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The economic impact of COVID-19 on Syrian Refugees in Jordan: A review of existing evidence and policies

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Abstract: The global COVID-19 crisis has precipitated an economic downturn in many countries, subsequently raising concerns about the potential challenges faced by marginalized populations, such as refugees, in accessing essential healthcare, hygiene facilities, and critical health information and safety guidelines within the context of Jordan. Consequently, it is of paramount importance to investigate and evaluate the specific economic hurdles related to COVID-19 that refugees are encountering. This inquiry will serve as a valuable foundation for shaping public health interventions aimed at containing the virus's spread and guiding policymakers on strategies to enhance the well-being of refugees in Jordan. This paper offers a comprehensive examination of Syrian refugees in Jordan, including an analysis of the policies implemented by Jordan concerning Syrian refugees in the context of the COVID-19 pandemic. Moreover, the report assesses whether international assistance, both through bilateral and multilateral channels, can mitigate the impact of COVID-19 on Jordan's capacity to continue hosting Syrian refugees. It also delves into the economic consequences of COVID-19, covering aspects such as poverty, education, the health sector budget, healthcare accessibility, essential needs, livelihoods, the labor market, and food security among Syrian refugees in Jordan.

Keywords: COVID-19; Jordan; Syrian refugees; economic impacts

JEL classification: F22; J6; I3

1. Introduction

The emergence of the novel coronavirus (COVID-19) in December 2019 prompted the World Health Organization (WHO) to declare a global pandemic on March 11, 2020 (Cucinotta and Vanelli, 2020). In order to mitigate the spread of disease, numerous countries globally have instituted diverse containment measures, including the implementation of stay-at-home orders, curfews, and lockdowns (Wong et al., 2020). Following this declaration, the Government of Jordan took swift action, imposing a set of preemptive restrictions on 17 March 2020, as they declared a state of emergency in an effort to curtail the transmission of COVID-19 (El-Abed and Shabaitah, 2020). For almost two months, the lockdown permitted people to be mobile within a limited proximity to their homes, allowing them to run errands and to buy basic needs such as food and medicine, and these restrictions were only eased in early May. The lockdown, in place for nearly two months, granted individuals the freedom to move within a restricted radius of their residences, which enabled them to carry out essential tasks, including grocery shopping and obtaining medication (El-Abed and Shabaitah, 2020). It was not until early May that these restrictions were gradually relaxed.

This study seeks to address two key research questions within the context of the COVID-19 pandemic in Jordan: Firstly, how did the emergence of the COVID-19 pandemic in Jordan, coupled with pre-existing economic challenges and the presence of Syrian refugees, impact the economic well-being and living conditions of Syrian refugees in Jordan? Secondly, to what extent have Jordan's policies, along with international assistance, influenced the ability of Syrian refugees in Jordan to access essential healthcare, hygiene facilities, and economic resources during the COVID-19 pandemic? These questions are critical for understanding the specific challenges faced by Syrian refugees in Jordan during the pandemic and informing policy interventions to effectively meet their needs.

Prior to the challenging circumstances brought about by COVID-19, the Jordanian economy was grappling with sluggish growth and a persistent high unemployment rate, which had remained at 19 percent for several years (The World Bank, 2023). Jordan has historically sheltered diverse refugee populations, including Palestinian, Iraqi, Syrian, and Lebanese refugees. These waves of displacement have significantly shaped Jordan's demographic landscape, with refugees comprising a substantial portion of the country's population (El-Abed, 2014). The unexpected shock of the COVID-19 lockdown and the subsequent economic slowdown compounded the existing strains on the fragile economy, further exacerbating its difficulties (Durable Solutions Platform, 2020). Additionally, Jordan has been grappling with additional stressors for the past nine years due to its strategic geopolitical location in a volatile region, specifically its role as a host to refugees (Al Qaralleh, 2022). Syrian refugees represent the most recent wave of displaced individuals that Jordan has endeavored to manage as part of a comprehensive humanitarian development response plan designed to benefit both the local population and the Syrian refugees (Al Qaralleh, 2022).

Refugees face a particularly high degree of vulnerability to socio-economic burdens in the midst of the ongoing pandemic, primarily due to their living conditions that substantially elevate their susceptibility to infection (Beech and Hubbard, 2020). To illustrate, the recommended preventive measures for controlling the transmission of COVID-19, such as practicing good hand hygiene and maintaining physical distance, are impractical to implement and sustain in densely populated and inadequately maintained settings like refugee camps (Subbaraman, 2020). Furthermore, the majority of refugees currently reside in temporary accommodations within impoverished urban areas marked by overcrowding, a shortage of clean water, and a lack of personal hygiene facilities (Subbaraman, 2020). The dearth of accessible public health services, financial resources to support their families, and proper sewage systems pose additional obstacles to curbing the spread of COVID-19 among refugees (Kassem, 2020). Moreover, when refugees are confirmed as COVID-19 positive cases, the necessity for quarantine or self-isolation compounds the financial challenges they confront on a daily basis (Kassem, 2020).

Efforts to contain the potential spread of COVID-19 are having adverse effects on marginalized communities, such as refugees, primarily because the majority lack the financial resources to stockpile essential supplies needed during a lockdown (Dhingra, 2020). Approximately 80 percent of Syrian refugees live below the poverty line, and a mere two percent of households have any savings (Dhingra, 2020). Upon the announcement of travel restrictions, refugees residing in the Za'atari refugee camp

in Jordan immediately observed a surge in prices at the camp's main marketplace. Similar price hikes have been documented outside the camp, even though the government has taken steps to impose price controls (Dhingra, 2020).

The COVID-19 crisis in Jordan has manifested as an economic crisis, raising concerns that marginalized populations like refugees may encounter difficulties in accessing essential healthcare and hygiene facilities, as well as obtaining crucial health information and safety guidelines. It is thus crucial to explore and assess the COVID-19-related economic challenges specifically faced by refugees. This will help inform public health interventions for curbing the spread of the virus and policy makers on how to enhance the well-being of refugees in Jordan.

The research concentrated on the period from mid-March 2020, when the COVID-19 pandemic began to emerge in Jordan, to mid-August 2020. Its aim was to investigate the immediate economic consequences of COVID-19 on Syrian refugees living in Jordan. A diverse set of sources, including print media (such as news articles), broadcast media (like YouTube discussion programs), document analysis, telephone and Zoom discussions with pertinent officials and experts, case studies, published research, and other indirect reporting methods, were employed to comprehensively examine the various economic effects experienced by Syrian refugees in Jordan.

This article will begin with an overview of Syrian refugees in Jordan. This will be followed by an analysis of Jordan's policies towards Syrian refugees during the COVID-19 pandemic. The report also assesses whether international assistance, through both bilateral and multilateral channels, could mitigate the impact of COVID-19 on Jordan's ability to continue to host Syrian refugees. Finally, the COVID-19 economic impacts regarding poverty, education, health sector budget, health, Humanitarian Support and Essential Services, livelihoods, labor market, and food security, on Syrian refugees in Jordan will be assessed.

2. Overview of Syrian refugees in Jordan

Because of its stability and strategic geographic location, Jordan has become a destination for numerous displaced refugees fleeing conflicts in the Middle East (Talafha et al., 2022). Jordan serves as a vital sanctuary for refugees from neighboring countries, including Palestine, Iraq, and Syria. Following the 1990-91 Gulf crisis, Jordan provided refuge to nearly a million individuals displaced from Kuwait, Iraq, and neighboring states. While a majority of third-country migrants were swiftly repatriated within weeks to various parts of the Middle East, South, and Southeast Asia, Jordan faced the challenge of accommodating around 300,000 of its own citizens who were involuntarily repatriated (Van Hear, 1995). As of the year 2020, Jordan is estimated to be home to approximately 2 million Palestinian refugees, 67,000 Iraqi refugees, 15,000 Yemeni refugees, and 6,000 Sudanese refugees (Bellizzi et al., 2021). These statistics underscore the Jordanian government's commitment to aiding refugees, a commitment that extends to Syrian refugees as well. The Syrian conflict has led to a significant influx of Syrian refugees into Jordan, straining the country's population and service infrastructure. This influx is considered one of the largest challenges the country has faced. Jordan, classified as a middle-income economy, boasts a population of 11 million people and ranks second globally in terms of the

proportion of refugees it hosts per capita (US Department of State, 2023). According to a report by the Jordan Times in 2020, individuals from various nationalities now constitute one-third of Jordan's population (The Jordan Times, 2020a). The Jordanian government estimates that the direct cost of the Syria crisis to Jordan has been around USD 10.2 billion since 2011 (Hussein et al., 2020).

While Jordan has been a host to Palestinian refugees since the tragic events of the 1948 and 1967 wars, as well as several waves of Iraqi refugees between 1991 and 2010, the Syrian conflict has brought about a significant influx of over 1.5 million Syrian refugees into Jordan. This sudden demographic shift has placed substantial strain on both the population and the service infrastructure in the country (El-Abed and Shabaitah, 2020). Table 1 provides a historical perspective on the number of Syrian refugees in Jordan. As of November 2020, there were 662,694 Syrian refugees officially registered with the United Nations High Commissioner for Refugees (UNHCR) in Jordan. However, UNHCR estimates suggest that the actual number could be as high as 1.4 million (Dator et al., 2018). Despite the efforts of the Jordanian government and international organizations, providing essential support for refugees, including healthcare, education, and infrastructure, has stretched available resources. The provision of necessary support for refugees, including healthcare, education, financial assistance, infrastructure, and resettlement resources, has placed immense pressure on the Jordanian Government in terms of available living space and national resources (Al Qutob, 2016). Jordan is often cited as the world's second most waterscarce nation. According to government narratives, groundwater depletion is rapidly increasing, particularly since the Syrian refugee crisis, as a result of excessive pumping exceeding the aquifers' sustainable capacity, leading to a significant decline in water tables (Hussein et al., 2020). In Jordanian discussions, the Syrian crisis is perceived as an extra burden on the limited water resources of Jordan, with refugee needs compounding existing challenges related to inadequate supply, unsustainable management, and outdated infrastructure (Hussein et al., 2020).

Table 1. Number of Syrian refugees registered with UNHCR in Jordan.

Year (Date)	In camps	Out-of-camps	Total
2013 (Dec 31)	127796	451501	579297
2014 (Dec 30)	100014	525244	625258
2015 (Dec 15)	114242	533583	647825
2016 (Dec 31)	136879	514029	650908
2017 (Dec 18)	139500	516513	656013
2018 (Dec 9)	126037	546038	672075
2019 (Dec 1)	123172	531971	655143
2020 (Nov 4)	126832	535862	662694

Data source: (UNHCR, 2022b).

The first cases of COVID-19 among refugees were identified within refugee camps, while the spread of the virus in communities beyond these camps remains uncertain. The initial cases of confirmed COVID-19 among Syrian refugees in Jordan emerged in September 2020, specifically within the Zaatari and Azraq Refugee Camps

(Aljazeera, 2020). Although the majority of Syrian refugees, around 80%, reside in communities outside of the refugee camp environment, the number of positive COVID-19 cases among refugees living outside the camps remains unknown (Kheirallah et al., 2022). The UNHCR reported a significant number of COVID-19 cases among forcibly displaced individuals, including refugees in Jordan, highlighting the vulnerability of refugee populations to the pandemic. According to the recent UNHCR report, as of February 2022, approximately 116,000 cases of COVID-19 were documented among forcibly displaced individuals, with approximately 2,400 refugees testing positive for COVID-19 within refugee camps in Jordan (UNHCR, 2022a).

3. Jordan's policies towards Syrian refugees during COVID-19

Throughout its history, the Jordanian government has heavily depended on substantial international assistance to support both refugees and maintain its economic stability. Nevertheless, the swift implementation of stringent COVID-19 containment measures has disrupted humanitarian aid efforts, jeopardized livelihoods, and disregarded the needs of both refugees and vulnerable Jordanian citizens (Dhingra, 2020). In response to the pandemic, the Jordanian government has designated several national charitable organizations to assist in executing its domestic relief program, aimed at benefiting 350,000 households in need (Lindsey, 2020). It is noteworthy that the government has imposed identical movement restrictions on refugees and its own citizens (Sadek, 2020).

Robust and close collaboration with the Syrian Refugee Affairs Directorate remains pivotal in ensuring the well-being of refugees and keeping them wellinformed about the latest developments (UNHCR, 2019a). The UNHCR takes charge of orchestrating the refugee response in partnership with the Jordanian government, fostering cooperation among the donor community, various UN agencies, both international and local NGOs, community-based organizations, refugees, and host communities. As an illustration, in August 2019, the UNHCR facilitated consultations with the Ministry of Planning and International Cooperation (MoPIC) regarding the new 2020-2022 Jordan Response Plan (JRP) (Reliefweb, 2019a). The JRP is a comprehensive three-year initiative aimed at addressing the needs and vulnerabilities of Syrian refugees, as well as Jordanian citizens, communities, and institutions (MoPIC, 2020). It consolidates refugee and resilience responses into a unified vulnerability assessment and a single plan for each sector outlined within it (MoPIC, 2020). The most recent iteration of the JRP was unveiled on 22 June 2020, following the recognition of the COVID-19 threat (MoPIC, 2020). This plan aligns all sectors with the UN Sustainable Development Goals and identifies areas requiring support in accordance with the Global Compact on Refugees and Jordan's National Plans (MoPIC, 2020; Reliefweb, 2020a).

The allocation of the JRP budget, measured in USD, from 2015 to 2022 exhibited the following figures: 2.99 billion (2015), 7.99 billion (2016–2018), 7.31 billion (2018–2020), and 6.60 billion (2020–2022) (MoPIC, 2020). In general, there has been a noticeable reduction in JRP funding for the Syrian crisis during the period from 2020 to 2022, a development that has disappointed both Syrians and Jordanians. The rationale behind this decline can be attributed to the strategic objective of encouraging

Syrian nationals to repatriate and participate in the reconstruction of their homeland, as well as to motivate the Jordanian government to issue a greater number of work permits to Syrian refugees, as elucidated by (Fdailat, 2020). Additionally, it is worth mentioning that Jordan has faced challenges related to donor fatigue, as pointed out by (Morris, 2019), coupled with diminishing budgets in donor countries, as noted by (Singh, 2020). These factors have contributed to a reduction in foreign aid contributions. In light of these potential funding threats, many humanitarian experts are beginning to raise questions about the possibility of the Jordanian government exploring the option of encouraging Syrian refugees to contemplate returning to their home country (Morris, 2019).

Nonetheless, the awareness of COVID-19 prompted the creation of the Contingency and Response Plan for COVID-19, which is currently being executed within the existing coordination framework established by the Inter-Sector Working Group (ISWG). The ISWG was established to foster cooperation and synergy among various refugee sectors, prevent redundancy, leverage common processes, and facilitate the exchange of information not only between sectors but also with other forums like the Humanitarian Partners Forum (UNHCR, 2020a). Serving as the primary liaison between sector working groups, the ISWG endeavors to address overarching concerns, including gender equality programming. It convenes on a monthly basis and comprises sector coordinators along with representatives from the international non-governmental organization forum. The UNHCR Inter-Sector Coordinator chairs the ISWG (UNHCR, 2020a). The Contingency and Response Plan for COVID-19 was crafted to encompass both preparedness and response strategies for dealing with COVID-19. This plan is in alignment with Jordan's National Preparedness and Response Plan, structured around its eight key pillars (UNHCR, 2020a).

4. International assistance towards Syrian refugees in Jordan during COVID-19

International support, facilitated through both bilateral and multilateral channels, has the potential to alleviate the impact of COVID-19 on Jordan's capacity to host Syrian refugees (Istaiteyeh, 2020). Over recent years, Jordan has received substantial humanitarian assistance, coupled with development programs aimed at addressing the underlying structural economic and societal challenges faced by both refugees and host communities (IMPACT, 2020). To illustrate:

- 1) The United States has provided humanitarian aid to Jordan for the Syrian crisis since 2012, amounting to over US\$388 million in 2014 (US Embassy in Jordan, 2014). Additionally, the International Monetary Fund (IMF) extended US\$1.3 billion in assistance to Jordan, intended to support economic structural reforms and address COVID-19-related needs (Riedel, 2020).
- 2) The European Union (EU) has allocated a total of €2.1 billion in aid to Jordan from the onset of the Syrian crisis until 2019, with more than €360 million dedicated to humanitarian relief efforts (Baibars, 2019).

- 3) Germany has contributed €600 million in development and humanitarian aid, encompassing both financial and technical support, for the benefit of Syrian refugees and host communities in Jordan (Allubani, 2019).
- 4) In 2019, the Government of Japan committed US\$3.57 million in humanitarian funding to UNHCR Jordan, specifically to assist Syrian refugees residing in urban areas as well as the Za'atari and Azraq refugee camps (UNHCR, 2019b).
- 5) France has pledged financial support totaling more than €1 billion for the period 2019–2021, directed towards aiding Syrian populations facing humanitarian crises, refugees, and host countries, with a focus on Lebanon and Jordan. This commitment includes €200 million in grants and €937 million in loans (France Diplomacy, 2019).

Nonetheless, the key question is the extent to which this assistance will be directed to the Jordanian government to bolster its development initiatives, invest in infrastructure development, and address its public deficit. To illustrate, out of the total German assistance provided to Jordan, amounting to €729.4 million in 2018, €400 million (55 percent) was allocated to bolster Jordan's water infrastructure and support its education sector (Allubani, 2019).

Financial aid, whether in the form of grants or loans with scheduled repayment, is contingent upon Jordan implementing structural economic reforms or revising its policies concerning refugees. As an example, during the 2020 Brussels IV Conference on the Future of Syria and the Region, Jordan's Foreign Ministry committed to granting over 190,000 work permits to Syrian refugees in the country, a move expected to ultimately benefit host communities (RT News, 2020). Furthermore, Jordan is collaborating with the IMF on an extended economic reform program aimed at reducing public debt, mitigating budget deficits, increasing employment opportunities, and enhancing fiscal responsibility). Consequently, it is probable that the Jordanian government will encounter increased pressure from the IMF in the near future, compelling it to undertake additional economic and financial reforms. These reforms are intended to enhance its ability to meet foreign debt obligations and curb budget deficits. However, such measures may impose new financial burdens on the citizenry (Al-Dubaisi, 2020).

5. COVID-19 economic impacts on Syrian refugees in Jordan

A collaborative research effort conducted by (UNHCR, UNICEF & WFP, 2020), focusing on Jordanian households categorized as vulnerable according to UNICEF's multi-dimensional vulnerability assessment, encompassing Syrian refugee households residing outside of camps and registered with the UNHCR, as well as non-Syrian refugees in Jordan, yielded the following findings:

- Shortages in medicine and travel restrictions.
- Insufficiency of available cash and the closure of essential facilities.
- Erosion of access to livelihoods and constraints on limited savings.

These findings underscore the profound and immediate challenges faced by these vulnerable populations. Additionally, there are concerns about the long-term economic repercussions, particularly within the informal labor sector, which may potentially reverse the recent advancements in refugee self-reliance by diminishing livelihood

opportunities. In this section, the COVID-19 economic impacts regarding poverty, education, health sector budget, health, Humanitarian Support and Essential Services, livelihoods, labor market, and food security, on Syrian refugees in Jordan were assessed.

5.1. Poverty

Syrian refugees residing in Jordan constitute an exceptionally vulnerable demographic, as underscored by (Hamou, 2020). Among this group, it is essential to highlight that 51% are children, and 4% are elderly individuals, as reported by (Reliefweb, 2018). Whether situated in refugee camps or within host communities, Syrian refugees in Jordan grapple with economic disadvantages and substandard living conditions, a situation previously detailed by the United Nations World Food Programme (UN WFP) in 2022 (UN WFP, 2022). A significant portion of these refugees resides outside the official camps, scattered across various cities and regions, with the majority lacking work permits, leaving them reliant on humanitarian aid for survival, according to the UNCHR Alarming statistics indicate that an estimated 64 percent of refugees in Jordan survive on less than 3 Jordanian dinar a day (UNHCR, 2022c). The advent of the COVID-19 pandemic and the subsequent nonpharmaceutical intervention measures have exacerbated these challenges and introduced further vulnerabilities to their already fragile circumstances, as reported by (UN WFP, 2022). Moreover, it is suggested that a considerable portion of Syrian refugees in Jordan were already in poor health prior to the outbreak of COVID-19 (Karasapan, 2022). Disturbingly, (UNHCR, 2023) reveals that nine out of every ten refugee households in Jordan are burdened by debt. Whether residing in designated camps or urban centers, most refugees strive to secure employment, typically in industries such as manufacturing, construction, or agriculture, roles that cannot be performed remotely, as highlighted by (Bar'el, 2020).

5.2. Education

Approximately one out of every three of the 660,000 Syrians officially registered with the UNHCR in Jordan, totaling nearly 220,000 individuals, falls within the school-aged bracket of five to 17 years old, as reported by (Human Rights Watch, 2016). In response to this challenge, Jordan has taken measures to facilitate the inclusion of refugee children into its educational system, employing a multi-pronged approach. This initiative involves the utilization of Ministry of Education (MoE) schools within refugee camps or host-community settings, encompassing both single-shift and double-shift schools in urban areas, as well as the provision of accredited non-formal education options, as noted by (UNICEF Economic & Social Council, 2020). Crucially, the Ministry of Education, highlighted as a pivotal implementing body in the JRP, diligently strives to ensure that every Syrian refugee student, irrespective of gender, gains access to kindergarten, primary, and secondary education (MoE, 2018).

Upon the announcement of a nationwide lockdown, the Jordanian authorities took the decision to shutter the 32 schools situated within the Za'tari camp (Dunmore and Cherri, 2020). Instead, they opted for a novel approach, broadcasting educational

lessons via a television channel that served the needs of over 18,000 enrolled students, extending its reach across the entire country (Dunmore and Cherri, 2020). This endeavor, however, came with its fair share of challenges, a point highlighted in the study conducted by (Małachowska et al., 2020). One of the primary hurdles faced was the issue of access for Syrian refugee children residing in crowded households with multiple school-aged children; having access to a television, computer, or the internet was often a formidable obstacle (Małachowska et al., 2020). Additionally, these students encountered difficulties in comprehending and following the lessons, were constrained in their ability to pose questions regarding the content, and received limited assistance from both teachers and parents, as elucidated by (Małachowska et al., 2020). In contrast, the Ministry of Education reported that approximately 70% of children in Jordan had access to online learning resources (The National, 2020). However, a stark contrast emerged as the majority of refugee children living within camps struggled to secure adequate internet access (The National, 2020).

While Syrian students are integrated into the public education system, it's important to note that the majority of funding allocated to support their inclusion does not find its place within the official budget lines or budget performance indicators of the Jordanian government (UNICEF Economic and Social Council, 2020). Conversely, the JRP incorporates a dedicated chapter addressing education, which is expected to align with Jordan's Education Strategic Plan (ESP). The budget allocation for education within the JRP, measured in USD, spanning the years from 2015 to 2022, can be outlined as follows: 257 million (2015), 854 million (2016–2018), 1.15 billion (2018–2020), and 562 million (2020–2022) (MoPIC, 2020).

5.3. Health sector budget

The breakdown of the budget allocation for education within the JRP, measured in USD, spanning the years from 2015 to 2022, is as follows: 234 million (2015), 532 million (2016-2018), 515 million (2018-2020), and 503 million (2020-2022) (MoPIC, 2020). During this period, Jordan also received support to combat the pandemic from various sources:

1) The United States government extended a generous contribution of US\$8 million to mitigate the spread of COVID-19 in Jordan (US Embassy in Jordan, 2020). This funding encompassed US\$6.5 million in humanitarian assistance from the MRA account, aimed at bolstering COVID-19 response efforts, particularly to aid refugees in Jordan (US Embassy in Jordan, 2020). It supported initiatives related to health assistance, the provision of additional hours of electricity in camps to facilitate remote education, and short-term cash assistance for refugees outside of camps to cover essential needs such as shelter, water, and utilities (US Embassy in Jordan, 2020). The funds also provided support to individuals who had lost their livelihoods due to COVID-19 prevention measures (US Embassy in Jordan, 2020). This figure also included US\$1.5 million in health assistance from USAID, directed towards enhancing laboratory capabilities for large-scale COVID-19 testing and capacity building to enhance case management protocols and systems (US Embassy in Jordan, 2020). Additionally, the United States took the lead in coordinating donor support to the Government of Jordan to prioritize

- critical life-saving assistance during this evolving threat (US Embassy in Jordan, 2020).
- 2) Japan allocated US\$3.7 million to the Jordanian Ministry of Health to aid in the fight against COVID-19 throughout the country (Alanbat News, 2020). Furthermore, the WHO provided Jordan's MoH with essential medical equipment to support their response to COVID-19 (Zawya, 2020).
- 3) Chinese businessman Jack Ma, through the Jack Ma Foundation and Alibaba Foundation, generously donated 100,000 COVID-19 detection kits and other vital medical supplies to Jordan (Royal Hashemite Court, 2020).
- 4) The governments of the United States, Denmark, Canada, and Qatar jointly announced an allocation of US\$10 million through a multi-donor agreement to assist Jordan in addressing the COVID-19 health crisis (The Jordan Times, 2020b).

5.4. Health

The pandemic lockdown had a significant impact on the existing aid distribution systems. This was primarily due to the confusion surrounding mobility restrictions, which not only limited the access of NGO employees but also led to the postponement of United Nations cluster group meetings aimed at coordinating and overseeing assistance (Dhingra, 2020). In response to the crisis, Jordan's Ministry of Planning and International Cooperation swiftly implemented an approval mechanism to expedite activities and projects addressing COVID-19 within the Health and Social Protection sectors. These initiatives were designed to benefit vulnerable Jordanians, those working in the informal sector, and Syrian refugees (Reliefweb, 2020b). On the ground, health teams led by the Jordan Ministry of Health, with support from UNHCR and the International Medical Corps, conducted rapid COVID-19 testing in refugee camps (Reliefweb, 2020b). In urban refugee areas, healthcare partners gradually expanded their services for refugees, with further improvements expected. Both Syrian and non-Syrian refugees had access to either public or private hospitals in Jordan. Syrians received subsidized access to government hospitals, while non-Syrians could access clinics with limited support from NGOs like Caritas (Dhingra, 2020).

There were initial indications that refugees were reluctant to seek medical help due to the fear of being stigmatized upon receiving a positive COVID-19 diagnosis (Tiltnes et al., 2019). This fear encompassed feelings of guilt about contracting the virus and apprehensions about potentially spreading it to others (Saifee et al., 2021). Truelove et al., (2020) reported that within the Rohingya camps in Bangladesh, aid workers noted a scarcity of COVID-19 tests being administered to refugees displaying symptoms. This hesitancy was rooted in fears of potential isolation from their families, the prospect of deportation, and even the possibility of experiencing harm. Consequently, as discussed by (Bhanot et al., 2021), this could lead to the hiding of symptoms, postponement in seeking timely medical care, and a reduced propensity to comply with public health measures, all due to the wider societal stigma associated with COVID-19.

The COVID-19 pandemic has exacerbated anxiety and depression globally, with refugees being particularly vulnerable due to higher rates of mental health disorders,

trauma histories, and daily stressors. Akhtar et al. (2021) conducted a study on Syrian refugees in Azraq Camp, Jordan, examining the pandemic's psychological effects. Economic difficulties (82.4%), shortages of essential supplies (71.3%), and concerns about infecting others (59.7%) or themselves (51.9%) were among the most common worries reported. Interestingly, refugees assessed during the pandemic showed fewer severe PTSD symptoms compared to pre-pandemic assessments. Lower depression levels before the pandemic were significant predictors of pandemic-related concerns, along with increased anxiety during the pandemic. Refugees living within the host community may require more support in managing their condition, access to free testing, treatment, and healthcare services (Kheirallah et al., 2022).

5.5. Humanitarian support and essential services

As reported by UNHCR, (2020b). operations in Za'atari and Azraq refugee camps have reduced their staff during the lockdown, but they continue to address urgent protection needs, and essential services such as hospitals, clinics, and supermarkets remain open. Additionally, efforts have been made to enhance electricity provision, while water and sewage services are operating normally. UN Women has adopted innovative approaches like using WhatsApp to disseminate reliable information about COVID-19 prevention and government- and WHO-provided services to support vulnerable Syrian refugees during the lockdown (UN Women, 2020). They have also been delivering essential services to over 5,700 Syrian refugees in Za'atari and Azraq refugee camps (UN Women, 2020).

To ensure food security, the UN World Food Programme (WFP) has strategically positioned food rations in case informal markets are unable to operate as usual. Importantly, goods and materials are still allowed to enter the camps (Istaiteyeh, 2020). In response to the crisis, a COVID-19 Response Task Force focused on meeting the needs of vulnerable communities, including refugees and Jordanians, particularly those living at or below the poverty line. This approach is being developed through joint targeting criteria, and it is coordinated by (Basic Needs Working Group Jordan, 2021). Referring to reports on refugee response coordination, UNHCR, (2020c). reported that their regular monthly cash assistance for March 2020 achieved a 98 percent withdrawal rate by the beneficiaries. Various forms of basic needs programs and assistance are being provided to Syrian refugees in the camps, encompassing cash assistance, support for core relief items (including diapers, sanitary materials, and gas), and mobile money services (Samuel Hall, 2020).

5.6. Livelihoods

Livelihoods, as described by Manlosa et al., (2019). encompass the strategies and resources necessary for sustaining one's life. These resources include assets like land or property, crops, food, knowledge, financial means, social networks, and an individual's integration within the political, economic, and sociocultural fabric of their community (Islam and Ryan, 2015). Refugees encounter a complex set of challenges, including harsh living conditions, limited access to healthcare, economic instability, and a heavy reliance on humanitarian aid. Furthermore, the repercussions of labor constraints and disruptions in international assistance for both refugees and vulnerable

members of the host communities are expected to exacerbate in the forthcoming months (Dhingra, 2020).

Defense Order 6 introduced new regulations for all private sector workers governed by the Labour Law (Dentons, 2020). These regulations are applicable to refugee workers who meet the specified criteria. Within the Cash for Work subgroup, a decision was made to extend assistance to all beneficiaries affected by the COVID-19 situation until 16 April. This extension serves to provide income stability for vulnerable households (Istaiteyeh, 2020). The livelihoods sector underscores the importance of adopting refugee-inclusive employment strategies, expanding grants to businesses, offering cash transfers, short-term employment opportunities, and advocating for policies aimed at enhancing refugee participation in the labor market (Istaiteyeh, 2020). This approach necessitates prompt and adaptable support from both the government and the private sector, both in the immediate response and over the long term (UNHCR, 2021). As reported in UNHCR Refugee Response Coordination Coronavirus Updates, two of the programs providing livelihood support for refugees are Mobile Money (eWallets) and Incentive-based Volunteering Schemes (IBVs) (UNHCR, 2021).

Defence Order number 6: This order about making a variety adjustment of labor laws during COVID, aims to protect the rights of workers in various economic sectors as some sectors gradually return to work while the curfew continues. (The Jordan Times, 2020c).

Efforts are underway to expand the social protection system in order to alleviate vulnerabilities. However, the capacity of the Jordan National Aid Fund (NAF) to provide support to Jordanian citizens, as well as the UN-administered food vouchers and cash transfers, falls short of meeting the needs of the population requiring assistance (Małachowska et al., 2020). As noted by UNHCR, (2022d). those excluded from the government's social protection programs primarily consist of refugees who have limited alternatives and rely on an aid system that is severely underfunded. Furthermore, after numerous years of crisis, international funding for Jordan has decreased (Morris, 2019; Singh, 2020). Most donors now prioritize economic empowerment and development initiatives over emergency cash assistance for refugees, which is often necessary for purchasing food and essential items, especially during the pandemic. Additionally, it's important to acknowledge that over 80% of refugees reside in urban areas rather than in Jordan's three official Syrian refugee camps (World Food Program USA, 2021). Many of them were already engaged in low-wage informal sector employment before the pandemic emerged (World Food Program USA, 2021).

Numerous refugees have experienced the loss of their means of living and are now grappling with poverty due to an abrupt reduction in income, primarily as daily wage laborers (International Organization for Migration, 2020). This situation is particularly challenging for those who were employed without any formal contracts prior to the onset of COVID-19. Furthermore, a collaborative research effort conducted by the United Nations High Commissioner for Refugees (UNHCR), the United Nations Children's Fund (UNICEF), and the World Food Programme (WFP) (UNHCR, UNICEF& WFP, 2020) has emphasized the urgent necessity for both short-term and long-term livelihood interventions for many refugees living in precarious

conditions. Funding is imperative to sustain previously planned programs aimed at supporting livelihoods that were in place before the emergence of COVID-19.

5.7. Labor market

5.7.1. Labor market for Syrian refugees prior to COVID-19

Jordan, in partnership with several international donors, launched the "Jordan Compact" in 2016 as part of the global response to the ongoing Syria crisis (Barbelet et al., 2018). This political commitment revolves around enhancing the resilience and well-being of both Syrian refugees and Jordanian hosts. Additionally, it encompasses ensuring that Syrian refugees have lawful access to livelihoods and expanding employment opportunities for both Syrian refugees and the host communities (UN Women, 2017). The primary deficiencies of the Compact lie in its execution, notably its failure to adequately tackle the actual obstacles hindering refugees' access to employment, particularly legal impediments. Restrictions on refugees' employment options to low-skilled sectors and the constraints imposed by the work-permit system limit their freedom to choose their occupation freely (Gray Meral, 2020). Although achieving accountability for the socio-economic rights of refugees may seem distant, viewing such compacts from the perspective of international human rights law could catalyze a necessary shift in discourse. This shift would move from current policy approaches focused on refugee self-reliance towards one emphasizing rights for refugees. Moreover, it would entail obligations not only for host states but also for the international community (Gray Meral, 2020). Before COVID-19, in Jordan, where a relatively flexible work permit system exists, the Syrian refugees were working in an expanding informal economy, characterized by low and declining wages, long workdays and poor working conditions (e.g., a demonstrable lack of work contracts) (ILO, 2017; The ILO and the Fafo Institute for Labour and Social Research, 2020). This is largely because the type of jobs held by Syrian refugees in Jordan were temporary, seasonal, and irregular jobs, such as jobs in construction, agriculture, service sectors. This high degree of informal employment among Syrian refugees is found in both Jordanian and Lebanese labour markets.

Furthermore, there was a large difference in benefits received at work between Syrian workers and Jordanian workers (The ILO and the Fafo Institute for Labour and Social Research, 2020). For example, the ILO and the Fafo Institute for Labour and Social Research (2020) indicated that among the 1580 surveyed Jordanian and Syrian workers, only 24% of Syrians had social security coverage while 63% of Jordanians reported that they had social security coverage facilitated by their employer. In addition, health insurance coverage for Syrian workers was 15%, compared to 42% of the Jordanian workers.

5.7.2. Labor market for Syrian refugees after COVID-19

The COVID-19 pandemic has presented fresh challenges for vulnerable populations in Arab states that are hosting a significant number of Syrian refugees. These challenges are notably evident in their struggles to sustain their livelihoods due to limited income sources, as highlighted by a joint report by the ILO (International Labour Organization) and the Fafo Institute for Labour and Social Research in 2020

(The ILO and the Fafo Institute for Labour and Social Research, 2020). According to the findings of this report, based on a survey of 1580 Syrian refugees and Jordanians, the impact of the pandemic on Syrian refugees was severe. Among these respondents, 60% of Syrian refugees had experienced permanent job losses, and an additional 31% had faced temporary layoffs at the onset of the pandemic. This loss of income was especially pronounced for Syrian refugees whose average earnings were below the established monthly minimum wage of JD220 (equivalent to approximately US\$310). Before the pandemic and the ensuing lockdowns, the median monthly income for refugees stood at JD368 (around US\$519). However, by March 2020, this figure had plummeted to JD215, approximately US\$303, underlining the economic hardships faced by this vulnerable group during these challenging times (The ILO and the Fafo Institute for Labour and Social Research, 2020).

Household incomes have witnessed a significant decline, primarily affecting Syrian refugees engaged in informal employment arrangements. A substantial majority of these workers, amounting to 92 percent, reported that the crisis triggered by COVID-19 had led to a reduction in their household income (The ILO and the Fafo Institute for Labour and Social Research, 2020). The already precarious situation of Syrian refugees engaged in informal employment, coupled with subpar working conditions, has further worsened due to the impact of the COVID-19 pandemic (The ILO and the Fafo Institute for Labour and Social Research, 2020). Furthermore, a significant number of workers expressed concerns regarding the insufficient workplace measures aimed at minimizing occupational health risks (Acu, 2020). It is imperative that employers take proactive steps to mitigate the health hazards posed by COVID-19 to their employees and enhance protective and preventive measures within the workplace (The ILO and the Fafo Institute for Labour and Social Research, 2020).

The Jordanian government's primary aim is to safeguard domestic employment, especially in a country where the unemployment rate reached nearly 20 percent in 2019 (The World Bank, 2023). Consequently, most refugees are restricted from legal employment. Syrian refugees are only permitted to seek work permits within specific industries located in designated economic zones. However, Wahba, (2019) reveals that offering legal employment opportunities to refugees does not have adverse effects on the job market for Jordanian citizens. This finding suggests that the influx of foreign aid into Jordan to support refugees, along with initiatives like the Jordan Compact that included aid, trade concessions, and employment assistance for Jordanians, may have played a pivotal role in generating labor demand for the local population. Therefore, it is crucial to ensure that adequate resources and public services are available to support both refugees and the host economy (Wahba, 2019).

The Jordanian government has established a fund to provide assistance to individuals who have suffered income losses due to the COVID-19 pandemic (Vidal, 2020). However, it's important to note that this fund primarily targets Jordanian workers, leaving nearly all refugees ineligible for government aid (Vidal, 2020). Recognizing the increasing urgency of addressing the needs of Syrian refugees, particularly in the context of the 10-year-long crisis and the added challenges posed by COVID-19, Ayman Safadi, the Jordanian Minister of Foreign Affairs and Expatriates Affairs, made an announcement Jordan would grant 190,000 work permits

to Syrian refugees at the Brussels IV Conference on the Future of Syria and the Region (RT News, 2020).

It's worth noting that Jordan currently lacks specific domestic refugee legislation and policies that encompass concrete measures and provisions for planning, rights, and protection for its refugee population, as highlighted in a report by (ILO, 2015). Syrian individuals entering Jordan as asylum seekers or those registered as refugees with the UNHCR do not receive residency permits, which significantly limits their ability to seek legal employment. While Jordan maintains that Syrian refugees are given priority over other non-Jordanians in obtaining work permits, there has been minimal effort to streamline the work permit application process (ILO, 2015).

5.8. Food security

5.8.1. Food security for Syrian refugees prior to COVID-19

The prolonged conflict has led to a situation where refugees in host communities are increasingly vulnerable, experiencing heightened levels of food insecurity (Reliefweb, 2019b). They are compelled to resort to coping strategies that deplete their resources, leaving them with limited alternatives to meet their basic needs (Reliefweb, 2019b). In parallel, non-Syrian refugees from countries such as Iraq, Somalia, Sudan, Yemen, and others have also faced substantial levels of vulnerability and food insecurity within Jordan. Regrettably, they often do not receive targeted humanitarian assistance (Reliefweb, 2019b).

Table 2 illustrates that in 2014, 53% of registered Syrian refugee households residing in host communities were deemed food secure, with only 15% receiving food assistance in 2015 due to reductions in support from the World Food Programme (WFP) (WFP and REACH, 2018). According to the most recent Comprehensive Food Security Monitoring Exercises in 2016, 28% of Syrian refugee households in host communities achieved food security. This improvement in 2016 was primarily attributed to a stabilization in the provision of food assistance (WFP and REACH, 2018). By 2018, 20 percent of registered Syrian refugee households living in host communities had achieved food security (WFP and REACH, 2018).

Table 2. Food security among registered Syrian refugee households living in host communities in Jordan.

Year	% households with food security
2014	53%
2015	15% (due to reductions in WFP assistance)
2016	28% (due to sustained levels of food assistance)
2017	NA
2018	20%
2019	16%*

Note: Data Source: (WFP and REACH, 2018). The sample used during the assessment consisted of a total of 3557 cases, representing 2,143 households and were interviewed between April and May 2018. In addition, 31 focus group discussions were organized for both male and female Syrian refugees. The findings are representative of registered Syrian refugees living in Jordan at a 99 percent confidence level with a three percent margin of error at the national level. NA = not available. *ACAPS (2020).

5.8.2. Food security for Syrian refugees after COVID-19

As of April 2020, the World Food Programme conducted a monitoring assessment of its general food assistance to refugees. According to this assessment, WFP is actively addressing the nutritional requirements of 480,000 refugees residing in both camps and communities. This assistance is provided in the form of monthly cash-based transfers (WFP, 2020). Furthermore, in light of the COVID-19 outbreak, WFP Jordan has taken proactive steps to guarantee the continued provision of aid to WFP beneficiaries. These measures are designed to ensure that beneficiaries are safeguarded from the impacts of COVID-19 and the associated national measures aimed at controlling its spread. **Table 3** demonstrates food assistance to Syrian refugees of various households in Jordan.

Table 3. Food assistance to Syrian refugees according to a WFP monitoring assessment in April 2020.

Classification of household	Food assistance situation	
Azraq and Za'atari Camps	Monthly food e-vouchers valued at JD 23 (US\$ 32) per person per month, redeemable at in-camp contracted shops and facilitated through block chain and iris-scan technologies	
Mafraq Governorate	Food e-vouchers, refugees in host communities receive unrestricted cash redeemable through 115 ATMs, at over 200 contracted shops, or both	
Households Classified as "Extremely Vulnerable" to Food insecurity	Receive JD23(US\$ 32) per person, per month	
Households Classified as "Vulnerable" to Food Insecurity	Receive JD 15 (US\$21) per person, per month	

Source: WFP, 2020.

6. Conclusion

In conclusion, this article has examined the multifaceted challenges faced by Syrian refugees in Jordan, particularly in light of the COVID-19 pandemic. It began by providing an overview of the Syrian refugee population in Jordan and analyzed the country's policies towards them during the pandemic. Furthermore, the article assessed the economic impacts of the pandemic on various aspects of Syrian refugees' lives, including poverty, education, health sector budget, health, humanitarian support and essential services, livelihoods, labor market, and food security.

Despite the commendable efforts of the Jordan Response Plan (JRP) and the support of international organizations and donors, it is evident that additional measures are needed to address the evolving needs of Syrian refugees. Specifically, there is a growing recognition that support must extend beyond the provisions outlined in the JRP, with a focus on fostering employment opportunities for Syrian refugees. This effort has the potential to not only improve the well-being of refugees, but also positively impact the host country, Jordan. Moving forward, it is imperative for stakeholders to collaborate closely and implement targeted initiatives to address the ongoing challenges faced by Syrian refugees in Jordan.

Finally, Future research should focus on examining the long-term socioeconomic impacts of the COVID-19 pandemic on Syrian refugees in Jordan, including its effects on mental health, social integration, and access to education and healthcare services. Additionally, it would be valuable to conduct economic analyses concerning emergency and development variables, particularly regarding the allocation of international aid and its impact on refugee integration policies. Exploring the trajectory of funds allocated to specific sectors, such as infrastructure, as seen in the case of German assistance, could provide insights into effective resource allocation strategies for supporting refugee communities. This approach could offer valuable lessons for policymakers and aid organizations in optimizing aid effectiveness and promoting sustainable refugee integration.

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References

- Acu, C. (2020). 'Stay at home?' How Syrian refugees face a crisis of shelter in Jordan. Available online https://centreghum.com/2020/07/25/stay-at-home-how-syrian-refugees-face-a-crisis-of-shelter-in-jordan/ (accessed on 21 May 2022).
- Akhtar, A., Bawaneh, A., Awwad, M., et al. (2021). A longitudinal study of mental health before and during the COVID-19 pandemic in Syrian refugees. European Journal of Psychotraumatology, 12(1). https://doi.org/10.1080/20008198.2021.1991651
- Al Qaralleh, A. S. (2022). Jordan and Syrian humanitarian refugees' dilemma: international law perspective. Heliyon, 8(5), e09377. https://doi.org/10.1016/j.heliyon.2022.e09377
- Al Qutob, M. (2016). WHO and the refugee crisis in Jordan and beyond. Available online: https://www.acaps.org/country/jordan/crisis/syrian-refug (accessed on 20 May 2022).
- Alanbat News. (2020). Japan grants \$3.7mln to support Jordan's health sector. Available online: http://www.alanbatnews.net/post.php?id=294849 (accessed on 21 May 2022).
- Al-Dubaisi, Z. (2020). Jordan is under loan pressure ... and concerns about the "fund" conditions. Al-Araby AlJadeed. (2020, July 11). https://www.alaraby.co.uk/%D8%A7%D9%84%D8%A3%D8%B1%D8%AF%D9%86-%D8%AA%D8%AD%D8%A A-%D8%B6%D8%BA%D8%B7-%D8%A7%D9%84%D9%82%D8%B1%D9%88%D8%B6-%D9%88%D9%85%D8%A E%D8%A7%D9%88%D9%85%D9%86-%D8%B4%D8%B1%D9%88%D8%B7-%22%D8%A7%D9%84%D8%B5%D9%86%D8%AF%D9%88%D9%82%22 (accessed on 20 April 2023).
- Aljazeera. (2020). First COVID-19 cases confirmed in Jordan camp for Syrian refugees. Available online: https://www.aljazeera.c om/news/2020/9/8/first-covid-19-cases-confirmed-in-jordan-camp-for-syrian-refugees (accessed on 10 July 2022).
- Allubani, M. (2019). 'Unprecedented' aid to Jordan, worth 729.4 million euros. Available online: https://www.almamlakatv.com/news/%D9%85%D8%B3%D8%A7%D8%B9%D8%AF%D8%AF%D8%AA-%D8%BA%D9%8A%D9%8B1-%D9%85%D8%B3%D8%A8%D9%88%D9%82%D8%A9-%D9%84%D9%84%D8%A3%D8%B1%D8%AF%D9%86-%D8%A8%D9%86-%D8%A8%D9%88%D9%86-%D9%8A%D9%88%D9%86-%D9%8A%D9%88%D8%B1%D9%88-27066 (accessed on 2 May 2023).
- Baibars, S. (2019). €2.1 billion total EU aid to Jordan since the beginning of the Syrian crisis (Arabic). Available online: https://al ghad.com/Section-137/%D8%A3%D8%AE%D8%A8%D8%A7%D8%B1-%D9%85%D8%AD%D9%84%D9%84%D9%8A%D8%A 9/2-1-%D9%85%D9%84%D9%8A%D8%B1-%D9%8A%D9%88%D8%B1%D9%88-%D9%85%D8%AC%D9%85%D9%88%D8%B9-%D9%85%D8%B3%D8%A7%D8%B9%D8%AF%D8%A7%D8%AA-%D8%A7%D9%84%D8%A 7%D8%AA%D8%AD%D8%A7%D8%AF-%D8%A7%D9%84%D8%A3%D9%88%D8%B1%D9%88%D8%B1%D9%88%D8%B1%D9%88%D8%AF-%D9%8A%D9%8A-%D9%84%D8%A7%D9%84%D8%AF%D9%86-%D9%85%D9%86%D8%B0-%D8%A8%D8%AF%D8%A7%D9%8A%D8%A9-%D8%A7%D9%84%D8%A3%D8%B2%D9%85%D8%A9-%D8%A7%D9%84%D8%B3%D9%88%D8%B1%D9%88%D8%B3%D9%88%D8%B1%D9%8A%D8%A9-679701 (accessed on 10 July 2023).

- Barbelet, V., Hagen-Zanker, J., & Mansour-Ille, D. (2018). The Jordan Compact: Lessons learnt and implications for future refuge e compacts. Available online: https://data.unhcr.org/en/documents/download/62095#:~:text=In%20February%202016%2C%20a%20new,employment%20for%20its%20Syrian%20refugees (accessed on 18 May 2022).
- Bar'el, Z. (2020). In Jordan, the day after coronavirus may be no less dangerous than the pandemic. Available online: https://www.haaretz.com/middle-east-news/jordan/.premium-in-jordan-the-day-after-coronavirus-may-be-no-less-dangerous-than-the-pandemic-1.8756339 (accessed on 10 January 2022).
- Basic Needs Working Group Jordan. (2021). Basic needs and food security sector COVID-19 emergency response standards for non-camp refugee response. Available online: https://www.calpnetwork.org/publication/basic-needs-and-food-security-sector-covid-19-emergency-response/ (accessed on 10 June 2022).
- Beech, H., & Hubbard, B. (2020). Unprepared for the worst: World's most vulnerable brace for virus. Available online: https://www.nytimes.com/2020/03/26/world/asia/coronavirus-refugees-camps-bangladesh.html?smid=url-share (accessed on 5 January 2023).
- Bellizzi, S., Aidyralieva, C., Alsawhala, L., et al. (2021). Vaccination for SARS-CoV-2 of migrants and refugees, Jordan. Bulletin of the World Health Organization, 99(09), 611–611. https://doi.org/10.2471/blt.21.285591
- Bhanot, D., Singh, T., Verma, S. K., et al. (2021). Stigma and Discrimination During COVID-19 Pandemic. Frontiers in Public Health, 8. https://doi.org/10.3389/fpubh.2020.577018
- Cucinotta, D., & Vanelli, M. (2020). WHO Declares COVID-19 a Pandemic [JB]. Acta Bio Medica Atenei Parmensis, 91(1), 157–160. https://doi.org/10.23750/abm.v91i1.9397
- Dator, W., Abunab, H., & Dao ayen, N. (2018). Health challenges and access to health care among Syrian refugees in Jordan: a review. Eastern Mediterranean Health Journal, 24(07), 680–686. https://doi.org/10.26719/2018.24.7.680
- Dentons. (2020). COVID-19-related legislation in the Hashemite Kingdom of Jordan. Available online: https://www.dentons.com/en/insights/articles/2020/april/21/covid-19-related-legislation-in-the-hashemite-kingdom-of-jordan (accessed on 10 July 2022).
- Dhingra, R. (2020). Refugees at risk in Jordan's response to COVID-19. ReliefWeb. Available online: https://reliefweb.int/report/jordan/refugees-risk-jordan-s-response-covid-19 (accessed on 10 July 2022).
- Dunmore, C., & Cherri, R. (2020). Syrian refugees adapt to life under coronavirus lockdown in Jordan camps. UNHCR. Available online: https://www.unhcr.org/ph/18321-covid19-jordan.html (accessed on 3 March 2022).
- Durable Solutions Platform. (2020). Improving self-reliance and resilience in Jordan." Policy Brief. DSP-Syria. Available online: https://www.dsp-syria.org/sites/default/files/2020-05/Improving%20Self-reliance%20and%20Resilience%20in%20Jordan.pdf (accessed on 10 July 2022).
- El-Abed, O., & Shabaitah, N. (2020). Impact of COVID-19 on Syrian refugees in Jordan from the refugee perspective. World Refugee and Migration Council. Available online: https://wrmcouncil.org/wp-content/uploads/2020/11/Jordan_Impact-of-COVID-19-Refugee-Perspective_El-Abed-Shabaitah_WRMC_Nov2020.pdf (accessed on 1 July 2022).
- Fábos, A. H., & Isotalo, R. (Eds.). (2014). Managing Muslim Mobilities. Palgrave Macmillan US. https://doi.org/10.1057/9781137386410
- Fdailat, A. (2020). Problems of Syrian refugees in Jordan worsen due to decline in international funding. Available online: https://www.shrc.org/en/?p=33320 (accessed on 11 May 2022).
- France Diplomacy. (2019). War in Syria: Understanding France's position. Available online: https://www.diplomatie.gouv.fr/en/country-files/syria/war-in-syria-understanding-france-s-position/#:~:text=France's%20financial%20effort%20for%202019,%E2%82%AC937%20million%20of%20loans (accessed on 11 May 2022).
- Gray Meral, A. (2019). Assessing the Jordan Compact One Year On: An Opportunity or a Barrier to Better Achieving Refugees' Right to Work. Journal of Refugee Studies, 33(1), 42–61. https://doi.org/10.1093/jrs/fez074
- Hamou, A. (2020). Ineligible for government aid, Syrians in Jordan struggle amidst COVID-19 lockdowns. Available online: https://syriadirect.org/news/ineligible-for-government-aid-syrians-struggle-amidst-covid-19-lockdowns/ (accessed on 10 May 2022).
- Human Rights Watch. (2016). We're afraid for their future: Barriers to education for Syrian refugee children in Jordan. Available online: https://www.hrw.org/report/2016/08/16/were-afraid-their-future/barriers-education-syrian-refugee-children-jordan (accessed on 2 Feb 2022).

- Hussein, H., Natta, A., Yehya, A. A. K., et al. (2020). Syrian Refugees, Water Scarcity, and Dynamic Policies: How Do the New Refugee Discourses Impact Water Governance Debates in Lebanon and Jordan? Water, 12(2), 325. https://doi.org/10.3390/w12020325
- ILO. (2015). Work permits and employment of Syrian refugees in Jordan. Available online: https://www.ilo.org/wcmsp5/groups/public/---arabstates/---ro-beirut/documents/publication/wcms_422478.pdf (accessed on 15 Feb 2022).
- IMPACT. (2020). Jordan. Country Overview. Available online: https://www.impact-initiatives.org/where-we-work/jordan/(accessed on 20 May 2022).
- International Labour Organization (ILO). (2017). Work Permits And Employment Of Syrian Refugees In Jordan Towards Formalising the work of Syrian Refugees. Available online: https://www.ilo.org/wcmsp5/groups/public/---arabstates/---robeirut/documents/publication/wcms_559151.pdf (accessed on 20 May 2022).
- International Organization for Migration. (2020). Populations at risk: Implications of COVID-19 for hunger, migration and displacement. Available online: https://www.iom.int/sites/g/files/tmzbdl486/files/populations_at_risk_-_implications_of_covid-19_for_hunger_migration_and_displacement.pdf (accessed on 30 May 2022).
- Islam, T., & Ryan, J. (2016). Mitigation in the Private Sector. Hazard Mitigation in Emergency Management, 101–124. https://doi.org/10.1016/b978-0-12-420134-7.00004-7
- Istaiteyeh, R. (2020). The economic impact of Covid-19 on Syrian refugees in Jordan. Available online: https://wrmcouncil.org/wp-content/uploads/2020/11/Jordan_Economic-Impact_Istaiteyeh_WRMC_Nov2020.pdf (accessed on 1 July 2022).
- Karasapan, O. (2022). Syrian refugees in Jordan: A decade and counting. Available online: https://www.brookings.edu/articles/syrian-refugees-in-jordan-a-decade-and-counting/ (accessed on 1 June 2022).
- Kassem, I. I. (2020). Refugees besieged: The lurking threat of COVID-19 in Syrian war refugee camps. Travel Medicine and Infectious Disease, 38, 101736. https://doi.org/10.1016/j.tmaid.2020.101736
- Kheirallah, K. A., Ababneh, B. F., Bendak, H., et al. (2022). Exploring the Mental, Social, and Lifestyle Effects of a Positive COVID-19 Infection on Syrian Refugees in Jordan: A Qualitative Study. International Journal of Environmental Research and Public Health, 19(19), 12588. https://doi.org/10.3390/ijerph191912588
- Lindsey, U. (2020). Jordan's tight Covid-19 lockdown also squeezes vulnerable populations. Available online: https://www.alfanarmedia.org/2020/04/jordans-tight-covid-19-lockdown-also-squeezes-vulnerable-populations/ (accessed on 1 June 2022).
- Małachowska, A., Abbadi, T., Amaireh, W., Banioweda, K., Heiwidi, S., & Jones, N. (2020). Exploring the impacts of covid-19 on adolescents in Jordan's refugee camps and host communities. Available online: https://www.gage.odi.org/wp-content/uploads/2020/05/Exploring-the-impacts-of-covid-19-on-adolescents-in-Jordan% E2% 80% 99s-refugee-camps-and-host-communities-1.pdf (accessed on 5 February 2022).
- Manlosa, A. O., Hanspach, J., Schultner, J., et al. (2019). Livelihood strategies, capital assets, and food security in rural Southwest Ethiopia. Food Security, 11(1), 167–181. https://doi.org/10.1007/s12571-018-00883-x
- Maxmen, A. (2020). Why the World Bank ex-chief is on a mission to end coronavirus transmission. Nature, 581(7806), 18–18. https://doi.org/10.1038/d41586-020-01218-7
- Ministry of Education (MoE). (2018). Education strategic plan 2018–2022. Available online: http://www.unesco.org/new/fileadmin/MULTIMEDIA/FIELD/Amman/pdf/ESP_English.pdf (accessed on 1 February 2022).
- Ministry of Planning and International Cooperation (MoPIC). (2020). Jordan response plan for the Syria crisis 2020–2022. Available online: http://www.jrp.gov.jo/Files/JRP%202020-2022%20web.pdf (accessed on 1 February 2022).
- Morris, J. (2019). The politics of return from Jordan to Syria. Available online: https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/return/morris.pdf (accessed on 1 June 2022).
- Reliefweb. (2018). UNHCR Jordan Factsheet February. Available online: https://reliefweb.int/report/jordan/unhcr-jordan-factsheet-february-2018 (accessed on 1 June 2022).
- Reliefweb. (2019a). UNHCR Jordan Factsheet, October 2019. Available online: https://reliefweb.int/report/jordan/unhcr-jordan-factsheet-october-
 - $2019\#: \sim : text = In\% 20 August\% 202019\% 2C\% 20 UNHCR\% 20 facilitated, Compact\% 20 on\% 20 Refugees\% 20 (GCR) (accessed on 1 June 2022).$

- Reliefweb. (2019b). Jordan Comprehensive Food Security and Vulnerability Assessment, 2018 (April 2019). Available online: https://reliefweb.int/report/jordan/jordan-comprehensive-food-security-and-vulnerability-assessment-2018-april-2019 (accessed on 11 June 2022).
- Reliefweb. (2020a). Inter-sector working group, Jordan: Refugee response coordination, coronavirus update 29 March 2020. Available online: https://reliefweb.int/report/jordan/inter-sector-working-group-jordan-refugee-response-coordination-coronavirus-update-29 (accessed on 1 June 2022).
- Reliefweb. (2020b). Inter-sector working group, Jordan: Refugee response coordination, coronavirus update 12 April 2020. Available online: https://reliefweb.int/report/jordan/inter-sector-working-group-jordan-refugee-response-coordination-coronavirus-update-
 - 12#:~:text=A% 20fast% 2Dtrack% 20approval% 20mechanism, informal% 20sector% 20and% 20Syrian% 20refugees. (accessed on 1 June 2022).
- Riedel, B. (2020). Jordan's unique coronavirus challenge. Order from Chaos. Available online: https://www.brookings.edu/blog/order-from-chaos/2020/04/16/jordans-unique-coronavirus-challenge/ (accessed on May 22 2022).
- Royal Hashemite Court. (2020). King, Queen thank Chinese businessman Jack Ma for donating 100,000 COVID-19 detection k"its, other medical supplies to Jordan. Available online: https://kingabdullah.jo/en/news/king-queen-thank-chinese-businessman-jack-ma-donating-100000-covid-19-detection-kits-other (accessed on 22 May 2022).
- RT News. (2020). Jordan: More than 190,000 work permits were granted to Syrian refugees. RT TV-Novosti. 1 July, 2020.
- Sadek, G. (2020). Jordan: Government takes steps aimed at curbing COVID-19 outbreak. Available online: https://www.loc.gov/law/foreign-news/article/jordan-government-takes-steps-aimed-at-curbing-covid-19-outbreak/ (accessed on 1 June 2022).
- Saifee, J., Franco-Paredes, C., & Lowenstein, S. R. (2021). Refugee Health During COVID-19 and Future Pandemics. Current Tropical Medicine Reports, 8(3), 1–4. https://doi.org/10.1007/s40475-021-00245-2
- Samuel Hall. (2020). UNHCR Jordan multi-purpose cash assistance 2020 post-distribution monitoring report, commissioned by UNHCR Jordan. Available online: https://data.unhcr.org/en/documents/download/95292 (accessed on 6 June 2022).
- Singh, M. (2020). Jordan after COVID-19: From crisis adjustment to crisis management. Available online: https://www.washingtoninstitute.org/fikraforum/view/Jordan-response-COVID19-pandemic-Middle-East (accessed on 1 June 2022).
- Talafha, Q. M., Al-Haidose, A., AlSamman, A. Y., et al. (2022). COVID-19 Vaccine Acceptance among Vulnerable Groups: Syrian Refugees in Jordan. Vaccines, 10(10), 1634. https://doi.org/10.3390/vaccines10101634
- The International Labour Organization (ILO) and the Fafo Institute for Labour and Social Research. (2020). Impact of COVID-19 on Syrian refugees and host communities in Jordan and Lebanon. Available online: https://www.ilo.org/beirut/information-resources/factsheets/WCMS_749356/lang--en/index.htm (accessed on 15 May 2022).
- The Jordan Times. (2020a). After health-related 'victory' in COVID-19 fight, now is time for economic response Al-Ississ, May 3. Available online: https://jordantimes.com/news/local/after-health-related-% E2% 80% 98 victory % E2% 80% 99-covid-19-fight-now-time-economic-response-% E2% 80% 94-al-ississ (accessed on 2 June 2022).
- The Jordan Times. (2020b). Int'l donors contribute \$18.7m to support Jordan's COVID-19 efforts. Available online: https://www.jordantimes.com/news/local/intl-donors-contribute-187m-support-jordans-covid-19-efforts (accessed on 2 June 2022).
- The Jordan Times. (2020c). PM issues Defence Order No. 6 stipulating labour rights under Defence Law. Available online: https://jordantimes.com/news/local/pm-issues-defence-order-no-6-stipulating-labour-rights-under-defence-law (accessed on 4 February 2023).
- The National. (2020). Child welfare at risk during Jordan's coronavirus lockdown. Available online: https://www.thenationalnews.com/world/mena/child-welfare-at-risk-during-jordan-s-coronavirus-lockdown-1.1007078 (accessed on 15 January 2022).
- The World Bank. (2023). Unemployment, total (% of total labor force) (modeled ILO estimate) Jordan. Source organization: International Labour Organization. "ILO Modelled Estimates and Projections database (ILOEST)" ILOSTAT. Available online: https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS?locations=JO (accessed on 7 January 2023).
- Tiltnes, A., Zhang, H., & Pedersen, J. (2019). The living conditions of Syrian refugees in Jordan; Fafo-report, Oslo, Norway. Available online: https://www.fafo.no/zoo-publikasjoner/fafo-rapporter/the-living-conditions-of-syrian-refugees-in-

- jordan#:~:text=Two%20per%20cent%20of%20all%20households%20have%20savings.,relatives%20and%20friends%20in %20Syria (accessed on 20 June 2022).
- Truelove, S., Abrahim, O., Altare, C., et al. (2020). The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: A modeling study. PLOS Medicine, 17(6), e1003144. https://doi.org/10.1371/journal.pmed.1003144
- UN Women. (2017). Women working: Jordanian and Syrian refugee women's labour force. Available online: https://jordan.unwomen.org/en/digital-library/publications/2017/3/jordanian-and-syrian-refugee-womens-labour-force-participation-and-attitudes-towards-employment (accessed on 15 August 2022).
- UN Women. (2020). Using technology to assist vulnerable Syrian refugees during COVID-19 lockdown. Available online: https://jordan.unwomen.org/en/news/stories/2020/april/feature-technology-to-assist-refugees-during-covid-19-lockdown (accessed on 15 August 2022).
- UNICEF Economic & Social Council. (2020). Budget brief 2019 public education sector in Jordan. Available online: https://www.unicef.org/jordan/media/2171/file/Education%20Budget%20Brief.pdf (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2019a). Jordan. Fact sheet. Available online: https://reliefweb.int/sites/reliefweb.int/files/resources/69826.pdf (accessed on 1 February 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2019b). Government of Japan announces new funding to support to Syrian refugees. Available online: https://www.wfp.org/news/government-japan-supports-wfps-food-assistance-vulnerable-syrian-refugees-jordan (accessed on 1 February 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2020a). Inter-Sector Working Group (ISWG) Jordan. Available online: https://data2.unhcr.org/en/working-group/43 (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2020b). Refugee response coordination coronavirus Update 5 April 2020. Available online: https://data.unhcr.org/en/documents/download/75206 (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2020c). UNHCR Jordan COVID 19 operational update 22 March 2020. Available online: https://reporting.unhcr.org/sites/default/files/UNHCR%20Jordan%20COVID%2019%20Operational%20Update%20-%2022 MAR20.pdf (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2021). Incentive-based volunteering in Zaatari camp standard operating procedures. Available online: https://data.unhcr.org/en/documents/download/98713 (accessed on 15 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2022a). UNHCR Jordan Fact Sheet. Available online: https://reporting.unhcr.org/sites/default/files/Jordan%20country%20factsheet%20-%20February%202021.pdf (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2022b). Syrian regional refugee response. Available online: https://data2.unhcr.org/en/situations/syria/location/36 (accessed on 1 February 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2022c). 64 percent of refugees in Jordan survive on less than 3 dinar a day. Collaboration between UNHCR and the World Bank draws on wealth of new data about refugees in Jordan. Available online: https://www.unhcr.org/jo/18841-64-percent-of-refugees-in-jordan-survive-on-less-than-3-dinar-a-day.html (accessed on 1 February 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2022d). The UN global goals and forced displacement. Available online: https://www.unhcr.org/neu/unhcr-and-sustainable-development-goals (accessed on 1 June 2022).
- United Nation High Commissioner for Refugees (UNHCR). (2023). Syria refugee crisis explained. Available online: https://www.unrefugees.org/news/syria-refugee-crisis-explained/ (accessed on 1 April 2023).
- United Nation World Food Program USA (UN WFP). (2022). 10 facts about the Syrian refugees crisis in Jordan. Available online: https://www.wfpusa.org/articles/10-facts-about-the-syrian-refugee-crisis-in-jordan/ (accessed on 1 August 2022).
- United Nations High Commissioner for Refugees (UNHCR), UNICEF, WFP. (2020). Multi-sectoral rapid needs assessment: COVID19 –Jordan. Available online: https://www.unicef.org/jordan/media/2441/file/RAN.pdf (accessed on 7 May 2022).
- US Department of State. (2023). Integrated Country Strategy (ICS) Jordan. Available online: https://www.state.gov/wp-content/uploads/2023/05/ICS_NEA_Jordan_Public.pdf (accessed on 1 June 2022).
- US Embassy in Jordan. (2014). U.S. announces additional humanitarian assistance for Syrian refugees and host nations. Available online: https://jo.usembassy.gov/u-s-announces-additional-humanitarian-assistance-for-syrian-refugees-and-host-nations/ (accessed on 14 June 2022).

- US Embassy in Jordan. (2020). U.S. provides additional assistance to Jordan to respond to novel coronavirus COVID-19. Available online: https://jo.usembassy.gov/u-s-provides-additional-assistance-to-jordan-to-respond-to-novel-coronavirus-covid-19/ (accessed on 29 May 2022).
- Van Hear, N. (1995). The Impact of the Involuntary Mass 'Return' to Jordan in the Wake of the Gulf Crisis. International Migration Review, 29(2), 352–374. https://doi.org/10.1177/019791839502900202
- Vidal, M. (2020). Like a ship about to sink: Refugees in Jordan voice pandemic despair. The New Humanitarian. Available online: https://www.thenewhumanitarian.org/feature/2020/05/14/Jordan-coronavirus-refugees (accessed on 24 May 2022).
- Wahba, Jackline. (2019). "Why Syrian refugees have no negative effects on Jordan's labour market." 2 September 2019. Available online: https://theconversation.com/why-syrian-refugees-have-no-negative-effects-on-jordans-labour-market-121511 (accessed on 24 May 2022).
- WFP and REACH. (2018). Jordan Comprehensive food security and vulnerability assessment. Available online: https://reliefweb.int/sites/reliefweb.int/files/resources/70245.pdf (accessed on 3 May 2022).
- WFP. (2020). Jordan. Available online: https://www.wfp.org/countries/jordan (assessed 4 May 2022).
- Wong, C. K. H., Wong, J. Y. H., Tang, E. H. M., et al. (2020). Impact of National Containment Measures on Decelerating the Increase in Daily New Cases of COVID-19 in 54 Countries and 4 Epicenters of the Pandemic: Comparative Observational Study. Journal of Medical Internet Research, 22(7), e19904. https://doi.org/10.2196/19904
- World Food Program USA. (2021). 10 facts about the Syrian refugee crisis in Jordan. Available online: https://www.wfpusa.org/articles/10-facts-about-the-syrian-refugee-crisis-in-jordan/ (accessed on 28 May 2022).
- Zawya. (2020). WHO grants Jordan's Health Ministry medical equipment for COVID-19 response. Available online: https://www.zawya.com/mena/en/life/story/WHO_grants_Jordans_Health_Ministry_medical_equipment_for_COVID19_response-SNG_176078318/ (accessed on 28 May 2022).