



International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

January 2021

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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/>.

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

1. The New Surveillance Toolkit is now available

As you may remember on December 2, 2020, a special WHO-CDC-ICBDSR webinar launched the 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.**

These resources – the toolkit itself and the introductory webinar -- are now freely available online.

Here are the links:

- The WHO web page: <https://www.who.int/news/item/02-12-2020-new-toolkit-aims-to-improve-global-birth-defects-surveillance>
- The Manual: <https://www.who.int/publications/i/item/9789240015395>
- The Quick Reference Handbook: <https://apps.who.int/iris/bitstream/handle/10665/338485/9789240015418-eng.pdf?sequence=1&isAllowed=y>
- You may also access the recording of the webinar here: https://who.zoom.us/rec/share/PMVEbLJiZ3e5oRyw6U6CTBrkh-EFn36oT8HUMiTEGwAOF3NtaBC3n_UqhEGTL8WB.sIJ2RFRAPLx8JlwM - Access Passcode: C9c@nKt2

2. 2021 update on folic acid preventable neural tube defects

A 2019 global update on folic acid-preventable spina bifida and anencephaly. Kancherla V, Wagh K, Pachón H, Oakley GP Jr. Birth Defects Res. 2021 Jan 1;113(1):77-89. doi: 10.1002/bdr2.1835. Epub 2020 Oct 30. PMID: 33124747. <https://pubmed.ncbi.nlm.nih.gov/33124747/>

Where are we with making neural tube defect prevention a global reality? Hard data are difficult to come by (typically because of the near-complete lack of birth defect surveillance in much of the world), but this timely update tries to fill this gap, at least partially, by modeling the number of preventable and unprevented cases based on current vs. ideal implementation of folic acid fortification. Bottom line,

according to the authors, is that we are only 23% there. (see paper for details, contact centre@icbdsr.org if you would like a pdf and are unable to get it).

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

Selected Papers

a. Infectious disease-related.

Morris SK, Farrar DS, Miller SP, Ofner M, Bitnun A, Nelson CRM, Shevell M, Moore AM, Tataryn J, Evans JA, Zipursky AR, Moore Hepburn C. [Population-based surveillance of severe microcephaly and congenital Zika syndrome in Canada](#). Arch Dis Child. 2021 Jan 8;archdischild-2020-320968. doi: 10.1136/archdischild-2020-320968. Epub ahead of print. PMID: 33419730.

Petzold S, Agbaria N, Deckert A, Dambach P, Winkler V, Drexler JF, Horstick O, Jaenisch T. [Congenital abnormalities associated with Zika virus infection-Dengue as potential co-factor? A systematic review](#). PLoSNegl Trop Dis. 2021 Jan 4;15(1):e0008984. doi: 10.1371/journal.pntd.0008984. Epub ahead of print. PMID: 33395432.

Zimmermann P, Curtis N. [COVID-19 in Children, Pregnancy and Neonates: A Review of Epidemiologic and Clinical Features](#). Pediatr Infect Dis J. 2020 Jun;39(6):469-477. doi: 10.1097/INF. 0000000000002700. PMID: 32398569

b. Registries and Surveillance Programs

Broe A, Damkier P, Pottegård A, Hallas J, Bliddal M. [Congenital Malformations in Denmark: Considerations for the Use of Danish Health Care Registries](#). Clin Epidemiol. 2020 Dec 15;12:1371-1380. doi: 10.2147/CLEP.S278596. PMID: 33364846; PMCID: PMC7751580.

Zarante I, Carreño-Martínez AC, Ibañez LM, Gracia G, Blandón E, Perez G, Holguín J, Hurtado-Villa P. [Description and results of birth defects surveillance and follow-up programs in Bogotá and Cali, Colombia, 2002-2019](#). Am J Med Genet C Semin Med Genet. 2021 Jan 6. doi: 10.1002/ajmg.c.31880. Epub ahead of print. PMID: 33403803.

Woodworth KR, Reynolds MR, Burkel V, Gates C, Eckert V, McDermott C, Barton J, Wilburn A, Halai UA, Brown CM, Bocour A, Longcore N, Orkis L, Lopez CD, Sizemore L, Ellis EM, Schillie S, Gupta N, Bowen VB, Torrone E, Ellington SR, Delaney A, Olson SM, Roth NM, Whitehill F, Zambrano LD, Meaney-Delman D, Fehrenbach SN, Honein MA, Tong VT, Gilboa SMA [Preparedness Model for Mother-Baby Linked Longitudinal Surveillance for Emerging Threats](#). Matern Child Health J. 2021 Jan 4:1-9. doi: 10.1007/ s10995-020-03106-y. Online ahead of print. PMID: 33394275

c. Birth defects – occurrence, impact, prevention

Heinke D, Isenburg JL, Stallings EB, Short TD, Le M, Fisher S, Shan X, Kirby RS, Nguyen HH, Nestoridi E, Nembhard WN, Romitti PA, Salemi JL, Lupo PJ; National Birth Defects Prevention Network. [Prevalence of structural birth defects among infants with Down syndrome, 2013-2017: A US population-based study](#). Birth Defects Res. 2021 Jan 15;113(2):189-202. doi: 10.1002/bdr2.1854. Epub 2020 Dec 21. PMID: 33348463

Addissie YA, Troia A, Wong ZC, Everson JL, Kozel BA, Muenke M, Lipinski RJ, Malecki KMC, Kruszka P [Identifying environmental risk factors and gene-environment interactions in holoprosencephaly](#). Birth Defects Res. 2021 Jan 1;113(1):63-76. doi: 10.1002/bdr2.1834. Epub 2020 Oct 8. PMID: 33111505

Salazar-Reviakina A, Sierra-Bretón M, Rumbo J, Madariaga I, Tovar C, Uribe M, Sequera C, Rodríguez C, Holguín J, Sarmiento K, Hurtado-Villa P, Zarante I. [Characterization of Risk Factors for Neural Tube Defects: A Case-Control Study in Bogota and Cali, Colombia, 2001-2018](#). J Child Neurol. 2021 Jan 4;883073820981514. doi: 10.1177/0883073820981514. Epub ahead of print. PMID: 33393845.

Kancherla V, Koning J, Biluts H, Woldemariam M, Kibruyisfaw Z, Belete A, Koning M [Projected impact of mandatory food fortification with folic acid on neurosurgical capacity needed for treating spina bifida in Ethiopia](#). Birth Defects Res. 2020 Dec 14. doi: 10.1002/bdr2.1857. Online ahead of print. PMID: 33319513.

Kancherla V, Chadha M, Rowe L, Thompson A, Jain S, Walters D, Martinez H. [Reducing the Burden of Anemia and Neural Tube Defects in Low- and Middle-Income Countries: An Analysis to Identify Countries with an Immediate Potential to Benefit from Large-Scale Mandatory Fortification of Wheat Flour and Rice](#). Nutrients. 2021 Jan 16;13(1):E244. doi: 10.3390/nu13010244. PMID: 33467050

Orbain MM, Johnson J, Nance A, Romeo AN, Silver MA, Martinez L, Leen-Mitchell M, Carey JC [Maternal diabetes-related malformations in Utah: A population study of birth prevalence 2001-2016](#). Birth Defects Res. 2021 Jan 15;113(2):152-160. doi: 10.1002/bdr2.1843. Epub 2020 Nov 23. PMID: 33226174

Botto LD, Meeths M, Campos-Xavier B, Bergamaschi R, Mazzanti L, Scarano E, Finocchi A, Cancrini C, Zirn B, Kühnle I, Kramm CM, Alanay Y, Jones WD, Irving M, Sabir A, Henter JI, Borgström B, Nordgren A, Hammarsjö A, Putti C, Mozzato C, Zuccarello D, Nishimura G, Bonafè L, Grigelioniene G, Unger S, Superti-Furga A. [Chondrodysplasia and growth failure in children after early hematopoietic stem cell transplantation for non-oncologic disorders](#). Am J Med Genet A. 2021 Jan 4. doi: 10.1002/ajmg.a.62021. Epub ahead of print. PMID: 33398909.

News from ICBDSR Executive Committee and ICBDSR Members

ICBDSR welcomes three new affiliate members:

- Ministry of Health of Nicaragua (<http://www.minsa.gob.ni>); Contact person: Gerardo Mejía-Baltodano
- National Program for the Prevention of Birth Defects, Paraguay (<https://www.mspbs.gov.py/pndc>); Contact person: Marta Ascurra
- Manveer Rahi, NHS Lothian/University of Edinburgh, Scotland, UK

Texas Birth Defects Registry

This is the link to the latest edition of “*The Monitor: Texas Birth Defects Supplemental Data and Research Update*”: <https://www.dshs.texas.gov/birthdefects/monitor/default.shtm>

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, **473 trainees** from **61 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.



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/>

Meetings and Conferences

3rd World Congress on Maternal Fetal and Neonatal Medicine, "from periconception to early infancy" – March 25-27, 2021, Venice, Italy. <https://www.mcascientificevents.eu/worldmfnm/>

Public Health Unit of Athens Institute for Education and Research (ATINER) 7th Annual International Conference on Public Health, June 21-24, 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 Considering the development of the pandemic in Europe, the EUROCAT Scientific Symposium scheduled to take place on July 2, 2020 in Valencia, Spain, has been postponed until further notice.

HAPPY
NEW
YEAR
2021