



International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

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UPDATE ON 2020 ICBDSR ANNUAL MEETING

Due to the COVID-19 pandemic, the 47th ICBDSR Annual Meeting has been postponed to **October 10-13, 2021**. The meeting venue remains the Relais Bellaria Hotel & Congressi in Bologna (Italy). Updates on the annual meeting will be posted on the [ICBDSR website](#).

NEWS AND UPDATE ON COVID-19

COVID-19 is an emerging, rapidly evolving situation:

- Get the full database of COVID-19 resources from WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
- Get the latest public health information from CDC: <https://www.coronavirus.gov>.
- Get the latest research from NIH: <https://www.nih.gov/coronavirus>.
- Find SARS-CoV-2 literature, sequence, and clinical content: <https://www.ncbi.nlm.nih.gov/sars-cov-2/>.

WHO Update on vaccine for COVID-19 from the World Health Assembly

As efforts to develop vaccines for COVID-19 continue across the world, it's important to keep informed of the science behind this method of disease control. For general information, WHO has updated its [Q&A on vaccines and immunizations](#) and published this [handy guide to how vaccines work](#). In addition, three COVID-19 Q&As have been updated: [COVID-19: Vaccines](#), [COVID-19: Vaccine research and development](#), and [COVID-19: Vaccine access and allocation](#). For more information, check out this [EPI-WIN update on the development of a COVID-19 vaccine](#).

ICBD corner: News and comments from *International Centre on Birth Defects (ICBD)*

1. **SAVE the DATE: Launch of the new surveillance toolkit on 2 December 2020 (15h00 central European standard time)**

Tune in to a special WHO-CDC-ICBDSR webinar to introduce a new and improved toolkit to track common birth defects worldwide. The toolkit now includes a special visual How-To Guide to help recognize and track common serious birth defects, simply, accurately, and efficiently.

The full agenda, with presenters from WHO, CDC, and ICBDSR will be shared soon.

2. **An interesting article on the potential for personal and organizational growth in the COVID-19 era.**

How can we as people, professionals, and organizations grow during and after COVID-19? A recent viewpoint in JAMA revisits the framework of 'posttraumatic growth' – this positive concept could help more than we think in the months to come, as we realize that life and work will likely require not going back, but moving forward to a 'new normal'. <https://jamanetwork.com/journals/jama/fullarticle/2771807?resultClick=1>

What's Going on Regarding Birth Defects: a selection from the recent literature, and recommendations from readers

All readers are kindly invited to contribute to this section of the Newsletter, sending their suggestions to centre@icbdsr.org by the 1st Friday of the month

A Selection from the Recent Literature

Risk Factors:

Vitamin supplements and birth defects in Norway

Maternal use of folic acid and multivitamin supplements and infant risk of birth defects in Norway, 1999-2013
Br J Nutr. 2020 Aug 14;124(3):316-329. doi: 10.1017/S0007114520001178. Epub 2020 Apr 2.

Trude Gildestad, Tone Bjørge, Øystein A Haaland, Kari Klungsoyr, Stein E Vollset, Nina Øyen PMID: 32238218
<https://pubmed.ncbi.nlm.nih.gov/32238218/>

Commentary.

This new study from Norway Medical Birth Registry of Norway (MBRN) 1999-2013) provides some novel insights into potential associations between supplement use and risk for birth defects, especially those other than neural tube defects. The study was large (nearly 900,000 infants, of whom over 18,000 with birth defects) and systematic.

The authors report an overall adjusted relative risk for all birth defects combined of 0.94 (95 % CI 0.91, 0.98) (n 18 382). For specific birth defects the authors found a reduced risk of abdominal wall defects (aRR 0.58; 95 % CI 0.42, 0.80, n 377), genital organ defects (aRR 0.81; 95 % CI 0.72, 0.91, n 2299) and limb defects (aRR 0.81; 95 % CI 0.74, 0.90, n 3409). Protective associations were also suggested for NTD, respiratory system defects and digestive system defects although CI included the null value of 1.

Two studies on risk factors for the VACTERL / VATER association

Maternal risk associated with the VACTERL association: A case-control study. Birth Defects Res. 2020 Nov;112(18):1495-1504. doi: 10.1002/bdr2.1773. Epub 2020 Jul 22. Romy van de Putte, Hermien E K de Walle, Kirsten J M van Hooijdonk, Ivo de Blaauw, Carlo L M Marcelis, Arno van Heijst, Jacques C Giltay, Kirsten Y Renkema, Paul M A Broens, Erwin Brosens, Cornelius E J Sloots, Jorieke E H Bergman, Nel Roeleveld, Iris A L M van Rooij PMID: 33179873. <https://pubmed.ncbi.nlm.nih.gov/33179873/>

Maternal risk factors for the VACTERL association: A EUROCAT case-control study. van de Putte R, van Rooij IALM, Haanappel CP, Marcelis CLM, Brunner HG, Addor MC, Caverro-Carbonell C, Dias CM, Draper ES, Etxebarriarteun L, Gatt M, Khoshnood B, Kinsner-Ovaskainen A, Klungsoyr K, Kurinczuk JJ, Latos-Bielenska A, Luyt K, O'Mahony MT, Miller N, Mullaney C, Nelen V, Neville AJ, Perthus I, Pierini A, Randrianaivo H, Rankin J, Rissmann A, Rouget F, Schaub B, Tucker D, Wellesley D, Wiesel A, Zymak-Zakutnia N, Loane M, Barisic I, de Walle HEK, Bergman JEH, Roeleveld N. Birth Defects Res. 2020 May 15;112(9):688-698. doi: 10.1002/bdr2.1686. Epub 2020 Apr 22. PMID: 32319733. <https://pubmed.ncbi.nlm.nih.gov/32319733/>

Commentary.

The search of causes of the VACTERL association continues. Few genetic risk factors of this phenotype have been identified so far – a handful of genomic imbalances, and some rare single gene conditions such as the (etiologically heterogeneous) Fanconi anemia. The most common non-genetic risk factor identified so far has been uncontrolled maternal diabetes.

These two registry-based studies, one from Northern Netherlands and one from EUROCAT (likely with some degree of overlap of cases), both used a case-affected control design.

The studies confirmed associations with pregestational diabetes and use of ART (Assisted Reproductive Techniques), both associated with approximately a doubling in risk compared to controls. Additional associations were identified in the study from Northern Netherlands – a doubling in risk with maternal smoking and a halving of risk with folic acid supplement use (marginally significant). Twinning (another putative risk factor in the literature) did not emerge as a risk factor. The search for causes continues.

Other risk factor studies

Joinau-Zoulovits F, Bertille N, Cohen JF, Khoshnood B. [Association between advanced paternal age and congenital heart defects: a systematic review and meta-analysis](#). Hum Reprod. 2020 Sep 1;35(9):2113. doi: 10.1093/humrep/deaa105. PMID: 32730591.

COVID-19 in Children

Pathak EB, Salemi JL, Sobers N, Menard J, Hambleton IR. [COVID-19 in Children in the United States: Intensive Care Admissions, Estimated Total Infected, and Projected Numbers of Severe Pediatric Cases in 2020](#). J Public Health Manag Pract. 2020 Jul/Aug;26(4):325-333. doi: 10.1097/PHH.0000000000001190. PMID: 32282440; PMCID: PMC7172976.

Public Health

Kancherla V, Wagh K, Pachón H, Oakley GP Jr. [A 2019 global update on folic acid-preventable spina bifida and anencephaly](#). Birth Defects Res. 2020 Oct 30. doi: 10.1002/bdr2.1835. Epub ahead of print. PMID: 33124747.

Finkelstein JL, Fothergill A, Johnson CB, Guetterman HM, Bose B, Jabbar S, Zhang M, Pfeiffer CM, Qi YP, Rose CE, Krisher JT, Ruth CJ, Mehta R, Williams JL, Bonam W, Crider KS. [Periconceptional surveillance for prevention of anaemia and birth defects in Southern India: protocol for a biomarker survey in women of reproductive age](#). BMJ Open. 2020 Oct 29;10(10):e038305. doi: 10.1136/bmjopen-2020-038305. PMID: 33122315; PMCID: PMC7597478.

Recommendations from readers

No recommendation this month



World Birth Defects Day – WBDD, March 3

It's never too early to apply to be a 2021 **WBDD Partner Organization**, by completing the online application form on the WBDD website <https://www.worldbirthdefectsday.org/application-form/>.

Follow @worldbdday on Twitter <https://twitter.com/WorldBDDay> and Instagram worldbdday <https://www.instagram.com/worldbdday/>

Join WBDD page on Facebook <https://www.facebook.com/WBDDay/>
Visit WBDD website <https://www.worldbirthdefectsday.org/>

News from the ICBDSR Executive Committee

The ICBDSR Collaborative paper on Mortality among children with omphalocele has been published in Birth Defects Research:

Nembhard WN, Bergman JEH, Politis MD, Arteaga-Vázquez J, Bermejo-Sánchez E, Canfield MA, Cragan JD, Dastgiri S, de Walle HEK, Feldkamp ML, Nance A, Gatt M, Groisman B, Hurtado-Villa P, Kallén K, Landau D, Lelong N, Lopez-Camelo J, Martinez L, Morgan M, Pierini A, Rissmann A, Šípek A, Szabova E, Tagliabue G,

Wertelecki W, Zarante I, Bakker MK, Kancherla V, Mastroiacovo P. [A multi-country study of prevalence and early childhood mortality among children with omphalocele](#). *Birth Defects Res.* 2020 Oct 17. doi: 10.1002/bdr2.1822. Epub ahead of print. PMID: 33067932.

Online Self-Paced Course on Birth Defect Surveillance and Prevention

The online course remains available for interested professionals. The course has been developed by the International Centre on Birth Defects (ICBD Centre) and supported, in part, by funding from the National Center on Birth Defects and Developmental Disabilities, US Centers for Disease Control and Prevention, through Agreement 2016-2017 with the Task Force for Global Health. The course is designed for clinicians, epidemiologists, public health professionals, and anyone interested in understanding birth defects and improving their prevention and care. The course includes videos, quizzes, a discussion forum, and publications/resources. It is available in English and Spanish. To date, **347 trainees** from **59 countries** have joined the online course. Additional information is available at <http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/>.

The registration form is available at www.icbdsr.org/course-registration. Once registered, you will receive an email with guidance on how to register in the course platform www.icbdsrtraining.org and how to self-enroll in the self-paced course in either English or Spanish.

Meetings and Conferences

Public Health Unit of Athens Institute for Education and Research (ATINER) 7th Annual International Conference on Public Health, 21-24 June 2021, Athens, Greece. <https://www.atiner.gr/publichealth/call>

Society for Birth Defects Research and Prevention 61st Annual Meeting, Wyndham Grand Pittsburgh Downtown, Pittsburgh, PA, USA. June 26–30, 2021. <https://www.birthdefectsresearch.org/meetings/2021/>

World Congress of Epidemiology WCE 2020 on “Methodological Innovations in Epidemiology”, has been postponed to September 3-6, 2021, Melbourne, Australia. <https://wce2020.org/>

EUROCAT Registry Leader Meeting and 15th European Symposium on Congenital Anomalies has been postponed. Information about a new date will be available as soon as possible. JRC-EUROCAT@ec.europa.eu