



**Faculty of Social Sciences and Humanities**

**The Role of UNICEF's Intervention Programs in Improving Polio Coverage During the Humanitarian Crisis in Yemen**

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The Role of UNICEF's Intervention Programs in Improving Polio Coverage  
During the Humanitarian Crisis in Yemen

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## DECLARATION

I, Hanan Saleh (17020191, Faculty of Social Sciences) hereby declare that the work titled “The Role of UNICEF's Intervention Programs in Improving Polio Coverage During the Humanitarian Crisis in Yemen” is my original work. I have not copied from any other student’s work or from any other sources where due reference or acknowledgements is made explicitly in the text, nor has any part been written for me by another person. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree.

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## ABSTRACT

Even before the current crisis, the humanitarian situation in Yemen was suffering from many problems affecting the life's standards of the population. The poor humanitarian situation in the country resulted from many factors such as political instability, multiple localized conflicts and chronic underdevelopment. All those factors led Yemen to become one of the poorest countries in the Middle East as the majority of its population lives below the poverty threshold. Moreover, when the armed conflict started in March 2015 the civilian infrastructures in the country impacted heavily including hospitals, schools, roads, bridges, public services such as water and sanitation services. In addition, the whole country started experiencing a great shortage of supplies such as food and medications which unfortunately caused mass risks to millions of people. Polio is one of the highest infectious viral diseases affecting young children, although it is considered a vaccine-preventable disease the children in Yemen still exposing to it. Therefore, fighting against polio was one of the United Nations Children's Fund (UNICEF) battles as children in Yemen were always exposed to the danger of being affected by that disease. This research aims to provide an assessment regarding the major interventions that UNICEF uses to deliver the immunization service including polio vaccines to children during the current humanitarian crisis in the country. The data collection was conducted by using a mixed-method to collect the data from 108 sampled households in addition to the structured interviews with the key informant personnel such as the health facilities management, immunization supervisors and UNICEF's key personnel. The analysis of the results showed that UNICEF's support has a positive impact on the immunization programme in Yemen. However, a point to be highlighted is that the coverage rate improves slowly due to several challenges faced by the population during the humanitarian crisis. The massive displaced movement due to the conflict caused more

pressure on the health facilities which became unable to provide some areas with immunization services. The conflict also causes a decrease in the number of mobile immunization teams and national vaccination campaigns. In addition, it was found that many immunization interventions are carried out without developing a monitoring plan or training the health workers on the reporting system including data collection, analysis and calculating coverage rate or drop-out rate. This study proposed recommendations to resolve these challenges, the aid agencies such as UNICEF need to put some pressure on the conflict parties to facilitate the INGOs' work without delaying their humanitarian aids. Also, UNICEF needs to prioritize its financial and technical support to increase the number of health personnel in the expanded programme on immunization staff and mobile immunization members to be able to deliver the immunization services and handle the extra workload caused by the current humanitarian crisis. The study also recommends strengthening the immunization information system at all levels; monitoring, evaluation, on-site supervision and disease surveillance. The immunization programme should develop a detailed monitoring and evaluation plan to ensure acceptable standards of quality and effectiveness in the implemented immunization interventions.

**Keywords:** Yemen, UNICEF, humanitarian interventions, mobile immunization teams, polio

***Peranan Program Intervensi UNICEF dalam Meningkatkan Liputan Polio Semasa  
Krisis Kemanusiaan di Yaman***

**ABSTRAK**

*Sebelum berlakunya krisis pada ketika ini, situasi kemanusiaan di Yaman sememangnya mengalami banyak masalah yang menjejaskan taraf hidup penduduknya. Keadaan kemanusiaan yang kritikal ini berpunca daripada banyak faktor seperti ketidakstabilan politik, pelbagai konflik setempat dan tahap pembangunan yang tidak teratur. Kesemua faktor tersebut menyebabkan Yaman menjadi salah satu negara termiskin di Timur Tengah kerana majoriti penduduknya hidup di bawah ambang kemiskinan. Apabila konflik bersenjata bermula pada bulan Mac 2015, infrastruktur awam di negara ini termasuk hospital, sekolah, jalan raya, jambatan dan perkhidmatan awam seperti perkhidmatan air dan sanitasi menerima kesan yang besar. Di samping itu, seluruh negara mula mengalami kekurangan bekalan makanan dan ubat-ubatan yang menyebabkan risiko yang amat besar kepada jutaan manusia. Polio merupakan salah satu penyakit virus dengan jangkitan tertinggi yang menyerang anak-anak kecil. Walaupun ia dianggap penyakit yang boleh dicegah dengan vaksin namun kanak-kanak di Yaman masih terdedah kepadanya. Oleh itu, memerangi polio adalah salah satu matlamat Tabung Kanak-kanak Pertubuhan Bangsa Bersatu (UNICEF) kerana kanak-kanak di Yaman sentiasa terdedah kepada bahaya gejala penyakit tersebut. Penyelidikan ini bertujuan memberi penilaian tentang intervensi utama yang digunakan oleh UNICEF untuk menyediakan perkhidmatan imunisasi termasuk vaksin polio kepada kanak-kanak semasa krisis kemanusiaan di negara ini. Pengumpulan data dilakukan dengan menggunakan kaedah campuran untuk mengumpulkan data dari 108 sampel isi rumah selain daripada wawancara berstruktur dengan pemberi maklumat utama seperti pengurusan kemudahan kesihatan, penyelia imunisasi dan kakitangan utama*

*UNICEF. Analisis keputusan menunjukkan sokongan UNICEF memberi kesan positif terhadap program imunisasi di Yaman. Namun, satu perkara yang perlu diketengahkan adalah kadar liputan meningkat dengan perlahan disebabkan oleh beberapa cabaran yang dihadapi oleh penduduk semasa krisis kemanusiaan. Pergerakan secara besar-besaran penduduk akibat konflik memberi tekanan yang lebih besar terhadap kemudahan kesihatan sehingga ia tidak dapat menyediakan perkhidmatan imunisasi di beberapa kawasan. Konflik itu juga menyebabkan penurunan jumlah pasukan imunisasi bergerak dan kempen vaksinasi nasional. Selain itu, didapati banyak intervensi imunisasi dilakukan tanpa pembangunan pelan pemantauan atau kekurangan petugas kesihatan terlatih pelaporan termasuk pengumpulan data, analisis dan pengiraan kadar liputan atau kadar keciciran. Kajian ini mengemukakan cadangan untuk menyelesaikan cabaran-cabaran tersebut, agensi-agensi bantuan seperti UNICEF perlu memberi tekanan kepada pihak yang berkonflik untuk mempermudah kerja pertubuhan bukan kerajaan antarabangsa (INGO) tanpa menanggung bantuan kemanusiaan mereka. UNICEF juga perlu menyusun keutamaan sokongan kewangan dan teknikalnya untuk meningkatkan jumlah anggota kesihatan dalam program yang diperluas untuk kakitangan imunisasi dan anggota imunisasi bergerak agar dapat memberikan perkhidmatan imunisasi dan menangani beban kerja tambahan yang disebabkan oleh krisis kemanusiaan semasa. Kajian ini juga mengesyorkan pengukuhan sistem maklumat imunisasi di semua peringkat; pemantauan, penilaian, pengawasan di tapak dan pengawasan penyakit. Program imunisasi perlu membangunkan pelan pemantauan dan penilaian terperinci untuk mencapai standard kualiti dan keberkesanan yang boleh diterima dalam pelaksanaan intervensi imunisasi.*

**Kata kunci:** *Yaman, UNICEF, intervensi kemanusiaan, pasukan imunisasi bergerak, polio*



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## LIST OF ABBREVIATIONS

ACAPS	Assessment Capacities Project
AWD	Acute Watery Diarrhoea
BCG	Bacillus Calmette-Guérin
C4D	Communication for Development
CFSs	Child-Friendly Spaces
CSO	Central Statistical Organization
DHO	District Health Office
EECR	Emergency Employment and Community Rehabilitation
EMVAP	Eastern Mediterranean Vaccine Action Plan
EPI	Expanded Programme on Immunization
FGD	Focus Group Discussion
FSAC	Food Security and Agriculture Cluster
GDP	Gross Domestic Product
GoY	Government of Yemen
GPEI	Global Polio Eradication Initiative
GVAP	Global Vaccine Action Plan
HDI	Human Development Index
HF	Health Facility
HH	Household
ICRC	International Committee of the Red Cross
IDPs	Internally Displaced Persons
IHL	International Humanitarian Law
INGOs	International Non-Governmental Organizations
IPC	Integrated Phase Classification

KIs	Key Informants
MENA	Middle East and North Africa
MoPHP	Ministry of Public Health and Population
MoPIC	Ministry of Planning and International Cooperation
MT	Mobile Team
NIDs	National Immunization Days
OCHA	UN Office for the Coordination of Humanitarian Affairs
OR	Outreach
RMMS	Refugees and Migrants Multisector
ROY	Republic of Yemen
SAM	Severe Acute Malnutrition
SIs	Structured Interviews
SIDA	Swedish International Development Cooperation Agency
SPSS	Statistical Package for the Social Sciences
SRS	Simple Random Sample
TI	Transparency International
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
WPV	Wild Poliovirus
UN	United Nations
UNICEF	United Nations Children's Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Since the beginning of the civil war in Yemen in 2015, the conflict has almost destroyed all pivotal health infrastructures. The direct effect of the armed conflict increased the people's suffering and their ability to access the health care system and polio vaccination. In addition, the fragile security situation made the provision of humanitarian aids is extremely difficult and prevented humanitarian partners from responding easily during the Yemen crisis.

United Nations Children's Fund (UNICEF) is one of the United Nations' agencies that provides humanitarian assistance to children in Yemen. One of its humanitarian interventions is the routine immunization program including polio vaccination. Thus, this research aims to provide a comprehensive profile regarding the UNICEF's efforts to deliver the polio vaccination to targeted children. Besides that, this study was conducted in order to identify the challenges encountered while providing immunization services to these children in conflict zones.

In this chapter, a background on Yemen will be introduced to review the effect of the humanitarian crisis in the country. Then, the problem of the research will be discussed along with the general research questions and objectives that guided this thesis. Finally, the scope of research and the significance of this thesis will be presented.

## 1.2 Background on Yemen

### 1.2.1 Geography and Climate

The Republic of Yemen is located in the southern part of the Arabian Peninsula and spreads over an area of 527,970 km<sup>2</sup>, the country is bordered by Saudi Arabia from the north, Oman from the east, the Arabian Sea and the Gulf of Aden from the south, and the Red Sea from the west (See Figure 1.1). Geographically, the country is divided into five major areas: the mountainous area, the coastal area, the plateau area, the desert (Rub' Al-Khali) area and eight Yemeni islands in the Red and Arabian Seas.

Yemen's climate is predominantly semi-arid to arid and the rainfalls are much higher in the mountainous and highlands than the coastal plains. The climate is hot and humid on the west coast, temperate in western mountains affected by seasonal monsoon and extraordinarily hot, dry and harsh desert in the east.

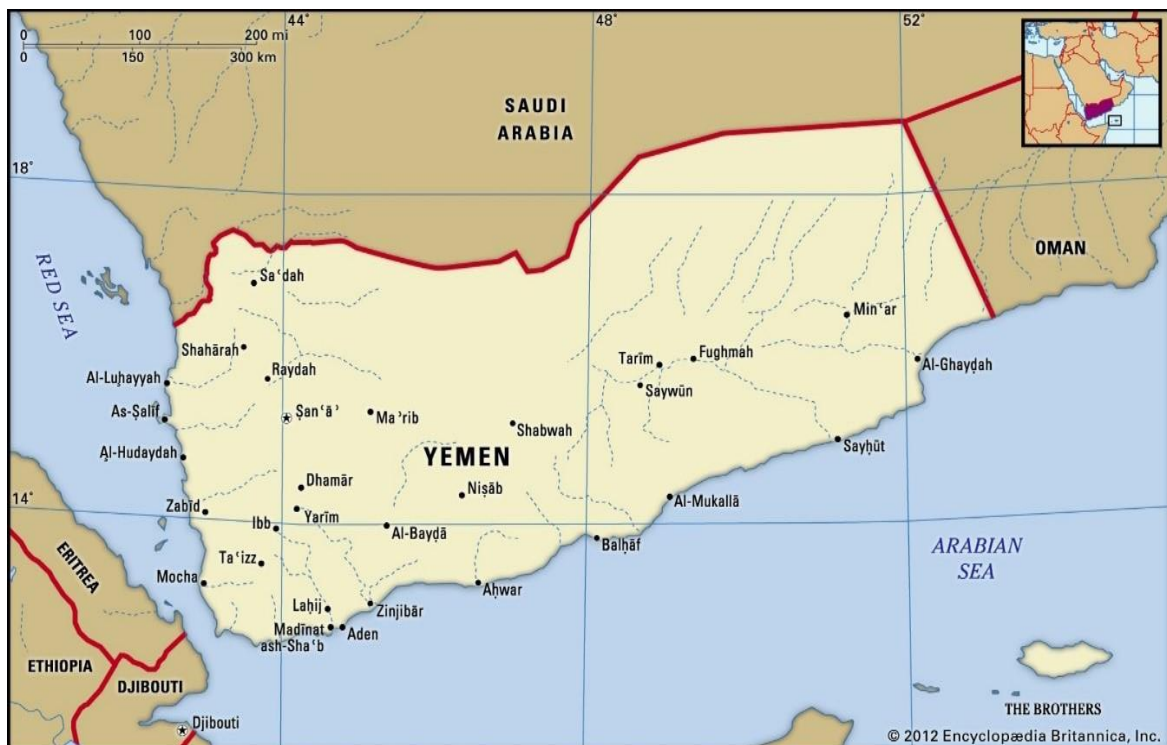


Figure 1.1: Map of Yemen (Encyclopædia Britannica, 2012)

## 1.2.2 Population

According to the Central Statistical Organization of Yemen (CSO), the population of Yemen was 25,235,000 in 2013 (CSO & MoPIC, 2013). However, the population was projected to reach 28 million in 2017<sup>1</sup> based on the latest United Nations (UN) statistics estimates (UN, 2017b). In general, the population density in 2017 was 53.5 per km<sup>2</sup> (UN, 2017a).

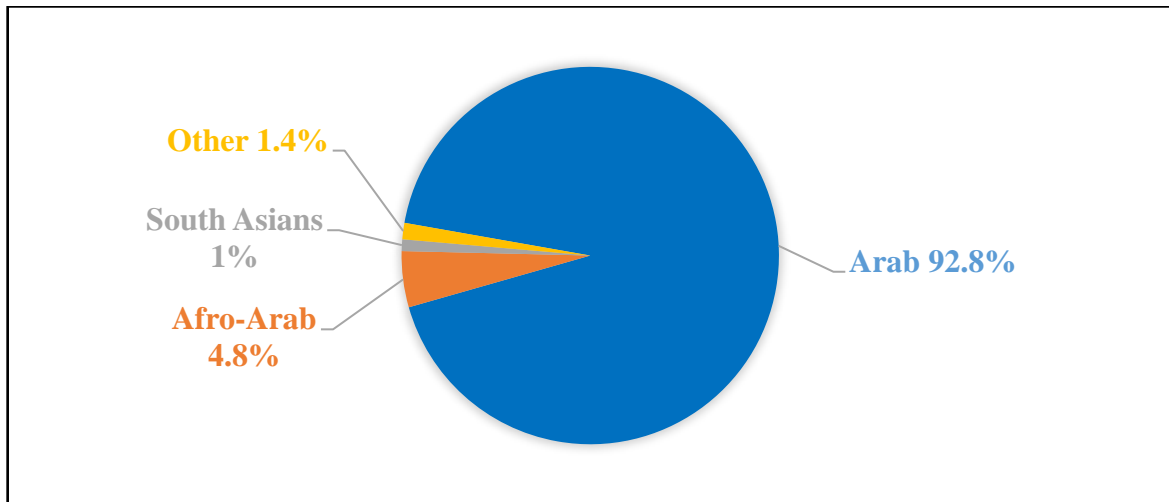
**Table 1.1:** The estimates of population distribution in each governorate in Yemen (Ministry of Local Administration & CSO, 2017)

Governorate	Capital City	Women	Girls	Men	Boys	Total Population (2017)*
Ibb	Ibb	717	751	622	745	2835
Abyan	Zinjibar	152	126	156	132	566
Amanat Al-Asimah	Sana'a	827	1223	1015	1314	4379
Al-Bayda	Al-Bayda	175	204	173	206	758
Taiz	Taiz	825	874	653	828	3180
Al-Jawf	Al-Hazm	113	148	158	168	587
Hajjah	Hajjah	448	585	481	613	2127
Al-Hodeidah	Al-Hodeidah	706	842	745	894	3187
Hadramaut	Al-Mukalla	340	360	368	400	1486
Dhamar	Dhamar	399	561	376	575	1911
Shabwah	Ataq	135	169	147	179	630
Şa'adah	Şa'adah	216	300	242	318	1076
Aden	Aden	214	214	229	266	923
Lahj	Lahj	250	235	246	250	981
Mareb	Mareb	75	84	84	91	334
Al-Mahweet	Al-Mahweet	164	178	163	188	693
Al-Mahrah	Al-Ghaydah	27	38	37	46	148
Amran	Amran	222	297	226	305	1050
Ad-Daleh	Ad-Daleh	158	185	173	202	718
Raymah	Al Jabin	126	158	114	166	564
<b>Total</b>		<b>6289</b>	<b>7532</b>	<b>6426</b>	<b>7886</b>	<b>28133</b>

\*To get the actual figures in the table multiply the numbers by 1000.

<sup>1</sup> The number maybe lower currently due to the increase of deaths related to the ongoing conflict at the time of writing this thesis.

The majority of the Yemeni population have Arab origins who came from the Arabian Peninsula. However, even though most of the population are Arab, Yemen has been the destination for people from East Africa, South Asia and other origins who established other ethnic minority groups in the Yemeni society (See Figure 1.2).

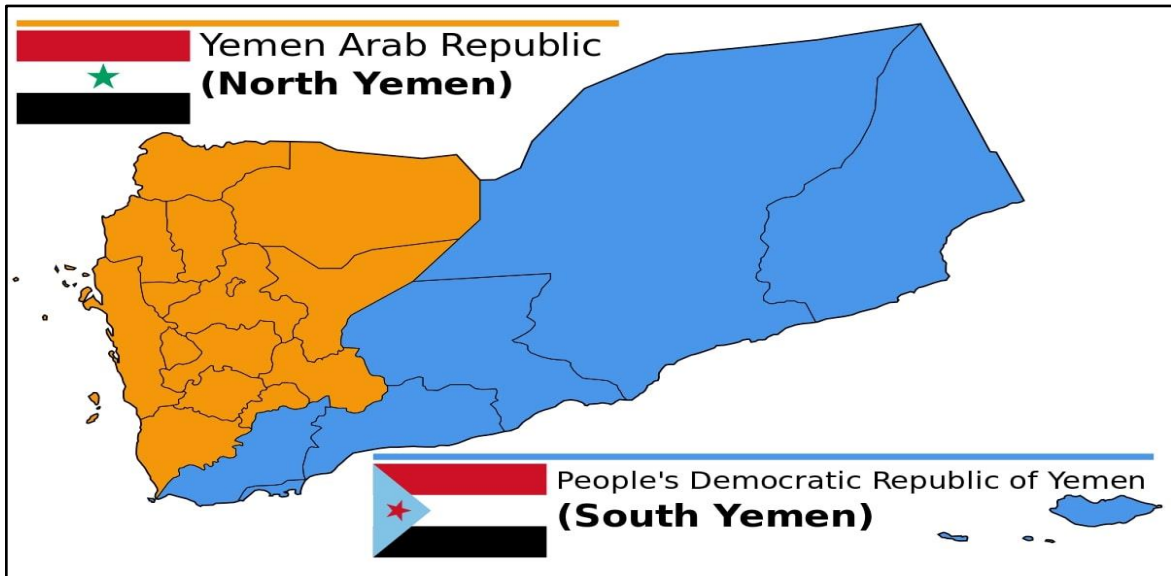


**Figure 1.2:** Yemen's population by ethnic groups (Encyclopædia Britannica, 2018)

### 1.3 Socio-economic Conditions

#### 1.3.1 Government Structure

Before the Republic of Yemen (ROY) was founded, Yemen was divided into two parts, North Yemen and South Yemen. The north was a former monarchy that was brought down by a group of army officers who seized power and established Yemen Arab Republic in 1968. The capital was Sana'a and the regime was inspired by the republican principles that encouraged people to participate in public political life. On the other hand, South Yemen was a British colony until 1967 when it became known as People's Democratic Republic of Yemen with Aden as its political capital. The regime in southern Yemen was based on a one-party state ideology influenced by Marxism-Leninism. Therefore, the relations between the two Yemeni parts oscillated between peace and hostility.



**Figure 1.3:** North Yemen and South Yemen before the unification in 1990 (Wikipedia, 2011)

However, these two parts unified on 22<sup>nd</sup> May 1990 and became the Republic of Yemen which is divided administratively into 22 governorates<sup>2</sup>. Yemen has a bicameral legislature that contains the house of representatives and Shura “consultation” council. The house of representatives consists of 301 members who are elected directly by the citizens. The representatives are responsible for establishing the laws, supervising the work of the executive authorities and approving the general policy of the country, the general budget and the general plan for economic and social development. On the contrary, the Shura council is not elected but selected by the president of Yemen. It consists of 111 members who are chosen from the tribal leaders, judges and religious leaders in the country. In general, the role of the Shura council is advisory. Therefore, all the draft of laws and proposals are reviewed and evaluated by the Shura members before voting on them in the parliament. In

<sup>2</sup> The administrative division in the country considered Hadramaut governorate as two governorates. However, after the last official estimation of the population in 2013, another governorate was created which is Soqatra governorate.

addition, the Shura council has a decisive voice on some important legislative issues. However, since unification, Yemen has election and a multiparty political system. Therefore, several parliamentarians, presidential and local council's elections had been conducted in the past decades.

### **1.3.2 Economy**

In the past, agriculture was the main source of Yemen's economy. It contributed to 14.7% of Yemen's total gross domestic product (GDP). The main agricultural products in the country are fruits, vegetables, cereals, grains, poultry, livestock, industrial crops and fish. Although most of the population depend on agriculture as a main source of livelihood, the role of agriculture is changing due to many reasons such as the domination of other sectors, migration of rural labour to the main cities and the structural changes within agricultural industries. At present, Yemen economy depends on oil production and refining, cement production, food processing and leather products. These industries contribute to 36.9% of the overall country GDP. The services contribute to 48.4% of total GDP which makes this sector the highest income source among other sources (UN, 2017a). Unfortunately, the services sector was the most affected sector during the armed conflicts in the country especially the electricity towers which were ruined and will need to be restored.

The increase in population and economic activities in the country have led to an increase in the pressure on its resources consequently. Inability to cope with the pressure, led Yemen to rank at 168 out of 188 countries in human development index (HDI) and made it one of the poorest and least developed countries in the world with GDP per capita reaches to \$1106 per year in 2015 (UN, 2017a). Furthermore, the unemployment rate reached 13.5% of the population and only 4.2 million people (of which 7% females and 93% males) are still