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ENDING THE WAR IN YEMEN AS A PREREQUISITE TO REALIZING THE RIGHT TO HEALTH

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The impact of war and political conflicts on health indicators and determinants

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This report is published as part of the Arab NGO Network for Development's Arab Watch Report on Economic and Social Rights (AWR) series. The AWR is a periodic publication by the Network and each edition focuses on a specific right and on the national, regional and international policies and factors that lead to its violation. The AWR is developed through a participatory process which brings together relevant stakeholders, including civil society, experts in the field, academics, and representatives from the government in each of the countries represented in the report, as a means of increasing ownership among them and ensuring its localization and relevance to the context.

This 6th edition of the AWR focuses on the Right to Health. The AWR 2023 on the Right to Health is a collaboration between the Arab NGO Network for Development and the Faculty of Health Sciences at the American University of Beirut. Through this report we aim to provide a comprehensive and critical analysis of the status of the Right to Health in the region and prospects in a post COVID-19 era. It is hoped that the information and analysis presented in this report will serve as a platform to advocate for the realization of the right to health for all.

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The impact of war and political conflicts on health indicators and determinants

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CONTENTS

INTRODUCTION

The right to health, enshrined in the Universal Declaration of Human Rights, is the foundation underpinning fair and equitable health systems. Health is sometimes defined as modern hospitals and well-equipped medical centers, which is partly true. However, the concept of health is much more comprehensive. The World Health Organization (WHO) defines health as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. In other words, health is a state where a person enjoys the highest attainable health standards that lead to a life of dignity (WHO 1948).

The right to health entails healthcare based on the availability, acceptability, quality, and accessibility of health services. It also encompasses related determinants such as safe drinking water, adequate nutrition, healthy and adequate livelihoods, and access to health education and information (United Nations 1948). Moreover, in its General Comment No. (14), the United Nations Committee on Economic, Social, and Cultural Rights (ECOSOC) has affirmed the primary principles of the right to health: non-discrimination, participation, and accountability. On the other hand, the WHO Constitution states that the responsibility for the right to health rests with governments, Civil Society Organizations (CSOs), agencies, and individuals collectively (WHO 1948).

The health system in Yemen faces several challenges in providing health services and enabling community access to these services, albeit at a minimum level of quality. The war and blockade have also had a devastating impact on many health indicators in Yemen including; mothers and children healthcare. For instance; low vaccination coverage for children, high incidence of diarrhea, anemia, and mortality among children under five years of age, and high maternal mortality rate. Furthermore, the already fragile health system's provision of routine primary healthcare services has been diminished by the urgent need to respond to the threat of food insecurity and the recent cholera epidemic (El Bcheraoui et al. 2018). In addition, many routine services were suspended amid the COVID-19 pandemic due to mismanagement, causing a decline in the urgent response to infected cases (Zawiah et al. 2020).

The conflict in Yemen escalated in 2010, followed by large

protests, infighting, and a war that began in September 2014 and continues to this day. Before the outbreak of the war between the Saudi-led coalition and the Houthis, Yemen was already the poorest country in the Middle East and one of the poorest in the world. The humanitarian crisis harmed all of Yemen's vital sectors, including health (El Bcheraoui et al. 2018). The conflict expanded after the Houthis' military takeover of the capital in September 2014. War broke out, and the Saudi-led coalition began its military operations. Consequently, Yemen was placed under Article VII of the United Nations Charter and classified in a state of war/conflict. The humanitarian affairs in Yemen including health are now coordinated through the annual Humanitarian Needs Overview (UN OCHA-HNO 2022), the annual Humanitarian Response Plan, and donors contributions (UN OCHA-HRP 2022). Coordination to implement these plans is carried out across various clusters (health, nutrition, water and sanitation, food security and agriculture, protection, and education). Although most of these plans and activities guarantee health for all groups, especially those with conflict-related particularities, notwithstanding these plans and activities generally focus on relief, urgent support, and emergencies (UN OCHA 2022). A public health expert noted:

> "The leadership and governance policy of the Ministry of Public Health and Population (MoPHP) and its offices in the governorates toward health cluster is weak. The leadership of the health cluster is given to international organizations, although these organizations are not entrusted for this task…The concept of clusters paved the way for working through a multi-sectoral approach, yet not in a formal manner as long as there is no law guaranteeing this approach in Yemen. Working through a multi-sectoral approach is still within the framework of humanitarian emergency responses in Yemen" (Participant 2: Public Health Expert and Academic, 2022).

Yemen is experiencing the worst humanitarian crisis in the world. Current data indicates that nearly 80% of the population requires some form of humanitarian assistance and social protection (ICRC 2022). Since Yemen has not officially achieved the reconstruction stage and sustainable development, broadening the concept of right to health has not been targeted yet, especially in affairs related to development, social protection, supportive infrastructure, governance, and effective

community participation. The comprehensive national dialogue outcomes and the new constitution of Yemen remain subject to ending the war, achieving peace, and the transitional phase of governance. A reproductive health care expert confirmed that:

> "Yemeni citizens do not enjoy the right to health for all, not even at its lowest level since before 2015. Health national policies and strategies have been formulated; however, they are not applicable on the ground and have not been implemented. We still believe that health is a person's who is free from disease. We have not defined health as a right in our programs and projects nor reached the stage of thinking about well-being" (Participant 1: Expert in Reproductive Healthcare, NGO, 2022)

STUDY OBJECTIVES

This report aims to provide an impartial analysis of the status of the right to health in Yemen. It addresses the articles of the Yemeni constitution related to the right to health, national strategies and health laws, and relevant literature and data, shedding light on the following:

- Yemen's health system and national strategies
- Yemen's constitution, treaties, and the international convention related to the right to health
- The war's impact on Yemen's health sector
- The gap in data and health indicators in Yemen
- The right to health from the perspective of social protection in Yemen
- The role of the health sector in light of the COVID-19 pandemic

METHODOLOGY

In light of the report's objective, the report relied on an exhaustive desk review supplmeneted by a qualitative analytical approach by using a prepared interview guideline. This approach can explore the research question under investigation by answering the "what," "how," and "why" questions according to participants' points of view. Accordingly, In-Depth Interviews (IDIs) were conducted with four health experts (representing the MoPHP, the University of Aden, Hadramout University, and international organizations). All interviews were audio- recorded, transcribed verbatim and uploaded into Atlas.ti (version 8) for the analysis. A content analysis was applied to find meaningful relationships between emerging themes. Six main themes emerged from the desk review and interviews:

- The constitution, international treaties, and national strategies and their relationship to the right to health in Yemen
- Monitoring, evaluation, and accountability
- The impact of war on health indicators
- The health sector's role during COVID-19
- Emergency response mechanism
- Recommendations for realizing the right to health in Yemen

BRIEF HISTORICAL OVERVIEW OF YEMEN'S HEALTH SYSTEM

Yemen's current health system dates back to the last quarter of the 19th century, during the British colonization of the southern part of the country. It also dates back to the second half of the 20th century after the September 1962 revolution in the northern part of the country and October 1963 revolution in the southern part of the country. After the unification between the south and the north in 1990, the health system was also unified, despite some differences between two systems: while the Yemen Arab Republic (North) had allowed the private health system to develop alongside the state-supported public health system, the People's Democratic Republic of Yemen (South) did not. As such, the public system remained the primary health system in the South (Aulaqi 2014).

The MoPHP was responsible for healthcare delivery and the overall governance of the health system. However, the MoPHP assumed a supervisory role after the Yemeni Parliament adopted the Local Administration Law in 2000, which granted 22 governorates the autonomy to manage some services at the local level (UN DPADM 2004). Thus, the governorates health offices became the bodies responsible for health at the governorates level. Accordingly, healthcare in Yemen before the conflict was administered at three levels: MoPHP (formulation of health policies), governorates health offices (planning and implementing health plans at the governorates level), and districts health offices (implementing health activities at the districts level). The MoPHP's governance mandate extended to four sectors: primary healthcare, population health, curative care, and planning and development (Qirbi & Ismail 2017).

The health system's structure was based horizontally on health centers and units and vertically on preventive health programs and projects against communicable and non-communicable diseases. However, there is no evidence regarding integration or coordination at the lowest level between health centers and preventive health programs and projects. Furthermore, one of the persistent difficulties facing the MoPHP's efforts to implement the reform strategy is the lack of support from other government agencies, particularly the Ministry of Finance. The MoPHP also lacked authority over private hospitals, clinics, and human resources due to the lack of enforcement of relevant laws. Thus, the private sector functioned without oversight and

continues to do so today (WHO-EMRO 2006).

Primary healthcare services are provided in rural and urban settings through a network of government health facilities, which are geographically distributed and vary between health units, health centers, and hospitals (rural, district, provincial, and reference hospitals) according to population size and geographical distance (MoPHP 2000). However, public health facilities have historically suffered from a shortage of human resources and health workers, not to mention weak leadership, causing some health facilities in rural areas to remain closed for months (Aulaqi 2014).

Yemen adopted the primary healthcare approach in 1978, the same year as the Alma-Ata Conference. It incorporated the approach into its national constitution, stating that "all citizens shall have equal access to free primary healthcare services" (MoPHP 2010). However, high poverty, population growth rates, and a weak health sector budget paved the way for a health sector reform strategy formulated between 1998 and 2000. The strategy included decentralization plans, redefining the role of the public sector and the essential medications policy, encouraging responsible participation by the private and non-governmental organization (NGO) sectors, and cost-sharing (MoPHP 2000).

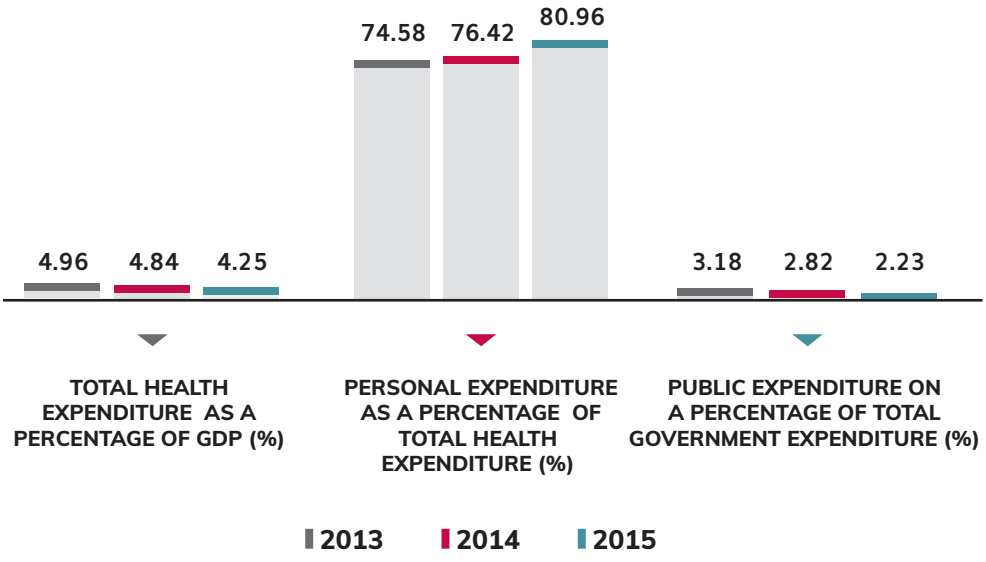
In 2000, Yemen began marketing health services in the private health sector to reduce the financial burden of health services provided free of charge at the public health sector. The decision had direct repercussions on poor citizens, especially those in rural areas (Aulaqi 2014). Accordingly, the private health sector flourished after unification in 1990, and the number of private hospitals increased from 167 to 746 between 2002 and 2012 (Aulaqi 2014). However, cost-sharing also reduced citizens' access to health services. A study on maternal and child health services before and after the cost-sharing system indicated that despite not having an impact on utilizing preventive health services, fees tended to be a significant barrier to access and benefit by the poor, particularly in hospitals (Alshaibani 1998). On the other hand, reports from al-Hodeidah governorate showed a decline in the use of preventive health services after cost-sharing introduced (UNICEF 1998).

Another challenge appears in medical staff moving from the public health sector to the private health sector. In addition to the low material return in the public health sector, the move was due to the promotion of the private sector, the continuous modernization of its equipment, and the availability

of various specializations. As a result, public health facilities were frequently bypassed by patients in rural areas. Although, healthcare users prefer services close to their homes and perceive that most nearby facilities are less expensive than those requiring transportation, which constitutes an additional burden on them, around 42% - 73% of households bypassed public health facilities that were close to their houses to access care at private facilities. (World Bank 1998). Another study indicated that 95% of citizens sought health services from the private sector (Aulaqi 2014). Consequently, the proportion of out of pocket expenditure on health increased (MoPHP 2000).

Figure 1 shows the spending on health in Yemen between 2013 and 2015. Out of pocket spending on health increased from 74.58% to 80.96%, respectively, in parallel to the decrease in health spending out of total government spending and GDP (WHO-GHO 2022). According to estimates, total spending on health amounted to 35 USD per capita in 2018, of which personal expenditure per capita was 25.19 USD. By 2050, it is estimated that total expenditure on health is expected to reach 46 USD per capita, and personal expenditure will be equivalent to 31.61 USD per capita (IHME 2022).

Figure 1. Spending on health in Yemen (2013-2015)



Source: Data compiled by authors from WHO-GHO, 2022

The experts interviewed expressed their opinions in this regard as follows:

> In fact, citizens cannot purchase health services, neither from the private sector nor the public sector.

> The services are available to many citizens, but they cannot use them due to cost. Before the war, personal spending was estimated at 67-70%, which citizens deducted from their children's food. Many citizens are in a catastrophic financial situation due to illness (Participant 3: Public Health Expert - MoPHP, 2022).

> In Yemen, in terms of citizens' right to obtain health as a service, whether in the city or countryside, those provided by the government and the private sector are 100% paid by citizens. The financial aspect is a major obstacle to health services for citizens in Yemen. It goes against the new worldwide strategy based on universal health coverage (Participant 4: Public Health Expert and Academic, 2022).

In 2000, the healthcare system was developed at the district level to reduce personal expenditure on health. Some additional services were implemented to enhance coverage, including outreach, mobile clinics, and house-to-house campaigns. However, these services were sometimes insufficient or intermittent in some areas due to mismanagement, lack of oversight, lack of accountability, and widespread corruption (Aulaqi 2014). A public health expert commented on the poor state funding on health compared to what it allocates from its budget to the security services, the army, and ministers' salaries, saying:

> Spending on the health sector is weak, while huge sums of money are spent on the security services such as the army and the police. Many expenditures and sums are wasted by the government itself (expenses of ministers) (Participant 3: Public Health Expert - MoPHP, 2022).

National health strategies are in line with achieving national and international health goals. However, progress remains weak, particularly regarding maternal and child health. In addition, although ensuring access and use of healthcare services is mentioned in all national health policies, the term "how" is missing, and its factors are not addressed (Alaswadi 2013).

Shortcomings in managing crucial areas such as mental health and psychosocial support services also prevailed. For example, the weak adherence to policies was evident in the fact that although there were national plans for mental health, the plans had not changed since the early 1980s. Moreover, there was no

formal legislation governing mental health in Yemen (Okasha et al. 2012).

The principal plans and strategies related to health development include:

- First five-year plan for economic and social development (1996-2000)
- Public Health Sector Reform Strategy (2000)
- Second five-year health development plan (2001-2005)
- Third five-year plan for health development and poverty reduction (2005-2010)
- Fourth five-year plan for health development and poverty reduction (2011-2015)
- National Reproductive Health Strategy (2006-2010).
- National Nutrition Strategy (2009)
- National Health Strategy (2010-2025)

There was a consensus among experts on that national health-related policies and strategies exist but are not applied on the ground due to the unstable political situation that prevented the achievement of the Millennium Development Goals (MDGs) and indicates Yemen's inability to achieve the Sustainable Development Goals (SDGs). The respondents also pointed out some inconsistencies in the MoPHP health policy, legislation, and administrative regulations. They expressed the following:

> The lack of a clear health policy has negatively affected performance [of the health sector]. For example, the private sector greatly affects the public sector, meaning that qualified and trained doctors prefer to work in the private sector. Hence, the public sector deteriorated and provided poor services to citizens. This factor is not related to war (Participant 2: Public Health Expert and Academic, 2022).

> The MoPHP lacks documented strategies. For example, the National Health Strategy is available on the MoPHP's website in Sana'a, but it is not available on the MoPHP's website in Aden. Although, the MoPHP in Aden is affiliated with the legitimate and internationally recognized government! (Participant 3: Public Health Expert - MoPHP, 2022).

CONSTITUTION, INTERNATIONAL TREATIES, AND THE RIGHT TO HEALTH IN YEMEN

YEMEN'S CONSTITUTION 1991

Section One: The Foundations of State - Chapter III: Social and Cultural Foundations

- **Article 30:** The state shall protect mothers and children, and shall sponsor the youth and the young.
- **Article 33:** In cooperation with society, the state bears responsibility for consequences resulting from natural disasters and public crises.
- **Article 35:** Environmental protection is the collective responsibility of the state and the community at large, it is a religious and national duty of every citizen.

Section Two: The Basic Rights and Duties of Citizens

- **Article 55:** Healthcare is a right for all citizens. The state shall guarantee this by building various hospitals and health establishments and expanding their care. The law shall organize the medical profession, the expansion of free health services, and health education among the citizens.
- **Article 56:** The state shall guarantee social security for all citizens in cases of illness, disability, unemployment, old age, or the loss of support. The state shall especially guarantee this, according to the Law, for the families of those killed in war.

The Yemeni Constitution of 1991 guarantees health for all citizens, with considerations for people with special needs and vulnerable groups, and takes into account Yemen's commitment to other international treaties. This right includes everyone on Yemeni territory without discrimination and in exceptional circumstances, including during conflicts and wars. Healthcare and the right to health are also linked with other rights such as education and the right to physical and mental integrity and other related sectors such as the environment, housing, and safe drinking water. Nevertheless, available indicators point to the deteriorating humanitarian situation in Yemen even prior to the conflict. As a result of the scarcity of data, it is impossible to monitor the lack of justice and equality between citizens and non-citizens in accessing and obtaining

these rights. Experts expressed their opinions in this regard:

> Our legislation and administrative procedures are very far from the WHO's definition of the right to health. Yemen has signed these charters and agreements guaranteeing citizens' right to health. However, when implementing administrative procedures concerning legislation and resource allocation, this matter is not reflected on the ground as desired. As for the rights of non-citizens (refugees), we are, in fact, refugees in our country (Participant 3: Public Health Expert - MoPHP, 2022).

> Our problem in Yemen is accessing [the right to health]. One of the criteria guaranteeing citizens this right, which must be considered, are the availability of health services, ease of access, the ability to obtain health services, and the quality of health services (Participant 2: Public Health Expert and Academic, 2022).

> There is a discrepancy in the numbers (data) of basic health indicators, such as morbidity indicators, mortality indicators, and indicators of services available to citizens of different groups. [This discrepancy] also exists in many direct and indirect indicators through which programs and plans can be prepared and activities evaluated to build a vision matrix or a long-term strategic plan for the health system. The conflicting and incomplete indicators constitute the biggest defects of the health system, and some data has not been reached in real-time for decision-making, and these indicators or numbers always come late (Participant 4: Public Health Expert and Academic, 2022).

A previous study indicated that access to therapeutic services was limited to 68% of the population, while 32% did not receive any service (Aulaqi, 2014). There is also unequal access to health services between urban and rural residents, as only 25% of residents in rural areas have access, compared to 80% in urban areas (MPIC, CSO 2004). Because most public and private hospitals are concentrated in urban areas, about 70% of the total population does not have easy access to care and faces significant expenses traveling to urban facilities (Gericke et al. 2005). According to the UN OCHA report - 2016, half of

the Yemeni population is still deprived of access to essential health services (UN OCHA 2016). Moreover, about 17.8 million people need support to obtain clean water and basic sanitation (UN OCHA HNO 2022).

About 1.7 million Yemeni women and children are estimated to suffer from chronic malnutrition (UNICEF 1998). The prevalence of stunting, wasting, and underweight children under five was 53%, 13%, and 46%, respectively (DMCHS 1997). Child malnutrition in Yemen shows residential and regional disparities in its prevalence. It was higher among the rural population (56%) than the urban population (40%). Although there has been a basic package of services in Yemen focusing on maternal and child health since 2004, the extent to which these services were provided in the pre-conflict period is uncertain (Wright 2015). In addition to the scarceness of literature on healthcare quality in Yemen, available evidence indicates that curative care services were of poor quality in general, particularly concerning patient perceptions of care (Anbori et al., 2010; Webair et al., 2015). Furthermore, evidence was not readily available or accessible across the country, particularly data from rural areas (Bawazir et al. 2013; MoPHP-DHS 2013). Consequently, tracking the impact of health system activity on health outcomes in pre-conflict Yemen is complex due to limitations in available health information.

NATIONAL DIALOGUE DRAFT DOCUMENT (NEW YEMEN CONSTITUTION)

After the outbreak of the February 2011 youth revolution, political, social, and military elites agreed on a negotiation process. On November 23, 2011, the elites signed the Gulf Cooperation Council (GCC) Initiative and its executive mechanism, which included initiating a national dialogue between March 18, 2013, and January 26, 2014. The comprehensive National Dialogue Conference came out with a document prepared by all Yemeni political forces, components, and social groups. There was also an agreement on issues that meet the aspirations of most Yemeni citizens. They included promoting good governance principles, including transparency and accountability; empowering the role of the private sector in development; promoting social justice and equality between citizens; equal opportunities; improving the provision of educational, health, and social welfare services; achieving food security for citizens; improving their living standards; and respecting and protecting their fundamental rights and freedoms.

Concerning the right to health, several decisions and recommendations related to rights, freedoms, and development (comprehensive, integrated, and sustainable) were adopted. The decisions recommendations included health in general (prevention, treatment, and rehabilitation) and other related sectors: social protection, environmental protection, safe drinking water, food security, housing, education, regulating laws, trade unions, monitoring, governance, and community participation. These decisions and recommendations ensured the health of all citizens, specifically women, children, youth, the elderly, and special groups (those with special needs, orphans, the marginalized, the displaced, victims of conflict/war, residents of rural and remote areas, detainees/prisoners, immigrants, refugees, and minorities) (National Dialogue Draft 2014).

Unfortunately, these outputs have not yet seen the light. The draft outputs of the national dialogue remained a document agreed upon nationally, supported by the Gulf, and internationally recognized. The text of the new Yemeni constitution resulting from the National Dialogue draft included many articles that target health directly, through relevant sectors, or through the concepts of social protection, development affairs, and special rights. Among them:

Section One (General Principles): Chapter Three (Cultural and Social Foundations):

- **Article 43:** The state guarantees high-quality healthcare for all citizens without discrimination by establishing the basic infrastructure, qualifying and caring for the medical staff, allocating a specific percentage of the general budget to the health sector, encouraging the contribution of the private sector and civil society organizations in this field, and establishing a comprehensive health insurance system. (National Dialogue Draft 2014).
- And other articles, for example, **Article No. (102-107, 121, 122)** Part Two (Rights and Freedoms) Economic and social rights.

RELEVANT TREATIES RATIFIED BY YEMEN

Yemen has ratified several international treaties/agreements related to health, especially for vulnerable groups or in exceptional circumstances, including:

- International Convention on the Elimination of All Forms of Racial Discrimination (October 18, 1972).

- Convention Relating to the Status of Refugees and Protocol Relating to the Convention Relating to the Status of Refugees (January 18, 1980).
- Convention on the Elimination of All Forms of Discrimination against Women (May 30, 1984) (Articles 10, 11, 12, and 14).
- Universal Declaration of Human Rights (1986).
- International Covenant on Economic, Social and Cultural Rights (February 9, 1987).
- Protocol I Additional to the Geneva Conventions, Relating to the Protection of Victims of Armed Conflicts (April 17, 1990).
- Convention on the Rights of the Child (May 1, 1991).
- Convention on the Rights of Persons with Disabilities (March 26, 2009) (Articles 25 and 28).
- The Arab Charter for Human Rights (November 12, 2011), especially Article (39) (OHCHR 2014; المركز الوطني للمعلومات 2014)

These obligations might seem like noble aspirations especially among poor Yemeni citizens since their most basic needs and rights are not being met or achieved. However, these rights are a moral and legal commitment on the part of Yemen as a state, an entity with the foundations of power, and must be a goal for the state to improve conditions and rights in the country. Unfortunately, these commitments are not accompanied by any planning, directives, or budget provision as a result of the extension of Yemen's inability to provide material and financial needs for plans and strategies in general, the effects of which are particularly felt in critical sectors such as health, education, and social affairs.

Furthermore, Yemen has not adhered to all the agreements it has ratified. The current statutory laws resulted from several changes and amendments that combined what was in the legal systems of the two parts of Yemen before the union. For example, the Personal Status Law issued in 1992 set the age of marriage at 15 years for both males and females. However, Article 15 was amended in 1998, removing the age limit. In addition, the amended Article 15 stipulated that "the [marriage] contract by a young girl's guardian is valid, and the one who is contracted cannot have intercourse with her except after she is fit for intercourse, even if she is over 15 years old. Furthermore, the contract is not valid for the minor except for interest." This text is considered a reversal of what was decided before the amendment. Although CEDAW's ratification entails

specifying a minimum age for marriage in laws and legislations, the matter was neglected in Yemen's laws.

As a result, almost 4 million children in Yemen were subject to early marriage. Around 1.4 million were married before they turned 15. The 2013 Yemen Demographic Health Survey data indicate that one-third (32%) of women (20-24 years) got married before turning 18, and 9% before turning 15. UNICEF's analysis based on the 2013 Demographic and Health Survey (DHS)health behaviors among the different groups of society. The respondents expressed the situation above as follows:

> The war contributed to the collapse of the health system, which was fragile since before 2015. We noticed that most health facilities were closed in areas that suffered from armed conflict, and these facilities faced a shortage of medical and non-medical supplies. Health workers would have stopped working had it not been for incentives. Most health facilities would have stopped working had it not been for international support (Participant 2: Public Health Expert - and Academic, 2022).

> The war has impeded people's movement and access to health services, regardless of their poor quality, in addition to the economic cost. After the war, the cost of health services increased, and access became more difficult. Since 2012, that is, for nearly ten years, the health sector has not been supplied with new personnel, despite the migration of doctors in search of a dignified living and the injuries and fatalities among health sector cadres. Moreover, monitoring and evaluation of health facilities remain absent, and health workers are choosing the private sector instead of the public sector (Participant 3: Public Health Expert - MoPHP, 2022).

> Today, priority is for living and food, not treatment. However, as it is known, if any service conflicts with a person's right to preserve their life, preserving life takes precedence over any other service. So now, we buy all the health, water, sanitation, or transportation services (Participant 4: Public Health Expert and Academic, 2022).

> Without a doubt, the war has multiplied the incidence of poverty and low education levels. The war caused displacement, and the displaced cannot enjoy their right to education or access to health services. The war has also contributed to the spread of drug abuse among young people, a severe social disease that caused an increase in unemployment and a deterioration in the psychological state of citizens due to the tense political situation (Participant 2: Public Health Expert and Academic, 2022).

HEALTH INDICATORS, DATA GAPS, AND TRENDS

Analyzing trends in pre-conflict health indicators in Yemen points to a fragile health system. The last DHS was conducted in 2013. Thus, indicators related to life expectancy, fertility, maternal mortality, and infant mortality are based on estimates according to trends in pre-conflict indicators. Current data points to the low coverage of basic health services and the absence of social protection that guarantees Yemeni citizens a dignified life (الجهاز المركزي للإحصاء, صندوق الأمم المتّحدة للسكان 2016-2018).

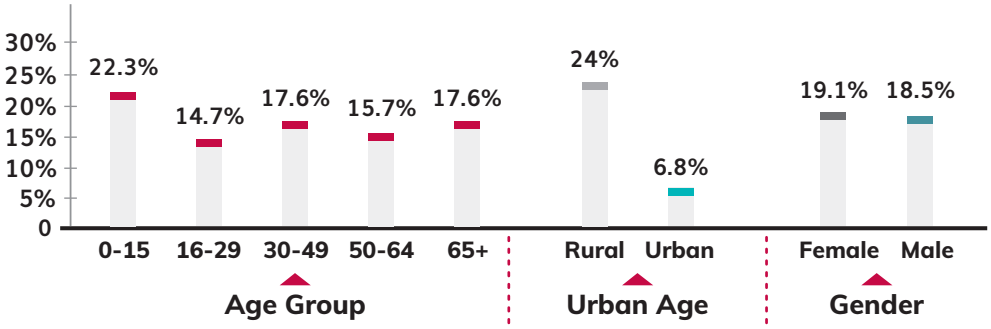
This report presents the data for several indicators related to the first three SDGs: no poverty, zero hunger, and good health and well-being.

GOAL 1: NO POVERTY

The financial situation of Yemeni citizens has always been poor despite a slight improvement in the early 1990s. Per capita income is currently facing a clear setback, as one-third of Yemenis live below the poverty line. The weakness is due to several reasons, including the conflict, consequent displacement, loss of livelihood, currency inflation, and the cessation of salaries to public sector employees who live in areas governed by the de facto Houthi authority. The situation was exacerbated as exports stopped, which could have increased the state's income, strengthened the budget, and secured the central bank and the local currency.

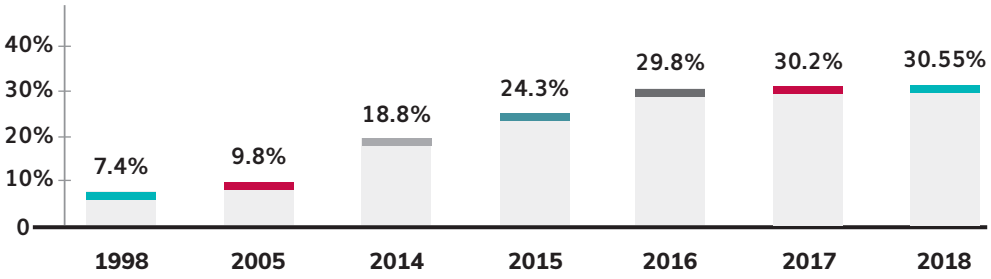
Figure 2 indicates the percentage of the population living below the international poverty line by gender, age, and urban status in 2014. In 2018, 30.55% of the population lived below the global poverty line (1.9 USD) (See **Figure 3**). The proportion of the poor was expected to rise at an accelerated rate due to the conflict (الجهاز المركزي للإحصاء؛ صندوق الأمم المتّحدة للسكان 2016-2018). Currently, 53% of Yemenis live in extreme poverty (لجنة الإنقاذ الدولية 2020).

Figure 2. Percentage of Yemen's population living below the international poverty line by gender, age, and urban status (2014)



Source: Household Budget Survey 2014 - Central Statistical Organization

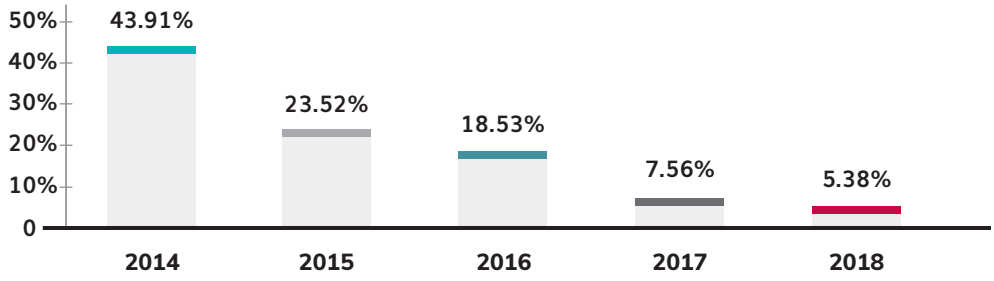
Figure 3. Percentage of Yemen's population living below the international poverty line (1.9 USD)



Source: Household Budget Survey 2014 - Central Statistical Organization

Figure 4 demonstrates the deterioration of government spending on education, health, and social protection between 2014-2018. The share of government spending on basic services decreased from 43.91% in 2014 to 5.38% in 2018.

Figure 4. Share of government spending on basic services (education, health, social protection) in Yemen out of total government expenditures between 2014 and 2018



Source: Central Statistical Organization, Statistical Yearbook, 2017

With regard to spending on health, the respondents expressed the following:

> We are still working based on the 2014 budget, where the health sector is allocated between 3% and 4%. Some say the percentage is much lower, and I think it does not exceed 1%. The budget was around 4.5% in 2010. But this contradicts the health indicators that we have now, which indicate that the health sector budget is much lower. Currently, Yemen is divided into North and South, so it is difficult to calculate per capita GDP (Participant 2: Public Health Expert and Academic, 2022).

> We cannot say that government spending on health is 4.5% or 4.3%. Some reports indicated that it was 3.7%, and others reports mentioned that it is around 2.8% of the Gross Domestic Product (GDP). In fact, we do not have a real number for the state budget. These figures were provided by the World Bank in 2012, 2014, and 2015, when the state budget still existed (Participant 4: Public Health Expert and Academic, 2022).

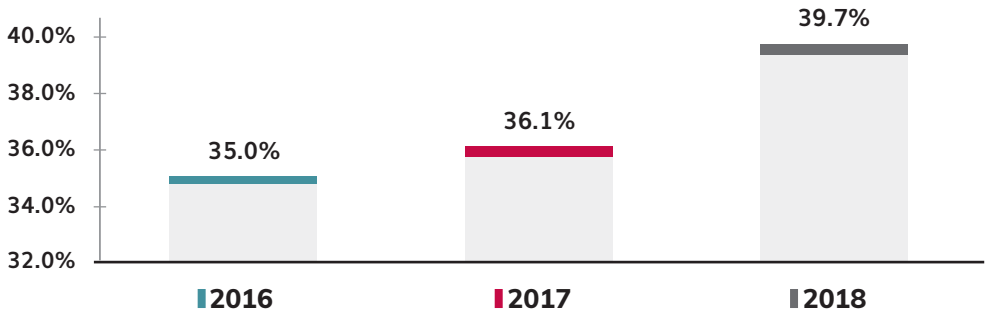
GOAL 2: ZERO HUNGER

Although the rate of stunting as an indicator of chronic malnutrition in children is stable, it remains high at 46.5%. On the other hand, acute malnutrition continues to accelerate among children under five and pregnant and lactating women, adding to acute food insecurity. Surveys and reports have shown that preventive and curative interventions, programs, and food aid are insufficient to cover needs and have deteriorated due to the disruption of health services during the COVID-19 pandemic. Food insecurity worsened with the outbreak of the war in Ukraine, as food aid reached less than half of those in need. There was a sharp decline in providing preventive and therapeutic nutritional items for children under five and pregnant and lactating women. Nearly 2.2 million children between 6 and 59 months were expected to suffer from acute malnutrition throughout 2022, with an additional 1.3 million cases of pregnant and lactating women.

As a result, 91% of districts in Yemen could be in Phase III of acute malnutrition (severe) and above. The situation in the Abs and Hiran regions is expected to reach very critical levels.

Economic decline, reduced humanitarian food assistance, reduced access to essential services, and morbidity are considered the most significant drivers of this situation (IPC 2022; UN OCHA-HNO 2022). Other factors include the impact of the conflict on agriculture, the closure of ports, import and export restrictions, and the scarcity of fuel, including highly-priced domestic gas (FAO et al. 2016-2018). **Figure 5** shows the food shortage rates in Yemen between 2016 and 2018, showing an estimated increase of 4.7% between the two years.

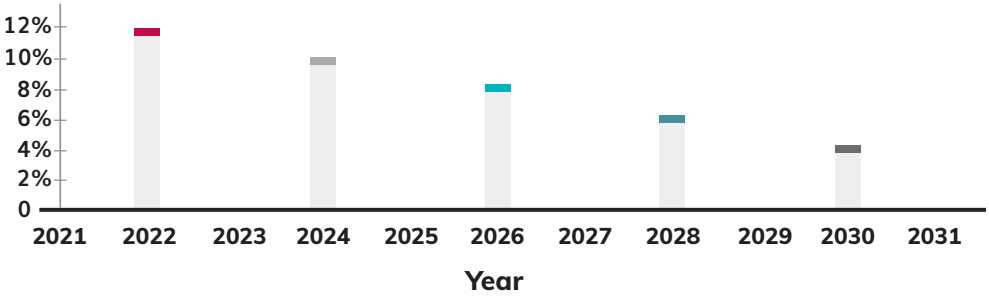
Figure 5. Food shortage (hunger) rates in Yemen (2016-2018)



Source: FAO-WFP-UNICEF-IFAD-WHO, 2016-2018

Figure 6 estimates the required yearly decrease in rate of acute malnutrition in order to achieve the SDG2 target of 3%.

Figure 6. Required decrease in acute malnutrition to achieve SDG2 target - National prevalence of wasting

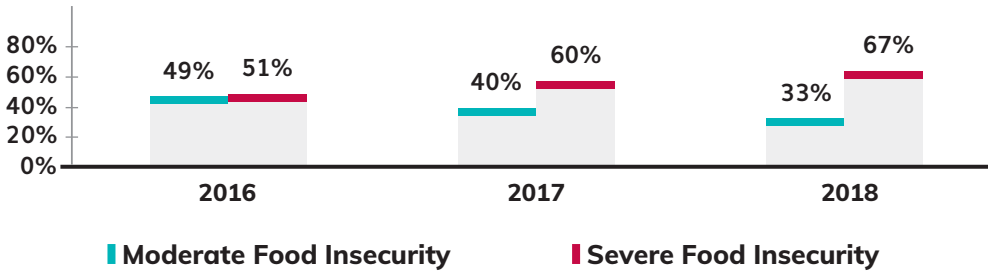


Source: UNICEF, 2021

Reports indicate the presence of significant disparities in food insecurity between urban areas (26% of the population) and rural areas (48% of the population) (World Food Program 2014). About half of the population faces high levels of acute food insecurity (Phase III rating or higher), which amounts to 17.3 million people (54% of the total population). The number

is expected to rise to 19 million (60% of the total population) in 2022. Food insecurity is very acute and intensifies in active combat areas, particularly affecting displaced and marginalized groups, and despite continued humanitarian assistance. Five districts have proportions of the population in the dangerous phase, which points to the possibility of famine, specifically in Abs in Hajjah governorate (UN OCHA-HNO 2023). Conflict is the primary driver of food insecurity in Yemen, in addition to economic shocks and the reduction of foreign reserves (IPC 2022). As shown in **Figure 7**, food insecurity rose from 51% of the population in 2016 to 67% in 2018.

Figure 7. Moderate and severe (acute) food insecurity in Yemen (2016-2018)



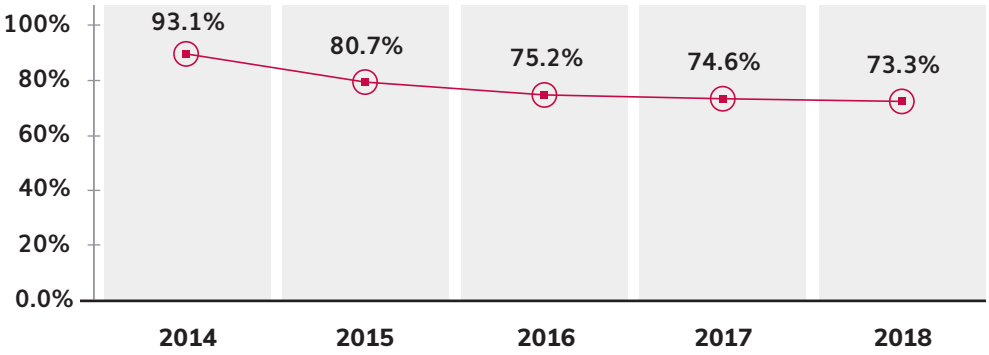
Source: FAO-WFP-UNICEF-IFAD-WHO, 2016-2018

In addition to the impact of food insecurity on health status, lack of adaptation or negative coping mechanisms and the urgent need for food directly affect the priority of spending and health-related decisions and behaviors, which are ignored until home remedies for malnutrition cases fail or become aggravated. Therefore, food security remains a priority for humanitarian interventions that pave the way for a safe life and dignified living, even if it is temporary and immediate (UN OCHA-HNO 2022).

Drought and groundwater depletion are among the reasons for the deterioration of agricultural productivity, as 75% of the population consumes groundwater for agriculture, which is a source of livelihood. Qat[1] cultivation also consumes large quantities of water, and 70% of the area is used for sustainable cultivation (CSO 1999). Moreover, the spread of locusts, especially in dry and coastal areas, compounds the threat to agricultural productivity (UN OCHA-HNO 2022). Finally, the agricultural area allocated to productive agriculture decreased from 93.1% in 2014 to 73.3% in 2018 (See **Figure 8**).

[1] Qat is a mild narcotic leaf popular in Yemen and the Horn of Africa. Excessive qat-chewing has negative impacts on health, education, and productivity.

Figure 8. Agricultural area of productive and sustainable agriculture in Yemen (2014-2018)



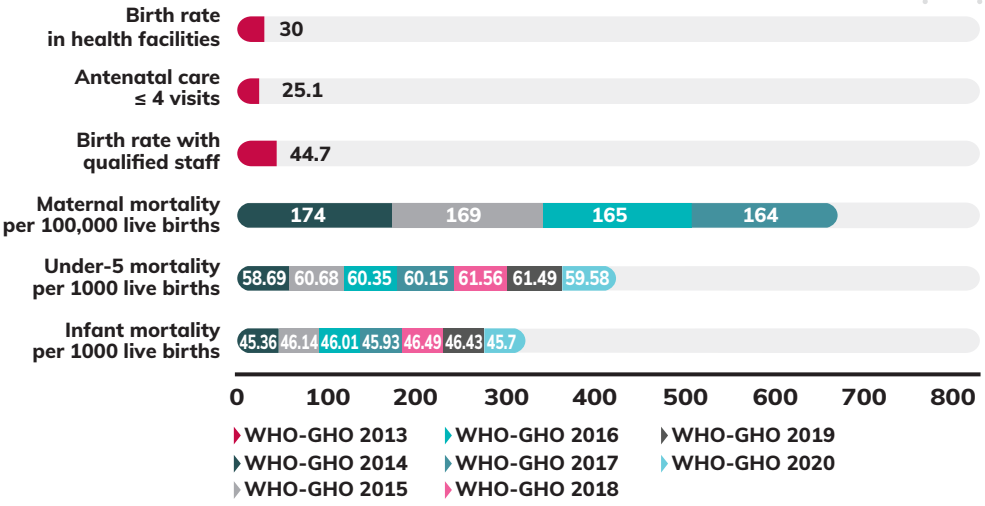
Source: Central Statistical Organization, Yearbooks from several years, data from the Ministry of Agriculture and Irrigation

GOAL 3: GOOD HEALTH AND WELL-BEING

Countries aspire to reduce the maternal mortality rate to less than 70 deaths per 100,000 live births by 2030. Although the rate in Yemen has gradually decreased from 301/100,000 live births in 2000 to 164/100,000 in 2017, Yemen was included among 15 countries in the high-level alert circle in 2017. The rate was estimated to reach 385/100,000 if the causes remained uncontrolled. Causes include severe bleeding, high blood pressure during pregnancy, obstructed labor, infections, and unsafe abortions. It follows that women should have access to quality healthcare during pregnancy and childbirth under the supervision of qualified health personnel and antenatal healthcare, including family planning (WHO 2019).

The distance to facilities significantly impedes rural women's access to health services (Bawazir et al. 2013; MoPHP-DHS 2013), in addition to the scarcity of equipment and qualified personnel, specifically gynecologists and rural obstetricians (Al Serouri et al. 2012). **Figure 9** shows the indicators related to maternal and child health according to the different sources available between 2013 and 2021.

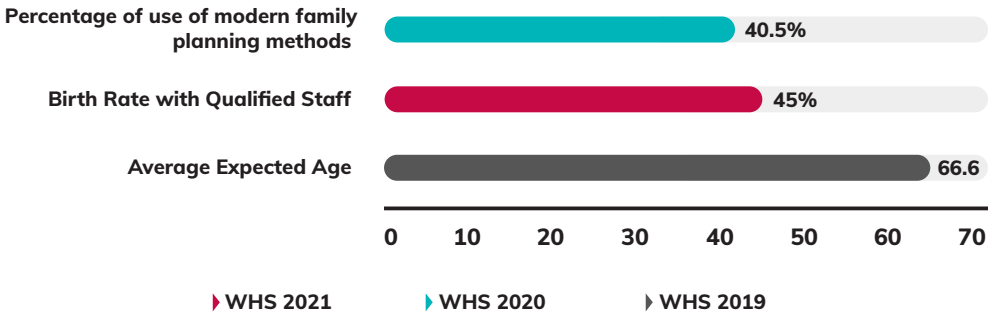
Figure 9. Mother and child health indicators (2013-2016)



Source: WHO (GHO), 2022

The last DHS conducted in Yemen in 2013 indicated that the under-five mortality rate was 53/1000 live births and the infant mortality rate was 43/1000 live births (DHS 2015). The mortality rate of children under five and infants is expected to remain high due to the war and economic collapse. **Figure 9** shows that infant and under-five mortality rates have increased since 2014 (WHO 2022). The rate for births attended by skilled health staff was 44.7% in 2013 and did not improve much in 2021 (45%) (see **Figure 10**). The percentage of women who visited health facilities during pregnancy at least four times was 25.1%. In contrast, the birth rate in health facilities was 30%. It is also estimated that the percentage of women who use modern family planning methods did not exceed 40.5%. The average life expectancy was 62.9 in 2004. However, it was less than the average life expectancy of 71 years in the MENA region in the same year (MPIC & CSO 2004). The average age in Yemen was 66.6 in 2019 (**Figure 10**). These weak indicators are attributed to the war and its repercussions on the economy and the infrastructure of health facilities.

Figure 10. Maternal health indicators between 2019-2021



Source: World Health Statistics, 2022

THE HEALTH SECTOR DURING COVID-19

The first laboratory-confirmed case of COVID-19 in Yemen was announced on April 10, 2020 (UN OCHA 2020). As of mid-April 2020, there were about 5,300 confirmed cases and more than 1,100 confirmed deaths. However, these official numbers are likely lower than in reality, as testing remained limited. By that time, only 2,000 tests had been conducted, which is less than one test per 1,000 people, much lower than the average in other countries in the region (كوم بيسون وآخرون 2020). The national laboratory system is also rudimentary and relies on a few central laboratories, such as the Central National Laboratory for Public Health in Sana'a and its four branches in the governorates of Aden, Taiz, Hadramout, and al Hudaydah (Dureab et al. 2019).

The fragile situation and scattering of authorities were among the main challenges impeding the implementation of the International Convention on Health Regulations and related legislation and policies during the outbreak. Since the outbreak of COVID-19 in Yemen, the government has been unable to prepare adequate isolation sites at entry points into the country, nor has it been able to meet the standards of the International Health Regulations for responding to the pandemic. Some non-pharmaceutical interventions, such as social distancing rules, lockdowns in cities and regions, mask-wearing, and movement restrictions between governorates were adopted, but adherence was weak. In addition, some health facilities were employed as units to isolate and care for people infected with the virus, which impeded citizens' access to other essential healthcare services (نوشاد والسقاف 2020).

The government established an intersectoral high committee involving relevant ministries to control the outbreak. However, performance was suboptimal, and there was a heavy reliance on personal initiative and humanitarian organizations. In addition, Yemen suffers from structural weaknesses that have developed over a long period of conflict and mismanagement, and its health system has been hardest hit (Dureab et al. 2019). In this context, the respondents reported:

> "There was great confusion, and the preparations for the pandemic were insufficient. The situation was catastrophic in the first and second waves,

resulting in many deaths. Psychological impact on the citizen caused by social media and unofficial media outlets led some people to die at home rather than go to isolation centers for fear of stigma. Health workers gained good experience in how to deal with the epidemic. We now have isolation centers ready for any other epidemic, and rapid response teams are ready. This is a good opportunity. Nevertheless, those in the first lines to confront the epidemic did not receive any financial or moral remuneration (Participant2: Public Health Expert and Academic, 2022)

> The COVID-19 pandemic was given an extraordinary impetus and huge sums of money. The MoPHP manages more than 13 types of vaccines with a cold chain[2] that extends from central warehouses to the farthest health unit in the farthest region. They cover the needs of mothers and children within 24 hours for a full year. They are also regularly documented. However, international organizations and the WHO wanted to find a completely independent structure for the COVID-19 vaccine, which was a waste of resources... So why is the COVID-19 vaccine not included in the national immunization program? (Participant 3: Public Health Expert - MoPHP, 2022).

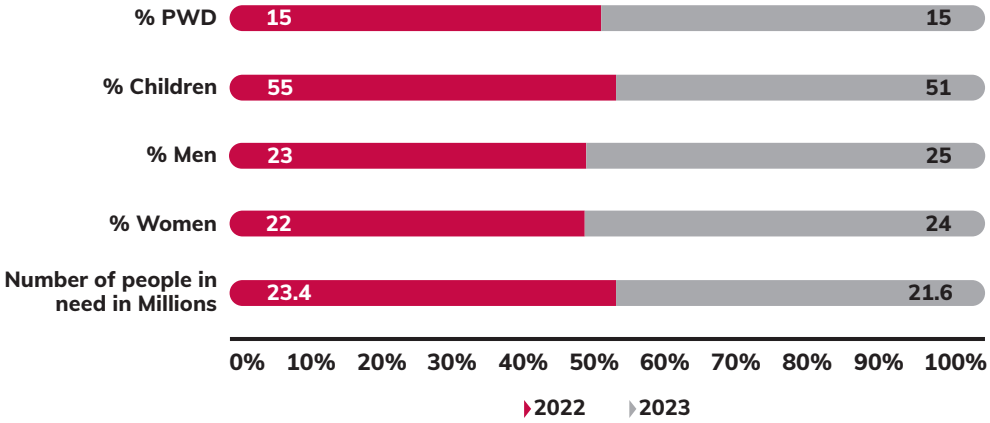
> Institutions, committees, and bodies are preparing for emergencies, but learning from experience is very slow. Yemen does not have a system for responding to emergencies in a real and effective manner. We respond and deal with natural and human-made emergencies only as a health system or as other systems supporting the health system. However, it is always according to our capacity (Participant 4: Public Health Expert and Academic, 2022).

[2] The cold chain is a process that keeps vaccines within the required temperature range at all times of storage and transport.

RIGHT TO HEALTH FROM A SOCIAL PROTECTION PERSPECTIVE

As mentioned, the right to health and healthcare loses priority in humanitarian situations as do urgent needs such as shelter, security, food, and water. According to UN OCHA's Humanitarian Needs Overview (HNO) in Yemen in 2022 and 2023, food insecurity, malnutrition, health issues, water and sanitation, and protection were the main factors explaining the increase in the number of people in need of some form of humanitarian assistance. The 2022 report stated that out of the total population of 31.9 million, the number of people needing some form of humanitarian assistance and protection reached 23.4 million (22% women, 23% men, 55% children, and 15% people with disabilities). Of those, 12.9 million were in dire need, and about 3.3 million were displaced. On the other hand, the 2023 report indicated that out of a total population of 32.6 million, the number of people who might need humanitarian assistance is 21.6 million (24% women, 25% men, 51% children, 15% people with disabilities). Of those, 13.4 million were in dire need, and 3.1 million were displaced. The decrease in the estimate of the number of people in need of assistance between 2022 and 2023 by about 1.8 million was recorded only in the category of children. Nevertheless, the percentage of need increased for women and men by 2%. The percentage of needs of people with disabilities remained the same at 15% (UN OCHA-HNO 2022; UN OCHA-HNO 2023). **Figure 11** presents a comparison between the number of people in need in 2022 and 2023.

Figure 11. Comparison between the number of people in need in 2022 and 2023



Source: UN OCHA-HNO, 2022; UN OCHA-HNO, 2023

On the other hand, **Table 1** points to the number of people in need of humanitarian assistance by sectoral group, gender, and age. The number of people needing assistance in the health sector was as high as 20.3 million, 17.7 million in the protection sector, 17.3 million in food security and agriculture, and 15.3 million in the water and sanitation sector (UN OCHA-HNO 2023).

Table 1. People in need of humanitarian assistance and protection, by sectoral group, for the year 2023

Subcategories				People in Need (Millions)	Sectoral Group
Girls	Boys	Women	Men		
0.5	0.5	0.4	0.4	1.9	Camps Coordination Department
4.0	4.6	-	-	8.6	Education
4.4	4.6	4.2	4.3	17.3	Food Security and Agriculture
5.1	5.3	4.9	5.0	20.3	Health
6.7	2.7	2.6	-	11.9	Nutrition
4.4	4.6	4.3	4.4	17.7	Protection
0.03	0.04	0.08	0.16	0.3	Multi-sectoral group for refugees and migrants
1.9	1.9	1.8	1.9	7.5	Shelter/NFI
3.9	4.0	3.7	3.7	15.3	Water, sanitation and hygiene

The high displacement rate, economic decline, acute food insecurity, and the collapse of public services and institutions due to weak rule of law and ineffective health strategies, war, and the COVID-19 pandemic have created a serious humanitarian crisis in Yemen. The crisis is exacerbated by natural disasters, such as the severe torrential rains that swept the southern regions in early 2020, destroying the infrastructure of several health facilities, drinking water networks and wells, and roads and causing material losses in housing and sources of livelihood. As a direct result of these torrential rains, health services were interrupted or faltered in the affected areas, and epidemics such as cholera and other infectious diseases broke out. A possible environmental and humanitarian catastrophe is also looming large on the Yemeni Red Sea coast, which is

the Safer oil reservoir that threatens the livelihood (fishing) of mainly the inhabitants of the western coast, whose fishing output feeds more than half of the population (UN OCHA-HNO 2022).

The epidemics that have spread in Yemen in the past ten years are a direct reflection of the low coverage of preventive health services and the weakness of the health system and related sectors. A public health expert noted:

> Despite the success achieved by the malaria control program before the conflict, when Hadramout was almost devoid of the disease, its cases returned to rise and spread. It also happened with programs to control other diseases such as dengue, schistosomiasis, rabies, diarrhea (especially cholera), measles, and diphtheria. It increased the budget needed by the health system to confront these epidemics and saw an increase in the number of morbidity and deaths that could have been avoided. It should be noted that the worst scenario for an outbreak of such epidemics is what Yemen has been suffering since 2019 from the high number of cases of vaccine-derived polio, despite Yemen being completely free of polio since 2006 (Participant 2: Public Health Expert and Academic, 2022).

The outbreak of new polio cases in Yemen is attributed to the low vaccination coverage against polio and the weak immunity of infected people. However, funds are being spent on awareness and national vaccination campaigns, which could be in vain due to poor management. Disabilities and deaths continue, and unmanageable virus outbreaks may occur that will take years and millions of dollars to overcome.

Women - especially those who head families - and girls are highly affected by the deterioration of the social and economic situation, extreme poverty, living conditions, and the associated repercussions of various forms of violence and harmful coping mechanisms such as child marriage and other cases of exploitation. Women are also forced to deal with the impact of reduced access to food through unsustainable coping strategies such as reducing their food intake to feed family members, selling assets, or taking up life-threatening jobs. In addition, child protection risks remain high, either due to the direct impact of the conflict or their families' weak resilience, making children more vulnerable to exploitation, violence, and

human rights violations (UN OCHA-HNO 2022).

Table 2 refers to gender-related indicators in 2021. Yemen ranked 155 out of 156 countries in the global gender gap index and 154 out of 156 in the gender economic empowerment index. In addition, the percentage of Yemeni women who suffer from poverty is 72% in rural areas and 20.1% in urban areas, and the percentage of displaced women and children is 73%.

Table 2. Gender-related indicators (2021)

#	Indicator	Rank (%)
1	Global Gender Gap Index	155/156
2	World Development Index	179/189
3	Gender economic empowerment gap index	154/156
4	Educational attainment gap between the sexes	152/156
5	Gender political empowerment gap index	154/155
6	Feminization of poverty	72% rural - 20.1% urban
7	—	73%

Source: World Economic Forum, 2021

About 20% of internally displaced persons (IDPs) living in the 2,358 displacement sites are estimated to be at risk of conflict. In addition, 30% of them lack sanitation facilities. The percentage of those who lack fire safety measures was 90% (إدارة تنسيق المخيّمات 2021).

Yemeni law guarantees the rights of people with disabilities, such as free physical rehabilitation and monthly social assistance. However, due to the ongoing conflict, these entitlements are rarely used due to lack of awareness, burden of movement, and damage to health facilities and public services (UN OCHA-HNO 2022).

There are many advocacy movements for issues related to

women's rights and vulnerable groups, in addition to the CEDAW agreement that South Yemen ratified in 1984, and to which North Yemen automatically joined after unity, with reservations to Article 29. However, these reservations prevent other countries from intervening in any violations against Yemenis' rights and freedoms. There are significant efforts in reality, but the disappointment for essential and emergency interventions. Therefore, no sustainable development programs are included when planning and identifying needs. A public health expert noted:

> There was no legalization and legislation for using the huge funds provided by donors from the beginning of the war until 2021, estimated at 21 USD billion; the share for healthcare was about 8 USD billion. Unfortunately, 80% of these funds go to operating expenses, salaries, and wages for experts, and 20% goes to citizens. Even this percentage does not reach citizens completely (Participant 3: Public Health Expert - MoPHP, 2022).

The work of clusters, such as the Health Cluster, Nutrition Cluster, and Water and Sanitation Cluster, is based on meeting urgent and emergency humanitarian needs in countries suffering from conflict. The respondents pointed out the pros and cons of this mechanism as follows:

> The positive side of clusters is that they are not centralized. They facilitate finding a common base between people and reality. Decentralization must be organized. In fact, the experience of clusters has not been evaluated, but I think it is better than being centralized. The work of clusters extends from the base to the top. [The work] is closer to society and more knowledgeable about its problems. Cluster response helps to build a multi-sectoral system to some extent. The disadvantages of clusters are that they are unclear; sometimes we need to clarify plans and coordination (Participant 1: Reproductive Health Expert - NGO, 2022).

> Clusters are fads made up by UN organizations. It is not logical that the person who finances the service is the one who reviews its results without approval from the beneficiary of the service. What guarantees that results presented in the routine meetings are correct, real, and realistic? The MoPHP's role is always ignored (Participant 3: Public Health Expert - MoPHP, 2022).

CONCLUSIONS AND RECOMMENDATIONS

The world trends for the last decade of 2030 pay more attention to the effective implementation of quality management that enhances a sustainable profit in place of passive coping strategies in developing and conflict-affected countries, such as Yemen. Strengthening the health system through improving the quality of health programs and interventions is required to achieve the Sustainable Development Goals. Therefore, calling on all conflicting parties in Yemen to stop the war and strengthening state building are an urgent necessity for realizing the right to health. Furthermore, it is of utmost importance to:

- Study the population's health needs by region and develop a clear vision to work on health priorities by decision-makers in the MoPHP, the Ministry of Higher Education, research centers, authorities in the governorates and local councils, partners, and donors.
- Strengthen the role of the statistical system in monitoring health indicators through the commitment of all parties, whether leaders at the country level, partners, or donors, to use a unified methodology and mechanism for collecting data and monitoring indicators and numbers.
- Form advisory committees with expertise in multiple sectors (Ministry of Public Health and Population, Ministry of Finance, Ministry of Planning and International Cooperation) to develop a clear strategic vision for the next governance transitional stage. Set actionable goals by decision-makers in the short and long term.
- Strengthen the role of oversight, supervision, evaluation, follow-up, and impact measurement by the MoPHP.
- Strengthen monitoring, evaluation, and accountability by the House of Representatives, the MoPHP, Central Organization for Control and Accounting, and local councils.
- Strengthen and develop the Research Department at the MoPHP to study the health situation through reliable data. The research department should analyze the data and indicators and define interventions based on those indicators.

- Intensify efforts by the MoPHP to support training programs for health personnel in health facilities and outreach (midwives) on a permanent and continuous basis, in addition to supporting the health education program and the health rights of citizens.
- Amend laws and regulations to reduce conflict with state activities.
- Implement legal regulations and controls for hospitals in the governmental and private sectors, and limit trading in medical work.
- Reconsider legislation and laws related to the right to health, for example, Article 15 of the Personal Status Law, related to determining the age of marriage.
- Integrate all activities related to the COVID-19 vaccine campaign or any possible pandemic immunization campaigns within the national immunization program.
- Activate national plans related to mental health and psychosocial support services.
- Find a transparent, controlled, and precise mechanism for the management process and the optimal use of aid, grants, and loans granted for health, in addition to encouraging the gradual introduction of the national health insurance system and establishing an independent health support fund.

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