

ORIGINAL ARTICLE

Descriptive Overview of Adolescent Health Indicators in Humanitarian Settings: A Cross-Country Analysis

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Manuscript received: January 2024

Manuscript accepted: April 2024

Version of record online: July 2024

Abstract

Purpose: An adolescent health information system is a relevantly new concept, especially in humanitarian settings. This article aims to map the available adolescent health indicators collected in selected humanitarian settings, identify the available data sources, and determine the alignment between these indicators and the draft list of priority indicators for adolescent health measurement recommended by the Global Action for the Measurement of Adolescent Health Advisory Group.

Methods: We selected five countries experiencing humanitarian crises- Myanmar, Nigeria, Palestine, Ukraine, and Yemen. We identified the adolescent health indicators collected in each country using document analysis and a purposive sampling approach. We reviewed the primary population-based surveys used to gather adolescent health data and noted the most recent year each survey was conducted. The identified indicators were then categorized by measurement domains and specific areas of adolescent health.

Results: The Multiple Indicator Cluster Survey and Demographic Health Survey were conducted in all five countries selected, but three out of five countries have not administered either within the last five years. Yemen and Palestine only included married women in their sample sizes, and no one younger than 15 was interviewed. Indicators most commonly assess reproductive health, tobacco use, and adolescent fertility. Limited data was found on younger adolescents, males, water, sanitation, hygiene, disability, and nutrition indicators.

Discussion: Adolescent health information in humanitarian crises requires more frequent surveys, including all adolescent age groups, and unique data collection methodologies. The current surveys used to measure adolescent health indicators have limited ability to be inclusive to all adolescents. It is important to establish a list of priority indicators deemed essential in humanitarian settings and relevant ways to collect them.

Keywords: Adolescents, health information systems, humanitarian crises, data sources, health indicators.

Suggested citation: Shalash A, Abu-Rmeileh NME, Kelly D, Elmusharaf K. Descriptive Overview of Adolescent Health Indicators in Humanitarian Settings: A Cross-Country Analysis. *J Hum Growth Dev.* 2024; 34(2):198-209. DOI: <http://doi.org/10.36311/jhgd.v34.16301>

Authors summary

Why was this study done?

To better understand the available adolescent health indicators collected in humanitarian settings.

What did the researchers do and find?

Population-based surveys used in humanitarian settings are not different from those used in non-humanitarian settings and are not always reliable or up to date.

Limited adolescent indicators on water, sanitation, hygiene, disability, and nutrition information are essential in humanitarian settings, and most programs are built around these needs.

Priority adolescent health indicators are currently not being collected in humanitarian settings.

What do these findings mean?

Taking into consideration unique methodologies for accessing data in humanitarian settings.

Encouraging the use of health information in building programs and policies in humanitarian settings.

INTRODUCTION

A global call has recently been made for increased attention to adolescents and their health needs. Defined by the World Health Organization (WHO) as individuals between the ages of 10 and 19, adolescence is a critical period that significantly influences adult health outcomes(1). However, many health systems in humanitarian settings are ill-prepared to meet the diverse needs of their populations, let alone those of adolescents(2). A humanitarian setting can be described as a situation or a series of events that presents a significant threat to a community's health, safety, security, or general well-being or a large group of people. The affected community's capacity to address the situation is overwhelming and requires external assistance. This can result from events such as armed conflicts, natural disasters, epidemics, or famine, often resulting in the displacement of populations(3). With the different types of humanitarian settings comes crisis severity. Crisis severity has been defined as a combination of the impact of the crisis, the conditions of the people affected, and the complexity of the crisis(4). It can be used to determine humanitarian assistance needs, bring attention to overlooked crises, and track trends in certain crises(5). Most importantly, clear and timely data is needed to assess the health systems in these settings, as seen in the crisis in Yemen(6).

Transitioning from the exploration of humanitarian settings and crisis severity, it is essential to recognize that within the broader context of health systems, a critical aspect is the health information system(7). In non-humanitarian settings, health indicators are primarily generated from various sources such as health surveys, Census data, civil registration and vital statistics (CRVS), health facility reporting, health system resource tracking, and annual reporting. Population-based surveys, such as the Demographic Health Survey (DHS) and the Multiple Indicator Cluster Survey (MICS), play a crucial role in gathering essential data for understanding and addressing key demographic and health issues in countries around the world. The surveys mainly focus on women aged 15-49 and children aged 6-59 months(8). While population-based surveys like MICS and DHS are typically conducted every three to ten years (usually every

five years), they may be interrupted in humanitarian settings due to challenges in reaching the affected populations safely(9). Humanitarian settings are different because of the sometimes rapidly changing needs of the population. Rapid needs assessments are often relied upon by humanitarian actors/agencies to prioritize programs and interventions. Nonetheless, these assessments are typically conducted in an ad hoc manner, tailored to immediate needs, and not shared with other agencies operating in the area. As a result, the lack of standardization and measurability of these assessments hampers their ability to inform the health system(10).

Recognizing the need to address the specific challenges and needs of adolescents, the WHO and United Nations partner agencies established the Global Action for Measurement of Adolescent Health (GAMA) Advisory Group (AG)(11). Since 2018, the GAMA AG defined a set of core measurement areas for adolescent health, mapped existing indicators linked to these areas, and selected a draft list of priority indicators for adolescent health measurement(12, 13, 14). Building upon their work, we aim to describe the adolescent health measurement landscape in humanitarian settings by mapping the available adolescent health indicators and data sources and assessing the extent to which the draft list of priority indicators can be measured based on these inputs.

METHODS

Study Design

We used document analysis to identify adolescent health indicators in five countries currently facing humanitarian crises.

The Five Humanitarian Countries

We compiled a list of countries determined to be facing a humanitarian crisis, using eight international lists of humanitarian aid or needed watching in 2019/2020.(15, 16, 17, 18, 19, 20, 21, 22)

We used five categories for inclusion criteria, and each country was given a ranking. The five criteria used were:

1. How many lists the country appears on described above.(15, 16, 17, 18, 19, 20, 21, 22)

2. Using the definition for crises above (23), we identify how many crises each country faces.
3. Humanitarian access constraints(24)
4. The length of the crisis
5. Population considered in need(25)

Each country was ranked by giving each criterion an equal weight of 20. The score ranged between 0 and 100. Using these scores, we placed the countries in four different quartiles. Then, considering the country's region, primary language, and expert consultation, we picked one country from each part of the world out of each quartile. The description and scores of each country can be found in Supplement 1. Using five different characteristics and expert consultation, we were able to pick five countries based on the total scores. One country in each of the four percentiles was picked considering the different regions of the world. Thirty countries were found to be facing some humanitarian settings in the eight international lists. Fifteen of these countries come from Africa and nine from the Eastern Mediterranean regions (based on WHO Regions).

The countries identified using the scoring were Myanmar, Nigeria, Ukraine, and Yemen. Palestine was added for its unique characteristic of being one of the world's most prolonged chronic humanitarian crises. Yemen was picked from the first quartile because it scored the highest (65.5 out of 100) and seemed to be facing one of the worst humanitarian crises in the world. Nigeria was picked because it was from the African Region and one of the main languages is English, not French. Myanmar and Ukraine were picked for diversity in regions, as Ukraine is the only European country on the list.

Search Strategy

We used a purposive approach to locate adolescent health indicators for each country, including national reports, survey reports, published papers, etc. We also searched for any reports, surveys, statistical reports, and census information. In addition, we contacted international agencies asking for any reports they might not have published online. We started with a list of population surveys that were done to collect these indicators and used these to start our search. Then, we visited the humanitarian websites associated with working in each country. Finally, various indicator databases, such as the WHO Global Health Observatory (26), were used for general reference in identifying adolescent health indicators. Any relevant indicator found using the database referenced the original data source. Purposive searches were done involving the country name as well as adolescents.

In any population survey that was found to have been done in previous years, indicators were extracted from the latest survey. Surveys were required to be collected after 2000 because it was determined that anything over 20 years is highly outdated and not valuable for the current exercise. A document was included, and the health indicator

was extracted if the indicator included information concerning adolescents within the age group of 10-19 years. The indicators were excluded if disaggregated data was not specific to this age group. For example, if an indicator described the age group as 5-14 but did not disaggregate the age group of 10-14, it was not included in the list.

After rigorous training in identifying adolescent health indicators, one researcher and two research assistants extracted the data. Training was also received on how to systematically search for indicators. These indicators were collected from September 2020 to May 2021.

Data Analysis

For each country, the following data were extracted for each indicator. First, the characteristics of the data source were collected. Extracted data included the link of the source, the title of the source, the author, the year the survey was reported, the year the data was collected, the name of the humanitarian organization/government in charge of the survey, and if the report was a country-specific or a multi-country report, and measurement frequency. Then the specific indicator characteristics data extracted were the name of the indicator given by the report (if no name was given, then the definition was used), the domain of the indicator, the measurement area of the indicator, indicator level, gender information, definition, numerator, denominator, and age groups. All indicators were grouped into five of the six domains determined by GAMA(13). These are 1. Social, Cultural, Economic, and Environmental Determinants of Health 2. Health Behavior and Risks, 3. Policies, Programmes, and Laws, 4. Systems Performance and Interventions, and 5. Health Outcomes and Conditions. The sixth domain, subjective well-being, we consider to be part of the social determinants of health and included any relevant indicators in the first domain. A stacked bar chart was created in Excel. The y-axis contained the name of the country and each of the colors represented a domain. The percentage of indicators of each domain are presented, using the total number of indicators (for each country) as the denominator. Duplicated indicators were not removed if found amongst different surveys to show the duplication of indicators and waste of resources collecting the same information in resource-strapped settings. Results were reported using frequencies and percentages. Lastly, GAMA has listed 52 indicators that stakeholders felt were a priority(14). Using the indicators and their characteristics, we cross-checked, determining if the indicators were fully collected, partially collected, or if it was not collected in the country. For example, if data was available for females and the age group 15-19; then they indicator was determined as "yes-partially missing, (10-14), males". The information was formatted in a table in the results section.

RESULTS

All five humanitarian crisis countries are facing armed conflict. Displacement internally and externally is happening in all except Yemen. In these countries, on average, about 20% of the population is of adolescent age, with Ukraine only having a 10% adolescent population. Characteristics of included countries can be found in Table 1.

Data Sources

The primary data sources found to contain adolescent health indicators in all countries were population-based surveys. The main surveys are the (MICS), the (DHS), and the Global Youth Tobacco Survey (GYTS). In addition, the Global

School Health Survey (GSHS) was done in five countries, with Nigeria's report unavailable. The target population in most surveys is (15-49) years old, with the school health surveys serving the ages of (11-13), (13-15), and (13-17). Information on the primary data sources for each country can be found in Supplement 2. Ukraine only had five major surveys out of the 12 available; two were collected before 2009. Nigeria was the only country in a humanitarian setting to have five surveys after 2016. Myanmar had four, Palestine three, and Ukraine two. Yemen had no survey after 2014. Table 2 summarizes the major data surveys and the year the data was collected for extracted adolescent health indicators.

Table 1: Characteristics of Included Countries

Country	WHO Region	Population affected (%)	Adolescent Population (%)	Crisis duration (years-estimation)	Crisis Conditions	Humanitarian Access constraints
Myanmar	South-East Asia Region	2%	18.23%	6	Armed Conflict, Displacement, Food Insecurity	Very High Access Constraints
Nigeria	African Region	4%	23.14%	9	Armed Conflict, Displacement, Socioeconomic Conflict, Food Insecurity	Very High Access Constraints
Palestine	Eastern Mediterranean Region	49%	20%	75	Armed Conflict, Displacement, Food Insecurity, Socioeconomic Conflict	Very High Access Constraints
Ukraine	European Region	8%	10.02%	6	Armed Conflict, Displacement	High Access Constraints
Yemen	Eastern Mediterranean Region	81%	22.63%	9	Armed Conflict, Food Insecurity, Biological, Socioeconomic Conflict	Extreme Constraints

Table 2: Year of Most Recent Data Collected for Major Data Surveys on Adolescent Health Indicators

Name of Survey/Area of Survey	Yemen	Nigeria	Myanmar	Ukraine	Palestine
1. Global School Health Survey (GSHS)	(2014)		(2018)		(2018)
2. Multiple Indicator Cluster Survey	(2008)	(2018)	(2011)	(2013)	(2021)
3. Demographic and Health Survey (DHS)	(2015)	(2019)	(2017)	(2008)	(2005)
4. Global Youth Tobacco Survey (GYTS)	(2014)	(2008)	(2016)	(2017)	(2017)
5. Health Behavior in School Aged Children (HBSC)				(2018)	(2004)
6. Census	(2008)		(2016)		
7. HIV/AIDS Surveillance Survey	(2015)	(2018)		(2010)	
8. Malaria Indicators Survey		(2012)			
9. Micronutrient/Food Consumption Survey		(2018)	(2019)		(2013)
10. Behavioral Surveillance Survey		(2015)			
11. Child Labor/Labor Survey	(2014)				(2018)
12. Maternal/Reproductive Health Survey		(2013)	(2009)		(2007)
13. Education Survey		(2015)			
14. Mental Health Survey				(2005)	(2019)

Types of Indicators

The indicators were classified into four domains and 51 out of the 99 measurement areas were identified. Table 3 shows the number of indicators in each domain and the measurement areas in each. The measurement area Social (Social support, social/cultural norms) in the Social, Cultural, Economic, and Environmental Determinants of Health domain has a high percentage in Ukraine (58%) and Palestine (40%). Nigeria showed no water, sanitation, and hygiene (WASH) indicators. In Health Behavior and

Risks, tobacco use was high in all countries except Nigeria, where the focus is mainly on reproductive health and contraception. Systems Performance and Interventions were mainly health services and school health. Lastly, for Health Outcomes and Conditions, the main focus for all countries is adolescent fertility and violence (physical violence, intrapersonal violence, and sexual violence). One depression indicator was found in two of the five countries and minimal information on diabetes, hypertension, iron and vitamin deficiencies, and abortion.

Table 3: Domains and Types of Adolescent Health Indicators

Types of Indicators	Nigeria	Myanmar	Palestine	Ukraine	Yemen
Social, Cultural, Economic, and Environmental Determinants of Health	61	61	141	39	39
Population	2	5	1	1	1
Education Level/Schooling Status	16	9	21	2	15
Income level	1	1	10	1	
Being Part of a Vulnerable Group	3	3	2	1	1
WASH		6	3	1	2
Labor	4	13	15	1	7
Child Marriage	10	7	8	3	8
Social (Social Support, Social/Cultural Norms)	21	11	53	22	5
Wellbeing	3	3	28	7	
Environment	1	4			
Health Behavior and Risks	199	126	133	120	69
Weight Status	3	8	7	4	4
Alcohol Use	5	7		14	
Substance Use	6	1	2	3	
Tobacco Use	21	47	59	45	43
Social Media/Internet/Media Use	9	2	21	7	

Table 3: Domains and Types of Adolescent Health Indicators

Types of Indicators	Nigeria	Myanmar	Palestine	Ukraine	Yemen
Dietary Behavior	2	8	12	5	2
Physical Activity		4	4	3	2
Sedentary Behavior		1	1		1
Sleep		1	1	1	
Bullying		2	6	8	1
Reproductive Health	87	25	14	17	10
Contraception	45	13	3	10	6
Other	21	7	3	3	
Systems Performance and Interventions	49	15	22	4	9
Health Service	33	11	9	3	8
Health Check-Ups (Clinic/Hospital)	12		7		
Immunization	1	1			
School Health	1	3	4	1	1
Health Insurance	2		2		
Policies, programmes, laws	4	3	0	0	3
Adolescent health policies/plans (availability, implementation, funding, M&E)	2	2			1
Adolescent health protective laws (availability, implementation, funding, M&E)	1	1			1
Adolescent health programmes (availability, implementation, funding, M&E)	1				1
Health Outcomes and Conditions	82	51	49	40	19
Mortality	6	9		4	4
HIV/AIDs	20	3		5	1
STIs	6	1		2	1
Tuberculosis	2	1			
Worms	1	1			
Maternal Conditions	1				1
Iron-Deficiency	2	6			1
Diabetes			1		
Sickle Cell Disorders and Traits					
Self-Harm (Suicide and Thoughts)		2	4		2
Depression		1		1	
Disability	1	1	7		
Injuries		3	3	2	1
Violence	14	12	17	4	3
Other Health-Related Outcomes and Conditions	6	2	3	7	
Adolescent Fertility	15	9	14	12	3
Female Genital Mutilation/Cutting	8				2
Abortion				2	
Hypertension				1	

Describing the distribution of data collected in each of the four domains (1. Social, cultural, economic, and environmental determinants of health; 2. Health behavior and risks; 3. Systems performance and interventions; 4. Policies, programmes, laws, and 5. Health outcomes and conditions) for each country, we see the makeup of each of the five countries. Most of the measurement areas in all the countries are found to be in health behaviors and risks

except for Palestine, which is showing almost equal percentages for health behavior and risks and social, cultural, economic, educational, environmental determinants of health. Palestine had the highest percentage (41%) of social, cultural, economic, educational, environmental determinants of health. Figure 1 shows the breakup of each country in a stacked bar chart.

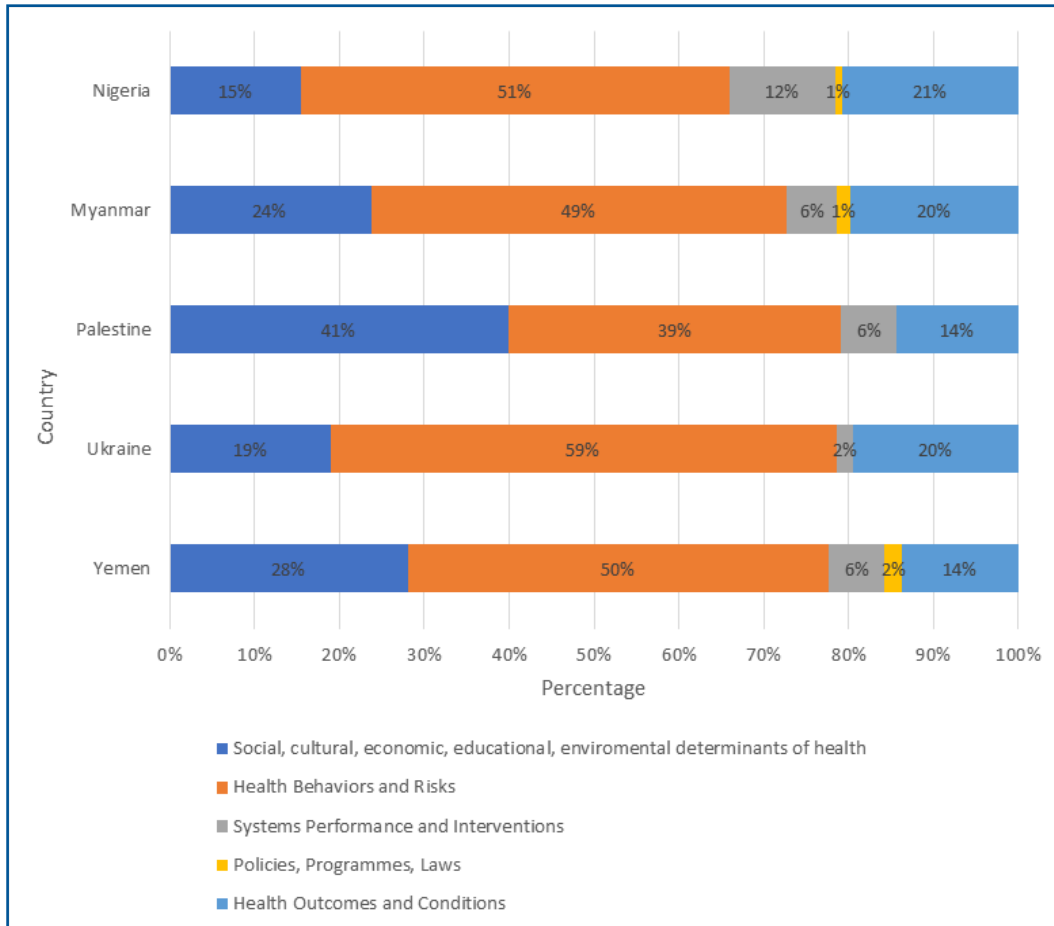


Figure 1: Percentages of the Four Domains for each of the Five Countries

Figure 1: Representation of the 4 measurement domains of (1. Social, cultural, economic and environmental determinants of health; 2. Health behavior and risks; 3. Systems performance and interventions; 4. Policies, Programmes, Laws; 5. Health outcomes and conditions) for each country in a stacked bar graph form.

We compared the collected indicators to the GAMA list of suggested priority indicators. Myanmar collected 11 out of the 52 fully collected indicators Palestine 33 indicators were found to not be collected. The distribution of collected indicators can be found in Table 4.

Table 4: GAMA Suggested Priority Indicators Collected in Each Country

Country	Indicator Collected	Indicator Partially Collected	Indicator Not Collected
Nigeria	9	23	20
Myanmar	11	22	19
Palestine	4	15	33
Ukraine	7	22	23
Yemen	8	20	24

The rest of the indicators were partially collected. For example, the indicator describes both age groups of 10-14, 15-19 and gender, the collected indicator would be missing information on the age group 10-14 and for males. In Supplement 3, you can find a complete list of the priority indicators and the collection status of the indicators in each of the five countries.

■ DISCUSSION

For the first time, a comprehensive search for adolescent health indicators in multiple humanitarian contexts was conducted. We determined that the same data collection instruments deployed in a broad set of countries are also applied in countries facing humanitarian contexts. These surveys are essential in giving insight into the health of a population but were not designed to be used in humanitarian situations(8). Often, the population surveys are over ten years old. Population-based surveys were found to be funder and donor-based, have unreliable consistency of being timely, and are not always available. While funds have been invested in the collection of data on adolescent health, attention should be given to improving the data management and use of health information(27). This is not only seen in humanitarian settings but in low-and middle-income countries(28). It was found in Ethiopia they did not use data from the health information system to support their decisions due to the fear of low data quality and the lack of human resources skills to properly analyze core indicator lists(29).

The humanitarian crises amplify data gaps, especially where there is already limited data(30). Yemen, one of the more severe humanitarian settings, the last available indicators was in 2015. The MICS was set to be distributed in 2020 but has been postponed due to the armed conflict and lack of safety of field workers. Many times, humanitarian agencies must resort to data obtained during pre-humanitarian conditions to decide the priorities of the countries. Relying on pre-humanitarian conditions can be misleading, as these conditions do not account for the changes arising from the crisis. For example, Syria before the war had a functioning healthcare system; the continuation of the war caused the health system to be devastated leaving them unable to continue to offer the needed services, and priorities changed(30).

Indicators' main purpose is to identify problems for action. With these targeted populations, the age groups 10-14 and students not in school are not included in the collection of indicators(8). This is an important study finding which has received some attention in the literature previously but is a persistent problem to be addressed. In a systematic review done on SRH interventions of adolescents living in humanitarian settings, none were found to cover only males and very few involved the age group of 10-14 years old(31). One of the reasons could be the age group being characterized as a child instead of being a part of the adolescents and there

not being age disaggregated data.

Recently, it has shown that adolescents face a rapid changes, both physically and mentally, and that child interventions would no longer be effective amongst those going through puberty(32). Also, the risk of mortality and health issues is considered to be one of the lowest for this age group(33). International initiatives specific to humanitarian settings such as Sphere, Health and Nutrition Tracking Service, the Standardized Monitoring and Assessment of Relief and Transition, and the Minimal Initial Service Pack (MISP) have developed indicators but few are specific to adolescents(34). WASH indicators are the most important indicators considered in a humanitarian setting, but age-disaggregated data is not included.

One of the most frequent types of indicators collected in all countries was reproductive health indicators, discussing many different topics of fertility, contraception, knowledge of HIV/AIDs, GBV, antenatal services, and child marriage. Reproductive health in any setting is an integral component of a country's health system and goal 3 of the Sustainable Development Goals(35). The DHS and MICS are two of the most used population-based surveys to measure reproductive health indicators in low-and-middle-income countries(36). In a study done looking at 128 indicators collected in nine countries, it was found that only eight were collected in all nine of the countries(37). Even though standardized tools are being used to collect data, some countries tend to remove questions that are not considered to be culturally acceptable to ask, making it hard for multi-country comparisons(38). Few indicators were found for abortion. Abortion is still seen as a gap in adolescent and adult sexual health services(39). It is not an indicator usually measured using population-based surveys because of the stigma typically surrounding the act of abortion(41). Also, it can be seen as something that cannot be done safely in humanitarian settings as well as it is illegal in some countries(41).

Most humanitarian interventions geared toward adolescents are focused on sexual and reproductive health, gender-based violence amongst girls, food insecurity, malnutrition, and mental health(42). Still, limited indicators are found for food insecurity, malnutrition, disability, non-communicable diseases, and mental health. Adolescents' mental health during humanitarian crises can lead to poor health outcomes later in life. Unfortunately, adolescents' mental health indicators aren't the only ones missing. The Interagency Standing Committee and the Sphere project offer guidance on mental health and psychosocial support programs that are found to be critical in humanitarian settings, but they do not provide recommendations on goals, outcomes or possible indicators(43). In a research priority setting meeting one of the main recommendations was the need for the identification of appropriate mental health and psychosocial support indicators in humanitarian

settings(44). Recently, the Measurement of Mental Health among Adolescents at the Population Level (MMAP) initiative is focused on developing and validating a suite of tools to collect data on priority indicators for adolescent mental health across different settings(45). Although, they don't essentially apply to some cultural settings as well as conflict-inflicted areas(46), this can be used as a start in which are applicable in humanitarian settings.

Finally, although getting timely and accurate indicators is essential, it is important to keep in mind that sometimes-collecting data is not the priority in an acute conflict setting where the safety of people and health professionals is the priority. Subjective indicators such as mental health indicators need to be addressed carefully and measure the health status during and post-acute conflict setting.

The priority list set of adolescent health indicators presented by GAMA are currently not being completely collected in the five countries included in this research. We found the absence of the availability of data for many of the indicators. The list determined that 36 indicators could be measured using population-based surveys and the rest of routine data and civil registrations(47). The main concern would be the lack of proper data collection tools. Just because the indicators are currently not measured, does not imply that they are not measurable. Gaps in the existing measurement practices could be addressed by the increased use of information and communication technology(48) in some humanitarian settings. Also, there is a need to modify existing population-based surveys to facilitate the inclusion of certain indicators traditionally gathered exclusively from females, extending their scope to include males, while also tailoring population-based surveys to specifically address the age group of 10-14-year-olds.

To go even further, we will investigate Palestine's adolescent health information system. Palestine has one of the world's longest-running humanitarian crises. Using the indicators gathered here, we will examine the various adolescent health programs and policies currently in place, the roles of humanitarian agencies and aid in these programs and policies, and the adolescent health information system. We've seen that most GAMA indicators aren't completely collected in Palestine, so we'll ask key adolescent health stakeholders which of the indicators they believe would be feasible and important to collect in their context. Using this data, we will be able to make recommendations for improving the adolescent health information system in Palestine and other humanitarian settings.

Strengths and Limitations

One of the primary strengths of this research is its innovative effort to collate adolescent health indicators in humanitarian settings, marking a significant alignment with ongoing global initiatives focusing on adolescent health metrics. This study

effectively identified substantial gaps in data collection across crucial areas such as mental health, nutrition, disability, and water, sanitation, and hygiene (WASH). However, there are limitations in generalizing the findings across all humanitarian settings, as the countries sampled are uniformly affected by armed conflict, which may influence the availability and type of health indicators that can be collected. Given the descriptive nature of the study and the inherent variability in the health indicators across the different countries, an in-depth comparison of these indicators was not feasible. Additionally, the study relied entirely on publicly available and published data, which presents a constraint as unpublished data, which could be crucial for informed decision-making, was inaccessible. This reliance on readily available data emphasizes a broader issue within humanitarian data collection practices, where the accessibility of data significantly impacts the development and implementation of health interventions and policies.

CONCLUSION

This research tried to portray a global view of adolescent health indicators collected in humanitarian settings. We were able to collect the indicators that were reported online for all five countries but did not have access to routine data. We found that there are limited adolescent health indicators that are available to be used but are not always inclusive of all age groups and gender. The population-based surveys that are used are not tailored for humanitarian settings or take into consideration what humanitarian agencies feel are the priority of adolescents in these settings. Data systems should be improved, and this process should give special consideration to the diversity of issues that arise in humanitarian settings.

Adolescent health information in humanitarian crises requires more frequent surveys as they are currently very irregular compared with non-humanitarian settings, the inclusion of all adolescent age groups, and unique data collection methodologies, such as digital and remote technology. Using the draft of priority indicators, it will be important to see which of these indicators and others that might have not been identified are deemed essential in humanitarian settings and relevant ways to collect them.

Abbreviations

- DHS: Demographic Health Survey
- GAMA: Global Action for Measurement of Adolescent Health
- GSHS: Global School Health Survey
- GYTS: Global Youth Tobacco Survey
- MICS: Multiple Indicator Cluster Survey
- WHO: World Health Organization

Declarations

Ethics approval and consent to participate
Not applicable
Consent for publication
Not applicable
Availability of data and materials
Data is available upon reasonable request

Competing interests

The authors declare that they have no competing interests. The views expressed herein do not necessarily represent those of the International Development Research Centre (IDRC) or its Board of Governors.

Funding

This work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada (ID number 109011-001).

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Resumo

Objetivo: Um sistema de informação sobre a saúde dos adolescentes é um conceito relevante e novo, especialmente em contextos humanitários. Este artigo tem como objetivo mapear os indicadores de saúde dos adolescentes disponíveis recolhidos em contextos humanitários selecionados, identificar as fontes de dados disponíveis e determinar o alinhamento entre estes indicadores e o projeto de lista de indicadores prioritários para a medição da saúde dos adolescentes recomendado pela Ação Global para a Medição da Saúde dos Adolescentes. Grupo Consultivo de Saúde.

Método: Selecionamos cinco países que enfrentam crises humanitárias – Mianmar, Nigéria, Palestina, Ucrânia e Líbano. Identificamos os indicadores de saúde dos adolescentes coletados em cada país por meio de análise documental e uma abordagem de amostragem proposital. Revimos os inquéritos primários de base populacional utilizados para recolher dados de saúde dos adolescentes e anotamos o ano mais recente em que cada inquérito foi realizado. Os indicadores identificados foram então categorizados por domínios de medição e áreas específicas da saúde do adolescente.

Resultados: O Inquérito de Indicadores Múltiplos e o Inquérito Demográfico e de Saúde foram realizados em todos os cinco países seleccionados, mas três em cada cinco países não administraram nenhum deles nos últimos cinco anos. O Líbano e a Palestina incluíram apenas mulheres casadas nas suas amostras e ninguém com menos de 15 anos foi entrevistado. Os indicadores avaliam mais comumente a saúde reprodutiva, o uso do tabaco e a fertilidade dos adolescentes. Foram encontrados dados limitados sobre adolescentes mais jovens, homens, indicadores de água, saneamento, higiene, deficiência e nutrição.

Discussão: A informação sobre a saúde dos adolescentes em crises humanitárias requer inquéritos mais frequentes, incluindo todas as faixas etárias dos adolescentes, e metodologias únicas de recolha de dados. Os inquéritos actuais utilizados para medir os indicadores de saúde dos adolescentes têm uma capacidade limitada de serem inclusivos para todos os adolescentes. É importante estabelecer uma lista de indicadores prioritários considerados essenciais em contextos humanitários e formas relevantes de os recolher.

Palavras-chave: Adolescentes, sistemas de informação em saúde, crises humanitárias, fontes de dados, indicadores de saúde

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