

THREATS TO CHILDREN’S HEALTH - PAST... NOW... FUTURE

Emver Hasanoğlu*

* MD., FAAP
General Secretary of TNPS, UMEMPS
President of UNIPSTR
President - Elect of IPA

First of all, I would like to thank my dear friend Prof. Salvatore Vendemmia for giving me the chance to write in this book. I graduated from Istanbul University Istanbul Medical Faculty in 1969. In 1973, I graduated from Hacettepe University Faculty of Medicine as a specialist in Pediatrics. In addition to being a pediatrician and conducting academic activities, I worked in positions of the Dean of the Faculty of Medicine and the Rector of the Gazi University. I have participated in national and international scientific organizations (Fig. 1). I had been on the board of the IPA (International Pediatric Association). In March 2019, I was elected as the next IPA president in Panama (Fig. 2, 3). I was the president of the Turkish National Pediatric Society (TNPS); I am still working as a secretary-general.



Fig. 1



Fig. 2



Fig. 3

TPNS was established in 1958. Since its establishment, it has aimed to protect children's health in our country and the world, make scientific contributions to

physicians about pediatrics, and ensure the improvement of child health. In this context, TNPS cooperates with Pediatric Associations of other countries in the international arena. As TNPS, we organize collective scientific meetings by the agreement we made with the Italian Pediatric Association (S.I.P.O.) in 2011 (Fig. 4, 5). In the scientific success of the two countries' associations and pediatricians, my dear friend scientist Prof. Salvatore Vendemmia has excellent efforts. Successful scientific meeting organizations were held with Iran and Romania as well as Italy. The first of the Turkey-Italy Pediatrics meeting was held on 15 October 2011 in Antalya/Turkey, the second Turkey-Italy Pediatrics meeting on 18-29 October 2012 in Sanremo / Italy, Turkey-Italy-Iran Joint Meeting of Pediatrics on 4-8 November 2015 in Antalya/Turkey, the following meeting of the Turkey-Italy-Romania Pediatrics joint meeting on 3-6 October 2018 in Iași/Romania, and finally Turkey-Italy Pediatrics joint meeting on October 30- November 3, 2019 in Turkish Republic of Northern Cyprus. All the meetings have been very successful in terms of contribution to pediatricians. Here, I would like to commemorate my dear friend, great scientist Prof Marin Burlea, the president of the Romanian Pediatric Association, who passed away in November 2018, with longing and respect... (Fig. 6) The cooperation between Turkish and Italian National Pediatric Societies will increasingly continue from now on. I would like to congratulate and thank the scientists who collaborated and worked in all these scientific studies.



Fig. 4



Fig. 5



Fig. 6

In this speech, I wanted to evaluate the factors that threaten the health of our children from the perspective of yesterday, today and the future through my past and current studies in pediatrics, medical education, the administration of universities, national and international societies related to child health and IPA. Completion of children's growth and development is a human right and essential for sustainable development. The health sector is the most responsible sector for ensuring that children start their lives in the best way possible. The first step to healthy growth is to provide the necessary nutritional facilities for all children. The other most crucial step is to protect children from preventable diseases, especially infections, and provide a treatment chance for the disease. Poverty, infections, malnutrition, disasters, wars, addictions, and early marriages can be considered among the factors that have threatened our children from past to present. In 2017, half of the deaths under the age of 5 were in the sub-Saharan region and 30% in South Asia. Unfortunately, in Sub-Saharan Africa, one in every 13 children is lost before their fifth birthday. This rate is 1/185 in countries with high-income levels. In 2018, approximately 6.2 million children (0-15 years) were lost, due to mostly preventable reasons. 5.3 million of these deaths occurred at the age of 0-5, and almost half of them occurred in the first month of life.

Perinatal and childhood mortality rates are indicators of development level, social development, or countries' health status indicators. The rate of deaths in infancy and childhood reflects the country's socioeconomic status and the quality of life of the country's population. Ninety percent or more of infant and child deaths can be prevented by improving environmental health, maternal and child health services, providing the necessary education to mothers, applying for uninterrupted vaccination programs, and providing sufficient nutritional support. Perinatal mortality rate and maternal mortality rate are important indicators of maternal health, especially prenatal adequacy. World Health Statistics, published annually by WHO since 2005, include data that are indicators of the world's health status. Since 2016, the World Health Statistics series tracks the Sustainable Development Goals (SDGs) progress, sharing the latest data. The report published in 2019 reveals that health is often compromised by preventable or treatable diseases and low-income countries. Some of the avoidable deaths were found to be associated with environmental factors, unhealthy diet, physical inactivity and smoking, alcohol or drug intake. In the 1960s, among causes of infant, pneumonia, diarrhea, sepsis, and other infections and perinatal causes took the first place. After the 1990s, congenital anomalies and perinatal causes were more common causes deaths due to pneumonia and diarrhea were decreased.

After realizing that contagious diseases with high mortality, including measles, whooping cough, and tetanus, could be prevented by vaccination, and diarrhea could be eliminated with appropriate sanitation and oral rehydration fluids, or complications due to diarrhea could be reduced, vaccination rates were increased and sanitation conditions were improved.

Since the year 2000, significant progress has been made in reducing child mortality, and the worldwide under-5 mortality rate was 77 per 1000 live births in the 2000s, while this rate decreased by 49% in 2017 to 39 per 1000 live births. In 2017, an estimated 5.4 million children under the age of 5 were lost, with 2.5 million of these deaths occurring in the first 28 days of life.

In the SDGs published by WHO in 2019, by 2030, the main goals are hampering preventable deaths of newborns and children under 5 years, and decreasing neonatal mortality rates to at least 12 per 1000 live births and under-5 mortality to 25 per 1000 live births.

More than half of the deaths in children under 5 years of age are due to diseases that can be prevented and treated with simple and cost-effective interventions. Death rates are generally higher in low-income countries, but children in low-income countries are 100 times more likely to die from infectious diseases than high-income countries. It is known that, unfortunately, most of the child deaths still develop due to infections, and accessible and straightforward methods can prevent most of these diseases. These methods are vaccination, adequate nutrition, safe water and food, and appropriate care by a trained healthcare provider.

The main purpose of immunization services is to prevent the emergence of vaccine-preventable diseases in the society, especially in infants and children, thus preventing deaths and disabilities. Vaccination is one of the preventive health services that is considered to be the most effective in world history. Vaccines are important tools in protecting the whole population, especially children, from infectious diseases. In our country, according to the “National Vaccination Calendar”, vaccines are applied against 13 communicable diseases in the preschool period. The Expanded Immunization program includes disease eradication programs as well as vaccines. For this purpose, Polio Eradication Program, Measles Elimination Program, Maternal and Neonatal Tetanus Elimination Program, Hepatitis B Control Program, Rubella and Congenital Rubella Syndrome Elimination Program and Tuberculosis Control Program have been implemented so far. All over the world, vaccine-preventable diseases have been greatly reduced by routine vaccination programs, and approximately 2-3 million deaths are prevented each year through vaccination. By vaccination, smallpox was eradicated, eradication of polio was targeted, and measles mortality was reduced by 73 percent. Besides health related gains; economic and social gains should also be considered as the success of vaccination programs.

WHO considers immunization services among the most important and cost-effective public health interventions in terms of preventing vaccine-preventable diseases and related deaths. Integrating vaccination services with the same success within health services should be one of the health policies’ goals. However, worldwide vaccination rates are still not at the desired level. Nowadays, increasingly negative attitudes towards vaccination and vaccine rejection also decrease vaccination

rates. **Vaccine refusal** or **vaccine hesitancy** is defined as a delay in rejecting or accepting vaccines, despite available vaccination services. Rejection of all vaccines, if any, is defined as vaccine refusal. Vaccine hesitancy has been reported in more than 90 percent of the world's countries. Therefore, in many regions, measles-mumps-rubella vaccination has fallen below the 95 percent threshold required for community immunity. Upon the rapid increase in vaccine rejection cases in the world in recent years and reaching dangerous levels; The World Health Organization included "anti-vaccination" at the top of 10 global health problems that is planned to be resolved in 2019.

The fact that immunization rates fell below the population immunization thresholds causes an increase in infectious diseases, which were seen much less nowadays, and an increase in related mortality and morbidity. As IPA, we make great efforts to prevent vaccination refusal. IPA and Turkish National Pediatric Society jointly organized the international "Anti-Vaccine Workshop" within the 63rd National Pediatric Congress in the Turkish Republic of Northern Cyprus as Turkey on November 2019. The aim of the workshop was to discuss the frequency and reasons of vaccine hesitancy and vaccine refusal, to determine the medical, legal and social approaches towards vaccine hesitancy and to evaluate national and international solutions to prevent vaccine instability (Fig. 7). Workshop drew participants from Turkey, Turkish Republic of Northern Cyprus, United States, Italy, Romania, India, El Salvador, Malaysia, Azerbaijan and Kosovo. Workshop results were shared with the authorities.



Fig. 7

The ability of children to eat properly has a direct effect on child deaths, as well as an indirect effect. Poor nutrition should not be considered just malnutrition (slimming, stunting, insufficient weight).

insufficient vitamin or mineral intake, excess weight and obesity are also actually reflections of poor nutrition. About 45% of deaths among children under 5 year are linked to malnutrition. These occur mostly in low-and middle-income countries. At the same time, the rates of childhood overweight and obesity in these countries have been steadily increasing. The developmental, economic, social and medical effects of poor and malnutrition affect not only children, but also their families and society.

Worldwide, the proportion of stunted children under the age of 5 has fallen by almost a third in the past 20 years, although more than a fifth of children in 2018 were found to be below global standards by their age.

Malnourished children, especially children with severe acute malnutrition, have a higher risk of death due to common childhood diseases such as diarrhea, pneumonia and malaria.

Inadequate and poorly fed children the possibility of death, water pollution and 25 times more than breast milk in terms of Health is due to unfavorable conditions it was found that, in the first 6 months of breastfeeding understood the importance of the ideal nutrients.

Applications necessary for feeding infants and young children include early start of breastfeeding within the first hour of life, feeding only breast milk in the first 6 months of life, breastfeeding Lasting 2 years or more, and feeding safe, appropriate and adequate additional foods at the age of 6 months. As part of the programs of breast milk promotion, maintenance, support and Baby-Friendly Health Organizations, the proportion of children breastfed within 1 hour of birth has increased from 50% to 71% in the last 5 years.

But currently, the median duration of feeding with breast milk is only 1.8 months, while the median duration of breastfeeding is 16.7 months.

One of WHO's released in 2019 SDG by 2030, including stunting in children under 5 years of age, and for this purpose the termination of malnutrition, adolescents, pregnant and lactating women and the elderly, including to ensure that their nutritional requirements are met.

Obesity is one of the most serious public health problems in 21. Century. An increase in the prevalence of obesity in children and adolescents, especially in underdeveloped and developing countries, is an indication that childhood obesity will pose a public health problem on a global scale. Overweight is a measure of overeating.

Overweight, obesity and sedentary life lead to many diseases, especially cardiovascular diseases in later ages. In recent years, especially in terms of energy-intensive sugar and fat consumption of higher foods and beverages and less physical activity, increased time spent at the screen leads to overweight or obesity. Globally, the proportion of overweight under 5 years increased by 20% between 2000 and 2018. In 2018, one in every 17 children was shown to be overweight. 38.3 million children are overweight or obese, according to who's 2020 report. The rate of overweight or obesity

is more common in countries with high income levels, while one in 14 children is overweight is the highest in the WHO Region of America. In the WHO Region of Europe, one in 11-year-old children is either overweight or obese. According to the Turkish childhood obesity survey conducted by the Ministry of health in cooperation with the World Health Organization (WHO) in 2016, 9.9% of Primary School second grade children were obese and 14.6% were overweight. In order to prevent obesity, it is necessary to provide educational and awareness-raising efforts involving family, children and people who interact with the child on the issues of the importance of healthy eating and physical activity, and to strengthen policies on this issue.

In line with Turkey's National Strategic Plan, The "Healthy Eating and moving Life Program" has been implemented since 2010.

With the "Nutrition Friendly School Program", sugar, chocolate, carbonated drinks and energy drinks were banned in canteens, criteria were set for some sweet and salty foods, and junk food advertisements were banned in children's programs on television.

In order to prevent obesity, it is necessary to provide educational and awareness-raising efforts involving family, children and people who interact with the child on the issues of the importance of healthy eating and physical activity, and to strengthen policies on this issue.

The goal of national newborn, infant, and child screening programs is to early diagnosis and treatment of diseases that do not give clinical symptoms, especially in the neonatal period, but cause serious morbidity and mortality when the diagnosis is delayed, and thus prevent complications. The newborn screening program is a preventive health service that has a very major place in public health programs in developed and developing countries all over the world. For the first time in our country, the Phenylketonuria Screening Program was started in 1983 as a continuation of the research project initiated by the Hacettepe University Metabolism Unit within the scope of a project supported by TUBITAK. The "Newborn Metabolic Screening Program" from heel prick test was begin in 2006 in order to screen all newborns across the country for Phenylketonuria and Congenital Hypothyroidism. Biotinidase enzyme deficiency in 2008 and Cystic Fibrosis disease in 2015 were added to the screening. There are also countries in the world that perform a wider metabolic screening, especially congenital adrenal hyperplasia (CAD), with heel prick test. Other screening programs conducted in our country are; "Neonatal Hearing Screening Program", "Developmental Dysplasia of the Hip Screening Program", "Vision Screening" and "School Age Children Hearing Screening".

The first step in preventing infectious diseases in children is feeding with breast milk for a sufficient period of time, accessing appropriate food sources, providing safe water and food resources, adequate sanitation and hygiene. Subsequently, the second most important step in protection from infectious diseases will be executed by applying childhood vaccines.

Vaccines are present for some of the fatal childhood diseases such as measles, polio, diphtheria, tetanus, pertussis, *Haemophilus influenzae* type B, pneumococcus and rotavirus infections. These vaccines prevent illness and death for all children.

Pneumonia still occupies an important place for life threatening infections in the world. According to 2006 WHO data, more than 2 million children died due to pneumonia, and this number is more than the total number of children lost from AIDS, malaria and measles.

In countries with high socioeconomic status, the annual incidence is 3.3/1000 under 5 years of age and 1.45/1000 for children under 16 years of age, meanwhile, this rate is 231/1000 in countries with lower socioeconomic status. In these countries, the rate of hospitalization for pneumonia is around 50-80%.

In 2015, 800,000 deaths were recorded under 19 years of age due to lower respiratory tract infections secondary to the only term and preterm labor complications. In observational studies, meantime the fatality rates in children under 5 years old are below %1 in countries with high socioeconomic status, it varies between %0.3-15 in countries with low socioeconomic status. The fact that one in 10 children with pneumonia is still lost in low-income countries likely be the result of their inability to access adequate nutrition, hygiene, proper living conditions, and immunization.

Malaria is still an infectious disease endemic in tropical regions. There is an ongoing transition in 95 countries. It was reported by WHO in 2018 that there were 228 million cases all over the world. 93% of the cases were from Africa and 5% from southeast Asia. According to the Health Criteria and Epidemiology Center data, 714.000 deaths under the age of 5 and 524.000 deaths over the age of 5 were recorded in 2010. According to 2018 WHO data, 405.000 deaths from malaria have been reported, 94% of which are from Africa. In 2018, the number of deaths from malaria under the age of 5 was 272.000 (67% of total deaths). The cost of the disease is 2.7 billion dollars in 2018. Therefore, the disease is an infectious disease that is very substantial in terms of world child health. Vector control is recommended for the prevention of the disease and routine vaccination studies are carried out in endemic areas.

Poliomyelitis is a highly virulent and mortal virus that affects under 5 years of age. In 1988, the World Health Assembly decided to endeavor to eradicate polio worldwide, and the disease was reduced by %99 with global immunization.

There have been changes in the number of diseases in recent years for the reasons including differences in immunization practices and vaccination rates. In 2016, 4 wild virus-related cases were seen in Nigeria, which had no cases for 2 years. In 2019, a total of 175 cases were reported from all over the world. In 2020, the wild type virus was reported from countries such as Pakistan and Afghanistan. These flaws hampered serious difficulties in the eradication program.

Although the disease can be prevented by immunization, unfortunately, conditions in which vaccination fails (war, immigration, anti-vaccination, pandemic) reason an

increase in the number of cases and this situation is worrying in terms of life threatening infections in children.

Due to the high number of cases in Asian and Middle Eastern countries, MOP-UP poliomyelitis vaccine has been applied. Also, our country accomplished this vaccination, and the last indigenous poliomyelitis cases seen in 1998, and has not been diagnosed in Turkey since 2002. Currently, there are no reported cases of poliomyelitis in our country.

Although the measles vaccine is reliable and available, 364.808 measles cases were presented worldwide in the first 8 months of 2019, according to the World Health Organization data. This number was around 129.000 in the same period of 2018. The countries with the highest rate of measles are Ukraine, Congo Democratic Republic of Congo, and Madagascar. Besides, there are large-scale epidemics in Angola, Cameroon, Chad, Kazakhstan, Nigeria, Philippines, Sudan, and Thailand. The number of cases reported in Europe is also quite high. With immunization achievement, death rates decreased by %73 between 2000 and 2018, preventing approximately 23.2 million deaths. In 2018, approximately 86% of the world's children were vaccinated against measles at one year old. The disease is still common in developing countries, especially Asia and Africa.

Although the marriage rate among girls in the childhood period is decreasing worldwide, it proceeds especially in underdeveloped countries and rural areas. In the last decade, the percentage of young women who were married off as children has dropped from 25% to 21%. However, today it is known that approximately 650 million girls were married before their 18th birthday. According to the WHO report in 2018, an estimated 12.8 million births are given in adolescent girls between the ages of 15-19, which means 44 births per 1000 adolescent girls. Adolescent birth rates are lowest in high-income countries (12 births per 1,000 adolescent girls) and highest in low-income countries (97 births per 1,000 adolescent girls).

According to the reports of the World Health Organization, approximately %25 of adults were physically abused during their childhood; %20 of women and %8 of men were exposed to sexual abuse in their childhood. Besides, it is recorded that 31.000 children under the age of 15 die each year from child abuse around the world. Childhood abuse harms children's social and mental health and quality of life. Convention on the Rights of the Child contains rules on the protection of children all kinds of physical, mental, and sexual abuse and neglect, signed by 197 countries, included Turkey, and in our country has gained the status of the law in 2010.

Today, with the widespread use of electronic books, mobile phones and tablets, the rate of reading children's books in electronic devices is gradually increasing. But for preschoolers and older children, electronic reading has disadvantages as well as benefits. It has been shown that it can facilitate participation in children who are just starting to learn to read and who receive unwilling preschool education. However,

during electronic book reading, there is less parent-child communication and verbal speech. Therefore, it is recommended that printed books read with the family constantly, especially for young children.

In recent years, the replacement of traditional toys with digital media-based virtual “toys” has affected children’s development. It has been shown that 96.9% of children use mobile devices and most of them start using before the age of 1. Over the past decade, the increase in time spent on screen based activities by young children has led to a decrease in both active play and playing with toys. This is particularly important for the development of young children, as the time on screen-based activities has a direct impact on both play activities and parent-child interactions. In addition, virtual toys (screen games and / or apps) encourage aggressive behavior and increase obesity risks. Virtual games including violence can stir up aggressive behavior and desensitize children to violence. Children especially need to use and manipulate their hands to improve the brain’s functions associated with spatial and mathematical learning.

During the adolescence period; physical, psychological, social, cognitive and sexual changes, conflict of dependency-independency, peer pressure, and identity seeking push young people to risky health behaviors; in relation to that, habits such as smoking or substance use are experienced during this period. Smoking addiction is the most common type of substance addiction, as it is easy to access and legal to use. It is fast and strongly addictive due to the nicotine it contains. In addition, it is the most important substance addiction because cigarette addiction facilitates the transition to other substance addictions such as alcohol and heroin.

It is known that people who experience smoking during adolescence become addicted in adulthood.

“Children living in poverty” was defined by UNICEF as those who experience deprivation of the material, spiritual and emotional resources needed to survive, develop and thrive; in **State of the Worlds’ Children 2005**. Such a condition leave children unable to enjoy their rights, achieve their full potential or participate as full and equal members of society. Child poverty should not be considered only as financial inadequacy. Children in rich households may live in an environment that provides little stimulation or emotional support leading to the experience of spiritual / emotional poverty even if it is not material. Unfortunately, children are the most affected group and all aspects of child development are negatively affected by poverty.

The effects of poverty on child health are related to the neuroendocrine response to malnutrition, infection, inflammation, and stress that occur due to the inability to meet basic needs and environmental factors. Exposure to environmental pathogens, inadequate sanitation, inability to access clean water resources, poor home conditions, inability to access health services, inadequate immunization, and decreased breastfeeding cause infections in children. Nutritional deficiencies due to poverty or lack of access to food sources contribute to approximately 45% of deaths in children

under the age of 5. Lack of energy caused by malnutrition and diseases lead to a decrease in the child's play, learning, socialization and other activities, and consequently, cognitive functions are negatively affected. As a result of negative effects on neurocognitive functions, language and cognitive development retardation, attention deficit and inability to focus, problems with memory, decreased learning and school success are observed in the child.

Another factor that threatens children's health is war. The devastating consequences of the war negatively affect both the region where it occurred and the people living in different regions. War not only impairs the biological, psychological and social health of the victims, but also increases mortality and morbidity all over the world. Wars affect the whole society, especially children, directly by causing deaths due to conflict, as well as indirect consequences that may emerge years after the end of the war. Children need the support of their families in terms of care, needs and emotionality. In wars, children whose families are dispersed are deprived of this care and support, forced to migrate and become refugees. Refugee children are exposed to violence and abuse at a higher rate in the camps and become ill due to hunger and lack of nutrition. In addition to these, children are also at great risk of injuries from weapons and landmines stored after conflicts. In conflicts, children may die, be injured, mutilated, sick, physically and / or sexually abused, psychologically, morally and spiritually affected, and children may be forced to become soldiers or victims. Infectious diseases lead to an increase in mortality and morbidity by adversely affecting child health, disruption in the follow-up and treatment of chronic diseases in children, incomplete vaccination, inadequate nutrition and access to clean water resources.

There are about 4 million Syrian refugees, mostly in Turkey, and about half of them are children. Since the beginning of the Syrian civil war in 2011, our state has been providing full support to the refugees who have come to our country. As the Turkish National Pediatric Society, the health of immigrant children matters to us regarding health professionals, informing the parents, especially going to determine the problem of children living in shelter centers and removal. IPA deals with the problems of war-affected children around the world. Our Association, Ministry of Health, AFAD and IPA (World Academy of Pediatrics) carries on projects related to the Syrian immigrant children's health. In context with this, Turkish National Pediatric Society and the Ministry of Health in cooperation with the association board members, training programs on various issues of child health were organized for their mothers and healthcare professionals in Osmaniye – Cevdetiye tent city. Turkish National Pediatric Society and IPA jointly, the "Refugee Children's Mental Health Workshop", was carried on within the 61st Turkish National Pediatrics Congress Antalya / Turkey international participation in 2017. The workshop was carried on with a wide range of participants from Turkey, the United States, Portugal, Lebanon, Jordan, and Kosovo,

including pediatricians, social workers, nurses, psychologists, and the subject has been discussed in detail (Fig. 8, 9). The Turkish National Pediatrics Society carries out projects in which mother and adolescent health education are supported, hearing screening, and evaluating these children's growth and development.



Fig. 8



Fig. 9

In February 2018, the IPA president, IP-F chief, IPA rapporteur, director of the IPA on Foreign Relations, along with Turkish National Pediatric Society Management, Gaziantep / Turkey, the Syrian Refugees container town was visited, and information was received from the authorities (Fig. 10, 11). In cooperation with our association and IPA-F, we organized scientific regional training meetings that reinforce their knowledge, especially for pediatricians who work in regions where refugees from Syria are located.



Fig. 10



Fig. 11

Mental-emotional problems, nutritional problems and infectious diseases are among the most common issues children face in disasters. The high respiratory rate of children causes them to inhale biological or chemical agents, and therefore they are more affected by these agents than adults. Thin skin and larger surface areas of children lead to increased absorption of toxic agents through the skin. According to children's cognitive development stage, since their awareness of danger is different from adults,

they may overlook their dangerous situation late. They may be exposed to this situation more. Mental severe problems arise in children exposed to difficult living conditions after disasters. Post-traumatic stress disorder, depression and anxiety are among the most common mental health problems. Malnutrition is the leading cause of death in children after disasters.

The most ideal food for babies in disaster situations is breast milk, but milk secretion may stop temporarily or completely because the mother is psychologically affected by the disaster. In these cases, breastfeeding should be encouraged by providing the mother with the necessary support. It has been shown that infectious diseases increase with artificial nutrition in disasters. If contagious diseases occurring after disasters that are not detected early and precautions are not taken, new epidemics may cause recent disasters in the society. Deaths due to infectious diseases after disasters are frequently encountered. Diarrhea, respiratory infections, malaria, measles are the most common infectious diseases affecting children in disasters. 40% of deaths in the camps during the acute period of catastrophe are due to diarrheal conditions. Contamination of water resources, contamination of water during transportation and storage, use of water and food containers, insufficient soap and food contamination are the most common causes of diarrheal diseases among disaster victims.

In conclusion, the available data show improvements in health, nutrition and living conditions over the past few decades. Monitoring maternal and child health, determining the change in health problems over time, evaluating the effectiveness of health services such as screenings, support programs, vaccination, education, and health promotion programs constitute the cornerstones in developing and improving child health.

TODAY’S BIG PROBLEM: THE COVID-19 PANDEMIC AND OUR CHILDREN

The COVID 19 pandemic is an ongoing global health emergency that affects both adults and children worldwide. As of August 19; the WHO has reported 21,989,366 confirmed cases and 775,893 deaths. It is known that children are less affected by COVID-19 and mostly asymptomatic. According to the data of surveillance studies conducted from different countries, 1-7% of the confirmed cases consist of children. It is known that more than 30% of children who develop acute respiratory distress are 10-18 years old patients. Hospitalization rates in children due to COVID-19 are lower than adults; according to the May 2020 data of CDC, children’s hospitalization rate varies between 2.5 – 4.1%. 33% of these hospitalized children needed intensive care, 6% were connected to a mechanical ventilator. Hospitalization rates for children under one year of age are higher than in other age groups. The pandemic’s indirect impact on other diseases is also a significant point regarding pediatric infectious diseases. Difficulties caused by the epidemic in implementing the routine vaccination program or in the access of patients to health care may increase the frequency of other diseases.

The COVID pandemic should not disrupt children’s regular vaccination programs, and all children should continue to be vaccinated routinely, just like before the pandemic. In 2020 June, a warning has been issued about the decline in vaccination rates by the WHO and UNICEF and drew attention.

BIBLIOGRAFIA

- [1] World Health Organisation. Fact Sheets. Children: reducing mortality. <https://www.who.int/en/news-room/fact-sheets/detail/children-reducing-mortality>. Güncelleme: 19.09.2019. Erişim tarihi: 16.08.2020.
- [2] https://www.who.int/maternal_child_adolescent/documents/levels_trends_child_mortality_2018/en / Erişim tarihi: 16.08.2020.
- [3] World Health Organization. World Malaria Report 2018. <http://www.who.int/malaria/publications/world-malaria-report-2018/report/en/> (Accessed on December 27, 2018).
- [4] Mc Allister DA, Liu L, Shi T, et al. Global, regional, and national estimates of pneumonia morbidity and mortality in children younger than 5 years between 2000 and 2015: a systematic analysis. *Lancet Glob Health* 2019; 7:e47.
- [5] <https://www.who.int/news-room/detail/23-06-2020-statement-of-the-25th-polio-ihr-emergency-committee>.
- [6] <https://www.who.int/news-room/fact-sheets/detail/measles>.
- [7] The Corona virus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET).
- [8] Arıca V, Arvas A. Olağan Üstü Durumlarda Çocuk Sağlığı. In: Gökçay G, Beyaova U (eds). İlk Beş Yaşta Çocuk Sağlığı İzlemi. 1. Baskı, İstanbul: Nobel Tıp Kitabevi 2017:619-626.
- [9] Yiğit R, Ügücü G, Kaya S. Yoksulluk: Çocuk Sağlığını Tehdit Eden Bir Durum. *Adnan Menderes Üniversitesi Sağlık Bilimleri Fakültesi Dergisi* 2018; 2(2): 83-98.
- [10] World Health Statistics 2019: Monitoring Health for the SDGs, sustainable development goals. World Health Organization 2019.
- [11] Özbaş S, Tezel B, Aydın Ş, Bolat H, Köse MR. Türkiye’de çocuk sağlığının durumu. *Çocuk Sağlığı ve Hastalıkları Dergisi* 2012; 55: 71-76.
- [12] Türkiye Cumhuriyeti Cumhurbaşkanlığı, Strateji ve Bütçe Başkanlığı. <http://www.sbb.gov.tr/saglik-gostergeleri> Erişim tarihi: 24/07/2020.
- [13] Türkiye İstatistik Kurumu. Nüfus Projeksiyonları, 2018-2080. <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30567> Erişim tarihi: 24/07/2020.
- [14] Türkiye Nüfus ve Sağlık Araştırması 2018. Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü Ankara, Türkiye.
- [15] Baltalı Halıcıoğlu O, İnce Bağ Ö. Tetanoz Aşısı. In: Gökçay G, Beyaova U (eds). İlk Beş Yaşta Çocuk Sağlığı İzlemi. 1. Baskı, İstanbul: Nobel Tıp Kitabevi 2017:591-599.
- [16] Yalçın SS. Türkiye’de Çocuk Sağlığı Durumu ve Ulusal Sağlık Programları. In: Yurdakök M (ed). *Yurdakök Pediatri*. 1.Baskı, Ankara: Güneş Tıp Kitapevleri 2017:88-104.
- [17] Bakır E, Kapucu S. Çocuk İhmal ve İstismarının Türkiye’de Yapılan Araştırmalara Yansımaları: Bir Literatür İncelemesi. *Hacettepe Üniversitesi Hemşirelik Fakültesi Dergisi* 2017; 4(2):13–24.

- [18] Gümüş B, Topal İ, Özer Ö, Balandız H. Türkiye’de 15 Yaş Altı Çocuk Ölümlerinin Değerlendirilmesi. F.Ü.Sağ.Bil.Tıp.Derg. 2018; 32 (1): 13 – 19.
- [19] Küçükşen K, Bölükbaş B, Gökçaya F, Yılmaz İ, Toros N. Ergenlerin sigara kullanımına yönelmesinde algılanan anne-baba tutumları ve aile iletişiminin rolü. The Journal of Social Science 2017; 18:347-358.
- [20] Ulukol B, Yüksel F. Sosyal Çevre ve Çocuk Sağlığı. In: Gökçay G, Beyaova U (eds). İlk Beş Yaşta Çocuk Sağlığı İzlemi. 1. Baskı, İstanbul: Nobel Tıp Kitapevi 2017:209-218.
- [21] Aydın D, Şahin N, Akay B. Göç olayının çocuk sağlığı üzerine etkileri. İzmir Dr. Behçet Uz Çocuk Hast. Dergisi 2017; 7(1):8-14.
- [22] World Health Organisation. Maternal, Newborn, Child and Adolescent Health. <https://www.who.int/data/maternal-newborn-child-adolescent/indicator-explorer-new/mca/number-of-under-five-deaths--by-cause> Erişim tarihi: 01/08/2020.
- [23] Türkiye Uyuşturucu Raporu 2019. <http://www.narkotik.pol.tr/kurumlar/narkotik.pol.tr/TUB%C4%B0M/Ulusal%20Yay%C4%B1nlar/2019-TURKIYE-UYUSTURUCU-RAPORU.pdf> Erişim tarihi: 01/08/2020.