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# CHRONIC OBSTRUCTIVE PULMONARY DISEASE: THE CASES OF JEEPNEY DRIVERS IN SAN FERNANDO, PAMPANGA

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***Abstract:*** This study's main goal is to perform a thorough analysis of the prevalence of Chronic Obstructive Pulmonary Disease (COPD) among drivers of jeepneys, highlighting the additional risk that smoking cigarettes poses for the onset or aggravation of respiratory symptoms. The purpose of this study is to know how many cases or Jeepney patients that are affected with COPD in addition, to identify the added risk of cigarette smoking in developing or aggravating respiratory symptoms. And to investigate the subjects' response to a brief discussion of cigarette smoking awareness. Thirty (30) Jeepney drivers with a diagnosis of chronic obstructive pulmonary disease are included in the study. Additionally, the choice to focus on people between the ages of 40 and 49 was supported by data showing that this age group has the highest percentage of male smokers who are currently active in the Philippines. Since smoking is a known risk factor for COPD, the study's emphasis on this age group enables a focused investigation of the relationship between smoking behaviors and the onset of COPD in this occupational group. Findings revealed There is much information about health and life style. First, inform the public about the signs, causes, and treatment options for COPD. Inform the public and jeepney drivers about the importance of early detection and treatment of COPD. Few mobile clinics are accessible. Establish mobile clinics dedicated to the needs of jeepney drivers. These clinics are able to offer examinations, consultations, and screenings for free or at a minimal cost. COPD may develop as a result of jobs requiring extended exposure to air pollutants, such as emissions from moving vehicles. According to this study, people who regularly breathe in high concentrations of air pollutants and particulate matter which are common in urban areas and among particular occupational groups may be more likely to develop COPD. COPD is a progressive lung disease that is typified by reduced airflow and is frequently accompanied by symptoms like persistent coughing, dyspnea, and expectoration. Collaborate with local healthcare providers, medical schools, or non-profits to staff these clinics. Public administration in the Philippines should be at the forefront of developing and implementing healthcare policies that address the particular. Urge jeepney drivers to get regular physicals, which should include a lung function test, in order to keep an eye on their respiratory health and identify any possible problems early. Promote programs to help people quit smoking, since smoking is a major risk factor for COPD. Those who want to quit should have access to resources and support. Promote programs designed to assist individuals in quitting smoking, as it is a significant risk factor for COPD. Resources and support should be available to those who wish to stop.

## I. Introduction

Globally, chronic obstructive pulmonary disease, or COPD, is becoming a major and growing public health concern. By 2030, COPD will likely rank as the third most common cause of death, according to the World Health Organization (WHO). This prediction emphasizes how urgent it is to address the complex issues surrounding COPD because it has a significant negative impact on economies, healthcare systems, and the quality of life for those who are affected. This article explores the causes, global prevalence, economic implications, and the critical need for all-encompassing strategies to lessen the impact of the COPD epidemic.

The increasing incidence of COPD is concerning, and it's critical to comprehend the underlying causes. The increase in COPD cases is a result of a number of factors, including aging populations, exposure to tobacco smoke and other environmental pollutants, changes in lifestyle, and industrial practices. The demographic composition of the world's population is changing dramatically, with an ever-growing share of elderly people. The likelihood of having COPD increases with age, which raises the disease's overall prevalence.

Both active and passive tobacco use increase the risk of COPD, which is still one of the main causes of the disease. While some areas have seen progress in their attempts to reduce smoking, many parts of the world still have stubbornly high rates of the habit. Furthermore, the risk of developing COPD is greatly increased by exposure to environmental pollutants, such as particulate matter and toxic gases from industrial activities and biomass combustion. A part is also played by changes in lifestyle, such as sedentary behavior and unhealthful eating habits.

Industrial practices have the potential to increase air pollution exposure, which exacerbates the COPD epidemic, particularly in rapidly developing economies. The intricate interactions among these variables demand a thorough and multifaceted strategy to combat COPD worldwide. Significant healthcare costs are linked to COPD, encompassing everything from long-term care and

hospital stays to diagnostic tests and treatment. The intricacy of managing COPD, which frequently necessitates a mix of drugs, pulmonary rehabilitation, and occasionally surgical procedures, adds to the financial burden on healthcare systems. Worldwide, an estimated 328 million people suffer from this disease. Chronic Obstructive Pulmonary Disease (COPD) is predicted to overtake all other causes of death in the world in 15 years. Every day, three billion people are exposed to hazardous levels of Hospital acquired pneumonia , which causes 3.5–4 million deaths globally.

According to Juan Olortegui- Rodriquez(2022) of BMC Pulmonary Medicine The epidemiology of chronic obstructive pulmonary disease (COPD), which is still one of the major causes of morbidity and mortality worldwide, is poorly understood in Latin America and the Caribbean. This study set out to assess the incidence and prevalence of COPD in the Caribbean and Latin America.

In Asia, COPD poses unique challenges shaped by the region's diverse demographic, cultural, and environmental contexts. While COPD is a global concern, regional variations necessitate a nuanced examination. Asia's socioeconomic backgrounds and demographics are widely varied. Between urban and rural locations, there may be notable differences in the prevalence of COPD due to lifestyle, occupational exposures, and healthcare access. Effective COPD management requires an understanding of these disparities and taking appropriate action.

In many Asian nations, rapid industrial development and urbanization are major factors in the high levels of air pollution. The risk of COPD is increased by the concentration of pollutants and crowded urban areas. In the Asian context, targeted interventions are essential to reduce the negative effects of air pollution on respiratory health. Asia's tobacco consumption habits are remarkably varied. While some nations have made progress in reducing tobacco use, others still struggle with high smoking rates. In order to reduce the prevalence of COPD in the area, tobacco cessation programs must be specifically tailored to take socioeconomic and cultural considerations into account.

Access to healthcare is still uneven in many Asian nations. Insufficient access to medical facilities, particularly in remote regions, leads to postponed diagnosis and insufficient COPD treatment. Two essential elements of addressing COPD in the Asian context are raising awareness and fortifying the healthcare system. According to Wan C. Tan et al.,(2015) Asia has mortality rates that are either higher than or comparable to those of the West. A national cohort study done in 2000 found that COPD was the seventh most common cause of death in China.

However, since there were no distinct COPD categories like those based on ICD codes, COPD deaths were inferred from the deaths classified as "cardiopulmonary deaths/cor pulmonale." The number of COPD deaths in China may have been overestimated or underestimated as a result of this diagnostic transfer and a lack of death certification in rural areas.

Drivers of Jeepneys, who are essential to the Philippines' public transportation network, work in conditions that might be hazardous to their health. Prolonged hours spent in traffic, regular exposure to exhaust fumes, and other occupational factors may have a major impact on the prevalence of COPD in this population. The history of this problem stems from the confluence of public health, workplace safety, and the requirement for a comprehensive comprehension of the difficulties encountered by this vital labor force. Worldwide Perspective The burden of respiratory disorders on public health is significant worldwide.

The study offers a distinct viewpoint on occupational health in the transportation industry by concentrating on the particular situation of Jeepney drivers in the Philippines. The results may have relevance for comparable professional communities across the globe, offering perspectives on common issues and possible remedies. The International Standards Global occupational health standards are not the same. There are two benefits to comparing the circumstances of Jeepney drivers to these benchmarks. First of all, it draws attention to the particular difficulties this occupational group has in the Philippines, possibly necessitating regional actions.

In addition, it serves as a standard for cross-national comparisons, allowing evaluations of the efficacy of current regulations and the necessity of international cooperation in the management of occupational respiratory hazards. The study is in line with the Philippines' larger national health objectives. The results may have an impact on public transportation and occupational health policy decisions. Since a large portion of the nation relies on Jeepneys for public transportation, it is not only vital for public health but also for the sustainability and effectiveness of the transportation system that drivers' health risks be understood and mitigated.

When we focus into the province of Pampanga, certain contextual elements become relevant. Pampanga-specific environmental factors, cultural peculiarities, and local policies could all have a big influence on the respiratory health of jeepney drivers. Through an understanding of these variables, the research seeks to address COPD in this area with a customized strategy that takes into account the variations in occupational health risks amongst provinces. When it involves managing COPD cases, hospitals are at the forefront. Comprehending the unique obstacles encountered by Jeepney operators becomes imperative in molding diagnostic and remedial methodologies.

It also highlights the financial and medical costs related to COPD in this particular occupational group. As major players in public health, hospitals can use this data to improve their ability to manage COPD patients and support preventative efforts.

There are several explanations for for carrying out this investigation. First of all, it fills in a significant knowledge vacuum regarding the risks to the occupational health of Jeepney drivers, making a significant contribution to the field of public health. Second, it is consistent with social responsibility ideals, supporting the welfare of a vital labor force that is indispensable to Filipinos' everyday existence. Thirdly, it is a call to action for legislators, asking them to develop focused interventions aimed at enhancing the health and working conditions of drivers of jeepneys.

It is common for jeepney drivers to experience dyspnea and cough as a result of increased exposure to air pollution. As stated by Ancheta, et al.(2012), jeepney drivers were shown to have a 50% higher risk of impaired lung function, and respiratory symptoms are twice as prevalent among them compared to air-conditioned bus drivers and commuters. This is where cigarette smoking enters as an added factor affecting jeepney drivers' respiratory symptoms. Cigarette smoking has been clinically established as a significant risk factor for developing respiratory symptoms in adults (Rosi, Scano, 2004). A number of respiratory diseases are associated with subjective respiratory symptoms namely cough and dyspnea that are induced by active cigarette consumption (Winstanley M, et.al, 2017).

A subtle health issue is silently erupting among the Jeepney drivers in the busy city of San Fernando, Pampanga, a group essential to the city's everyday operations. The prevalence and urgency of Chronic Obstructive Pulmonary Disease (COPD) are increasing, especially among drivers who are surrounded by a cloud of chronic cigarette smoke. Through an examination of the interrelated elements of tobacco exposure, occupational hazards, and the pressing need for focused interventions, this paper seeks to shed light on the localized impact of COPD within the distinct context of San Fernando. San Fernando jeepney drivers navigate the

city's streets through traffic and a variety of weather conditions every day; they are the unsung heroes of the city's commute. In addition to the difficulties of their line of work, they must contend with the covert enemy of COPD, which is made worse by long-term exposure to cigarette smoke. COPD is a progressive respiratory disease that includes conditions such as emphysema and chronic bronchitis and is typified by a continuous restriction of airflow. The community of San Fernando has been subtly affected by COPD, and Jeepney drivers are among the unintentional victims of this crippling illness. Due to the combination of localized factors and the high prevalence of COPD, the area has a unique health landscape that requires attention.

The lack of knowledge about the harmful chemicals in tobacco products and tobacco smoke, as well as the wide spectrum of specific illnesses caused by tobacco use, leads to a substantial misperception of the risks involved. As a result, smokers tend to grossly underestimate the health risks of tobacco use to themselves (WHO, 2011).

The purpose of this study is to know how many cases or Jeepney patients that are affected with COPD in addition, to identify the added risk of cigarette smoking in developing or aggravating respiratory symptoms. And to investigate the subjects' response to a brief discussion of cigarette smoking awareness. This study was chosen by the researcher to provide holistic exploration of the cases of Jeepney drivers who are diagnosed with Chronic Obstructive Pulmonary Disease. This study's main goal is to perform a thorough analysis of the prevalence of Chronic Obstructive Pulmonary Disease (COPD) among drivers of jeepneys, highlighting the additional risk that smoking cigarettes poses for the onset or aggravation of respiratory symptoms.

Because of the high prevalence of chronic obstructive pulmonary disease, the researcher—a licensed respiratory therapist focused on jeepney drivers because they frequently breathe in smoke.

STATEMENT OF THE OBJECTIVE

This study aims to determine the severity of dyspnea and cough using questionnaires among jeepney drivers in San Fernando, Pampanga ages 40-49, and investigate through interviews how lack of awareness leads them to Chronic obstructive pulmonary disease.

1. To describe the profile of Chronic Obstructive Pulmonary Disease (COPD) in Jeepney Drivers along areas of:
   1.1 Age
   1.2 Sex
   1.3 Work Assignment
   1.4 Length of work
2. To narrate the sentiments of the cases of
   Jeepney Drivers diagnosed with Chronic Obstructive Pulmonary Disease (COPD)
3. To propose intervention measures to address the sentiments
   Chronic Obstructive Pulmonary Disease; The cases of Jeepney Drivers
4. To Identify the Implication to Public Administration

## II. Scope and delimitation of the study

THE RATIONALE FOR SELECTING JEEPNEY DRIVERS AS THE SUBJECT OF THIS STUDY LIES IN THEIR UNIQUE OCCUPATIONAL EXPOSURE TO RESPIRATORY HAZARDS. GIVEN THE FREQUENT INHALATION OF VEHICLE EMISSIONS AND OTHER POLLUTANTS ASSOCIATED WITH PUBLIC TRANSPORTATION, THIS GROUP IS PARTICULARLY SUSCEPTIBLE TO RESPIRATORY HEALTH ISSUES. THE STUDY COVERS THIRTY (30) JEEPNEY DRIVERS DIAGNOSED WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE. MOREOVER, THE DECISION TO CONCENTRATE ON INDIVIDUALS AGED 40 TO 49 YEARS IS GROUNDED IN DATA INDICATING THAT THIS AGE RANGE BOASTS THE HIGHEST PREVALENCE OF ACTIVE MALE SMOKERS IN THE PHILIPPINES. SMOKING IS A WELL-ESTABLISHED RISK FACTOR FOR COPD, AND THE STUDY'S FOCUS ON THIS AGE COHORT ALLOWS FOR A TARGETED EXAMINATION OF THE INTERPLAY BETWEEN SMOKING HABITS AND THE DEVELOPMENT OF COPD WITHIN THIS OCCUPATIONAL GROUP.

THE RESEARCH METHODOLOGY ENCOMPASSED SURVEYS AND INTERVIEWS CONDUCTED EXCLUSIVELY WITHIN THE SAN FERNANDO, PAMPANGA COMMUNITY. THIS LOCALIZED APPROACH REFLECTS THE RESEARCHERS' COMMITMENT TO PRODUCING FINDINGS THAT CAN BE APPLIED DIRECTLY TO THE WELFARE OF THE COMMUNITY IN WHICH THE STUDY TOOK PLACE.

**RESEARCH DESIGN**

This study focused primarily on the cases of jeepney drivers who are diagnosed with Chronic Obstructive Pulmonary Disease thus, a case study research design was adopted in this study.

The researcher used a qualitative research design method specifically the case study method. Case study is a qualitative research design, jeepney drivers who are diagnosed with Chronic Obstructive Pulmonary Disease (COPD) are the participants in the said study.

**Local of the Study**

The study was carried out at the San Fernando City-based Or Lady of MT. Carmel. Politically, it is separated into 35 barangays. 3.38% of Pampanga's total size, or 67.74 square kilometers or 26.15 square miles, is made up by the city's land area. 354,666 people were living there as of the 2020 Census. This accounted for 2.86% of the population of Central Luzon, or 14.55% of the total population of Pampanga province. These numbers are used to calculate the population density, which is 5,236 people per square kilometer or 13,563 people per square mile.

**Research Instrument**

The participants of the study was composed of thirty (30) Chronic Obstructive Pulmonary disease (COPD) jeepney drivers in San Fernando Pampanga. The reason for choosing jeepney drivers is because they have a higher exposure to air pollution compared to other populations which gives them a higher risk to develop dyspnea and cough. Wherein, the participants must be 1.) Jeepney drivers in San Fernando area only 2.) must be diagnosed with Chronic Obstructive Pulmonary Disease (COPD). The participants served as an essential input informant for providing the needed data. Purposive sampling is a non-probability sampling technique that was employed to choose study participants who fit the specified requirements.

Non-probability sampling is a quick, simple, and inexpensive method of gathering data because it does not require the entire survey frame. One hundred precent(100%) of its population for jeepney drivers diagnosed with Chronic obstructive pulmonary

disease(COPD) was selected. The smoking prevalence by age group in the Philippines among active male smokers is highest at 40-49 (56.73%). (Punzalan et al., 2013)

**Data Gathering Procedure**

Before beginning the study, the researcher received the necessary approvals and documentation from the university. The selected participants were then given informed consent forms asking for their consent to participate in the study. Phase 1 of the study involved the participants going through a screening process to see if they met the requirements. Phase 1 involved the researcher obtaining the participant's profile status and determining whether the participants are jeepney drivers. Phase 2 involved the participant narrating their experience of being diagnosed with Chronic Obstructive Pulmonary Disease (COPD) by responding to the researcher's questions in order to further utilize the data for intervention measures that would be formulate later.

Every query and explanation from the participants about the study was taken into consideration, and they were free to respond in accordance with their own free will. The researcher secured the necessary paperwork and consent. All of the participant data was protected, and only individuals with permission could access it.

**Ethical Considerations**

The researcher must safeguard accurate and in-depth discussion of and insights into the study's objectives in order to maintain ethical consideration. The respondents will remain its anonymity nor reveal names and/or personal information. The consent form will be given to the respondents prior to the interview once they have agreed to fully participate and may withdraw from the study at any time without explanation or judgment. In addition, the researcher should assure the respondents their security once the interview was conducted. The information and testimonies will be used only for academic purposes and will be handled with the utmost secrecy and confidentiality. As stated in Section 8 of the Data Privacy Act of 2012, which highlights the necessity of maintaining the confidentiality of personal information that always comes into its custody and knowledge, it is essential to take deliberate measures to secure one's information.

The researcher should have the protection of research participants as their top priority. Researcher must always take into account what is best for the participants who make the research possible when implementing the concepts of privacy, confidentiality, and anonymity in the study.

## III. RESULTS AND DISCUSSION

The researcher involved thirty (30) Jeepney Drivers diagnosed with Chronic Obstrive Pulmonary Disease (COPD). To assure the confidentiality and anonymity of the participants a fictitious name was assigned for each of the cases.

**1.1 Age of the Jeepney drivers**

A participant's age plays a crucial role in the diagnosis of chronic obstructive pulmonary disease (COPD), as it reflects their extended exposure to smoke inhalation and cigarette smoking. When determining the onset and severity of COPD, the combined effect of these exposures is essential. An increased risk of developing the disease is frequently associated with longer durations of tobacco use. To make an accurate diagnosis, clinicians take into account the patient's age in addition to other indicators, like lung function tests and symptoms related to breathing. Through age assessment, it is possible to determine the length of smoke-related exposure, which helps to customize efficient management plans for COPD patients. This leads to more focused interventions and better overall health outcomes. In terms of age, raging forty two (42) to forty three (43) with a frequency of 11 and percentage of 35 ranked 1 and was prominent. Most people with COPD are at least 42 years old when they first experience symptoms. Although it is uncommon, COPD can develop in a young adult. Nonetheless, exposure to indoor air pollution, which includes that caused by burning biomass, and tobacco use ambient air pollution, and occupational pollutants have been reported as leading risk factors in most settings. Although efforts to address risk factors and improve vaccination (influenza and pneumococcal vaccines) and oxygen supply are crucial to reducing global COPD mortality, misdiagnosis and misclassification of the disease due to limited clinical skills and knowledge of the disease, poor access to spirometry, and a lack of consensus on both clinical and epidemiological case definitions also need to be addressed (Adeloye, Song, Zhu, et al., 2022). Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality worldwide. Age and smoking are common risk factors for COPD and other illnesses, often leading COPD patients to demonstrate multiple coexisting comorbidities. (Hillas, Perlikos, Tsiligianni, et al., 2015).

**1.2 Sex of the Jeepney drivers**

In the Philippines, a husband or other male partner is typically the family's primary provider. Because of the workload and the fact that their spouse or female partner will be raising their children. In terms of sex, male with a frequency of thirty (30) and one hundred (100) percentage was dominant before female of zero (0)and zero (0) percentage. It is common that the designations of work be classified in terms of assignments. It is in this light that males are more effective and unquestionable on working in the fields. their travel patterns typically take the form of polygons in relation to a line that represents public transportation Eastern Asia Society for Transportation Studies Journal.

Women's commutes are different from men's because they tend to be more aware of safety issues, are often used as indicators of safe cities and modes of transportation, and exhibit a variety of unique travel habits. The various and multiple roles that women play as homemakers, earners, caregivers for children and the elderly, and managers of community networks account for this difference (Peters 2013; Sanchez de Madariaga 2013).

**1.3 Work assignment**

Due to the jeepney's semi-enclosed design, its occupants, particularly drivers who have family members who are exposed to secondhand smoke and dust, may be exposed to volatile organic compounds from a variety of sources both inside and outside the vehicle, such as vehicle exhaust and cigarette smoking by the driver or other passengers. In terms of Work assignment all thirty (30) participants were assigned to San Fernando route. In most settings, exposure to ambient air pollution, indoor air pollution (including from biomass combustion), occupational pollutants, and tobacco smoking have been identified as the primary risk factors. A lack of agreement on both clinical and epidemiological case definitions, poor access to spirometry, and limited clinical skills and knowledge of the disease all contribute to misdiagnosis and misclassification of COPD, despite the fact that efforts to

address risk factors, improve vaccination (pneumococcal and influenza), and improve oxygen supply are crucial to reducing global COPD mortality (Adeloye, Song, Zhu, et al., 2022).

**1.4 Length of Work**

The primary mode of public transportation is the jeepney, which is infamous for emitting excessive amounts of pollution. Furthermore, drivers of jeepneys frequently work long shifts in congested areas, exposing them to even more air pollution. Thirteen (14) to fifteen (15) years, with a dominating percentage of thirty seven (37) are the longest work periods. to be succeeded by eleven (11) to thirteen (13) years of employment as jeepney drivers, with a twenty-seven (27) percentage. According to the aforementioned table, this participant has inhaled smoke for the longest period of time. Poor ambient air quality and air pollution are strongly linked to a number of health risks. Chronic obstructive pulmonary disease (COPD) is one associated disease that can be prevented, has multiple contributing factors, and is one of the main causes of morbidity and mortality both locally and worldwide. Those who enforce traffic laws and are frequently exposed to air pollution may be considered high-risk individuals within the Philippines. Xerxes Seposo et al., (2021)

**2. Narration of sentiments of Jeepney drivers diagnosed of COPD**

In this table, difficulties with breathing, or dyspnea, are the most common symptom in the population under study. It is the most common symptom with a rank of 1, accounting for 28 cases or 25.45% of all instances. Dyspnea is highly prevalent, which indicates that it has a major influence on the population's health. Additional investigation into the possible causes and correlations with other health indicators could provide insightful information. Closely trailing dyspnea, which was noted in 25 and accounted for 22.72% of the cases, is oxygen desaturation. With a rank of 2, this symptom is ranked second highest, suggesting that it is significantly more common in the population under study. It would be interesting to investigate the relationship between oxygen desaturation and dyspnea in order to determine whether these symptoms frequently occur simultaneously or if one comes on first. Furthermore, looking into the possible underlying causes of oxygen desaturation may give medical professionals important information. Third place in terms of prevalence goes to chronic cough, with 19 cases representing 17.27% of the total number of episodes. Chronic cough is a serious symptom that needs to be addressed, even though it is less frequent than dyspnea and oxygen desaturation. A more comprehensive understanding of the effects of chronic cough on population health and well-being may result from investigating the length, intensity, and possible triggers of the condition. In terms of prevalence, fatigue and anxiety/depression are tied for fourth place with 17 cases each, or 15.45% of every situation. The co-occurrence of these symptoms prompts inquiries regarding the population under study's possible interactions between physical and mental health. Comprehending the correlation between exhaustion and psychological manifestations may elucidate the comprehensive welfare of those enduring these ailments. Weight loss rounds out the list as the fifth most common symptom, having been seen in 4 at 3.63%. Weight loss can be a sign of a number of underlying health problems, even though it is less common than the symptoms listed above.

**3. Proposed Intervention method to address the sentiments of Jeepney drivers diagnosed with COPD**

In this care for Chronic obstructive pulmonary disease table, Reducing tobacco use is still a top priority in the field of public health, as 30.61% of people seeking care struggle to quit. This statistic emphasizes how important it is to implement efficient interventions to reduce tobacco use and encourage a smoke-free lifestyle. To address this widespread problem, many strategies have been used, from medication to behavioral therapy. At 23.47% of people, pulmonary rehabilitation is the second most common health issue that needs to be addressed in order to maximize respiratory function. This figure highlights the complex relationship that exists between quitting smoking and the subsequent requirement for pulmonary support because smoking frequently causes conditions that require rehabilitation.

Adherence to medication comes in second, with a prevalence rate of 14.29%. This emphasizes how difficult it is for medical professionals to make sure patients always take their medications as directed. It is critical to develop strategies to improve medication adherence because non-compliance can result in less than ideal treatment outcomes and higher healthcare expenses. Moreover, medication adherence interventions must be customized to meet the needs of each patient, taking into account variables like health literacy, education level, and socioeconomic status. At 13.27%, breathing techniques rank fourth and emphasize the significance of respiratory therapies in the treatment of pulmonary conditions. These methods include a range of exercises intended to strengthen oxygenation, promote lung function, and reduce respiratory distress. Optimizing patient outcomes is contingent upon the integration of these techniques into comprehensive treatment plans, particularly for patients coping with chronic respiratory conditions or recuperating from acute respiratory events. At 10.20%, the fifth concern highlights how important it is to stay away from environmental triggers. Efforts to lessen exposure to irritants, allergens, and pollutants that can aggravate respiratory symptoms fall under this category. The combination of individual lifestyle modifications and public health initiatives is essential in reducing environmental triggers. Campaigns for awareness and education play a crucial role in enabling people to make decisions that promote a healthier living environment. With an oxygen therapy prevalence rate of 8.16%, it is important to emphasize that people with impaired respiratory function must receive additional oxygen. This could be brought on by acute events like respiratory failure or chronic conditions like chronic obstructive pulmonary disease (COPD). It is imperative to put into practice efficient oxygen therapy protocols in order to raise oxygen saturation levels, alleviate symptoms, and improve the general well-being of those who are impacted. All things considered, these issues cover a wide range of respiratory health issues and account for 98% of patients seeking medical care in this situation. Understanding how these problems are related is essential to creating integrated healthcare plans that take into account the complexity of respiratory care. a comprehensive strategy that incorporates breathing exercises, medication adherence support, pulmonary rehabilitation, and smoking cessation programs and environmental trigger management have the potential to greatly enhance patient outcomes and enhance the general wellbeing of those who are dealing with respiratory health problems.

**5. Implications to Public Administration**

Addressing the healthcare needs of jeepney drivers with Chronic Obstructive Pulmonary Disease (COPD) in the Philippines involves significant implications for public administration in the country. The special difficulties faced by jeepney drivers add to the high rate of COPD. They are more susceptible to respiratory illnesses because of their extended work hours, restricted access

to healthcare facilities, and prolonged exposure to vehicle emissions. To have a long-lasting effect, public administration must therefore take a comprehensive strategy that includes social welfare programs, transportation laws, and healthcare. Improving healthcare accessibility and infrastructure is one of the main implications for public administration. This entails making investments in healthcare facilities, guaranteeing the availability of respiratory specialists, and setting up respiratory health-focused clinics in strategic transportation hubs. In order to ensure that healthcare services are available to everyone, outreach initiatives and mobile health units can be used to connect with jeepney drivers in isolated areas. Additionally, public awareness and education campaigns must be given top priority by public administration in order to educate jeepney drivers about COPD prevention, symptoms, and available treatments. This entails working in conjunction with non-profits, health organizations, and the neighborhood to spread knowledge via a variety of platforms, such as social media, neighborhood gatherings, and pamphlets provided at transit hubs. In order to meet the healthcare needs of jeepney drivers in the Philippines who have COPD, public administration must work together. The government can develop a long-lasting and practical solution by taking a comprehensive strategy that includes social assistance initiatives, public awareness campaigns, transportation policy changes, and infrastructure development for healthcare. In the end, putting jeepney drivers' health first benefits not only their own well-being but also the general health of the public transportation system and the communities it serves. It is important to alter transportation policies in order to establish a setting where jeepney drivers' health and welfare are given top priority. To reduce the negative effects of long work hours on respiratory health, public administration should work with pertinent stakeholders to establish regulations that restrict drivers' exposure to harmful emissions and provide enough time for rest. The government can promote a mutually beneficial relationship between public health and transportation systems by incorporating healthcare considerations into transportation policies. Healthcare infrastructure development should take into account the special requirements of jeepney drivers. Together with building clinics, this also entails incorporating buildings into or next to transportation hubs. Public administration should consider public awareness and education campaigns top priority in addition to enhancing the healthcare infrastructure. Improving the awareness of COPD prevention, symptoms, and treatments among jeepney drivers is crucial for the early identification and treatment of the illness. These campaigns can be made more effective by working together with local communities, health organizations, and nonprofits. Collaboration is essential to maximizing the impact of awareness campaigns. Collaborating with nearby communities, nonprofits, and health organizations can help these initiatives reach a wider audience and be more successful. Participating in the community helps to guarantee that the message is appropriate for the jeepney driver population and sensitive to cultural differences. Involving nonprofits and health organizations also brings additional resources and experience to the table, resulting in a more comprehensive and long-lasting approach to healthcare promotion. Chronic obstructive pulmonary disease is one such health issue that needs to be addressed (COPD). Jeepney drivers frequently travel for extended periods of time, putting them at risk for respiratory ailments and other environmental contaminants. It is essential to launch a focused campaign to raise public awareness of COPD symptoms, prevention, and available treatments. Early detection of COPD can result in timely management and intervention, stopping the disease's progression and enhancing the general health of jeepney drivers.

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