.

5.1.1 Overview of the Training Experience

The training at Children Specialist Hospital, Ilorin, was structured to cover different key areas of pediatric healthcare. Each department played a vital role in ensuring that children received the best medical attention, ranging from preventive healthcare measures to treatment and recovery support. The Nutrition Department focused on dietary planning, meal formulation, and nutritional counseling. The Immunization Department handled vaccine administration and disease prevention strategies. The Record Department maintained patient files

and medical documentation, while the Triage Department ensured that patients were assessed and prioritized based on medical urgency.

5.2 CONCLUSION

My SIWES experience at Children Specialist Hospital, Ilorin was highly educational and practical. I gained valuable insights into child healthcare, including nutrition, immunization, medical record-keeping, and emergency triage. The training provided me with hands-on experience and enhanced my understanding of hospital operations. Despite the challenges faced, the experience has greatly contributed to my professional development, equipping me with skills that will be beneficial in my future career.

5.3 RECOMMENDATIONS

Based on my experience, I recommend the following improvements:

- More Hands-on Training: SIWES students should be given more opportunities for practical involvement.
- Improved Record-Keeping System: The hospital should transition to digital records for faster and more efficient patient management.
- Better Public Awareness on Nutrition: More outreach programs should be conducted to educate parents on child nutrition.
- Enhanced Language Support: Medical staff should be equipped with basic knowledge of local dialects for better communication.