



- A1 Abstracts
A414 Author Index

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complications occurred. None of the mothers had been offered vaccination against pertussis during pregnancy.

The epidemiology of pertussis is changing in Italy as well as in other countries with high vaccination coverage. The disease is now increasing as an incidence in adolescents (and adults) who have lost their immune protection, and especially in new-born infants who have not started or completed the primary vaccination course yet. The data from the European Annual Epidemiological Report for 2016 report the highest notification rate in children <1 year (73.6 cases per 100,000 population), similar to that observed in 2015 (73.1). The vaccination of pregnant women against pertussis is considered an effective and available preventive option adopted for some years and in a systematic way in different international contexts. Also in Italy, in the 2017–2019 National Vaccination Plan there is a recommendation to recall in pregnancy the immunization from pertussis with the trivalent vaccine (whooping cough, tetanus and diphtheria). The period indicated is between the 27th and the 36th week, ideally around the 28th week. The vaccine strategy for pertussis in pregnant women is effective in reducing neonatal deaths due to the disease, the need for hospitalization and the severity of the infection in infants under the age of 3 months. The vaccine does not pose any risk for pregnant women and newborns.

From the description of our experience, of the 6 cases of hospitalized pertussis in just 3 months in a Pediatric department, 5 could be theoretically prevented by vaccination of the mother. The reported narrative experience testifies indirectly the resurgence of the cases of pertussis in a period when the newborn and the infant is most at risk to contract the disease and to have severe complications.

Despite the available evidence and the consolidated experiences carried out, the application of this strategy, in some industrialized countries (including Italy), although recommended, it results largely sub-optimal. Pertussis prevention in newborns and infants is an urgent measure of public health.

P305 HEALTHY LIFE-STYLE FOR A HEALTHY CHILDHOOD – A PROGRAM OF EDUCATION FOR HEALTH IN CHILDREN

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Introduction Non-communicable diseases (NCDs) account for 70% of global mortality and represent the leading cause of death and disability worldwide. In Romania, the cardiovascular diseases represent the first cause of mortality. Unhealthy behavior, malnutrition, both overweight or obesity, and physical inactivity are known risk factors for metabolic syndrome, which is involved as a cause for cardiovascular diseases in adults. The education for health in children is one of the most effective ways to reduce exposure to risk factors for NCDs and decrease the morbidity in the future adults.

“Healthy Life-style for a Healthy Childhood – A Healthy Child is A Happy Child!” is a program for education for health for children developed under the NCD Child Advocacy in Action Grant Program of the American Academy of Pediatrics. The goal of this program was to promote the healthy life-style for children of three schools from Cluj-Napoca, Romania. The objectives were education for healthy lifestyle

in school-aged children (by publication of brochures, live courses about the importance of healthy lifestyle: nutrition, physical activity, healthy behaviors), promotion of healthy nutrition (including workshops with healthy cooking where children and their parents prepare different healthy meals) and promoting of physical activity (running events for children involved in the program).

The website of the program contains online courses accessible for children involved in the program, but also to other children of school-age, being produced in three languages (Romanian, Hungarian and English). There are modules about healthy life-style and nutrition, including quizzes, one collection of recipes for healthy meals where the children could promote their healthy recipes. The children involved in the project could participate in one running event and then one team represented the project in the main running event in our city.

Based on the experience gained in this project all the activities will continue during the following years with an extension in other schools from our city, for a larger number of school-aged children.

Conclusions The education for health, promoting the change of the life-style of our children with a healthier one is considered the most beneficial preventive action in order to have a healthy population in the future and to decrease the risk for metabolic syndrome and cardiovascular disorders.

P306 ENVIRONMENTALLY DEPENDENT ENDOCRINOPATHIES IN THE CHILDREN FROM MOUNTAINOUS REGION

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Background The problem of iodine deficiency diseases (IDD) is relevant in connection with the significant occurrence of iodine deficiency among the population of many countries of the world, an increase in morbidity with a wide range of clinical manifestations and a marked tendency to increase the incidence and severity among children of all age groups.

Material and methods The research was conducted on the basis of the data of the preventive survey (187 children) living in the ecologically dependent biogeochemical endemic zone with iodine deficiency in the mountain region of the Transcarpathian region in the period of 2014–2015y.

Result Taking into account the morphometric characteristics of the thyroid gland in the children was found a slight difference between the standard values of unchanged parenchyma thyroid gland, the size of the gland was on 24.4% lower than the reference in the girls and on 27.5% in the boys in the patients with hypoplasia. The size of the thyroid gland of children with the hyperplasia was higher than the reference on 39.04% in the girls and on 31.8% in the boys. The data of the state of the thyroid system testify have differences in the levels of TSH - from 2.87 ± 0.67 mO/l to 1.89 ± 0.43 mO/l, $p = 1.97 \times 10^{-8}$, respectively, in groups in children with hyperplasia of the thyroid gland and with normal thyroid parenchyma. The levels of AT-TG are higher than the reference in children with thyroid hyperplasia and within the normal range in children with normal thyroid gland parenchyma, which suggests insignificant effects on the interference with the physiological process of T3 and T4 synthesis. The value

of AT-TPO varied within the norm with a prevalence of in the normal thyroid parenchyma children group and indicated the potential threat of thyroid pathology developing in this group and violation of the processes of iodine oxidation. The values of TCG, T3 in both groups tended to be lower bound when the level T4 corresponded to the upper value of the reference values. The minimum thyroid deficiency was observed in the children thyroid gland hyperplasia, in particular, the TSH level ranged from 2.5 to 4.0MU/l, the TTG/FT4 index ranged from 0.19 to 0.29.

Conclusion Recommended the appointment of correction with iodine-selenium supplementation in the children with thyroid gland morphometric changes, which identified risk factors on endemic goiter and minimal thyroid failure

P307

DISSEMINATION OF GOOD PRACTICE: AN ITALIAN PROJECT TO CONTRAST CYBERBULLYING

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Introduction The way children use the Internet and mobile technologies has changed in the last few years according to the Digital Agenda for Europe. The growing phenomenon of cyberbullying is among the risks associated with the increasing Internet use. Methods of access and use by teenagers are highly important factors in assessing those risks.

Materials and methods In order to fight cyberbullying we have developed a strategy with the approval of the Department of Medical and Surgical Sciences of the Magna Graecia University of Catanzaro consisting in three phases: a) Data collection and review b) Critical analysis c) Dissemination.

a) We expanded our previous study (2017) with a new cluster; a questionnaire specifically developed to investigate cyberbullying and cyber-grooming among the teenage population. This new cluster, proposed by the 'Cyber Expert' program created by the Spanish Policia Nacional, is structured to gauge the students' awareness and knowledge of what cyberbullying is. We submitted this updated survey to students of the Liceo Scientifico 'G. Keplero' in Rome, while also inviting them to provide their feedback on the study itself.

b) We reviewed and published the questionnaire as a preprint. The data we gathered strongly hinted at the need for surveys and informational material to use language and concepts adolescents could relate to.

c) In order to disseminate our results we will create programs focused on and carefully tuned to our reference population (teenagers) i.e. teacher workshops, informational posters, and extracurricular activities.

Results We were happy to find unexpected feedback; students were interested in the results of our survey. Both teachers (60%) and students (80%) showed a significant amount of interest in being advised on the outcome. Although the same sample population had been subject to several other questionnaires in the same timeframe, they only showed interest in following up on our results.

Conclusions Moving forward, we are now thinking of ways to share our results with the school community and start the third phase of the program. The next phase will focus on creating posters and informational materials on the most relevant points, as well as organizing teacher workshops in order to raise awareness on relevant topics.

P308

AETIOLOGICAL ASSESSMENT OF PERMANENT CHILDHOOD HEARING IMPAIRMENT DIAGNOSED BY UNIVERSAL NEW-BORN HEARING SCREENING IN A PERIPHERAL IRISH HOSPITAL

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Background and Aims The Universal New-Born Hearing Screening program (UNHS) was introduced in Cavan General Hospital in 2012. It aimed to identify newborns with Permanent Childhood Hearing Impairment (PCHI) and initiate early medical and educational interventions. In Ireland, PCHI affects 1–2 per 1,000 births and these children require a paediatric aetiological assessment. Our study aims to review the results of the aetiological assessments completed by paediatricians after identification by the UNHS of all infants with PCHI in our hospital. Currently, we use the British Association of Audiological Physicians (BAAP) guidelines 2015 to aid our assessment.

Methods A retrospective chart review was carried out of patients with confirmed PCHI identified by the UNHS over a four-year period from October 2012 to November 2016. Data such as audiological diagnosis, investigations, and final aetiological diagnosis were recorded.

Results In total, 12 patients were identified (6 Male: 6 Female). On average, 3 cases per year of PCHI were diagnosed, which is in keeping with the birthrate in Cavan (~2,000 per year).

Abstract P308 Table 1 Audiological Diagnosis

	Mild (20–40dB)	Moderate (40–70dB)	Severe/Profound (>70dB)	Total
Unilateral	1	1	3	5
Bilateral	2	2	3	7
Total	3	3	6	12

In our cohort, bilateral hearing loss (n=7) was more common than unilateral (n=5). In terms of severity, severe/profound hearing impairment (n=6) was the commonest level of PCHI diagnosed.

Of the 12 patients identified, 3 were not assessed due to emigration and parental refusal. Of the 9 patients remaining, 7 were fully diagnosed (78%) and 2 are still undergoing