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**Capacity of Primary Health Care (PHC)
Facilities regarding the Use of Basic Health
Care Provision Fund in Kano State: PHC
Workers Perspective**

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**Capacity of Primary Health Care (PHC)
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Directed by professor So Yoon Kim

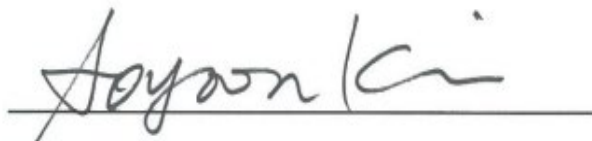
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DECLARATION

I, Zainab Auwalu Ibrahim, hereby declare that the research "**Capacity of Primary Health Care (PHC) Facilities regarding the use of Basic Health Care Provision Fund in Kano State, PHC Workers Perspective**" was submitted as a thesis for my Master's degree in Health Policy and Financing Capacity Building Program at Yonsei University under the supervision of three research experts. The references properly acknowledge the texts and other sources that were consulted.

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I'd like to thank all of my colleagues for a beautiful stay in Korea to study together. May the Almighty shower his abundant blessings on us. **"Capacity of Primary Healthcare (PHC) Facilities regarding the use of Basic Healthcare Provision Fund in Kano State, PHC Workers Perspective"** was submitted as a thesis for my Master's degree in Health Policy and Financing Capacity Building Program at Yonsei University under the supervision of three research experts. The references properly acknowledge the texts and other sources that were consulted.

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ABBREVIATIONS

BHCPF:	Basic Health Care Provision Fund
BMPHS:	Basic Minimum Package of Healthcare Services
EMT:	Emergency Medical Treatment
NHAct:	National Health Act
OOP:	Out-of-Pocket Expenditure
PHC:	Primary Health Care
SDGs:	Sustainable Development Goals
UHC:	Universal Health Coverage
UN IGME:	United Nations Inter-Agency Group for Child Mortality Estimation
UN:	United Nations
UNICEF:	United Nations Children's Fund
WHO:	World Health Organization

ABSTRACT

Background: The BHCPF is a direct financial investment that funds essential upgrades for PHC infrastructure. It increases the availability of skilled staff and ensures adequate stock of medicines and health commodities through purchasing a Basic Minimum Package of Health Services (BMPHS) at no cost to Nigerians from PHC providers. BHCPF funds are allocated to the selected PHC facilities to improve their standard in Kano state. The study aims to assess the influence of the BHCPF project in improving the performance (quality healthcare service) of PHC facilities in Kano state.

Methods: A descriptive cross-sectional study was conducted among PHC workers in 100 PHC facilities randomly selected out of the 484 PHC facilities designated for implementing the BHCPF project in Kano state. We chose a sample size of 200 respondents to respond to a survey questionnaire in a google form, and 196 were returned. The questionnaire consists of 4 sections (section A – socio-demographic, B – knowledge of PHC workers on BHCPF, C – capacity of the PHCs, D – challenges of BHCPF in PHCs). In addition, Chi-square was used to show an association between factors and BHCPF in Kano state.

Result: The findings showed that the PHC workers are knowledgeable in the BHCPF project, the PHC facilities can utilize the BHCPF funds, and the challenges identified were insufficiently skilled health professionals to carry out this project efficiently, lack of proper data management community participation and awareness of the project is extremely low, delay in releasing the funds, poor condition of infrastructure weak financial management and accountability system, etc.

Conclusion: The study suggests a need for retraining health workers; creating more community awareness on the project is essential and how they can benefit from the funds to have good healthcare services, setting strategies to sustain the project after five years.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.0. INTRODUCTION

Living a healthy life is our daily priority and ensuring the health of those we care for. We regard our health as the most basic and valuable asset, regardless of socio-economic status, gender, or age (World Health Organisation, 2008). According to the World Health Organization (2021), countries must attain Universal Health Coverage (UHC) to achieve health for all. Also, primary healthcare (PHC) serves as the "programmatic engine" for Universal Health Coverage (UHC), health security, and health-related Sustainable Development Goals (SDGs). In addition, they are required to realize other goals such as poverty reduction and economic growth. It is also the cornerstone of any effort to reduce social and gender disparities and a sign of a government's commitment to improving the health and well-being of all its citizens while leaving no one behind (WHO, 2021b). However, the United Nations (UN) members have pledged to implement effective PHC reform to build more equitable and resilient health systems. It allows everyone to access high-quality, safe, comprehensive, integrated, accessible, available, and affordable healthcare, especially the most vulnerable (WHO, 2021a). As part of the PHC vision for the twenty-first century, the foundation of integrated health services as a whole-of-government and whole-of-society approach to health is required. It combines multisectoral policy and action, empowered people and communities, primary care, and essential public health functions (WHO, 2021b).

In technical series "the vision for Primary Healthcare in the Twenty-First Century" (WHO and UNCEF, 2018) define PHC as a whole-of-society approach to health that focuses on people's needs and preferences (as individuals, families, and communities). They advocate as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation, and palliative care, and as close as possible to people's every day

(WHO and UNICEF, 2018). Also, in a factsheet written by WHO emphasized that PHC addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, and social health and well-being (WHO, 2021a). Furthermore, they explained that the goals of primary healthcare overlap with those of universal health coverage, which aims to provide all people with access to essential health services and safe, effective, and affordable essential medicines and vaccines. Similarly, reforms should strengthen primary healthcare to ensure equity and cost containment to achieve universal health coverage (van Weel and Kidd, 2018). Besides, the World Health Organization estimates that 930 million people worldwide are at risk of falling into poverty due to out-of-pocket health spending that accounts for 10% or more of their household budget. As a result, PHC helps health systems perform better by lowering overall healthcare spending while improving population health and access. Similarly, expanding Primary Health Care (PHC) interventions in low- and middle-income countries could save 60 million lives and extend average life expectancy by 2030. Finally, indicators that reflect the core characteristics of primary healthcare, such as continuity of care, person- and population-centeredness, coordination of care, prevention, health promotion, and patient autonomy, should be used to track health system reforms (WHO and UNICEF, 2018).

According to a new report from the UN General Assembly high-level meeting 2019 on Universal Health Coverage, countries must spend at least 1% of GDP on primary health care if the world wants to close significant gaps in coverage and meet health goals set in 2015 (WHO, 2019a). Nigeria is a member state of the United Nations and a developing country that aspires to deliver high-quality health care services to its people. The Federal Government of Nigeria established the Basic Health Care Provision Fund (BHCPF), following the National Health Act (NHAct) of 2014. It will be an essential milestone in a national effort to strengthen the health system, achieve universal health coverage (UHC), and improve health indicators, all of which will result in increased economic productivity. Section 11 of the Act mandates the establishment of the Basic Health Care Provision Fund (BHCPF) to assist in the successful delivery of primary and secondary health care services

by providing the Basic Minimum Package of Healthcare Services (BMPHS) and Emergency Medical Treatment (EMT). The Act states that all Nigerians shall be entitled to this collection of health services which are preventative, protective, promotional, curative, and rehabilitative (Federal Ministry of Health, 2014). The BHPF shall be funded by the Federal Government of Nigeria's (FGoN) annual allocation of at least one percent (1%) of the Consolidated Revenue Fund (as recommended by WHO), international donor partners, funds from other sources, and funds from the private sector (Federal Ministry of Health, 2014). From part of the funds, forty-five percent (45%) will be disbursed to National Primary Health Care Development Agency (NPHCDA) to strengthen the primary health care (PHC) system through the provision of essential drugs, vaccines, and consumables. The funds will also provide the maintenance of facilities, laboratories, equipment, transportation, and the development of human resources for quality primary health care services (Federal Ministry of Health, 2020). For the first time in Nigeria, the national-scale implementation of the BHCPF would establish a sustainable mechanism for channeling government spending to the primary health care system to reduce out-of-pocket payments for essential services. It increased PHC utilization rates (particularly among pregnant women and children under five) and improved service readiness at the primary health care level through interdisciplinary collaboration and increased operational funding (Awwal et al., 2020). The BHCPF aims to reduce out-of-pocket expenditure by 30% in 5 years and increase financial risk protection through health insurance. It corresponds with a publication made by WHO in 2016, on Public Financing for Health in Africa: Nigerians face catastrophic healthcare payments due to high out-of-pocket expenditures, and government investments account for only 25% of total health financing. That means that out-of-pocket expenses account for 72% of total health expenditures in Nigeria, which is significantly higher than the regional average. As a result, 25% of Nigerians faced catastrophic health expenditures, defined as spending more than 10% of total consumption or income. In comparison, Africa had a 1.4% rate of impoverishment due to catastrophic health expenditures in 2010 (WHO, 2016). In a publication (Awwal et al., 2020) explained

that BHCPF should employ two strategies to improve service delivery in Nigeria at least one primary health care center (PHC) per ward. First, through direct financial investments to upgrade essential infrastructure, increase the availability of skilled staff, and ensure the availability of medicines and health commodities; second, purchase a Basic Minimum Package of Health Insurance at no cost to Nigerians for PHC providers. Moreover (Aregbeshola and Khan, 2017), their study shows that the Nigeria PHC system is in disarray, with just around 20% of its 30,000 PHC facilities operational. Their work shows that most PHC facilities in Nigeria cannot provide essential healthcare services. Coupled with lack of resources and a non - availability of essential drugs are just a few of the problems that plague the healthcare system and need to be addressed urgently (Aregbeshola and Khan, 2017). They further explained the state of primary health care service delivery, which is exceedingly poor. The health indices are still one of the worst in the world whereby promotive, preventive, and basic health care interventions are underutilized, consistently, and dramatically failed to meet its commitment of the Abuja Declaration to devote at least 15% of annual expenditures in upgrading the health sector. They also added that Nigeria continues to register limited health indicators despite the government's persistent efforts, the bulk of which fall short of national and international standards. Also more disappointing is the reality that the leading causes of morbidity and mortality, particularly among the most vulnerable groups, are health issues that are either avoidable or successfully manageable at the primary health care (PHC) level (Aregbeshola and Khan, 2017). The (United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), 2019), in their research on global mortality, found out Nigeria continues to have the world's second leading cause of maternal and child death, with an estimated 2,300 children and 145 women dying every day, when compared with nations like Kenya, Uganda, Senegal, and Tanzania. The declines in maternal and under-5 mortality in Nigeria have been slower due to the inefficient health finance system being a primary cause of poor health outcomes(Awwal et al., 2020). WHO describes the capacity of a health system as one of the elements of having quality healthcare that is safe, effective, patient-centered, timely, efficient, affordable, and

equitable. They affirmed that the best method to eliminate inequalities, promote health and well-being, socio-economic development, and societal stability and security is to enhance the capability of the PHC system (WHO, 2018). Similarly, increasing the capacity of the primary health care system will result in easier access to basic health care services because health care providers will be trained, empowered, and incentivized to provide quality primary care services. It also ensures high-quality essential medicines, vaccines, and diagnostics. Adequate funding is critical to the system's effectiveness and will enable countries to provide a basic package of primary care services to everyone at a reasonable cost(WHO, 2018).

1.2. PROBLEM STATEMENT

Many studies were carried out on the state of PHC facilities and services delivery in Nigeria; it confirms that the service delivery is inferior in Nigeria, and Kano state PHC facilities are not exempted. Research conducted by Nigeria Healthwatch examined 49 primary health care facilities in Kano state to ascertain service delivery and compliance with minimum standards in primary health care across the state's various LGAs. The result demonstrates significant gaps in service delivery and adherence to primary health care's minimum standards. In terms of human resources, the result reflects a shortage of staff, particularly doctors, as nearly 90% of the PHCs assessed lack a physician. According to some research, it shows that majority of primary health centers are considered to provide the most services. However, the proportion of facilities that provide maternity, neonatal, and child health care is limited. According to the recently released 2018 NDHS, skilled birth attendants attend only 21.5% of deliveries in Kano State. While health promotion and education, nutrition education, and immunization are well represented, the assessment does not indicate whether the facilities also provide mental health care or care for the elderly, essential parts of PHC. The findings suggest that all of the PHCs assessed appear to be lacking at least one of the fundamental requirements outlined in the NPHCDA's minimum standards for PHCs. According to this minimum standard, a PHC facility is expected to have some basic infrastructure and human resources; in the same study's findings, many PHC facilities lack

adequate sanitary infrastructure and service readiness. The health care system must have sufficient infrastructure to improve service delivery efficiency, effectiveness, and timeliness.

Infrastructure is critical to the primary health care system's success. It is not sufficient for a primary health care center to have a physical structure in a community; it must also be equipped to provide high-quality care and timely interventions. For example, many PHC facilities lack adequate power supply, emergency transportation, and sanitary infrastructure. Health care services are provided in facilities that lack sufficient infrastructure (Nigeria Health Watch, 2019). According to the (National Bureau of Statistics (NBS), Kano State Bureau of Statistics and United Nations Children's Fund (UNICEF), 2018), a multiple cluster survey was done in Kano state in Nigeria that contributes to the high maternal, neonatal, and child mortality rate. It mainly occurs due to high out-of-pocket health service payment, lack of funding of the PHC facilities by the government, and other challenges or delays that may contribute to a high mortality rate in the state. The primary role of the BHCPF will be funding the PHC facilities for quality health care services(National Bureau of Statistics (NBS). Kano State Bureau of Statistics and United Nations Children's Fund (UNICEF), 2018).

After three years of implementing the project (BHCPF) in the Kano state, there has still been no known published work that has assessed the PHC facilities' ability to use funds generated from the BHCPF for the provision of quality health care services, especially in beneficiary communities. Therefore, this study assessed the factors and benefits and the gaps associated with the ability of the PHC facilities to provide quality health care services to allocated communities.

1.3. RESEARCH AIM

This study aims to assess the influence of the BHCPF project in improving the performance (quality health care service) of PHC facilities in Kano state.

1.4. RESEARCH QUESTIONS

The main research questions for this study were:

1. What is the level of knowledge of health care workers on the Basic healthcare provision funds to provide BMPHS?
2. What is the PHC facilities' capacity to achieve the role of the basic health care provision fund to provide quality primary health care services in Kano state?
3. What are the challenges associated with utilizing the primary healthcare provision fund in PHC facilities in Kano state?

1.5. OBJECTIVES

The objectives for this study were:

1. To assess the level of knowledge among healthcare workers on the Basic healthcare provision funds (BHPF) to provide Basic Minimum Package of Health Service (BMPHS)
2. To determine the capacity of the PHC facilities in achieving the roles of the BHCPF
3. To Identify/Assess the challenges that are associated with the utilization of the primary healthcare provision fund in PHC facilities in Kano state

1.6. OPERATIONAL DEFINITION

Primary Healthcare Provision Fund (BHCPF): BHCPF is a federal-state partnership program. It is a component of the 2014 National Health Act that calls for increased investment in the health sector. The BHCPF will provide free minimum primary healthcare to the poorest and most vulnerable Nigerians through authorized Primary Health Centers (PHCs) in each state in Nigeria's and federal capital territory.

Basic Minimum Package of Health Services (BMPHS): In a low-income country, the Basic Minimum of Health Package consists of a limited set of public health and clinical services that will be offered at the primary and/or secondary care levels. Different

interventions are included in EHPs in other nations, reflecting economic, epidemiological, and social differences.

Primary Health Care: PHC is a whole-of-society approach to health that aims to ensure the highest possible level of health and well-being and their equitable distribution by focusing on people's needs as early in the continuum as possible, from health promotion and disease prevention to treatment, rehabilitation, and palliative care, and as close as possible to people's daily environment.

Primary Health Care workers: Primary care refers to services delivered by general practitioners, nurses, or other allied health professionals and is considered the primary point of contact with the health care system. Primary care focuses on individuals and families and is geared toward illness prevention.

Capacity: The actual or potential ability to perform, yield, or withstand

CHAPTER TWO

LITERATURE REVIEW

2.0. INTRODUCTION

Building health capacity should be dynamic, never static, requiring ongoing funding and renovation. To accomplish a goal, one must create one's ability. Development cooperation's capacity-building concept remained the same for decades: it was equated with individual training and organizational restructuring. Capacity building is currently defined as a complex process that aims to change people's mindsets and behavior by introducing more efficient technology and resources.

(Bernardin, 2003).). Capacity building is a method that aims to "provide long-term skills, structures, resources, and commitment to health improvement in health and other sectors to extend and increase health gains (NSW Health, 2001).

Furthermore, achieving a capacity development goal requires an organization to have:

- (a) sufficient employees with the necessary expertise and skills
- (b) acceptable and suitable technical, managerial process
- (c) adequate physical facilities
- (d) sufficient financial and other resources.

As a result, capacity building may include reworking systems, revamping physical infrastructure, employing new staff, improving the efficiency of present resource utilization, educating personnel, and offering technical assistance (Lammert, 2015). Capacity building is a change process within an organization that tries to "align attitudes and new or expanded practices with desired growth targets." To be effective, administrative capacity-building necessitates deliberate and planned change (Lammert, 2015). Unfortunately, some organizations mistake training staff in new skills without undertaking the necessary follow-up to ensure that those skills are put to use. Others emphasize employee training while disregarding other issues, such as an outdated computer system or a physical infrastructure prohibiting employees from integrating new skills or habits (Lammert, 2015).

According to the World Health Organization (WHO) and UNICEF (2018), the role of primary health care is to react to the majority of health needs and comprehensive coordinate care and the movement of individuals through the health system. It is the most effective technique for dealing with 21st-century health concerns such as globalization of unhealthy lifestyles, unplanned urban growth, and population aging, contributing to an increase in chronic diseases and generating new service demands. Building the capability of the primary level of care is the approach that has yielded the best outcomes in both developed and developing countries to date. Primary health centers can handle up to 80% of demand at a reduced cost while providing better community health. The wide range of clinical events distinguishes PHC it tackles and the diverse needs of its consumers (WHO and UNICEF, 2018). According to research, essential health services should be delivered by health teams with skills relevant to this level of care, i.e., those who have the knowledge,

abilities, professional attitudes, and motivation to successfully carry out the tasks associated with their professional position (WHO and UNICEF, 2018).

2.1. TO ASSESS THE LEVEL OF KNOWLEDGE OF THE PHC WORKERS

An individual health worker's observable ability, such as knowledge, skills, and behaviors, are competencies. It is possible to teach and measure competencies. People-centeredness, communication, decision-making, cooperation, evidence-informed practice, and personal conduct are critical to delivering comprehensive essential health services that meet most people's needs. We should reflect the list of PHC interventions and the organization of the PHC workforce in the country in the competencies. Based on these stated competencies, we should establish workforce education, training, and practice standards for all PHC workforce occupations.

The term "skill mix" refers to various health worker occupations that provide essential health services. As a result, PHC services are best delivered by multidisciplinary teams with the breadth of knowledge, skills, and competence required to provide comprehensive, holistic care that is both accessible and acceptable in the local population. Physicians, nurses, midwives, health workers, physician assistants, and social workers are providers in a country's PHC workforce, depending on the local environment. The appropriate skill mix of PHC staff will be determined by the best strategy to satisfy the population's needs within the health system context. Workers must also be encouraged and empowered to provide high-quality care that meets the needs and expectations of their patients. Health systems should promote working conditions that increase the health workforce's capacity and motivation to provide quality care and continually improve performance, such as through appropriate remuneration and incentives, merit-based professional development opportunities, and occupational health and safety standards (Primary Health Care Performance Initiative, 2019)

Building the skills of primary health care providers is a common strategy for improving the efficiency of health care providers, bolstering health systems, and raising the standard of care that people receive around the world. To improve health care for an even broader

population, including those who are most vulnerable or marginalized, strengthening health systems and the workforce in primary health care is seen as a way to do so (Bernardini, 2003). The quality of primary care services depends on a primary care workforce that is well-trained, supported, and motivated. In many countries, primary care providers have difficulty recruiting, retaining, and distributing health professionals, addressed by national workforce strategies (Dussault et al., 2018). Primary care is a specialty, and the training of direct healthcare workers should be based on the best available knowledge and should be regulated by national bodies (Dussault et al., 2018).

To ensure a high-performing primary healthcare workforce, support and monitoring feedback on performance is critical. An essential part of a national quality assurance system is the national body responsible for ensuring that crucial professional standards are met by healthcare workers (Dussault et al., 2018). Organizational and community leaders began a process of workforce development in response to the system's identified strategic priorities to ensure that the people working within these systems have the skills and commitment necessary to help the system achieve its goals (NSW Health, 2001)

The Southeast and East Asian Nursing Education and Research Network (SEANERN) conducted a study on primary health care providers' knowledge, ability, and skills. The Alma-Ata Declaration's eight core elements of PHC formed the basis of a multinational cross-sectional study. Eight variables were assessed using a Likert scale ranging from 1 to 5 (Du et al., 2019). A descriptive statistic was used in the research, and the three-dimensional levels were represented using radar charts (knowledge, skill, and ability). The knowledge, skill, and ability dimensions had an average score of 2.783.11 points each, with the ability dimension coming in at 2.67.06 points (Du et al., 2019). PHC providers have a low to moderate perceived capacity for delivering PHC services, implying a significant gap between the PHC system's requirements and the actual performance of PHC providers (Du et al., 2019). Kress, SU, and Wang (2016) Primary Health Care System Performance Assessment in Nigeria: researched Nigeria's PHC system and possible reasons for underperformance using the conceptual framework of Primary Health Care Performance

Indicators. We used the most recent facility-level data from the World Bank Service Delivery Indicators survey in the analysis. Inconsistencies in provider knowledge and skill and a lack of diagnostic accuracy are frequently found.

The low provider ability scores raise red flags regarding the quality of primary healthcare in Nigeria. We've learned from reliable sources that existing employees, many of whom haven't received training in over a decade and have had few if any supervisory visits have an urgent need for capacity building and training. The Nigerian PHC human resource environment, as a whole, necessitates significant improvements and adjustments (Kress, Su and Wang, 2016).

In Chile, researchers looked at the skill set needed by PHC teams in various aspects of patient care and primary health center administration. Chile's Modelo Integral de Salud Familiar y Comunitario [Family and Community Comprehensive Health Model] is governed by three basic principles: people-centeredness, comprehensiveness, and continuity of care, according to Chilean PHC specialists (MAIS). The study's findings suggest a strategy for training PHC workers to help them develop the skills necessary for providing high-quality, integrated, continuous care tailored to the specific needs of the target population. According to the authors, there is an urgent need to train physicians and other health professionals working in primary care and build their capacity to better understand and meet the growing population's needs and provide high-quality health care (Dois et al., 2018). According to a new study, most physicians and other healthcare professionals working in primary health care centers (PHCs) lack specialized training in this area. It is a difficult task for governments, whose public policies should ensure that their citizens have access to high-quality health care that is comprehensive and affordable. Following the needs of patients and WHO standards, all of this is in line with the health system's effectiveness and efficiency. Part of the plan for building more effective and equitable health systems is considering the responsibilities of training institutions and the ongoing education and training of PHC employees (Dois et al., 2018).

2.2. TO DETERMINE THE CAPACITY OF THE PHC FACILITIES TO PROVIDE QUALITY HEALTH CARE SERVICES

Integrated health systems recognize primary health care professionals as essential and promising members of the frontline PHC team (Sigrun, Wynd and Afzal, 2013). Perry, Zullinger, and Rogers (2014) found that primary health care providers in low-, middle-, and high-income countries can benefit from the capacity building. In low-income countries, childhood undernutrition is decreasing, maternal and child health is improving, access to family planning services is rising, and HIV, malaria, and tuberculosis infections are under control. Providing primary health care and promoting healthy lifestyles in many middle-income countries like Brazil relies heavily on PHC workers. Evidence suggests that PHC workers might help reduce disease burden by participating in hypertension management, cardiovascular risk factor reduction, diabetes control, and cancer screening, particularly in hard-to-reach subpopulations in the United States (Perry, Zulliger and Rogers, 2014).

A 2018 WHO technical series on primary health care in Astana, Kazakhstan, shows that the Alma-Ata Declaration, which established a multidisciplinary workforce in primary health care, is as relevant and vital now as it was 40 years ago. Countries must build the capacity of their health workforce to meet the growing demand for health care driven by demographic, epidemiological, economic, social, and political changes (Dussault et al., 2018). Decentralizing education programs and extending rural health training are examples of socially responsible initiatives that can increase workforce availability and distribution, especially in areas where care is most needed. Adapted and flexible incentive programs can recruit and retain health workers in high-need locations, including reasonable job prospects. Furthermore, initiatives centered on developing the capacity of interdisciplinary teams with different skill sets and ideal workforce productivity are boosted. At the same time, population health and community needs are met by various scopes of practice. Investing strategically in a country's health system and workforce benefits people's health while promoting suitable employment, economic growth, and reducing inequities across the country(Dussault et al., 2018). When primary health care works, people and families have

access to a wide range of services, including family planning, routine vaccinations, disease treatment, and the management of chronic conditions, for the duration of their lives (Phcpi, 2018).

Up to 3 million deaths could be avoided each year in Sub-Saharan Africa if primary health care workers are given the training and support their need to expand access to critical interventions and primary healthcare services. It could result in a 10:1 return on investment due to increased productivity and the reduced risk of epidemics like Ebola. Increasing the number of PHC workers can save the health system money in the short term by reducing the number of patients treated in facilities (Sigrun, Wynd and Afzal, 2013). They explained that to achieve critical health goals like universal health coverage (UHC), the prevention and containment of health crises, and progress toward disease elimination, as well as to keep healthcare affordable and easily accessible, save the lives of mothers and children, and control priority diseases like HIV, tuberculosis, and malaria, it is necessary to make investments in primary health care workers. They also indicate that when primary healthcare workers' capacity is built, they may play a vital role in early case detection and response to prevent further cases. In contrast, their absence can allow outbreaks to take hold and expand. For example, Nigeria promptly treated and isolated cases due to the presence and re-purposing of PHC employees engaged in polio eradication (Sigrun, Wynd and Afzal, 2013).

An emphasis was made on productivity for a healthier population so that primary health care providers can provide life-saving treatments for the major killers of children in Africa, such as malaria, diarrhea, pneumonia, newborn sepsis, and acute malnutrition, resulting in greater output from a healthier population. When these tragedies are avoided, children can enjoy healthy and economically productive lives. Furthermore, occurrences of these diseases can be avoided in the first place by the education provided by PHC professionals, particularly in the areas of breastfeeding, cleanliness, and maternal education during pregnancy. As a result, the overall economic worth of productivity obtained by a fully

scaled backbone of PHC employees across Sub-Saharan Africa could be as high as \$19.4 billion per year (Sigrun, Wynd and Afzal, 2013).

In a study conducted by Henry and Rose (2012), they reviewed published evidence literature regarding the effectiveness of PHC workers. They discovered that when the capacity of workers is developed with the necessary skills and knowledge, preventable diseases such as malaria, pneumonia, diarrhea, and sepsis, which account for nearly 40% of child and neonatal deaths globally, can be combated (Perry and Zulliger, 2012).

Furthermore, there is mounting evidence that PHC workers contribute by effectively promoting healthy behaviors, encouraging appropriate utilization of higher levels of curative health services (via active-case finding and surveillance efforts), and providing important community and home-based services. PHC personnel have been demonstrated to enhance utilization and improve follow-up care (Bernice et al., 2015).

According to the OECD report, to empower primary health care professionals to provide better people-centered care, high-quality care must be rewarded and coordinated among health providers (OECD, 2019). The impact of building the capacity of Rwandan primary health care workers, which was established in 1995, was studied. The goal was to increase the uptake of essential maternal and child clinical services by educating pregnant women, promoting healthy behaviors, and providing follow-up and linkages to health services. According to the evidence, over 45,000 primary health care personnel were trained to provide the first line of health care services. According to the findings, Rwanda met its maternal and child health MDGs in 2012, three years ahead of schedule. In addition, its primary healthcare program has aided in the expansion of basic healthcare coverage, particularly in the areas of community-based family planning and the treatment of malaria and pneumonia in children (Crigler, 2018).

2.3. IDENTIFY/ASSESS THE CHALLENGES THAT ARE ASSOCIATED WITH THE UTILIZATION FUND IN PHC FACILITIES

High-quality primary health care results from well-organized and managed services supported by a robust system and adequate inputs such as human resources, infrastructure, and pharmaceuticals, and supplies to assure the delivery of high-quality primary health care services (Phcpi, 2018). National and subnational processes that ensure PHC facilities are accessible and well-equipped can also improve primary health care quality. The external evaluation or accrediting systems of many countries, for example, often include assessing institutions against pre-determined minimum standards. Furthermore, public reporting and benchmarking procedures that may raise public accountability and promote health system leadership may encourage appropriate facilities within the health system. High-quality drugs, medical devices, and other health goods are critical in primary care, but ensuring their availability and their use can be difficult to accomplish (WHO, 2018).

Infrastructure is essential to a well-functioning healthcare system. The health system infrastructure includes physical facilities, information systems, medical equipment, and the building of new infrastructure as part of the UHC strategy. Universal health coverage requires high-quality healthcare services, which can only be provided if health facilities are built or renovated to meet the needs of patients and equipped with utilities such as electricity, water, and a skilled health workforce (Kapologwe et al., 2020). Health care costs are lower in countries with well-functioning primary healthcare facilities, better outcomes, and fewer hospitalizations. The reorganization of primary care (PC) around people's needs and expectations was called for by the World Health Organization (WHO) in 2008. It can reduce the occurrence of common illnesses by up to 70%. Primary health care services are provided in conjunction with an operational facility to improve outcomes, lower costs, and reduce disparities by enhancing opportunistic screenings, disease prevention, and health promotion (Bresick et al., 2019).

A study was conducted between the Republic of Korea and the Republic of Uzbekistan to compare the functionality of their Primary health care facilities in terms of providing

essential health services to provide high-quality, accessible, and inexpensive health care. Some of the study's findings are as follows: Through the PHC concept, the countries achieved nearly 100 percent immunization coverage for major infectious diseases, a considerable rise in life expectancy, and a reduction in maternal, newborn, and under-five mortality (Yuliya Dronina, 2017). Nonetheless, when comparing Uzbekistan to the Republic of Korea regarding hurdles to reaching UHC, EuroHealth 2015 shows that Uzbekistan still has a high maternal, newborn, and under-five mortality rate, which requires further attention.. (Ahmedov et al., 2015).

The WHO (2018) published a country profile of non-communicable diseases. It illustrates that non-communicable illnesses are on the rise in both nations, emphasizing the need to expand PHC's role in health promotion, disease prevention, and community health education. For example, Uzbekistan reduced the number of PHC facilities, but Korea increased the number of public facilities to deliver primary health care and health promotion services (World Health Organisation, 2018). The finance structure is another aspect of PHC delivery that the study compares. It explains that in Korea, reimbursement payments within the National Health Insurance System provide sustainable health care services for the population. In contrast, in Uzbekistan, the PHC financing system is based on capitation and residual basis, with the majority of the budget going to salary and operational costs of the RPP, with a small portion allocated to purchasing pharmacy, consumables, and equipment (Yuliya Dronina, 2017).

The information systems in Korea and Uzbekistan were also compared in the study. It was determined that Korea offers a suitable approach for data collection. The majority of quality evaluation issues in Uzbekistan are related to poor medical data collection, the lack of an electronic medical record, and the failure to connect all facilities into a unified information system (Ahmedov et al., 2015)

Even though the Uzbek government has established a National Health Information System, it does not include PHC facilities. Improving the quality of statistical data can help improve the evaluation of PHC in Uzbekistan, medical care delivery, and the finance system. It

demonstrates that the disparity in health conditions between the countries considered is still significant. However, the change in PHC resulted in increased vaccination coverage and reduced infectious illnesses (Yuliya Dronina, 2017) . The study examined the referral systems of both nations and concluded that both countries' PHC systems have an effective tertiary referral system. The referral system eliminates duplication of services and lowers the number of unnecessary visits at higher levels.

The primary health post, which provides essential health services such as prevention and promotion through primary Health care Practitioners with a nursing background, is the focal point of the Korean PHC system. Finally, this study of PHC functionality between South Korea and Uzbekistan shows that Korea invests more in their PHC to ensure high-quality health care service. The research concludes that having a functional PHC is critical because PHCs play a vital role in delivering medical services to the general public, addressing health and social issues. It is the most effective means of obtaining universal health coverage for essential health needs. The government should pay greater attention to PHC and strengthen its health promotion and illness prevention as health risks have become more diverse in the twenty-first century. Healthcare reform should be focused on long-term issues and based on "new public health" paradigms from the twenty-first century (Yuliya Dronina, 2017). Beginning in the middle of the 1980s, the Brazilian government began developing primary healthcare to increase and ensure universal access to health care services. They evaluated the effectiveness of Brazil's primary healthcare facilities in providing essential healthcare services and high-quality healthcare services to reduce the country's mortality rate. It found that the Family Health Program (FHP) aims to provide coordinated, comprehensive, and continuous care through multidisciplinary primary health care teams. Improvements in the quality and efficiency of primary health care the program seeks to improve health by shifting the focus of the healthcare system away from treating symptoms and preventing disease in the first place. To broaden access to FHP, Brazil will have to address a longstanding shortage of qualified health care professionals. In addition,

the FHP is still trying to figure out how to link primary, secondary, and tertiary health care together. Improvements in the quality and efficiency of primary health care (Primary Health Care Performance Initiative, 2018). The program's goal is to reorient the healthcare system away from treating patients with the disease and providing comprehensive care and disease prevention. To expand FHP coverage, Brazil will need to overcome a longstanding shortage of well-trained health care workers. As a result, the FHP is still struggling with the communication and referral systems needed to vertically integrate primary, secondary, and tertiary care (Primary Health Care Performance Initiative, 2018).

Despite its difficulties in scaling up in metropolitan areas, the strategy has been successful in reducing health inequities, with the poorest towns seeing the most significant benefits. In the last 20 years, FHP has resulted in significant gains in service coverage and health outcomes (Primary Health Care Performance Initiative, 2018).

According to the report, Brazil has a functional Family Health Program that offers primary health services. The paper illustrates the program's success by stating that the number of women who complete antenatal care has improved to 75%, vaccine coverage has increased to 95%, and diabetes-related hospitalizations have dropped by 25%. Hospital admissions for children and adult patients with ambulatory care-sensitive diseases fell by nearly 20%. Admissions for cardiovascular disease have also decreased. The proportion of underweight children under five has fallen by 67 percent. Child mortality has decreased by 64%, while infant mortality has decreased by 64%. Cardiovascular disease mortality has also dropped (Primary Health Care Performance Initiative, 2018).

2.4. CONCEPTUAL FRAMEWORK

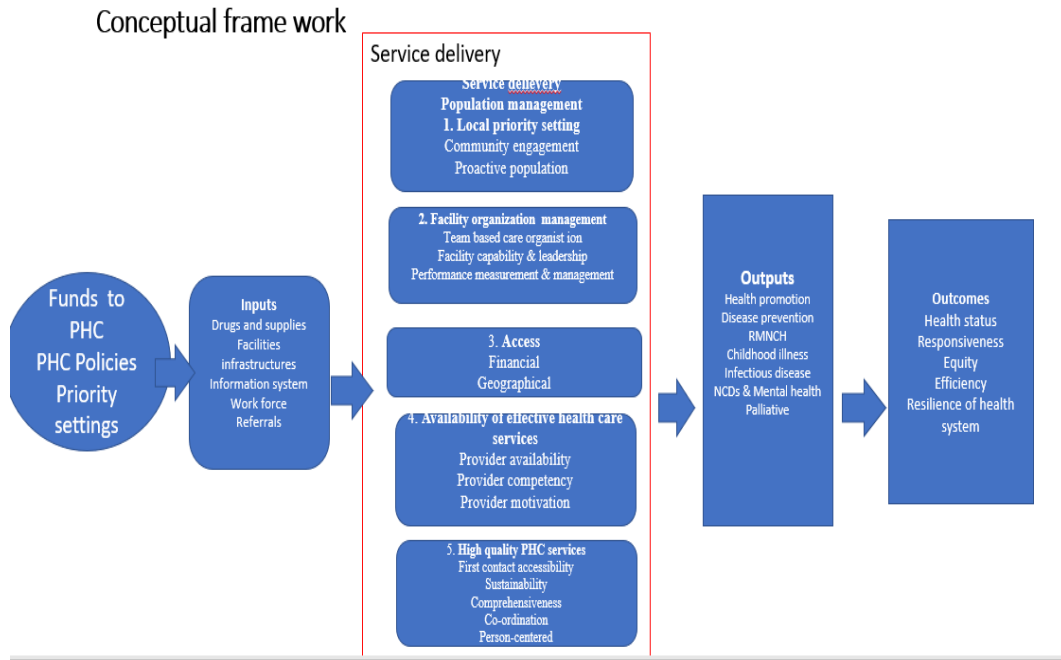


Figure 2.1: Conceptual framework PHC

CHAPTER THREE

METHODOLOGY

3.0. INTRODUCTION

This chapter describes the research design, research settings, the study area, target population, sample size and sample technique, instrumentation for data collection, validity/reliability of the instrument, method of data collection, method of data analysis, and ethical consideration.

3.1 STUDY SETTING

Kano State is one of Nigeria's 36 states and is located in the country's northern region. It was created in the former Northern part in 1967. The state is bounded to the northwest by Katsina State, to the northeast by Jigawa State, to the southeast by Bauchi State, and to the southwest by Kaduna State. According to the National Bureau of Statistics' most recent official estimates, taken in 2016, shows that it is still the most populous state in the country, with over 15 million people.

The state occupies an area of approximately 20,131 km² (7,773 sq mi) square kilometers (National population commission 2006). Kano State has three senatorial districts with 44 local government areas, mainly Hausas ethnic group and Fulani. The main occupation is farming and commercial activities.

The climate is Sudan Savanna, characterized by a long dry season. As a result, the climate condition varies considerably over the years and is erratic. The temperature regime is warm to hot; the mean annual temperature is about 25^oc in the most incredible month to 39^oc in the hottest month (Nigeria galleria, 2021).

The Kano State Primary Healthcare Management Board has selected 484 PHC facilities to enroll in the BHCPF intervention program. Although the state 1,346 health care facilities (2 tertiary, 34 secondary, 1066 PHCs, and 244 private hospitals), the exact number of the

health workforce in Kano state is not known, the health expenditure for 2020 was 26,901 billion naira, and in 2021, about 30 719 billion naira respectively.

3.2 STUDY DESIGN

The descriptive cross-sectional study will be conducted among PHC workers in Kano State. This decision was made because descriptive studies are precious when results are needed quickly, and the thesis has limited resources and little information about the problem.

STUDY POPULATION

The study's population were Primary healthcare workers (Nurses, Doctors, Community healthcare workers, etc.) and worked in the 484 primary healthcare facilities chosen for the BHCPF project's enrollment. They have received training on implementing the project's aims and objectives at those PHC facilities.

3.3.1. INCLUSION CRITERIA

Primary healthcare workers work in primary healthcare facilities chosen for the BHCPF project's enrolment. They have received training on implementing the project's aims and objectives at those PHC facilities.

3.3.2. EXCLUSION CRITERIA

Primary healthcare workers who work in primary healthcare facilities that were chosen for the BHCPF project's enrolment and have been trained on BHCPF and non-health professionals.

3.4. SAMPLING METHOD/SAMPLE SIZE DETERMINATION

The sampling method adopted was a simple random sampling method. In this type of sampling, the paper lottery method will be adopted, where all the sample frames are listed in a covered basket. The papers were then picked out without replacing until the maximum sample was reached. Finally, the researcher assistants contacted the selected facilities to respond to the questionnaire individually.

The sample size for the study will be calculated using Yamen's formula (1967); the formula is as follows: $n = N/1+N (e)^2$ the parameters for calculating the sample size (n) will include n = sample size N = population size=484, with e = margin of error (5%).

Therefore: $n = 400/1+400 (0.05)^2 = 200$. The sample size will be 200 health care workers from the PHC facilities.

3.5. RESEARCH TOOL

The research tool was a survey questionnaire consisting of 4 sections (A, B, C, D), primarily closed-ended questions, and a few open-ended questions in section A.

Section A- social demographic data,

Section B- assess the level of knowledge of the primary health care workers,

Section C- the capacity of PHC facilities in achieving the role of the primary health care provision fund for the provision of quality primary healthcare services in Kano state,

Section D- Identify the PHC's challenges in utilizing the BHCPF

3.7. VALIDITY & RELIABILITY

The developed survey questionnaires were assessed for validity and reliability:

(a) Experts evaluated the content validity.

(b) A pilot study was conducted on 20 (10%) health care workers from non-participating PHC facilities in Kano state to assess test-retest reliability.

(c) Internal consistency reliability was assessed using Cronbach's alpha coefficient, a value of > 0.9 , indicating that the instrument is reliable.

Using SPSS version 23 software, the Alpha Cronbach's score for the entire tool was 0.71. the section on knowledge was 0.73, capacity 0.92, and challenges 0.82. These results showed the device was reliable to assess the factors associated with BHCPF in PHC.

3.6. DATA COLLECTION PROCEDURE

An introductory letter was obtained from the department of global health policy and financing capacity building graduate school of public health, Yonsei University, which the research assistance submitted to the Kano State Ministry of Health's ethical committee and

the office of the executive secretary of the Kano State Primary Health Care Management Board for approval and ethical clearance to collect data in the selected PHC facilities from health care workers.

Four research assistants were in charge of data collection. Before data collection, they were taught the study objectives and how to fill out the survey questionnaires and the developed Google form. Then, the survey questionnaires were printed and delivered to the PHC facilities to be filled out by manual. Finally, the research assistant entered each survey questionnaire into the Google form and submitted it electronically for data analysis.

3.7. DATA ANALYSIS

The study assessed the capacity of primary health care facilities to utilize the basic health care provision fund. Data were checked for completeness and subsequently inputted for analysis, using the Statistical Package for SPSS version 25.0 software. The discrete variables were expressed in percentages and displayed in frequency tables. The statistical method used was chi-square because it is categorical data.

3.8. ETHICAL CLEARANCE

An introductory letter was collected from Yonsei University to submit to the ethical committee Ministry of Health Kano State and State Primary Health Care Board for ethical clearance to conduct data collection in the selected PHC facilities. The nature of the research was duly explained to participants, and only those who consented were given the questionnaire to fill. Confidentiality of information was maintained throughout the data collection process as the questionnaires were not marked, and no identification by name.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

This chapter, in view, has to do with the analysis of results of the findings and description of statistical details where frequency table, percentages, bar charts were used and data collected were analyzed according to PHC worker's perspectives.

4.2 STUDY FINDINGS

The study findings are organized in line with the study objectives. These encompass demographic variables, knowledge, capacity, and challenges associated with BHC PF in PHC.

4.2.1 Socio-demographic characteristics

Table 4.1 consists of 8 items: it shows that majority of respondents were female 51.5 %. In terms of profession, the statistics show that community health extension workers had the highest percentage of 83.2 %, followed by midwives at 4.1% and nurses at 2.6 %. According to the findings, 90.2% of participants were married, 7.1% single, and 1.0% widowed. The respondents' highest level of education was a high school diploma. The results confirmed that those with a diploma had the most frequent response, 93.9%, followed by a degree of 6.1%. According to the data, 65.3% of the facilities were primary health care facilities, 21.9% health posts, and 12.8% were comprehensive health centers. In terms of years of work experience, the highest is 79.6% who worked for 1–10 years, followed by 18.0% who worked for 11–20 years, and 2.0% who worked for 21–30 years.

TABLE 4.1: DISTRIBUTION OF SOCIO DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Sex	Frequency	Percent
Female	101	51.5
Male	95	48.5
Total	196	100.0
Profession/Occupation	Frequency	Percent

Community Health Extension worker	163	83.2
Midwives	8	4.1
Nurses	5	2.6
Others	20	10.2
Total	196	100.0
Marital Status	Frequency	Percent
Divorced	1	.5
Married	178	90.8
Separated	1	.5
Single	14	7.1
Widowed	2	1.0
Total	196	100.0
Highest education attained	Frequency	Percent
Degree	12	6.1
Diploma	184	93.9
Total	196	100.0
A facility that best describes where you work	Frequency	Percent
comprehensive health care	25	12.8
Health post	43	21.9
Primary health care	128	65.3
Total	196	100.0
Years spent working in your current position/ profession	Frequency	Percent
1 – 10	156	79.6
11 – 20	36	18.4
21 – 30	4	2.0
Total	196	100.0

4.2.2 Knowledge on BHCPF

Table 4.2 The data reveals that 61.7% of PHC personnel have adequate knowledge of BHCPF, whereas 38.3% do not know. Data on the level of awareness of the BHCPF concept show that more than half of the participants, 50.5%, were aware of the concept, and 3.1% showed poor awareness of the BHCPF concept. 89.8% of respondents say they learned about BHCPF from the training they received from health care authorities, while 10.2 % believe it wasn't the same training. In terms of additional sources of information on the BHCPF, the data shows that 86.7% acquired their knowledge from healthcare authorities, 10.7% from colleges, 2.0 % from the media, and 0.5% from pamphlets.

According to the data, all respondents require 100% more information about the BHCPF, 55.6 % require additional information on strengthening the primary healthcare system, with 45% of the BHCPF. Also, 30.6 % require more clarification on the Basic Minimum Package of Health Services (BMPHS) by allocating 45% of the funds to purchase the BMPHS, which the National Health Insurance Scheme will manage. Regarding returns, 90.8% indicated they make them quarterly, 7.7% half-yearly, and 1.5% annually. 94.4% indicated the money was used for its intended purpose, while 5.6% stated it was not. According to the data, 96.9% of respondents claimed their return system was covered in the BHCPF training, while 3.1% said it wasn't. 90.8 percent indicated they make them quarterly, 7.7% half-yearly, and 1.5% annually regarding returns. 75.0% indicated the money was used for its intended purpose, while 25.0% stated it was not. According to the data, 96.9% of respondents claimed their return system was covered in the BHCPF training, while 3.1% said it wasn't.

TABLE 4.2: DISTRIBUTION OF KNOWLEDGE RELATED TO BHCPF

Knowledge level		
Having adequate knowledge regarding BHCPF	Frequency	percent
No	75	38.3
Yes	121	61.7
Total	196	100.0
Level of confidence of awareness of the concept of BHCPF	Frequency	percent
Not too well	39	19.9
Poorly	6	3.1
Very well	52	26.5
Well	99	50.5
Knowledge acquired based on training received on BHCPF from the health care authorities	Frequency	percent
No	20	10.2
Yes	176	89.8
Total	196	100.0
Sources of information regarding the BHCPF	Frequency	percent

Colleges	21	10.7
Health care authority	170	86.7
Media	4	2.0
Pamphlets	1	.5
Total	196	100.0
Need additional information about the BHCPF	Frequency	percent
Yes	196	100.0
The aspect you need more education	Frequency	percent
Ensuring the provision of a Basic Minimum Package of Health Services (BMPHS) by applying 50% of the funds towards the purchase of the BMPHS, to be managed by the National Health Insurance Scheme (NHIS)	60	30.6
Providing Emergency Medical Treatment, with 5% of the BHCPF	27	13.8
Strengthening the Primary Health Care (PHC) system, with 45% of BHCPF	109	55.6
Total	196	100.0
How often do you do returns?	Frequency	percent
Half-yearly	15	7.7
Quarterly	178	90.8
Annually	3	1.5
Total	196	100.0
The money is used for the intended purpose	Frequency	percent
No	49	25.0
Yes	147	75.0
Total	196	100.0
Is the return system included in the training you received on BHCPF?	Frequency	percent
No	6	3.1
Yes	190	96.9
Total	196	100.0

4.2.3 Capacity of the PHC to utilize the BHCF to provide efficient health care

Table 4.3 evaluates the BHCF's capacity to provide adequate healthcare; using data shows that the PHC does not have enough staff to deliver BMPHS utilizing the BHCPF, according to 62.8%, while 37.2% claimed it does. Regarding the periodic evaluation of health care facilities, 94.4% stated they are aware, while 5.6% claimed they are not. Regarding facility evaluation for BHCPF performance, 85.2% indicated yes, and 14.8% said no. In response

to whether the facilities have a data management mechanism in place, 47.4% stated they do, while 52.6% said they do not. In response to whether the facility has an annual quality improvement strategy to improve the user experience following BHCPF funding, 44.4 % replied yes, and 55.6% said no. Finally, according to data on functional storage for health commodities in PHC facilities, 71.9% claimed they had storage facilities, while 28.1% said they didn't.

Regarding displaying information in BHCPF facilities for community awareness, figures show that 66.3% have no such information shown, while 33.7% have the information displayed. In addition, 52.0% reported community awareness of the BHCPF program, while 47.4% reported low awareness. When it comes to effective maternal, neonatal, and child health emergency care in PHC facilities, the results show that 66.3% confirmed that such services are available in their Primary health care facilities.

In comparison, 33.7% stated that they do not have the services. Regarding referral systems, 37.2% said they have one, while 62.8% stated they do not. The BHCPF project increased the quality of PHC facilities, according to 91.8% agreed it had improved the provision of health care services, whereas 8.2% disagreed. In terms of project sustainability, 46.9% say it can be sustained, while 53.1% think it cannot. 57.1% agreed that BHCPF funding was used to improve quality PHC services in the facility and community, while 42.9% disagreed. We revealed the outcome of the facility grading. 48.0 % of the results indicated good, 34.2% suggested very good, 10.2 % showed excellently, and 7.7 % told fair, as shown in figure 4.1.

The bar chart below proves insufficient funds to support the BHCPF's activities, especially at the community level. The responses were 60.7% community outreach, 89.3% PHC prevention, and 61.2% community prevention. The details of this can be seen in figure 4.2.

Showing that there was enough funding for BHCPF activities, the responses were that 83.7%, 81.6%, and 77.6% were affirmative for Purchase essential medicines and health

commodities from accredited pharmacies, distribution within geographical proximity, collecting and returning vaccines, and Facility-based care, respectively as shown in figure 4.3.

TABLE 4.3 DISTRIBUTION OF CAPACITY OF THE PHC TO UTILIZE THE BHCPF TO PROVIDE EFFICIENT HEALTH CARE

Number of staff in your facility to provide BMPHS using the BHCPF	Frequency	Percent
No	123	62.8
Yes	73	37.2
Awareness of BHCPF allows for periodic evaluations of health care facilities.	Frequency	Percent
No	11	5.6
Yes	185	94.4
Evaluation on the performance of the BHCPF	Frequency	percent
No	29	14.8
Yes	167	85.2
Having an established National Health Management Information System (NHMIS) mechanism for recording and transmitting service statistics or registers for proper record keeping	Frequency	Percent
No	103	52.6
Yes	93	47.4
An annual quality improvement strategy is implemented in the facility to improve the user experience on BHCPF investments	Frequency	percent
No	107	55.6
Yes	87	44.4
Total	196	100.0
The functionality of storage facilities for health commodities in the facility	Frequency	percent
No	55	28.1
Yes	141	71.9
Total	196	100.0
Display of relevant information in the PHC facility on BHCPF and BMPHS to the community	Frequency	percent
No	130	66.3
Yes	66	33.7

Adequate health information on BHCPF to the community	Frequency	percent
No	103	52.0
Yes	93	47.4
Provision of adequate facilities for the management of maternal and neonatal child health emergencies	Frequency	percent
No	66	33.7
Yes	130	66.3
Is there a prompt referral of clients, in line with the standard operating procedures (SOPs) for PHC workers as published by the (NPHCDA)?	Frequency	Percent
No	123	62.8
Yes	73	37.2
Total	196	100.0
Improving the standard of PHC facilities in your community by BHCPF	Frequency	percent
No	16	8.2
Yes	180	91.8
sustainability of the project	Frequency	percent
No	104	53.1
Yes	92	46.9
BHCPF funds to strengthen PHC services in your facility and community	Frequency	percent
No	84	42.9
Yes	112	57.1

The outcome of the facility grading was revealed. 48.0 % of the results indicated good, 34.2% suggested very good, 10.2 % showed excellently, and 7.7 % indicated fair as shown in figure 4.1.

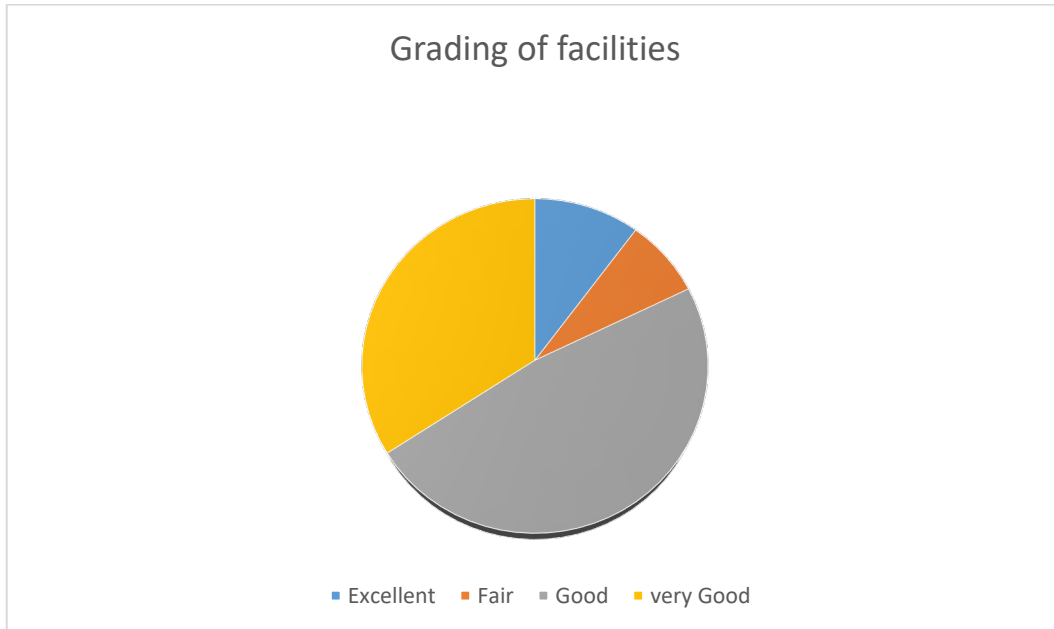


Figure 4.1: PIE CHART DEMONSTRATING GRADING OF HEALTH FACILITIES ON BHCPF

The bar chart below proves that there were not sufficient funds to support the BHCPF's activities, especially at the community level. The responses were 60.7% community outreach, 89.3% PHC prevention, and 61.2% community prevention. The details of this can be seen in figure 4.2.

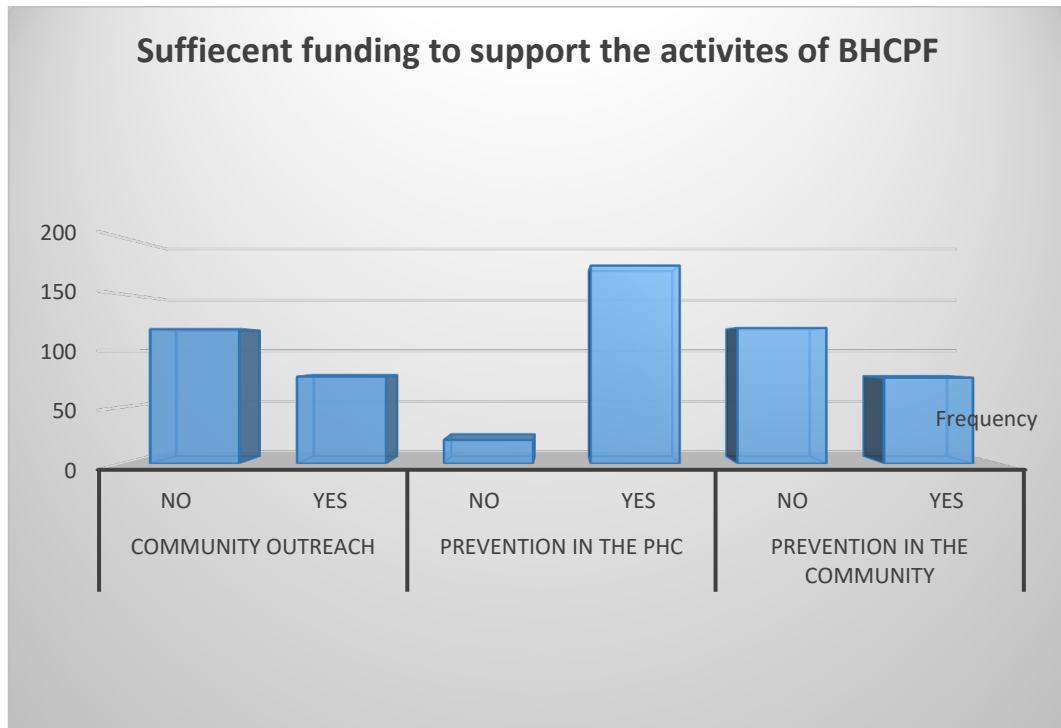


Figure 4.2: DISTRIBUTION OF SUFFICIENCY IN SUPPORT OF THE

ACTIVITIES OF BHCPF

Showing that there was enough funding for BHCPCF activities the responses were that 83.7%, 81.6% and 77.6% were affirmative for Purchase essential medicines and health commodities from accredited pharmacies, Distribution within geographical proximity, collecting and returning vaccines, and Facility-based care respectively as shown in figure 4.3

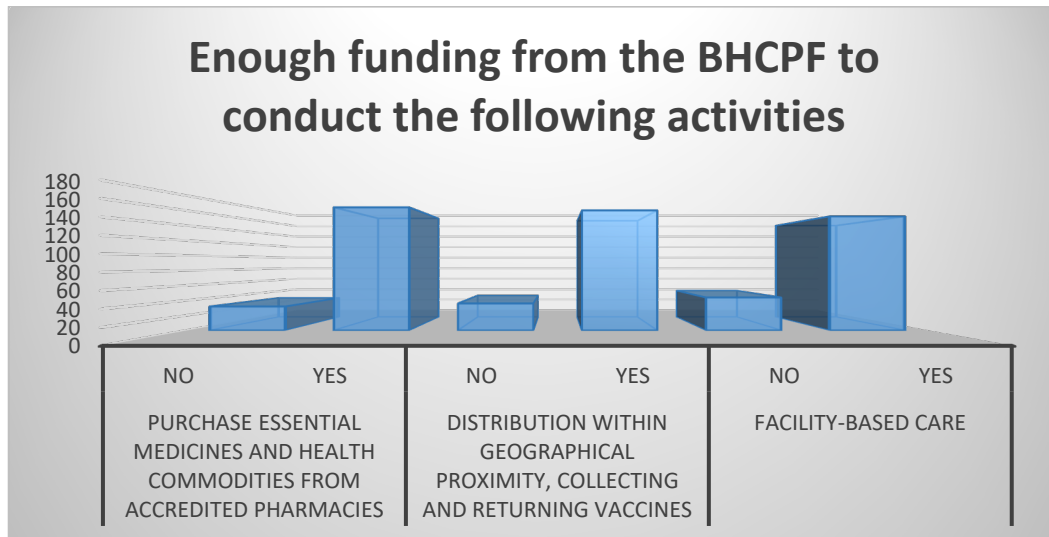
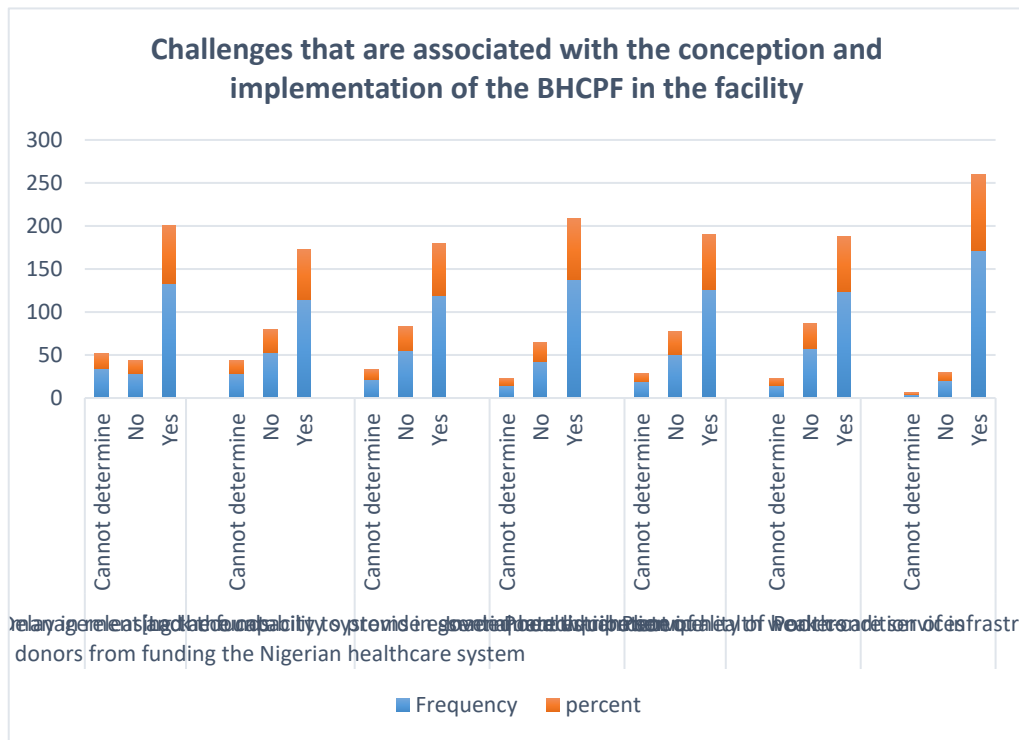


FIGURE 4.3: DISTRIBUTION OF FUNDING FROM THE BHCPF TO CONDUCT THE FOLLOWING ACTIVITIES

4.2.4 Challenges associated with BHCPF

When asked about potential challenges associated with the conception and implementation of the BHCPF in facilities, 67.9% said funding delays could be a problem, while 17.3% said it couldn't be determined. Poor financial management and accountability mechanisms in government were cited as a challenge by 58.2%, while 27.0% said they were not. According to the statistics on the capacity to offer essential healthcare services, 60.7% confirmed the difficulty, while 28.1% stated it could not be a challenge. Regarding inadequate equipment, 70.4% said it is a challenge, while 21.9% said it is not. Regarding the poor distribution of health personnel, 64.3% agreed, and 26.0% disagreed. 63.3% stated that poor quality of healthcare services is a challenge, 29.1% said no, and 7.7% couldn't determine. The poor infrastructure condition shows that 87.8% stated it is one of the obstacles of BHCPF implementation, 10.2% said it is not, and 2.0% said it could not be decided.

FIGURE 4.4: DISTRIBUTION OF CHALLENGES THAT ARE ASSOCIATED WITH THE CONCEPTION AND IMPLEMENTATION OF THE BHC PF IN THE FACILITY



4.3: FACTORS ASSOCIATED WITH BHC PF IN KANO STATE

It was statistically significant that primary health care workers (54.0%, chi square=29.09, n= 196, p-value< 0.000) had higher confidence in the concept of BHCPF compared to other facilities.

TABLE 4.4 THE RELATIONS OF PLACE OF WORK AND LEVEL OF AWARENESS OF THE CONCEPT OF BHCPF

Workplace	level of awareness of the concept of BHCPF		Pearson	sig	phi	Cramer v
	Poorly	Very well				
Comprehensive health care	2	23	29.099 ^a	.000	.385	.272
Health post	21	22				
Primary health care	22	106 (54.0%)				

There is a statistical significance that primary health care facilities (43%, chi square=11.752, n=196) lack staff to provide BMPHS.

TABLE 4.5 THE RELATIONS OF PLACE OF WORK AND ADEQUACY OF STAFF

	Adequacy of number of staff		Pearson	Significance	Phi	Cramer v
	Yes	No				
Workplace	Comprehensive health care	17	8	11.752 ^a	.003	.245
	Health post	13	30			
	Primary health care	43	85(43.3%)			

The chi-square result showed a statistical significance that primary health care facilities (38.7%, chi-square 7.182, n = 196) do not have an established NHMIS mechanism for recording and transmitting service statistics or registers for proper record keeping.

TABLE 4.6 RELATIONSHIP OF PLACE OF WORK AND THE AVAILABILITY OF THE NATIONAL HEALTH INFORMATION MANAGEMENT IN THE FACILITY.

Availability of national health management information in the facility		Yes	No	Pearson	Significance	Phi	Cramer v
Workplace							
Work facility	Comprehensive	14	11	7.182 ^a	.028	.191	
	Health post	27	16				
	Primary health care	52	76(38.7%)				

It was the statistical significance that community healthcare extension workers (67.8%, chi-square 23.273, n=196) high level of confidence in awareness of the concept of BHC PF.

TABLE 4.7 THE RELATION OF PROFESSION OR OCCUPATION AND LEVEL OF CONFIDENCE OF AWARENESS OF THE CONCEPT OF BHC PF

level of confidence of awareness of the concept of BHC PF							
		Not too well	Very well	Pearson	Significance	Phi	Cramer v
D4 Profession or Occupation	Community health extension worker	30	133(67.8%)	23.273 ^a	.006	.345	.199
	Midwife	2	6				
	Nurse	1	4				
	Others	12	8				

There is a statistical significance that community health extension workers (42.8%, chi-square 10.759, n=196) think the project can be sustainable.

TABLE 4.8 THE RELATION OF PROFESSION OR OCCUPATION AND PROJECT SUSTAINABILITY

Occupation and project sustainability							
		Yes	No	Pearson	Significance	Phi	Cramer v
D4 Profession or Occupation	Community health extension worker	79	84(42.8%)	10.759 ^a	.013	.234	.234
	Midwife	1	7				
	Nurse	5	0				
	Others	7	13				

CHAPTER FIVE

DISCUSSION

5.0 INTRODUCTION

The study assessed the perception of PHC workers on the utilization of BHCPF in improving health care services, especially in beneficiary communities. The study, therefore, evaluated the factors and benefits as well as the challenges associated with the ability of the PHC to improve the health care services to allocated communities. We selected hundred (100) facilities; two-hundred (200) participants were enrolled, but one hundred and ninety-six (196) questionnaires were returned.

To gather various perspectives, I used the survey questionnaires method to collect data and chi-square to show a statistical association between variables (social demographic data, knowledge on BHCPF, and capacity of PHC). The main foci of the study were:

- (a) Socio-demography
- (b) Knowledge of BHCPF
- (c) The capacity of BHCPF to provide efficient health care
- (d) Challenges associated with BHCPF

5.1 DISCUSSION

5.1.1 Demographic characteristics

The gender results showed that 51.5% of professionals in PHC facilities are female. It is consistent with a WHO statement stating that more than 70% of health professionals are female (WHO, 2019b) and the US Bureau of Labor Statistics reports that 77% of the health care workforce are female (Stohlmeyer, 2019). According to the findings, community health extension workers accounted for the most significant proportion of staff in PHC facilities, accounting for 83.2%. It is contrary to BHCPF guidelines, which stated that each selected PHC facility should have at least one trained skilled birth attendant, i.e., a midwife, but data show that only 4.1% of midwives were present in the 100 facilities where the survey was conducted. According to the WHO technical series on PHC, it is recommended

that the PHC workforce include all occupations involved in health promotion and disease prevention as well as those who engaged in addressing the social determinants of health and ensuring that all occupations play an influential role in primary health care teams, including through role optimization and the substitution of other professions..(Dussault et al., 2018). According to data on the highest level of education, only 6.1% of healthcare professionals had a degree. In contrast, the majority, 93.9%, had a diploma, and the WHO emphasized the importance of professional development and in-service training in developing and maintaining high-quality primary health care services. In-service training can be used to upskill or retrain existing health professionals to provide competent primary healthcare services in health systems that have not yet developed a robust primary care specialty workforce (WHO, 2016).

5.1.2 Knowledge of PHC health professionals on BHCPF

The study showed that PHC workers have adequate knowledge of BHCPF, they had a good awareness of the concept of the BHCPF, and this is because they were trained on the project by the health care authorities. When PHC professionals were asked about their knowledge of the BHCPF project, the results revealed that 61.7% had adequate knowledge of the BHCPF project. In comparison, 50.5% indicated a level of awareness of the BHCPF project concept. When asked if they had received training on the BHCPF project from healthcare authorities, 89.8% said they had, and 55.6% said they needed more clarification on strengthening primary health care using the 45% of funds allocated to the PHC system. Most health professionals work in PHC facilities and need additional knowledge on how the allocated funds can be used to improve the standard of care. The respondents agreed that they make quarterly returns, and 96.9% responded positively, confirming that the return system was included in the BHCPF training manual.

5.1.3 Capacity of primary health facilities on BHCPF

According to the study's findings, 62.8% of participants agreed that there are not enough health care professionals to provide BMPHS using the BHCPF. By 2030, the World Health Organization's Health Workforce 2021 report estimates that 18 million health workers will

be required to improve health service coverage, mostly in low and lower-middle-income countries, and achieve the right to the highest possible standard of health.

They added that by the end of the decade, the world would require 80 million health workers to meet the demands of the global population. According to the participants, the BHCPF project allows for periodic evaluation of the PHC facilities, which will aid in determining the quality of the facilities. According to the findings, 52.6% of respondents stated that there is no NHMIS or register for proper record-keeping, which helps maintain best-practice, aids clear communication between professionals, and demonstrates that best practice was followed. For good medical practice and continuity of care, medical records must be complete, simultaneous, and well-organized (Catherine, 2012). He suggested that keeping records is the best way to assess the level of improvement made in the healthcare system. The return system is included in the training manual guideline of the BHCPF; 55.6% of respondents agreed that there is an annual quality improvement strategy in place at the facilities to improve the user experience following BHCPF investments. These figures indicate that their services were not available in the facilities to display relevant information in the facility for the community about BHCPF and BMPHS, 66.3%, the community's awareness of the BHCPF 52.0%, and community outreach, 59.2%. The main goal of the BHCPF project is to strengthen PHC facilities to provide good health care services, thereby improving the community's health and reducing the financial burden of purchasing health care services. Unfortunately, the community doesn't know enough about the project. The WHO defines PHC as "whole-of-society approach healthcare that aims to ensure the highest possible level of well-being and equitable distribution by focusing on people's needs as fast as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation, and palliative care, and as close to people's daily environment as possible (WHO, 2021a). According to the definition above, involving the community in their care is vital because extending a country's health care system to its geographical and social periphery is cost-effective. Communities that begin to view their health status objectively rather than fatalistically may be moved to take a series of preventive measures.

Also, communities that invest labor, time, money, and materials in health-promoting activities may be transferred to take preventative measures (MacCormack, 1983). The study confirmed that 66.6% of emergency facilities for maternal, neonatal, and child health care. It is due to the state's high rates of morbidity and mortality. This service was made available in PHC facilities, even though there are still gaps due to high mortality rates.

62.8% of respondents stated that their facilities lacked referral services in terms of referral systems. According to WHO, "referral is a process in which a health worker at one level of the health system seeks assistance from a better or differently resourced facility at the same or higher level due to insufficient resources (drugs, equipment, skills) to manage a clinical condition." In addition, operational inefficiencies in the medical workplace caused bottlenecks in the care continuum. As a result, both patients and providers are inconvenienced by downtime or unnecessarily long lead times. In a study on strengthening referral systems in community health programs in Mozambique, community members and CHWs identified the following challenges affecting the country's referral system:

- (a) Distance to healthcare facilities.
- (b) Lack of access.
- (c) Transportation costs are significant barriers preventing clients from following the referral pathway recommended by their CHW.

Other impediments included the costs of receiving healthcare, such as medicines, laboratory tests, or unjustifiable payments requested by healthcare professionals (corruption practices)

(Give et al., 2019). According to studies on understanding healthcare self-referral in Nigeria from a service users' perspective, approximately 60–90% of patients in Nigeria are reported to self-refer to a referral level of care (Koce, Randhawa and Ochieng, 2019). It is primarily due to a lack of trust in the health care workers in PHC facilities. The respondents' perspectives on the project's long-term viability 53.1% said the program could not be sustained because many health projects in Nigeria are not maintained. Non-governmental

organizations primarily fund most of these health projects, and they collapse once the project term is over. Some of the constraints were financial, technical, social, and environmental, and they lacked a proper post-project sustainability plan (Ishola, 2019).

The BHCPF program is currently supported primarily by non-governmental organizations and a few individuals. It will be a five-year project. What are the chances of the project continuing? That is why respondents lack confidence in its continuation after the specified time. When asked if the funds were used to strengthen the PHC facilities, they said yes because most of the facilities were renovated, and much equipment was purchased to kickstart the project.

5.1.4 The challenges of BHCPF in PHC facilities

The study identifies some potential challenges associated with the conception and implementation of BHCPF projects. First, delay in the release of funds. All of these, according to participants, could impact the BHCPF project due to a lack of capacity to provide essential healthcare services. It is consistent with the significant challenges confronting Nigeria's healthcare system.

5.1.1 Factors associated with BHCPF in PHC facilities in Kano State

In the statistical analysis using chi-square to compare associations between type of facility and level of awareness in BHCPF, PHC workers had higher confidence in the concept of BHPF (54.0%, chi-square = 29.09, n = 196, p-value 0.000). It was discovered that there is a link between the type of facility and the adequate number of staff in the facilities to provide BMPHS using the BHCPF, with PHC facilities indicating insufficient staff to provide BMPHS (43%, chi square=11.752, P=0.003, n=196). It also demonstrates the statistical significance that PHC facilities lack an established NHMIS mechanism for recording and transmitting service statistics or registers for proper record keeping (38.7%, chi-square 7.182, n = 196). There is an association between profession and level of confidence in understanding the BHCPF concept, with community healthcare extension workers having a high level of confidence (67.8%, chi-squared, n = 196). An association was discovered between profession and project sustainability, with community health

extension workers (42.8 %, chi-square 10.759, n=196) believing the project cannot be sustained.

5.2 LIMITATIONS

The primary limitations associated with this study were

1. There are not many previous studies on BHCPF
2. Time: - there is not much time in conducting the study
3. Data collection process
4. Financial constraints

5.3 SIGNIFICANCE OF THE STUDY

1. To provide evidence-based data to improve the accessibility of high-quality health care services in PCH facilities.
2. To highlight the difference between current practices and the activities required to close the existing gap by utilizing the BHCPF.
3. The study will be valuable to the Kano State Primary Health Care Board and the State Ministry of Health, which mandate to improve policies surrounding PHC facilities/workers.
4. The study may encourage further studies of PHCs, situated in other parts of the country.

5.4 CONCLUSION

According to the findings, PHC workers are well-versed in the BHCPF project. The project funds improved the facilities (equipment, drugs, renovation of some structures, etc.). It indicates that the primary health care facilities can utilize the BHCPF even though there are gaps noticed. The need for more BHCPF training and clarification on the concept of strengthening the primary health care (PHC) system was expressed by 100% of the respondents.

The studies showed insufficient healthcare workers to carry out this project efficiently. In addition, there is inadequate information about the project in the community and a lack of proper data management.

The project's goal is to improve the health care services provided by PHC facilities while also reducing financial hardship when purchasing health care services. However, based on

the information gathered, it is clear that community participation and awareness of the project are meager. Therefore, creating community awareness is essential.

5.5 SUGGESTION

The government should encourage in-service training of health workers at least to a degree level

Employ more health professionals

Create more community awareness on the project and how they can benefit from the funds

Set strategies on how the project will be sustained after five years

Further research on the level of community awareness on the BHCPF project.

APPENDIX

**Research Questionnaires
Master's in Global Health and Financing Capacity Building
Graduate School of Public Health,
Yonsei University, South Korea**

Topic: The capacity of Primary Health Care facilities for the utilization of Basic Health Care Provision Fund in Kano state, Primary Health Care workers perspective

Introduction

Dear, respondents

I am a student of Yonsei University studying Masters in Global Health and Financing Capacity Building. The study questionnaires listed below assess the efficacy of primary health care facilities in utilizing the BHCPF, which is issued by the federal government of Nigeria. Please fill in the proper response as it applies to you. There are no correct or incorrect responses, and confidentiality will be protected because the questions are anonymous.

SECTION A: SOCIAL DEMOGRAPHIC DATA

1. Age (in years): a) 20 – 25 [] b) 26 – 30 [] c) 31 – 35 d) 36 – 40 []
e) 40 & above []
2. Sex: (a) Male [] (b) Female []
3. Profession/ occupation: (a) Nurse [] (b) Doctor (c) Midwife [] (d) Community Health Extension Worker (e) Others.....
4. Marital status a) Married [] b) single [] c) Divorced [] d) Widowed e) Separated []
5. Highest educational level attained
a) Diploma [] b) Degree [] c) Masters []
6. Indicate the facility that best describe were you work
a) comprehensive health care [] b) Primary healthcare facility []
7. How many years have you been working in your current position/ profession?
1 - 10 [] 11 – 20 [] 21 – 30 [] 30 & above []

SECTION B:

knowledge on BHCPF

8. Do you think you have adequate knowledge regarding BHCPF
Yes []
No []
9. Please indicate your level of confidence of your awareness of the concept of BHCPF
a) Very well []

- b) Well
- c) Not too well
- d) Poorly

10. Did you acquire your knowledge regarding BHCPF from the training you received from the health care authorities?

- Yes
- No

11. What are the other sources of information regarding the BHCPF

- a) Media
- b) Health care authorities
- c) publications
- d) Pamphlets leaflets
- e) Colleagues

12. do you consider yourself to need additional information about the BHCPF

- a) Yes
- b) No

13. If you think you need additional information about BHCPF, what aspect do you most need this education

- a) Ensuring the provision of a Basic Minimum Package of Health Services (BMPHS) by applying 50% of the funds towards the purchase of the BMPHS, to be managed by the National Health Insurance Scheme (NHIS);
- b) Strengthening the Primary Health Care (PHC) system, with 45% of BHCPF
- c) Providing Emergency Medical Treatment, with 5% of the BHCPF

SECTION C

The capacity of BHCPF to provide efficient health care

14. Do you think the number of staff in your facility are adequate to provide BMP.. using the BHCPF?

- a) Yes
- b) No

15. Are you aware that the BHCPF allows for periodic evaluations of health care facilities?

- a) Yes
- b) No

16. Has your facility been evaluated on the performance of the BHCPF?

- a) Yes
- b) No

17. When your facility received the evaluation, how was the grading?

- a) Excellent
- b) Very good
- c) Good
- d) Fair
- e) Poor

18. Is there an established National Health Management Information System (NHMIS) mechanism for recording and transmitting service statistics or registers for proper record keeping?

a) Yes

b) No

19. Is there an annual quality improvement strategy in place at your facility to improve the user experience following BHCPF investments?

a) Yes

b) No

20. Is the funding sufficient to support activities, like:

i) Community outreach?

a) Yes

b) No

ii) Prevention in the PHC?

a) Yes

b) No

iii) Prevention of the community?

a) Yes

b) No

21. Is the funding adequate?

i) Purchase essential medicines and health commodities from accredited pharmacies?

a) Yes

b) No

ii) Distribution within geographical proximity, collecting and returning vaccines?

a) Yes

b) No

iii) facility-based care?

a) Yes

b) No

21. Are there functional storage facilities for health commodities in your facility?

- a) Yes
- b) No
22. Is there any relevant information on display in the PHC facility that informs the community about BHCPF and BMPHS services?
- a) Yes
- b) No
23. Do you think health awareness of community members on the BHCPF is adequate in your community?
- a) Yes
- b) No
24. Are there adequate facilities for maternal and neonatal child health emergency management?
- a) Yes
- b) No
25. Is there a prompt referral of clients, in line with the standard operating procedures (SOPs) for PHC workers as published by the (NPHCDA)?
- a) Yes
- b) No
26. Has this project improved the standard of PHC facilities in your community?
- a) Yes
- b) No
27. Based on your opinion do you think this project can be sustainable?
- a) Yes
- b) No
28. Do you think BHCPF funds have been utilized to improve the provision of quality PHC services in your facility and community?

a) Yes

b) No

SECTION D

Challenges associated with BHCPF

Kindly indicate yes or no corresponding to each of the following if they are challenges that are associated with the conception and implementation of the BHCPF in your facility

Challenges	yes	no
Delay in releasing the funds		
Weak financial management and accountability systems in government deter donors from funding the Nigerian healthcare system.		
The tendency of government officials and politicians to pursue their interests.		
Lack the capacity to provide essential healthcare service		
Poor staffing		
Inadequate equipment,		
Poor distribution of health workers,		
Poor quality of health-care services,		
The poor condition of infrastructure		

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