

# **EXAMINING THE RELATIONSHIP BETWEEN HEALTHCARE MAINTENANCE AND SAFETY POLICIES FOR MARITIME TRANSPORT WORKERS IN PORT HARCOURT SEAPORT**

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## **Abstract;**

This study examined the relationship between Healthcare Maintenance and Safety Policy of Maritime Transport Workers in Port Harcourt Seaport. The aim and objectives were to examine if there is any relationship between Healthcare Maintenance and Safety policy of Maritime Transport Workers. Three research questions and null hypotheses were formulated to examine the relationship between Healthcare Maintenance and Safety Policy of Maritime Transport Workers in Port Harcourt Seaport. A sample size of 176 workers was selected from the population of 315 workers in Port Harcourt Seaport using the Taro Yamane sampling procedure. Simple Percentages, Frequency Tables, Bar Charts and Spearman Rank Correlation Coefficient were used as data analysis and techniques. The study found a correlation coefficient of 0.853(rho value) between National Health Insurance Scheme and Safety Policy, 0.755(rho value) between Monitoring/Regulating Healthcare Giver and Safety Policy, and 0.789(rho value) between Healthcare Financing and Safety Policy. From the findings, the study conclude that Healthcare Maintenance have positive and significant relationship with Safety Policy of Maritime Transport Workers in Port Harcourt Seaport. The study, recommends that implementable policies must be put in place to monitor and regulate healthcare givers to avoid ill performance and increase workplace hazard among the maritime transport workers in the seaports. Adequate provisions in financing all healthcare activities in the seaports should be integrated in relevant laws such as the federal government appropriation bills as this will simplify the easy source of financing healthcare projects in the Seaport and there is need for proper management and accountability in healthcare financing in the ports to avoid miss appropriation of healthcare maintenance fund.

**Keywords:** Healthcare Maintenance, Safety Policy, Port Harcourt Seaport

## **Introduction**

Healthcare Maintenance and Safety of Maritime Transport Workers constitute a matter of concern to government and corporate organizations; these have over the decade's motivated formulation of policies and enactment of laws such as the NIMASA Act 2007, Coastal and Inland Shipping (Cabotage) Act, 2003, the merchant shipping Act 2007 and Maritime Labour

Convention (MLC) 2006. Little efforts have been made to develop inland water transport facilities and safety measures. This stems largely from policy inconsistency, limited private sector involvement, and conflicts by agencies involved in the management of inland water transport in Nigeria (Abam, 2004).

The sector has been regarded as one of the most dangerous in Nigeria owing to the problems enumerated below; Sea piracy is presently very common, hence leading to loss of life and properties causing huge economic and commercial losses to Communities, Local government areas, States and Nigeria as a nation (Obeta, 2014). Nevertheless, whereas sea piracy and other insecurities associated with inland water transport appear to be on the decrease globally, it is increasing in Nigeria. This situation has been worsened by neglect by successive governments in Nigeria to approach insecurity problems head-on (Akogun, 2014; Oyadongha, 2014).

Furthermore, evidence has shown that there is poor compliance to rules and regulations. The poor compliance to rules and regulation does not only pose threat to safety of maritime transport workers but threat to facilities and assets. For instance, the continuous use of ill refined petroleum products and storage has caused a lot of health and safety threat to seaports and its environment, the attitude of the maritime transport workers contradict safety rules and regulations. It is important to note that most of the maritime transport workers smoke even where there is information restricting smoking in such area.

Articles from the maritime press also indicate that in practice, ship managers largely do not concentrate on risk-based management and place considerable focus on rectifying seafarer's behavior. They highlight how ship managers predominantly tend to victimize individual seafarers by blaming them for most mishaps that take place on ships. The ship-managers frequently point to seafarers' negligence as the most common cause. By taking examples of the practice of incident reporting mechanism of the operation of Safety Management Systems (SMS), a number of press articles have shown that managers place a disproportionate level of focus on blaming individual seafarers which discourages them from reporting incidents to their managers (Lloyds, 2004a, 2007a).

On September 15, 2020, the Nigerian Maritime Administration and Safety Agency (NIMASA) issued a marine notice on Cabotage Registration of Vessels operating in Nigerian Waters and Renewal of Expired Certificates/Licenses. Acting in exercise of its powers under the Coastal and Inland Shipping Act 2003 and the Guidelines on Implementation of the Act, the agency issued a

safety of maritime transport three-month ultimatum within which vessels in use in Nigeria's waters are to comply with Section 22 of the Cabotage Act by meeting registration requirements under the Cabotage Merchant Shipping Acts. Evidence indicates that most marine companies failed to comply with these rules but they still operate in the Nigeria Coastal areas. Across the country, the potentials of this sector remain untapped. This study therefore seeks to evaluate the prevailing healthcare maintenance strategies and workers as such study is lacking in literature.

### **Aim and Objectives of the Study**

1. To ascertain the relationship between compliance to national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport.

2. To investigate the relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport.

3. To find out the relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport.

### Research Questions

From the above specific objectives, the following research questions are formulated:

i. How does compliance to national health insurance scheme relate to safety policy of maritime transport workers in Port Harcourt Seaport? ii. To what extent does monitoring/regulating healthcare giver relate to safety policy of maritime transport workers in Port Harcourt Seaport?

iii. What is the relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport?

### Hypotheses

From the above research questions, the following null hypotheses are formulated:

**H<sub>02</sub>:** There is no significant relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport.

**H<sub>02</sub>:** There is no significant relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport.

**H<sub>03</sub>:** There is no significant relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport.

### Literature Review

#### Healthcare Maintenance

The healthcare services provided by hospitals have led to become very important buildings. Various facilities and equipment run alternately to support the systems in the hospital building. Healthcare has different groups of stakeholders such as patients, public or visitor, administrative and medical staff. According to Loosemore and Hsin, as cited in (Ali, Mohamad, & Wan, 2009) it forms a complicated network that needs to look into and the complexity of many services that require high support as the main challenges in managing hospital facilities. Facility managers play an important role to forecasting the condition of the facilities on their experience and their different values, beliefs, perceptions and expectations. Hospitals are a vital component of the healthcare system (McKee & Healy, 2002) but they are an expensive way to deliver medical care (Shohet & Lavy, 2004). Corrective maintenance or condition based maintenance. Corrective maintenance tasks often take place in response to breakdown or user request. It is completely different from preventive maintenance because it based on the condition of the equipment. As mentioned by (Horner et al., 1997), corrective maintenance is the simplest maintenance strategy, which involves just the repair or replacement of an element that has failed in its function. Nik Elyna (2010) mentioned that the corrective maintenance is the most maintenance managers depend on to perform daily maintenance tasks. Corrective maintenance can be extremely expensive because the failure of an

item can cause a large amount of consequential damage to other elements in the building and failure of an item can occur at a time that is inconvenient to both the user and the maintaining authority. (Horner et al., 1997)

### **Compliance to National Health Insurance Scheme**

The National Health Insurance Scheme (NHIS) offers programs to cover the formally employed, urban self-employed, tertiary students, armed forces, some pregnant women, children under five, and such populations as the disabled and prison inmates. Under the National Health Insurance Act of 2008, in 2010, the NHIS started a rural community based social health insurance program (RCSHIP). The NHIS is going through a period of evaluation to review the benefit package for its members and the different modalities for contribution of premiums. As a priority, the Nigerian government would like NHIS to cover more of the population. Currently, based on the number of identification cards issued, NHIS covers about 5 million members, or 3 percent of the population. Several proposals to increase coverage include a proposal to make NHIS registration mandatory for federal government employees. At a broader level, Nigeria needs to examine the path it will take to achieve universal health coverage and the role health insurance may play in it. Nigeria will need to make crucial decisions if access and financial protection within the context of health are to expand to cover the majority of the population. Given the likelihood of the passage of the National Health Bill (SB 50, drafted in 2008) through the lower house of the National Assembly (Parliament) during 2013, Nigerian policymakers should now also consider the unfinished agenda for health financing.

NHIS was first introduced in Nigeria in 1962, during the First Republic (Johnson & Stoskopt, 2009). The scheme then was compulsory for public service workers. The operation of NHIS was obstructed following the Nigerian civil war. In 1984, the Nigerian Health Council resuscitated the scheme and a committee was set up to look at the National Health Insurance. The then Minister of Health, Professor Olikoye Ransome Kuti, commissioned Emma-Eronmi led committee which submitted her report which was approved. Consultants from International Labour Organisation (ILO) and United Nations Development Programme (UNDP) carried out feasibility studies and came up with the cost implication, draft legislation and guidelines for the operation of the scheme.

In 1993, the Federal Government directed the Federal Ministry of Health to start the scheme in the country (Adesina, 2009). In 1999, the scheme was modified to cover more people via Decree No.35 of May 10, 1999 (Adesina, 2009; NHIS Decree No. 35 of 1999). The scheme took-off in 2004 but did not become fully operational until 2005. As at September 2009, 25 states of the

Federation agreed to partner with NHIS. These include Akwa Ibom, Rivers, Edo, Taraba, Adamawa, Kaduna, Zamfara, Kebbi, Sokoto, Katsina, Nassarawa, Anambra, Jigawa, Imo and Kogi States. Others were Bauchi, Ogun and Cross River States. These states are at various stages of implementation of the scheme (NHIS, 2009).

### **Monitoring and Regulating Healthcare Givers**

The history of regulating healthcare services in Nigeria dated back to 1927 when the Board of Medical Examiners (BME) was established by the British Colonial administration. From the BME, other regulatory agencies evolved at different times to the present thirteen health regulatory agencies that cater for the

control and regulation of one healthcare profession or the other and as agencies of the Federal Government under the supervision of the Federal Ministry of Health (FMOH).

The responsibilities of these health regulatory agencies under the leadership of their various Registrars are similar even though the healthcare focus of each of the professions is different. Essentially, they regulate and control the education, training, and practice of these healthcare professionals at the healthcare provider centers responsible for the provision of primary healthcare, secondary and tertiary healthcare services in health institutions. However, the registration and regulation of some facilities such as private and public hospitals is the responsibility of the state ministries of health of that state. The SMOH are responsible for the registration and supportive monitoring of such facilities.

The healthcare regulatory agencies also ensure the competencies of the practicing healthcare professionals are enhanced as per their skills, expertise, and competencies through mounting Continuing Professional Development (CPD) programmes in accredited provider centers, to keep them abreast of the current knowledge and practice related to their area. It has been reported that healthcare regulatory agencies are also the custodian of valid and valuable information with regards to the register of names, the performance of professionals, good professional practice, and records of premises where professional activities are taking place. Another vital role of such agencies is checkmating quackery of healthcare professionals and the professionals through registering and issuance of annual licenses and keeping the register of the names of such licensed personnel and the premises. Implying, any person or premise operating without a license issued by such agencies is seen as a quack in the eyes of the Nigerian law.

### **Healthcare Financing**

Healthcare financing alludes to procedures for paying for healthcare expenses. For any economy to grow, it must confer adequate funding to health, keeping in mind the end goal of which is to accomplish anticipated levels of health status and economic improvement. There are different types of health insurance; they can be broadly divided into private and public insurance based on the source of funding. In public the funds are paid by the government from general taxes or hypothecated taxes, this source of funding for healthcare helps to improve access and promote equity. Available funds in public health insurance are often not enough and need to be supplemented by funds from private insurance.

Private health funds are paid directly to the fund managers and consist of non-profit and for-profit plans, and community health insurance schemes. Private coverage, when managed well helps to improve access and equity especially in developing countries, and reduce large out-of-pocket expenses for healthcare. They serve as a useful source of supplementary insurance to provide coverage for health services not covered by the publicly-funded schemes. Poorly planned private health insurance systems have been associated with exacerbating inequalities, the high number of uninsured, and the high cost of out-of-pocket payment. Social health insurance (SHI) is a compulsory scheme that allows the pooling of funds to finance health services, in addition to other sources such as taxes, private health insurance, community insurance, and others. It usually involves defined contribution from the employees, their employers, and government via a payroll deduction system.

**Risk Assessment and Hazard Identification**

Risk identification starts with the hazard identification that can cause a severe pollution of the environment. This is the first step within the risk assessment. A hazard can be considered a situation with a potential for causing harm to human safety, the environment, property or business, regardless of how likely or unlikely such an occurrence might be. The hazards identification is a well-structured systematic and critical process. In order to obtain a list of the associated hazards and scenarios that have been prioritized according to the level of the risk, the main accidents should be found in the databases, which can be: ship-ship collisions, powered groundings, drift groundings, structural failure, fire/explosion whilst underway, powered ship collision with fixed marine structures such as platforms or wind turbines, drifting ship collision with fixed marine structures.

A coarse analysis of possible causes and outcomes of each accident category should be carried out. It is widely accepted that a marine accident is not caused by a single cause, but a multitude of causes, individual factors, technological and organizational factors. Starting from an immediate cause of discharge the investigator may examine the chain of events and may identify one or more factors that contributed to the accident or basic causes. Analysis of the basic causes seek to understand "why" an accident occurred and seek to answer questions like "what happened, how happened" and "why happened".

**Safety Policy in Maritime Transport**

While an exact definition of a safety culture does not exist, a recurring theme in the literature is that organizations with effective safety cultures share a constant commitment to safety as a top-level priority, which permeates the entire organization. Accordingly, the following dimensions of safety culture are noticed in the literature;

- 1) Acknowledgment of the high risk, error-prone nature of an organization's activities,
- 2) Blame-free environment where individuals are able to report errors or close calls without punishment,
- 3) Expectation of collaboration across ranks to seek solutions to vulnerabilities, and
- 4) Willingness on the part of the organization to direct resources to address safety concerns.

Based on extensive field work in multiple organizations have observed several common, cultural values in safety enhancing organizations: interpersonal responsibility; person centeredness; coworkers helpful and supportive of one another; friendly, open sensitive personal relations; creativity; achieving goals, strong feelings of credibility; strong feelings of interpersonal trust; and resiliency. Researchers have not also reached a consensus on the dimensions that constitute a safety culture. Studies have however identified safety culture dimensions ranging from management to risk awareness and attitudes and perceptions of the safety climate. A dissertation on predictors of work-related injuries in the maritime industry cited dimensions of a positive safety culture to include: commitment by management and workforce, leadership style and communication, individual responsibility, management responsibility, risk awareness and risktaking.

**Safety Culture Theory**

The notion that a shared conceptualization in the form of beliefs, norms, perceptions is a determinative factor for how people act and it is also a fundamental element in organizational science in general (Schein, 2004; Alvesson, 2002) as well as in the specific field of safety research (Cooper, 2000; Guldenmund, 2000). This collective



cognitive mechanism is normally referred to as organizational culture or climate but the scientific community has yet been unable to reach a consensus neither for how to define it nor for the mechanisms by which it exerts influence on behavioral patterns in an organization (Cooper, 2000; Guldenmund, 2000). At the outer surface of Schein's model we find the artifacts of the organizational culture. This is the tangible part of the culture or, in other words, what meets the eye when encountering the organization. Examples of such artifacts are formal procedures, dress codes, equipment and ornaments, emotional displays, myths, rituals and ceremonies.

**Guldenmund's Model of Safety Culture;** Just as in the case of organizational culture, Guldenmund (2000) has reviewed earlier studies covering the area of safety culture and this time he cites eighteen earlier studies. Of these eighteen studies, sixteen contained explicit definitions of safety culture/climate. Guldenmund notes that the majority of these definitions refer to cognitive phenomena that are shared by the organizational members. The phenomena most referred to are perceptions, beliefs and attitudes which appear nine, six and six times respectively. The most diverse part of the definitions seems to be the object of these perceptions, beliefs and attitudes which span from "safety", "work environment and organizational characteristics to more abstract terms like "entity" and "attributes".

Not only do the definitions of safety culture/climate vary between the studies, but they also arrive at different dimensions in which the culture manifests itself and few specify the process by which this occurs. In an effort to address this confusion and ambiguity, Guldenmund (2000) presents his own model of safety culture which he bases on Schein's (2004) theories of organizational culture.

### **Empirical Review**

Nwoye, Oyegun and Ugbebor (2019) argued that consequently, organizations take only basic steps in terms of NHIS compliance. He further stressed that this is a traditional approach that was proved to be ineffective; therefore, corrective measures have been taken in order to rectify the limitations. The argument is that when this technique is deployed against NHIS regulations violation, which it seeks to correct, it may be too late, as injuries, accidents or fatalities may have occurred. Thus, suggesting that this approach does not fulfill the requirement of NHIS enforcement, which seeks to prevent accidents, injuries or fatalities at large. This is the approach that is majorly used in Nigeria, and to large extent it is a times directed to witch-hunt factories owners that does not know how to bridge their way through with the officers of the regulatory bodies.

Jaremin et al. (2016) compared indicators of facility's infrastructure; doctor's qualification and knowledge; process of care; and patient satisfaction. They found that being insured is not significantly associated with receiving better-quality care, even when controlling for several patient and facility characteristics. Frick (2007) included structure measures of quality but also included technical aspects of quality as well as patient satisfaction. The study compared quality of malaria case management among patients who are covered and those who are not covered under the Ghana National Health Insurance Scheme. Frick (2007) examined provider characteristics and laboratory capacity as part of structural safety of maritime transport workers; assessed the quality of clinical assessment and use of diagnostic testing as part of the process of care; and patient satisfaction as the outcome of care. The study concluded that overall safety of maritime transport was low but found no significant difference

based on health insurance status. In other words, malaria patients were treated the same way in the health facilities. However, the relatively small number of uninsured patients in this study 40 (8%), is a limitation on the overall strength of the findings. In addition, malaria is a disease that receives significant external aid and attention in West Africa and quality of malaria care may not be a good proxy for the overall performance of the health system. Sharma and Romas (2012) compared prevalence of low birth weight among infants whose parents have insurance against those whose parents don't. In a pre/post comparison, they did not find higher birth weights for deliveries under NHIS compared to those under a full out of pocket payment. Other studies in this category examined patient reported outcomes satisfaction with care or perceived safety of maritime transport but also concluded that no significant difference exists between insured and uninsured groups. Bluff and Johnstone (2015) found no significant difference in the level of satisfaction among insured and uninsured hospitalized patients in India. The authors noted that for both the insured and uninsured groups, the main reasons for satisfaction were treatment outcome "being cured", as well as availability of doctors and medicines. While Gallagher (2019) similarly found no significant difference in the perception of quality between the insured and uninsured outpatients in a cross-sectional study conducted across 17 hospitals in 3 regions in Ghana, they found that for respondents' being older, being healthier, larger hospital size, private hospitals ownership and east region all were all associated with better perception of safety of maritime transport workers. This study also identifies lingering issues that affect safety of maritime transport including collection of unofficial fees from patients by some healthcare providers, inadequacy of doctors and long waiting times.

Saunders et al. (2013) compared healthcare access and biological blood sugar control [using 32 glycosylated haemoglobin (HbA1c) levels, among adults with diabetes who were enrolled in the Seguro Popular (treatment group) and those who had no health insurance. They found that adults with diabetes who were enrolled in the Seguro Popular had significantly more access and are significantly more likely to have appropriately controlled blood glucose levels ( $HbA1c \leq 7\%$ ) than their uninsured counterparts. Unlike in Nigeria NHIS, Seguro Popular was designed for the poor. In addition, care under the scheme is delivered only through public hospitals which help in containing costs. For the individual, premium is set based on ability to pay, and no payment is required for any covered services or drugs at the point of care. These factors may encourage greater use of services and consequently, may explain the disparity in outcome between those enrolled in the scheme and those who are not. Törner et al. (2019) conducted a retrospective observational study of all inpatients discharged from the public medical wards at Moi Teaching and Referral Hospital in Eldoret, Kenya in order to determine if there is any difference in in hospital mortality based on enrollment status with the National Hospital Insurance Fund (NHIF). They found that among hospitalized adult patients, NHIF enrollment was associated with decreased in-hospital mortality (better outcome compared to the uninsured). This result remained statistically significant even after adjusting for comorbid illness, employment status, age, gender and HIV sero-status (adjusted odds ratio = 0.40, 95% CI 0.24 – 0.66). However, being a retrospective study, the data does not have certain 33 background information about patients, for example level of education or socio-economic status for which NHIF enrolment could be acting as a surrogate marker.



Perrow (2016) found that Ghana's national health insurance program currently faced a similar challenge. In a study assessing the achievements and challenges of the national health insurance scheme in Ghana, many patients obtaining care through the national insurance program perceived their care to be poorer than patients who paid for care via private means. These patients reported their prescribed drugs to be of lower quality, and that patients who paid out of pocket were prioritized over them to receive care. They also reported experiencing negative attitudes from health workers, who generally perceived patients accessing care through the government's insurance program as poor. As a result, some beneficiaries of the national scheme in Ghana failed to renew their memberships. In Nigeria, Okoro (2017) in a study assessing the quality of care received by diabetic patients in public facilities under Nigeria's national health insurance scheme (NHIS) programme found that those with health insurance perceived the quality of care received to be worse, even though it was not, and in spite of the fact that they paid less out of pocket compared to those without insurance receiving same care. To ensure that this does not happen with the Lagos State Health Scheme, the government must be ready to guarantee providers adequate and prompt payment of their reimbursements.

Obikeze and Onwujekwe (2020) in their study submitted that the failed national health insurance system in Nigeria is due to the weak statutory safety regulations and provisions. They also argued that the appalling level of compliance with national health insurance scheme regulations in Nigeria. In the study conducted by Ogundeji, Ohiri and Agidani (2019), found that regulations are products of legal efforts designed to instill law and order in the society. Ogundeji, Ohiri and Agidani (2019) insist that they should be: properly enforced, unambiguous, updated as required and properly complied with if the purposes for design are to be achieved. Okoro (2017) isolated factors that determine compliance to national health insurance scheme to include: beliefs; Enforcement and regulating of healthcare givers; Higher profit margin; Inadequate funding; Inadequate training of staff and workplace issues; management commitment; unemployment; fear of legal sanctions; bribery and corruption; and weak legal structures.

Etiaba et al (2018) in their study found that healthcare system can be described as service providing entities consisting of components or subdivisions oriented towards improvement of the health status of the populace. The Nigeria healthcare system is organized into primary, secondary, and tertiary healthcare levels. Grassroots, government handles the primary healthcare, and state government takes care of secondary healthcare, while state and federal governments handle tertiary healthcare and also provide policy direction and regulation. Regrettably, Nigeria with an estimated total of 23,640 health facilities operated via a three-tiered governance structure, and the country is ranked 187<sup>th</sup> by the World Health Organization (WHO) among 195 member states on health issues (Nwoye, Oyegun & Ugbebor, 2019). This development implied dysfunctional health system of the country because the healthcare service system lacked state of healthcare infrastructure, short of medical professionals, and other issues required in meeting international healthcare standards. However, different intervention programs have been floated by government, and all seems not working.

Okoro (2017) observed that one of such programs was the HMO arrangement which was meant to facilitate easy and qualitative healthcare services to Nigerians. The World Health Organization (WHO) within this context

defines health service delivery as the way inputs are combined to allow the delivery of a series of interventions or health actions. As noted in the World Health Report 2000, “the service provision function (of the health system) is the most familiar; the entire health system is often identified with just service delivery.” The report states that service provision or service delivery is the chief function the health system needs to perform. The question is whether HMO has achieved the objective of WHO in Nigeria.

Jaremin et al. (2016) found that Health Maintenance Organizations (HMOs) are limited liability companies licensed by the National Health Insurance Scheme (NHIS) to facilitate the provision of healthcare benefits to contributors under the Formal Sector Social Health Insurance Program (FSHIP) to interface between eligible contributors, including voluntary contributors and the healthcare providers. Existing arrangement makes HMOs to either be for-profit or not-for-profit private health insurance companies, or public entities. Irrespective of the motive of any of the arrangement, delivery of sound healthcare services remains ultimate. It is therefore imperative to appraise how the HMOs have performed, and this study measured it from the enrollees' perspective. Ojile (2006) observed that monitoring /regulating healthcare givers are essential roles of the government in ensuring safe working environment. It is an important duty of the government to always ensure that they are adequate policies that will guarantee the safety of everybody in the work environment and the policies must be constantly review to ensure relevancy with current realities. Monitoring and enforcement of regulations are very vital in ensuring the efficacy of regulations. Scholars like Etiaba et al. (2018).and Ellis (2017) opined that monitoring /regulating healthcare givers without adequate enforcement are as good as to no laws. In addition, Ellis (2017) suggested that lack of strict enforcement of NHIS regulations encourages non-compliance to NHIS regulations with resultant increase in injuries and disease burden associated with work. Whereas non-compliance to NHIS regulations is a major contributor to the poor state of NHIS in Nigeria, Kaerlev et al. (2017) maintained that the failed NHIS management system in Nigeria is due to the non-functional NHIS regulations and provisions. On the other hand, it is argued that enforcement and compliance with NHIS regulations are not the standalone steps for improving NHIS, as improving organizational culture can also improve NHIS. However, it is worth noting that the benefits of proper enforcement of NHIS regulations are evident in nations with remarkable health and safety records like the United Kingdom, United States of America, Germany and many other developed nations. These support NHIS (2009) believes that as the main objective of NHIS legislation is to prevent accidents and ill health in the workplace, there should be effectiveness and accountability in the enforcement of NHIS rules and regulations.

Törner et al. (2019) performed a systematic review of the extant empirical literature on quality regulation and report cards in the United States medical care system. First, they searched the following databases: PubMed, Econ Lit, Web of Knowledge, and Business Source Premier. In addition, we searched these databases for articles on quality regulation. We also checked for citations and related citations to all the previous reviews cited above. Okoro (2017) revealed that healthcare financing system is a process by which revenues are collected from primary and secondary sources, e.g., out-of-pocket payments (OOPs), indirect and direct taxes, donor funding, co-payment, voluntary prepayments, mandatory prepayment, which are accumulated in fund pools so as to share risk

across large population groups and using the revenues to purchase goods and services from public and private providers for identified needs of the population, e.g., fee for service, capitation, budgeting and salaries. Frick and Wren (2020) established that in a most basic form, healthcare financing represents a flow of funds from patients to healthcare providers in exchange for services. The way a health system is financed shows if the people get the needed healthcare and whether they suffer financially at the point of receiving care. A good healthcare financing strategies must be able to mobilize resources for healthcare; achieve equity and efficiency in use of healthcare spending; ensure that healthcare is affordable and of high quality; ensure that essential healthcare goods and services are adequately provided for and most recently ensure that the money is spent wisely so that the millennium development goals (MDGs) could be achieved.

Lateef and Anantharaman (2022) revealed that a healthcare financing mechanism should provide sufficient financial protection so that no household is impoverished because of a need to use health services. One-way of providing such protection is by incorporating a risk-sharing plan in the healthcare financing mechanism, whereby the risk of incurring unexpected healthcare expenditure does not fall solely on an individual or household. One aim of universal health coverage (UHC) is how to ensure that all have adequate access to their healthcare needs without making significant out-of-pocket payments (OOPs) at the point of receiving care. Ellis (2017) revealed that one-way to achieve this is through risk pooling either through tax-funded or social health insurance (SHI). Bloor, Thomas and Lane (2018) suggested several approaches on how to improve universal coverage in areas where those employed in formal sector are small. Among the options are "contributory schemes" like community-based health insurance (CBHI), where households in a particular community contribute to insurance scheme; another is tax-funded health scheme, where health services for those outside are funded from tax.

Etiaba et al. (2018) observed that in Nigeria, revenue for financing the health sector is collected majorly from pooled and un-pooled sources. The pooled sources are collected from budgetary allocation, direct and indirect taxation as well as donor funding. However, the un-pooled sources contribute over 70% of total health expenditure (THE) and this can be: out-of-pocket payments (OOPs) in the forms of fees (informal or formal direct payments to healthcare providers at the time of service) about 90% and payments for goods (medical products such as bed-nets, or condoms) and about 10%. Despite these health financing options in Nigeria, the finances are still disproportionately distributed across the health system and with regional inequity in healthcare expenditure. Therefore, achieving successful healthcare financing system continues to be a challenge in Nigeria. This review draws on available and relevant literature to provide an overview and the state of public healthcare financing in Nigeria.

Okoro (2017) observed that lack of success in achieving healthcare financing, has continued to be a challenge in achieving UHC in Nigeria. The review has identified barriers to efficient healthcare financing and the following strategies are recommended if Nigeria is to achieve UHC: (i) Replacement of out-of-pocket payments (OOPs) with more equitable modes of financing; (ii) articulate clear policies on PHC financing; (iii) there is currently a lack of clarity as to the roles of different levels of government in financing PHC, and which components are to be financed by each level of government; (iv) governments should give higher priority to health in their budget

allocations; (v) pass the national health bill and implement it; (vi) explore innovative ways of mobilizing funds and financing health. Tax-based health financing is recommended. The excise, value added tax or "sin taxes" on products such as alcohol and tobacco (products that pose risks to health) can be extended to include unhealthy foods such as sweets, sugary drinks and foods high in salt and trans-fats. Other possibilities for innovative fund-raising include solidarity levies on mobile phone call tariffs (over 90 million Nigerians own and use mobile phones), raising diaspora bonds (from our large diaspora population), and taxing specific profitable sectors of the economy like banking, oil and gas. Nigeria is already exploring fund-raising from diaspora bonds.

Lateef and Anantharaman (2022) found that measures are; extending the NHIS to the informal sector through the CBHI; mobilize the private sector (telecommunications and banks) and local philanthropists-for the telecommunications an arrangement whereby a certain percentage (to be determined) of each recharge card purchased goes into the revenue pool for financing health. Donors should do more to meet their stated international commitments for ODA and to provide more predictable and long-term aid flows in Nigeria. Ogundeji, Ohiri and Agidani (2019) found that members paid one-third less than non-members for deliveries, with hospitalized patients saving an average of US\$35 compared to nonmembers. In other words, members were financially better off compared to non-members but membership did not eliminate payments. According to the authors, while the overall satisfaction with care was relatively high, there was no significant difference between 37 members and non-members in overall satisfaction. Al-Turki (2011), Sought to determine if households enrolled in the Nigeria NHIS were protected from having catastrophic health expenditure (CHE). He found that non-enrolled households were two times more likely to have CHE compared to enrolled households, though this relationship is not statistically significant. Al-Turki (2011), also noted that CHE was 10.9% for households in the lowest wealth quintile compared to 2.5% for households in the highest wealth quintile ( $P=0.0004$ ). Anderson (2005) found that there is lower healthcare financing that can elicit the safety of maritime transport workers compared to the uninsured but Anderson (2005) added that these findings are influenced by whether enrollees or maritime workers actually use their insurance benefits (pay with insurance card) and whether the source of care is a major hospital or a community health center. Armitage and Arden (2008b) evaluated the potential protective effects of the NHIS on financial burden of healthcare in Ghana using data from two rural districts. The study specifically measured total healthcare financing spent on health and the probability that an individual encounters catastrophic health payment. They found that though insured people still make out of pocket payments, they paid significantly less than the uninsured. The insured are also much less likely to incur catastrophic health expenditure compared to the uninsured.

Frick and Wren (2020) found that a higher percentage of uninsured households 29–36%, than insured households 7–18%, incurred catastrophic health expenditure as a result of poor healthcare financing. Additionally, enrolment in health insurance reduced healthcare financing by 86%. However, this study is limited because of their inability to use subjects' income as a measure of wealth for the 38 purpose of estimating catastrophic expenditures. Frick and Wren (2020) in an evaluation of the welfare and health impact of community health insurance scheme in Burkina Faso found that health insurance had limited effects on average maritime works but substantially reduced

the likelihood of catastrophic health expenditure. A study conducted in Lagos, Nigeria by Ademiluyi, Afolabi and Fashola (2016) compared utilization and cost of health services among insured and uninsured civil servants. They found that civil servants insured under the NHIS have no appreciable advantage in costs and access compared to the uninsured but this is a much more localized study that is not generalizable.

Table 1: Summary of Empirical Literature Reviewed

Author(s)	Design and focus	Methodology	Findings	Gaps	Focus of this study
Nwoye, Oyegun and Ugbebor (2019).	Existing safety hazards and practices in the inland water transportation sector in	A cross-sectional research design was adopted for the study.	The study showed that a wide range of maritime safety hazards and practices	The study did not focus on healthcare maintenance and safety of maritime	This study focused on the effect healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.
	selected states of southern Nigeria.		bedeviled the inland water transportation sector in Nigeria. The findings of the study showed that the use of incompetent boat operators was the most prevailing maritime hazard in the study area.	transport workers in Port Harcourt Seaport. Rivers State.	



## Research Article

Ademiluyi, Afolabi & Fashola (2016)	Analysis of intra-city water transportation in Lagos state.	Spearman's correlation was used to analyze the relationships between different factors, like frequency of using the water ways for transportation.	The findings from the study showed that more than 58% of the sampled population acknowledged that they use the water transportation daily. While more than half of the respondents (52%) opined that the state of the water transportation system was very bad.	Also, the study did not focus on healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.	This study focused on the effect healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.
Hansen <i>et al.</i> (2015)	Compared the state of health of seafarers and the general working population by investigating data from	A cross-sectional research design was adopted for the study.	The authors found that the proportion of seafarers (both male and female) hospitalized was	The study did not focus on healthcare maintenance and safety of maritime transport workers in	This study focused on the effect healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.
	hospitalizations.		significantly higher than that of the general workforce.	Port Harcourt Seaport. Rivers State.	

## Research Article

Torner <i>et al.</i> (2019)	Carried out an experiment by simulating various kinds of motion that is generally experienced at sea.	Simple and stratified sampling techniques were employed to select six foods and beverage firms in Nigeria.	It showed that the motions of the ships produce significant stress on the lower back of the human body even when a person is merely standing erect.	The study did not focus on healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.	This study focused on the effect healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.
Frick <i>et al.</i> (2010)	The debate on the practice of OHS management developed three possible hypotheses with regard to the outcome of regulated selfregulation success hypothesis, paper-tiger hypothesis and sham hypothesis.	Correlational Survey.	They argued that in organizations where top managements are committed to safeguarding OHS by focusing on detecting, abating and preventing workplace hazards, and engage worker's authors also showed that historically trade unions played a crucial role in improving labour conditions.	The study did not focus on healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.	This study focused on the effect healthcare maintenance and safety of maritime transport workers in Port Harcourt Seaport. Rivers State.

**Source: Authors Research Desk, 2022 Methodology Research Design**

The research design adopted in the study was the cross-sectional research design. The cross-sectional research design was used because it allows the investigator to measure the outcome and the exposures in the study participants at the same time. To achieve this, the researcher employed a structured instrument which was administered to regulators, operators and commuters of the inland waterways to assess their perception, knowledge and awareness of the effect of health maintenance and safety of maritime transport workers in Port Harcourt Sea Port. **Target Population**

The target population for the study included the operators, commuters and regulators of inland water transportation in Port Harcourt Seaport. Which included 203 senior staff and 112 junior staff therefore; the population of the study is 315 maritime transport workers in Port Harcourt Seaport. The justification for targeting this population was that the researcher felt that these populations were those who frequently used the inland water ways.

**Sample Size**

The sample size used for this study was determined mathematically using the Taro Yamane's formula:

$$n = \frac{N}{1 + N e^2}$$

Where: n = Sample Size Sought  
 N = Population (315)  
 e = allowable error (5%)

The sample size sought (n) is:

$$n = \frac{315}{1 + \frac{315 \times 0.05^2}{1}}$$

$$n = \frac{315}{1 + 0.7875}$$

$$n = \frac{315}{1.7875} = 176.$$

The sample size was 176 staff.

**Data Collection**

Copies of questionnaire were administered to the respondents. The structured questionnaire comprised of open and closed ended questions. The close-ended questions provided more structured responses to facilitate tangible recommendations. The open-ended questions provided additional information that was not captured in the close-ended questions. The researcher administered copies of questionnaire to the departments. The questionnaire was

administered using a drop and pick later method. The questionnaire incorporates five Likert scale of Strongly Agree (SA) = 5, Agree (A) = 4, Moderately Agree (MA) = 3, Strongly Disagree (SD) = 2 and Disagree (D) = 1.

### Validity of the Instrument

The validity of instrument is the extent to which it measures what it is supposed to measure. In evaluating a psychological test, there is particular concern with construct validity and criterion validity. Construct validity is the degree to which the instrument measures the theoretical variable or construct that it was intended to measure. Criterion validity is how far it correlates with variables with which it would be expected to correlate. These criteria may be assessed at same time as the instrument is administered providing evidence of concurrent validity or on a subsequent occasion (providing evidence of predictive validity).

### Reliability of the Instrument

To determine the reliability of the instrument, a test-retest method was adopted. Here the questionnaire was administered to a sample of fifty (50) employees who are not included in the original sample of the study. After a period of two (2) weeks, the same copies of the instrument were re-administered to the same subjects. Their responses at the two intervals were correlated using the Cronbach Alpha. The result of the Cronbach Alpha is expected to give 0.97 which implies that instrument is reliable.

### Data Analysis

Prior to processing the responses, the completed questionnaires were edited for completeness and consistency. Quantitative data collected was analyzed by the use of descriptive statistics using SPSS and presented through percentages, means, standard deviations and frequencies. This offered a systematic and qualitative of the study objectives. The information was displayed by use of bar charts, graphs and pie charts and in prose-form. This was done by tallying up responses, computing percentages of variations in response as well as describing and interpreting the data in line with the study objectives and assumptions through use of statistical package for social sciences (SPSS) Version 22.0. Mugenda and Mugenda (1999), explains that SPSS is a comprehensive, integrated collection of computer program for managing, analyzing and displaying data. The qualitative data was coded mathematically and then analyzed statistically. Content analysis was used to data that was qualitative nature or aspect of the data collected from the open-ended questions. Finally, the bivariate analysis was conducted, in which all prior hypothetical bivariate relations were assessed and examined using Spearman's Rank Order Correlation Statistics with SPSS (Version 22.0).

### Results and Discussion of Findings

**Table 2: Analysis of the Copies of Questionnaire Administered**

S/No	Questionnaire	Number	% Distribution
1	Questionnaire Retrieved and Used	134	76.1
2	Questionnaire not Retrieved	42	23.9
	Total	176	100

**Source:** Field survey (2022)

**Table 3: Analysis of the Copies of Questionnaire Administered by Status S/No Questionnaire**

	No Retrieved	% Distribution	
1	Private worker	71	52.9
2	Government worker	63	47.1
	Total	134	100

**Source:** Field survey (2022)

Table 3 above reveal questionnaire retrieved according to the statue of staff in Port Harcourt Seaport, the table proved that 71 respondents out of the 134 which represent 52.9 percent while 63 which represent 47.1 are government employees.

**Table 4: Analyses of the Copies of Questionnaire According to Time duration in the Seaport**

S/No	Time Duration	Questionnaire Retrieved	% Distribution
1	0 – 10 years	27	16.2
2	11 – 20 years	42	25.1
3.	21 – 30 years	46	23.5
4.	31 and above	19	11.3
	Total	134	76.1

**Source:** Field survey (2022)

Table 4 above reveal questionnaire retrieved according to the time duration of staff in the Port Harcourt Seaport, the table proved that 27 respondents are between the time 0 – 10 years which represents 16.2%, 42 respondents are between the time 11 – 20 years which represents 25.1%, 46 respondents are between the time 21 – 30 years which represents 23.5% and 19 respondents are between the time 31 and above years which represents 11.3%.

**Table 5: Descriptive Statistics for Monitoring and Regulating Healthcare Givers Monitoring and Regulating Healthcare**

	N	Minimum	Maximum	Mean	Std. Deviation	Givers
There is need for effective regulation of healthcare givers for maritime transport workers in Port Harcourt Seaport	134	1.00	5.00	4.7167	.48305	
The registration and regulation of healthcare enhances safety of maritime transport workers	134 givers	1.00	5.00	4.5714	.59761	
The Healthcare regulatory agencies also ensure competencies of the practicing healthcare professionals	134 the	1.00	5.00	4.5714	.59761	



## Research Article

Healthcare regulatory agencies are also the 134 custodians 1.00 5.00 4.5132 .58994  
of valid and valuable information with regard to safety

The role of healthcare regulatory agencies is to 134 1.00 5.00 4.3174 .56732 advance the knowledge of  
healthcare to the system.

Valid N (listwise) 134

**Source:** Field survey (2022)

From the table 5 with regards to the minimum and maximum mean scores of the dimension monitoring and regulating healthcare givers, indicated that most of the respondents were on the response scale of High Extent and Very High Extent as the least mean score value was 4.32 which is greater than 3.5 but lesser than 4.5, and the maximum mean score value was 4.72, which was greater than 4.5 mark. Majority of the responses here fell within the Strongly Agree mark for cultural competence.

**Table 6: Descriptive Statistics for Risk Assessment and Identification**

<b>Risk Assessment and Identification</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Risk assessment involves an analysis of the risks 134 1.00 generated by5.00 various dangers	134	1.00	5.00	4.3810	.74001
Risk assessment enhances safety of maritime transport 134 1.00 workers5.00 in the Port	134	1.00	5.00	4.1429	.65465
the frequency of marine disasters decreased due to risk 134 1.00 5.00 assessment	134	1.00	5.00	4.4286	.59761
The likelihood and the consequences are evaluated by 134 1.00 5.00 assessing levels	134	1.00	5.00	4.5238	.60159
Risk identification starts with the hazard identification 134 1.00 in5.00 maritime workers	134	1.00	5.00	4.6667	.65828
Valid N (listwise)	134				

**Source:** Field survey (2022)

From the table 6, with regards to the minimum and maximum mean scores of the dimension risk assessment and identification, indicated that most of the respondents were on the response scale of High Extent and Very High Extent as the least mean score value was 4.14 which is greater than 3.5, and the maximum mean score value was 4.67, which was greater than 4.5 mark.

**Table 7: Descriptive Statistics for Safety Policy**

<b>Safety Policy</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
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## Research Article

There is need safety policy in the Port	134	1.00	5.00	4.7167	.48305
Safety culture dimensions ranging from management to risk awareness and attitudes	134	1.00	5.00	4.5714	.59761
Maritime transport workers need safety training	134	1.00	5.00	4.5714	.59761
There is need for safety policy that include management systems, safety systems, and maritime transport workers	134	1.00	5.00	4.5132	.58994
Such safety culture surveys take into consideration several	134	1.00	5.00	4.3174	.56732
Valid N (listwise)	134				

**Source:** Field survey (2022)

From the table 7, with regards to the minimum and maximum mean scores of the dimension Safety policy, indicated that most of the respondents were on the response scale of High Extent and Very High extent as the least mean score value was 4.32 which is greater than 3.5 but lesser than 4.5, and the maximum mean score value was 4.72, which was greater than 4.5 mark. Majority of the responses here fell within the Strongly Agree mark for cultural competence

### Test of Hypotheses

**Table 8;** Relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport.

	National Health Insurance Scheme	Safety Policy
Spearman's rho	1.000	.853**
National Health Insurance Scheme	.	.000
	134	134
Safety Policy	.853**	1.000
	.000	.
	134	134

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source: Research survey, 2022**

Table 8 shows the Spearman's correlation coefficient;  $\rho = 0.853^{**}$  and the Probability Value ( $PV$ ) = 0.000 < 0.05 (level of significance). This is to show that there is a significant positive relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport. We therefore reject the Null Hypothesis which says that there is no significant relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport.

**Table 9;** Relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport.

	Monitoring/Regulating Healthcare Giver	Safety Policy
Spearman's rho	1.000	.755**
Monitoring/Regulating Healthcare Giver	Correlation Coefficient Sig. (2-tailed) N	.000 134
Safety Policy	Correlation Coefficient Sig. (2-tailed)	1.000 .
	N	134

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Source: Research survey, 2022**

Table 9 shows the Spearman's correlation coefficient;  $\rho = 0.755^{**}$  and the Probability Value ( $PV$ ) = 0.000 < 0.05 (level of significance). This is to show that there is a significant positive relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport. We therefore reject the Null Hypothesis which says that there is no significant relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport.

	Healthcare Financing	Safety Policy
Spearman's rho	1.000	.789**
Healthcare Financing	Correlation Coefficient Sig. (2-tailed) N	.000 134
Safety Policy	Correlation Coefficient	1.000

## Research Article

Sig. (2-tailed)	.000	.	<b>Table 10;</b>
N	134	134	<b>Relationship</b>
			<b>between</b>

healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport.

\*\*. Correlation is significant at the 0.01 level (2-tailed). **Source: Research survey, 2022**

Table 10 shows the Spearman's correlation coefficient;  $\rho = 0.789^{**}$  and the Probability Value ( $PV$ ) =  $0.000 < 0.05$  (level of significance). This is to show that there is a significant positive relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport. We therefore reject the Null Hypothesis which says that there is no significant relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport.

#### **Discussion of Findings Relationship between National Health Insurance Scheme and Safety Policy of Maritime Transport Workers in Port Harcourt Seaport**

Research question one focused on the Relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport. Evidence from the findings in the results presented in table 5 found that there is positive and significant relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport. The study found that the relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport is 0.853 rho value and probability value of 0.000. The strong and positive relationship between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport is expected as the results of the reforms in the maritime industry such as the enactment of relevant laws to guide the operations of the maritime industry such as the national health insurance scheme and increase security presence in the ports. The positive and significant relationship between the variables confirms the health behavior theory and safety culture theory. Empirically, the findings confirm the findings of Parker et al. (2017) employed geographic regression discontinuity design, to assess the impact of an insurance scheme that covered tertiary care services for the poor in India, on care seeking behavior, and post-hospitalization well-being after time in tertiary care facilities, the findings of Perrow (2016) that Ghana's national health insurance program currently faced a similar challenge and the findings of Okoro (2017) that those with health insurance perceived the quality of care received to be worse, even though it was not, and in spite of the fact that they paid less out of pocket compared to those without insurance receiving same care.

#### **Relationship between Monitoring/Regulating Healthcare Giver and Safety Policy of Maritime Transport Workers in Port Harcourt Seaport**

The research question two examined the relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport. The study found that there is positive and significant relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport. The correlations coefficient of 0.755 and the probability value of 0.000 proved

that the relationship between the variables is strong and significant; this implies that increase in monitoring/regulating healthcare giver increases safety policy of maritime transport workers in Port Harcourt Seaport. The findings confirm the expectation of reforms in the seaports by the ministry of transport in conjunction with Nigeria Port Authority.

Empirically, the findings is in line with empirical findings of Jaremin et al. (2016) that Health Maintenance Organisations (HMOs) are limited liability companies licensed by the National Health Insurance Scheme (NHIS) to facilitate the provision of healthcare benefits to contributors under the Formal Sector Social Health Insurance Program (FSHIP) to interface between eligible contributors, including voluntary contributors and the healthcare providers, Gallagher, Underhill and Rimmer (2021) that performance in relation to individual and organization has been extensively discussed in the literature. This has made the concept performance to have attracted numerous measures depending on the perspective of whosoever is defining it, Ojile (2006) that monitoring /regulating healthcare givers are essential roles of the government in ensuring safe working environment, the findings of Etiaba et al. (2018) and Ellis (2017) that monitoring /regulating healthcare givers without adequate enforcement are as good as to no laws, Ellis (2017) that lack of strict enforcement of NHIS regulations encourages non-compliance to NHIS regulations with resultant increase in injuries and disease burden associated with work and the findings of Kaerlev et al. (2017) that the failed NHIS management system in Nigeria is due to the non-functional NHIS regulations and provisions.

### **Relationship between Healthcare Financing and Safety Policy of Maritime Transport Workers in Port Harcourt Seaport**

Research questions three was formulated to study the relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport. The study found that there is positive and significant relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport. The study found a correlation coefficient of 0.789 percent and probability value of 0.000; this implies that increase in healthcare financing increases safety policy of maritime transport workers in Port Harcourt Seaport. The positive and significant relationship between the variables confirms the a-priori expectations of the study and the objectives of safety measures in the seaport.

The positive and significant relationship between the variables confirms the findings of Frick and Wren (2020) that commitment from organizations senior managers thus holds the key to effective implementation of SMSs, Bohle and Quinlan (2000) that rigorous feedback mechanisms on the operation of organizations SMSs, such as OHS surveys and audits, were also critical for the effective management of OHS, Okoro (2017) that healthcare financing system is a process by which revenues are collected from primary and secondary sources, Frick and Wren (2020) that healthcare financing represents a flow of funds from patients to healthcare providers in exchange for services, Lateef and Anantharaman (2022) that a healthcare financing mechanism should provide sufficient financial protection so that no household is impoverished because of a need to use health services, Ellis (2017) that one-way to achieve this is through risk pooling either through tax-funded or social health insurance (SHI)



and the findings of Bloor, Thomas and Lane (2018) who suggested several approaches on how to improve universal coverage in areas where those employed in formal sector are small.

### **Conclusion**

The paper examined the relationship between Healthcare Maintenance and safety policy of marine transport workers in Port Harcourt seaport. The study found a correlation coefficient of 0.853 percent between national health insurance scheme and safety policy of maritime transport workers in Port Harcourt Seaport, 0.755 correlation coefficient between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport and 0.789 correlation coefficient between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport. From the analysis from the questionnaire and the test of hypotheses, the study concludes that there is positive and significant relationship between and safety policy of maritime transport workers in Port Harcourt Seaport. That there is positive and significant relationship between monitoring/regulating healthcare giver and safety policy of maritime transport workers in Port Harcourt Seaport and positive and significant relationship between healthcare financing and safety policy of maritime transport workers in Port Harcourt Seaport.

### **Recommendations**

- i. Implementable policies must be put in place to monitor and regulate healthcare givers to avoid ill performance and increase workplace hazard among the maritime transport workers in the seaports.
- ii. Adequate provisions in financing all healthcare activities in the seaports should be integrated in relevant laws such as the federal government appropriation bills as this will simplify the easy source of financing healthcare projects in the Seaport.
- iii. There is need for proper management and accountability in healthcare financing in the ports to avoid miss appropriation of healthcare maintenance fund.

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