

Journal of **Medicine, Nursing & Public Health**



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Geoffrey Kipkorir Chalulot, Susan Njuguna & Eunice Ndirangu

ISSN: 2616-8472

Institutional Factors that Influence the Implementation of Policy on Management of Childhood Illnesses in Bomet County

^{1*}Geoffrey Kipkorir Chalulot

¹Kenya Methodist University

²Susan Njuguna

Daystar University

³Eunice Ndirangu

Aga Khan University

*Corresponding Author's Email: gchalulot@yahoo.com

How to cite this article: Chalulot, G. K., Ndirangu E. & Njuguna, S. (2018). Institutional Factors that Influence the Implementation of Policy on Management of Childhood Illnesses in Bomet County, *Journal of Medicine, Nursing & Public Health*, Vol. 1(1), 55-67.

Abstract

The study aimed at establishing the institutional factors that influenced the implementation of policy on management of childhood illnesses in Bomet County. A descriptive cross sectional study design with both quantitative and qualitative approaches was used for data collection. The study population was a total of 279 health workers in Bomet County Hospital and Tenwek Hospital. A sample of 164 was arrived at which was selected using stratified and simple random sampling technique. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS version 24). The study established a significant positive relationship between institutional factors of enhancing compliance to policy procedures on implementation of policy on management of childhood illnesses at 0.824, $p > 0.01$. The study recommends that health institutions in Bomet County facilitate the dissemination and compliance to the implementation of the policy on management of childhood illnesses.

Key words: *Institutional factors, implementation, policy on management, childhood illnesses Bomet County.*

1.1 Background to the Study

Implementation of integrated management of childhood illness (IMCI) is a comprehensive approach that forms the basis of child health towards ensuring that the child attains the fifth birthday. The strategy had the aim of preventing through early diagnosis and management of malaria, pneumonia, diarrhea, measles and malnutrition. The integration of the teaching into nursing curriculum has been enforced since 1999 to ensure that every graduate can implement the IMCI strategy (Department of Health and Human Services, 2011).

The other components of IMCI include; ensuring that observation and supervision are well monitored, training of all family members, guardians and members of the community emphasizing on the importance of good health and appropriate home care (Robinson, 2011). The World Health Organization (WHO) reported that 7.5 million children under 5 years all over the world died due to diseases like malaria, malnutrition, measles, acute respiratory infections (ARI) and diarrhea, all which are conditions that IMCI strategy seeks to address (WHO, 2012).

Globally, despite great efforts to better the health of children and their nutrition for more than 25 years, by the end of every year about 12 million children die before they attain the age of 5 (MoH, 2017). By the end of 2001, about 40 countries were at different stages of implementation of policy on management of childhood illnesses (Ellenbecker, Fawcett and Glazer, 2012). In Peru, Brazil and Colombia there is an ongoing process aimed at bettering the skills of health workers, the health system and enlightening families on good health for their children. IMCI in India and Pakistan has been operating for about thirty years, and most evaluations show positive results. In Israel as well as in Germany this efforts came up due to negative impacts of disease programs controls for example those that deal with diarrhea and acute respiratory infections. IMCI in the above countries is being actualized with regards to a Family Health Program (FHP), upheld by the World Bank and by the MoH. The FHP, coordinated with the Community Health Worker's Program (CHWP), is incorporated among general society approaches of the MoH with an extraordinary accentuation on first-level care. The indicators used for implementation included; guiding policies and procedures, ensuring the health workers are equipped on IMCI and capacity building to patients who visited the health facilities.

In Africa, implementation of policy on management of childhood illnesses began in 1995. By June 1999, 63 countries were at different stages of implementation this countries include; South Africa, Egypt and Nigeria and at least 12 others which include; Algeria, Somalia and Zimbabwe had communicated awareness had not yet begun exercises (Arner, 2010). There are three segments to IMCI, and intercessions in each of the three parts include both curative and disease prevention/health promotion activities: enhancing case administration abilities of health specialists through the arrangement of rules on IMCI, adjusted to the main setting, and exercises to advance their use; enhancing the health framework by guaranteeing the accessibility of basic medications and other supplies and enhancing the association of work at the health office level.

Kenya Ministry of Health and other stakeholders have supported courses in Emergency Triage Assessment and Treatment Plus (ETAT+) within the framework of government Provincial, District and county hospitals throughout the country (MoH, 2017). Kenya assumed a dynamic role in building up the IMCI program. It was one of the nations which partook in a

Multi-Country Evaluation (MCE) study (Kenya Demographic Health Survey, 2014). Outcomes from the MCE proposed that, if legitimately executed, IMCI enhances the nature of care, is financially, and decreases grimness and death rates for children under-five years old. After scattering of the MCE discoveries, IMCI was incorporated into the list of Essential Health Interventions in Kenya to be effected all through the nation. The policy on management of childhood illnesses therefore encompasses both IMCI and ETAT to facilitate better outcomes for children seeking services at health facilities.

1.2 Problem Statement

The implementation of the policy on management of childhood illnesses as a strategy has accomplished significantly positive outcomes both in reducing mortality and improving health outcomes for children under five in several counties in Kenya. However Longisa was rated at 6.1 compared to private hospitals like Tenwek 9.3 on the implementation of policies on management of childhood illnesses (MoH, 2017). In Bomet County, under-five mortality reduced by 28% from thirty seven for each thousand live births in 2014 to thirteen of every one thousand live births (13/1000) by 2016 though this is still short of the target of 44 % (MoH, 2017). The Nurse training programs at Diploma and Undergraduate levels include the teaching and examining of students in IMCI where those who graduated since 2014 have all undergone a course in IMCI and ETAT within the program. The Nursing Council of Kenya (NCK 2016) identified the primary challenge of implementation of the strategy as low adherence to the guidelines by health care workers. To ensure better outcomes. Nurses working in pediatrics and emergency departments handling children have had a number of updates on the implementation of the policies on management of childhood illnesses. Despite these inputs, there was lower performance reported of implementation of policy on management of childhood illnesses in Longisa public hospital compared to other service providers in Bomet (Nyamongo, 2016). What is not clear is the institutional factors that influence the implementation of the policy on management of childhood illnesses.

1.3 Specific Objective

To establish institutional factors that influenced the implementation of Policy on management of childhood illnesses in Bomet County.

2.1 Literature Review

2.2 Theoretical Framework

This study is based on the pathway of survival model. According to D'Souza (2013), this model was first presented by Mosley and Chen in 1984 and recently adopted by the World Bank as life cycle approach. The model shows the relationship between the health system, the household and the community, in terms of childcare. Mosley – Chen Framework therefore includes both social and biological variables related to child health care. The assumption is that childhood mortality at the household, community level and individual level notwithstanding are guided by a set of common mechanism which include environmental, social and maternal factors within the health care delivery

Caldwell and Caldwell (2014) pointed out that the survival pathway guide is designed to prevent childhood behaviors such as breast feeding that can be enhanced at home entirely through immunization which its effort is based in the health care system. The study further

points out that the pathways portrays the management of childhood illness which in many instances can be handled at home by the mother if she is equipped with taking critical conditions when external procedures and help is required.

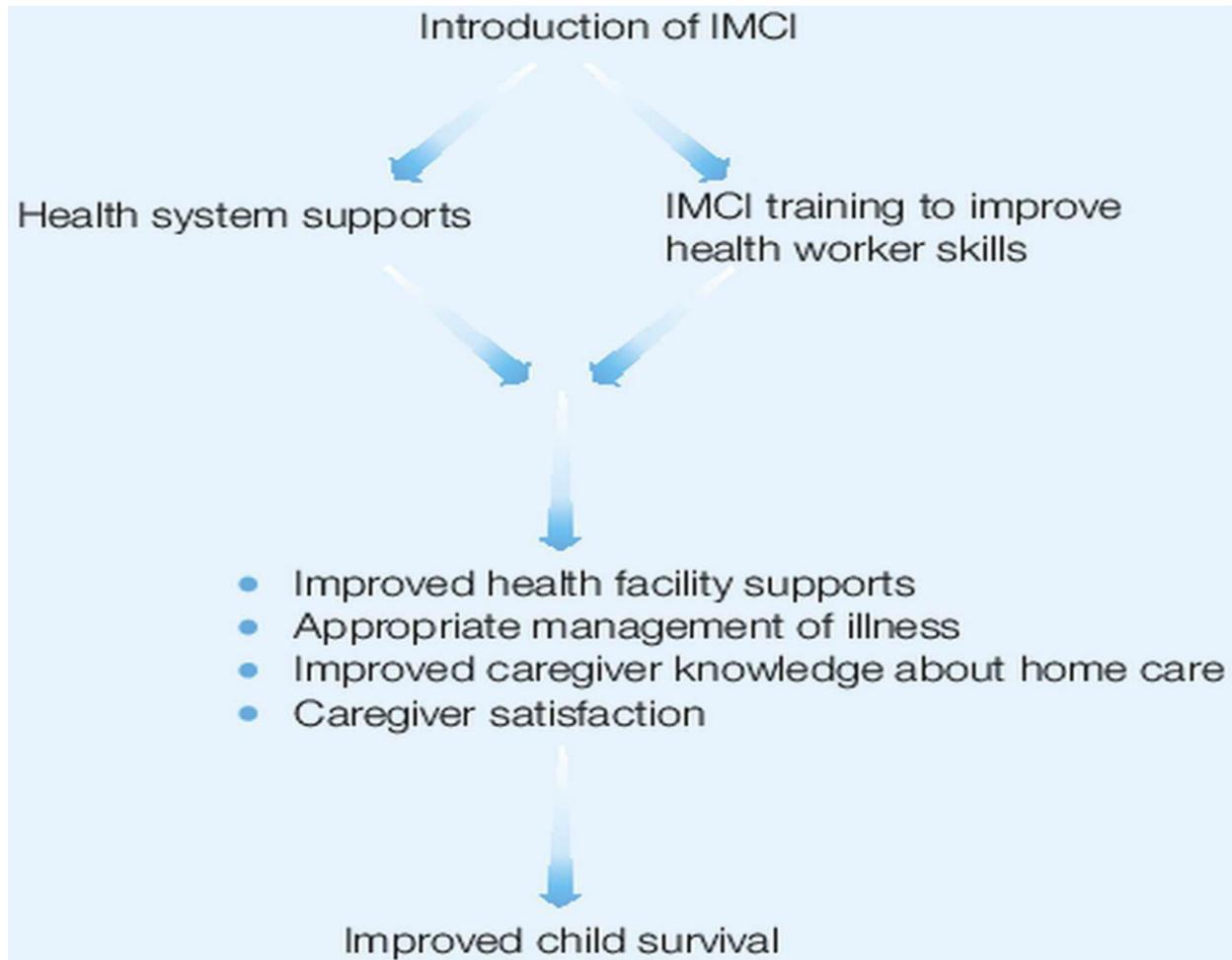


Figure 1: Pathway of survival model

Source: Wijekoom and Martines (2014)

2.3 Institutional Factors

2.3.1 Availability of Policies

Lowwenson (2010), in a study done in Tanzania, report that IMCI policies availability at the health facility had a significant impact on the use of health care services and the resulting disease outcomes. Some health care did not have a basic idea of IMCI policies thus influencing its implementation. Frankenberg and Thomas (2011) show that various challenges identified with IMCI policy availability, specifically lack of knowledge on rules of IMCI amongst the health care workers. The health workers that had knowledge on the IMCI spoke well on its approach. Majority of the respondents were in agreed that the IMCI approach helped in reduction of sickness among children and thus led to reduction in their

death rates. Lack of training among the health workers on the available policies and lack of appropriate monitoring were the main challenges found in the use of IMCI. In a study conducted by Gitonga (2008), private health facilities were reported to be well informed on the available IMCI policies since this was required during their placement in the institutions due to their presumed comprehensiveness.

2.3.2 Policy Dissemination

The MCE found that IMCI goal was to improve the growth rate of children under 5 years, to reduce their death rate due to disease and was found to be cost effective in 2004 (Kenya Demographic Health Survey, 2014). However, a decade later that is 2014 that's after IMCI was introduced in Bomet, some challenges came up on policy dissemination which remained the main issue to be achieved. Absence of supervision, development and support from the health system were the main challenges experienced by the IMCI. The latter is said to effect on guaranteeing steady control and educating of staff (MoH, 2017).

A study by Whyte(2014) in Ukraine shows that shortage of policy dissemination in-benefit scope reflected insufficient subsidizing for IMCI direction and methodology training, which is esteemed at over \$1000 per learner, at both local and national levels. Assets overseen at the area level were lacking to take care of these costs, implying that areas were reliant on focal level assets for expanding scope.

Hobcraft and Rutstein (2015) report that the Government of Uganda was seen as being hesitant to disseminate elective IMCI policies. Different variables prompting hesitance to guidance and systems IMCI usage incorporated: the troubles in showing the general health effect of f-IMCI; a switch in the concentration of advancement accomplices towards the group part of IMCI (c-IMCI); and for the most part low levels of enthusiasm for child health at a national and global level.

According to Lowwenson (2014) lack of policy dissemination in offices limits health specialist ability to direct the main measurements of treatment. Policies on occupation helps, for example, the diagram booklet, divider graphs, timing gadget, recording structures, mugs and basins for storing drinking water were for the most part hard to find. This constrained policy dissemination of IMCI result to more deaths according to the study.

Mosley and Chen (2011) observe the agreement between the potential of CHW policies in the improvement of community coverage and access to basic health care services. However, some CHW policies on large-scale national policies have not always been successful. As policies move a notch higher, CHWs usually tend to be both ill-trained and ill-equipped for the increase and often-times contradiction in roles and duties. CHW program challenges include; accountability, supervision, focus and retention in addition to the struggle for legitimacy within the community since even though they provide treatment, they are not classified as health care professionals.

The Mosley and Chen (2011) study showed the effects of CHW programs and policies in Africa. CHWs do influence the medical treatment behavior and help in improving on the availability of the right treatment form any diseases among children, especially in the remote and deprived areas of society. An evaluation of CHW policies in two chosen villages of Nigeria returned a CHW utilization rate of 26.1%, which was a decrease in the use of patent medicine dealers (44.8% to 17.9%) and some increase in the use of health facilities (30.2% to

32.2%). The results from a malaria CCM policy evaluation in two remote districts of Kenya did support the view that CHWs are influential in the provision of health care to families (Nolan et al., 2014). In Zambia, the provision of ICCM by CHWs' showed increased CHW use while there was decrease in the use of health facilities by children with non-severe pneumonia and fever. Volunteer CHWs got the credit for reducing deaths among children and the improvement of care-seeking policies and practices for fever/malaria and diarrhea in rural Uganda (Nolan et al., 2014).

Mosley and Chen (2011) saw CCM (ICCM) as a way to give integrated packages of basic care services at the local community level, especially with little or no access to facility-based health services. ICCM usually targets the conditions causing most deaths among children in low-income countries which include; diarrhea, malaria, pneumonia and mal-nutrition. Improving the access to healthcare for rural communities by implementing ICCM has become an important focus point in the formulation of a global health policy. Both UNICEF and WHO do support ICCM as essential in their strategy to promote equity and contribute significantly to the sustainable reduction in deaths among children. The ICCM of malaria, diarrhea and pneumonia has proved to be effective in the reduction of death among children. It is also effective as a means to supplement facility-based management in those areas lacking access to health facilities (WHO, 2012).

According to Wijekoom and Martines (2014), the Mosley and Chen HPQ program provided very high-impact treatment interventions in district areas with the highest death rates of children under the age of five years, which also represented the poorest (worst-off fifth quintile) of districts in the country. The program gave priority intervention areas based on the diseases causing the highest number of deaths among children under the age of five years. UNICEF then chose three countries in which to implement these initiatives while collaborating with CSOs and national governments. The three countries chosen were; Indonesia, Sierra Leone, and Uganda. This project focused on three top causes of deaths among children under the age of five (apart from neonatal causes) in Sierra Leone, malaria, diarrhea and acute respiratory illnesses (pneumonia) (Lowwenson, 2014).

The intervention was done by CHWs so as to give the integrated community case management (ICCM) of acute respiratory illnesses (ARI), diagnosed using timers to assess the respiratory rate and treated with cotrimoxazole and diarrhea cases detected based on medical results and treated with low osmolality ORS and zinc. The intervention was implemented in two districts namely; Pujehun district by Save the Children and Kambia district by IRC and CARE. Those CSOs were chosen because of their long history of success in the provision of healthcare in Sierra Leone. The CSOs were chosen by a call for application by the UNICEF through a very competitive process. The criteria for the eligibility of CSOs include; the CSO must be registered with the Ministry of Health and Sanitation, it should be engaged in the advocacy for the poor and must have a prior experience of working in Sierra Leone. IRC has been engaged in the implementation of CCM programs in other district areas of Sierra Leone as well other countries in Sub-Saharan Africa (Caldwell & Caldwell, 2014).

2.2.3 Compliance to Guidelines

Key contextual issues have affected compliance to IMCI guidelines according to Goldman, Pebley and Gragnolati (2012). The study shows that compliance to IMCI guidelines have been influenced to a great extent by short-staffing and untrustworthy medication supplies; and the absence of genuine decentralization of compliance to IMCI guidelines control to the local level.

A study by Nolan, Angos and Cunha (2014) done in Djibouti shows that the Ministry of Health is faced with serious supervision manpower who can ensure compliance to IMCI and ETAT in on private hospitals guidelines to the rural areas which has resulted to an increase in the number of children deaths from 7% in 2010 to 11.3% in 2013.

3.0 Research Methodology

The study adopted descriptive cross sectional study design because the data was gathered just at one point in time. The study was conducted in both Bomet County Hospital which is public owned and Tenwek which is private owned. The study population was a total of 279 health workers (94 nurses, 37 doctors and 148 clinical officers inclusive of interns) who work in Bomet County Hospital and Tenwek. For this study a sample of 164 was arrived. Stratified sampling technique was first used then simple random to enhance the chances of representation within each stratum. Primary data was collected using a questionnaire. Pretesting of the study tools was carried out in Kapkatet District Hospital in order to test the validity and reliability of the study tools.

The researcher collected quantitative data. The quantitative data was analyzed through descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS version 22) and presented through frequencies and percentages. Regression analysis was used to determine the relationship between the independent and dependent variables. The Pearson correlation coefficient was used to measure the linear association between two variables, the dependent variables and independent variable. The output was presented in form of tables, bar charts, graphs and pie charts as appropriate with explanations given in prose.

4.1 Data Analysis

4.2 Response Rate

Table 1 shows tabulations of the response rate as presented below.

Table 1 Response Rate

Response	Health Providers		Health Trainers		Cumulative Total	
	F	%	F	%	F	%
Responded	105	64	14	9	119	73
Not responded	43	26	2	1	45	27
Total	148	90	16	10	164	100

Source: Survey Data (2018)

Findings show that 105 (64%) and 14(9%) health trainers responded to the questionnaires contributing to a response rate of 73%.

The study considered this percentage adequate and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.3 Demographic Information

Table 2 Demographic Information

Gender of Respondents	Health Providers		Health Trainers		Cumulative Total	
	F	%	F	%	F	%
Male	49	41	8	7	57	48
Female	56	47	6	5	62	52
Total	105	88	14	12	119	100
Distribution of Respondents by their Level of Education	F	%	F	%	F	%
Certificate	3	3	-	-	3	3
Diploma	63	53	3	3	66	55
Postgraduate	39	33	11	9	50	42
Total	105	88	14	12	119	100
Distribution of Respondents by Age	F	%	F	%	F	%
20-29 years	47	39	1	1	48	40
30-39 years	22	18	6	5	28	24
40-49 years	28	24	5	4	33	28
50-59 years	7	6	2	2	9	8
60 and above	1	1	-	-	1	1
Total	105	88	14	12	119	100
Distribution of Health Providers by Working Experience	F	%	F	%	F	%
Less than 10 years	85	71	7	6	92	77
10-15 years	10	8	4	3	14	12
More than 15 years	10	8	3	3	13	11
Total	105	88	14	12	119	100

Source: Survey Data (2018)

Table 2 shows that 56(47%) of the health providers who were the majority were female while 49(41%) were male; 8(7%) of the health trainers who were the majority were male while (6)5% were female. This thus reflects a gender balance representation in the research although there was a higher female gender representation of respondents especially the health providers in Bomet County Hospital and Tenwek.

As shown in Table 2, 63(53%) of the health providers who were the majority had a diploma, 39(33%) were post graduates while 3(3%) had a certificate. 9(9%) of the health trainers who were the majority were post graduates while 3(3%) had a diploma. Results show that the

management of childhood illnesses is part of the diploma training curriculum for both nurse and clinicians.

Table 2 shows that 47(39%) of the health providers who were the majority were between 20 and 29 years, 28(24%) were between 40 and 49 years, 22(18%) were between 30 and 39 years, 7(6%) were between 50 and 59 years while 1(1%) were 60 years and above. 6(5%) of the health trainers who were the majority were between 30 and 39 years, 5(4%) were between 40 and 49 years, 2(2%) were between 50 and 59 years while 1(1%) were between 20 and 29 years. This was a result of the high number of clinical officers and nurses who responded to the study and according to most hospitals; staff members are employed in their youthful stage an indication that they have all undergone training in the curriculum.

Table 2 shows that 85(71%) of the health providers who were the majority had worked in Bomet County Hospital and Tenwek for a period less than 10 years while 10(8%) had worked in Bomet County Hospital and Tenwek for a period between 10 to 15 years and more than 15 years. 7(6%) of the health trainers who were the majority had worked in Bomet County Hospital and Tenwek for a period less than 10 years while 4(3%) had worked in Bomet County Hospital and Tenwek for a period between 10 to 15 years and more than 15 years. The findings show that respondents were present during the policy implementation processes that have occurred in the institution since the adaption of ETAT+ Training program.

Table 2 Correlations of Demographics for Health Care Providers

		Gender	Job Designation	Highest level of education	Age of	Number of years worked in the facility
Gender	Pearson Correlation	1	.002	-.115	-.110	.030
	Sig. (2-tailed)		.985	.243	.265	.758
	N	105	105	105	105	105
Job Designation	Pearson Correlation	.002	1	.060	.094	-.210*
	Sig. (2-tailed)	.985		.542	.342	.032
	N	105	105	105	105	105
Highest level of education	Pearson Correlation	-.115	.060	1	.533**	.420**
	Sig. (2-tailed)	.243	.542		.000	.000
	N	105	105	105	105	105
Age	Pearson Correlation	-.110	.094	.533**	1	.610**
	Sig. (2-tailed)	.265	.342	.000		.000
	N	105	105	105	105	105
Number of years worked in the facility	Pearson Correlation	.030	-.210*	.420**	.610**	1
	Sig. (2-tailed)	.758	.032	.000	.000	
	N	105	105	105	105	105

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 indicates that there was no significant relationship for items on the demographics for the health trainer. However, there was statistical significance on the number of years of work, education and age for the health care provider at 0.05 level (p =.220; .420 and .610) as shown in the table above.

4.4 Institutional Factors

Table 4 Reliability Statistics for Institutional Factors

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.847	.841	22

Table 4 shows that all the variables had a Cronbach alpha above 0.7 and thus were accepted. These represented a high level of reliability and on this basis, it was supposed that scales used in this study were reliable to capture the variables.

Table 5 Analysis of Variance for Institutional Factors

	Sum of Squares	df	Mean Square	F	Sig
Between People	940.356	104	9.042		
Within People					
Between Items	65.504	16	4.094	6.197	.000
Residual	1099.320	1664	.661		
Total	1164.824	1680	.693		
Total	2105.180	1784	1.180		

Grand Mean = 2.2034

Based on the findings in Table 5, the means and standard deviation for availability of policy were not significantly varied. These findings are in line with Lowwenson (2010) findings that found an average score of 2.34 and found that some health care did not have a basic idea of IMCI policies thus influencing its implementation. Various challenges identified with IMCI policy availability, specifically lack of knowledge on rules of IMCI amongst the health care workers. The health workers that had knowledge on the IMCI spoke well on its approach (Frankenberg and Thomas, 2011).

This finding support a study by Kenya Demographic Health Survey (2014) and MoH (2017) who found that in 2014, that's after IMCI was introduced in Bomet, some challenges came up on policy dissemination which remained the main issue to be achieved. Absence of supervision, development and support from the health system were the main challenges experienced by the IMCI. The last is said to effect on guaranteeing steady control and educating of staff. The outcome of a study carried out in one of the rural villages in Nigeria by Lowwenson (2014) shows that there was a biting shortage of physicians so much so that one physician attended to almost 8000 patients while there were just 834 patients taken care of by one physician in the urban. This showed the skewed distribution of health professional as exacerbated by another study by Wagstaff (2014) that showed placement and distribution of different types and cadres of health professional in the rural and urban region of Madhya Pradesh in India and this was due to county policy favor.

These findings correspond with Goldman, Pebley and Gagnolati (2012) study who contends that key contextual issues have affected compliance to IMCI guidelines. The study shows that compliance to IMCI guidelines have been influenced to a great extent by short-staffing and

untrustworthy medication supplies; and the absence of genuine decentralization of compliance to IMCI guidelines control to the local level.

4.5 Implementation of Policy on management of Childhood illnesses

Table 6 Item Statistics on Implementation of Policy

	Mean	Std. Deviation	N
I always refer to the policy on IMCI when managing patients	1.5714	.85163	14
I have been trained on IMCI	1.7143	.46881	14
I have been trained on ETAT	1.8571	.77033	14
I have documentation on performance of students on IMCI	2.2143	.89258	14

The dependent variable was implementation of policy which was rated using the items in table 6 above. Though there was variation in the mean between the documentation (2.2; SD .89) and the other items, training on IMCI (mean 1.7; SD 0.467) was least varied. This results conform to the findings of Nolan, Angos and Cunha (2014) in that the Ministry of Health in Djibouti is faced with serious supervision manpower who can ensure compliance to IMCI and ETAT in hospitals guidelines to the rural areas which has resulted to an increase in the number of children deaths from 7% in 2010 to 11.3% in 2013. Compliance to IMCI guidelines have been influenced to a great extent by short-staffing and untrustworthy medication supplies; and the absence of genuine decentralization of compliance to IMCI guidelines control to the local level. In Zimbabwe, health provision was provided by the government through the Ministry of Health (Magadi and Madise, 2013). Health provision was greatly subsidized as citizens only paid half of the total cost incurred during treatment in the public hospital. This was supported by different entities such as the local government, missionaries, industrial organizations and the private sector. Due to high inflation rates in Zimbabwe, there were limited medical supplies marked with chronic shortage of drugs, deteriorated infrastructure and a thin well trained work force leading to very low rating of the country's health system by the world health organization.

4.6 Suggestions on the Improvement on Implementation of the Management of Childhood Illnesses

Countries and the training institutions were to be monitored and continuously assessed in order to ensure that highly trained health workers emerged from these institutions for quality health service provision to the masses to be realized. This was in line with the world health assembly resolutions of 2013 that encouraged, natured and supported transformative health worker education in the health sector.

5.0 Conclusions

The study also established a significant positive relationship between institutional factors and implementation of policy on management of childhood illnesses where a unit increase in institutional factors leads to an increase in implementation of policy by 0.824, $p > 0.01$. The study concluded that institutional factors influenced the implementation of policy on

management of childhood illnesses in Bomet County though there was a perception that availability of policies in the hospital, policy dissemination and compliance had not been well implemented. Further, a unit increase in institutional factors would lead to an increase in implementation of policy.

6.0 Recommendations

The study recommends that institutions in Bomet County facilitate the dissemination and compliance to the implementation of the policy on management of childhood illnesses.

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