



International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

March 2021

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World Birth Defects Day – WBDD, March 3rd

- ✓ Thanks to all the participants in the **March 3rd World Birth Defects Day Twitter Chat**, hosted by [@MarchofDimes](#) and [@nacersano](#). During the chat, more than 100 contributors participated in English and Spanish, posting around 800 tweets with critical birth defects messaging. This effort generated nearly 3 million social impressions. This event would not have been possible without the contribution and leadership of CDC-NCBDDD and WBDD Social Media Group. Thanks to all of them.
- ✓ The **WHO WBDD webinar** via Zoom: “Saving lives of babies with birth defects and improving their quality of life” had strong participation. Thanks to the speakers for their interesting contributions.
- ✓ **COVID-19 Vaccine in Pregnancy and Breastfeeding World Birth Defects Day 2021 Live Q&A** is the Facebook live event organized on March 3 by MotherToBaby. Video available at <https://youtu.be/RUHFj1RLWM>

Let us know what you did for celebrating WBDD: Email centre@icbdsr.org so your activities can be published in the WBDD website

Several organizations recently joined WBDD as partners; the community has grown to more than 200 Partner Organizations. We thank them for their support.

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

NEWS AND UPDATE ON COVID-19

- Get epidemiological updates from WHO:
 - ✓ [Weekly epidemiological update - 2 March 2021](#)
 - ✓ [Special edition of the Weekly Epidemiological Update](#) (25 February) – update on variants of concern and variants of interest
 - ✓ [EPI-WIN slide set No. 50. What countries should do to prepare communities for a COVID-19 vaccine, treatment or new test; 10 steps to community readiness](#)
 - ✓ [EPI-WIN slide set No. 49. Immune response to SARS-COV-2 & viral infections](#)
- 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. **Capacity building in East Africa: Malawi training.** This month we at the ICBD and ICBDSR have partnered with CDC for a training workshop on birth defect identification, description and reporting for the Malawi Birth Defect surveillance program. Using the ICBDSR training platform and a series of interactive sessions, the group covered many major birth defects (all included in the recently completed Quick Reference Handbook for birth defect surveillance). We also discussed the systematic newborn exam to be done at delivery and in the nursery before discharge. We look forward to more work in Africa, to further support teams involved in such groundbreaking work. For more about these training workshops, see below (Online Platform).
2. **Agent Orange, Dioxins, and Birth Defects.** Agent Orange was a defoliant used extensively as a weapon in Laos by the US during the Vietnam War. This defoliant includes TCDD, a dioxin, considered one of the most toxic substances ever created. The US has investigated extensively the possible health effects on birth defects in US military personnel that handled this substance – in fact, it spurred one of the foundational birth defect case control studies on causes of birth defects, conducted decades ago by the CDC. Much less studied is the effect on the populations in Laos on whom it was sprayed. A recent article from the New York Time tells some of the story and asks whether an exposure decades ago can have multigenerational effects – e.g., affecting grandchildren of those exposed.
<https://www.nytimes.com/2021/03/16/magazine/laos-agent-orange-vietnam-war.html>
3. **The Institute for Health Metrics and Evaluation (IHME) : a deep resource for maternal – child health investigators.** IHME has been (and is) on the news regularly for its estimates and forecasts of the COVID-19 pandemic. Perhaps less known is the width and depth of its data repository and the ‘friendliness’ of its data tools. For example, its website can be queried for data and visualizations of many factors of interest to our community, including country profiles of several maternal-child health variables, and estimates of global burden of disease. If you haven’t looked at the IHME website when exploring your epidemiologic questions, you may be pleasantly surprised by what it can offer. <http://www.healthdata.org/>

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, Protective Factors

Sfeir R, Rousseau V, Bonnard A, Gelas T, Aumar M, Panait N, Piolat C, Irtan S, Fouquet V, Le Mandat A, De Napoli S, Habonimana E, Lamireau T, Lemelle JL, Elbaz F, Talon I, Polimerol ML, Allal H, Buisson P, Petit T, Louis D, Lardy H, Schmitt F, Levard G, Scalabre A, Michel JL, Jaby O, Pelatan C, De Vries C, Borderon C, Fourcade L, Breaud J, Pouzac M, Tolg C, Chaussy Y, Jochault-Ritz S, Laplace C, Drumez E, Gottrand F. [Risk Factors of Early Mortality and Morbidity in Esophageal Atresia With Distal Tracheo-Esophageal Fistula: A Population-Based Cohort Study](#). J Pediatr. 2021 Mar 2:S0022-3476(21)00203-1. doi: 10.1016/j.jpeds.2021.02.064. Epub ahead of print. PMID: 33667507.

Liu Z, Wang M, Tang Q, He F, Li N, Deng Y, Yu P, Zhu J, Li X. [Unintended pregnancy-related factors and the occurrence of offspring congenital heart disease: a multi-site case-control study in China](#). Eur J Contracept Reprod Health Care. 2021 Feb 24:1-13. doi: 10.1080/13625187.2020.1862081. Epub ahead of print. PMID: 33624567.

Patel J, Bircan E, Tang X, Orloff M, Hobbs CA, Browne ML, Botto LD, Finnell RH, Jenkins MM, Olshan A, Romitti PA, Shaw GM, Werler MM, Li J, Nembhard WN; National Birth Defects Prevention Study. [Paternal genetic variants and risk of obstructive heart defects: A parent-of-origin approach](#). PLoS Genet. 2021 Mar 8;17(3):e1009413. doi:10.1371/journal.pgen.1009413. Epub ahead of print. PMID: 33684136.

Petersen JM, Yazdy MM, Getz KD, Anderka MT, Werler MM; National Birth Defects Prevention Study. [Short interpregnancy intervals and risks for birth defects: support for the nutritional depletion hypothesis](#). Am J Clin Nutr. 2021 Mar 1:nqaa436. doi: 10.1093/ajcn/nqaa436. Epub ahead of print. PMID: 33668063.

Wensink MJ, Rizzi S, Jensen TK, Skakkebaek NE, Lu Y, Lindahl-Jacobsen R, Eisenberg ML. [Paternal prescription medication before conception: A retrospective cohort study of all births in Denmark 1997-2017](#). Scand J Public Health. 2021 Feb 20:1403494820987468. doi: 10.1177/1403494820987468. Epub ahead of print. PMID: 33615897.

Infections

Martins MM, Alves da Cunha AJL, Robaina JR, Raymundo CE, Barbosa AP, Medronho RA. [Fetal, neonatal, and infant outcomes associated with maternal Zika virus infection during pregnancy: A systematic review and meta-analysis](#). PLoS One. 2021 Feb 19;16(2):e0246643. doi: 10.1371/journal.pone.0246643. PMID: 33606729; PMCID: PMC7894820.

Du M, Yang J, Han N, Liu M, Liu J. [Association between the COVID-19 pandemic and the risk for adverse pregnancy outcomes: a cohort study](#). BMJ Open. 2021 Feb 23;11(2):e047900. doi: 10.1136/bmjopen-2020-047900. PMID: 33622959; PMCID: PMC7907630.

Rasmussen SA, Kelley CF, Horton JP, Jamieson DJ. [Coronavirus Disease 2019 \(COVID-19\) Vaccines and Pregnancy: What Obstetricians Need to Know](#). Obstet Gynecol. 2021 Mar 1;137(3):408-414. doi: 10.1097/AOG.0000000000004290. PMID: 33370015; PMCID: PMC7884084.

Outcomes – health and health related

Serunjogi R, Barlow-Mosha L, Mumphe-Mwanja D, Williamson D, Valencia D, Tinker SC, Adler MR, Namale-Matovu J, Kalibbala D, Nankunda J, Nabunya E, Birabwa-Male D, Byamugisha J, Musoke P. [Comparative analysis of perinatal outcomes and birth defects amongst adolescent and older Ugandan mothers: evidence from a hospital-based surveillance database](#). Reprod Health. 2021 Mar 4;18(1):56. doi: 10.1186/s12978-021-01115-w. PMID: 33663555; PMCID: PMC7934544.

Khavjou OA, Anderson WL, Honeycutt AA, Bates LG, Hollis ND, Grosse SD, Razzaghi H. [State-Level Health Care Expenditures Associated With Disability](#). Public Health Rep. 2021 Mar 5:33354920979807. doi: 10.1177/0033354920979807. Epub ahead of print. PMID: 33673781.

Programs, Methods, and Operations

Kharbanda EO, Vazquez-Benitez G, DeSilva MB, Spaulding AB, Daley MF, Naleway AL, Irving SA, Klein NP, Tseng HF, Jackson LA, Hambidge SJ, Olaiya O, Panozzo CA, Myers TR, Romitti PA. [Developing algorithms for identifying major structural birth defects using automated electronic health data](#). Pharmacoepidemiol Drug Saf. 2021 Feb;30(2):266-274. doi:10.1002/pds.5177. Epub 2020 Dec 3. PMID: 33219586.

Johnson CY, Honein MA, Rasmussen SA, Howards PP, Strickland MJ, Flanders WD; National Birth Defects Prevention Study. [Prepregnancy body mass index and spina bifida: Potential contributions of bias](#). Birth Defects Res. 2021 Feb 19. doi: 10.1002/bdr2.1877. Epub ahead of print. PMID: 33605566.

Yunis K, Al Bizri A, Al Raiby J, Nakad P, El Rafei R, Siddeeg K, Tran Minh NN, Buliva E, Malik SMM, El Adawy M, Mahaini R, Ammar W. [Situational analysis of the surveillance of birth defects in the Eastern Mediterranean region](#). Int J Epidemiol. 2021 Mar 3;50(1):4-11. doi: 10.1093/ije/dyaa123. PMID: 32911545.

Recommendations from readers

Malherbe HL, Aldous C, Christianson AL, Darlison MW, Modell B. [Modelled epidemiological data for selected congenital disorders in South Africa](#). J Community Genet. 2021 Mar 5. doi: 10.1007/s12687-021-00513-8. Epub ahead of print. PMID: 33674966.

News from ICBDSR Executive Committee and ICBDSR Members

ICBDSR members participated as Speakers in the [WHO WBDD webinar](#) on March 3 “Saving lives of babies with birth defects and improving their quality of life”:

- Lorenzo Botto, Director, International Centre on Birth Defects, USA
- Paul Romitti, Chair, International Clearinghouse for Birth Defects Surveillance and Research
- Salimah Walani, Vice President of Global Programs, March of Dimes, USA

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, **483 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.

UPDATE ON 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 [RelaisBellaria Hotel & Congressi](#) in Bologna (Italy). Updates on the annual meeting will be posted on the [ICBDSR website](#).

Meetings and Conferences

3rd World Congress on Maternal Fetal and Neonatal Medicine, “frompericonceptiontoearlyinfancy” – March 25-27, 2021, Venice, Italy. <https://www.mcascientificevents.eu/worldmfnm/>

Public Health Unit of Athens Institute for Education and Research (ATINER)7thAnnual International Conference on Public Health, June21-24, 2021, Athens, Greece. <https://www.atiner.gr/publichealth/call>

Society for Birth Defects Research and Prevention VIRTUAL 61st Annual Meeting. June 24–July 1, 2021. “*Building bridges in birth defects research and prevention: from innovation to application*”. The deadline for abstracts submission is March 31, 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/>