

Adolescent medicine in the first 100 years of the Republic of Türkiye

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Dear Editor,

We read the article titled "Child Health in the First 100 Years of the Republic of Türkiye: A Story of Hope, Labor, and Success" by Seren with great interest.¹ We congratulate the author on their thorough exploration of the advancements in child health during the first century of the Republic. This era has witnessed remarkable progress in healthcare systems, policies, and the overall well-being of children. However, we observed that while the article provides a detailed overview of child health, it does not extensively address the developments in adolescent medicine, a pivotal yet distinct phase of child health. To offer a more holistic perspective, we would like to emphasize the key milestones and achievements in adolescent medicine in Türkiye.

While adolescence is defined within the field of pediatrics, it has long been distinguished from childhood and is defined by the World Health Organization as the period between the ages of 10 and 19.² Adolescent medicine focuses on addressing the unique physical, psychological, and social health needs of this developmental stage, including growth and development, mental health, chronic illness management, sexual and reproductive health, and the prevention and treatment of risky behaviors such as substance use and unsafe sexual practices. This field bridges the gap between

pediatric and adult medicine, providing holistic and developmentally appropriate care tailored to adolescents. Adolescent medicine specialists aim to promote the optimal health and well-being of adolescents and young adults, provide necessary services during the transition from adolescence to adulthood, and increase public awareness of adolescent medicine.

Establishment of Adolescent Medicine Divisions in Türkiye

The first Division of Adolescent Medicine was established in the United States in 1951 by Dr. J. Roswell Gallagher at Boston Children's Hospital, Harvard University.³ Inspired by this pioneering initiative, Prof. Dr. İhsan Doğramacı sent Prof. Dr. Mithat Çoruh to train at the same clinic. Upon his return, Dr. Çoruh founded Türkiye's first Division of Adolescent Medicine within the Department of Pediatrics at Hacettepe University Faculty of Medicine in 1963.⁴ Subsequently, the second division was founded in 1988 at the Institute of Child Health, İstanbul University, followed by the third in 1996 at İstanbul University Cerrahpaşa Faculty of Medicine.⁵

In 2009, the Council of Higher Education (*Yükseköğretim Kurulu*) initiated efforts to expand adolescent medicine divisions across Türkiye, beginning with major healthcare institutions in Ankara and İstanbul. Since then,

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these divisions have proliferated, establishing a greater presence, and clinics offering adolescent medicine services are now accessible in several regions.

Doctoral Education in Adolescent Medicine

Despite its critical importance, adolescent medicine is not yet recognized by the Ministry of Health as an official subspecialty in Türkiye. Historically, pediatricians interested in adolescent health faced limited access to specialized training. To address this gap and accommodate the unique healthcare needs of adolescents, Hacettepe University's Institute of Child Health launched Türkiye's first doctoral (PhD) program in Adolescent Medicine in 2004. This program has trained professionals who have since established adolescent medicine clinics nationwide. Subsequently, doctoral programs were established at Istanbul University Faculty of Medicine (2014), Ankara University (2020), and Dicle University (2022). Within the scope of this program, 14 pediatricians have graduated from doctoral education at Hacettepe University Faculty of Medicine to date, and the programs continue to advance the field by cultivating expertise and fostering research.

Adolescent Medicine Associations in Türkiye

Türkiye is home to two active adolescent medicine associations: the first Adolescent Health Association (*Adolesan Sağlığı Derneği-ASD*), established in Istanbul in 2004, and subsequently the Adolescent Health Association (*Ergen Sağlığı Derneği-ESD*), established in Ankara in 2007. ESD organized the inaugural National Adolescent Medicine Congress in 2006, which has since been held biennially. ASD began organizing meetings in 2022, further enriching the professional discourse in the field.

Initiatives by the Ministry of Health

Since 2000, the Ministry of Health has launched initiatives to prioritize adolescent health. Forty-

one Youth Centers were established within Mother and Child Health and Family Planning (*Ana Çocuk Sağlığı ve Planlaması-AÇSAP*) Centers, with specialized training provided to multidisciplinary teams. These centers remained inactive after being affiliated with Community Health Centers.

Key milestones include the Adolescent Health Development Workshop in 2013 and the integration of adolescent-specific assessments into the Infant, Child, and Adolescent Monitoring Protocols in 2015, which were updated in 2018.⁶ In addition, a "Pocket Book for Approaching Adolescent Medicine Problems in Primary Health Care" was disseminated in 2017 to support healthcare providers and is undergoing revision.⁷

The establishment of Child and Adolescent Substance Addiction Research, Treatment, and Education Centers (*Çocuk Ergen Madde Bağımlılığı Araştırma, Tedavi ve Eğitim Merkezi-ÇEMATEM*) further underscores the Ministry's commitment to adolescent health. First launched in 1995 as Volatile Substances Research, Treatment and Education Centers (*Uçucu Maddeler Araştırma, Tedavi ve Eğitim Merkezi-UMATEM*), these centers now provide specialized care for adolescents across Türkiye.

In 2021, Türkiye opened its first smoking cessation clinic exclusively for individuals under 18 years of age at Ankara Bilkent City Hospital. This initiative expanded to include Hacettepe University and Istanbul Training and Research Hospital in 2023, followed by Ankara University, Başkent University, and other centers in 2024.

Adolescent Health Data

Adolescents (ages 10-19) currently constitute 13 million of Türkiye's population, while 6.8 million youth fall within the 19-24 age group. While the proportion of youth in the overall population has remained stable, their absolute numbers have increased.⁸ Mortality trends show a slight decrease in youth mortality rates

from the 1980s to 2022, although a significant rise was observed in 2023 (Table I).⁹⁻¹¹ External causes of injuries and poisonings, which are the most common cause of death in the 15-24 age group, increased from 2692 (44%) to 9220 (70.7%) from 2022 to 2023. According to the data, the increase in the number and rate of deaths among 15-24 age group in the last year

was stated to be caused by the Kahramanmaraş earthquake in 2023.¹¹

According to UNICEF's State of the World's Children 2024, Türkiye's adolescent mortality rate was 3% in 2022. According to the Global Health Estimates for 2019 of the World Health Organization the top mortality cause of adolescents aged 15-19 years is interpersonal

Table I. Youth population and death statistics of Republic of Türkiye⁸⁻¹⁰

Year	Total population	Youth population (15-24 age)	Proportion of youth population in total population (%)	Total death	Youth death (15-24 age)	Proportion of youth deaths in total deaths (%)
1935	16 158 018	2 433 916	15,1			
1940	17 820 950	2 568 914	14,4			
1945	18 790 174	3 461 047	18,4			
1950	20 947 188	4 350 499	20,8			
1955	24 064 763	4 650 353	19,3			
1960	27 754 820	4 607 042	16,6	96 403	2 961	3,1
1965	31 391 421	5 254 191	16,7	95 427	2 878	3,0
1970	35 605 176	6 545 971	18,4	104 556	3 184	3,0
1975	40 347 719	7 796 643	19,3	120 302	3 654	3,0
1980	44 736 957	9 016 986	20,2	130 062	3 860	3,0
1985	50 664 458	10 191 944	20,1	141 324	3 441	2,4
1990	56 473 035	11 311 973	20,0	150 292	3 455	2,3
1995				169 856	4 620	2,7
2000	64 729 501	12 575 362	19,4	174 315	4 072	2,3
2007	70 586 256	12 397 606	17,6	212 731	3 228	1,5
2008	71 517 100	12 441 662	17,4	215 562	3 109	1,4
2009	72 561 312	12 514 737	17,2	369 440	7 052	1,9
2010	73 722 988	12 545 094	17,0	366 187	6 657	1,8
2011	74 724 269	12 542 174	16,8	375 923	6 813	1,8
2012	75 627 384	12 591 641	16,6	376 000	6 608	1,8
2013	76 667 864	12 691 746	16,6	372 094	6 069	1,6
2014	77 695 904	12 782 381	16,5	383 639	5 446	1,4
2015	78 741 053	12 899 667	16,4	397 037	5 076	1,3
2016	79 814 871	12 989 042	16,3	420 189	5 976	1,4
2017	80 810 525	12 983 097	16,1	423 878	5 839	1,4
2018	82 003 882	12 971 396	15,8	426 785	5 905	1,4
2019	83 154 997	12 955 672	15,6	436 624	5 486	1,3
2020	83 614 362	12 893 750	15,4	509 147	5 547	1,1
2021	84 680 273	12 971 289	15,3	566 624	5 877	1,0
2022	85 279 553	12 949 817	15,2	505 269	6 092	1,2
2023	85 372 377	12 872 039	15,1	525 814	13 038	2,5

violence, followed by road injuries and self-harm in both sexes. Additionally, tobacco use among adolescents aged 13-15 years was reported at 17.9%, while alcohol use among adolescents aged 15-19 years was 6% for males and 2% for females in Türkiye. The adolescent birth rate was 1.2% for ages 15-19 years in 2022.¹²

The Future of Adolescent Medicine in Türkiye

While Türkiye has made significant progress in adolescent health, there remains a need for further advancements, particularly in recognizing adolescent medicine as an official subspecialty. This recognition will enable the training of more dedicated physicians and enhance pediatricians' ability to address the specific health concerns of adolescents. The continued efforts of adolescent medicine specialists are essential, as the health and well-being of today's youth lay the foundation for a healthier future society.

We hope this contribution highlights the importance of adolescent medicine in Türkiye's healthcare journey and inspires further discussions in this field.

Author contribution

The authors confirm contribution to the paper as follows: Study conception and design: SA; draft manuscript preparation: EŞK, MPK, SA; supervision: MPK, SA. All authors reviewed the results and approved the final version of the manuscript.

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Conflict of interest

The authors declare that there is no conflict of interest.

REFERENCES

1. Seren C. Child health in the first 100 years of Republic of Türkiye: a story of hope, labor and success. *Turk J Pediatr* 2024; 66: 387-400. <https://doi.org/10.24953/turkjpediatr.2024.4523>
2. World Health Organization (WHO). Adolescent health. 2025. Available at: <https://www.who.int/health-topics/adolescent-health> (Accessed on Jan 8, 2025).
3. American Academy of Pediatrics. Celebrating 90 years of adolescent health. 2023. Available at: <https://www.aap.org/en/about-the-aap/gartner-pediatric-history-center/celebrating-90-years-of-adolescent-health> (Accessed on Nov 27, 2024).
4. Ergen Sağlığı Derneği. Ülkemizde adolesan sağlığının ve Ergen Sağlığı Derneğinin tarihçesi. 2024. Available at: <http://www.ergensagligi.org> (Accessed on Nov 27, 2024).
5. Orbatu D, Haspolat YK. Ergen sağlığı ve hastalıklarına yaklaşım. Ankara: Orient Yayınları; 2024: V-VII.
6. T.C. Sağlık Bakanlığı. Bebek, çocuk, ergen izlem protokolleri. Ankara; 2018.
7. T.C. Sağlık Bakanlığı. Birinci basamak sağlık çalışanları için ergen sağlığına ve sorunlarına yaklaşım cep kitabı. Ankara; 2017.
8. World Health Organization (WHO). Türkiye [Country overview]. 2024. Available at: <https://data.who.int/countries/792> (Accessed on Nov 27, 2024).
9. Turkish Statistical Institute (TÜİK). İstatistik Göstergeler, Statistical Indicators 1923-2013. Ankara: TÜİK; 2014.
10. Turkish Statistical Institute (TÜİK). İstatistiklerle gençlik. 2023. Available at: <https://data.tuik.gov.tr/Bulten/Index?p=İstatistiklerle-Gençlik-2023-53677> (Accessed on Nov 27, 2024).
11. Turkish Statistical Institute (TÜİK). Ölüm ve ölüm nedeni istatistikleri. 2023. Available at: <https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2023-53709> (Accessed on Jan 8, 2025).
12. World Health Organization (WHO). Global health estimates. 2024. Available at: <https://www.who.int/data/global-health-estimates> (Accessed on Nov 27, 2024).