



**LAUREA**  
UNIVERSITY OF APPLIED SCIENCES

*Together we are stronger*

# **A literature Review on the Impact of eHealth Policies on the Quality Health Care**

**Itohan Okunhon**  
**Master of Health Promotion**  
**Thesis, 2016**

**2016 Laurea Otaniemi**

Laurea Otaniemi  
Master's Degree Programme in Health Promotion

Itohan Okunhon

**A literature review on the Impact of eHealth Policies in Health Care: Perspective from developed and developing Countries.**

Year 2016

Pages - 45

---

**Abstract**

**Background:** It is an obvious and undisputable fact that there is high international interest in harnessing the potential of e-health possibilities in providing solutions and enhancing/ improving the quality and safety of health care at different levels. The use of digital and electronic services in everyday day living comes with varioius challenges but at the same time health management and coping mechanism for various health situations has been improving since the advent of ehealth.

Usage of various transformative eHealth innovations are progressing comprehensively, but at an exceptionally respectable constant and also at different velocity in different nations. In order to assess the impact of eHealth Policies on the quality of health care, the researcher carried out a systematic review of literatures focusing on the impact of policy change as regarding ehealth in developed and developing countries. Furthermore, outcomes from different eHealth advances on the personal satisfaction and wellbeing of clients was examined, along side with findingout the extent to which the effect of ehealth approaches has influenced those overall health framework.

Key Words: Ehealth, Policy, Quality, Telehealth, Information and Communication technology (ICT) and innovation.

## Table of Content

<b>1.0 Introduction</b>	<b>05</b>
<b>1.1 Background Of the Study</b>	<b>06</b>
<b>2.0 Literature and Theoretical framework</b>	<b>07</b>
<b>2.1 Definition of Terms</b>	<b>07</b>
<b>2.2 Ehealth Policy in developed Countries</b>	<b>07</b>
<b>2.3 Ehealth Approach to Chronic care</b>	<b>09</b>
<b>2.4 Theoretical Frameworks</b>	<b>10</b>
<b>2.5 Technological Policy innovation</b>	<b>11</b>
<b>2.6 Ehealth Policy in developing world</b>	<b>12</b>
<b>3.0 Purpose Of study</b>	<b>14</b>
<b>4.0 Methodology</b>	<b>15</b>
<b>4.1 Search Terms / data collection</b>	<b>16</b>
<b>4.2 Database search and Selection of articles:/ Data</b>	<b>17</b>
<b>4.2.1 PRISMA flow chart</b>	<b>18</b>
<b>4.2.2 Systematic Selection Process for fig 3</b>	<b>19</b>
<b>4.2.3 Systematic Selection Process for fig 4</b>	<b>20</b>
<b>4.3 Implication of the frame works / Data Analysis</b>	<b>21</b>
<b>4.3.1 Organisational innovation</b>	<b>22</b>
<b>4.3.2 Governance and Policy</b>	<b>23</b>
<b>4.3.3 Benefit of Ehealth Policy in Europe</b>	<b>24</b>
<b>4.4 The Benefits and barriers of ehealth policy in developing countries</b>	<b>26</b>
<b>5.0 Results and discussion of findings</b>	<b>28</b>
<b>5.1 How Innovative Governance promote ehealth Policy</b>	<b>31</b>
<b>5.2 Adoption of ehealth policy in meeting Users Needs</b>	<b>32</b>
<b>5.2.1 Benefit: ehealth policy re-Organised quality of service</b>	<b>33</b>
<b>5.2.2 Benefit : Patient safety and Cost Effectiveness</b>	<b>33</b>
<b>5.3 Barriers to ehealth</b>	<b>33</b>
<b>5.4 Barriers of Ehealth Policy Outcome In Africa</b>	<b>34</b>
<b>5.5 Conclusions</b>	<b>35</b>
<b>6.0 Discussion</b>	<b>37</b>
<b>6.1 Recommendations</b>	<b>37</b>
<b>6.2 Ethical Considerations</b>	<b>38</b>
<b>6.3 Reliability and Validity</b>	<b>39</b>

<b>6.4 Limitations</b> .....	<b>40</b>
------------------------------	-----------

<b>Fig 1: E-service composite Indicator</b> .....	<b>10</b>
<b>Fig 2: Scope of the analysis of ICT</b> .....	<b>11</b>
<b>Fig 3: PRISMA Flow chart on ehealth Policyand Benefit</b> .....	<b>19</b>
<b>Fig 4: PRISMA Flow chart on limitatios of ehealth Policy</b> .....	<b>20</b>
<b>Fig. 5. Innovation, governance, impact – analysis framework</b> .....	<b>27</b>
<b>Table 1. Search terms for e-Health Policy and benefit</b> .....	<b>16</b>
<b>Table 2. PICO anagram for e-Health Policy</b> .....	<b>16</b>
<b>Table 3. Database search results</b> .....	<b>17</b>
<b>Table 4 data base search Phrase results</b> .....	<b>17</b>
<b>Table 5. Inclusion and exclusion criteria for ehealth Policy search</b> .....	<b>18</b>
<b>Table 6: E-Health Policies And Roadmaps For European Union (EU)</b> .....	<b>25</b>
<b>Tab 7:Overview of the results for articles about benefits of e-Health Policy</b> .....	<b>28</b>
<b>Table 8. CASP appraisal questions and results for benefits of Ehealth</b> .....	<b>29</b>
<b>Table 9. CASP appraisal questions and results for Barriers Ehealth</b> .....	<b>30</b>
<b>Box 1: Selected features promoting technological innovation</b> .....	<b>32</b>

## 1.0 Introduction

E-health is one of the 21<sup>st</sup> century innovations in healthcare. It is an umbrella term which portrays the joined utilization of electronic correspondence and data innovation in the health /wellbeing division as well as the use of digital data transmitted, stored and recovered electronically for clinical, educational and administrative purposes, both at the local site and at distance (Vincenzo, 2001,p19). Since the inauguration of e-health, it has transformed the healthcare sector and embraced it's description by Intel as a concerted effort undertaken by leaders in health care and hi-tech industries to fully harness the benefits available through convergence of the Internet and health care (Eysenbach, 2001,p7). Ehealth or Health information technology (IT) as the case may be has the potential to improve the health of individuals and the performance of providers, yielding improved quality, cost savings, and greater engagement by patients in their own health care,(Buntin, M.B., et al 2011,p22).

The aim of this thesis is to carryout a literature review in order to find out about the Impact of eHealth Policies on the Quality of Health Care in develope dand developing countries. In the courseof this review possible links and evidences that exist btween innovation, Policy and change will also be addressed. Practical Implementations of Innovative and transformative eHealth technologies are underway globally, often at very extensive cost. Various studies have been carriedout and many are still in progress with the aim of assessng the impact of eHealth solutions on the quality and safety of health care, and to inform policy decisions on eHealth deployments, (Ashly et al,2011,p11).

In developed countries such as Europe and America the speed is higher, while the pace is believed to be slower in developing countries. Unprecedented federal effort is under way to promote and improve the adoption of electronic health policiess and enhance innovation in health care delivery in developed countries, whereas developing countries areexpected to follow suit. To accelerate the use of ehealth IT, bill and legislations and various health policies need to be addressed for possible policy change. Legislation are possibly designed innovatively to spur adoption and yield benefits from health information technology on a much broader scale than has been achieved or not yet acheived in order to achieve goals related to health care quality and efficiency.

Recent studies and literature on health information technology has to some extent been able to determine the effect of ehealth on health outcomes, quality, efficiency and provider satisfaction showed a reasonable improvement in health outcomes. This study aims at providing answers to the following research questions; What are the Impact of ehealth Policy on the Quality of Health-care?

What are the Limitations of Ehealth in developed and developing countries? To achieve this aim more literatures on the subject will be synthesized and reviewed systematically and the findings will be articulated and analyzed.

### **1.1 Background Of the Study**

Studies have shown that that technological and medical advancements are pointers to the fact about Successful innovative change management in the health care industry. The increasing and varying needs of patients as well as economic pressures all contribute to the need for health organizations to ensure change and quality improvement in all aspect and processes, (Prathibha & Kayla ,2010,23). Based on current literatures, some of the reasons or hinderances to the successful adoption of change include; fear of the unknown, financial cost, unclear or misunderstood goals etc.

It is believed that the goal of any innovative policy is to bring about positive change. Change is kown to be an essential characteristics of living things and an essential aspect of life. Taking into considration the different changes and transformation at the different ages and stages in life as well as the different seasons of the year, it is important to know that without change in any living being or situation or organistion as the case may be there is bound to be some form of stagnation and retrogression. It is important to point out that viable innovative health policies goes a long way to bring about improved health care delivery and enhance client centered care. Ehealth or health information technology can be one of the innovative success story of the 21<sup>st</sup> century. Despite the challenges being encountered at different levels, innovative ehealth policies has the ability to improve the overall health system, establishment, community and country as the case may be.

According to John k. (2007), unsuccessful change transitions usually happens during or at any of the stages in the process of change. He further outlined that the stages in the change process are, "developing a vision, communicating the vision clearly, producing a feeling of desperation, building up an effective controlling standards, expelling obstacles, making arrangements for and making transient objectives and maintaining a strategic distance from untine presentations of triumph and inserting changes in the corporate system and class.(John k., 2007, p2). The author therefore believes that "realizing that change usually takes a long time and process can improve the chances of success".

A successful change is about involving everyone and carrying them along with adequate communication and empowerment with the right tools, (Torben, 2011,p9-10). It can therefore be summarised that, a good communication, faith in the managers (leaders) as well as a good implementation plan are very important for a successful change transition built on good ehealth policy.

## **2.0 Literature and Theoretical framework**

### **2.1 Definition of Terms**

For the purpose of this review, the following terms will be defined: ehealth, policy, Quality, innovation and change.

E-health is the use of Information technology possibilities and health resources in the enhancement and promotion of health and health services, (WHO,2016).

A policy is a set of principles and guidelines formulated and enforced by the governing body of an organization to direct its actions in pursuit of long-term goals, (Business dictionary, 2016).

Quality encompasses the properties of an object as well as the capacity of these properties to achieve expected and desired goals, (Grant,1988,p8). In view of this, quality ehealth policy can imply the capacity of the elements of that care policy to achieve legitimate innovative medical and nonmedical goals. On the other hand, Innovative change is a process of social influence, which maximizes the efforts of others, towards the achievement of a goal, (Kruse 2013,p19).

Granados et al., defined health innovation as health technologies and practices supported by sound research evidence. It was also pointed out that one of the principal characteristics of a good leadership is ability to adopt good innovations,(Granados et al. 1997,p35). Change on the other hand is the application of new knowledge and experience to improve or probably replace the old. Ehealth Policy therefore aims at enhancing quality of care through innovative policies.

### **2.2 Ehealth Policy in developed Countries**

Earlier studies showed that the USA took a leap in innovative policy in order to promote and enhance the health of its populace. The president and congress of the US signed into law the HITECH (Health information Technology for economic and clinical health) policy or law as it were. The legislation established programs to guide physicians, hospitals and other key players in the health industry to enable quick adoption of electronic health programs and policies as depicted in the federal regulations, (Beeuwkes et al 2011,p9).

In a study by Lluch and Abadie, the role of ehealth care in the provision of integrated care in thirty-one experiences across eight different European countries was carried out, the countries included; Denmark, Estonia, Germany, France, Italy, Netherlands, Spain and the UK. The study looked into the ehealth experiences in these countries from three perspectives namely, diffusion of innovations, governance and impact of ehealth. The analysis found that implementation and developments of ehealth policies aimed towards the delivery of integrated care were highly welcomed, (Lluch and Abadie,2013, p4). Recent studies also shows that factors which contribute to the successful delivery of integrated care includes among others, aligned incentives, sound governance and evidence consolidation, are identified across the most successful ehealth experiences, (Lluch & Abadie,2013

p2-4). The characteristic property of the European healthcare systems are to improve health of its population and at the same time reduce healthcare expenses. Improving health status is not just about longevity but also their quality of life. The requirement for activity in this field propelled EU policy makers to arrange and organise the European Innovation Partnership (EIP) on Active and Healthy Ageing process (AHA) in February 2011. The EIP intends to increase the normal healthy life expectancy of European residents by two years by 2020.

Studies have shown that the increase in chronic health conditions today are as a result of unhealthy life style, which can also be linked to wrong choices. Hence the need for innovative health policies can not be overemphasized. It is imperative to note that Chronic conditions lead to spiraling interest for social insurance administrations with the related expenses and crumbling of patients' personal satisfaction. An unexpected pressure is said to have arisen between social insurance frameworks' objectives and the reality of Europe's ageing societies. In order to manage this tension, several countries (e.g. Australia, Canada, Denmark, England, France, Germany, Japan, Norway, the Netherlands, Spain, Sweden and the USA) have been experimenting with new models of care delivery in an effort to achieve better coordination of services across the continuum of care, (Lluch & Abadie, 2013, p2-4). In all of the afore mentioned countries, electronic healthcare has remained a main focus / in all the models.

E-health arrangement/ Policies particularly has been characterized in more grounded dialect as "a set of articulations, orders, controls, laws, and legal elucidations that direct and deal with the life cycle of e-wellbeing. E-wellbeing arrangement can be "hidden" as a portion of bigger e-government approach, or a portion of social welfare or wellbeing policy, (Mars and Scott, 2010, p3). In spite of the fact that a nation might not have obviously expressed e-health arrangement, there might be a telehealth approach, or an e-wellbeing guide or technique. Because of the multifaceted nature of cross-fringe e-wellbeing, researchers contend that it is ideal to have a layed down ehealth policy.

One study endeavored to evaluate e-wellbeing strategy, presented data from 112 of 192 WHO states on several aspects of national policy, including information policy, e-policy, and ehealth policy. Seventy-one of the responding countries (63 percent) reported having an ehealth policy in place by the end of 2005. The figures were expected to grow to ninety-five countries (85 percent) by 2008. However many significant WHO member states did not respond to the survey and might be expected to have ehealth policies and some were supposed to have already, roadmaps or strategy. Twenty-five of twenty-seven member states of the EU reported having at least an e-health roadmap by 2006; the other member states were presently strategising on e-health roadmaps, (Mars and Scott, 2010).

Moreover, there are proofs that a few countries around the globe are gradually picking up



involvement in cross-country e-wellbeing. In Latin America, six nations are occupied with cross-country ehealth cooperation. They are likewise looking at such issues as least information transmission and framework necessities to advance and convey great ehealth administrations. The requirement for synergistic ways to deal with e-wellbeing arrangement that will advance and empower worldwide e-wellbeing approach improvement is a central need.

The European Union is inspecting issues encompassing patient versatility and interoperability. These exercises is ideally going to give functional knowledge and direction, however there is still the test of a reasonable direction as every nation is as yet working and enhancing its individual ehealth issues and difficulties. As indicated by the World Health Organization (WHO), "one of the best way to deal with the execution of e-wellbeing at the national level is to have a system of vital arrangements and strategies which establish the frameworks for advancement. As per the WHO ehealth approach direction, a great and vital ehealth arrangements ought to have these accompanying attributes; secure residents, advance value, watch social and etymological issues in the internet, guarantee interoperability (the capacity of various innovation frameworks to cooperate) and take into consideration limit improvement so that all natives can get to (Mars and Scott, 2010,p5).

### **2.3 Ehealth Approach to Chronic care**

Earlier studies ascertained that, clinical integration with the incooperation of a system of electronic patient records, and best service protocols will lead to a successfull integrated care. Therefore, a large portion of the coordinated care forms require institutionalized care conveyed by multi-disciplinary groups. To guarantee coherence of the care procedure, motivating forces ought to be given to meet execution and productivity benchmarks. ( Lluch & Abadie,2013,p3-5). As indicated by different authors, coordinated care includes arranging capacities and exercises around patient care and administrations. Care is cordinated in a way that the attention is on congruity of care, infection administration, great correspondence among parental figures, and guaranteeing smooth exchange of data and the end of superfluous redundancy of tests and strategies. By and by, studies have also shown that ehelath has contributed hugely to the actualisation of the objective of Integrated Care in created nations.

Suter et al. concluded that successful delivery of integrated care typically combines appropriate ICT systems and mechanisms, strong governing policy structure and sound managerial functions with aligned incentives. It is based on the outlined points above that this research examines the impact of ehealth policies on the quality of health. The role of ehealth in the provision of quality care cannot be overemphasized, it incoperates the term telehealthcare and ICT as specific areas where ICT is

used on a widerange to promote or enhance quality of health.

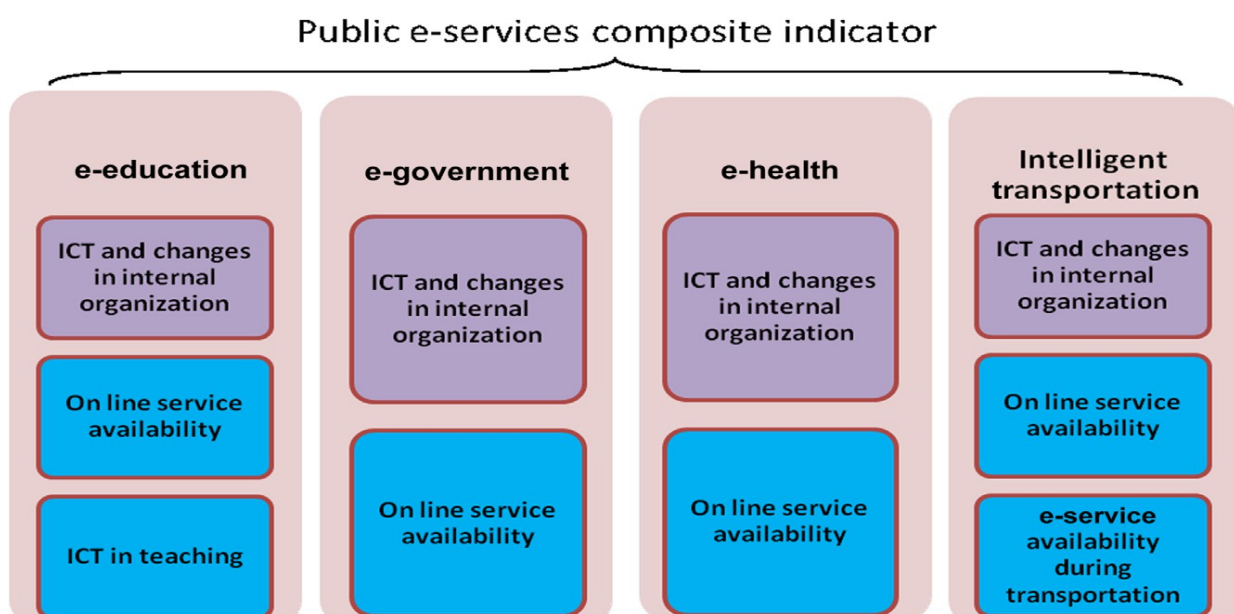
In Germany findings shows that new trends and policies contributing to the progress of integrated care can be linked to the role of ICT. The national and regional policies of Healthcare organisation make a lot of difference to how care is coordinated. Studies showed that assessing the level of ICT deployment in healthcare and investigating how ICT in general and telehealthcare in particular support the delivery of integrated care in different national or regional settings was of immerse necessity to attract policy lessons.

## 2.4 Theoretical Frameworks

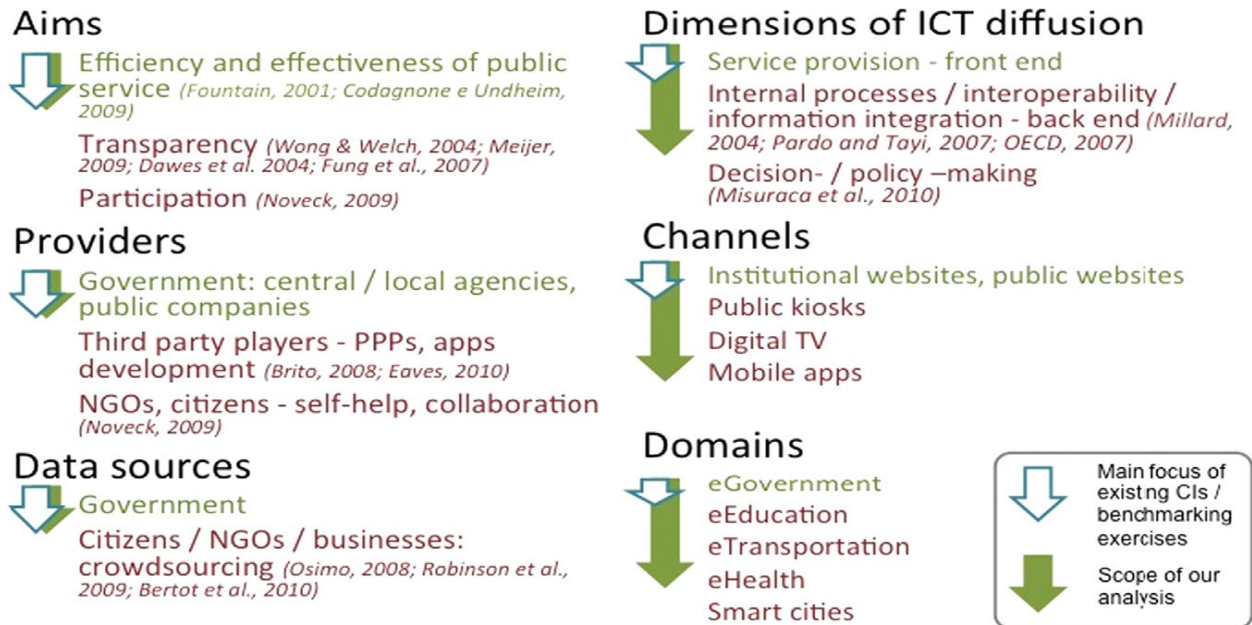
The theoretical framework supporting this study is adopted from the work by Greenhalgh et al.,which was also sited in study by Lluch & Abadie,(2010). It is a framework on the on the diffusion of innovations in health service organisations and hence it is deemed appropriate also for this study because of the elaborate component and its ability to address the most prominent issues of concern. Furthermore,the frame work helps to structure both the data collection and the subsequent analysis of the data gathered and it is pertinent to know that details on the framework are found in other studies and also relevant in this review. The framework focuses on three interrelated points: innovation, governance and impact of ehealth as illustrated in Fig. 1.

The framework helped to highlight issues around the diffusion and adoption of innovations and new approaches to care, governance and evident benefits of innovative ehealth policy in existing experiences. Government are believed to have an influence on ehealth policy adoption and impact assessment is necessary in encouraging wider adoption and implementation,(Lluch & Abadie,2013).

Fig 1: E-service composite Indicator



**Fig 2: Scope of the analysis of ICT**



Bertot et al.,2010.

## 2.5 Technological Policy innovation

In the frame work demonstrated in fig 1 and 2, every aspect of the society is incooperating ICT technologies in bringing about effective,efficient and innovative services. The various domains include goverment,health, education, transportation and many others. The sole aim is to build smarter, innovative,efficient and effective society. In order to achieve the set aims,there is need for for a collaborative effort between all the stakeholders i.e goverment, non govermentalorganisation and the end users or clients as the the case may be.

An essential aspect of a technological innovation should be characterised by its attributes of ensuring that ICT or telehealthcare meets users needs and their demands. Patients and their carers or care professionals being the main user groups. It is therefore of a necessity that patients and care managers provide input during the technology’s development. This an aspect that representes best practice in terms of triability as shown and addressed in the framework. Studies have shown that Innovations that met users’ needs were more readily adopted as were those that were user-friendly or less complex in usability, ( Lluh & Abadie,2013,p5).

In the study by Lluh & Abadie, telehealth care facilitated the collection of a wealth of data and

because of the fact that there are challenges in merging patient data into meaningful information, the Telescot research experience in Scotland and Newham in England tested software with healthcare professionals that allowed them to integrate and retrieve different data summaries.

some type of clinical agreement on what information ought to be incorporated into various levels of care and a similar activity is relied upon to address clients' issues, (Lluch& Abadie,2013).

Research further demonstrated that nations where residents have better ICT abilities like in Denmark, they have a tendency to have higher acknowledgment and appropriation of ehealthcare. Pointers such as ICT abilities and innovation use among the populace, together with social variables, ought to be considered when redesigning administrations as they can help predict patients' mentalities and conduct (Lluch & Abadie, 2013 ). In the same study, French experiences with advanced telecare showed that providing services and technologies that include communication and social link features fosters adoption by the elderly who represent a large part of the population with chronic conditions. Therefore, the above mentionpoints should be put into consideration in tailoring ehealth services around patients which is expected to facilitate a patient-centred approach of care.

In as much as patients expect to have face-to-facecommunication and care with care professionals,ehealthcare should not be a replacement of these interactions. Innovations that are compatible with the intended users values and norms are assimilated more easily. Dissemination strategies which set expectations about the service seemed to be effective but balanced mix of approaches seemed to best reap the benefits of both, engaging the users and disseminating widely.

In addition, educational and training sessions on how to use the technology were found to be a way of engaging with practitioners and managing expectations (e.g., telehealthcare should not be understood as an emergency service and routine face-to-face consultations should also be scheduled. ICT progress with healthcare needs was important, nevertheless Involvement and participation healthcare professionals and the citizens was also as important. In the UK taking advantage of patient demand to promote ICT for health deployment was well implemented and as a result interoperability was fostered through careful design of funding schemes whereby showing significant advances towards interoperability was imposed as an eligibility criterion for funding, (Lluch & Abadie, 2013,p9 ).

## **2.6 Ehealth Policy in developing world**

There is a fundamental bridge or gap between the developing and developed worlds as regarding e-health expectations and requirements. The developing world is faced with the challenge of

overcoming extreme health care worker shortages, improving rural health care and at the same time improving or perhaps implementing districtlevel ehealth information systems, (Mars and Scott, 2010,p4).

Ehealth Policy issues in the developed world identifying with information security, information quality, licensure, tolerant secrecy, and protection are of higher or significant obstacles in the developing world. The worldwide ehealth approach has the threat of not simply widening the computerized partition, but rather bringing about a fundamental"digital split"with created and creating world arrangements that may presumably be incongruent.

As stated in Mars and Scott, (2010, p4),a superior alternative is endeavor for"glocal"e-wellbeing policy tailored to the particular needs of a given territory and populace. So much stays obscure and vague in the ehealth strategy of the creating nations as approach creators confront many difficulties in the political and monetary territories. In Africa , there are not very many ehealth cexperts that can prompt African governments on e-wellbeing approach improvement suitable for the mainland. 38 Politicians in the developing countries must consider between allocating sparse budgets to e-health and its infrastructure or to potable water, medicines, medical equipment, or health staff salaries, (Mars and Scott,2010) .

Setting up an e-wellbeing approach in the developing world is probably going to be locally engaged. By and by, what numerous African, Asian, and Latin American nations require as of now is globally upheld ehealth arrangement to help with defeating the deficiency of human services experts, and also practical region wellbeing data frameworks that give precise, opportune, and shared wellbeing information to wellbeing directors and planners, (Mars and Scott,2010).

A mix of the term "global"and"local"provides update that what happens locally has worldwide effect, and what happens all around has neighborhood affect. It is critical to regard neighborhood points of view and customs on health and wellbeing, especially in developing nations. Based to the reality that the developing world is estimated at roughly 80 percent of the worldwide populace, a nearby point of view is basic to create worldwide e-wellbeing arrangement that will guarantee fair reception and execution of e-wellbeing, (Mars and Scott,2010) .

As noted by Inge Kaul and Michael Faust:The most ideal approach to guarantee one's own prosperity is to be worried about that of others. Hence,policy makers should attempt and understand the whole range of cross-boarder e-wellbeing approach issues, their elatedness, and their potential outcomes as it influences developing and developed world. Likewise it is essential to apply procedure or system tending to wide e-wellbeing arrangement advancement needs at a worldwide level..

### **3.0 Purpose Of study**

The purpose of this study is to review and evaluate different studies and literatures on ehealth Policies and how change in health policy has been used to promote health and quality of care. The goal is to review how ehealth tools are being implemented and embraced innovatively in developing and developed countries healthcare system.

The study question are:

- What are the benefits of ehealth Policy on the Quality of Health-care?
- What are the limitaions affecting ehealth implimentation in Developing Countries?

#### **4.0 Methodology and Discussion of Findings and Results**

The methodological approach utilized to handle the information in this review is systemic literature review, furthermore, a qualitative research strategy was employed. A systematic literature review is the utilization of articles that are as of now existing to process information, it is completed by figuring subjects and come to a results that possess shared opinion to legitimate and dependable proof based facts for policy making and practice (Neale 2009, p51). According to Fink (2005, p.3 ) an efficient writing survey is an express, extensive and reproducible strategy for recognizing, assessing and blending the current literatures of finished and recorded work created by scientists, researchers, and specialists. In this review, an auditing of previous reviews on e-Health arrangement and advantage of ICT was carried out. A precise audit strategy was vital with regards to this review on the grounds that it aims to discover however much as could reasonably be expected of the examination significant to the exploration inquiries, and utilize of express strategies to distinguish what can dependably be said on the premise of these reviews.

Wallis (2011,14) expressed that ehealth is worried with advancing the wellbeing and prosperity of people, families and groups, and enhancing proficient practice using data administration and correspondence innovation (ICT). This mechanical coordinated effort empowers information to be shared as at no other time among social insurance specialists: giving necessary assistance to clinician to have the capacity to share and trade data to enhance quiet security and enhance benefit effectiveness (Wallis 2011,14). Literature was searched through the Laurea Finna online databases, Ebrary, google scholar and other licenced academic databases. Key words for the search were based on the PICO method for qualitative where P stands for patients/ population(study population), I for intervention (ehealth policy intervention), C for comparism, O for outcome, (Cochrane Library Tutorial. 2012). Key words were e-Health Policy, Quality of health and benefits of ehealth policy.

Due to the comprehensive search strategy which was carried out, a large volume of data were found. In order to avoid unnecessary repetition and too much of unneeded information, only certain relevant part of every article is considered along side with main literature reviewed in this study. According to Walliman (2001), it is insisted that each examination work contributes just a partial part of a greater collection of information. Thus, this review made utilization of precise writing as an audit apparatus. A well ordered approach was received in the process, for example, thought of late reviews composed by researchers and the shirking of articles without full messages. Besides, a blend of the outcome from every one of the information found was done by the the scientist and screened altogether under dependability and legitimacy methodological process and a conclusion

was made in accordance with giving responses to the exploration questions.

#### 4.1 Search Terms/ Data Collection

A general search was led in Laurea Finna databases of Laurea University of Applied Sciences in February, April and October 2015 separately. Three pursuits were conveyed utilizing seek terms eHealth policy arrangement, advantages of e-Health and nature of Health. Indexed lists were limited from 2000 until present days. Toward the beginning of the inquiry, finished content yielded extensive measure of material which secured points past the scope of this theory work.

The inquiry question was framed using the Population, Intervention, Comparison, Outcomes (PICO) strategy. The strategy is a technique to define a decent research and was produced in Oxford. The strategy condenses remains for Population - Intervention – Comparison -Outcomes. The PICO strategy is a valuable intends to partition a question into searchable segments. These parts are sought independently and later joined. (Faridi van Etten et al 2009, 95). In this review the question was figured utilizing the PEO re-arranged word. Furthermore, table 1 & 2 demonstrates how the inquiry was made and arranged. Writing inquiry was done in Laure Finna databse on February(02), (21), April(6) 2015 separately utilizing open finished terms Ehealth Policy, Impact of ehealth strategy. Seeks were made randomly on a general level and after that later confined by dates from 2008 – 2015.

Table 3 demonstrates the inquiry stream. Literature search was carried out in Laure Finna databse on February (02), (21), April(6) 2015 respectively using open ended terms such as: Ehealth Policy, Impact of ehealth policy. Searches were made randomly on a general level and then later restricted by dates from 2008 – 2015. Table 3 demonstrates the inquiry stream. The expressions for the procedure were defined utilizing the PICO chart for subjective research (Cochrane Library Tutorial, 2012).

**Table 1. Search terms for e-Health Policy and benefit**

<b>Population</b>	<b>Exposure</b>	<b>Outcome</b>
1 Ehealth Policy	4 Benefit of Ehealth	6 Quality of healthcare
2 Developing country	5 Problems of ehealth	
3Developed country	7 combine 1 & 2,1& 3, 1&4, 1&6, 5, 4 & 2 using and	



**Table 2. PICO anagram for e-Health Policy**

<b>Population</b>	<b>Intervention</b>	<b>Comparism</b>	<b>Outcomes</b>
1 Developed countries	3 eHealth Policy	4 Impact	5 Quality of healthcare
2 Developing Countries			
Combine 4,3 and 1. combine 4,3 and 2.then 4, 3 and 5			

#### **4.2 Database search and Selection of articles: / Data**

Step 1 recognized all content utilizing the inquiry term ehealth as the principle target populace of the examination, and "general review" to assemble more data about the mainsubject. Step 2 scanned for the expression "ehealth Policy" as the fundamental issue correlated to this review. Step 3 sought the terms "Impact and quality" as a way to get general information on the principle subject within reach and target gathering of the examination. Step3 additionally joined terms 1, 2, 3 and 4 with the adjoining word AND, as well as included the open finished word "Effect/quality"as a portion of search to arrive at the result. Results are shown in Table 3, information based on query items.

Laurea Finna database search returned 31 articles for the pursuit term e-Health, no article was found for the e-Health strategy, while effect and nature of ehealth hunt created 413. The same search term was used in Ebrary database and yielded over 400 articles with 37 included e-Health. Furthermore, a third search with similar terms was carried out in googlescholar and it returned over 3,000 articles. Delibrate exlusion of irrelevances was carried out by the researcher in order to arrive at a managable data in other not to go beyond the range and capacity of this research. The Table 3 and 4 beneath demonstrates the of list items.

**Table 3. Database search results**

<b>Database</b>	<b>Date of search</b>	<b>Number of Search results</b>	<b>Number of duplicates</b>	<b>Number of articles qualified by primary inclusion criteria</b>	<b>Number of articles qualified by secondary inclusion criteria</b>	<b>Number of full content/ substantial articles available</b>
<b>Finna (2000-2015)</b>	02.02.15	1027	104	56	24	8
<b>Ebrary (2000-2015)</b>	21.02.16	940	92	30	17	8
<b>Googlescholar 2000-2015</b>	06.04.15	1476	209	72	58	15

**Table 4: Data base search Phrase results.**

Seach Phrase	Laurea.Finna	Ebrary	Google shcolar	
ehealth	31	176	3390	
Ehealth Policy	0	183	39	
Impact of ehealth and Quality of health	145	220	174	
Ehealth and developing countries	729	185	37	
Ehealth and developed country	122	385	14	

**Table 5. Consideration and prohibition criteria for ehealth Policy Search**

<b>Consideration Criteria</b>	<b>Prohibition Criteria</b>
I. Scholastic /academic journal II. Reference acessibility III. Full Content/ text IV. Literatures published between 2005 – 2015 V. Most recent articles were favored, release earlier than or on year 2015 VI. Subjective and quantitative VII. Literatures corresponding to research question VIII. Must be extracted from authorized academic data pages II. Literatures’ objective must be related with the objective of this study III. Articles with full texts and abstract  IV. Qualitative and quantitative research articles.	I. Title II. Abstract III. Discussion IV. Articles of e-Health benefit in other domains than health care. V. Articles not from scholarstic or accademic databases VI. Articles with advantages and disadvantages of e-Health VII. Articles with publication year underneath 2005

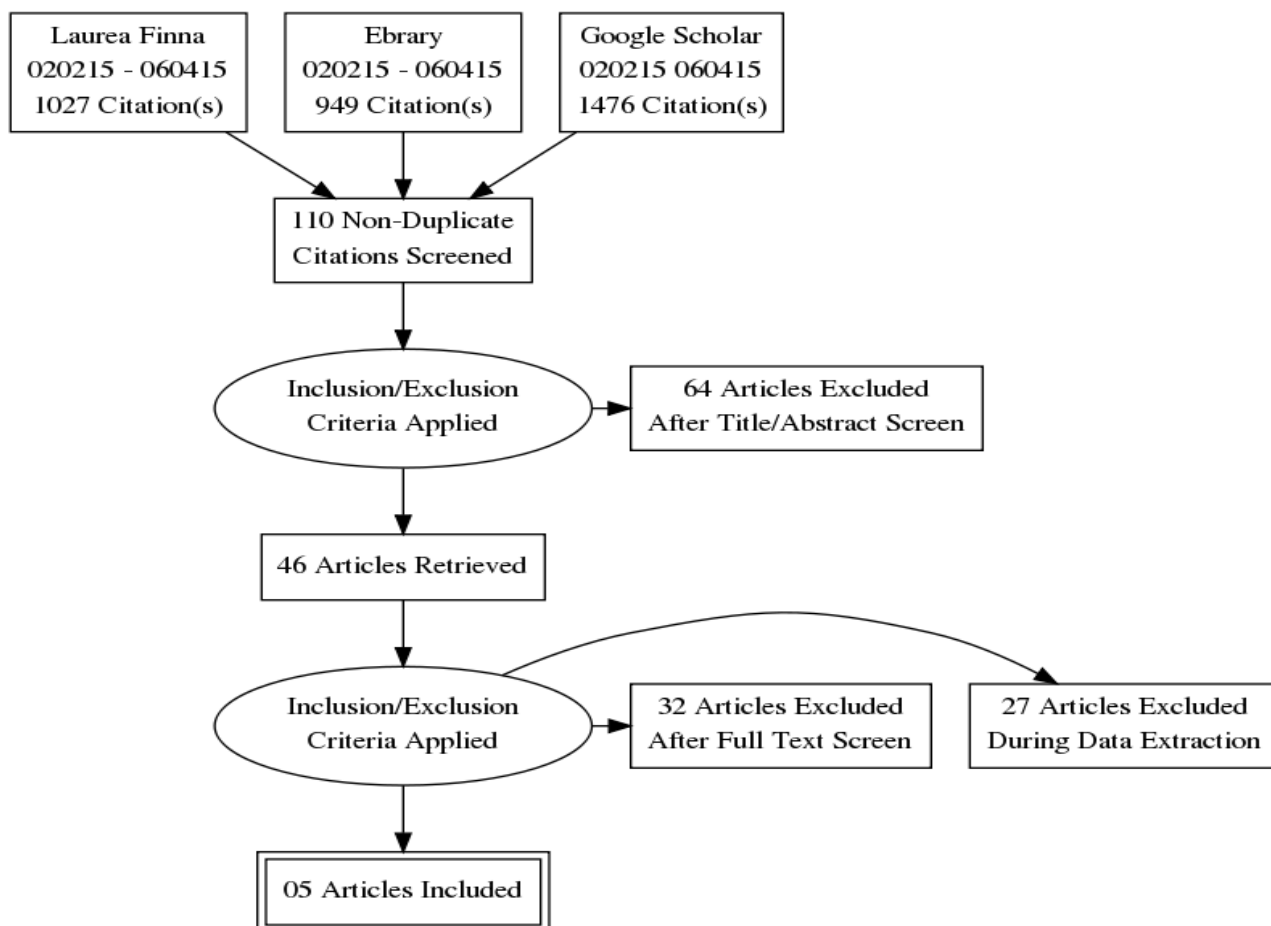
#### 4.2.1 PRISMA stream chart

In the scan for the ehealth Policy, there were 222 articles found. In request to locate the most pertinent and valuable articles for this survey there were essential and optional incorporation criteria. The restriction of years and titles that were identified with the article look were 54.

At that point the auxiliary consideration criteria were that articles that were subjective and quantitative, most recent released articles and dynamic, as well as accessible and contain applicable data as indicated by the exploration address. Subsequent to applying these criteria 12 articles were cleared out. The last perspective was to control which of these articles had the choice of full content accessible and available. In the wake of watching that point, just 5 articles were left which can answer the exploration address.

As indicated by Aveyard (2010, 71) scientist needs to build up a technique for overseeing writing to empower speedy recognition of literatures identifies with research address. This strategy was used in finding important materials. The titles and edited compositions of the inquiry were screened in two phases as clarified in the PRISMA stream diagram in Figure 3 and 4.

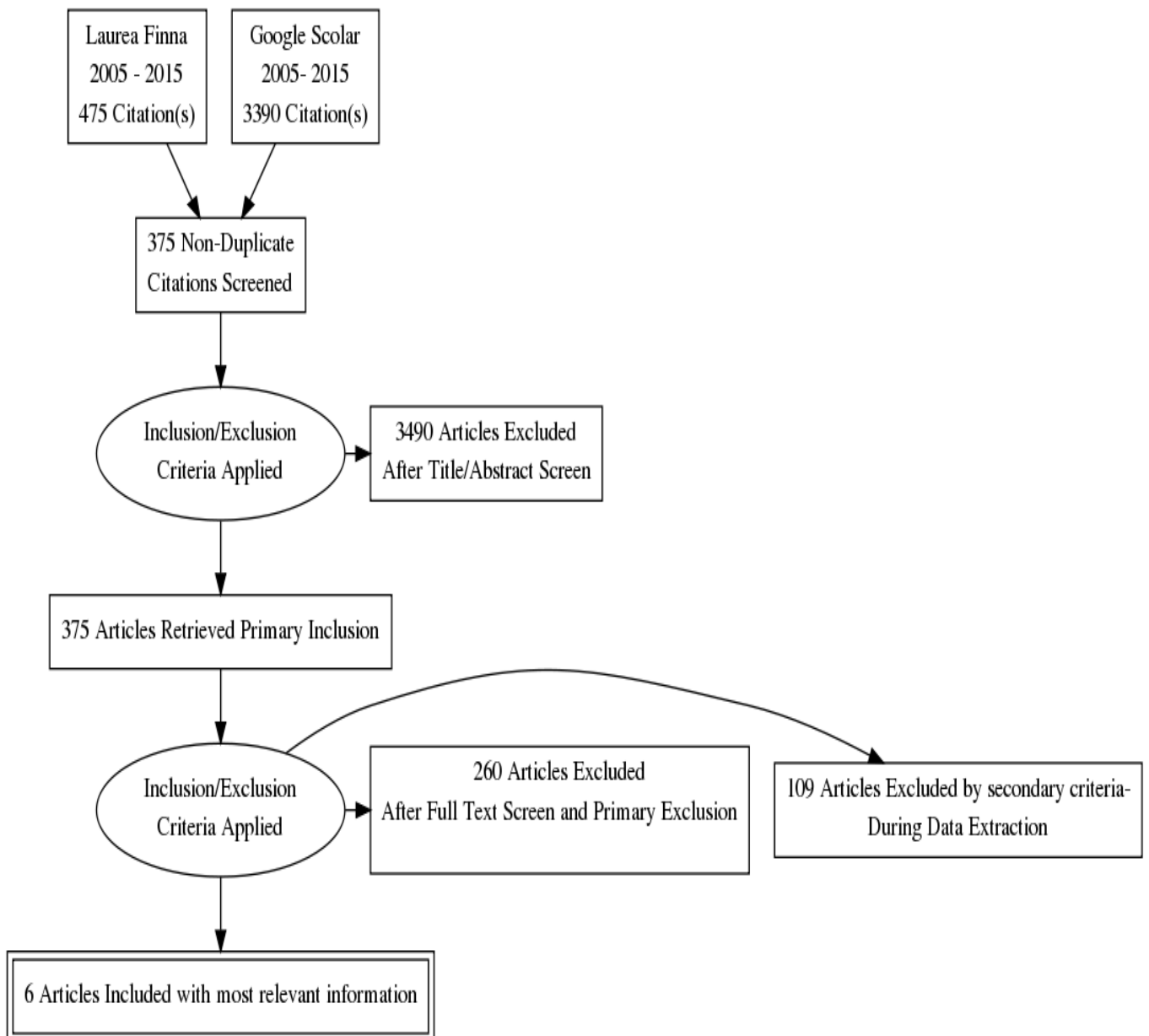
**Figure 3. PRISMA Flow chart on ehealth Policy and Benefit ( Welson Ryan,2015)**



#### **4.2.2 Systematic Selection Process for ehealth Policy and benefits (fig 3)**

Based on the systematic selection, 110 articles were found after limiting to the right year and the duplicates were excluded. The duplicate were 54. At googlescholar 78 articles were found but 41 duplicates were also contained in that search. After removing all the duplicates a total amount of 110 articles were then screened by title and abstract in a 2 step progress. The figure 3 above of the Prisma flow chart gives a clear overview of selected and exclusion process. At the first step process, it was screened that the articles would be in English and that the title of the article would fit or provide solution and answer to the research question. In total 46 articles where selected while 64 were excluded because they didn't fulfill inclusion criteria. The abstract of those 46 articles which were left were then screen through If they contained information which was relevant to help answer the research question. Out of 46 articles there were 14 which got selected and 32 were excluded. The selected 14 were again carefully reviewed so that articles would have to deal with e-Health policies in developed and developing countries. Eventually 5 literatures fitted into the autonomy and scope of the topic in order to concentrate on the subject issue and target population.

**Fig 4: PRISMA Flow chart on limitations of ehealth Policy**



#### **4.2.3 Systematic Selection Process for Limitations of ehealth Policy (fig 4)**

The first round of screening in fig 4 diminished the articles found in Finna, Ebrary and GoogleScholar to 375 articles. The second criteria for screening concerned the examination content and whether it was probably going to contain data related to the exploration address and in the mean time give sufficient answers. The qualification/incorporation criteria depended on the PICO seek re-arranged word that the outcomes was probably going to report the subtle elements of the inquiry

words and how they were interrelated so as to give the answers expected to the examination address. Optional consideration criteria incorporated those articles containing the advantages and obstructions of e-Health in developed and developing nations. At each purpose of applying the incorporation and avoidance criteria, it was vital to focus on the subject issue, target populace and the research question. Figure 4 above gives a reasonable review how the screening was completed deliberately.

### **4.3 Implication of the frame works and Data Analysis**

Implication of the data inquiry and analysis on the related point including and summing up every new data with old ones to achieve a more dependable and approved outcome. At last a mix of the outcome from every one of the information found was finished by the scientists and screened altogether under dependability and legitimacy methodological process and a last conclusion was made after discourses which included responses to the exploration questions and the fate of e-Health in general health care.

The examination technique used to audit and select articles was orderly writing survey. Methodical audit strategy was imperative with regards to this review since it intends to find however much as could reasonably be expected of the exploration important to the research inquiries, and utilize unequivocal strategies to recognize what can dependably be said on the premise of these reviews.

Deliberate audits recover, examined and outlines all the accessible proof on a particular wellbeing question. They are intended to decrease the effect of the analysts' own inclination, and a full convention ought to be composed to characterize and direct the procedure. The means of the survey is to outline the question and pick fitting strategies to distinguish applicable work; separate pertinent information on results and quality; summarise the confirmation and translate the proof, (White and Schmidt 2005, 54).

Taking a clearer view at the fate of e-Health, Kaufman (2012) expressed that to the extent e-Health is concerned, the need is to accomplish a superior social insurance result is fast approaching. Because of the way that reasonable cell phones are currently accessible crosswise over financial, sexual orientation, and age groups, there is expanded request and openness of teleMedicine. Previous studies shows that Funding and policy measures have so much influence in the decision to adopt an ehealth innovation. Governance approaches also have an impact on implementation and successful routine service delivery. Although there are many approaches available but governance models are known to facilitate the promotion and harmonisation of interoperability and service quality standards. Approaches that followed or relied on centrally driven and controlled formal dissemination programmes and potentially fail to engage with practitioners and other stakeholders

can result in reluctance to adopt these technologies. Middle-out governance approaches were identified in Scotland, Spanish regions and Denmark.

Enhancing factors in this process of acceptance or adoption includes the existence of basic legislation and strategic support from all main players (e.g., local governments, regional Health IT organisations and national eHealth authorities). Funding support programmes and incentives for telemedicine helped to bring down barriers and speed up telehealthcare development further. Other accompanying policies such as reforms emphasising patient self-management also contributed to widespread deployment of telehealthcare. Integrative organisational structures linking provider organisations through common management and governance structures and explicit shared values and goals

catalysed the diffusion of these innovations among member organisations. In contrast, bottom-up approaches which seemed to be more common in social insurance systems (i.e., Germany and the Netherlands) needed additional government steering and intervention to avoid market failure. (Lluch & Abadie, 2013 p8)

#### **4.3.1 Organisational innovation**

Organisational innovation implies improving and enhancing service and process. innovation. In a patient-centred care, continuity and coordination of care are essential in ensuring and promoting integrated care. It is a known fact that ICT and telehealth applications enhances services. In addition ICT and telehealth provide a means to deliver integrated care as well as supporting a re-organised service delivery where different tiers of care cooperate, (Lluch & Abadie, 2013 p11 ). In order to ensure good communication and smooth transfer of information among caregivers an innovative ehealth policy must be well applied. Hence encapsulated in the definition of integrated care which implied; Cooperation across tiers of care was identified in the study by Romagna, 2000 p44. Although the role of ehealth in managing in managing chronic diseases has been identified in various studies. And nurses nurses have been found to gain prominent role in telehealthcare services due totheir innovative ability to make clinical decisions with little need for physician input. In essential and primary care encounters, absence of GP contribution likewise turned out to be a noteworthy hindrance to development dispersion and coordinated care conveyance. Three fundamental explanations behind this resistance were distinguished: absence of proper motivations; the risk that telehealthcare stances to the specialist understanding relationship and obligation issues, all connected with administration or overseeing arrangement.

In some ehealthcare cases, further evidence of innovation are needed in the introduction, development and refinement of ehealth tools which, are already part of many chronic care models, these tools will help in assessing the impact of telehealthcare technologies by type of patient and

severity of condition,(Lluch & Abadie, 2013 p13).

Encounters drawn from utilizing telehealthcare applications are regularly used to change and improve the models behind these devices. In this manner, ehealth approach producer need to investigate and consider amongst telehealthcare and hazard stratification devices and commonly fortified their individual focal points.

#### **4.3.2 Governance and Policy**

Based on literature reviewed, Governance and policy have been found to have so much influence in determining the adoption of a particular innovation. According to Lluch & Abadie, government mandates represent a policy push in the early stages of implementation of an innovative initiative and most crucially by making available needed funding In experiences from Denmark, Italy and Catalonia, initial funding was earmarked for both developing evidence and best practice protocols and for mainstreaming cooperation between tiers of care. In the Netherlands, ehealthcare deployment was limited. These funding schemes recognised the role of industry in making technologies more intuitive, user-friendly. In this regard, French funding mechanisms made cooperation with industry a criterion for eligibility, hence industry-funded telehealthcare initiatives in France showed conclusive evidence leading to later cooperation with regional and local authorities, (Lluch & Abadie, 2013,p8).

Ehealth policies are expected to be living records that change after some time. Issues under dynamic arrangement level examination will change as obligations are moved from strategy creators to the individuals who execute the approaches to new issues that will definitely develop and will also be addressed. In light of the literature works checked on, it was found that in thirteen European nations the main health arrangement creators contrast from the individuals who set e-wellbeing strategy. For e-wellbeing arrangement, various services or potentially national partners are included in strategy planning. The most basic points of EU part states e-health strategies and guides are recorded in fig3. Strategy target regions change crosswise over nations what's more, this in a way is mirroring the diverse levels of development in e-wellbeing arrangement and movement in the distinctive nations, (Mars M.and Scott R. 2010,p6).

As indicated by the World Health Organisation, "the most favorable way to deal with the usage of e-wellbeing at the national level is to have a system of vital arrangements and strategies which establish the frameworks for improvement."

Twelve Strategic arrangements and strategies that are required to secure residents, promote equity, watch social and etymological issues in the internet, guarantee interoperability (the capacity of various innovation frameworks to cooperate), and consider limit advancement so that all nationals can get to ehealth arrangements, (Mars M.and Scott R. 2010,p6).



Therefore, there is a serious need for a collaborative approach to e-health policy that will enable global e-health through the development of a “global” e-health policy development process. Information on country-level e-health policies and strategies should be made readily available. Because of the way that Policy can be very indistinct and huge, it can be characterized as a guideline, or an arrangement of activity, or only a line of contention to legitimize a game-plan or thought to be any related strategy, program, roadmap, national activity arrangement and so on. E-wellbeing strategy particularly has been characterized in more grounded dialect as "a set of proclamations, orders, controls, laws, and legal translations that direct and deal with the life cycle of e-wellbeing." E-wellbeing strategy can be "hidden" as part of bigger e-government approach, or some portion of social welfare or wellbeing arrangement, or it can be called by another name. So despite the fact that a nation might not have unmistakably expressed e-wellbeing approach, there might be a telemedicine or telehealth arrangement, or an e-wellbeing guide or technique (Mars and Scott 2010, p5)

#### **4.3.3 Benefit of Ehealth Policy in Europe**

Studies reviewed had evidence that ehealth innovation are more likely to succeed when there is evidence of its benefits. Evidence-based study also showed that Sustainable and smart policy will need to facilitate ehealth activity regardless of national or regional boundaries. The practical nature and way of e-health and telemedicine at national and worldwide level empowers it to rise above geopolitical obstructions. Generally, policies which decide the rate and bearing of improvement of social insurance activities are expected to manage the procedure of adoption, at local, national and worldwide levels.

Right now, with couple of exemptions, e-wellbeing related arrangement choices are being made by individual expert associations, wellbeing organizations, areas/territories/states, and nations, to a great extent in seclusion from one another, (Lluch and Abadie, 2013, p9). This is of concern, on the grounds that improper arrangement in any single locale may hamper or even cripple the capacity of e-wellbeing to satisfy its worldwide potential, ((Lluch and Abadie, 2013, p9 ). With each confirmations accessible, it can be ascertained that, new administration conveyance models and new capacities are made by ICT. Henceforth, new acquiring models for these administrations as the “bundled payment” model in the Netherlands may represent a good starting point.

The high ICT literacy of the Danish population was identified as a driver for healthcare professionals to adopt ICT for health. In addition to funding and policy measures influencing the decision to adopt an innovation, governance approaches also have an impact on successful routine service delivery. Furthermore, the governance models were known to facilitate the promotion and harmonisation of interoperability and service quality standards.

The successful delivery of integrated care is a sound governance structure with the involvement of all stakeholders. Indeed, cooperation with the industry to develop solutions that suit users and service needs while promoting adoption was identified as a strength. Nevertheless, ehealthcare solutions need to be shaped in line with clinical protocols which represented an enhancer for adoption and deployment.

Also from a governance perspective an integrated governance model was seen as representing a strong catalyser for telehealthcare adoption and deployment. This is also likely to be valid for ICT in general. For example, the eCare network (Italy) is an integrated governance structure where the stakeholders were involved in the decision-making process and those governance models that engaged with all stakeholders proved to be successful, (Lluch & Abadie, 2013, p6). .

Factors which contribute to the successful delivery of integrated care, such as aligned incentives, sound governance and evidence consolidation, were identified across the most successful experiences. Although the decision to mainstream telehealthcare will remain a value judgement, the analysis of best practices across experiences allowed us to identify factors which could enable decision makers to assess both the state of maturity of the health and social care environments and their readiness to scale up. A holistic view of public-services Building on the empirical literature we have briefly reviewed. Design measures of public-service development and construct to synthesize available information in a way that should overcome the limitations of previous contributions on will be examined in the case of e-education and Intelligent Transport Systems, (L. Reggi et al., 2000).

Presently, e-wellbeing strategy improvement is unequivocally formed by neighborhood wellbeing, social welfare, and broadcast communications needs; various services and partners; and individual nation authoritative association (for instance, government, local, or decentralized control).

Strategy may likewise be driven by an administration's have to give an empowering domain to e-wellbeing through particular activities, for example, financing, enactment, or extraordinary projects. In a few nations, industry bunches, norms associations, or even scholastic establishments and wellbeing specialist organizations may start e-wellbeing exercises. (Mars M. and Scott R. 2010, p7)

**Table 6: E-Health Policies And Roadmaps For European Union (EU)**

<b>E-health aim</b>	No. of EU member states with aim
Improving efficiency and quality of care in health system performance	11
Health care system reform	10
Citizen-oriented, patient-centered health care	10
Quality of care	10
Better data for system management	9
Better communication between stakeholders	7
Efficiency	7
Access to care	7
Promoting quality of life	7
Improving economy via e-health technology	6

Hamalainen P, Doupi P, Hypponen H. The European e-health policy and deployment situation e-health ERA project. Helsinki: Stakes; 2008.(in Mars M.and Scott R. 2010, p65 )

#### **4. 4 The Benefits and barriers of ehealth policy in developing countries.**

E-wellbeing is the utilization of data and correspondence innovation in different regions in the ehealth division. Ehealth shows an example of conceivable outcomes and flexibility to work in an undefined or interjurisdictional environment,(Mars M.and Scott R. 2010, p6). In spite of the way that there are sure results of e-wellbeing in created nations such as, improvements in quality and better access of all natives to care and shirking of pointless cost to general society fund. There is so much guarantee that e-wellbeing can offer to change wellbeing frameworks in developing countries. E-wellbeing writing affirms that many developing nations are putting resources into e-wellbeing to enhance medical services as a rule through enhanced correspondence between different wellbeing establishments helping with requesting and overseeing pharmaceuticals, observing and identify illnesses and enhancing data collection and quality with the utilization of versatile devices, (Willings B,2010, p38).

In any case, reality has yet to satisfy desires in the developing countries, strategy creators confront basic difficulties as they endeavor to create undefined borders of e-wellbeing approach amidst contending requests on assess and assets. This dangers additionally expands the "digital divide" the long standing gap between those with and without access to electronic data and correspondence. In sub-Saharan Africa for instance, existing local wellbeing strategy documents neglect to try and say e-wellbeing, telehealth, or telemedicine. Other besetting problems that need to be addressed Are;

deficiencies of medicinal services suppliers, more prominent weight of infection, absence of training opportunity doors for social insurance suppliers and others health workers, inadequately planned ailment observation, and absence of trustworthiness in reported data, (Mars M.and Scott R. 2010,p54). It is important to know that many of the problems affecting the developing world can and could be addressed through e-health policy applications and innovative leaders with the right visions and goals.

In the outcome examination, three subtitles and topics were framed to lessen the quantity of articles in the category. Subjects were Governance, Innovation and User needs too as Impact and Cost Effectiveness. The model is made out of 11 categories/areas as appeared in Figure 5.

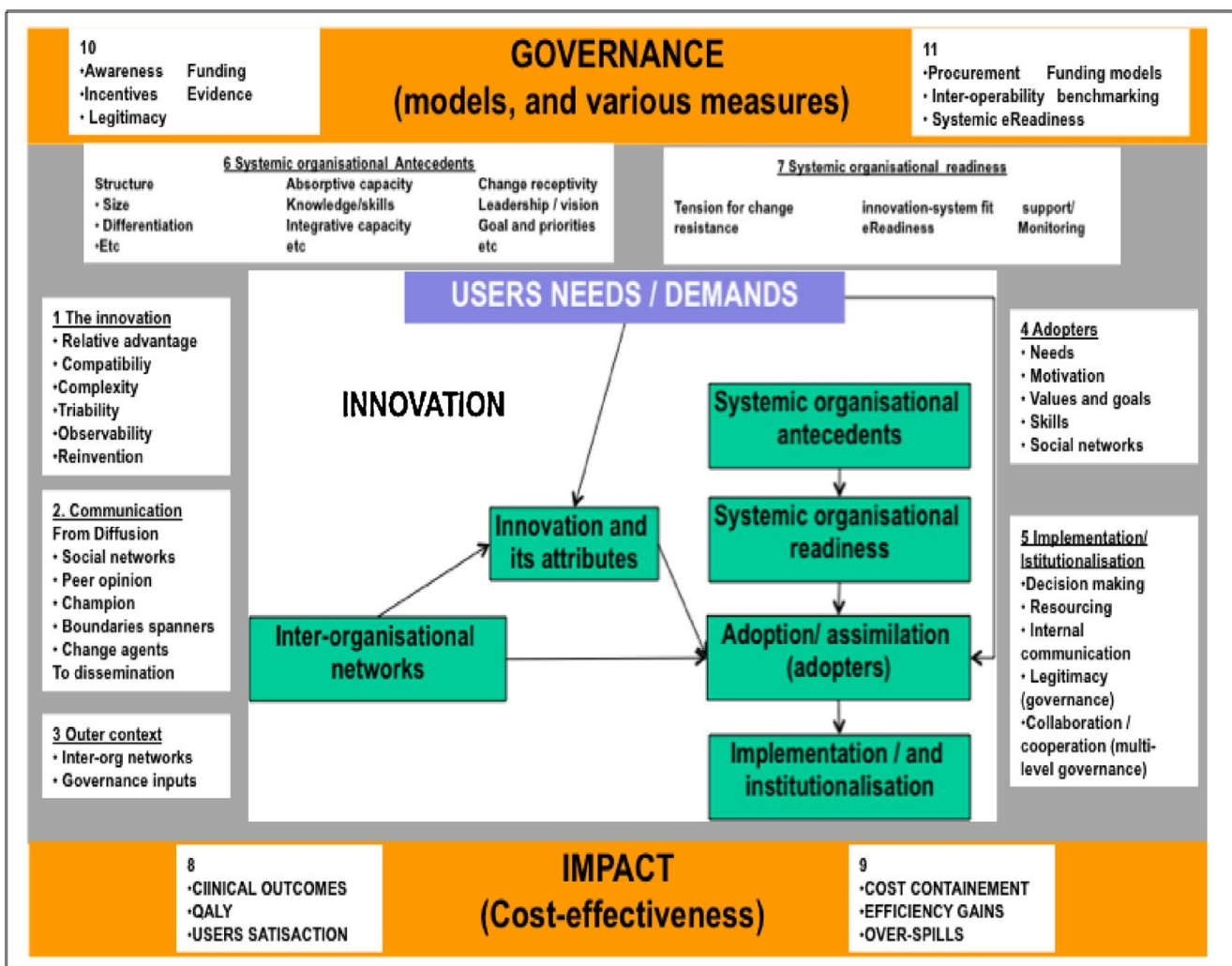


Fig. 5 Innovation, governance, impact – analysis framework.

Source: Greenhalgh et al, 2005,p47

## 5.0 Results and discussion of findings

A huge amount of articles / writings were accessed for this exploration yet taking after an audit procedure and preparatory investigation they were then lessened to 5 liters with the most applicable responses to the question being address. It is imperative to call attention to that in this sytematic writing survey, at whatever point information is specified for this situation it perpetually indicates the articles looked into. In the five articles, issues identifying with advantages of e-Health in creating and developing nations were looked into. Datas for the research were put into preliminary analysis and are summarized in Table 7.

In reviewing the barriers of e-Health, 6 data got selected and were screened through efficiently and had important data for noting the exploration address. Primary data about the articles will be given in the Table 8 underneath. In addition, comes findings about eHeath strategies and advantage on nature of care, pertinent information were likewise accessible withinn the five literatures. The Table 7 underneath abridges the outcomes.

**Tab 7:Overview of the results for articles about benefits of e-Health Policy**

Author	Year	Title	Aim of Study	Methods	Samp le	Results & Conclusion.
Beeuwkes M.et al	2011	The advantages of Health Information Technology: Analysis of The Recent Literature Shows Predominantly Positive Results	Effect of health information technology on outcomes such as quality, efficiency, and provider satisfaction.	Literature Review	n=154	Health information technology was associated with improvement in one or more aspects of care
Lluch, M. & Abadie, F.	2013	Exploring the role of ICT in the provision of integrated care—Evidence from eight countries	Role of Telehealth inthe Provision of Integrated care	Literature Review	N= 8	Telehealthcare developments were strongly in line with developments towards the delivery of integrated care.
Ersher- Kohle, A. et al	2012	Evaluating the Barriers to Point-of-care documentation for nursing staff	Evaluate barriersto caredocumentat ion	questionnair e, workflow survey	N= 28	Nurses don't recognize the Point-of-Care documentation as valuable
Hucklave	2010	Information	Apply	Qualitative	N= 7	Utilize the

et al		technology for patient safety	Information technological developments to improve the provision of healthcare universally	study. investigative report		information health IT provides to improve the quality, safety and cost effectiveness of health care in the United States.
Mars,M. & Scott, E.	2010	Global E-Health Policy: A Work In Progress	Current state of e-health policy globally, and argues for “glocal” e-health policy	Review	N= non	The full potential of global e-health to meet both national and global health objectives is not being tapped.
Georghiou ,L. et al	2013	Policy instruments for public procurement of innovation: Choice, design and assessment	address the basis of innovation procurement policy and instruments that have emerged	Comparative Study	N= 800	Findings confirm that the barriers encountered by firms correspond to the efficiencies addressed by policies but do not address them sufficiently.

**Table 8. CASP appraisal questions and results for benefits of Ehealth**

<b>Question</b>	<b>Beeuwkes 2011</b>	<b>Lluch &amp; Abadie 2013</b>	<b>Ersher-Kohle 2012</b>	<b>Hucklave et al 2010</b>	<b>Mars &amp; Scott 2010</b>	<b>Georghiou et al 2013</b>
<b>Was there a clear statement of the aims of the research?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Is the qualitative or quantitative methodology appropriate?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Was the research design appropriate to address the aims of the research?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Was the recruitment strategy appropriate to the aims of the research?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Were the data collected in a</b>	<b>C</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>

way that addressed the research issue?						
Has the relationship between the research and participant been adequately considered?	Y	C	Y	Y	N	Y
Have ethical issues been taken into consideration?	Y	Y	Y	Y	Y	Y
Was the data analysis sufficiently rigorous?	Y	Y	Y	Y	Y	Y
Is there a clear statement of findings?	Y	Y	Y	Y	Y	Y
How valuable is the research?	Y	Y	Y	Y	Y	Y
Appraisal scores	9	9	10	10	9	10

keys: Y = Yes N = No C = Can't tell

Table 9. CASP appraisal questions and results for Barriers of Ehealth

Question	Beeuwkes 2011	Lluch & Abadie 2013	Ersher-Kohle 2012	Hucklave et al 2010	Mars & Scott 2010	Georghiou et al 2013
Is the study relevant to your research question?	Y	Y	Y	Y	Y	Y
Is the choice of a qualitative method appropriate?	Sytemic Review	System-ic Rev.	Quantitative Rev.	Qualitative Rev.	Literatur review	Comparative study
Does the paper address a clearly focused issue?	Y	Y	Y	Y	Y	Y
Was the author's position clearly stated?	Y	Y	Y	Y	Y	Y
Was the sampling strategy clearly described and justified?	Y	N	Y	Y	Y	Y
Was there an adequate description of the method of the data collection given?	Y	Y	Y	Y	N	Y
Were the procedures for data analysis/representation described and justified?	Y	Y	Y	Y	Y	Y

<b>Are the results credible?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Can the results be applied to the local situation?</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Were all important outcomes/results considered?</b>	<b>N</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>N</b>
<b>Accept for further use as qualitative study evidence</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
<b>Appraisal scores</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>10</b>

**keys: Y = Yes N = No C = Can't tell**

### **5.1 How Innovative Governance promote ehealth Policy**

Based on literatures reviewed, finding confirmed that an important factor for the successful delivery of integrated care is a sound ehealth government policy which involves all stakeholders. Good governance policy also went a long way in promoting adoption. Such advantages were among those found in Danish, English (UK), Scottish (UK), some Italian regions (namely Lombardy and Emilia Romagna) and some Spanish regions (namely the Basque country and Catalonia),( Luch & Abadin 2013 p10-13). In most of the experiences in the literatures reviewed, there were some policy conflict in interoperability. This remained a challenge with the associated negative impact on ehealth care adoption due to the problem of managers having to access two different sources of information or database. Checking both is a time consuming task for care managers and a barrier to innovation diffusion.

Lack of interoperability threatened quality of care and innovation diffusion from a professional perspective as well as client perspective. In general, efforts to achieve interoperability of ICT applications in healthcare were identified in all the experiences explored. Denmark was a pioneer in the use of electronic communication within and across tiers of care, as well as a frontrunner in interoperability implementation. This cooperation promotes continuity of patients care, thereby representing the real added-value that can result from innovative ehealth policy aimed at integration of various department of health and social care services.

Organisational innovation refers primarily to service and process innovation. As patient-centred care remains one of the primary goal of ehealth, continuity and coordination of care are at the core of integrated care, hence service re-organisation is essential in the implementation ehealth policy. Therefore in the literatures reviewed, ICT applications and telehealthcare represented a means to deliver integrated care. Interoperability between different ehealth applications used by different tiers



of care becomes central to ensuring good communication among caregivers and smooth transfer of information, (Lluch and Abadie,2013, p9).

## **5.2. Adoption of ehealth policy in meeting Users Needs**

From an innovation perspective, ehealth care often involved two types of innovation: technological and organisational innovation. This was shown to be in line with the assumption that ICT represents technological innovation and integrated care involves innovation related to the reorganisation of care. Findings from one of the study revealed that 10% of innovation was associated with technology whilst the remaining 90% was associated with organisational redesign, (Lluch and Abadie 2013,p11). It is necessary to understand at this point that most of these innovations are aimed at meeting users needs.

Furthermore, ehealthcare facilitates the collection of a wealth of data. As a result, enables health workers to merging patient data into meaningful information for easy retrieve. Governmental support was also seen as a positive outcome in most of the study through encouraging best practices as seen in programme in the UK and the Danish experience, (Lluch and Abadin, 2013,p9).

Also from a governance perspective an integrated governance model was seen as representing a strong catalyser for ehealthcare deployment and implementation. This is also believed to be valid for ICT in general. In addition, those governance models that engaged with all stakeholders proved to be successful. Furthermore, involving practitioners and actors at operational level seemed to promote widespread deployment.

### **5.2.1 Benefit: ehealth policy re-Organised quality of service**

Furthermore, it was also demonstrated that ICT / ehealth applications enhanced the delivery of integrated care, thereby supporting a re-organised service delivery where different tiers of care cooperate. Interoperability between different applications used by different tiers of care becomes central to ensuring good communication among caregivers and smooth transfer of information as encapsulated in the definition of integrated care used here.

### **5.2.2 Benefit : Patient safety and Cost Effectiveness**

An innovative ehealth policy is more likely to succeed when there is evidence of its benefits and affordability. Integrated care is particularly dependent on evident guidelines and protocols as well as the need for management evaluating the process for positive provider, and patient outcomes.

Patient safety and cost effectiveness in care setting requires effective communications, which ehealth tools has enhanced positively in the area of record keeping and reporting. A report that is precise, worthy and also meet customer and patient requests must be shared effectively and reliably. Staffs need to correspond productively between themselves to guarantee security, quality and coherence of

social insurance for patient and customers. (Casey et al 2011, 35).

### **Box 1: Selected features promoting technological innovation.**

**Triability:** innovations that intended users can experiment with

**Reinvention:** allowing them to adapt, refine and modify to suit their needs.

**User-friendly** and low complexity, in particular given the age target of telehealthcare applications.

**E-readiness of intended users:** Innovations offering a relative advantage in comparison with previous ways of working.

**Compatibility with organisational or professional's norms,** values and ways of working. This also applies to ways patients expect to receive care.

**Engaging with intended users:** Additional interventions supporting the role of the technology (e.g., self-management support activities; trainings).

**Interoperability with other eHealth applications,** in particular with the electronic health record as the core application for integrated care. (Adoted from: Lluch & Abadie, 2013 p1– 13)

Involving practitioners and end users at operational level, engaging in appropriate communication strategies which set the right expectations has proven to be a driving force which helps to promote and spread innovative idea, (Lluch & Abadie, 2013 p10 ). Furthermore, the development of legal frameworks on issues of confidentiality and ethics helps in addressing liability and responsibility concerns of ehealth policy adoption and deployment. In such manner, lawful systems are expected to clear up issues identified with information accessibility, information proprietorship and datasecurity. The exploration recognized Denmark as the nation which has gained the most ground around the subject, however extra arrangement improvements on ehealth policy is still necessary.

(Lluch & Abadie, 2013 p10).

According to Lluch & Abadie, there is a great diversity in the European health and social system and individual country tend to find its own solution. Hence, the development of a unifying ehealth policy would be seen as a welcome development in progress, rather than a benchmarking exercise, (Lluch & Abadie, 2013 p13).

### **5.3 Barriers to ehealth**

Most medical services specialists use of e-Health administrations and projects were recognized to be insufficient. The real hindrances of E-Health administrations and projects are the general knowledge about E-Health; availability; InformationTechnology (IT) attitudes; health worker's age and work understanding; security and clients'reaction.

Health findings demonstrated that the majority of nursing studies are not having enough knowledge about the term E-Health in general, yet they are somewhat restricted with the term electronic "ehealth records". They additionally said that their knowledge is so low in light of the fact that insufficient practice and preparing was done here and in this manner there was absence of mindfulness on the significance and scope of e-wellbeing as device for improving proficient models at work. (Edirippulige et al. 2009, 80).

Other barriers observed in general were the problem of accessibility for several nurses. It was also pointed out that the access to E-Health services through the use of work computer was a problem, as accessibility is a major problem due to the fact that Health professionals needs to manage with a single PC with other partners, which lead likewise to the issue of waiting to take turn. Likewise the absence of IT abilities was a hindrance that influenced medical attendants to work with electronic ehealth administrations and projects.

#### **5.4 Barriers of Ehealth Policy Outcome In Africa**

Studies shows that ehealth has increasingly been seen as an important enabler for integrated care and health promotion. Nevertheless, challenges to the successful delivery of integrated care is believed to one of the barriers identified, including those related to ICT deployment and service reorganisation. (Lluch & Abadie,2013 p24).

Due to the visible positive outcomes of e-health in developed countries that range from improvements in quality and better access of all citizens to care and avoidance of unnecessary cost to the public purse,the reverse is the case in developing countries. There is hope and promise that e-health can offer to transform health systems in developing nations in the sub-Saharan region in Africa. E-health literature confirms that many developing countries are investing in e-health to help improve healthcare in general through improved communication between health institutions, assisting in ordering and managing medications, helping to monitor and detect diseases and improving data collection timeliness and quality.

Due to the fact that the developing countries are faced with other major challenges such as corruption, poverty, overpopulation etc. However, the developing world including the sub-Saharan African does not therefore need to reinvent the wheel but has an opportunity to get it right the first time by learning from the mistakes and experiences of the developed world once it adopts or invest in e-health. Ehealth benefits are contributing to rapid and sustained economic growth of developed countries. While this is the case with developed countries, developing countries on the other hand, need to address the most pressing health crisis with millions of people dying each year from basic health care deficiencies as well as other imminent problems in order to be able to focus on ehealth.

In 2000, the United Nations (UN) adopted the Millennium Declaration stating eight Millennium Development Goals (MDGs) to be reached by 2015. Presently, most of these MDGs are related to sustainable reduction of poverty in its broadest sense and the reduction of rural poverty. Although issues of improving health is addressed but the overall role that ehealth / ICT can play to achieve these goals is not clearly mentioned and as a result, this in a sense can be a limitation to ehealth in developing countries.

## **5.5 Conclusions**

The utilization of e-Health apparatuses and applications has without a doubt profited and decidedly influenced numerous aspects in human services framework,(Hucklave et al 2010, 31). In line with the purpose of this study which was to investigate eHealth policies and how they have been used to promote health and quality of care, this study confirmed that the important factors for the successful delivery of quality health care is a sound governance structure with the involvement of all stakeholders and the industry. Ehealth policy often require that ehealthcare solutions should be shaped in line with clinical protocols which represented an enhancer for deployment and integrated care. Promoting adoption was also identified as a necessity in every ehealth policy.

Adapting a framework developed by Greenhalgh et al., the role of ehealth care in supporting integrated care across European countries was analysed from three perspectives: diffusion of innovations, governance and impact. A variety of effective strategies and policies promoting integrated care and telehealthcare deployment were identified. The framework not only allowed us to extract relevant issues related to how these innovations are diffused, but also led us to conclude that ehealth policy have strongly improved integrated care delivery developments. And integrated care can therefore be said to be one of the benefits because it is aimed at promoting quality care through the incorporation and enforcement of ehealth policies.

Notwithstanding specialized advancement innovation, the redesign of administrations advancing cooperation between levels of care or even the joining amongst health and social care professionals propels the primary developments and an extra inspiration for unified /integrated care. It was also found that factors identified as barriers could be turned into drivers if they were addressed and managed properly. In addition, this study points to the fact that ehealth policy deployment is going simultaneously as progress towards integrated care and as a result quality of health is being promoted.

With regards the the limitaions affecting ehealth implimentation in Developing Countries, there is noconclusive finding. Studies reveals a promising expectations that e-health can offer to transform health systems in developing nations. E-health literature confirms that many developing countries

are investing in e-health to help improve health care in general, as well as helping to monitor and detect diseases and improving data collection and quality with the use of portable devices,(Willings B,2010, p38).

Among the issues harassing developing nations, for example, deficiencies of human services suppliers, more prominent weight of diseases, absence of training open doors for medicinal services professionals and so on. It is expected that a large portion of these issues sometime be tended to through e-health arrangement applications and innovative leaders with the correct dreams and objectives.

## **6.0 DISCUSSION**

### **Limitations**

Study confinements and barriers are inevitable, yet endeavors ought to be set up to minimize them to a sensible degree in which little or no negative effect or redisposition would be thought about the legitimacy and dependability of the review. Restrictions developed at each phase of the research process, a few impediments were anticipated and dealt with. The researcher additionally attempted to abstain from permitting individual inclination to supersede the target of the exploration or impact the examination course. All focuses were prepared and assessed with value in light of the set benchmark and evidence based practice that are intended to profit the result of the review. Loads of endeavors were placed into the work with lots of constrained time period which were due to various reasons.

A large portion of the writing utilized as a part of the evidence flow for the study were European and North-American-based, as data search yielded close to nothing or non from Asian or African based reviews. Henceforth restricted information from these locales were an impediment confronted and could not be tended to in the present review yet might be disregarded.

Different difficulties that assumed some negative parts in the result of the work were sure written works that could have additionally contributed emphatically to the review however were not free and the analyst could not stand to buy them with the end goal of the review.

### **6.1 Discussion**

E-Health has been portrayed as the absolute most critical upheaval in social insurance since the appearance of cutting edge prescription and general wellbeing measures (Silber 2003).

All through this review inquiring about the advantages of Implementation of e-Health approaches and applications in human services was obvious and plot in various different areas within the health care system and processes. Based on thorough review process of the articles, lots of criteria were followed systematically. Utilization of ICT in electronic wellbeing records has been effective as the rate at which it is being used spares time, ensure information and encourage simple and quick partaking in a moral way.

Other outstanding results from the Implementation of ehealth Policy is that ehealth has increasingly been seen as an important enabler for integrated care. Interoperability and integrated care enhance quality of care. Innovation diffusion from a professional perspective as well as client perspective has been highly improved by ehealth policy implementation. In general, efforts to achieve interoperability of ICT applications in healthcare were identified in most of the literatures reviewed as this cooperation promotes continuity of patients care, thereby bringing about the real added-value

that can result from innovative ehealth policy. Which further aimed at integration of various department of health and social care services.

Nevertheless, challenges to the successful delivery of integrated care have been consistently identified, including those related to ICT deployment and service reorganisation, Lluch & Abadie,2013 p40. From a governance perspective an integrated governance model was seen as representing a strong catalyser for ehealthcare deployment and implementation. This is also believed to be valid for ICT in general. In addition, those governance models that engaged with all stakeholders proved to be successful. Furthermore, involving practitioners and actors at operational level seemed to promote widespread deployment. Information that is exact and worthy and in addition meet customer and patient requests and must be shared effectively and reliably. Staffs have to communicate successfully between themselves to guarantee wellbeing, quality and congruity of human services for patient and customers. (Casey et al 2011, 35.)

Moreover, e-Health is concerned more with enabling, encouraging and advancing wellbeing and prosperity for individuals and groups. Other than upgrade of expert practice using data administration and data and correspondence innovation (rcn.org.uk). Quiet wellbeing in various care settings specifically has gotten huge upgrade by the presentation of e-Health apparatuses and applications. E-Health administrations and projects are turning out to be increasingly essential in social insurance and healthcare.

## **6.2 Content analysis**

Legitimate references, systematic methodologies were utilized to distinguish the pertinent thoughts in the articles which are in accordance with the exploration questions. Giving responses to the exploration addresses principally relied upon the logical approach utilized as a part of making substantial conclusion from the chosen content and articles (Krippendorff 2004, 18). In the substance survey of the information, content investigation as an examination approach was utilized in light of the fact that it helped and empowered landing at substantial conclusions with the point of providing knowledge. The fundamental goal is to arrive at a group and more extensive perspective of the broader view while the consequence of it is the way to go clarifying the phenominal . (Elo and Kyngäs 2007, 108.)

While investigating the substance, the concentration was significantly to extricate the certainties from the body of results and conclusions arrived at in each article as pointed to advantages of e-Health Policies in connection to the Quality of Health. The articles were previewed thoroughly, codes and topics were recognised and highlighted as it profits from e-Health devices and

applications were given attention to. Five articles were coded to sort out information into classifications as displayed in the back ground out of this examination. There were different advantages connected with e-Health devices in general. From the articles reviewed, e-Health was portrayed as the absolute most imperative insurgency in human services since the onset of advanced prescription and general wellbeing measures,(Silber 2003). Moreover, e-Health is concerned more with engaging, encouraging and advancing wellbeing and prosperity of people and groups other than improvement of expert practice using data administration and data and correspondence innovation. Client wellbeing in various care settings has gotten huge upgrade by the presentation of e-Health apparatuses and operations, (rcn.org.uk).

Patient safety in different care settings has received tremendous enhancement by the introduction of e-Health tools and applications. For advantages of e-Health 5 information got chosen after systemetic filtering process and had significant data for noting the examination address. Fundamental data about the articles will be given in the Table 8 . Furthermore, for the hindrances of e-Health an aggregate of 20 information (for this situation the information were the articles) were accessible for the exploration which were later diminished to 6 information with the most significant responses to the examination address and experienced an audit procedure all of which were liable to a preparatory investigation.

### **6.3 Appraisal process**

Evaluation and Analysis of information involves various basic explanatory stages, starting from determination of applicable written works to expository procedure of their substance. In the wake of utilizing substancial examination to bind the imperative focuses in the chosen articles for this exploration work, it was fundamental to subject the six significant articles into investigation utilizing logical proof based examination questions process, for example, CASP evaluative system.

CASP was produced in the United kingdom to build up a proof based approach in wellbeing and social care, to break down the estimation of the examination in connection to the methodological meticulousness and quality of the confirmation (Knowles and Gray 2011, 390). CASP evaluation is not a criteria for consideration or prohibition prepare and does not require arrangement of classes and subjects, it is just intended to additionally investigate the relationship that exist between the components of each of the most significant articles, in accordance with the target of the examination work. In a CASP examination screening process, effectively made inquiries were organized against the most important six articles to quantitatively quantify their subjective values in connection to the bearing of the review. Estimation of every article is evaluated on a scale of one to eleven (1 - 10) and one to ten (1-11) individually as examination.



## 6.4 Ethical Considerations

Moral Considerations Ethics or profound quality has been characterized as an arrangement of convictions that society, people or subgroups hold about great and awful, good and bad, equity and injustice, decency and out of line ness (Rollin 2006, 229).

Particular codes, principles and arrangements identifying with research morals have been embraced by various expert affiliations, colleges, government offices and different foundations. These codes, rules and arrangements address in addition to other things, moral standards such as; principle of honesty (one ought to be straightforward in all logical communications, one should genuinely report information, findings, techniques, methods and distribution level).

**Guideline of objectivity;** researchers ought to maintain a strategic distance from personal inclination in exploratory outline, information investigation, information elucidation, peer audit, individual choices, concede composing, master declaration and different parts of research where objectivity is expected or required, one ought to reveal individual or budgetary premiums that may influence scientific study.

**Standard of honesty;** one ought to keep guarantees and assertions, one ought to act with genuineness, one ought to act with consistency of thought and activity.

**Standard of deliberate carefulness;** one ought to stay away from imprudent mistakes and carelessness, one ought to precisely and basically examine one's own particular work and that of one's companions', one ought to keep great records of research exercises, for example, information accumulation, explore outline and correspondence with offices or journals. Rule of openness; one ought to be ready for set up to share information, ideas/ concepts, thoughts, instruments and assets, one ought to be interested in feedback and new thoughts.

**Standard of regard / respect for intellectual properties** (one should respect licenses, copyrights and different types of protected innovation, one ought to recognize a job well done, one ought to give appropriate affirmation or credit to all patrons to research, one ought not steal). **Guideline of confidentiality;** researchers ought to secure secret correspondences. Guideline of dependable distribution should endeavour to distribute so as to propel research and grant, as well as not to progress only one's own profession).

**Guideline of capable coaching** (one ought to instruct, tutor and exhort understudies, advance their welfare and permit them to settle on their own choices). Guideline of regard for partners (one ought to regard associates and treat them reasonably), Principle of social obligation (one ought to endeavor to advance social great and avert or alleviate social damages through research, state funded instruction and promotion). Standard of not discriminating; an individual ought to maintain a strategic distance from oppression of associates on the premise of sex, race, ethnicity or different components that are not identified with their logical ability and honesty). Rule of ability (one ought

to keep up and enhance one's own proficient competence and skill through long lasting instruction and learning, an individual ought to make moves towards professional capability in science and all in all standard of lawfulness: an individual ought to obey pertinent laws and institutional and government tenets and approaches. Principle of animal care; an individual ought to indicate appropriate regard and administer to creatures when utilizing them as a part of research. One ought not direct superfluous or inadequately outlined creature investigations. Principle human subjects security; when leading examination on human subjects, one ought to minimize damage and hazards and amplify benefits, one ought to regard human pride, protection and self-rule, one ought to endeavor to play it safe with helpless populaces, (Shamoo & Resnik 2009,p33).

Concerning this review, deliberate exertion have been made to hold fast unto every single moral rule appropriate to the present review and they include trustworthiness, objectivity, uprightness, deliberateness, openness, regard for licensed innovation, privacy, mindful production, regard for associates, social obligation, capability and lawfulness.. According to Robley (1995) morals is a basic research apparatus and it can be seen from different edges and perspective. One of such is as a moral reports sketched out by the ethic board of a perceived body can be utilized as a guide and support amid a review survey procedure. The subject was presented to the supervisor in control before commencing data pursuit to check whether there is any probability of the proposition conflicting with open intrigue or any association. All the assessed written works were recovered gratis from the scholarly databases and other oficial Evidence based locales. e.g. Ebrary and Science direct. It is trusted that such writings from scholastic database have very much analyzed for moral infringement, in this manner, utilizing such articles additionally legitimize the moral thought in this review. Information about the participants in all the articles used are not revealed to maintain privacy and confidentiality protection. The review is without inclination support by the researcher and the authtor's feeling is not permitted to abrogate or interfere with the truths in the literary works. Furthermore, consideration ethical issues, participants and organisations invovled in the literatures reviewd were all educated about the reason for the review, methods, and ideal to take an interest intentionally. They were likewise permitted the decision to end participation without punishment or loss of advantages if there was any. Moral guidelines require non-evil, this standard is that analysts don't place members in a circumstance where they may be at danger of any harm or mischief as a consequence of their willingness to participate. Although country names were mentioned in the literatures reviewed, no individual personalidentity was in any way mention as this helped ensured the moral obligation of anonymity and atthe same time protect the privacy of research participants confidentiality.

## **6.5 Reliability and Validity**

One of the most basic parts of assessment and evaluation of reported research is to Consider the nature of the gadgets used to assemble the examination information (Fox 1982, p256). The review was fundamentally literature based. Part of the materials originated from reports on all around arranged and first rate ventures.

Some other part of the materials utilized were from companion checked on articles distributed in diaries with generally great effect elements. Reliability means the unwavering quality and exactness of the information in the feeling of their security or stability with the end goal that a flawlessly dependable device would be one which if controlled twice under similar conditions, would give indistinguishable information (Fox 1982, p265). The unwavering quality of the sources of the writing utilized as a part of this review can subsequently be inferred to as a reliable review..

Validity or Legitimacy has been defined and characterized as the degree to which the instrument really does what it implies to do (Fox 1982, p258). Additionally studies would be expected to survey qualities of the instrument, for example, content related legitimacy, affectability, propriety, objectivity and generalizability as depicted by Fox 1982, p73. Confront legitimacy is the degree to which the things in the apparatus seem significant, essential and intriguing to the respondent. Testing legitimacy is the degree to which the full arrangement of things test the aggregate substance territory and thing legitimacy is the degree to which particular things speak to estimations in the proposed content zone. Affectability/ sensitivity has been characterized as the capacity of the apparatus to make the segregations required for the exploration issue. Suitability or appropriateness has been characterized as the degree to which the respondent gathering can meet the requests forced by the apparatus / instrument. Objectivity has been characterized as the degree to which the information acquired are a component of what is being measured and speculations is to the degree by which it is important and utilize in connected with an arrangement of information can be summed and applicable to different populaces (Fox 1982, p73)

## **6.6 Recommendations**

Ehealth policy study should be included in the study curriculum of all health professional studies. All practicing health professionals should also be updated and reeducated on the benefits of ehealth. The government should also be well informed about the benefits and latest innovation in ehealth so as to encourage appropriate allocation of fund.

More focus and support from the WHO organisation should be given to the developing countries in the area of enlightenment of the government so that ehealth policy implementation can be taken more seriously.

## References

Ashly, D., Josip, C., Pagliari, C., Anandan, C., Cresswell, K., Tomislav B., McKinstry, B., Procter, R., Azeem, M., Aziz, S. 2011. The Impact of eHealth on the Quality and Safety of Health Care: A Systematic Overview, 2011, p11-25)

<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000387>

(Assessed 15.3.2016)

Ayodele R. Krallinger J., Mori P. 2012. A systematic literature review on use of technology in diabetes management among nurses- benefits and barriers.

<https://publications.theseus.fi/handle/10024/53118?show=full>

Buntin, M.B., Burke, M.F., Hoaglin, M.C., Blumenthal, D., 2011. The Benefits Of Health Information Technology: A Review Of The Recent Literature Shows Predominantly Positive Results. Health Affairs, March 2011 vol. 30 no.3, 464-471.

<http://content.healthaffairs.org/content/30/3/464.abstract> Assessed 22.1.2016

Business dictionary, 2016. <http://www.businessdictionary.com/>

Cochrane Library Tutorial. 2012. <http://www.cochranelibrary.com/>

Demography report 2010. Older, more numerous and diverse Europeans. European Commission, March 2011. Available at:

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KE-ET-10-001/EN/KE-ET-10-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KE-ET-10-001/EN/KE-ET-10-001-EN.PDF)

(Info retrieved 22<sup>nd</sup> Feb 2014).

Eysenbach G., 2000. Journal of Medical Internet Research; Towards ethical guidelines for e-health: JMIR Theme Issue on eHealth Ethics. Jan-Mar; 2(1): e7.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1761845> (Assessed 1.3.2015)

Fink, A. (2005). Conducting Research Literature Reviews: From the Internet to Paper (2nd ed.). Thousand Oaks, California: Sage Publications.

Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O.; Diffusion of innovations in service organizations. A systematic review. Oxford: Blackwell Publishing (BMJ Books); 2005.

Granados A, Jonsson E, Banta HD, Bero L, Bonair A, Cochet C, Freemantle N, Grilli R, Grimshaw

J, Harvey E, Levi R, Marshall D, Oxman A, Pasart L, Raisanen V, Rius E, Espinas JA. EUR-ASSESS Project Subgroup Report on Dissemination and Impact. *International Journal of Technology Assessment in Health Care*. 1997;13(2):220–86.

Krippendorff, K. 2004. *Content analysis: An introduction to its methodology*. 2nd edition. pp. 1-309.

Kruse, K. (2013, April 9). What is Leadership? (Retrieved September 7, 2016).

<http://www.forbes.com/sites/kevinkruse/2013/04/09/what-is-leadership/#70198318713e>

Hamalainen P, Doupi P, Hypponen H. The European e-health policy and deployment situation e-health ERA project. Helsinki: Stakes; 2008.

Huckvale, C.; Car, J.; Akiyama, M.; Jaafar, S.; Kohja, T.; Kahlid, A. B.; Sheikh, A.; Majeed, A. 2010. *Information technology for patient safety* Vol. 19 / 2010, 25 – 33.

Fox 1982, p35-40)

John A. Kline; 2007. How to Implement change in an organization

<http://www.klinespeak.com/pdf/Change%20Article%202007.pdf> (Assessed 11.5.2015)

Robley, L. R. 1995. The ethics of qualitative nursing research. *Journal of Professional Nursing*. p. 48.

Rollin, B.E. (ed.) 2006. *Science and ethics*. New York, Cambridge University Press, pp 1-292

Maria Lluch, Fabienne Abadie, 2013. Exploring the role of ICT in the provision of integrated care- Evidence from eight countries

Mars M.and Scott R. 2010;Global E-Health Policy: A Work In Progress *Health Affairs*, 29, no.2 (2010):237-243) <http://content.healthaffairs.org/content/29/2/237.full.html> (Assesed 6.4.2015)

Neale, J. 2009. *Research methods for health and social care*. Palgrave Macmillan. London, p. 51.

Nigel R A, Gray C.L, Smith C.A., 2012. Clinical use of Skype: a review of the evidence base; in *Journal of Telemedicine*, April 2012 vol. 18no. 3125-127. Information retrieved at;

<http://jtt.sagepub.com/content/18/3/125.short> (Info retrieved 22<sup>nd</sup> Feb 2014).

Prathibha, V. and Kayla, A. Change Management for Effective Quality Improvement: A Primer; American Journal of Medical Quality 2010 25: 268,p23

<http://ajm.sagepub.com/content/25/4/268>

Shamoo, A. & Resnik, D. 2009. Responsible conduct of research, 2nd edition, New York, Oxford University Press.p. 218-228

Torben Rick, 2011. Top 12 reasons why people resist change, 2011,p9-10).

<http://www.torbenrick.eu/blog/change-management/12-reasons-why-people-resist-change/>

(Assessed 5.6.2015).

Vincenzo D. M., 2001. J Med Internet Res. 2001 Apr-Jun; 3(2): e22.

<http://www.jmir.org/2001/2/e22/> (Assessed 5.6.2015).

Walliman, N. 2001. Your research project (a step-by-step guide for the first-time researcher). Sage Publications. London. p. 25.

Wallis, A. 2012. Survey explores nurses' use of e-Health tools. Nursing Management Vol. 18 No. 10/ 2012, 14 – 19.

White, A. Schmidt, K. 2005. Systematic literature reviews. PubMed - indexed for MEDLINE. Vol.13, No.1 54-60. Assessed 07.10.2012. <http://www.ncbi.nlm.nih.gov/pubmed/15907679> .

World Health Organization (1997). Measuring Quality of Life: The World Health Organization Quality of Life Instruments [http://www.who.int/mental\\_health/media/68.pdf](http://www.who.int/mental_health/media/68.pdf) (Assessed 3.2.2016)

World Health Organization (2016). Health statistics and health information systems: Definition of an older or elderly person.

<http://www.who.int/healthinfo/survey/ageingdefnolder/en/index.html> (Assessed 3.2.2016)