

PLENARY LECTURE IN PEDIATRICS

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NEW SCIENTIFIC TRENDS IN PEDIATRICS

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The training program in pediatrics stipulates the topic concerning the development of the child. However, “Developmental Pediatrics” is a new branch that has emerged relatively recently and deals with the problems of children with disabilities, without affecting the nosological structure of children's diseases, and is based on the core of 5th developmental domains (cognitive, motor, social-emotional, speech and language, and self-help skills (adaptive) (figure 1).

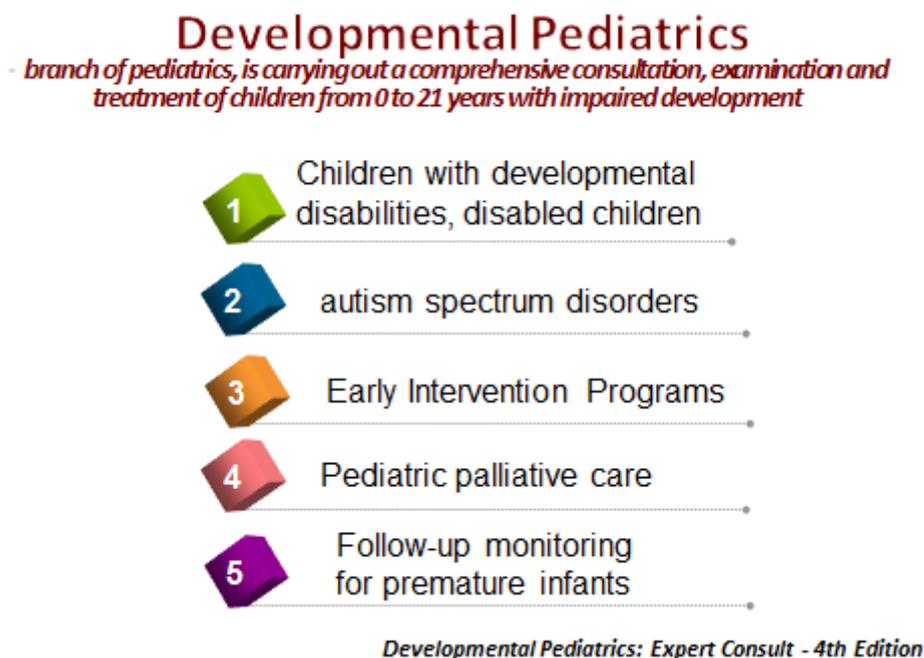


Figure 1. Developmental Paediatrics' Domains

There are 130 million children with disabilities (<http://www.who.int/ru/>) in the world, 20 million have an incurable disease each year and require palliative care. There are 167 000 disabled children and more than 90 thousand orphans in Ukraine. According

to the WHO (2012), of 135 million births per year 15 million children are born prematurely, constituting the main source of the human capital loss and triggering future disability (figure 2).

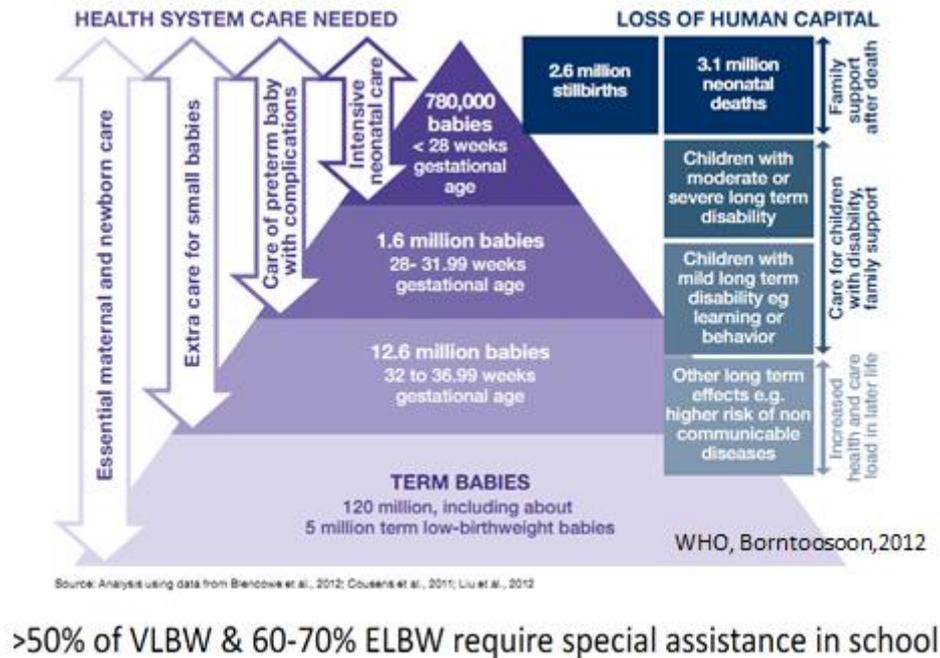


Figure 2. Future disability

One of the stunning new pieces of information is Heckman's assessment of when investments in human development have the greatest return on competence and coping skills. This chart from his recent paper shows quite clearly that investment in the early years of life before the formal school system, gives the greatest return. We now understand how the social environment affects health, learning, and behaviour throughout the life cycle. Given this knowledge, and the need for innovative knowledge-based economy it is clear that we have to better integrate the knowledge from the natural sciences and the social sciences if we are to have higher quality populations and a more stable world during this century (Heckman&Carneiro. 2003, Human Capital Policy) (figure 3).

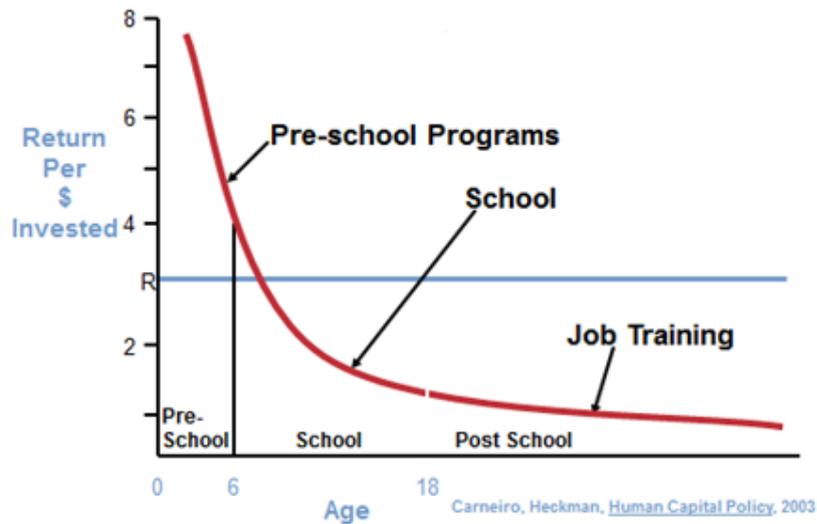


Figure 3. Rates of return to Human development investment across all ages

Cochrane database contains research on the high level of evidence. In 2012, the results of a meta-analysis demonstrated the effectiveness of early intervention in premature infants to improve their cognitive and motor function compared with usual medical follow-up (figure 4).

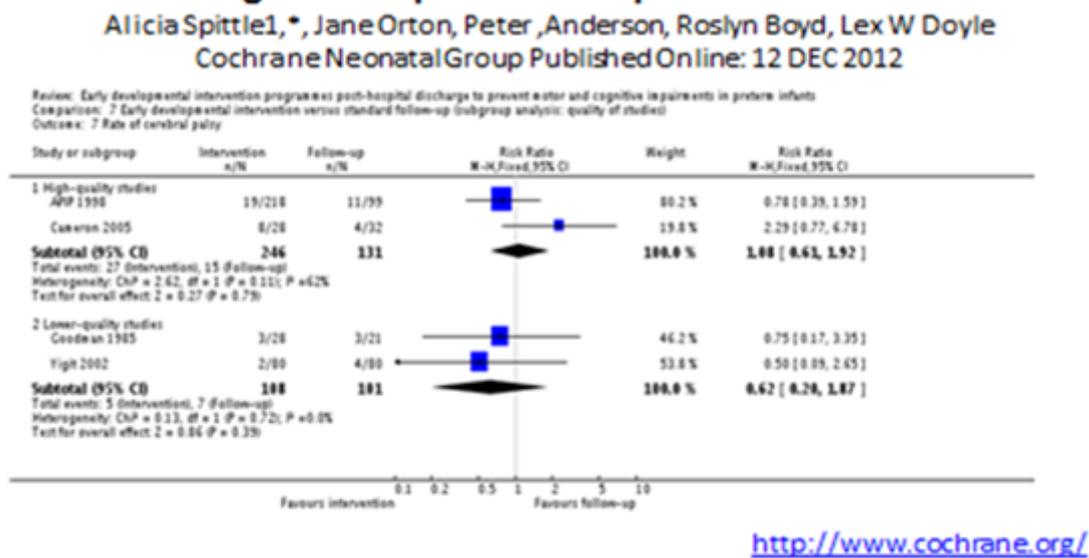


Figure 4. Early intervention programs for the prevention of motor and cognitive impairments in preterm infants

The intensive development of the field “Developmental Pediatrics” suggests a large amount of publications for the last 9 years in the journal “Pediatrics” by American Academy of Pediatrics (figure 5).

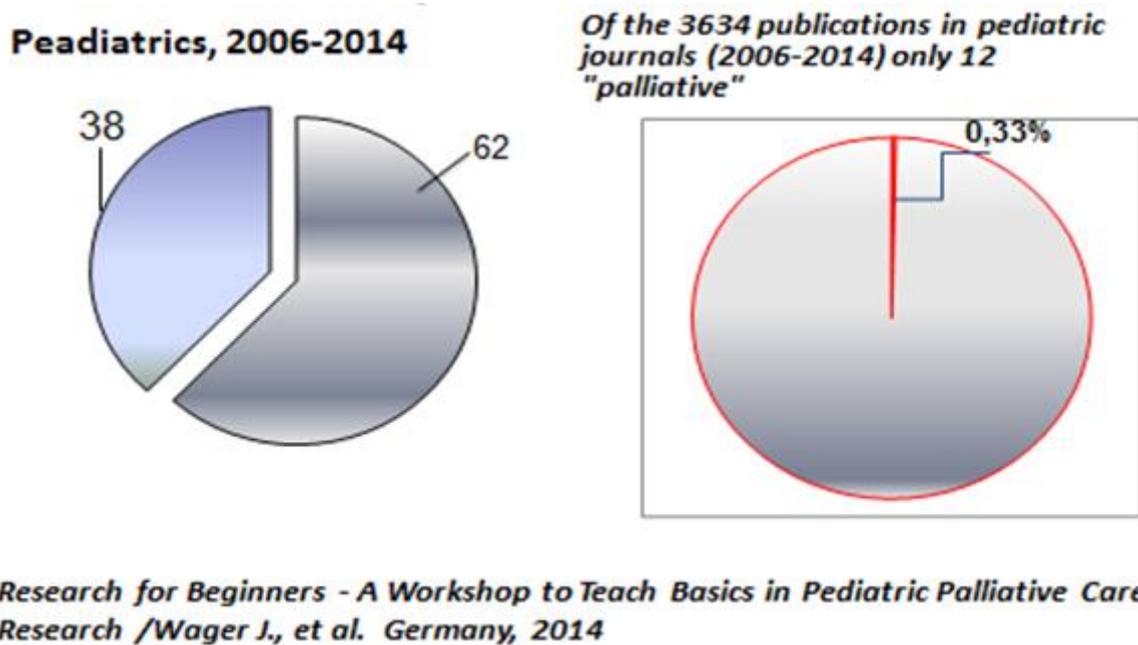


Figure 5. Analysis of scientific publications on the Developmental Pediatrics

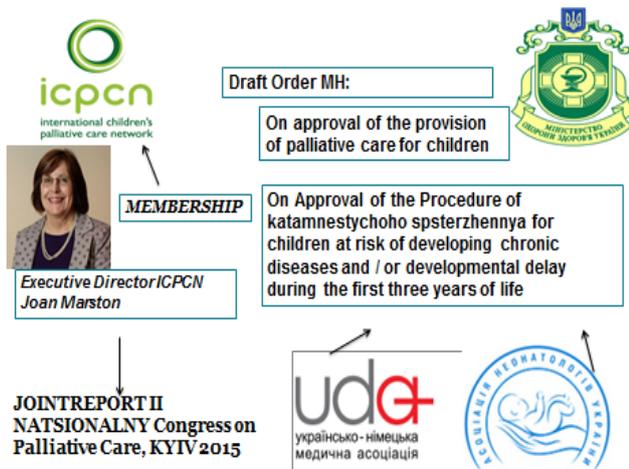
At the same time, our German colleagues analyzed the proportion of publications for the same period relating to the pediatric palliative care. They proved to less than 1% (Research for Beginners - A Workshop to Teach Basics in Pediatric Palliative Care Research /Wager J., et al. Germany, 2014).

That's why one of the provisions of the 2nd Congress on Pediatric Palliative Care, which took place in of Rome (Italy) in 2014, was: It is important to identify strategic research programs in accordance with the changing practices of children's palliative care.

Programs:
 deinstitutionalization
 early intervention
 Early Child Development
ECD - Strategic Priorities 2015-2020



UNICEF 2013/WHO 2012



Such representative global organizations as the WHO, UNICEF identified a strategic priority of the program "Early Childhood Development» in the 2015-2020. Proper health care quality improvement occurs when the demand is supported by the political component. So in December 2015 the President of Ukraine published the order №818 / 2015 on working group for deinstitutionalisation in Ukraine. And another political event, which took place two days ago, namely the First Lady of Germany Daniela Schadt's (the wife of German President Joachim Gauck) visit to Kharkov, in particular to the clinical center of the Department of Pediatrics and Neonatology No.1 Kharkiv regional specialized orphanage No.1 (Head doctor R. Marabyan). This gives a hope for closer cooperation with Germany and UNICEF in the field of Developmental Pediatrics.

We found support from KNMU management, and in close cooperation with the Ukrainian-German Medical Association and the Association of neonatologists of Ukraine, we have developed projects in line with the orders issued by the Ministry of Health of Ukraine for palliative care for children and follow-up for high risk newborns. In 2015 many faculty members became fellows of the International Children's Palliative Care Network (ICPCN). Moreover, together with the Executive Director of the International Children's Network of palliative care, professor Joan

Marston, we prepared a joint report on the 2nd National Congress of Palliative Care (Kiev, 2015), which for the first time ever included Pediatrics.

Apart from the main scientific themes of teamwork, which is focused on pediatric cardiology, we found it useful to plan and to continue thesis research in the field of pediatrics (4 master's theses), participated in 21 national conferences and congresses, implemented 3 training seminars in cooperation with the Association of neonatologists of Ukraine in Chernivtsi, Ternopil, Kiev.

Employees of the department wrote a textbook "Principles of palliative care for children" and published more than 40 scientific articles and over the 2-year period we took part in 12 international conferences and congresses.

The practices of the Department of Pediatrics and Neonatology №1 Development Pediatrics

Учебное пособие



2013-2015

Improving Quality Of Care And Rehabilitation Of Children With High Perinatal Risk/Arch Dis Child 2014;99//T Znamenska, O.Riga, A.Senatorova,

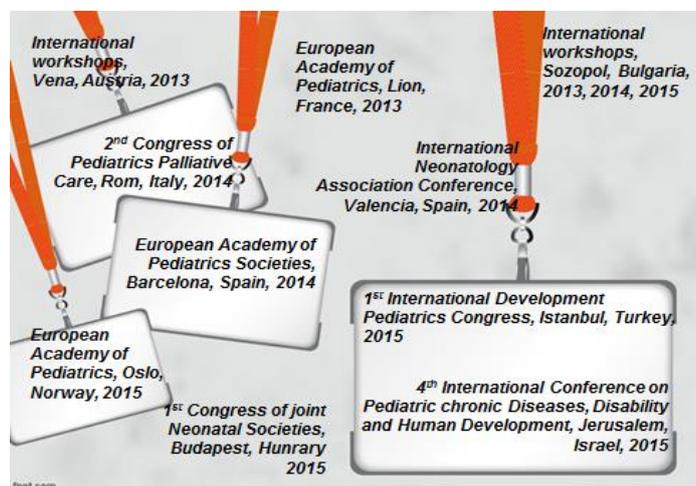
Creation of Follow-up System in Ukraine in Frame of Nat... Project "New Life: New Quality of Maternity and Child Protection" / INAC Valencia 3-5 April 2014 Znamenska

Follow-up of High Risk Group Neonates in... National Pro... Pediatrics Chronic... Development/2015 Jerusa...

Follow-up of High Risk Group Neonates in... Features of Guidance to Early Intervention Services: [1st Congress of joint European Neonatal Societies \(IENS\)](#) Budapest

More than 40 publications

Archives of Disease in Childhood



Exchange of best practices in research and education programs took place in hospitals and organizations: Lumos, London, UK 2013 (<http://www.wearelumos.org/>), St. Sophya Hospital, Rotterdam, the Netherlands, 2014 (<http://www.erasmusmc.nl>), Alyn Rehabilitation Center, Israel, 2015 (<http://www.alyn.org.il/ar/>). It is planned in 2016 visiting Rainbows Children's Hospice, United Kingdom (<http://www.rainbows.co.uk>).

As a result, the state of reflection on development prospects in Pediatrics, we are convinced that textbooks and monographs should be presented only in English-speaking countries.

Therefore, putting forward an initiative and participating in the elaboration of a national Pediatrics textbook is one of our forward-looking statements. We also plan to launch thematic courses for professional development in pediatric palliative care and to continue to cooperate with the Turkish pediatricians.



The ultimate goal of everything that we have done, are doing and will do is to improve the quality of life of our young patients.

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