Screening programmes for deviation in statures have shown diagnostic yields ranging up to 1.94 per 1000 children. [1] Population screening is largely abandoned except in less developed societies. [2]

The observation of much lower prevalence and delayed diagnoses of short stature led to the creation in 2014 of specialized auxological software alarming GPs in cases of height deviations. [3] However, only 0.14% of all recognised were sent for further evaluation. A totally new approach was commenced in 2017. The GrowInform project (www.growinform.org) was started with the main purpose to raise awareness, identify and address properly growth deviation in areas with no easy access to paediatric endocrinologist with active participation of media.


Methods: For 2 years (April 2017 to March 2019), GrowInform acted in 13 cities and towns from Eastern and Central Bulgaria (565,531 children 1 to 19 years of age). To increase participation rate, GrowInform worked in partnership with more than 100 media (Facebook, www.growinform.org, radio, television, Internet news sites, newspapers, PR specialist, interviews and publications with information about the visits).

The identified children with growth disorders were referred for further evaluation to the nearest pediatric endocrinologist/tertiary clinic.

Results: Information channels (Fig. 1):
- Facebook (36.29%)
- Internet based media (27.01%)
- General Practitioners’ referrals (12.65%)
- Radio/TV channels (12.24%)
- Peer referrals (11.81%)

A total of 237 children were consulted at a mean age 6.7±4.2 years; 97 (40.93%) children were directed for further evaluation; 69 (29.11%) children were fully assessed and their diagnosis finalised; 22 (9.28%) of them commenced GH therapy; 47 (19.83%) are on other therapies or followed up and further tests are pending; 2 (0.84%) were diagnosed with celiac disease. General awareness of growth problems increased.

In 2017, the 13 children starting GH treatment represented 12.5% of all treated. In 2018, the new patients were 37, 29.4% of all treated. (Fig. 2)

The age at start of therapy decreased from 8.7±5.8 years in 2016 to 7.3±3.3 in 2018. (Fig. 3)

Online and on-place consultations prevented unnecessary referrals. Children with rare syndromes and other conditions received definitive diagnosis (6.32%):
- 3 children with Silver–Russell syndrome
- 5 with Prader-Willi syndrome
- 3 with Turner syndrome, one 45X0/46XY boy
- 2 with Noonan syndrome
- 1 with Leopard syndrome
- 1 family with Pseudohyoparathyroidism

Conclusion: GrowInform campaign was an effective tool to facilitate growth deviations diagnosis and treatment, with positive role in child health and support. Plans for continuation are underway.

References:
2. Rob Lindsay, Marcea Feldkamp, David Harris, Julia Robertson, Marvin Rallison. Utah Growth Study: Growth standards and the prevalence of growth hormone deficiency. The Journal of Pediatrics, July 1994, Volume 125, Number 1