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3 **IMPACT OF REFUGEES AND INTERNALLY DISPLACED PERSONS ON**
4 **INTERNATIONAL HEALTH**

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6
7 **ABSTRACT**

8 The 21st century has been marked with highest distribution of wars and conflicts at
9 local, national, regional, and international levels in world history. This has increased
10 greatly in the last decade with a growing number of internally displaced people (IDP),
11 refugees, and those seeking asylum. This study discussed the growing impact of
12 refugees and IDP's on global health. Relevant data was extracted from official sites
13 and publications of international aid agencies through electronic search. Electronic
14 search was conducted between January 2015 and March 2016. The sources of
15 information were MEDLINE, PUBMED, and Google search Information was sorted
16 based on merit of relevance to the topic based on selected criteria using identified
17 search words individually and stringed with additional search words where
18 necessary.. The trend and dynamics of refugees migration is predominantly from the
19 underdeveloped to the developed nations of the world while that for IDPs is largely
20 from the politically and economically unstable regions to the more economically and
21 politically viable ones. Study showed increasing trend of displacement of people and
22 migration across borders at the national and international level.

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24 **Keywords:** Refugees, Population, Surveillance, Migration, Diseases, International
25 health, Internally Displaced Persons

26 **1. INTRODUCTION**

27 There is an estimated 6.6 million IDPs in Syria, 4.3 million refugees who have
28 migrated across borders to other countries and 13.5 million in dare need of
29 humanitarian aid, and more than 50% of this population is children. About 90% of
30 these refugees are in the Middle East while 10% have migrated to Europe. Nigeria
31 has an estimated 2.2 million IDP's predominantly in her northeast region while
32 Afghanistan has 847, 872, and counting. The United Nations High Commission for
33 Refugees (UNHCR) has put the global refugee burden at 59.5 million people with
34 developing countries contributing 86% of this population while 38.2 million people
35 are IDP's. A total of 5.1 million Palestinian refugees registered with the United
36 Nations Relief and Work Agency (UNRWA), the democratic republic of Congo had
37 2.8 internally displaced persons in 2013, while southern Sudan had 1.5 million IDPs
38 at the same period with the most vulnerable being women and children. This study
39 brings to the fore, the growing impact of refugees and IDP's on global health [1, 21,
40 27].

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42 **2. METHODS**

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44 Electronic search was conducted between January 2015 and March 2016. The
45 sources of information were MEDLINE, PUBMED, and Google search. Searches
46 were additionally conducted authoritative texts, and references of retrieved articles.
47 The themes of the title were turned into words used as search terms while ensuring
48 that the search terms used were reorganized by the computer database vocabulary.
49 The search terms used were refugee, internally displaced persons, international

50 health, policy, population, surveillance, migration, and diseases. These words were
51 used individually, in strings of two words and above, and in some cases with
52 additional words and medical subject headings where necessary. Care was taken to
53 moderate the selection criteria in order not to eliminate important articles through
54 very narrow exclusion criteria, nor inclusion of irrelevant articles by using very wide
55 inclusion criteria [2-7]. The flow chart of the articles selection process is shown in
56 Figure 1.

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58 **Inclusion criteria**

- 59 • Articles relevant to the topic
- 60 • Articles written in English Language
- 61 • Articles with comprehensible information
- 62 • Officially published documents
- 63 • Articles with defined selection criteria

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65 **Exclusion criteria**

- 66 • Articles with evidence of bias
- 67 • Articles published in non official sites
- 68 • Articles without clearly defined methods

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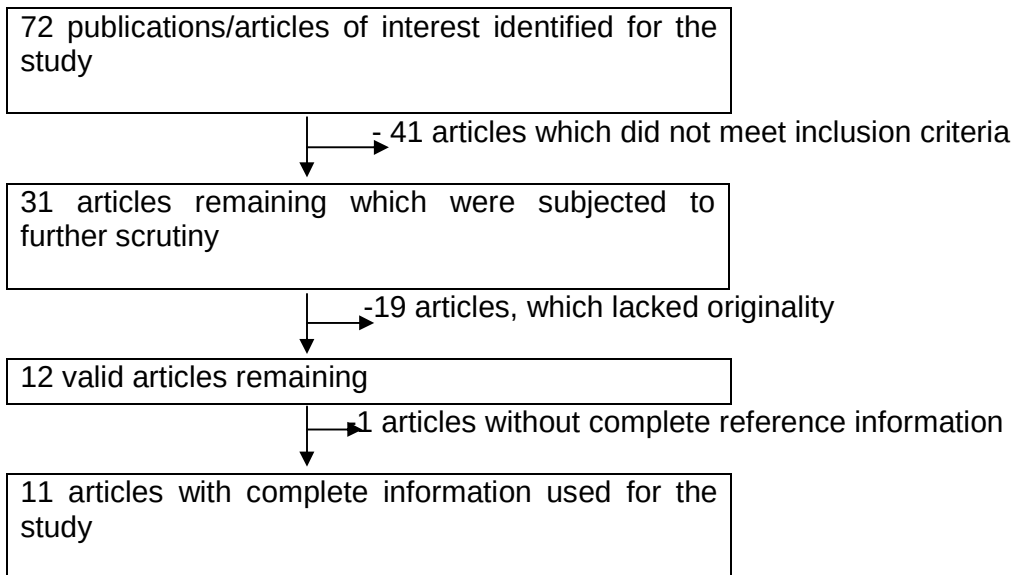
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80 **Fig. 1: Flow chart of how the articles selection process and use in the study**

82 **3. DISCUSSION**

84 **3.1 Global crises and international health**

85 Nigeria recorded a whopping 981, 416 IDPs in the first quarter of 2015 in addition to
86 millions of refugees who fled to neighboring countries within the sub-region due to
87 Boko Haram insurgency in the north eastern part of the country. In North Africa,
88 people cross to European countries on daily basis through illegal land and sea

89 borders. The trend has been alarming within the past two years. The advent of global
90 health indicates that diseases do not respect boundaries but cross freely when they
91 are not properly checked. They pose threat to people beyond the boundaries.
92 Refugees settle in camps for proper documentation and monitor. However, most of
93 them evade all necessary measures to escape into their host countries illegally while
94 some take advantage of porous borders. The migratory pattern could be
95 unpredictable since refugees and IDPS can access any route of less resistance.
96 They settle in unhygienic camps, which are usually overcrowded and sure exposed
97 to very harsh conditions, climates, mosquitoes, hunger, and poor sanitary conditions.
98 Improper waste disposal and untreated drinking water are usually obtainable in
99 cases of massive population influx, predisposing them to diseases. Women and their
100 children constitute 80% of refugees and 75% of internally displaced persons globally
101 [8- 11].

102 103 **3.2 IDP's, refugees, epidemics and communicable diseases**

104 Outbreaks of epidemics are very common among women and children who are
105 usually in the majority further complicates the effect of ailments which ordinarily
106 should not be life threatening. Sexually transmitted diseases and unwanted
107 pregnancies are very rampant, majority of who diffuse into the main population on
108 regular bases through sharp practices to end up as commercial sex workers.
109 Disease vectors at different levels of their life cycle both in man and on the surfaces
110 of their goods like baggages and clothing cross the borders alongside the IDPs and
111 refugees. Most countries pay more attention to airports and seaports where they
112 generate revenues than they do to the porous illegal borders, which serve as routes
113 of entry for illegal immigrants and refugees and have become breeding grounds for
114 diseases and epidemics unknown to the local authorities. The increasing surge of
115 the dynamic population of refugees and IDP's equilibrate with population of
116 surrounding towns and nations since most of the IDPs end up as refugees in
117 surrounding countries. This is in addition to some countries without any form of
118 outbreak preparedness, disease sensitization, or rapid response capacity. WHO
119 refer to some diseases e.g. Ebola and Lassa fever as epidemic when only one
120 person is affected. Going by this specification, we can comfortably say that the world
121 has looming potential epidemic of varying diseases due to massive movement of
122 IDPs and refugees across our porous borders. Communicable diseases like
123 tuberculosis, hepatitis B, syphilis, and Human Immunodeficiency Virus (HIV/AIDS)
124 are common in refugee camps and pose threats to surrounding and distant
125 populations [12-15]. Cancer, diabetes mellitus, hypertension, mental health, and
126 obesity are non-communicable diseases very common them [16- 20].

127 128 **3.3 Emergency preparedness, disease surveillance and impact on international** 129 **health**

130 This underscores the need for rapid disease surveillance, sensitization and response
131 preparedness at the national, state, local and district levels. WHO indicated that 164
132 suspected and 54 confirmed cases of Lassa fever in 19 states of Nigeria with 80
133 suspected and confirmed deaths between August 2015 and January 2016. In
134 February 2016, the United Nations International Children's Fund (UNICEF)
135 announced an estimated 1.6 million IDP's in northeast Nigeria with a projected 300
136 000 deaths among children before the end of 2016. Adults and children are in most
137 deplorable states in the IDP camps with acute shortage of portable drinking water,
138 food shortage, very poor hygienic condition, overcrowding, and poor shelter. The

situation is occasioned by the activities of suicide bombers, which make the camps increasingly unsafe. These conditions predispose them to plagues, diseases, and epidemics. Intestinal parasites, cholera, tuberculosis, malnutrition, malaria, and other diseases associated with deplorable poverty are common among refugees. IDP's and refugees on transit are poorly immunized, and women and children are the most vulnerable. Complex emergencies affect social determinants of health and impact negatively on public health status with its attendant health inequities, which is almost assuming a global dimension [21-26].

In 2015 and first quarter of 2016, refugees from Syria and surrounding countries in the eastern bloc migrated to Europe in hundreds of thousands with the attendant humanitarian needs. Diseases do not respect boundaries but cross borders along with refugees. Refugee camps serve as transit points for disease causing organisms that subsequently could affect the distant parts of the affected country. In the last five years, 1.1 million refugees from Syria migrated to Lebanon, 630 000 settled in Jordan which mounted more pressure on her already deplorable socioeconomic status with consequent negative impact on her already depleted health indices. The populations of refugees have grown astronomically in the past one decade with catastrophic consequences on the health indices of nations. United Nations estimated that 4-7 million refugees would be generated from Syria by the end of 2016. With the growing trends of IDP's and refugees in our sub-regions and globally, displacement in one region ripples across surrounding and distant regions and borders especially to areas of less political resistance and economic stability [25, 26]. The health structure of most nations are still not resilient enough to accommodate extra burden and shock usually introduced by refugee influx and further weakens the already weak structure [27].

3.4 Epidemics: incidence and prevalence of diseases associated with refugees

Highly contagious diseases have been reported in refugee camps and among immigrant refugees during routine screening shortly after arrival to their countries of destination. In 2008 to 2013, a global refugee report shows that 0.2% of refugees from Iraq who arrived US had class B1 tuberculosis [28]. Infectious hepatitis had been reported after screening of refugees. Out of 2957 refugees who arrived San Diego 0.7% had hepatitis B [29, 30]. HIV and Syphilis were reported among 91000 refugees traveling to US from Baghdad between 2008 and 2013 [31, 32]. Tuberculosis incidence was found to be greater among people born to foreigners than among US born persons. A system of classification is now being used for categorizing refugees and immigrants to determine their eligibility for acceptance as refugees in the United States. Class A people are those with health conditions of public health importance which makes them inadmissible, while Class B are those that may be admissible but may require comprehensive medical care and follow up. Class A is an inadmissible condition of public health significance that might be an infectious disease or a mental disorder with associated harmful behaviour. Class B means that immigrant needs follow up after arrival at the border. for refugees there is a travel sheet with special requirements that differs completely from these classifications. Tuberculosis have three different classifications namely B1 represents tuberculosis and pulmonary infections, B2 represents tuberculosis and extra-pulmonary infections, while B3 stands for tuberculosis and latent tuberculosis infection evaluation. These exclusively apply for the United States [33- 38].

Communicable diseases, which have been shortlisted as diseases of public health importance, are leprosy, tuberculosis, chancroid, lymphogranuloma venereum, syphilis and gonorrhea. Severe acute respiratory syndrome (SARS), viral hemorrhagic fever, yellow fever, influenza, cholera, diphtheria, plague and tuberculosis are categorized as quarantineable while SARS, polio, small pox, influenza and other diseases which can predispose to emergencies in public health internationally and under International Health Regulations are categorized as the second group in Public Service Health Act Section 361(b) [37, 38]. This is an indication that the situation could be disturbing in other developing countries with poor health indices and porous borders, where little attention is paid to international health.

3.5 Recommendations

There is increasing need for proper funding of refugee commissions and immigrations. Strict documentation and characterization of refugee's data especially considering health status should be upheld. The concept of health resilience and emergency preparedness should be strictly promoted internationally. Immigration and refugee commissions need to uphold the culture of proactive and integrated surveillance, monitoring, evaluation, training and retraining of their staff. There is urgent need for proactive planning, and support for research and development by committee of nations and funding agencies in the areas of refugee and IDP's impacts, outcomes and dynamics.

4. CONCLUSION

Care should be taken ensure comprehensive disease control, surveillance and notification because some refugees access porous borders undetected while others disperse into the general population without being detected for reasonable period. Nations should closely monitor diseases under international surveillance like yellow fever, plague, cholera, typhus, and louse-borne relapsing fever. International agencies should pay greater attention to diseases under quarantine laws especially plague, yellow fever, and cholera. United Nations should expedite actions in maintaining international peace, law and order, and development of machineries for solving economic and humanitarian problems among member countries. It will be invaluable for other specialized United Nation Agencies to assist poorer nations through technical assistance, human and natural resources development, grants and loans. Nations should uphold isolation of suspected cases, vaccination, revaccination of refugees and medical surveillance. These are the active roles that government of nations should play towards cushioning the effects and impact of refugee influx across our borders to minimize and contain disease outbreak while maintaining optimum public health status of their nations.

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