OPINION

# Global child health in a changing world

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**Global child health in a changing world**

About 90% of children in the world live in Low and Middle-income Countries (LMIC) (1). The lack of control of infectious diseases, poor prevention of chronic diseases, malnutrition, lack of human resources in health, armed conflict or health problems related to environmental exposures are examples of factors that contribute to the higher morbidity and mortality rates in these countries than in High Income Countries (HIC) (2).

In 2015, around the world, 5.942 million children under the age of 5 died. About 60% of these deaths (3,587 million) took place in only 10 countries in the world and the top 10 countries with the highest Under-5 Mortality Rate (U5MR) were all located in Sub-Saharan Africa (SSA) (3). If it is true that significant progress has been made in this field (in 1990 this number was 12.4 million children), it is also true that this improvement was not sufficient to achieve the target set in the Millennium Development Goals, which aimed to reduce child mortality by two-thirds between 1990 and 2015. Besides mortality, it is estimated that around 250 million children worldwide are at risk of not attaining their full developmental potential due to extreme poverty or malnutrition (4).

Leaders from 193 countries established a universal agenda through the implementation of the Sustainable Development Goals (SDG), a set of 17 ambitious goals with 169 specific targets, to be achieved by 2030. The target related to child health calls for ending all preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to less than 12 per 1,000 live births and under-5 mortality to less than 25 per 1,000 live births (5).

Approximately 10% of the world's population lives below the international poverty line (1,90 USD per day) (6). Extreme poverty limits access to the most essential and fundamental of goods. Overall, it is estimated that a child in a family of the poorest quintile in a given country has a mortality risk almost twice as high as that of a child in a family of the richest quintile (7). A child born in SSA faces a 1 in 12 probability of not reaching its 5th birthday, while in HIC this probability stands at 1 in 167 (8).

In the community of Portuguese language countries, with a common past and a cultural, social and linguistic heritage still present the disparity is expressive. Data from the UN Inter-Agency Group for Child Mortality Estimation on neonatal mortality and U5MR in these countries in 2019 show that countries of this community from SSA have much higher values than the others, particularly compared to Portugal (Table I).

To be a pediatric resident from a tertiary hospital in Lisbon and have the opportunity to work for two months in Mozambique is to be aware of how numbers are not only a reality written on paper and of how the reports apply to faces and actual situations. There are still many stories to tell. Stories that give a face to hunger and malnutrition, difficulties and anguish, illiteracy and disinvestment, corruption and impunity.

The American Academy of Pediatrics declares that pediatricians should be dedicated to the health of all children and work internally or collaboratively with international bodies with the aim to improve the health of children throughout the world, regardless of their nationality, culture, language, religion or socio-economic situation (9).

In fact, in the 21st century, borders between countries are becoming increasingly more ephemeral. In 2020, UNICEF estimated the number of migrants worldwide to have reached 281 million, 36 million of whom were children. Of these 281 million, 34 million were refugees or asylum seekers, half of whom were children. The growing in human mobility means that pathogens responsible for infectious diseases are increasingly more difficult to contain. The most obvious example will undoubtedly be the SARS-CoV-2 pandemic, but measles outbreaks in countries where the disease was apparently controlled, the Zika virus or the Ebola pandemic in West Africa remind us every day that borders cannot contain diseases. It is clear that human resources dedicated to global child health should be increased to meet the needs of children from LMIC, as well as to respond to global diseases, many of them just within reach of a single plane trip (9).

In Portugal, the current training programme of the pediatric residency provides incentives for internships in Portuguese-speaking African countries. A large number of

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Table I. Comparative data on mortality rates and life expectancy at birth.

| | Neonatal mortality[a] | Under-5 mortality[a] | Life expectancy at birth[b] |
|---|---|---|---|
| Angola | 28 | 75 | 61 |
| Brazil | 8 | 14 | 76 |
| Cape Verde | 9 | 15 | 73 |
| Guinea-Bissau | 35 | 79 | 58 |
| Equatorial-Guinea | 29 | 82 | 59 |
| Mozambique | 29 | 74 | 61 |
| Portugal | 2 | 4 | 81 |
| São Tomé and Príncipe | 14 | 30 | 70 |
| Timor-Leste | 20 | 44 | 69 |

[a]per 1,000 live births; [b]in years

resident doctors use this opportunity to broaden horizons during their journey, opting for 1, 2 or 3-month internships in countries such as Cape Verde, São Tomé and Príncipe or Mozambique. However, the programme lacks the existence of structured training opportunities and formal education in the area of global child health. A set of 10 recommendations were issued by the American Academy of Pediatrics in 2018 to implement and improve the already existing programmes during residency training (1). The internships already carried out independently should be supplemented by prior training with a well-defined curriculum of skills in topics such as the diagnosis and management of vaccine-preventable diseases, vector-borne illnesses, migrant and refugee health, malnutrition, treatment of illnesses with limited resources and the social determinants of health. Skills such as communication in diverse cultural contexts, teamwork and ethical considerations regarding short-term research programs in LMIC are also extremely important. In addition to this training program, it is of paramount importance to guarantee support and mentorship for residents who wish to involve themselves into these international internships as well as structured preparation in the fields of formal research and advocacy.

The global challenges to the health and well-being of children around the world have undergone major transformations over the past decades. The world is changing and if this change has been translated in countless benefits and gains in the health of populations in the recent past, it is also true that there is still a long way to go, full of new threats and challenges, towards the 2030 SDG. Global inequities, armed conflict and violence, forced migration, climate change, extreme poverty and lack of access to health are just a few examples of the many challenges that children around the world face and will face in the upcoming years. The training and development of highly qualified professionals in the field of global child health is a pressing need to address these challenges and those still to come. Particularly in the Portuguese context, the opportunities are numerous. There is room to make use of what is already launched and implement and formalize internships and a structured training program with the creation of a national and international collaborative center of education and research in global child health. What are we waiting for?

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**Availability of data and materials**

All data generated or analyzed during this study are included in this published article.

**Conflict of interest**

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