



International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

August 2021

Issue 2021-08

UPDATE ON ICBDSR ANNUAL MEETING

The 47th ICBDSR Annual Meeting will be held as **virtual meeting in 2021** through the [CVent](#) platform. We will return to an in-person meeting in 2022, hosted by Italy IMER Registry in Bologna. The virtual meeting will be held on **Monday, October 11th, 2021**. The meeting will run from 9 a.m. to 12 p.m. US Eastern Time EST (GMT - 5). A detailed time zone schedule will be provided at a later time, according to local Daylight Savings Time. From 9-10 a.m. EST, we will conduct the ICBDSR Annual Business Meeting for Program representatives, and from 10 a.m.-12 p.m. EST, we will conduct an abbreviated annual meeting for all members and guests. Updates on the virtual annual meeting will be posted on the [ICBDSR website](#).

NEWS AND UPDATE ON COVID-19

American Academy of Pediatrics - Children and COVID-19: State-Level Data Report

State-level reports are the best publicly available and timely data on child COVID-19 cases in the United States. The American Academy of Pediatrics and the Children's Hospital Association are collaborating to collect and share all publicly available data from states on child COVID-19 cases.

<https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>

How Long Will Your Coronavirus Vaccination Last?

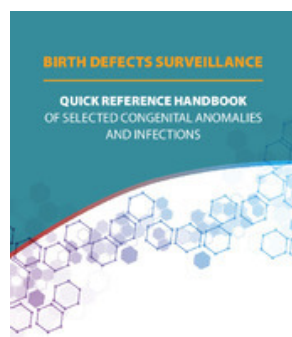
The current data on the mRNA vaccines is very promising. See more from Yale Medicine [here](#).

WHO Coronavirus (Covid 19) Dashboard

The WHO Coronavirus disease situation dashboard presents official daily counts of COVID-19 cases and deaths worldwide: <https://covid19.who.int/>.

EPI-WIN: WHO Information Network for Epidemics

EPI-WIN is part of the WHO Health Emergency Programme's risk communication efforts and was established following the COVID-19 outbreak. EPI-WIN seeks to give everyone access to timely, accurate, and easy-to-understand advice and information from trusted sources on public health events and outbreaks. News and updates at <https://www.who.int/teams/risk-communication>.



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

1. Are you using checklists in your program? You probably use (and find useful) a checklist when you go grocery shopping, lest you forget the milk. Checklists help *“summarise and simplify what to do; measure and provide feedback on outcomes; and improve culture by building expectations of performance standards into work processes”* Lancet 2009, Bosk et al.

Importantly, checklists alone cannot do the job. A common sense of mission is, in many ways, the ‘secret’ to the success of checklist implementation – through, for

example, ongoing feedback between team leaders and frontline workers, and by empowering the latter to participate in improvement and evaluation.

As many of you return from well-deserved holidays, why don't you check out the reporting checklists in the Quick Reference Handbook, developed by WHO, CDC, and ICBD, and see how they make it easier for your staff to do it right (PDF available at <https://www.who.int/publications/i/item/9789240015418>).

We anticipate the release of the mobile app (for IOS and Android) by early fall. And as usual, your feedback is welcome and very much encouraged.

2. Two personal reading suggestions – one on the genetics of congenital heart disease, and the other on the ongoing missed opportunities for preventing neural tube defects.

[Genomic frontiers in congenital heart disease.](#) Morton SU, Quiat D, Seidman JG, Seidman CE. *Nat Rev Cardiol.* 2021 Jul 16. doi: 10.1038/s41569-021-00587-4. Online ahead of print. PMID: 34272501. *To this day, the causes of over half of congenital heart disease remain unexplained. In this interesting review, the authors discuss how the use of multiple analytic tools (from whole genome sequencing to transcriptomics) is helping expand our understanding of the genomic factors causing congenital heart disease – from classic protein-coding sequence variant to copy number variants to non-coding variants.*

[Prevention of Neural Tube Defects in Europe: A Public Health Failure.](#) Morris JK, Addor MC, Ballardini E, Barisic I, Barrachina-Bonet L, Braz P, Caverro-Carbonell C, Den Hond E, Garne E, Gatt M, Haeusler M, Khoshnood B, Lelong N, Kinsner-Ovaskainen A, Kiuru-Kuhlefelt S, Klungsoyr K, Latos-Bielenska A, Limb E, O'Mahony MT, Perthuis I, Pierini A, Rankin J, Rissmann A, Rouget F, Sayers G, Sipek A Jr, Stevens S, Tucker D, Verellen-Dumoulin C, de Walle HEK, Wellesley D, Wertelecki W, Bermejo-Sanchez E. *Front Pediatr.* 2021 Jun 24;9:647038. doi: 10.3389/fped.2021.647038. eCollection 2021. PMID: 34249803.

We listed this paper in past newsletter under the section 'Selection of the Literature', but it is worth listing it again here, on the 30th anniversary of the MRC randomized clinical trials that showed how folic acid could prevent many (and, worldwide, most) cases of neural tube defects. Can this be the year that mandatory fortification with folic acid can finally be implemented worldwide and eliminate folic acid-preventable spina bifida?

Lorenzo Botto, ICBD Director

What's Going on Regarding Birth Defects

Human Teratogens: A Live Virtual Course

The Human Teratogens Course, organized by the Society for Birth Defects Research and Prevention (BDRP) is held on November 2–4, 2021, 10:00 AM–3:30 PM Eastern (US).

The course provides balanced and comprehensive information on the current knowledge and controversies in the field of teratology and counseling for pregnancy exposures. The faculty, teratology and toxicology experts, present lectures that cover basic principles of teratology, embryology, and epidemiology as well as detailed information regarding maternal conditions and environmental exposures which may pose teratogenic effect in pregnancy and lactation. The course provides up-to-date information on common exposures and hot topics, such as COVID-19 and vaccines, which providers are likely to encounter in their practice. The target audience for this course includes obstetricians, maternal fetal medicine specialists, teratogen information specialists, genetic counselors, pharmacists, and allied health professionals. Normally taking place every two years in Tampa, Florida, this year the international course will take place in a live virtual setting. Full details and registration are available on the [course website](#)



World Birth Defects Day – WBDD, March 3rd

Join World Birth Defects Day as **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/>.
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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

Causes: Risk factors, Protective Factors

COVID-19

Kalafat E, Magee LA, von Dadelszen P, O'Brien P, Khalil A. [SARS-CoV-2 vaccination in pregnancy: a unique opportunity for equity](#). Lancet. 2021 Aug 11;S0140-6736(21)01756-6. doi: 10.1016/S0140-6736(21)01756-6. Epub ahead of print. PMID: 34390655; PMCID: PMC8357461.

Chinn J, Sedighim S, Kirby KA, Hohmann S, Hameed AB, Jolley J, Nguyen NT. [Characteristics and Outcomes of Women With COVID-19 Giving Birth at US Academic Centers During the COVID-19 Pandemic](#). JAMA Netw Open. 2021 Aug 2;4(8):e2120456. doi: 10.1001/jamanetworkopen.2021.20456. PMID: 34379123; PMCID: PMC8358731.

Kazemi SN, Hajikhani B, Didar H, Hosseini SS, Haddadi S, Khalili F, Mirsaeidi M, Nasiri MJ. [COVID-19 and cause of pregnancy loss during the pandemic: A systematic review](#). PLoS One. 2021 Aug 11;16(8):e0255994. doi: 10.1371/journal.pone.0255994. PMID: 34379700; PMCID: PMC8357105.

Exposures and risk factors

Howley MM, Werler MM, Fisher SC, Van Zutphen AR, Carmichael SL, Broussard CS, Heinke D, Ailes EC, Pruitt SM, Reefhuis J, Mitchell AA, Browne ML; National Birth Defects Prevention Study. [Maternal exposure to hydroxychloroquine and birth defects](#). Birth Defects Res. 2021 Jul 23. doi: 10.1002/bdr2.1943. Online ahead of print. PMID: 34296811

Rutkowski RE, Tanner JP, Anjohrin SB, Kirby RS, Salemi JL. [Proportion of critical congenital heart defects attributable to unhealthy prepregnancy body mass index among women with live births in Florida, 2005-2016](#). Birth Defects Res. 2021 Aug 13. doi: 10.1002/bdr2.1946. Epub ahead of print. PMID: 34390321.

Esposito DB, Parker SE, Mitchell AA, Tinker SC, Werler MM. [Periconceptional nonsteroidal anti-inflammatory drug use, folic acid intake, and the risk of spina bifida](#). Birth Defects Res. 2021 Aug 3. doi: 10.1002/bdr2.1944. Epub ahead of print. PMID: 34346174.

Karalexi MA, Tagkas CF, Markozannes G, Tseretopoulou X, Hernández AF, Schüz J, Halldorsson TI, Psaltopoulou T, Petridou ET, Tzoulaki I, Ntzani EE. [Exposure to pesticides and childhood leukemia risk: A systematic review and meta-analysis](#). Environ Pollut. 2021 Sep 15;285:117376. doi: 10.1016/j.envpol.2021.117376. Epub 2021 May 18. PMID: 34380208.

Montagnoli C, Santoro CB, Buzzi T, Bortolus R. [Maternal periconceptional nutrition matters. A scoping review of the current literature](#). J Matern Fetal Neonatal Med. 2021 Aug 15:1-18. doi: 10.1080/14767058.2021.1962843. Epub ahead of print. PMID: 34392783.

Poncet L, Panjo H, Schmitz T, Luton D, Mandelbrot L, Estellat C, Andro A, Ringa V, Azria E. [Gestational weight gain in a migration context: are migrant women more at risk of inadequate or excessive weight gain during pregnancy?](#) J Epidemiol Community Health. 2021 Aug 13:jech-2021-216619. doi: 10.1136/jech-2021-216619. Epub ahead of print. PMID: 34389663.

Genetics

Pitsava G, Feldkamp ML, Pankratz N, Lane J, Kay DM, Conway KM, Shaw GM, Reefhuis J, Jenkins MM, Almli LM, Olshan AF, Pangilinan F, Brody LC, Sicko RJ, Hobbs CA, Bamshad M, McGoldrick D, Nickerson DA, Finnell RH, Mullikin J, Romitti PA, Mills JL; University of Washington Center for Mendelian Genomics, NISC Comparative Sequencing Program and the National Birth Defects Prevention Study. [Exome sequencing of child-parent trios with bladder exstrophy: Findings in 26 children.](#) Am J Med Genet A. 2021 Aug 5. doi: 10.1002/ajmg.a.62439. Online ahead of print. PMID: 34355505

Occurrence: prevalence, descriptive epidemiology

Fogelström A, Caldeman C, Oddsberg J, Löf Granström A, Mesas Burgos C. [Omphalocele: national current birth prevalence and survival.](#) Pediatr Surg Int. 2021 Aug 15. doi: 10.1007/s00383-021-04978-z. Online ahead of print. PMID: 34392395.

Senes FM, Calevo MG, Adani R, Baldrighi C, Bassetto F, Corain M, Landi A, Lando M, Monticelli A, Novelli C, Pajardi G, Rosanda E, Rossello MI, Santecchia L, Zoccolan A, Catena N. [Hand and Upper Limb Malformations in Italy: A Multicentric Study.](#) J Hand Surg Asian Pac Vol. 2021 Sep;26(3):345-350. doi: 10.1142/S2424835521500302. PMID: 34380395.

Protzenko T, Dos Santos Gomes Junior SC, Bellas A, Salomão JFM. [Hydrocephalus and occipital encephaloceles: presentation of a series and review of the literature.](#) Childs Nerv Syst. 2021 Aug 14. doi: 10.1007/s00381-021-05312-7. Epub ahead of print. PMID: 34390379.

Zhu Y, Miao H, Zeng Q, Li B, Wang D, Yu X, Wu H, Chen Y, Guo P, Liu F. [Prevalence of cleft lip and/or cleft palate in Guangdong province, China, 2015-2018: a spatio-temporal descriptive analysis.](#) BMJ Open. 2021 Aug 2;11(8):e046430. doi: 10.1136/bmjopen-2020-046430. PMID: 34341041.

Outcomes: survival, morbidity, quality of life

Wojcik MH, Stadelmaier R, Heinke D, Holm IA, Tan WH, Agrawal PB [The Unrecognized Mortality Burden of Genetic Disorders in Infancy.](#) Am J Public Health. 2021 Jul;111(S2):S156-S162. doi: 10.2105/AJPH.2021.306275. PMID: 34314210

Recommendations from readers

No recommendation this month

News from ICBDSR Executive Committee and ICBDSR Members

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 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, more than **500 trainees** from **65 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

World Congress of Epidemiology WCE 2020 scheduled to be held in Melbourne during September 2020, will be held as a virtual event on September 3-6, 2021. The Conference will focus on “Methodological Innovations in Epidemiology” which reflects the innovative progress in Epidemiology and Public Health <https://wce2020.org/>

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