

A review on emerging and re-emerging of infectious diseases in Jordan; the aftermath of the Syrian crises

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Abstract

The review aims to examine the emergence and re-emergence of infectious diseases in Jordan, in parallel with the Syrian refugee crisis. Qualitative approach has been adopted for systematically examining the outcomes of Syrian Crisis, which resulted with emerging and re-emerging infectious diseases. It has adhered that infectious diseases; including measles, tuberculosis, and Cutaneous Leishmaniasis, have hazardous effects on Syrian refugees along with alarming threats to local population in Jordan. National health policies should be implemented to adhere to the influence of infectious diseases beside the reduction of the extent of infectious diseases in Jordan. In the 21st century, Syrian conflict can be deliberated as one of the biggest humanitarian disasters. In this multifaceted emergency with devastating requirements and limitations, it has been found essential for dominant medical healthcare providers to develop medical strategies that are based on comprehensive understanding of concerned context and the main medical requirements and susceptible groups.

Keywords: Conflict, Emergence, Infectious Diseases, Jordan, Syrian Crisis, Syrian Refugee.

Introduction

The commencement of civil war lead to the worsening of healthcare sector through the broad destruction of facilities, shortage of medicines, and healthcare personnel along with lack of secure transportation and secure routes.¹ Approximately, four million Syrian refugees migrated to the neighbouring countries, which included Lebanon, Turkey, Egypt, Iran, and Jordan, for the sake of security and shelter.² The Syrian healthcare system has been incorporated throughout the civil warfare zone instead of endowing a secure region of health care and refuge.³ Therefore, the study aimed to examine the correlation between the Syrian crisis and the re-emergence of infectious diseases in Jordan.

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Methods

A qualitative research was conducted to examine the aftermath of the Syrian crisis on the population in the form of emerging and re-emerging infectious diseases. The review was an in-depth analysis of 6.5 million Syrians who were displaced due to the ongoing three-year civil war, which left thousands of people killed or wounded by violence. This has developed a vacuum in the common infrastructures which can influence the regions throughout the years to come. Therefore, it was essential to review the war and infectious Diseases after the conflict in Syria among refugees, causes of morbidities, and the emerging infectious diseases prevailing in Jordan and other countries, where the Syrians migrated after the conflict to seek health services. It mainly targeted the studies based on the outcomes of infectious disease in Jordan that also included the occurrence of infections in the state. The influx of Syrian refugees was also studied and correlated as it was presumed to be the main cause behind the prevailing rates of infectious diseases in Jordan. The study explored peer-reviewed articles and reports generated by World Health Organization in the context of infectious diseases, obtained from the web libraries of PubMed (January 2012 to November 2016), Science Direct (January 2014 to November 2016) and Elsevier (January 2013 to November 2016). These peer-reviewed articles were searched and selected on the basis of selected search terminologies.

Review based on Emerging & Re-emerging of Infectious Diseases

In 2011, Syria descended into a civil war after the Arab Spring uprising. Around 13.5 million Syrians required humanitarian support as reported by United Nations in March 2016. Of these, 13.5 million Syrians included 4.8 million people outside Syria and 6.6 million internally displaced individuals.⁴ Approximately, 7.5 million Syrians were found at outpatient clinics according to Ministry of Health data; and 299,240 were hospitalized.

Disturbances prevailed in Syria after Crisis

According to World Health Organization (WHO), approximately 40% of ambulances and 57% of public hospitals were completely destroyed due to the

persistent attacks in Syria.⁵ It has been estimated that 630,000 Syrian refugees crossed borders of Jordan in October 2015.⁶ It has been observed that government of Jordan is in its mid phase to control the entrance of refugees and overcome its impacts.

Emerging Infectious Diseases among Syrian Refugees

Several challenges were reported in the field of infection control and management. To begin with, serious concerns have been observed in the clinical settings aligned with the causes of tuberculosis that focused on the control of the disease and reduction of multi-drug resistant tuberculosis (MDR-TB). Since 2013, an increase of 40% in the cases of tuberculosis has been adhered among Jordanian population, specifically among the Syrian refugees.⁷

The Impact of Armed Conflict on Health in Syria

A study by Hoetjes⁸ examined the impact of armed conflict in Syria. The trust focused the direct and indirect impact of the war on the healthcare sector and results, and recognized the most susceptible groups and significant patterns in Syria. An adjusted framework was proposed based on conceptual model discussed the influence of armed conflict on health. Medical data demonstrated a rise in infectious diseases additionally to a significant existing burden of non-communal diseases, nutritional problems, and mental health. These diseases prevailed among the lactating and pregnant women, children under five years and internally displaced population becoming more and more vulnerable in the existing context. The medical landscape has transformed and health seeking options are becoming increasingly influenced by availability, security and service affordability.⁸

Causes of Morbidities in the Syrian Arab Republic

According to the data of Ministry of Health, the main causes of morbidities in 2006 are shown in Table.⁹

Table: Causes of morbidity in Syrian Arab Republic.⁹

Diseases	Causes of Morbidity	
		Percentages
Digestive diseases		15.7%
Respiratory diseases		13.2 %
Cardiovascular diseases		11.3%
Infectious and parasitic diseases		6.9%
Blood diseases		3.2%
Accidents		2.9%

Digestive and Respiratory diseases were the main causes for the people to search for healthcare.

Emerging Infectious Diseases in Jordan

Ismail, et al.¹⁰ reviewed the studies based on infectious diseases including polio, measles and tuberculosis from 2005 to 2015. Communicable disease surveillance and control in the context of conflict and mass displacement in Syria have been focused. Infectious diseases have been reflected from manifold discrepancies among government and non-government regions. Development has been made to control disease surveillance, but immunization coverage endures to pose a threat to individuals of Jordan.

Almost 51.5% health seeking services were sought from public sector facilities along with 9.7% in charity facilities. Care seeking facilities were higher among Syrian refugees. Strategies are implemented to enhance the affordability and accessibility of health services for refugees and Jordanian individuals.¹¹

Emergence of Infectious Diseases in other Countries

It has been concluded that without security, there can be no health satisfaction. All efforts in Syria to rebuild the destroyed healthcare sector and quell the humanitarian disasters will be greatly ineffective as long as the civil war endures to rage on. The end of war immediately is complex from efforts to control the global threat and spare the innocent lives from the infectious diseases. Healthcare circumstances are uncontrolled by the geopolitical borders, while the political borders of conflict can be allocated.

The review has contributed to identify an important issue on the current global problem of refugees, especially due to the conflicts added by war crimes. It has been examined that advanced strategies have been developed to control the augmenting numbers of the infectious diseases. The threat of major infectious diseases has been higher in extent as well as threatens an alarming medical situation in Jordan. Furthermore, the cost has been identified as a considerable constraint to the healthcare services in Jordan in spite of high levels of care-seeking. Development must also be made to control the disease surveillance along with the immunization coverage. Further strategies must be implemented to develop National policies and strong health promotion services to highlight prevention of infectious diseases among both the local population and sheltered refugees within the borders of the state.

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