

Management and Utilization of Knowledge and Skills: Precursor for Sound Health Care and Food Security

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Abstract: People in opulent countries as compared with those in underprivileged nations are beneficiaries of virtuous standards of living, freedom from diseases related with ignorance, prolonged lifespan, food security and unrivaled power to change their environs by managing and utilizing their skills and knowledge well. Seventy five percent of the six billion populaces in Africa survive in income of less than three thousand US dollars per person per year and over half below seven hundred and fifty US dollars. For the larger Africa populace, their existence is very lethargic. Paucity remains the order of the day, food security is not guaranteed, lifespan is lessened, and well-being is frequently brittle. Over hundred million children in Africa are absent from school with major leading causes being cost of education, diseases, lack of food among other factors. In many of the developing countries less than a quarter of children finish secondary education, and less than 1 in 20 learn at higher education level due to ill health and food insecurity. The capability system approach theory by Amartya Sen and Martha Nussbaum informs the perspectives in this descriptive paper given that enough food and sound health enables an individual to develop set of capabilities which he/she uses to achieve certain functionings to enhance his/her wellbeing. The effect of household schooling realization on health and food stability among poor families cannot be underestimated. To establish the connection between education achievement, health and food security is one step to the realization of sound health and reduction in prevalence to food security in any society. Consequently this will lead to strategies intended at improving health status and decreasing food insecurity among the deprived and augmenting household incomes. Education, food security and health have a two way causal relationship in the sense that education informs food security and health as food security and health informs education. These will be the propositions of this reflective paper given that management and utilization of knowledge and skills is key to socio- economic growth and that science and technology education has critical role to play more specifically on universal health care and food security.

Key words: Knowledge, skills, management, utilization, health care and food security.

1. Introduction

As rightly quoted by Nelson Mandela ‘Education is the most powerful weapon we can use to change the world’ if managed and utilized well (Mindset Network, 2003). It is through this influential tool that any country can achieve a healthy lifestyle of its citizens through Universal Health Care and food security as a precursor to rapid socio-economic development.

Education growth has been in reaction to such essentials, which comprise of the craving to fight diseases, ignorance, poverty and hunger. Abagi as cited by Ngwacho et al., (2013) study on educational transformation in Kenya

perceives education as essential aspect for human capital progression.

It is for this noble reason that, a big portion of national incomes both private and public in most countries are devoted for learning. The logic behind this is that learning is universally recognized as a mode of investment in human resource that produces financial benefits and adds to a nation’s future prosperity by growing the productive capacity of its citizens in addition to being a right (Republic of Kenya & Woodhall as cited by Ngwacho, Theodore, & Chemwei,2016)). UNESCO (2007) further advances that learning is a crucial progression issue that is vital for human capacity progression and poverty

obliteration. Schooling is a rewarding private venture however many learners cannot afford to fund it out of their own household resources (World Bank, 2011 as cited by Ngwacho, Theodore & Chemwei, 2016).

Kenya's Economic Survey (2019) indicates that total expenditure for the Ministry of Education is expected to increase by 6.5 per cent to KSh 439.2 billion in 2018/19, with KSh 407.4 billion expected to be spent on the recurrent account. Development expenditure is expected to rise by 51.4 per cent to KSh 31.8 billion, during the period under review. This underscores the significant role the government attaches to education as a powerful tool towards empowerment of its citizens as a buffer against ignorance, diseases, hunger and poverty.

Considerable evidence exist that improving education position of the underprivileged, of womenfolk and native folks increases economic progression, diminishes poverty and diseases. Investment in schooling of children from underprivileged background sets off a process of intergenerational paucity reduction (UNESCO as cited by Ngwacho, Theodore, & Chemwei, 2016). It is for this reason that this paper strives to establish the connection between education, health and food security as a panacea to realization of these very vital needs for a healthy nation.

Food security is defined by the World Food Summit of 1996 as "when all people at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (World Food Summit, 1996). This explanation incorporates the four perspectives of food stability: availability, access, stability and utilization, which are obligatory for a family to be considered as food secure (Food Agricultural Organization, 2010). Food security is one of the basic human rights, however approximately eleven percent (eight hundred and five million) of the world populace remains food insecure (Food Agricultural Organization et al., 2014). Internationally there has been steady reduction in food insecurity; nevertheless, the reduction has been erratic. The Sub-Saharan Africa (SSA) expanse still has the uppermost frequencies of starvation with 1 in every 4 persons in the expanse being food insecure (Food Agricultural Organization et al., 2014). Between the year two thousand to two thousand and two and twenty two and twenty four, whereas the percentages of starving populace in SSA and Kenya declined to twenty three percent and twenty four percent, the total number of persons improved by two hundred million and ten million respectively, portraying a different narrative (Food Agricultural Organization et al. 2014). In Nairobi slums, more than half of the populace is critically food insecure (Faye et al., 2011).

Universal Health Care is defined by the World health Organization (WHO) as all persons getting the health

amenities and services they desire, as well as health inventiveness intended to encourage better health, provide treatment, prevent illness, provide rehabilitation and soothing care of adequate excellence to be operative whereas at the same time guaranteeing that the usage of these amenities and services does not render the consumer to financial privation. Two critical features of UHC are: essential health service coverage and quality based on finance (World Health Organization, 2008).

In response to 67th session of the United Nations General Assembly, Kenya has embraced the issue of universal health coverage. UHC and FS are one of President Uhuru Kenyatta's 'Big Four' agenda and is meant to give all Kenyans access to quality healthcare that is financially sustainable and consistent with the needs of the population as well as make the country stable in terms of food provision.

Universal health coverage has a one to one effect on a populace's welfare and health. Use and access of health amenities empowers citizens to be more fruitful and vibrant providers to their households and societies. It also guarantees that children can access education with ease.

Disease burden among adults in the most economically productive ages is rapidly increasing in Kenya due to increased poverty, poor health services, poor nutrition and ignorance. Communicable, nutritional, maternal and neonatal (infants less than 28 days old) conditions persist while non-communicable diseases are rapidly increasing the frequency of disability and death. By ensuring that health insurance is universally available, the government can eliminate a lot of needless pain and suffering.

It on this premise that according to the Kenya's Economic Survey (2019) the expenditure on health services by the National Government is expected to increase by 57.8 per cent to KSh 97.5 billion, while that of the County governments is projected to grow by 28.7 per cent to KSh 108.1 billion in 2018/19. National Hospital Insurance Fund (NHIF) membership increased by 13.2 per cent to 7.7 million in 2017/18. The membership from formal sector rose by 4.3 per cent compared with a 23.3 per cent rise in the informal sector. Receipts from members rose by 27.1 per cent to KSh 44.5 billion in 2017/18 while payouts increased by 41.4 per cent to KSh 37.2 billion.

The total number of health facilities according to Kenya's Economic Survey (2019) increased by 9.8 per cent to 10,820 in 2018. The number of registered health personnel grew by 6.3 per cent to 175,681 in 2018. The number of middle level medical graduates from public medical training colleges increased by 21.2 per cent to 10,869 while medical undergraduates and post graduates are

expected to increase by 6.0 per cent to 4,470 in the 2018/19 academic year but still more needs to be done.

1.2 Statement of the problem

As already accentuated in the background Food security is one of the basic human rights, however approximately eleven percent (eight hundred and five million) of the world populace remains food insecure (Food Agricultural Organization et al., 2014). Internationally there has been steady reduction in food insecurity; nevertheless, the reduction has been erratic. The Sub-Saharan Africa (SSA) expanse still has the uppermost frequencies of starvation with 1 in every 4 persons in the expanse being food insecure (Food Agricultural Organization et al., 2014). Between the year two thousand to two thousand and two and twenty twelve and twenty fourteen, whereas the percentages of starving populace in SSA and Kenya declined to twenty three percent and twenty four percent, the total number of persons improved by two hundred million and ten million respectively, portraying a different narrative (Food Agricultural Organization et al., 2014). In Nairobi slums, more than half of the populace is critically food insecure (Faye et al., 2011).

Similarly health is a right and is never a privilege based on one's race, age, gender or where one lives and how much money they earn. Health is anchored in the Kenyan Constitution and makes Sustainable Development Goal (SDG) number 3.

UHC is needed because nearly 20 million Kenyans are not able to receive needed health services and only about 10 million people have health care insurance thus most patients have had to cater for health amenities and services financially from their own pockets. Such situation if unchecked can very likely contribute to the increase of poverty especially when people suffer from prolonged or chronic illnesses.

Good health and hunger free nation is a prerequisite for a country's economic progress because healthy well fed people are likely to live longer, be more productive and educated hence earn more income, save more and consequently invest more for the nation's sound economic, social, political and spiritual growth. There is a close correlation between management and utilization of knowledge and skills and sound health and food security but not much has been explored on this premise hence need to establish how big a role education plays in mitigating sound health and food security challenges. This will be the proposition of this reflective paper.

1.3 Study objectives

This reflective paper is guided by the following objectives;

- i. To utilize the capability theory by Sen and Nussbaum Martha to link education as a precursor for food security and universal health care.
- ii. To establish the relationship between education and food security.
- iii. To establish the link between health and education.
- iv. To probe the causal association between education, food stability and health care

2.0 Theoretical underpinning to the tenets of this paper

2.1 Capability system Approach theory

The capability system approach advanced by Sen and Martha informs the perspectives in this paper on utilization and management of knowledge and skills as a precursor for sound health care and food security. The capability approach has become increasingly prominent in academia and policy making. The capability approach is an economic theory conceived in the 1980s as an alternative approach to welfare economics. The core focus of the capability approach is on what individuals are able to do (i.e. functionings). Functionings comprise of 'doings and beings' as a consequence, existence can be viewed as a set of interconnected functionings. Fundamentally, functionings are perceived as states and undertakings constituting of individual's wellbeing. Functionings examples vary from basic things, like being fit medically, well fed, educated, stable employment, and existence of safety, further to complex statuses, like being cheerful, having self-esteem, and existence of calmness. Furthermore, Sen contends that functionings are essential to sufficient conceptualization of the capability system approach; capability is hypothesized as a replication of the freedom to realize valued functionings such as sound healthy, food among others. A major emphasis in this perspective is how to evaluate human wellbeing.

It all starts with a production apparatus ('input production') which supplies a range of goods and services (opportunities) that enable individuals to develop a set of capabilities from which he or she can chose to achieve certain functionings. These functionings are an express of what a person desires and can range from being well fed to sound healthy and from being part of a community to being respected within that community or the society at large. A large number of factors affect what capabilities a person is capable of, including; education, policies, social context and personal characteristics.

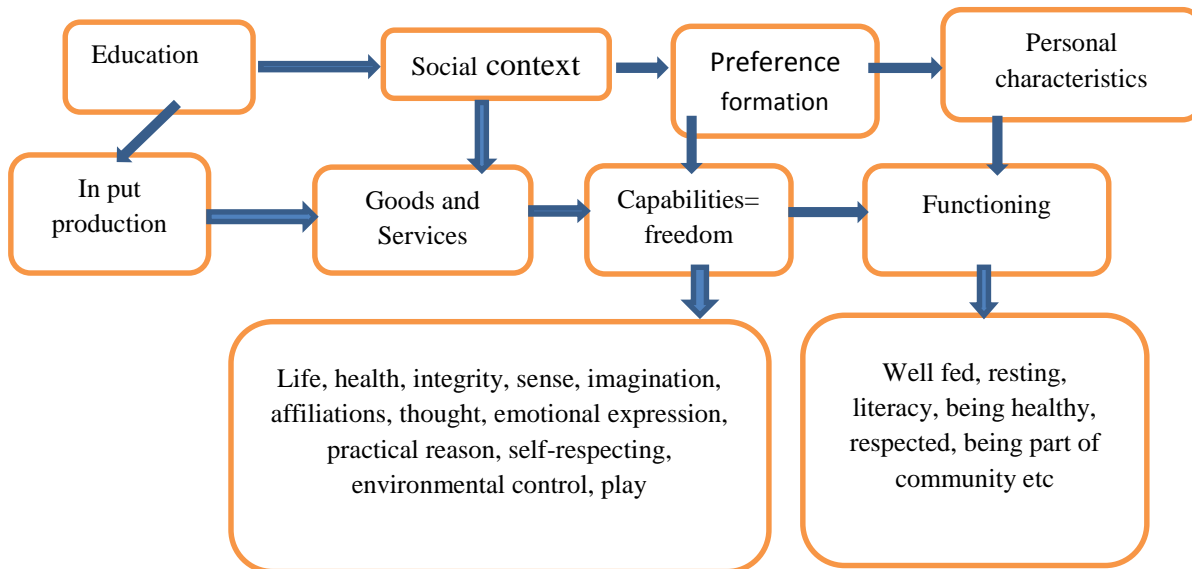


Figure 1 Capability approach diagrammatic representation

Martha Nussbaum enriched Sen's capability approach by defining ten central capabilities which are; health, life, integrity, emotions, senses imagination and thought, self-esteem and non-humiliation, practical reason, associations, play and regulation over one's surrounding. The following four out of ten of Martha's core central capabilities support the tenets of this paper.

i) Life. Ability to live to the end of a human life span of ordinary length; not dying precipitately, or prior to designated period. For this to be possible provision of food and health care are of paramount importance in sustaining life.

ii) Body Health. Ability to enjoy good health; to be sufficiently fed and to possess suitable shelter. This also calls for sound health care and provision of balanced diet.

iii) Senses, Thought and Imagination. Ability to use the intellects, to think, imagine and reason—and to engage these humanly in a manner informed and refined by sufficient education. Ability to use thought and imagination in relation to experiencing and generating works of one's own choice, musical, literary, religious and et cetera. Education is a major ingredient to informed sense, imagination and thought. Rightly as accentuated in this paper sound management and utilization of knowledge and skills is a precursor to sound health care and food security

iv) Environmental control –Made possible through; Politics that is ability to partake efficiently in political choices that affect one's life; safeguards of association and free speech, having the right of political contribution. Which can be enabled through sufficient education. Secondly material aspect. That is ability to own property and enjoying equal property privileges with others;

enjoying freedom over unwarranted seizure and search; having equal rights with others in seeking for employment. In work place, being viewed as a human being exercising reason and engaging in meaningful relationships of common recognition with fellow workers. This capability enhances provision of food security and ability to access medical care but again enabled or enhanced through education as tool for emancipation from poverty.

As construed capability approach principles are consistent with the tenets of this paper which are education, food security and Universal health care which are core capabilities that constitutes what defines the wellbeing of any human beings in any society. These tenets are ingrained in some of the ten core essential capabilities like bodily health, Thought and Imagination, Senses and environmental regulation. They are the functionings defining what a wellbeing can be able to do. Further education is conceptualized as ('input production') which supplies a range of goods and services (opportunities) that enable an individual to develop a set of capabilities over basics like food security and universal health care from which he or she can chose to achieve certain functionings.

3.0 Methodology

This being a reflective paper, it relied profoundly on empirical secondary data review from related literature and review of relevant theories to deduce its findings, conclusions and recommendations.

4.0 Food security and Education

Food security and education has a two dimensional causal relationship in view that education informs food security

and food security informs education (Headey, 2013). Firstly, food security has an outcome on education and well-being. Food insecurity, particularly in the initial years of development, causes malnutrition amongst children; undernourishment is linked with poor mental development and low educational attainment and the consequences may be prolonged to future life (Black et al., 2013). Second the human capital models theorize that human capital is a key factor of production and future life probabilities of achievement like occupation and incomes (Becker, 1964). These models hypothesize that learning as measure of human capital, is related in equal measure with productivity and efficacy. Education management and utilization in terms of knowledge and skills has clear visible benefits to the individual person and immediate associates of their household and community at large in terms of augmented income, enhanced health and value-added decision making (McMahon, 2009). How one manages and utilizes education is certainly regarded a crucial factor for social mobility, through stirring persons and families out of paucity hence secure in terms of food and sound health.

The modalities by which education management and utilization impacts food security vary, contingent on the setting. In the countryside set up, learning impacts food security by enabling citizen access to information on finest agronomic production practices, nourishment and hygiene; increased efficacy, therefore augmented production and improved decision making (Bashir and Schilizzi, 2013; De Muro and Burchi, 2007). Although these modalities may also be applicable amongst urban families, the pathways vary. In the metropolitan setting, the outcome of education management and utilization is evidenced through alternatives like occupation, family income and improved decision making. These changes have impact on utilization, access and availability strategies of food security. Augmented years of education are linked with enhanced employment chances, working effectively, enhanced decision making and improved disposable revenue (Gebre, 2012; Bashir and Schilizzi, 2013). It is projected that ninety percent of the food spent by the metropolitan populace is bought and the underprivileged families devote more than fifty percent of their revenue on foodstuffs and they are more vulnerable to food price upsurges (Food Agricultural Organization et al., 2012; Ruel and Garrett, 2004). Given this scenario, persons and families with higher levels of schooling are said to have more prospects for food safety due to their improved purchasing power (Schilizzi and Bashir, 2013). While this is factual, labor participation amongst the metropolitan underprivileged is largely in the casual sector with earnings that can hardly satisfy their day-to-day wants. For example, in Nairobi city's informal settlements, the key source of revenue is employment with fifty-two percent of the individuals aged above eighteen years either in permanent remunerated employment or in off-the-cuff employment but twenty-

seven percent are economically sedentary (Emina et al., 2011). Indeed, food sustainability is a booster for sustainable developments, however there remains a scantiness of information on the vital drivers of food safety especially the role of education management and utilization on food security.

5.0 Results and Discussion

5.1 Correlation between Education and Health

5.2 Revenue and Resource factor

5.2.1 Decent jobs: In modern skills and knowledge economy, a candidate with more qualifications in education has more prospects for employment and landing into a career that guarantees health-promoting support like health cover, paid leave and retirement packages. Contrariwise, persons with less training are probably likely to work in high-risk careers with limited benefits (Baum, 2013).

5.2.2 Higher wages: Stable revenue has a key influence on health and employees with higher education qualifications are likely to earn more salary. Consequently workers with higher education qualifications are likely to experience less financial hardships, achieve better career status and social rank, and relish better access to incomes that promote improved health. A number of researches have indicated that revenue is amongst the core reasons for the superior health of people with an advanced learning (Olshansky et al., 2012).

5.2.3 Good health resources: Households with sufficient incomes are likely to easily buy healthy foodstuffs, afford time to exercise frequently, and pay for health amenities and transportation. Contrariwise, the job uncertainty, little wages, and deficiency of resources connected with low education can make persons and households more susceptible during difficult times—which can result to poor nutrition, poor housing, and unfulfilled medical needs (Sobolewski, 2005).

5.3 Psychological and Social Benefits

5.3.1 Reduced anxiety: Persons associated with more learning—and therefore improved earnings—are frequently spared against health-harming stresses that come with continued societal and financial hardships. Persons with less education frequently have inadequate resources (e.g., high self-esteem, sense of control over life and societal support,) to cushion the impact of stress (Goldman, 2011).

5.3.2 Psychological and Social skills: Learning in institutions and other education openings beyond the

classroom cultivates expertise and promotes qualities that are significant through lifetime and may be vital to wellbeing, like perseverance, conscientiousness, flexibility, personal control, the capacity to negotiate, the capacity to form associations and institute social linkages. These skills may aid in diversity of life's challenges ranging from family life to work and in handling one's health and circumnavigating the health care structure (Goldman, 2011).

5.3.3 Social linkages: Learned grown-ups tend to belong to bigger social networks. These networks play role in access to emotional resources, financial resources and psychological tranquility that may assist to lessen hardship and strain and enhance health status (Goldman,2011).

5.4 Health Mannerisms

5.4.1 Skills and Knowledge: Further to being prepared for better careers, persons with higher education qualifications are better placed to learn more about healthy habits. Learned patients are more likely to manage and utilize education to know their health requirements, adhere to guidelines, advocate for their families and themselves, and communicate effectually with health providers (Williams et al., 1998).

An assessment of the impact of health literateness on well-being by scholars has established that persons with lesser health literateness are more often likely to utilize emergency amenities and be hospitalized in addition to least possibility to use preventive strategies or take medication and construe labels properly. Amongst the ageing, low health literacy; which is basically how they manage and utilize knowledge and skills for their health benefits has been associated to inferior health status and escalated death rates (Berkman et al., 2011).

5.4.2 Healthier Surroundings

Reduced revenue and fewer resources imply that individuals with minimal education have likelihood to stay in low-income environs that are deficient of the facilities for better health. These vicinities are regularly economically sidelined and isolated and possess further risk factors for degenerated health like:

- i. Fewer green spaces, like footpaths and gardens to boost out-of-doors physical activities and walking or cycling to work or school.
- ii. Lessened access to sources of healthy foods and an overflow of fast foodstuff passages that encourage unhealthy foods.
- iii. Advanced crime rates, subjecting inhabitants to bigger risks of distress and deaths arising from violence and the pressure of living in hazardous neighborhoods. Persons with minimal education,

- iv. mainly men, are more likely to be imprisoned, which comes with its own public health hazards.
- iv. Rural and low-revenue regions, which are more inhabited by individuals with minimal education, regularly suffer from inadequacies of crucial care doctors and more other health care amenities and providers.
- v. Reduced operative political impact or influence to advocate for communal wants, resulting into unending rotation of poverty.
- vi. Complex intensities of toxins, like water and air pollution, pesticides, industrial chemicals and harmful wastes.
- vii. Less high-quality institutions, regularly due to the fact that public institutions especially pre-schools, primary and secondary are inadequately resourced in terms of physical and learning resources. Inadequately resourced schools have many challenges giving attractive tutor salaries or appropriately sustaining supplies and buildings (Brulle, 2006).

6.0 Effect of Ill Health and Food Insecurity to Learning (Reverse Causativeness)

What happens in the family can certainly distress a child or adult consequently being unable to concentrate in the classroom or work station. If you are starving, you can't study or work while your stomach is roaring. When anxious about your family member being unwell while you are at institution like school or work station, you may not be able to be keen.

The connection between health, education and food security is not simple. Deteriorated health and starvation not only influences low educational achievement, it also results to educational obstacles and interferes with learning and work ability.

There are instances where youngsters and adults infected by asthma and other prolonged diseases may experience regular nonattendances and trouble concentrating in classroom equally to such a teacher. Incapacities can also distress classroom performance due to complications with hearing, vision, behavior, attention, nonattendance, or cognitive skill (Suhrccke et al., 2011).

Starvation, unhealthy behaviors, disabilities and health conditions, may all have an impact on learning outcomes. Substance use and smoking, poor diet, Illness, sleep disorders, mental health , obesity, asthma, hyperactivity and poor vision have well-known relationship with school achievement and work routine for a teacher. In comparison with other schoolchildren, students or pupils with attention hyperactivity illness are 3 times more likely to lag behind in terms of performance and nearly 3 times

possibility of dropping out of school before completion. Kids who are born underweight likewise are likely to have low educational achievement, and higher risks for special education placement. Influence of food security and health on learning (reverse causativeness) is significant hence need to give it the attention it deserves (Basch, 2010).

7.0 Conclusion and Recommendations

7.1 Conclusion

Frequency of food insecurity and health risks amongst the underprivileged uneducated Kenyans is a bit high. Underscoring reasons for disparities that exist in food safety and health status amongst Kenyans. Families with low educational accomplishment are more exposed food insecurity and vulnerable to health risks than those with at least some basic education. Consequently, operative policies to mitigate the vulnerability of the poor Kenyans over food uncertainty and health risks should be anchored on sound knowledge and skills utilization and management. Investments in learning are likely to have enduring dividends in efforts to decrease food insecurity and health risks. This harmonizes with the capability perspective, which recognizes the role played by education in growing capabilities of individuals and by extension families from threats of food insecurity and ill health. However it is worth noting that education on its own may not decrease the harshness of food uncertainty and health risks if other economic opportunities, such as employment, are not available, hence calling for systems tactic to tackle this menace one and for all.

7.2 Recommendations

Universally, 30 to 50 % of food production goes to waste because of inefficient skills and knowledge on preparation and storage facilities. Kenya is one of the main victims for this situation and requires sufficient knowledge and skills to recompense for this waste. Decreasing food wastage in Kenya could feed and facilitate sufficient food for all.

Dissemination of information on decreasing the ecological influences through changes in management routines that upsurge effectiveness is critical. Information on nutrition, cultural inclinations and access needs to be dispensed to citizens for efficacy.

Water is a major resource and much has been documented about it many times. Information to citizens on how to improve planting crops that utilize less water and irrigation structures would be an operative way to confront these challenges. For instance, sugar cane and rice are amongst the produces that require the much water.

The government should prioritize the provision of sufficient good health resources to low-revenue vicinities which are economically relegated and isolated and pause

more risk aspects for ill health but still have shortage of these resources.

The government in conjunction with the ministry of health should create opportunities where citizens will be sensitized on healthy behaviors.

The government ought to investment more in education which has long-term dividends as key strategy to reduce food insecurity and health risks in the country.

The government through the relevant ministries should facilitate access to information to its citizens on nutrition and sanitation; best farming production practices; augmented productivity and improved decision making for the purpose of increased food production.

The government should strive towards encouraging more investors in the country in view of providing citizens with better employment opportunities hence increased disposable income which will cushion them against ill health and food insecurity.

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