

Determinants and Mortality Trends of Cardiovascular Diseases in Nigeria: A Tertiary Health Centre Perspective in South-Eastern Nigeria

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ABSTRACT

Background:

Cardiovascular disease (CVD) is the leading cause of death worldwide and has taken approximately 17.9 million lives across the globe with 31% contribution to global death scores. Mortality due to CVD is projected to increase to 24 million deaths by 2030 and a third of the world mortality is accrued to CVD. Half of CVD death is due to coronary heart disease (CHD) and a third from stroke with a massive economic burden in Europeans countries. The trends of cardiovascular disease mortality have important implications for policy formulation, allocation of resources, and for targeting of needed interventions to save mankind.

AIMS.

To determine the burden and mortality trends of cardiovascular diseases among all the mortalities in David Umahi Federal University Teaching Hospital, Uburu.

Result

Cardiovascular death accounted for 24.7%(72) out of 291 mortalities recorded in DUFUTH from March 2022 to June 2025. Among the cardiovascular diseases, cerebrovascular accident (Stroke) served as the most common cause of deaths which accounted for 47.2%(34) of the total cardiovascular disease deaths, followed by congestive cardiac failure which stood at 16.6%(12). Hypovolemic shock accounted for 15.3% (11) mortalities while post operative cardiac arrest was responsible for 8.3% (6) mortalities. Hypertensive encephalopathy accounted for 6.9% (5) while myocardial infarction was responsible for 5.6% (4) of deaths due to cardiovascular diseases. The male accounted for 60% (43) of the cardiovascular deaths while the female accounted for 40% (29). Ages 51-60 has the highest rate of mortality accounting for 23.6% (17), this was followed by 61-70 and ages <30 accounting for 19.4% (14) and 18% (130 respectively. Ages 71-80 accounted for 15.4% (11) while ages 31-40 and 41-50 accounted for 12.5% (9) and 11.1%(8) respectively.

Conclusion

Policymakers must assess their country's risk factor profile for cardiovascular diseases as one of the topmost killer diseases in Nigeria in order to craft effective strategies for CVD prevention and management. Fundamental strategies such as the implementation of National Tobacco Control Programs, ensuring the availability of CVD medications, and establishing specialized units within health ministries to tackle non-communicable diseases should be embraced in all countries. Adequate healthcare system funding is equally vital, ensuring reasonable access to care for all communities

Keywords: Pattern of death, Mortality, Brought-In Dead, Hospital patients, policy.

INTRODUCTION

Cardiovascular diseases are medical conditions that involve the heart and blood vessels and they include peripheral arterial disease, cerebrovascular illness, and congenital heart diseases. They are closely related to metabolic syndrome which involves obesity, hypertension, insulin resistance, low high density lipoprotein, cholesterol, hyperlipidemia, high blood sugar and severity of metabolic syndrome in children, adolescence and even adult will most likely increase the incidence of cardiovascular diseases (CVD) and death worldwide. In the majority of the cases, the disease remains asymptomatic and it continues to contribute to enormous health-care expenditures.

Cardiovascular disease (CVD) is the leading cause of death, with approximately 17.9 million loss of lives across the globe and 31% contribution to global death scores [1]. Mortality due to CVD is projected to increase to 24 million deaths by 2030 and a third of the world mortality is accrued to CVD. Half of CVD death is due to coronary heart disease (CHD) and a third from stroke with a massive economic burden in Europeans countries [1].

Across all the African countries especially the Sub-Sahara Africans, CVD along side with other non-communicable diseases (NCDs) are the leading cause of deaths. In South Africa, cardiovascular diseases (CVDs) are the most frequent causes of NCDs deaths with approximately 13% of all deaths and 37% of all NCDs deaths [2].

In most places, ischemic heart disease (IHD) is almost implicated in mortalities due to CVDs, this is followed by stroke and hypertensive heart disease. Nevertheless, the neglected endemic CVDS such as endomyocardial fibrosis and rheumatic heart disease as well as congenital heart diseases remain unconquered. While the underlying aetiology of heart failure among adults in high-income countries (HIC) is IHD, in SSA the leading causes are hypertensive heart disease, cardiomyopathy, rheumatic heart disease, and congenital heart diseases [2]. The leading causes of heart failure in SSA are hypertensive heart disease, cardiomyopathy, and rheumatic heart disease, with ischemic heart disease accounting for 50% in high-income countries [2].

CVD can occur across all age group and being young does not guarantee immunity. Of concern in South African population with the tendency of CVDs to occur at younger age group approximately two decades earlier compared to high income countries [2].

The Global Burden of Disease (GBD) study in 2017, revealed non-communicable diseases (NCDs) as the leading cause of death, accounting for 73.4% of all deaths. This is led by cardiovascular diseases (CVDs), with ischemic heart disease (IHD) as the most frequent cause of cardiovascular death [1]. The situation is not so different in Africa as NCDs have become the second most common cause of death in Sub-Saharan Africa (SSA) accounting for 2.6 million deaths, equivalent to about 35% of all deaths [2].

In Lagos Nigeria, a total of 90 out of 176 brought in death cases were cardiovascular-related deaths, giving a prevalence of 51.1%. The mean age of occurrence of these cardiovascular deaths was 65.2 ± 15.6 years. Male: Female ratio was 1.4: 1. The females were older (68.29 ± 14.89) vs the males (61.63 ± 15.55) years. Age group > 60 years accounted for 63.3% of deaths. Commonest primary diseases were hypertensive heart disease (48.9%) and cerebrovascular accident (24.4%). Myocardial infarction occurred in 8.9%. Heart failure, cerebral dysfunction and unspecified circulatory collapse were the causes of death in 54.4%, 23.3% and 14.4% respectively [3].

Over 80% of those deaths from cardiovascular diseases occurred in developing countries when compared with developed world and this is frequent among the middle age and the young [3].

However, the trends of the mortalities from cardiovascular diseases differ between Sub-Saharan Africa and developed western countries. While coronary-artery-disease (CAD) is the main cause of death in developed countries and the leading cause of death among black Americans, stroke has been popularly documented as the leading cardiovascular cause of death in Sub-Saharan Africa frequently followed and alternating by hypertensive heart disease and heart failure [3]. This shows that the pattern of CVD vary in different

geographical areas [4]. However, the common CVDs seen in adults include coronary heart disease, stroke, hypertensive heart disease, heart failure, and arrhythmias.

In the U.S. incidence of heart disease and stroke, has declined steadily. However, despite this progress, heart disease and stroke remain the first and fifth leading causes of death in the U.S.[5]. Data showed that CVD-related admissions are quite rife, constituting about 31% of all medical admissions in the USA, with ischaemic heart disease being the major cause of admission. In Saudi Arabia, CVDs constitute 34.4% of hospital admissions, with stroke being the leading cause. In Africa about one-tenth of all medical admissions are CVD related and stroke and heart failure are the major causes. In Nigeria, studies have shown that CVD-related admissions constitute about 20% of all medical admissions [6, 7].

Several risk factors have been linked to be responsible for this increased incidence of CVD in Nigeria. With the current prevalence of CVD in Nigeria to be as high as 76.11% and a mortality rate of 10%, and even the age-standardized incidence rate to be 100 to 149.99 per 100,000 persons among adolescents and young adults [6]. These risk factors include hypertension (30.6%), overweight/obesity (25.5%/14.4%), diabetes mellitus (3.6%), high cholesterol (3.2%), cigarette/tobacco use (male = 5.6%, female = 0.3%, age = 15–49 years), physical inactivity (62.2%), indoor smoke pollution (7.4% rural, 6.8% urban), and unhealthy diet (74.8%) [4]. Despite that, measures have been put in place to combat this rising prevalence and burden.

In 2019, the age-standardized disability-adjusted life years (DALYs) due to CVD in Nigeria ranged between 4320 and 5790 per 100,000 persons and increased to 5250 per 100,000 persons in 2022 [3]. Treatment of common non-communicable diseases (NCDs) such as hypertension and diabetes at the primary health care level, availability of national surveillance and monitoring for NCDs, and involvement of NGOs and civil society in policy formulation and implementation, among others [4] have served as several measures put in place to combat the rising incidence of deaths due to cardiovascular diseases in Nigeria, nevertheless, these measures have not yielded the expected results, probably because of the weak and inefficient health system, the lack of national guidelines for the prevention, treatment, and control of many CVDs, and the unavailability of national data on many NCDs [4]. These might have impacted CVD risk perception negatively among community-dwelling adults in Nigeria [6].

Cardiovascular disease (CVD), typified by stroke, coronary heart disease and heart failure are preventable cause of death globally and Over 80% of the global burden of CVD is borne by the low- and middle-income countries (LMICs) [7]. This is fueled by rapid urbanization and westernization and its corollary of unhealthy lifestyles, increased consumption of saturated fats and sugars, high salt intake, increasing physical inactivity, smoking and unhealthy use of alcohol. These unhealthy behaviors predispose to the development of biological risk factors for CVD, such as obesity, hypertension, diabetes and dyslipidaemia [7]. The following risk factors have percentage contributions to the risk of CVDs as follows, smoking (1.6%), abdominal obesity (3.3%), alcohol consumption (3.7%), overweight/obesity (20.7%), unhealthy diet (85.3%), and physical inactivity (94.5%). Students whose fathers were skilled workers were 3.5 times more likely to be physically inactive and female are usually inactive than their male counterpart [8].

In Nigeria, the prevalence of overweight and obesity is 26.8% and 6.5%, in southwestern Nigeria, a study revealed that only 60% of university undergraduates consumed the minimum recommended number of servings of grain (cereal) foods, while 60%, 85%, and 40% of students did not meet the recommended daily allowance for protein, calcium, and iron respectively [8].

Because of population growth, aging and poverty level in Africa, she has disproportionately borne the brunt of CVD burden and has one of the highest risks of dying from non-communicable diseases (NCDs) worldwide accounting for 38.3% of NCD deaths and 22.9 million daily and Africa has registered close to a 50% increase in the CVDs burden within the last three decades. Unchecked increases in CVD risk factors have contributed to the growing burden of three major CVDs—hypertension, cardiomyopathies, and atherosclerotic diseases leading to devastating rates of stroke and heart failure [9].

More than half of CVD deaths in Africa are categorized as premature mortalities, occurring between the ages of 30 and 70years [5, 21, 22].The resultant effect is most evident among productive age group culminates in serious social and economic consequences to the household, community, and nation at large. On average,

Africa still has low health expenditure (averaged at 103 US\$ per capital in 2016), with several countries still below the minimum recommended \$44 per capital (8). This, combined with the lack of universal health coverage in most countries, necessitates high out-of-pocket costs for individuals, with resultant impoverishment and inequity in health care access[9].

The contributory causes of heart failure are changing—whilst hypertensive heart diseases (HHD) and cardiomyopathies still dominate, ischemic heart disease is rapidly becoming a significant contributor, whilst rheumatic heart disease (RHD) has shown a gradual decline. In a continent where health systems are traditionally geared toward addressing communicable diseases, several gaps exist to adequately meet the growing demand imposed by CVDs [9].

The Central Europe, Eastern Europe, and Central Asia region face the highest levels of CVD mortality globally. Although CVD mortality levels are generally lower in women than men, this is not true in almost 30% of countries in the North Africa and Middle East and Sub-Saharan regions. The regions with the highest proportion of countries achieving the maximum score for the world heart foundation (WHF) policy index were South Asia, Central Europe, Eastern Europe, and Central Asia, and the high-income regions. The Sub Saharan Africa region had the highest proportion of countries scoring two or less [10].

In 2021 alone, CVDs accounted for 20.5 million deaths, comprising approximately one-third of all global deaths [1]. While cardiovascular conditions were traditionally considered diseases of affluence, this is no longer the case. Over three-quarters of CVD-related deaths occur in low- and middle-income countries (LMICs) [10]. Ischemic heart disease, specifically, stands as the leading cause of premature death in 146 countries for men and 98 countries for women. The complexity of the global picture is exacerbated by the levels of inequalities in the impact of CVDs. Notably, LMICs experience higher rates of premature mortality from CVDs compared to high-income countries (HICs), while the reduction in age-standardized mortality rates is progressing more slowly in LMICs [10].

The overall probability of dying between the ages of 30 and 70 years from the major NCD in Nigeria was 22% in 2016, this is similar to that of Cameroon at 12% in 2017. The prevalence of atrial fibrillation (AF) and atrial flutter was 0.13%, while that of rheumatic heart disease (RHD) was 0.75%. The total RHD mortality rate was 0.11% of all deaths[11].

Hypertension, rheumatic heart disease, and cardiomyopathy caused most of the CVDs over the next decade. Few cases of CHD are usually reported. However, a substantial portion of the increasing global impact of CVD is attributable to economic, social, and cultural changes that have led to increases in risk factors for CVD. These changes are most pronounced in the countries comprising the developing world. Because the majority of the world's population lives in the developing world, the increasing rate of CVD in these countries is the driving force behind the continuing dramatic worldwide increase in CVD [12, 13].

According to Mackay & Mensah, high blood pressure remained a major risk factor for heart disease in people aged over 50 years. The World Health Report also estimated that 60% of coronary heart disease and 40% of ischemic stroke in developed countries is due to total blood cholesterol greater than 3.8mmol/L[14]. The major modifiable risk for the development of coronary heart disease were smoking, which accounts for an estimated 32% death from cardiovascular disease in men aged 35-69 yrs and 60% of CVD death in women of the same age. In addition, Peterson et al (2006) stated that diabetes mellitus magnifies the effect of other risk factors including raised cholesterol level, raised blood pressure, smoking and obesity. Men with type two diabetes mellitus have a 2-4 fold greater annual risk of coronary heart disease while women have an annual 3-5 fold greater annual risk of coronary heart disease [14].

Rasheed Kola Ojikutu documented increase proportional mortality ratio (PMR) for cardiovascular disease elevation in men, while there was deficit in female deaths counterpart. The highest cardiovascular death rate was also recorded among those in the 60 – 70 years age bracket. The PMR in that group is also the highest among the various age groups studied. Data on seven occupational categories show elevated mortality with workers in private sector and civil Servants recording the highest in that order while highly significant deficit was recorded among students[15].

Similar studies done in Aba south-eastern, Ota southwestern and Enugu Nigeria reported high prevalence of hypertension amongst market workers as high as 42% as risk factors for CVD. It was also reported that stroke and heart failure constituted 24.4% and 14.7% cause of mortality in medical emergency room respectively. The above studies show that the prevalence, morbidity and mortality of CVDs and their risk factors are high and they recommended a need for regular community based studies in order to keep abreast of the current burden of CVD risk factors [16].

In 2021, 20.5 million people died from a cardiovascular condition, a figure that accounted for around one-third of all global deaths and was a significant increase from the 12.1 million CVD deaths recorded in 1990. The number of deaths due to CVDs over the last 30 years has increased globally—in large part due to an ageing and growing population—the age standardized death rate has declined by one third, from 354.5 deaths per 100,000 people in 1990 to 239.9 deaths per 100,000 people in 2019[17].

Only the Latin America and the Caribbean region achieved a decline in female death rates in 2019 that reached the rate the high-income region had registered in 1990. For males, in 1990 the lowest levels of CVD death rate were recorded in Latin America and the Caribbean, Sub-Saharan Africa, and high-income regions with South Asia only achieving a decline in 2019 that reached those levels [17].

The Central Europe, Eastern Europe and Central Asia region had the highest age-standardized CVD death rates for males and females in both 1990 (670.2 and 467.2 deaths per 100,000 people respectively) and 2019 (524.1 and 345.7 deaths per 100,000 people respectively). The North Africa and Middle East region had the second highest rates for males and females in 2019 (376.7 and 339.8 deaths per 100,000 people for males and females respectively) [17].

In all regions studied in this research, ischemic heart disease is the leading cause of CVD mortality across males and females, except for females in the Sub-Saharan Africa region and both males and females in South Asia where stroke is the leading cause of CVD mortality. Stroke is on average the second leading cause of CVD mortality across regions [17].

The risk of cardiovascular death can be reduced by both lifestyle modification like smoking cessation, dietary changes and exercise and pharmacological interventions like lipid-modifying drugs and treatment of hypertension. For patients to benefit optimally, these interventions should ideally be started long before cardiovascular disease is clinically overt [18], hence the need for risk assessment serving as a panacea for prevention of CVD.

In general death analysis in Abakaliki, 40.8% of the patients died from stroke, which served as the highest cause of mortality in this research. In terms of case fatality analysis stroke (71%), came second just after acute diabetic analysis. [19][20]

The situation is not farfetched in delta state where retroviral disease, stroke, heart failure, amongst others were recorded as the common diseases leading to deaths for both male and female alike at a rate of 10.6% and 15.9% for females and males respectively [21]

In countries with developing and transitional economies, non-communicable diseases (NCDs), along with a few emerging and re-emerging diseases, such as malaria and tuberculosis, show increasing trends. Results of studies on mortality in South Asian countries indicated a transition in patterns of mortality with increase in share of NCDs [22]. This is also similar in findings in rural India, Bangladesh and Iraq [22][23]. There is clear evidence that cardiovascular diseases have been the leading cause of death since 1970s

PROBLEM STATEMENT

In developing countries such as Nigeria, limited resources require that health priorities be selected wisely and death-related research is clearly warranted [24].

Justification Of Study

This study is aimed at bridging the above noted gap by reviewing comprehensive data on mortalities due to cardiovascular diseases in David Umahi Federal University Teaching Hospital, Uburu Ebonyi State as to develop the death pattern and common causes of death related to cardiac conditions in our locality for effective health resources allocation and policy formulation. It is therefore pertinent to review the mortality burden posed by cardiovascular-related diseases among hospital and non hospital Nigerian-decedents who may have been left out in clinical reviews. It is believed that the data generated from this study would give a broader view of the burden of cardiovascular diseases which will assist in making informed health policy.

AIM

The aim of this study was to determine the burden and trends of cardiovascular deaths in DUFUTH between March 2022 to June 2025

Objectives

1. To determine social demography of deaths due to cardiovascular diseases at DUFUTH.
2. To determine the pattern and trends of cardiovascular mortalities in David Umahi federal university Teaching hospital between March 2022 to June 2025.

MATERIALS AND METHODS

Study Design

This was a descriptive cross-sectional retrospective study which analyzed the cases of mortality due to cardiovascular diseases in David Umahi Federal University Teaching Hospital, Uburu.

Study Area

This study was conducted at David Umahi Federal University Teaching Hospital, Uburu Ebonyi State, Nigeria. DUFUTH is a 500 bed space capacity tertiary health care institution with active clinics and wards respectively. It is generally stratified into health care service department and administrative departments with effective mortuary services.

Study Population

Patients who were admitted managed and died (while in admission) within 2022 to 2025 were included in the study. More so, brought in dead (BID) patients who have undergone any form of autopsy to ascertain their cause of deaths to be cardiovascular diseases are also included.

Data Collection

Causes of deaths were retrospectively extracted from the health records department as well as the mortuary unit of the Anatomic Pathology department of the hospital.

Inclusion Criteria

All in-patients and cases of brought-in dead into the hospital whose deaths were due to cardiovascular diseases were included and used in this research.

Exclusion Criteria

All cases with poor documentation and missing records were excluded, and in cases of double admission and readmission, only one entry of admission was included in the study.

Ethical Approval

Ethical approval for this research was gotten from the department of ethics and research studies of the David Umahi Federal University Teaching Hospital, Uburu.

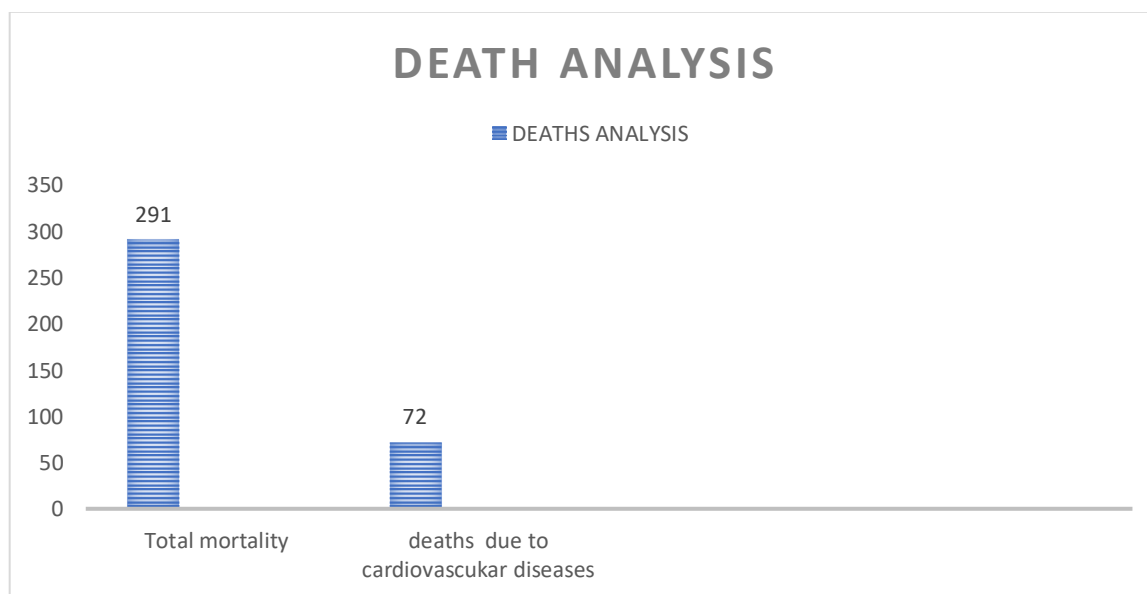
Data Analysis

Statistical analysis of data generated in this study was entered and analyzed using SPSS version 22 (IBM Corps, Armonk, NY, USA). Frequencies and Percentages were used to represent the categorical variables. Pearson Chi square test was used to assess association between variables. Mantel Haenzel test of trend was used to assess linear association. Odd ratio was used to assess odd of occurrence in categorical variables. Alpha value was set at 0.05.

RESULT

Cardiovascular death accounted for 24.7% (72) out of 291 mortalities recorded in DUFUTH from March 2022 to June 2025. Among the cardiovascular diseases, cerebrovascular accident served as the most common cause of deaths which accounted for 47.2% (34) of the total deaths followed by congestive cardiac failure which stood at 16.6% (12)

TABLE 1: shows general frequency of cardiovascular mortality from overall mortality.



Sex Distribution of Cardiovascular Mortality

The male accounted for 60% (43) of the cardiovascular deaths while the female accounted for 40% (29). Congestive cardiac failure was the most common cause of deaths among the females while cerebrovascular accident (stroke) was the most common cause of death among the males.

Table 1. showing the age distribution of the mortalities due to cardiovascular diseases.

S/N	SEX	NUMBER	PERCENTAGES	MOST COMMON CAUSE OF DEATHS
	Female	29	40	Congestive Cardiac Failure
	Male	43	60	Cerebrovascular Accident (stroke).
	Total	72	100	

Age Distribution Of Mortality Due To Cardiovascular Diseases.

Ages 51-60 has the highest rate of mortality accounting for 23.6% (17), this was followed by 61-70 and ages <30 accounting for 19.4% (14) and 18% (130 respectively. Ages 71-80 accounted for 15.4% (11) while ages 31-40 and 41-50 accounted for 12.5% (9) and 11.1% (8) respectively. Cardiovascular accident (stroke) was the most common cause of death across all the age groups except less than 30 years age group where anaemic heart failure and hypovolemic shock were mostly implicated and ages 31-40 where myocardial infarction and congestive cardiac failure were the most frequent cause of death,

TABLE 3: Age Analysis Of Deaths Due To Cardiovascular Diseases

S/N	AGE RANGE IN YEARS	NUMBER	PERCENTAGE	COMMON CAUSE OF DISEASE IN AGE GROUP
1	<30	13	18	Hypovolemic shock and Anaemic heart failure
2	31-40	9	12.5	Myocardial infarction and Congestive cardiac failure
3	41-50	8	11.1	Cerebrovascular accident
4	51-60	17	23.6	Congestive cardiac failure and Cerebrovascular accident
5	61-70	14	19.4	Cerebrovascular accident
6	71-80	11	15.4	Hypovolemic shock , Congestive cardiac failure and Cerebrovascular accident
7	TOTAL	72	100	

Determinants Of Mortalities Among Cardiovascular Diseases.

Cerebrovascular accident (stroke) is responsible for most deaths among all the cardiovascular diseases accounting for 42.2% (34), followed by congestive cardiac failure 16.7% (12). Hypovolemic shock accounted for 15.3% (11) mortalities while post operative cardiac arrest is responsible for 8.3% (6) mortalities. Hypertensive encephalopathy is responsible for 6.9% (5) while myocardial infarction is responsible for 5.6% (4) of deaths due to cardiovascular diseases.

TABLE 3. Showing The Analysis Of Deaths Due To Cardiovascular Diseases.

CAUSES OF DEATH	NUMBER	PERCENTAGES
Hypovolemic shock	11	15.3
Congestive cardiac failure	12	16.7
Post operative cardiac arrest	6	8.3
Cerebrovascular accident (Stroke)	34	47.2
Myocardial infarction	4	5.6

Hypertensive encephalopathy	5	6.9
TOTAL	72	100

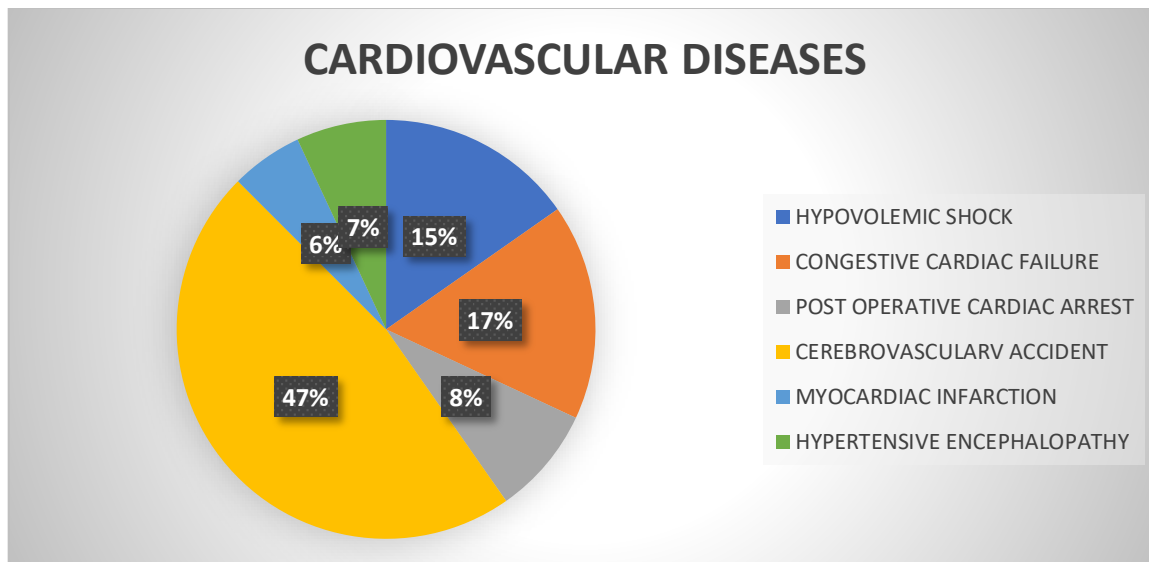


Fig 2. Showing the distribution of deaths due to cardiovascular diseases and their frequencies.

DISCUSSION

Globally, death from stroke is alarming and in 2017, 6.2 million deaths from stroke were recorded accounting for 11% of all deaths and 35% of all CVD deaths. This incidence is the same in SSA, Western Europe and in North America and even in many of the center base study done in some teaching hospitals in Nigeria [2][3][4][5]. Therefore, one is not surprised at the findings of this research which placed stroke (cardiovascular accident) as the commonest cause of deaths among cardiovascular diseases in David Umahi federal University Teaching hospital with a finding of 42.7% of all deaths due to cardiovascular diseases. Hypertension is the single most important preventable risk factor for stroke in SSA. Its optimal control should be the main focus to help reduce stroke occurrence. The interheart multicenter study further demonstrated the importance of nine potentially modifiable risk factors including smoking, hypertension, diabetes, raised ApoB/ApoA1 ratio and abdominal obesity for CVD related deaths [9].

The second commonest cardiovascular death is congestive cardiac failure with a death frequency of 16.7% of all cardiovascular deaths. The prevalence of heart failure among adults in Western Europe, Canada, USA and even Lagos Nigeria, is approximately 1–2%, and increasing with age to more than 10% in people aged 70 and above [2] [6]. Despite improvements in survival, absolute mortality rates from heart failure remain approximately 50% within five years of diagnosis and 30-day heart failure re-hospitalization rates are still about 25% in developed countries [2].

Other causes of deaths recorded in this research include, hypovolemic shock, post operative cardiac arrest, myocardial infarction and hypertensive encephalopathy. These assumed variable percentages contributing to the overall percentage of cardiovascular deaths in our institution. Numerous findings also recorded variable frequencies for these aetiology of cardiac related deaths from center to center and place to place [2][3][4][5][7][9][14][22]. However, what is without doubt is that, CVDs have been found to be the leading cause of death worldwide over the past decades with an estimated 17.3 million deaths and 330 million disability-adjusted life years lost [2] [12]. As with many high-income countries during the past century, low-and middle-income countries, including Nigeria, are now especially over the past two decades-experiencing an accelerating increase in CVD.

Many study across the world have consistently demonstrated the incidence of CVD to be lower in women than men, this was further demonstrated in this research with female recording 40% occurrence and male

having 60 % occurrence. However, finding in almost 30% of countries in North Africa and middle east stood contrary to this report serving a higher incidence in females than males even in some Sub-Saharan Africa [10]. However, on the overall CVD is generally more in males than females.

The overall probability of dying between the ages of 30 and 70 years from the major NCD in Nigeria was 22% in 2016. However, the risk of premature deaths attributable to CVD (age 30–70 years) in 2012 was similar to its neighboring country, Cameroon at 12%. In 2017, the age-standardized total CVD death rate was 7.73%, which is the lowest of all African countries [11][13]. CVD deaths were more frequent in 30-70 years in this research with its frequency highest among 51-60 years of age. CVD is one of the commonest causes of premature deaths in our environment and this was further demonstrated in this research.

CONCLUSION

Over a decade has passed since international organizations and governments have been working towards achieving these global targets and reducing premature mortality especially deaths due to cardiovascular diseases with various policy formulations targeting the numerous aetiologies and modifiable risk factors. Based on trends observed between 2010 and 2016, it is estimated that less than 20% of countries will achieve the UN Sustainable Development Goal – a one-third reduction in premature mortality from non-communicable diseases including cardiovascular diseases by 2030 [5]. Nigeria as a country, needs to accelerate progress to meet these targets to reverse the ugly trends and devastating effects of deaths due to cardiovascular diseases.

Policymakers must assess their country's risk factor profile for cardiovascular diseases as one of the topmost killer diseases in Nigeria in order to craft effective strategies for CVD prevention and management. Fundamental strategies such as the implementation of National Tobacco Control Programmes, ensuring the availability of CVD medications, and establishing specialized units within health ministries to tackle non-communicable diseases should be embraced in all countries. Adequate healthcare system funding is equally vital, ensuring reasonable access to care for all communities.

RECOMMENDATION

We recommend an upgrade in positive policy formulation and increase fund allocations for facilities that can help to manage cardiovascular diseases. The place of prevention can never be over emphasized, therefore regular risk assessment should be carried out among populations in-order to identify population at risk.

CONFLICT OF INTERESTS

The author declares no conflict of interest.

Area of Future Study

The insight of this finding shall lead to the comprehensive cardiovascular risk assessment of the population around DUFUTH as a measure for prevention of sudden death in our locality.

Limitation

Poor death registry and documentation process in DUFUTH was a limitation to this study. Also, many people within the locality bury their dead as soon as they occur without recourse to the hospital facility.

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