

Corruption and Population Health

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Abstract: Population health is an approach to health with the goal of improving the health of an entire human population which includes health outcomes, patterns of health determinants, and policies and interventions. As the population of countries increases, it creates scarcity of resources that will enhance population health. In the midst of this scarce resources' corruption heightens the unavailability of such resources. High levels of corruption impoverish populations, increase inequality, and cause health status to deteriorate, especially among the most vulnerable population groups. The main determinants of health include: Income and social status, employment and working conditions, education and literacy, childhood experiences, physical environments, Social supports and coping skills, and healthy behaviours. Access to health services, biology and genetic endowment, gender, culture and race / racism are also determinants of health. In absence of corruption there is health equity, which helps to reduce inequalities and seek to promote opportunities and conditions that is conducive to health for all. Addressing corruption complements the right to health, and promotes health equity in order to achieve population health of the people.

Keywords: Corruption, population, health determinants, population health.

INTRODUCTION

The world is greatly out of balance on issues of health and equal distribution of resources. As the population of countries increases, it creates scarcity of resources, in the midst of these scarce resources' corruption heightens the unavailability of such resources. Corruption does not only affect economic development, it also affect distribution of resources across population and increases inequality of social welfare. Corruption is a complex, multifaceted and a global pandemic; as no country is exempted, though it is more obvious in the developing world. World Health Organization (WHO), defined corruption as a criminal, immoral and the ultimate betrayal of public trust. It is defined as the use of public property and power in a given position for personal gain and benefit. Corruption can be divided into four main types: bribery, theft, bureaucratic or political corruption, and misinformation for private gain (WHO, 2020). World Bank in its definition of corruption stated that it is the "abuse of public office for private gain (WHO, 2016). Corruption is a usual consequence of poor governance characterized by lack of transparency, weak accountability and inefficiency, and lack of citizen participation (Ciccone *et al.*, 2014). This implies that access to basic fundamental needs to positively enhance health outcome will not be equally distorted. World Health Organization defined health in its broader sense in 1946 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO, 1946). Wikipedia defined population health as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. An approach to health that aims to improve the health of an entire human population which includes health outcomes, patterns of health determinants, and policies and interventions. Since corruption hinders equal distribution of resources that impacts positively on population health outcome, definitely the health of the populace will be grossly affected.

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Addressing corruption complements the right to health, and promotes health equity. Right to health is a principle enshrined in international law through the Universal Declaration of Human Rights and WHO Constitution which underpins universal health coverage (UHC) and sustainable development goals (SDGs) health-related targets and indicators (World Health Organization, 2018). WHO (2018) asserted that high levels of corruption impoverish populations, increase inequality, and cause health status to deteriorate, especially among the most vulnerable population groups. For example, Nigerians with low income live in shanty's that is inhabitable, lack adequate diet hence expose to a lot of health challenges. This implies that where we are born, grow, live, work and age also have an important influence on our health. Also our individual genetics and lifestyle choices, all these are called the health determinants in population health.

Determinants of health are the broad range of personal, social, economic and environmental factors that determine individual and population health (Government of Canada, 2020). The main determinants of health include: Income and social status, employment and working conditions, education and literacy, childhood experiences, physical environments, Social supports and coping skills, and healthy behaviours. Access to health services, biology and genetic endowment, gender, culture and race / racism are also determinants of health (Government of Canada, 2020).

This paper will strictly focus on corruption and population health in Nigeria. Nigeria is resource rich nation with abundance of natural resources. Corruption at all levels has hindered the development of this great nation. With great inequality in resource distribution as a result of corruption, health determinants are grossly affected hence health inequality. Corruption leads to health inequality. Health inequity refers to inequalities in health that are unfair or unjust and modifiable. In absence of corruption there is health equity, health equity helps to reduce inequalities and seek to promote opportunities and conditions that is conducive to health for all.

In Nigeria, three types of corruption are identified, maladministration, misappropriation of resources and procurement irregularities. Corruption exists at all levels in Nigeria, from the farmer who uses chemical to ripen her fruits to make quick money to the civil servant who procures fake working tool that stress up other employee; the governor who awards road that are not durable up to the federal levels. In all levels of corruption whether maladministration, misappropriation of resources or procurement irregularities, there is a negative consequences on population health.

Population Health Determinants/ Indicators

Health determinants/ indicators in population health can be generally grouped into five:

- Health care determinants such as access, cost, quantity and quality of healthcare.
- Individual determinants – which is choice of life style e.g., diet, exercise, substance abuse, choice of reproductive health etc.
- Social determinants include education, income, occupation, class and social support.
- Physical environment, this includes built and natural environment such as air quality, water quality, lead exposure and designed neighbourhood.
- Genetic determinants include genetic composition of individuals or populations.

Chapter II section 6(6) (c) of the 1999 Constitution of the Federal Republic of Nigeria provides for the socio-economic rights which connects with social needs of Nigerians (such as food, education, health and shelter) (Daily Trust, 2021). Nigeria is also signatory to United Nations human right act, Sustainable development goal etc. Nigeria has also developed programs such as, structural adjustment program to eradicate poverty, National Health Insurance Scheme (NHIS), to address the issue of healthcare determinants, still such policies lack implementation due of corruption.

Effect of Corruption on Health Determinant of Population Health

Health determinants in population health are access, cost, quality and quantity of care. Corruption undermines the delivery of quality essential health care services in an equitable manner. It increases cost of healthcare for the poor and disadvantaged, and results in poor healthcare delivering and poor health outcomes which results in high out-of-pocket expenditure, it results in erosion of trust in the system, and reduced service utilization (Naher *et al.*, 2020). It will be right to state that corruption is a monster created by human to prevent healthy living. Corruption in the health sector is of diverse ways. National Academics Press US (2018) opined that corruption in the health sector has been found to take many forms in various areas, such as in health facility construction; equipment and supply purchasing; pharmaceutical distribution and use; health worker education; falsification of medical research; and provision of health care services.

Access/Cost of Healthcare

Corruption hinders the implementation of healthcare care delivering strategies. Many people especially in developing nations has no access to healthcare services as such services are not within their location. In case of emergency due to poor transport system and poor road network most people can't access healthcare when needed. Unavailability of health care workers is also a barrier to accessing health, Access to health services can be seriously affected by absenteeism of medical staff (Ramadhan & Santoso, 2015). Estimated rates range from 19% to 60% in low- and middle-income

countries, with more qualified staff like doctors and pharmacists showing higher rates of absenteeism than less qualified staff (U4 Corruption resource center, 2020). Nishtar, (2010) stated that in many cases, absenteeism and the “ghost worker” phenomenon are prevalent where institutionalized corruption creates an environment that enables health care workers to be absent from duty in lieu of relinquishing a percentage of their salary, which is then shared institutionally.

Under staffing also leads to long waiting hours, most times, no skilled worker to attend to patients with special needs as government do not providing funding for such trainings, these is indirect denial of care. The issue of poor remuneration is also a big challenge in Nigeria as healthcare workers are poorly remunerated, this results in incessant strike and migration of skilled workers to other countries. Corruption also affects the price of medical care hence care is unaffordable and this in turn results in poor quality of care. Out of pocket expense especially in emergency where patients are meant to pay before service hinders access to care. (Chesak, 2020) concluded that as the price goes up, patients that cannot afford treatment are forced to make decisions about whether to continue using the medication as prescribed, ration the doses, source alternate means of getting the medication and some resolve getting help from non-professional or self-medication. In Nigeria many resolve to spiritual help and herbal treatment which most times worsens their condition.

Quality/ Quantity of Care

Transparency international declared that corruption in the health sector has a corrosive impact on the population’s health. Studies have found that high levels of corruption are linked to weak health outcomes. In other words, pouring more money into highly corruption-prone health systems will not achieve the intended health goals. Corruption affects quality of care indifferent ways; the health training institutions may be under funded hence low quality of education that will produce unskilled workers. Low quality of care may be as result of poor recruitment where bribes are taken from unqualified individual for employment. According to U4 Anticorruption Centre (2018), studies in 64 countries found that corruption lowered public spending on education, health, and social protection. Poor attitude of healthcare workers towards the patient and relatives is also another aspect that reduces the quality of care. Another big issue in the health sector is the black-market medicine.

Black markets medicine cannot exist in a free society where there is no corruption. Black market medication are medications sold illegally, outside of the government’s watch. It can be defined as the practice of medicine outside existing legal frameworks. These frameworks vary from one country to another. Research shows that Altruism and a lack of access and affordability are three reasons why people with chronic illnesses are turning to the "black market" for medicines and supplies (Keifer, 2019). Scientists at University of Utah Health and University of Colorado conducted surveys to understand why individuals are looking beyond pharmacies and medical equipment companies to meet essential needs. The reasons listed were many but centered on a single theme: traditional healthcare is failing them (Keifer, 2019). All of these are centered on corruption in the healthcare sector.

Michelle, lead author of the study, a nurse practitioner and researcher concluded that people have to make a decision. Do they want to maintain their health? And if so, what are the medications and tools that they need in order to stay healthy. Since the traditional health care has failed them, they turn to black market medicine to sustain their health need (Keifer, 2019). The effect of black-market medicine is huge and thriving in Nigeria and the devastating effect is detrimental to population health. Researchers have warned that counterfeit and substandard medicines are associated with tens of thousands of deaths, with young children in poorer countries being particularly affected (Thepharmletter, 2019). The truth remains that no patient should go through stress in order to access something that is essential for survival (Chesak, 2020). The goal of Universal health coverage which states that ‘all individuals and communities receive the health services they need without suffering financial hardship (WHO, 2021) is defeated in the face of corruption.

Nigeria is placed at 142 out of 195 countries according to a Lancet report’s ranking of health systems performance using healthcare access and quality as its criteria. Nigeria also ranks poorly based on the World Bank's Universal Health Coverage Service Coverage Index (Macking & Ifunanya, 2018). A view at cost benefit in care which is comparison of interventions and their consequences in which both costs and resulting benefits (health outcomes and others) are expressed in monetary terms. York Health Economics Consortium, (2016) concluded that Nigeria is lacking behind. When health system financing, quality does not commensurate with the utilization and outcome, the efficacy of such healthcare is inadequate.

Corruption and Individual Determinants in Population Health

Individual determinants – which is the choice of life style e.g., diet, exercise, substance abuse, choice of reproductive health etc. (Kindig, 2020). Corrupt practices lead to frustration on the part of the populace. Effect of corruption can lead many into crime, substance abuse, poor choice of reproductive health and poor diet choices. When we talk about poor diet, the poor can’t afford adequate diet as it is expensive to feed in Nigeria. Agricultural practices require funding especially in input delivery services. The farm inputs such as fertilizer and seeds supply services had been in the hands of

the federal government undermining the private sector and never delivered to genuine farmers, this hinders the sustainable production of crops and has consistently led to shortage of food in the country (Godson-Ibeji, Ogueri, & Chikaire, 2016).

Substance abuse is another individual population health determinant. The burden of drug abuse is on the rise and this has been public health concern in Nigeria (Daily Trust, 2018). High level of poverty and increasing youth unemployment which is as a result of corruption have been identified by the West African Drug Policy Network Nigeria (WADPN) as some of the major factors causing high incidence of drug and substance abuse in Nigeria (Daily Trust, 2018).

Over- population is also part of individual determinant. Policies to reduce inequality in access to reproductive health care services are often general and frequently benefit the richer population. This is known as the inverse equity situation. The rich has high access to resources that will help them access reproductive health in Nigeria. The poor tend to have more children in Nigeria than the rich as corrupt practices in Nigeria deprive them of having good employment, social welfare and social amenities for recreation hence the slogan” Poor man’s enjoyment is on top of the wife. They tend to have more children that are forced into labour market at a tender age, this is generally termed as child labour. As they are not prepared to have such children, this has continually increased maternal and infant mortality rate.

Many youths get into crime due to frustration. Inability to make end meet in the midst of plenty. They get demoralized and get involved in kidnapping, political violence, cultism, etc all these are detrimental to population health as it leads to high mortality rate.

Effect of Corruption on Social Determinants of Population Health

Social determinant in population health includes the situation in which people are born, grow, live, work, age and die. It also includes education, income, occupation, class and social support (Nwozichi, 2021 personal communication). These are non-medical factors that affects population health (WHO, 2021). Research shows that the social determinants can be more important than health care or lifestyle choices in influencing health. Corruption is a big concern in Nigerian society, as it impacts negatively on every aspect of its economy. There is no equity in the distribution of social determinants, only the upper class has access to good education, live in good environment, good work environment and access to social welfare. Corruption is deeply rooted that scholarships are not awarded to the lower class rather the upper class also highjack such opportunities.

The indigent youth are not opportune to get good jobs because they have no connection. But the political and upper class place their children in such positions even when they are not qualified. Social welfare packages are non-existent in Nigeria. The poor has no access to social welfare packages to assist their essential needs. The fact remains that social determinants are the essential ingredient for good health, absent of social determinants means poor population health.

Effect of Corruption on Physical Environment Determinant of Population Health

Physical environment includes built and natural environment such as air quality, water quality, lead exposure and designed neighborhood. Environmental Degradation in Nigeria as a result of oil and other natural resources exploration is strictly due to corruption. Nigeria is a country rich in oil and other resources which should be of benefit to population health as it is one of the richest oil producing countries in the world. However lack of implementation of laws to protect the environment where these resources are located have resulted in poor population health outcome.

Gas flaring which is polluting method of disposing of the associated gas that comes from oil production. Since flaring does not burn all the associated gas sent to a flare, significant amounts of methane are also emitted. These methane emissions contribute significantly to global warming.

Gas flaring also produces soot, when there is soot emission, respiratory conditions such as: Bronchitis, chronic cough, asthma, sinusitis and colds and other respiratory conditions escalates. Flaring is, of course, totally unproductive and can be avoided. The gas could be put to good use and potentially displace other more polluting fuels, such as coal and diesel, that generate higher emissions per energy unit (World Bank, 2021). If government set regulations that impose penalties on companies that flare gas such will be in existence. Due to corruption, there are bottleneck bureaucracy that creates legal bottlenecks to enforce such regulations. In Rivers state, there is heavy pollution as a result of illegal refraining of crude oil (The Guardian, 2021). Incomplete combustion of hydrocarbon produces a black substance called soot which is detrimental to Health (The Guardian, 2021). If these youths who are involved in this illegal activities are integrated into refineries’, the refineries will be productive and issue of importation of fuel will be abated. Lack of proper engagement of the youth in the oil producing states has also lead to Oil pipeline vandalism. The skills these youths have can be put into good use for the development of the nation.

Water pollution is also a big issue in Nigeria. There is non- existing recycling plants in Nigeria and the waste disposal method is very poor. Money which should be used for such activities are embezzled or misappropriated and this

leads to indiscriminate disposal of waste, which are washed off during rain fall into the seas and oceans contaminating it. Oil spillage is another source of water pollution and environmental degradation in Nigeria. Mohammad Abubakar, Minister of Environment, disclosed that Nigeria recorded 4,919 oil spills between 2015 to March 2021 (Premium Times, 2021). Several statistics have emphasized Nigeria as the most notorious country in the world for oil spills, loosing roughly 400,000 barrels per day. The impacts of vandalism of oil facilities has not only caused pollution of the environment, but had health consequences on the local people, the national economy and security, (Premium Times, 2021). Oil spill results either from vandalization of oil pipe lines or lack of maintenance culture on the part of oil exploration companies. Most governments don't sanction these oil companies because of illegal wealth they get from them. The unprofessional conducts of most of the oil exploration companies in Nigeria cannot be tolerated in other clan where corruption is not endemic as such activities and its outcome affects population health negatively.

Flood constantly ravage many cities in Nigeria. The devastating impact of the 2020 flooding killed 68 people, affected 35 states including FCT [Federal Capital Territory], 320 Local government areas (Premium Times, July 2020). Due to corruption many cities in Nigeria are built without drainage and waste management plan. Ineffective implementation of land use act encourages individuals to build houses on the water ways which disturbs the flow of water hence, lead to flood. Devastating effect of flooding is so enormous that it leads to destruction of lives and properties, food scarcity as flood destroys farm products, displacement of communities and outbreak of diseases.

It is also a common site in Nigeria to see shanties and slums where thousands are living, this kind of environment encourage diseases and criminal activities. All these are as a result of lack of proper housing scheme for the citizens. Nigeria is a rich country blessed with resources, but corruption has hindered its development and increase poverty which has negative population health outcome (Okenna, 2020).

Another physical environment factor that affects population health is transportation. Many lives are lost on road transport accident, same with sea and air transportation. Careless driving, speed violation, brake failure, traffic violations, faulty overtaking, burst tyre, and bad roads, alcohol use and armed robbery attack have been identified as the causes of road transport. Corruption mainly contributes to all these. The security operatives and Federal road safety officials are busy collecting bribe on the road than discharging their professional duties. There are no regulations and policies on who is supposed to be a public transport driver as it is obtainable in developed world. Not only are lives lost due to bad road, people lose their jobs due to bad road. Most people can't access health when needed because of bad road. Poor road network also hinders transportation of Agricultural products from rural areas to urban cities. With all of these, the cost of transporting the goods are high, which leads to exorbitant price of food items. Also arm robbers uses fail portions of the roads to attack road users which leads to injury, loss of properties and even death.

Lack of electricity which is strictly as a result of corruption is another issue that is negatively affecting population health in Nigeria. Poor electricity supply cuts across the country and this imposes a major challenges to the national health system infrastructure (The Conversation, 2020). Lack of power supply also affect small and medium entrepreneurs, limiting their production hence lowering their income which also adversely affect population health. Poor Preservation of perishable foods in the face of poor power supply leads to waste of money and hunger.

Effect of Corruption on Genetic Determinants of Population Health

Genetic determinants include genetic composition of individuals or populations. The basic biology and organic make-up of the human body are a fundamental determinant of health (Nova scotia health Authority, 2021). Genetic endowment provides an inherited predisposition to a wide range of individual responses that affect health status. Although socio-economic and environmental factors are important determinants of overall health, in some circumstances genetic endowment appears to predispose certain individuals to particular diseases or health problems (Nova scotia health Authority, 2021). Sickle cell disease is a common example of a genetic determinant of health, diabetics, Asthma etc. are all genetic inherited diseases. Some genetic factors affect specific populations more than others. As earlier stated corruption increases cost of healthcare for the poor and disadvantaged, and results in poor healthcare delivery and poor health outcomes which results in high out-of-pocket expenditure, erosion of trust in the system, and reduced service utilization (Naher *et al.*, 2020).

People with genetic diseases are constantly in need of population health determinants that will enhance their well-being. People with genetic diseases are always in need of medical care and other essential health needs. Expensive healthcare due to corruption pressures such individuals and families with such health issues fall into deeper poverty when they are forced to sell assets or go into debt in order to access healthcare. Chesak, (2020) stated that as the price goes up, patients that cannot afford treatment are forced to make decisions on whether to continue using the medication as prescribed, ration their doses, source alternate means of getting the medication. Researchers concluded that people have to make a decision. Do they want to maintain their health? And if so, what are the medications and tools that they need in order to stay healthy. Since the traditional health care has failed them, they turn to black market medicine to sustain their

health need (Keifer, 2019). Researchers have warned that counterfeit and substandard medicines are associated with tens of thousands of deaths, with young children in poorer countries being particularly affected (Thepharmletter, 2019). It further stated that Criminals often sell these fake prescription pills on social media and e-commerce platforms and this is where black market medicine thrives.

Research shows that Altruism and a lack of access and affordability are three reasons why people with genetic and chronic illnesses are turning to the "black market" for medicines and supplies (Keifer, 2019). It is expected that the government should assist in providing essential needs of people with such health conditions. In Nigeria, public spending for health care is inefficient, with poor governance that breed's corruption the little resources allocated to healthcare is also mismanaged and this is detrimental to population health.

CONCLUSION

Population health management is successful when directed at those who need it most, core aim is to improve health outcomes of community. In the face of corruption this is not the case, rather there is mismanagement of resources through embezzlement, misappropriation of funds and waste of scarce resources. Corruption disrupts progress toward the goal of Universal Health Coverage (UHC). Anti-corruption laws and regulations need to be conscientiously enforced, diligent system should make it easy to register and investigate complaints, and taking complaints through the courts should be simplified and made less costly.

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