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Utilization of Integrated Management of Childhood Illnesses IMCI for Child health in Western Kenya

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Abstract
Implementation of integrated management of childhood illness (IMCI) in comprehensive and holistic approach that forms bench mark for basic child health in promoting celebration of fifth birth day for children below five years of age, free from Malaria, Pneumonia, Diarrhea, Measles and Malnutrition (WHO, 1999).
Studies by World health organization (WHO) and United Nations for Children's fund (UNICEF) show that majority (90%) of Sub Saharan Africa countries have benefited from IMCI program. However in Western Kenya like whole nation it remains unexplained, though it was started in 1999 and is being implemented in spots to enhance MDG 4 of vision 2030, (WHO, 1999).
Western Kenya like the Trans Nzoia County, IMCI was initiated a decade ago but still staggering and needs substantial support from National IMCI unit through introduction of IMCI modules in pre-service and post – basic training to all Kenya medical training institutions, supporting community participation to yolk perceived traditional / environmental factors and enhance quality perceptions in IMCI utilization in child health care. Never the less, holistic and comprehensive achievement in utilization and application of IMCI program in the region remains unclear, (DDP, 2005). Child health is a basic requirement for his/ her fifth birth day celebration, but is hindered by regular overlapping signs and symptoms in Malaria, Pneumonia, Diarrhea, Measles and Malnutrition, (WHO, 1999)
The study aims, to assess the association of IMCI training to under fives health delivery, how environmental factors are influencing community participation and overall community perceptions, towards utilization of IMCI concepts, in order to achieve MDG 4, (MDG, 2004).
The results were skewed from a cross sectional description done, and hence provided corrective measures and innovations on existing challenges in IMCI implementation. Recommendation were made in 3 stages: further research, Policy amendments and need to enhance Public Private Partnership (PPP)

Keywords

Comprehensive Ability of the Facility to equip complete essential drugs & equipment for the five conditions (Malaria, Pneumonia, Diarrhea, Measles and Malnutrition) affecting children below five years of age to allow dispensation under one roof to holistically manage overlapping disease symptoms.

Holistic intervention Health managing of children below five years from overlapping disease symptoms and signs, by critically assessing children before prescribing a comprehensive and holistic therapy for Malaria, Pneumonia, Diarrhea, and Measles, Malnutrition at ago.

Integrated Management of Childhood Illness (Horizontal program) Concept of disease management in an holistic approach for children suffering from**:** Malaria, Pneumonia, Diarrhea, Measles and Malnutrition as a single unit comprehensively

Vertical program Dealing with individual disease in separate roof of management Vaccine or malaria program.

Push system Receipts and Supply of drugs that were not in requisitions order.

Pull system Receipts and Supply of drugs basing on order of requisitions.

Skewed Below standard required thresholds of above 68%

General Introduction

The integrated management of childhood illness (IMCI) program addresses on five major causes of morbidity and mortality among children below five years of age: measles, pneumonia, diarrhea, malaria and malnutrition (Gove, 1999). The program aimed to improve child survival and their fifth birth day celebration by training on IMCI concepts and sensitizing on environmental factors to enhance quality under five health care that is in line with basic child rights as stipulated in UN Convention on the Rights of the child articles 3, 6, 7, 19 and 24, and Kenya's laws on Children acts 2001 section 9 (National IMCI implementation Strategic Plan, 1999 -2004).
Children living in Africa like Trans Nzoia County have a much higher chance of dying before the age; those from poorest families suffer most, and experiences mortality of 1 in 4 deaths in neonatal period (Orinda, 2010). Trans-Nzoia County encounters specks of IMCI utilization with current mortality rate of 76 / 1000 live births for under fives, compared to the national 74 /1000 live births (KHDs, 2008/09. Despite department of child and nutrition in the county gearing towards planning for more human resource development and demand for finance to maintain program by involving community health workers at household level to ascertain long survival.

Problem Statement

New Global Hunger Index for Kenya is 47 out of 76 similar with Swaziland and Zimbabwe in struggle to cut hunger in its health population, and index focused in computation were undernourishment, child weight and child mortality which obviously associated with limited utilization of quality IMCI in Developing countries,(Nation media, 2014).

Also health records indicate tremendous decline in utilization of IMCI program in Sub-Saharan Africa despite initial great support from WHO and UNICEF (WHO 1999).

In Kenya, no major improvement being made to sustain IMCI program by training service providers in quality IMCI concepts, besides encouraging community participation at household level, thus against the basic child rights as stipulated in the UN Convention on the Rights of the child article 3, 6,7,19 and 24 and Kenya's law, child Acts 2001section 9, (National IMCI Plan, 2004).

Mortality rate in Trans Nzoia county is 76/1000 live births (KDHS, 2008/9) compared to national 74 /1000. Malaria and Pneumonia lead in morbidity and mortality rates with 42% and 38% consecutively, Diarrhea diseases and Malnutrition10% each and Measles 4% per year (DDP, 2002-2008).

These chronic increases of Disease burden among under fives have negative impact on both Primary prevention and achievement of MDG 4, (MDG, 2004).

Aim of Study

Study sought to ascertain how IMCI training, environmental factors and community perception are associated with provision of quality child health below five years age, also intended to provide significant impetus on primary prevention besides highlighting necessity to compress single disease management (Vertical) into horizontal IMCI program that has a Highly Impact Interventions on Child survival, (Orinda, 2010), due to their diseases/ conditions with persistence overlapping signs and symptoms of Malaria, Pneumonia, Malnutrition, Diarrhea and Measles.

Research Question

What scales does IMCI training influence child health care in level 2 and 3 public facilities?

What are environmental factors influencing IMCI utilization at household level?

What are population health perceptions on IMCI implementation?

Broad Objective

To assess utilization of IMCI training, community perception and role of environmental factors in provision of comprehensive and holistic Child health in children below five years of age in Western Kenya.

Specific Objectives

To elucidate how IMCI training influence service provision for under five children in level 2 and 3 Public facilities in Western Kenya.

To establish how environment factors influence IMCI implementation.

To evaluate how Knowledge, Attitude and Practice (KAP) of population health influence utilization IMCI Kenya.

Service Providers Training in IMCI program

World Bank emphasis on innovative and improved Millennium Development Goals 4 (MDG) in their Global Monitoring reports, (MDG 2004) has main pillar of fifth birth day celebration. Third Millennium Development Goal on child mortality commits nations of good will to reduce child mortality and morbidity by two thirds in 2015. The achievement of these targets requires improved IMCI skills and knowledge of service providers acquired through a standard IMCI training guide lines on exclusive case management of major causes of childhood morbidity and mortality: Malaria, acute respiratory infection, Diarrhea, Measles and Malnutrition (Wilson D, Boyd et al, 2005).

According to Odhacha et al, 1998, IMCI, training is divided into two parts mainly 11 day residential clinical course and a Follow up at regular work station. The latter courses occur within 4 weeks, of the clinical skills training and are aimed at supporting and ensure that the health workers are put into practice after acquiring knowledge and skills in training. Human resource development enhances skills of service providers and identifies problems based in population health that may hinder the utilization and sustainability of IMCI program, (GOK National IMCI implementation Plan, 2001 -2004)

Pre-Service Training in IMCI Program

Following initial experiences in IMCI application in Bungoma and Vihiga counties by GOK in (1997- 2009)

results suggest, need for compulsory expansion of Pre-service training in medical colleges has an IMCI module for undergraduate students and interns before postings in Departments of Pediatrics ,(National IMCI implementation Plan, 2001-2004). State Governments issue instructions in regard to IMCI utilization by teaching institutions by respective directorates (El Arifeen et al, 2006). Studies on management of Malaria in Kenya (Zurovac et al 2004), and Malaria and diarrhea in Benin (Rowe et al 2001) indicated that service providers with higher pre-service training were less likely to prescribe IMCI recommended treatments whose reasons remain unclear. Hence associated with pre-service training, with lower adherence to IMCI concepts, by service providers' perceptions, as inferior to IMCI clinical experience and professional judgment.

Bellagio Study group (2005) signifies Post basic IMCI training on capacity building on case management, only in facilities with sufficient load of inpatient newborns to provide case material for hand training. Do not select facilities that are not busy because it will not show the correct disease burden in children Schellberg et al (2004).

Service providers, have to be given opportunity to practice on cases in home situations. Therefore at-least 4 visits have to be organized to nearby field areas during their training. This will require proper administrative and logistic arrangements. Class room teaching is also an important component of the training in a place where there is adequate number of class rooms (Preferably two) with sitting capacity of 12-15 participants each, (lambrechts et al ,2006).

Also teaching aids like video tapes should be made available to improve technology and individual skill building, and each batch of training should not have more than 25 participants with 6-7 facilitators. The facilitators should have sufficient clinical skills to demonstrate signs of illnesses in sick newborns, private pediatricians and supervisor level functionaries from NGOs and private sector can be involved (WHO, 2003).

Post-basic IMCI training

Studies by Ahmed T, Black et al (1999), on IMCI utilization seeks to improve case management skills of level 2 and 3 service providers by strengthening health system for efficiency management of sick children, and promote good family and community child care practices. The child is treated comprehensively and holistically on evidence based, high impact interventions to decline disease burden and promote under five survivals, (Silali 2012).

A cross sectional study of health facilities conducted by Lambrechts et al, (1999) and Cockburn et al (1987) , indicates that most Service providers in Sub Saharan Africa have been trained in IMCI applications, using a structured training course developed to support training with extensive learning materials, where by participants receive a chart booklet containing all IMCI guidelines to use as a desk reference (Claeson and Waldman 2007). The 11 days of training combines classroom work with hands-on clinical practice thus, participants achieve competency by repetition and individual feedback. To achieve high quality training, IMCI facilitators are carefully selected, on the basis of their performance and experience in child healthcare, to attend an additional 5-day IMCI facilitators training course. WHO recommends at least one facilitator for every four participants (Victoria et al, 2005).

Post basic IMCI training enhance capacity building to service providers in order to assess child's illness basing on severity using a series of algorithms, from which specific treatments are identified; guidelines are built around a series of simple questions, and easily recognized with defined signs and symptoms, with emphasis on nutrition, health promotion and counseling (Odhacha et al ,1998).

Study by Mushinda and Magumba on IMCI provides a model for comprehensive implementation of proven public health interventions. An evaluation carried out in 5 countries in Africa by WHO and UNICEF (2000) showed greater improvements in health care performance following IMCI training. Children seen by IMCI trained service providers were significantly more likely to receive correct treatments, and IMCI trained service providers, communicated better with careers, Although consultations take longer, IMCI was shown to be efficient and cost less than routine care in some settings. Despite these improvements, absolute levels of service performance were often poor (Franco et al 2002). In Uganda, less than half of children received correct treatment. In Peru this was as low as 10%. Even in most successful sites in utilization, have rooms for improvement (Magumba et al, 2004).

The knowledge and skills acquired during training are important determinants of human resource performance, but performance is also influenced by other factors, including population health perceptions and motivation, attitudes of community, and environment factors in health facility. (Hill et al, 2006).

Service providers, face continually changing environments, so even if a new guideline is fully understood they may not replace their pre-existing practice, but are more likely to modify it to incorporate some aspects of the new guidelines. Supervision has been shown to improve performance and can bridge the gap between knowledge and practice. The benefits of training appear to include more rational drug use, increased attendances (an evaluation study in Tanzania showed a 20% rise in attendances), improved provider morale, and improved perceptions of quality of care by mothers. An evaluation study in Uganda showed that service providers, trained through the program shared their knowledge and skills with other staff, immunization services improved,

weighing of children increased from below 5% to 85% after training, despite problems with drug supply, the use of first line drugs increased. Service providers, felt more confident because their skills and classification of disease had improved (Bryce et al, 2008).
Study in Zambia (2007) showed that service providers, correctly managed less than 5% of cases of diarrhea disease before training. After training they correctly managed 82% of cases at three months' follow up and 60% after one year. Mothers also liked being given the first dose of treatment on site that their children were examined thoroughly, and that service providers counseled them on home based care for children (IMCI report, in Zambia, 2007).

Follow-Up Training
According to MOH Kenya (2006b), Follow-up Training is designed to improve supportive supervision skills such as methods for skill reinforcement, records review, assessment and enhancing job designs to encourage IMCI training and yolk bad environmental factors. The intended participants include medical officers/pediatricians and health/ ICDS supervisors who will be involved in supervisory, monitoring, and follow-up functions of IMCI implementation. The duration of the training is 2 days which may either be clubbed with Clinical skills training or conducted within 6-8 weeks of the initial Clinical skills training, (Victoria J, Bryce et al, 2003).

Impact of Environ mental factors on IMCI implémentation.
Row et al 2001 suggest that environmental factors play key role in health delivery services. Rowe suggests that service providers continuously face changing environment and therefore adapt practices to satisfy their professional values and personal goals. They argued that the acquisition of new skills does not necessary mean change of behavior. Service providers decide how to modify behavior either to in-cooperate all, some or none of the new guidelines.

Distance from Health Facility
According to study by Bhutt et al (2004), Every day millions of parents seek health care for their sick children, taking them to hospitals, health centers, pharmacists, doctors and traditional healers all these health seeking behaviors may be determined by distance covered by the family / community to reach any facility if quality care is far away care taker may to look for alternative course of action for remedy of the child condition, (Bhutt et al, 2004).
The distribution of health facilities, health personnel and their access to health services varies a lot from province to province with a general access rate estimated at about 50% as observed by MCE's in Bangadesh, Cambodia, Niger, Uganda by Burnham et al (2004). Utilization of health services been observed to be low where the distance is slightly far. This could be contributed to by the low quality of service, in most of health facilities especially with regards to irregular supply of drugs and equipment and the cost of sharing program that was introduced about a decade ago. Also long distance to health facility and the grinding poverty adds further to the low utilization ,National IMCI implementation Strategic Plan, 2001- 2004, (2000).

Cultural / Traditional Beliefs
Most studies in Bangadesh, Cambodia ,Niger ,Uganda by Burnham et al (2004), show that mixed Cultural / traditional beliefs barriers , influence the health seeking behavior among, under- 5s and allows easier integration of family / community to net work freely with service providers in matters of IMCI and regular bench mark to solve the unmated health seeking behaviors for under- 5s. (Burnham et al, 2004).
In other ethnic communities IMCI implementation is delayed because of traditional barrier like newborn not being exposed outside environment before attain age of 2 months, delivery by traditional attendants and not skilled midwife in the facility(Kuravilla et al, 2004).

Economic Status
Surveys reveal that many sick children are not properly assessed and treated properly, and that their parents have low referral speed for emergency medical attention due to inadequate financial resources, put in place to implement IMCI at first-level of the health facilities, in low-income district, (Schelenberge et al, 2006).
Counties with large number of factories and industries may raise the level of economy thus, reduce poverty indicators, which is below 1 dollar consumption per day (WHO, 2007). Communities with large scales of economies around facility improves other basic necessities of life, thus improve health seeking behavior and uplifts standards of living and child survival, Such communities support IMCI utilization and gear to develop the program compare to facility surrounded with community under poverty level, (World Bank, 2003).

Knowledge, Attitude and Practice of Service Providers to Utilize IMCI program

Observation made by Hughes (2002) showed that Knowledge, attitude, practices and beliefs play a great role of service providers' implementation of IMCI needs experienced leadership just like in Tran-Nzioa district. Provide an access for health seeking behaviour for children survival. Perceived IMCI information of service providers and their understanding, skills gained through, education (11 days training and experience) and IMCI case management skills if utilized well by the facility result to quality implementation of IMCI at facility level.
(Attitude) Perceived good, bad, positive or negative feelings or thinking on IMCI program by both managers in the facility and service providers influence its implementation directly or indirectly. Performance problems in the facility have been attributed to unclear expectations, skills deficit, resource or equipment /supply shortages or lack of motivation and inexperienced leadership (Hughes et al, 2002).

Attitude on IMCI by Service Providers
These are Perceived bad or good feeling/thinking on IMCI by service providers', Negative attitudes of Para-medics', nurses, doctors in a facility lower IMCI implementation. However Study by wafula and Mullei in Kenya revealed that nurses generally expressed positive attitudes about IMCI, while some clinical officers and doctors have not accepted the IMCI approach. They feel that the guidelines are simplistic and do not allow them to make full use of their clinical training (Wafula, Mullei, 2008)

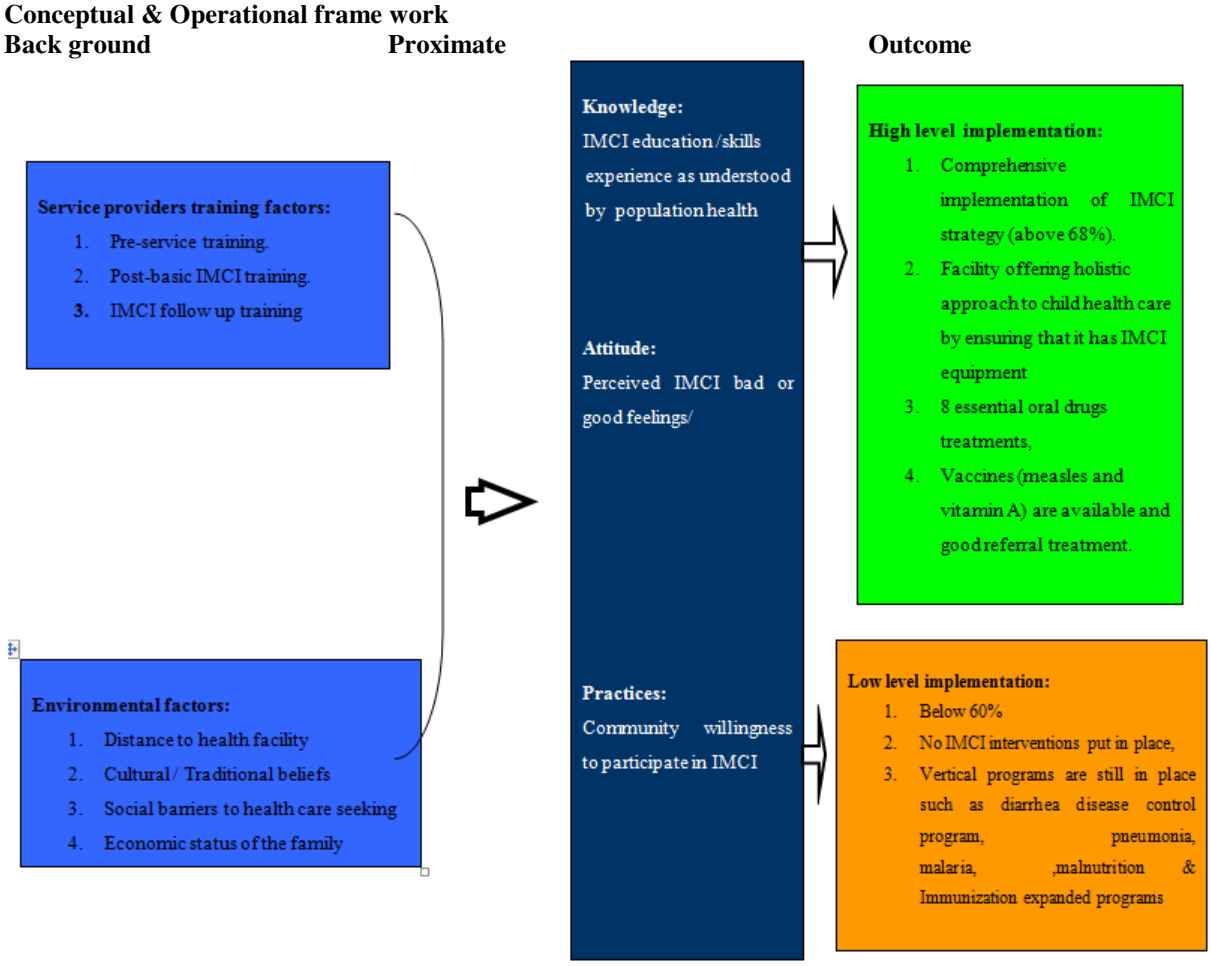
Practices of Service Providers
Practices of Service providers in facility, affects quality implementing of IMCI in the facility either positively or negatively for instance staff rotation. In Tanzania where staffing pattern appear to be stable in comparison with situation in other countries 23% of trained service providers had moved within three years of initial training .these service providers did not necessarily leave government employment , but rotation means that IMCI implementation may not be continually delivered at same target population overtime (Huicho et al 2005).staff rotation practice in level 2 and 3 facilities is not uncommon in Kenya, however Quality practice supports compressive implementation of IMCI and as positive out to the facility.

How service providers fail to implement IMCI Protocols
Evidence from Bhutta et al (2003) study, suggests that IMCI trained staff often fail to follow case management guidelines: for example, few children are checked for general danger signs of severe disease, less than half have their weights checked against the growth chart, and referral rates are low. Poor adherence stems from the following specific features of the IMCI strategy and broader health system (Bhutta et al, 2003).
Duration of sick child assessment takes 10 to 20 minutes required to assess each child fully was considered excessive by some health workers, who skipped sections, they perceived as unnecessarily and time-consuming or reverted to their original practices. This was argued to reflect a high work load, long patient queues and low staffing levels. Whilst the Government has hired more nurses, under-staffing remains a barrier to IMCI implementation and is exacerbated by high rates of attrition (Gove, 1997).
*Lack of job aids***,** Wall *charts and chart booklets* were frequently unavailable as they were only issued to trainees and were not replaced when lost, removed or damaged.
Frequent drug stock-outs of essential drugs continue to experience chronic shortages' with deliveries frequently delayed or failing to match facility orders. (Odhacha, 1996-1998)

Theoretical statement
Though most studies have concentrated to develop and improve sustainable IMCI program comprehensively, it is necessary to assess how IMCI training and environmental factors influence in order to sustain the program in level 2 and 3 health facilities.

Conceptual statement
From the literature review it is clear that sustainable and empowered IMCI programs are determined by provision of quality IMCI Training, good will form environmental factors and sound community perception for IMCI concepts. These factors were used to construct conceptual and operational frame works.

Conceptual & Operational frame work



Methodology

Study Design

Cross-sectional design, was explored to establish determinants on utilization and application of IMI and child health western Kenya

Mixed methods of data collection procedure was adopted

In quantitative data, structured questionnaire was used while for qualitative data focused group discussion (FGD) guide and Key informants interviews (KII) were deployed.

Both observations and transect mapping done and recorded in structured observation checklists during a walk–through IMCI survey

Study Area

The study, was conducted in level 2 and 3 facilities, in Trans Nzioa County for convenience and assumption that most facilities in Western Kenya have similar facility challenges

Study /Target Population

The estimated population of study was 600 households. This included, well mothers and service providers holding the following positions: hospital administrators, Public health officers (PHOs), lab techs and, community owned resource persons (CORPs)

The target population was 235 service providers and well mothers with children visiting the facility.

Sampling Design

Purposive & proportionally selected from target population.

In proportional sampling, a sampling frame was developed from all level 2 and 3 facility registers

Canvasser method, was utilized for data collection (questionnaires administered by pre-trained personnel) and KII & FGD guides in qualitative

Sample Size Determination

Fisher's formulae (Fishers, 1998), was used to determine the sample size from 20 health facilities. At least 30 respondents from 20 facilities to be considered in the study

Estimated sample size = 600

Where n = target population greater than 10,000.
z = degree of confidence (1.96)
p = proportion of population. (0 .50)
q = proportion of the acceptance error (1- p)
d = level of statistical significance test, 0.05
n = (1.96)2 (0.5) (.05) 9604
(0.05)2 25

Adjustment of Sample Size
Finite population correction formula (Fisher, 1998)
Hence,

$$nf = \frac{n}{1 + \left(\frac{n}{N}\right)}$$

Where:
nf = desired sample size of population is less than 10,000
n= desired sample size of population is more than 10,000
N = total estimated population size in the county (600)
Hence, nf = 384
1 + (384) = 384
600 1.64
= 235
Total sample size 235

FINDINGS
Demographic Characteristics of Respondents
A total of 235 respondents (service providers) were interviewed in four health facilities. A total of 204 (87.4%) were married. Gender respondent included (118)50 % male and (117)49 % females.
Figure 2.2 showing demographic distribution of IMCI service providers in the County

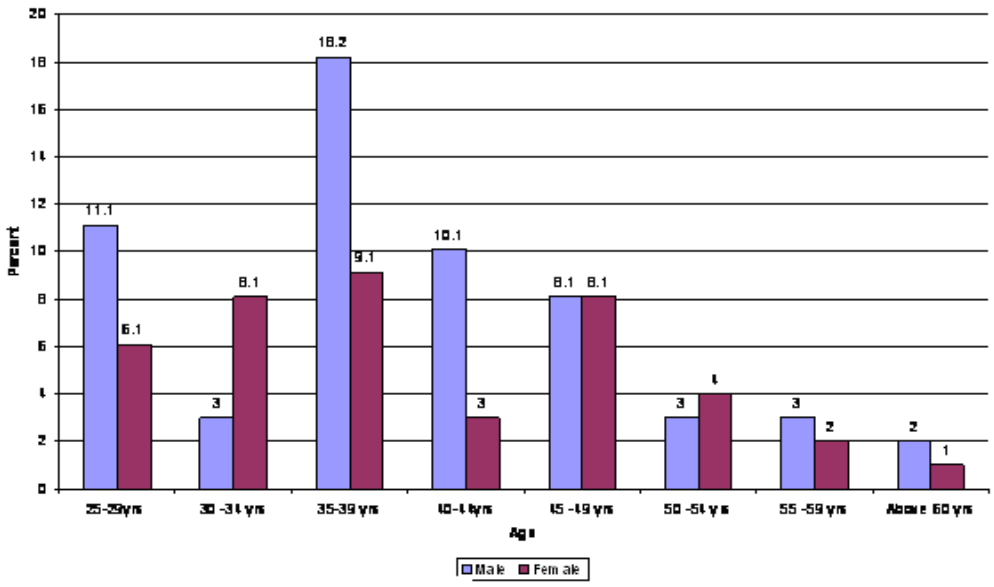


Fig: 1 Age of respondents by gender.

Service Providers Training Influence on IMCI Utilization

The study sought to establish how IMCI service providers training influences comprehensive and holistic interventions for child survival. Out of 235 respondents majority of respondents (186) 79% said that there is no

comprehensive IMCI training and follow ups despite having successive vertical program follow ups
However there exist significant relationship between vertical programs training and IMCI implementation (chi-square 32.023, df 1, P values > 0.035)

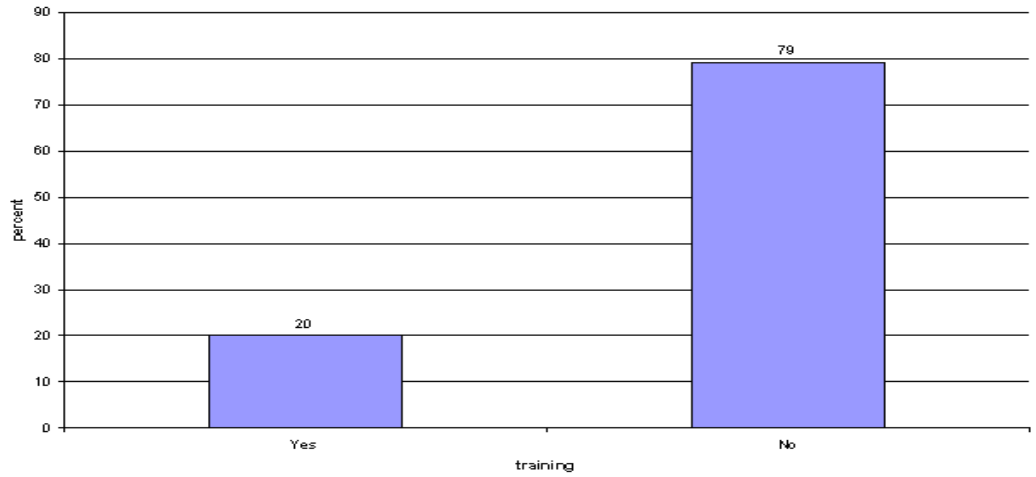


Fig :3 Follow ups after IMCI training.

Fig 3 Shows that majority of respondents (186) 79% in public health facilities in Trans Nzoia County said that there is no comprehensive IMCI training and follow ups despite having successive vertical program follow ups.

Type of Service Providers in relation to IMCI Implementation

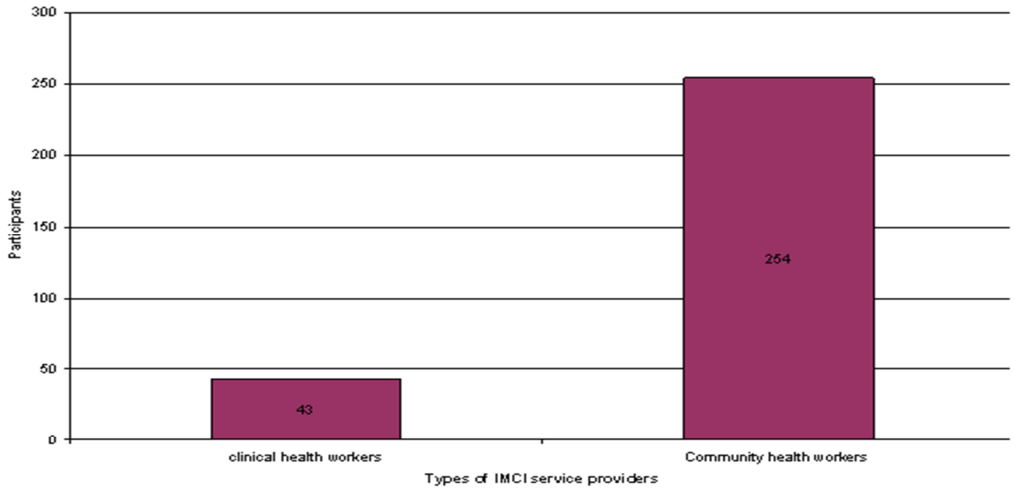


Fig:4 Types of service providers in district.

The fig. 4 above shows that the district has only 14.4 % (43) clinical service providers compared to majority (254) 86% community health workers who work under their instructions in implementing primary healthcare. There was a significance relationship between community health workers and clinical health workers (chi-square 40 .df 1 P 0.0207) .However there is no statistical significances between type of profession and implementation of IMCI, because the district still implements vertical program.

Impact of Environemental, Factors on IMCI Utilisation

The study further enquired from the respondent whether, social factors, cultural factors, economic factors and distance to the facility contributed to IMCI implementation, out of 297 respondents, Majority (238) 80% said that distance covered to the facility is not a challenge but what matters was quality of healthcare and attitudes of health workers .Further analysis revealed that social and cultural factors have significant relationship .However economic factors played key role (165) 70% in selecting on the type of facility sought healthcare. (Chi-square 34.023, df 1, P value > 0.045).

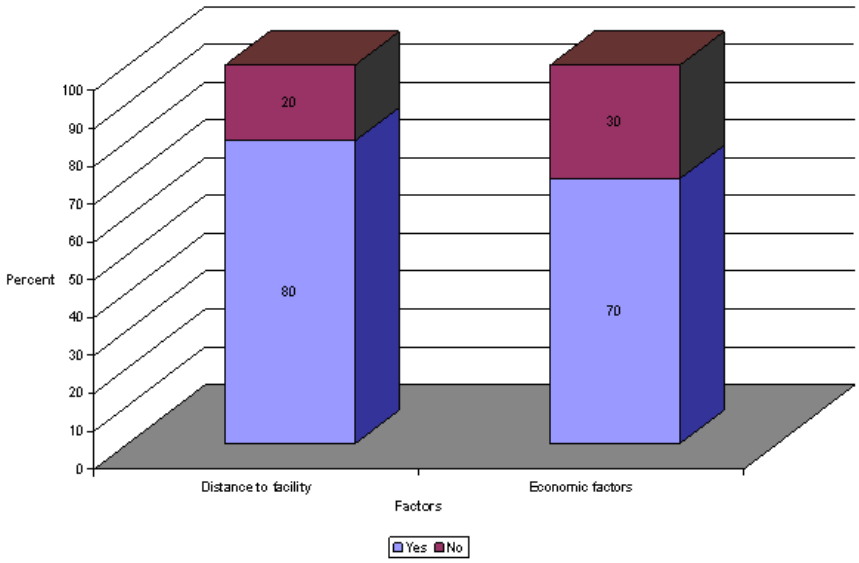


Fig: 5 Environmental factors influence on the facility to implement IMCI

"Sometime issue of cultural beliefs here in some of Cherangani community affects the health seeking behaviour of guardians with children below 60 days (2 months). Some Communities believes that infants must be exposed to the sun shine only when she /he are above two months" (KII and FGD discussant – Suwerwa facility 24th June 2010)

Knowledge, Attitude, Practices of Population Health in IMCI Application

The study sought to find out how KAP of the service providers affects the facility to implement quality IMCI program, it revealed from Majority 238(77 %) of the participants that KAP of service providers play key role in the implementation of IMCI, said "Yes."

In a further study it revealed from 267 (90%) respondents that, most facilities benefit from GOK budget allocation and Private Partnership programs to implement IMCI components in ongoing vertical programs. However there is no significant relationship between IMCI implementation and KAP since the district is at a standstill practicing single disease management of the vertical programs.

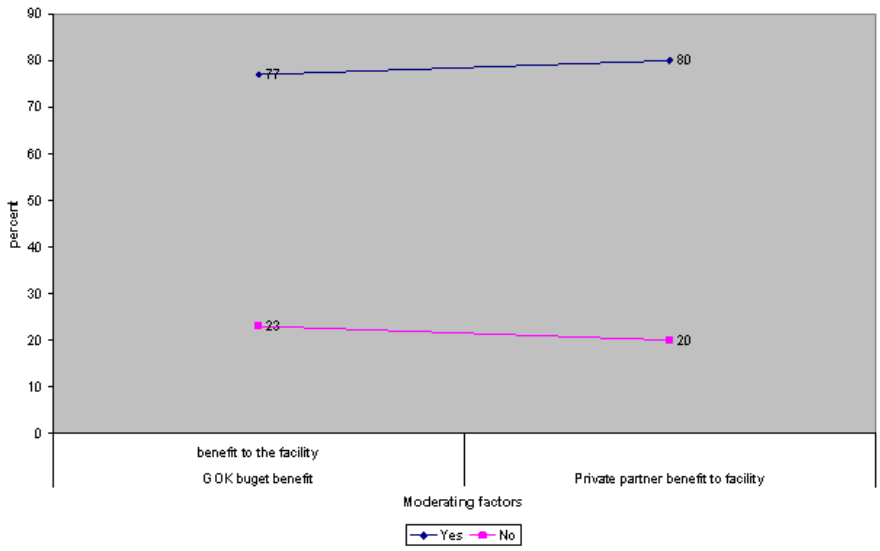


Fig: 6 Moderating factors influence facility to implement quality IMCI.

Discussion

Service providers Training Influences on Utilization.

The study revealed majority 199 (85%) of the health population comes from community health workers, CHW have limited skills and knowledge, compared to 15% clinical health workers providing IMCI concepts in Vertical program (single disease management). The observation contrary Mshinda and Mukasa (2004) from Tanzania which showed IMCI was being involved by large, number of the clinical health workers and not CHW. Though Most clinical service providers complete medical courses: pre-service or post basic IMCI training, a good number had not attended 11 days IMCI basic training .Thus need to ensure that all Medical schools to offer IMCI module on 11 day IMCI basic training in the pre-service training before they graduate.

Environmental factors Influence on Facility to Implement IMCI.

The study revealed that most environmental factors that included distance from facility, social, economic and cultural factors, influence child health care. Majority (188), 80% participants agreed on accessibility (distance) to facility was not a major challenge for the health seeking behavior care takers. From study what mostly determined health seeking behavior was location of facility offering quality child healthcare, and this is inconsistence with a study by (Wilkson, 2006), showed that health seeking behaviors was determined by distance to facility. If quality care is far away caretakers tends to look for alternative course of action for remedy basing on community's social economic factors and cultural practices (tradition healers), which is similar to MOH Uganda report (1999). The study also observed that economic status of caretakers influence majority of parents to seek child health care.

"Children from rich families in the County send their children direct to level four facilities and rarely visit level 2 or level 3 to seek for health care". "Sometime issue of cultural beliefs here in some of Cherangani community affects the health seeking behavior of caretakers with children below 60 days (2 months). Some Communities believes that infants must be exposed to the sun shine only when she /he are above two months"

Knowledge, Attitude and Practices (KAP) of Service providers influence on IMCI

Although majorities (180), 77% of Service providers are deployed to implement IMCI in the vertical programs, the study established a strong correlation in line with IMCI utilization with KAP, and is mainly determined by human resource motivation, which ignites workers morale which is consistence with study by Franco et al (2002).

Conclusion

From study majority of the facilities in western Kenya have skewed number of service providers with limited IMCI training, a large number of population health's health seeking behavior are influenced by environmental factors. Demographic factors have no association with IMCI application in the region.

From study only 14.4% of health population, in Trans Nzoia County have trained IMCI concepts. This mean that, utilization and application of IMCI concepts in the region is approximately 14% which is below standard level established (above 68%), by WHO and UNICEF, due to recurrent staff deficit and also limited resource at disposal from the region.

There is inadequate stakeholders support in implementing IMCI policies across the board this is because of patches spotted in implementing free medical service to inpatient of under fives years age. Some still imposing charges by the term Cost sharing fund.

Lastly department of Child health and Nutrition could sought out issues of environmental and proximate factors by encouraging regular community participation in Community Based education and Problem based education through need assessment of SWOT analysis to reduce conflict of interest at both household and region level.

Recommendation

GOK to partner with other private provision partners in order to innovate and improve existing infrastructure, into IMCI spatial infrastructures that compliments with comprehensive and holistic approaches for child health care, there is also need for GOK to advocate IMCI policy at community level by impressing synergistic participation at household level to empower and sustain primary prevention and achieve MDG 3.

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