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CONTRIBUTION OF HEALTH POSTS INVESTMENT ON SOCIO-ECONOMIC TRANSFORMATION IN RWANDA

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ABSTRACT

The study dealt with the contribution of health posts investment to socio-economic transformation, case of Nyagatare district. The target population size was 1,013 involved in health program in Nyagatare district such as health post operators, community health workers, in charge of health at District, Sector and Cell levels in five sectors the 32 HPs are located. Among the population of 1,013, sample size was 79. Simple random sampling technique was employed to generate more information needed from patients and purposive technique was used to others like local authorities and health post operators. The results clarified that 93,7% are aware on health post existence in their respective areas, majority (40%) had received preventive services, 32% had received promotional services and 28% indicated that they received some curative services. 31,6% testified that health posts minimized walking time, 25,4% reported that they got primary health services very quickly, 21,5% asserted that health posts promoted job opportunities whereas 21,5% confirmed that income or money were earned through health posts setting up at cell level. The results of the regression model show that taking the independent variables (preventive, curative, and promotional services) constant, socio-economic transformation of citizens was 4.719. It was established that taking other independent variables constant, preventive services contribute at 56.7% in improving socio-economic transformation of citizens. While curative services have a positive contribution which rate at 48.2% and promotional services contribute at 61% in socio-economic transformation of citizens.

Keywords: *Health Post, Investment, Socio-economic Transformation*

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INTRODUCTION

Globally, the health sector is one of the most important in public spending (accounting for almost 15% of all government expenditure in the EU). It also accounts for 8% of the total European workforce and for 10% of the EU's GDP. The sector is vital to ensure the health and wellbeing of EU populations, and it is at the core of the EU's high level of social protection [1]. Globally, between 20 percent and 40 percent of health system spending is wasted, with poorer countries wasting an even higher proportion. Using available new resources efficiently has never been more important. Population growth and improved living standards are increasing demands for health services. Furthermore, other sectors, such as education, transport, and infrastructure, compete with the health sector for resources [9]. In Africa, people are healthier and wealthier and live longer today than they did in 1990, the year of the MDG baseline values. Progress has, however, been unequal, and Africa's burden of disease is disproportionate to its population size [14]. With 11 percent of the world's population, Sub-Saharan Africa accounts for 49 percent of maternal deaths, 50 percent of under-five child deaths and 67 percent of HIV/AIDS cases. Although some improvement in health outcomes has been achieved in Africa, progress is still limited. Many factors contribute to the lack of progress: weak governance and accountability, political instability, natural disasters, underdeveloped infrastructure, health system weaknesses, and lack of harmonization and alignment of aid [13]. Other key factors explaining limited progress have to do with how health systems are financed. First, there have been insufficient resources to build and sustain health systems. Second, available resources have been used inefficiently, partly as a result of a lack of systematic use of processes and tools for setting priorities for using scarce resources. Third, additional resources have not been deployed in an efficient manner. Africa is not alone in using resources inefficiently [8]. The EAC has developed a 10-year Regional Health Sector Investment Priority Framework. Its priority areas were identified based on their potential to have a high impact on the attainment of the EAC's regional integration and socioeconomic development aspirations, as reflected in the African Union's Agenda 2063 and the 2030 Agenda for Sustainable Development [12]. The areas address the main investment challenges in the region, including pandemics and the elimination of HIV AIDS and malaria, among others. The framework highlights the importance of domestic policy in member States, including facilitating better resource allocation in the health sector, achieving greater efficiency and capacities of health care providers, and ensuring financial risk protection to successfully attract investment in health in the region [15, 17]. Private and public sector partnerships, as well as multi-sectorial collaboration have been identified as the necessary tools to achieve the ambitious investment goals [7]. Rwanda is implementing a national transforming strategy to achieve Sustainable Development Goals (SDGs). It believes in investing in its people through quality health services and education that are hindering human development [4]. To meet its development agenda, Rwanda started to improve quality health and education of its people. The SDG 3 calls countries to provide good health to all through Universal Health Coverage (UHC). Rwanda's strategy is to strengthen Primary Health Care (PHC) which covers more than 90% of health service's needs. As per the World Health Organization (WHO), UHC will be achieved when ''all individuals and communities receive the health services they need as close as possible without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care [10]. The Demographic and Health Survey (DHS) 2014-2015 signals 22% of the population faces geographic barriers in accessing health care services and 77% of the population faces financial limitations in satisfying UHC requirements in terms of availability, quality, and affordability; thus, expanding accessible and affordable quality health services is critical. The WHO recommends one PHC facility per 5.000 people: Rwanda's has currently than 8.300 people for everyone PHC. There is strong rational henceforth for scaling up quality Health posts to meet the SDGs by 2030 [8]. In order to improve the geographic accessibility to health care services and ensure universal coverage to the Rwandan population, the Ministry of Health was initiating a national program of setting up a health post at cell level where the population still has to walk more than 5 km to reach the nearest health facility. In Rwanda, Basic health infrastructure and the availability of human, material and financial resources have improved over the past nine years, but there are remaining challenges. At the end of 2002, there were 34

district hospitals in the country and 375 peripheral health facilities of which 262 are health centers and 113 are health posts and dispensaries. Standards regarding infrastructures and equipment have been developed and the report on the mapping of health facilities is currently being finalized. The national policy on maintenance and engineering is near completion [2]. Currently, in Rwanda there are 2 models of health posts including the formal classic health post satellite of health center and public private partnership health post (PPP) managed by One Family. There are 230 health posts affiliated to health centers to serve remote population. Most of them report through the health centers but certain number (60) report directly into Health Management Information System (HMIS) [16]. All operational health Posts in Rwanda up to December 2019, are 865 health posts as indicated in MoH annual report 2019, among them 169 HPs are constructed by SFH Rwanda in different districts of the country. The Ministry of Health was introducing a new model of Public Private Community Partnership (PPCP) which will be adapted for all health posts later with the advantage of shared responsibility between the community, the local leadership, private nurses and the Ministry of Health itself. Local leadership and community own the premises and big equipment as well as facilitate the nurse to collaborate with the District Pharmacy (DP) and the Community Based Health Insurance (CBHI) [2]. Ministry of health has defined the services packages, standard list of equipment and drugs and the procedure manual. It is against this background that this study assessed the contribution of health posts investment to socio-economic transformation, a case of Nyagatare district.

Research Objectives

The main aim of the study is to identify the contribution of health posts investment on socio-economic transformation. The study was guided by the following specific objectives;

- To determine the level of health posts investment in Nyagatare district;
- to assess the level of socio-economic transformation of citizens before and after health posts implementation in Nyagatare district; and
- to find out the relationship between health posts investment and socio-economic transformation of citizens in Nyagatare district.

Purpose of the Study

This research was undertaken in order to give insights into the contribution of health posts invested by SFH Rwanda in health development mainly in socio-economic transformation on health by citizens of Nyagatare district. The findings of the research provided a guide on how the mentioned results will be assessed and decisions to be taken into account and strengthened, if necessary, by Ministry of Health in partnership with Society for Family Health Rwanda and policy makers in order to come up with good outcomes in terms of performance, sustainability, and profitability of health posts. Therefore, this research assessed the contribution of health posts constructed by Society for Family Health (SFH) Rwanda in health development (accessibility and primary health care) in Nyagatare district, Eastern province. The results from this study will help the district Nyagatare, SFH Rwanda and Ministry of health to take appropriate actions needed to solve the geographical accessibility problem of the population to reach the closest health facility and maintain sustainable the operational health posts.

LITERATURE REVIEW

The section presents the literature in relation to the study. It focuses on how health posts contribute to socio-economic transformation as to grasp what is already known in the field of the research.

Literature review of socio -economic transformation

The components of socio-economic well-being are the substances of development. Inevitably, there

must be certain arbitrariness in choosing the components to include and their relative importance. A minimal, though not inclusive, set would consist of income, employment, education, health and nutrition and consumption including food, housing and such services as water supply, electricity, transportation police and fire protection. The above definition of development is very significant to rural areas as the author insists on decreasing inequality of income distribution to ensure the well-being of the entire population. (Carrin G. 2003).

Whatever the specific components of this better life, socio-economic transformation of citizens in all societies must have at least the following objectives: To increase the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health and protection, to raise levels of living including in addition to higher incomes, the provision or more jobs, better education and greater attention to cultural and humanistic values, all of which was served not only to enhance material well-being but also to generate greater individual and national self-esteem, to expand the range of economic and social choice available to individuals and nations by freeing them from servitude and dependence, not only in relation to other beneficiaries and nation-states, but also to the forces of ignorance and human misery.

Todaro's emphasis is on obtaining a better life through providing basic life sustaining goods, which is in most cases, is lacking in rural areas. Some development economists argue that most of the development planners aim at attaining a high gross rate in the Gross National Product (GNP) regardless of the real goal of development, which is economic growth with justice. Economic growth is not an end in itself; it has a human, social and economic magnitude. This supports the view that development is a dynamic process, which should benefit the neediest segment of the local population. (Todaro, 2000).

Todaro (1988) identifies three objectives of socio-economic development transformation: increases in the availability and improvements in the distribution of food, shelter, health, protection, etc. Improvements in `levels of living', including higher incomes, more jobs, better education, etc. And expansion in the range of economic and social choices available to individuals and nations.

The goals of development include: a balanced healthful diet; adequate medical care; environmental sanitation and disease control; lab our opportunities; sufficient educational opportunities; individual freedom of conscience and freedom from fear; decent housing; economic activities and harmony with the natural environment; and political processes promoting equality.

The requirements for socio-economic development transformation

For a Country to be socio-economically developed, some requirements must be combined in a logical and meaningful relationship. These requirements or core values are achieved through improved health status of the population, and this would be possible through the following core values for economic development, sustenance, self-esteem, and freedom.

According to Todaro, development must, therefore, be conceived of as a multi-dimensional process involving major changes in social structures, popular attitudes and national institutions, as well as the acceleration of economic growth, the reduction of inequality and the eradication of absolute poverty.

Development in its essence must represent the whole gamut of change by which an entire social system, tuned to the diverse basic needs and desires of individuals and social groups within that

system, moves away from a condition of life widely perceived as unsatisfactory, toward a situation or condition of life as materially and spiritually “better”.

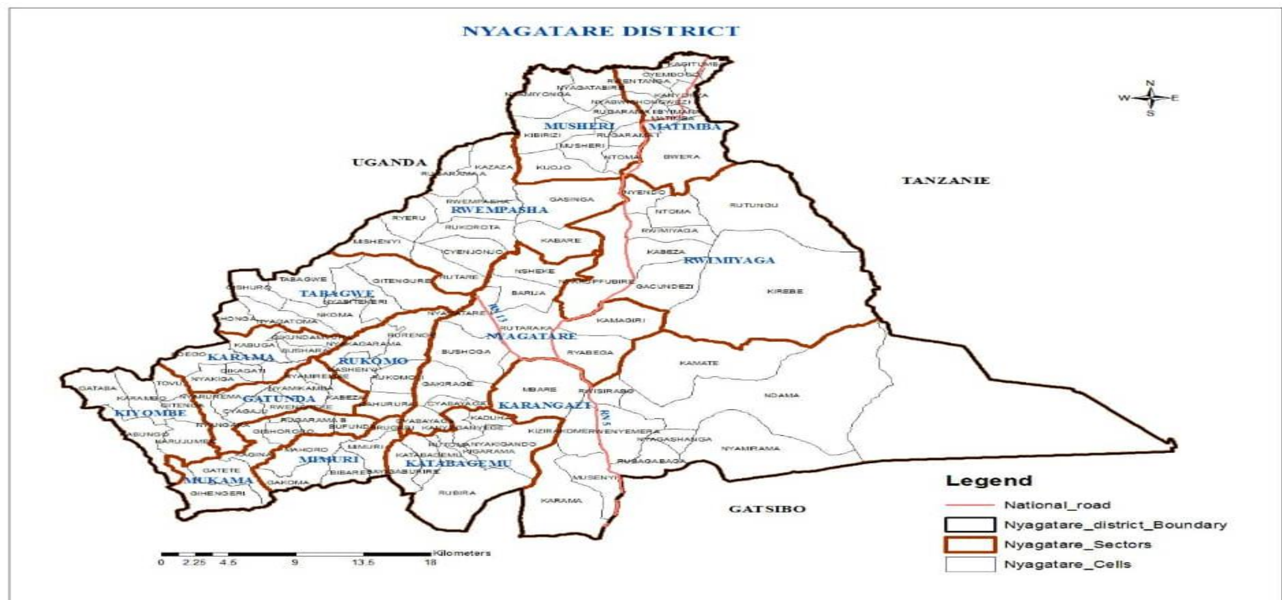
According to Prof. Goulet (2013) at least three basic components as core values should serve as a conceptual basis and practical guidelines for understanding the “inner” meaning of development. These core values – sustenance (the life-sustaining basic human needs include food, shelter, health and protection. When any one of these is absent or in critically short supply, a condition of absolute “underdevelopment” exists), self-esteem (a second universal component of good life is self- esteem a sense of worth and self-respect of not being used as a tool by others for their own ends. Due to the significance attached to material values in developed nations, worthiness and esteem are increasingly conferred only on countries that possess economic wealth and technological power, those that have developed. Now-a-days the third world seeks development in order to gain the esteem which is denied to societies living in a state of disgraceful “underdevelopment.”. Development is legitimized as a goal because it is an important, perhaps even an indispensable, way of gaining esteem and freedom (this represents common goals sought by all individuals and societies. They relate to fundamental human needs that always find their expression in almost all societies and cultures.

METHODS AND MATERIALS

The description of the study area, methods and materials used to collect and analyse data are herein discussed.

Description of Study Area

The research focused on 32 health posts of Nyagatare district the largest and second most populous district in Rwanda. It is located in Eastern Province, Rwanda. Nyagatare occupies the northeastern extremity of Rwanda. Its capital is Nyagatare city, the former capital of the now defunct Umutara province. Nyagatare district borders Uganda in the North, Tanzania in the East, Gatsibo district of the Eastern in the South, and Gicumbi district of the Northern Province in the West. Nyagatare district has an area of 1741 km^2, what makes it the largest district in Rwanda. With a population of 466,944 in 2012, Nyagatare is the second most populated district of Rwanda only after Gasabo district of Kigali City with 530,907 inhabitants [3]. This is an 83% increase from 2002 when the population was only 255,104. This sharp rise in the population is due to the major movement of the population from other parts of the country in search of land. The district of Nyagatare is one of the seven districts making the Eastern Province. It is divided into 14 Sectors made of 106 cell**s** and 630 Villages” Imidugudu” [5]. These 14 sectors of Nyagatare have 69 operational health posts constructed by different partners SFH Rwanda included and all are operational from 2017. SFH Rwanda hired a data analyst charged to collect data from all health posts and follow its daily activities. That staff accumulates the monthly, quarterly, and annual reports for those HPs where is indicated the total number of clients, types of diseases treated at Hp levels during the given period, total revenues, total expenses, and total profit. The data analyst sorts out the challenges which can appear to any health post [6].



Data Collection and Analysis

The tools and techniques used to collect and analyse relevant data for the study are presented under this section.

Methods for Data Collection

This study used two types of data namely the secondary data and primary data. Those data were collected from 79 respondents by means of questionnaire.

Questionnaire

A well-focused questionnaire is a one whose questions asked cover adequately and in sufficient detail all the various aspect of research problem and those questions are relevant to the research problem. The method of questionnaire was chosen because of the ability to read and write among the selected respondents, so that they could fill their responses in questionnaire without any problem at health post, without any fear since it is individual participation and with an intention of having most of the answers provided by the respondents, it also provides advantage of saving time both on the part of the researcher and convenient to respondents as they could fill the questionnaire during free time.

Documentary Analysis

Documentary analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic. Analysing documents incorporates coding content into themes similar to how focus group or interviews are analysed. Specific documents analysed are journals, articles, textbooks, District hospital reports, Ministry of health reports, internet and academic hand-out [11].

Data Analysis Tools

After data collection, data were compiled, sorted, edited, classified and coded into a coding sheet and the survey data were entered to the computer using Microsoft Excel and Statistical Package for Social Sciences (SPSS) version 16.00 and Microsoft Excel. Those data analysis tools were used for the analysis of quantitative data. Descriptive statistics was employed in order to have a summary description of the data collected from the survey. This was involved the use of percentages, frequency distributions to describe parameters

RESULTS AND DISCUSSION

Table 1. Demographic Characteristics of Participants

Variables	Category	Frequency	Percent (%)
Age of respondent			
	25 years and below	11	13.9
	26-35 years	20	25.3
	36-45 years	30	38.0
	More than 45 years	18	22.8
	Total	79	100.0
Gender of respondent			
	Male	35	44.3
	Female	44	55.7
	Total	79	100.0
Marital status			
	Single	10	12.7
	Married	39	49.4
	Separated	5	6.3
	Widowed	25	31.6
	Total	79	100.0
Education level			
	Non schooling	15	20.0
	Primary	40	50.6
	Secondary	16	20.3
	Higher education	8	10.1
	Total	79	100.0

Source: Field study, 2020.

As shown in the above Table 1, among total of 79 participants, 55.7% were female, 38% were aged between 36-45 years old, the marital status of the respondents showed that there is a large number of respondents who are married 49.4% and a large number of informants attended primary schools (50.6%) at a high rate compared to other studying levels.

Table 2. Awareness of Respondents on Health Posts

	Frequency	Percent
Yes	74	93.7
No	5	6.3
Total	79	100.0

Source: Primary data, 2020.

Considering awareness of respondents on health posts, the table above shows that among 79 participants involved in the research, 93.7%% are aware on health posts against 6.3% unaware. 93.7% who are aware on health posts stated that health posts are health facilities set up at cell level under Ministry of health in order to facilitate local people (patients) to avoid making long travel to reach the nearest health facility.

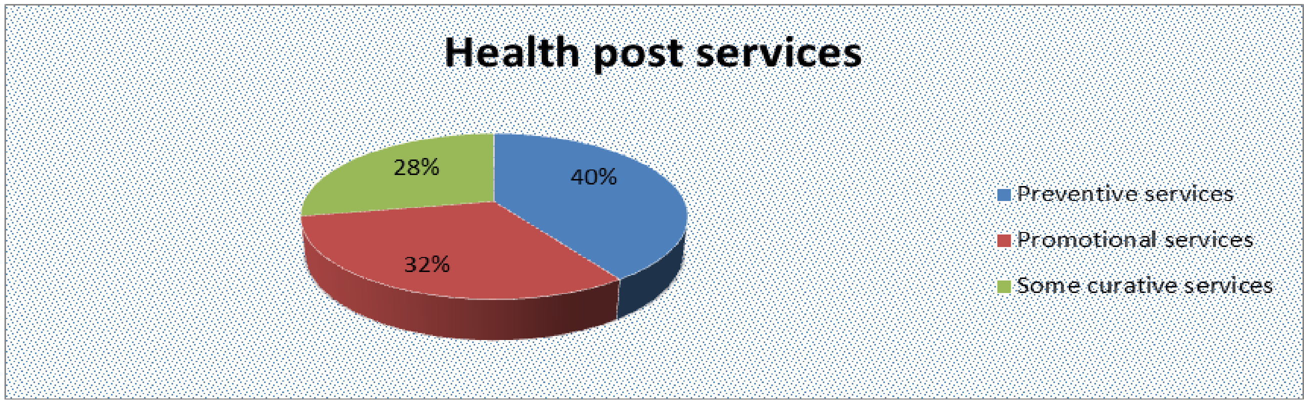


Figure 2: The nearest health post services offered to its clients (patients)
Source: Primary data, 2020

Information sought on the services provided by health posts, the results showed that all respondents had offered to its services. As shown in Figure 2 above, majority (40%) had received preventive services including management of communicable and non-communicable diseases, HIV voluntary counselling and testing, annual general checkups and screening, family planning on how to use condoms, pills and injection; 32% had received promotional services, 28% indicated that they received some curative services as primary curative consultation, follow up of malnutrition cases, postnatal consultation, palliative care and pain management, wound care.

Table 3. Health Posts Time of Delivering Services.

	Frequency	Percent
Day	79	100.0
Night	0	0.0
Total	79	100.0

Source: Primary data, 2020.

The Table 3 indicates that all of respondents 100% reported that all health posts provided preventive, promotional and some curative services during the day and never offering services during the night.

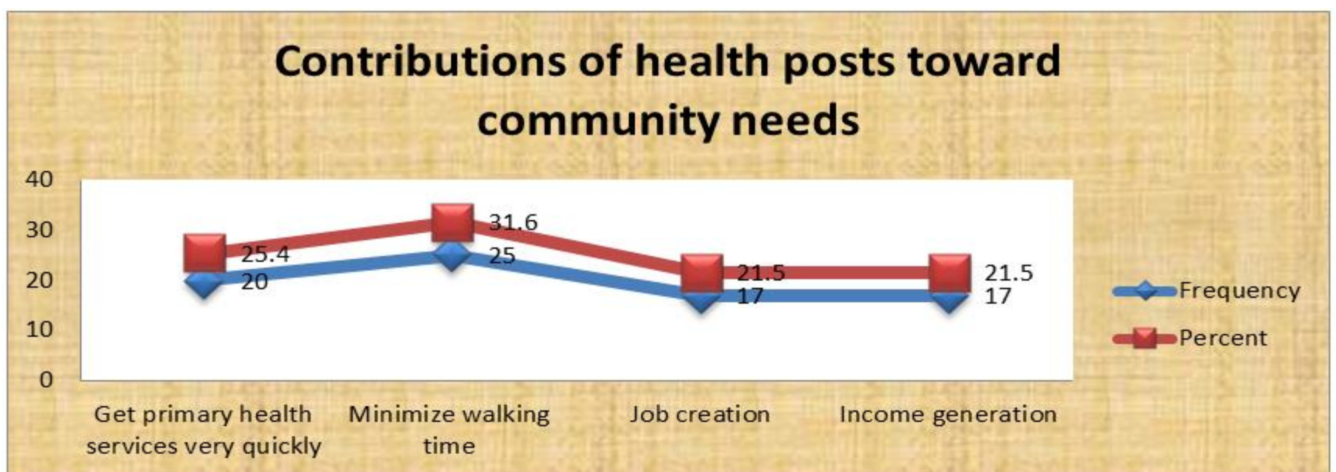


Figure 3. The contributions of health posts towards community needs.
Source: Primary data, 2020

The above Figure 3 shows that 31.6% of respondents testified that health posts minimized walking time to them, 25.4% reported that they get primary health services very quickly, 21.5% asserted that health posts

promoted job opportunities whereas 21.5% confirmed that incomes or money were earned through health posts setting up at cell level. The results are supported by health posts expansion plan of 2016 where in order to improve the geographic accessibility to health care services and ensure universal coverage to the Rwandan population, the Ministry of health was initiating a national program of setting up a health post at cell level where the populations were still have to walk more than 5 km to reach the nearest health facility, so that the program was setting up in the way of overcoming the above challenge of walking a long distance as affirmed by more of 31.6% of respondents involved in the study.

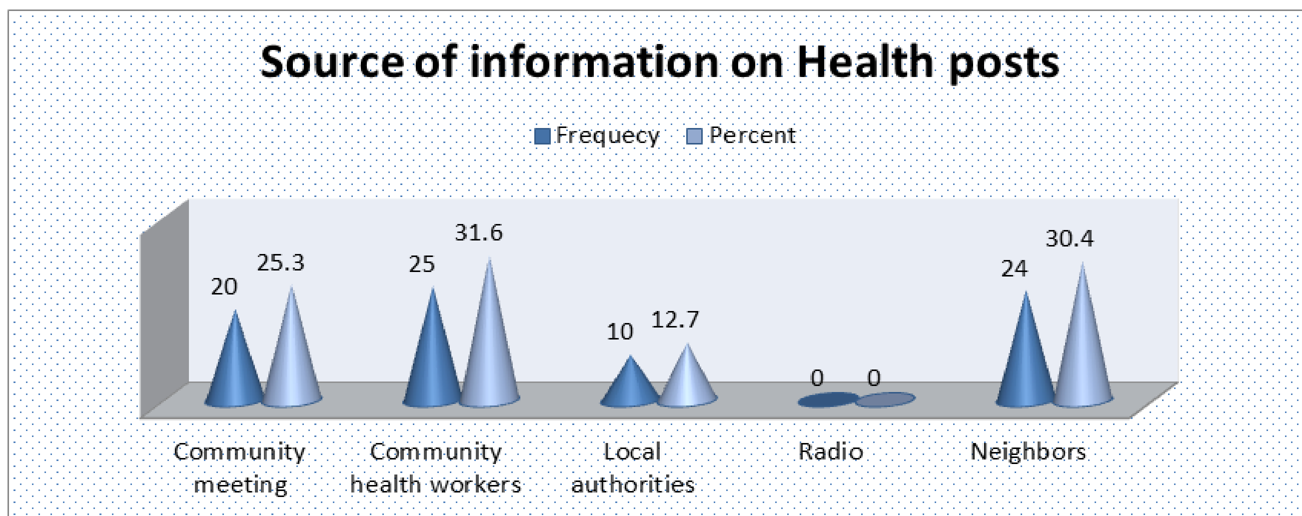


Figure 4. Distribution of source of information on Health posts.

Source: Primary data, 2020

From the figure above, the information from the respondents shown that 25 respondents which represent 31.6% of 79 respondents asked their source of information is community health workers, 24 respondents which represent 30.4% their source of information to know if there is health post in the cell is through neighbors, 20 respondents which represent 25.3% their source of information to know if there is health post in the cell is through community meeting while 10 respondents represented by 12.7% knew if there is a health post within the cell through their local authorities. High frequency or percentages of community health workers as the source of information shows its contribution on this national program of health posts and their interaction with the local people.

Table 4. Socio-Economic Transformation of Citizens After Health Posts Implementation

Statements	SA	A	D	SD	Total
Health status allowed to pay health insurance to family member's after health post elaboration at cell	60 (75.9%)	19 (24.1%)	0 (0%)	0 (0%)	79 (100%)
Health status enabled to generate incomes after health post elaboration at cell due to businesses conducted.	70 (88.6%)	9 (11.4%)	0 (0%)	0 (0%)	79 (100%)
Health status allowed to buy households assets after health post elaboration at cell	79 (100%)	0 (0%)	0 (0%)	0 (0%)	79 (100%)
Health status enabled to do off-farm and non-farm activities leading to food availability after health post elaboration at cell	78 (98.7%)	1 (1.3%)	0 (0%)	0 (0%)	79 (100%)
Health condition allowed to do formal and informal employment after health post elaboration at cell	65 (82.3%)	14 (17.7%)	0 (0%)	0 (0%)	79 (100%)
Health status enabled to pay school fees, school uniforms and other requirements for all my children after health post elaboration at cell	67 (84.8%)	12 (15.2%)	0 (0%)	0 (0%)	79 (100%)

Source: Field study, 2020.

The study sought to determine the socio-economic transformation of citizens before health posts implementation. Findings were presented in Table 4. From the table, 75.9% of respondents strongly agreed that their health status allowed to pay health insurance to family member's after health post elaboration at cell, 88.6% of respondents strongly agreed that their health status enabled them to generate incomes after health post elaboration at cell due to businesses conducted, 100% of respondents strongly agreed that health status allowed to buy households assets after health post elaboration at cell, 98.7% of respondents strongly agreed that health status enabled to do off-farm and non-farm activities leading to food availability after health post elaboration at cell. This implies that socio-economic transformation of citizens was improved after health posts implementation in Nyagatare District.

Table 5. Regression Coefficients[a].

Model	Unstandardized Coefficient's		Standardized coefficients	T	sig.
	B	Std. Error	Beta		
Constant	5.210	.314	-	1.263	.007
PS	.432	.002	.004	2.334	.017
CS	.428	.001	.025	1.047	.0185
PR	.523	.306	.203	2.004	.043
FB	.230	.210	.014	1.308	.064
TR	.627	.064	.262	2.002	.203
EQ	.301	.222	.420	1.121	.051
ME	.409	.507	.304	1.400	.605

From data shown in Table 5, the results were be presented by regression equation where Y=5.210+0.432PS+0.428CS+0.523PR+0.230FB+0.627TR+0.301EQ+0.409ME+error. The results of the regression model show that taking all independent variables (preventive, curative, promotional services, facility building, trainings, equipment and medicine) constant, socio-economic transformation of citizens were 5.210. It was established that taking other independent variables constant, preventive services contribute at 43.2% in improving socio-economic transformation of citizens. While curative services have a positive contribution which rate at 42.8% and promotional services contribute at 52.3% in socio-economic transformation of citizens. Facility building contributes at 23% in socio-economic transformation of citizens, trainings contribute at 62.7% in socio-economic transformation of citizens, equipment contributes at 30.1% in socio-economic transformation of citizens and medicine contributes at 40.9% in socio-economic transformation of citizens By concluding, it implies that health post services such as preventive, curative and promotional services have a great contribution to the promotion of socio-economic transformation of citizens.

Table 6. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.81[a]	.072	-.073	.069

Table 6 where R square is 0.72, looking at the independent variables, shows that 72% of the variables affecting improvement of socio-economic transformation of citizens as epitomized by the R Squared. Hence all the other variables not involved in this research contribute 28% of the variables affecting socio-economic transformation health by citizens like intervening variables.

Table 7. ANOVA.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.001	1	.520		
	Residual	.540	77	.076	5.889	.060
	Total	2.541	78			

The ANOVA results at 5% level of significance indicate that F calculated is 5.889 while F critical is 2.4091. Since F calculated is greater than F Critical (5.889 > 2.4091), this indicates that the overall model was significant. The study aims to accept alternative hypothesis stating that there is a significant relationship between health posts investment and socio-economic transformation of citizens and reject null hypothesis stating that there is no relationship between health posts investment and socio-economic transformation of citizens.

FINDINGS

These research findings were presented and interpreted in relation to the objectives of the study and literature review. The preceding chapter dealt theoretically and scientifically on the contribution of health posts investment to socio-economic transformation case of Nyagatare district. The results present the findings of the information collected from 79 respondents. Therefore, the objectives have been achieved as is discussed in the findings below:

The results clarified that majority (40%) had received preventive services including management of communicable and non-communicable diseases, HIV voluntary counseling and testing, annual general checkups and screening, family planning on how to use condoms, pills and injection; 32% had received promotional services, 28% indicated that they received some curative services as primary curative consultation, follow up of malnutrition cases, postnatal consultation, palliative care and pain management, wound care.

The findings in table 4.6 states that 75.9% of respondents strongly agreed that their health status allowed to pay health insurance to family member's after health post elaboration at cell, 88.6% of respondents strongly agreed that their health status enabled them to generate incomes after health post elaboration at cell due to businesses conducted, 100% of respondents strongly agreed that health status allowed to buy house equipment after health post elaboration at cell , 98.7% of respondents strongly agreed that health status enabled to do off-farm and non-farm activities leading to food availability after health post elaboration at cell , 82.3% of respondents strongly agreed that health condition allowed to do formal and informal employment after health post elaboration at cell, 84.8% of respondents strongly agreed that health status enabled to pay school fees, school uniforms and other requirements for children after health post implementation at cell. This implies that socio-economic transformation of citizens was improved after health posts implementation compared to the results of table 4.7.

The statistical evidence depicts that there is a relationship between health posts investment and socio-economic development of health by citizens in Rwanda with a degree of correlation equal to .802 interpreted as positive high correlations. The results of the regression model show that preventive services contribute at 43.2% in improving socio-economic transformation of citizens, while curative services have a positive contribution which rate at 42.8% and promotional services contribute at 52.3% in socio-economic transformation of citizens. Facility building contributes 23% in socio-economic transformation of citizens, training contributes at 62.7% in socio-economic transformation of citizens, equipment contributes at 30.1% in socio-economic transformation of citizens and medicine contributes at 40.9% in socio-economic transformation of citizens. All of that implies that health post services such as preventive, curative and promotional services have a great contribution to the promotion of socio-economic transformation of citizens in Nyagatare district.

CONCLUSION AND RECOMMENDATIONS

The findings of the study were linked to the study objectives as reported in part of findings. In general, the research findings revealed that the health posts investment is a part of social economic transformation. All three objectives' findings highlighted the major potential reasons of health posts existence. The results provided enough evidence to prove that health posts investment contribute to socio-economic transformation of citizens in Nyagatare district.

Based on research findings, the following recommendations are given:

Recommendations to Nyagatare district

- The district should ensure the operationalization of all HPs in equipping and hiring nurse operators needed at time.
- The district should expand the health posts infrastructures through cells without any other health facility in order to promote better life health for remote population.
- The district, in collaboration with REG and WASAC, should solve the problem of water and electricity at health posts which are in need.
- The district should advocate the partnership between HP operators and RSSB to not take long time.

Recommendations to the Ministry of health

- The Ministry of Health should permit health posts to offer health services during nights and weekends rather than providing services a day in five working days.
- The Ministry of Health should increase the number of nurses at health post level to provide quality healthcare services.
- The Ministry of Health should advocate RSSB to avoid the delay of payment on the invoices submitted by HP providers and increasing the number of verificators at HC levels.
- The Ministry of Health should allow other health insurances like RAMA, MMI and others to partner with HPs.
- The Ministry of health should conduct an assessment to ensure the HP guidelines and protocols are respected and implemented by HPs as planned.

Recommendations to Society for Family Health Rwanda

Society for Family Health should continue to:

- To Streamline management of Health posts through operationalization of Health posts and rendering functional nonfunctional health posts.
- To Support functionality and sustainability of health posts
- To Facilitate quality improvement and accreditation at HP levels.

Suggestion for Future Research

Future research on health posts and their impacts on socio-economic transformation, sustainability, and spatial access should focus on several key areas. First, studies should explore the long-term effects of health posts on improving local economic outcomes, such as employment opportunities, income generation, and poverty reduction, particularly in rural or underserved regions. Understanding how health posts can contribute to economic stability is critical for assessing their broader impact on communities. Second, future research should examine the role of health posts in promoting sustainable health systems by evaluating their capacity to maintain services over time, adapt to changing health needs, and integrate with national healthcare infrastructure. Additionally,

research should investigate how health posts can improve spatial access to healthcare services, reducing geographic barriers and addressing disparities in healthcare availability. This could involve mapping access patterns, identifying underserved areas, and assessing the effectiveness of health posts in reaching vulnerable populations. Finally, interdisciplinary studies that combine public health, economics, and geography will provide a comprehensive view of the long-term impacts of health posts on social, economic, and environmental outcomes, informing policy and resource allocation.

Author Contributions

Christine Umumararungu guided and supervised this research. Peace Mukankiko designed the study, wrote the manuscript while Gideon Nkiko helped to provide other technical assistance.

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REFERENCES

[1] CC (2005), Community-Based Health Insurance Schemes Developing Countries: Facts, Problems and Perspectives.

[2] MoH, (2005). Health post expansion plan. Kigali/ Rwanda.

[3] NISR, (2012). Rwanda Demographic and Health Survey. Rwanda.

[4] NST1, (2018). Guide to SDGs in Rwanda Retrieved from http://www.minecofin.gov.rw/fileadmin/user upload/ ENG.

[5] Nyagatare district, Annual reports, 2017, 2018 and 2019.

[6] SFH, (2017). Annual reports. Kigali-Rwanda.

[7] Wanyama et al (2009). "The Demand for health - A theoretical and empirical investigation", New York: National Bureau of Economic Research.

[8] WHO. (2010). The World Health Report 2010 - Health systems financing: the path to universal coverage, Geneva, World Health Organization.

[9] William Jack and Maureen Lewis, (2009). Health Investments and Economic Growth: Macroeconomic Evidence and Micro-economic Foundation, In Commission on Growth and Development, Health and Growth, ed Michael Spence and Maureen Lewis.

[10] World Bank, (2018). Human capital index and components Retrieved from http://www.worldbank.org/en/data/human-capital-index-and-components-2018.

[11] Cavana, R., Delahaye, B., & Sekaran, U. (2001). Applied Business Research: Qualitative and Quantitative Methods (3rd ed.). Australia: John Wiley & Sons.

[12] Balamurugan, S., & Sudha, M. V.& Mpango (2013) Socio-economic realities of underprivileged women–a critical analysis at valparai.

[13] Blumberg, S. J., Bialostosky, K., Hamilton, W. L., & Briefel, R. R. (1999). The effectiveness of a short form of the Household Food Security Scale. *American journal of public health*, *89*(8), 1231-1234.

[14] Byron, K. (2005). A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational*

Behavior, 67, 169-198.

[15] Cammack, P, Elton-Chalcraft, S. & Harrison, L. (2016). Segregation, integration, inclusion and effective provision: a case study of perspectives from special educational needs children, parents and teachers in Bangalore, India. *International Journal of Special Education*, *31*(1), 2-9.

[16] Cammack, P. (2004). What the World Bank means by poverty reduction, and why it matters. *New Political Economy*, *9*(2), 189-211.

[17] Carrin G (2003), *Community-Based Health Insurance Schemes Developing Countries*: Facts, Problems and Perspectives.