

Monthly Newsletter

Issue 2022-10

October 2022

2022 ICBDSR ANNUAL MEETING

The participants in the recent ICBDSR Annual Meeting, held in Bologna from 18th to 21st September 2022, are kindly requested to fill in the <u>online evaluation form</u> of the meeting. We'd love to get your feedback, and make the next meetings even better.

2023 ICBDSR ANNUAL MEETING

The **49th ICBDSR Annual Meeting**will take place in St. Julian, Malta, from November 5th to 8th, 2023, at Cavalieri Art Hotel <u>https://www.cavalierihotel.com/</u>





The meeting will be hosted by Malta Congenital Anomalies Registry, in collaboration with Ministry for Health, Directorate for Health Information and Research (DHIR), Malta. Further information about 2023 Annual Meeting will be disseminated at a later time.

Venues of future Annual Meetings:

• 2024, September: Prague (Czech Republic)

World Birth Defects Day – WBDD, March 3rd

The countdown for World Birth Defects Day (WBDD) 2023 has started! Join the WBDD partners at <u>https://www.worldbirthdefectsday.org/application-form/</u>

Email <u>info@worldbirthdefectsday.org</u> Follow @worldbdday on Twitter <u>https://twitter.com/WorldBDDay</u>and Instagram worldbdday <u>https://www.instagram.com/worldbdday/</u>. Join WBDD page on Facebook <u>https://www.facebook.com/WBDDay/</u>.

What's Going on

International Conference on Birth Defects and Disabilities in the Developing World – ICBD 2023

"Accelerating action for birth defects and disabilities: surveillance, prevention, management and family-centered care" – March 1-4, 2023, Santiago, Chile

International Conference on Birth Defects and Developing Word	Accelerating Action for Birth Defects and Disabilities: Surveillance, Prevention, Screening, Management and Family-Centered Care
CALLFOR ABSTRACTS DEADLINE:	Santiago, Chile March 1 – 4, 2023 School of Medicine, Pontificia Universidad Católica de Chile Dr Cecilia Mellado and Dr Guillermo Lay-S
30 OCTOBER, 2022	WWW.ICBD.MARCHOFDIMES.ORG
	#ICBD2023

Deadline for abstracts submission: **30 October 2022**

Conference Topics:

Surveillance, clinical and public health professionals, high-level policy and program personnel from ministries of health, and professional, research and non-governmental associations and organizations working in the field of maternal child health—specifically birth defects and disabilities—are invited to submit abstracts for consideration.

The conference will be organized around these topics, with the focus of each being on the presentation of successful best practices/models of surveillance, prevention, management and care of birth defects and disabilities in Latin America and around the world. Bodies of work from low- and middle-income countries are particularly encouraged.

10th edition of the World Spina Bifida and Hydrocephalus Day – October 25th, 2022

The International Federation for Spina Bifida and Hydrocephalus (IFSBH) warmly invites persons with Spina Bifida and Hydrocephalus from all over the world as well as all interested parties to celebrate the **10th edition of the World Spina Bifida and Hydrocephalus Day** (WSBHD) on the topic of "Elevate Your Voice" on October 25th, 2022.

Various activities will take place around the WSBHD22 throughout the month of October. All events, materials, information and latest updates are available on<u>www.worldspinabifidahydrocephalusday.com</u>

IFSBH shared the contributions of young people with Spina Bifida and Hydrocephalus participating in the talent contest organized on the occasion of the World Spina Bifida and Hydrocephalus Day.

Watch the videos here: https://worldspinabifidahydrocephalusday.com/talent-show-2022

SIDS Awareness Month

October is SIDS Awareness Month. Follow these <u>Safe-sleep practices</u> from CDC Division of Reproductive Health to reduce the risk of SIDS.

Check out this *interactive website* from NIH to see what a safe sleeping environment should look like.

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



Mendelian Randomization.We all do and read about studies – typically observational studies -- looking for environmental risk factors for congenital anomalies (and diseases in general). We also know how confounding can lead to wrong conclusions – suggesting an effect when it is not there, or conversely, missing a real association. A recent study of folate levels and congenital heart defects (see below) exemplifies a modern and intriguing twist to such studies, **by bringing in**

genetics and turning an observational study in something akin to a randomized trial. This method-Mendelian Randomization -- leverages information on SNPs (typically from already available genome wide association studies - GWAS) to reduce confounding and improve the quality of exposure-disease association studies. With the right data (e.g., GWAS studies) and correct assumptions, mendelian randomization can become a powerful tool for new discoveries and better certainty into the fuzzy world of environment vs. birth defects.

Here are some helpful resources to learn more:

- A two-minute video from one of the leaders in MR: <u>https://www.youtube.com/watch?v=LoTgfGotaQ4</u>
- A straightforward and detailed paper in the BMJ: <u>https://www.bmj.com/content/362/bmj.k601</u>
- A list of resources from the CDC: <u>https://www.cdc.gov/genomics/events/precision_med_pop.htm</u>

And here is the paper noted at the beginning (folate levels and congenital heart disease): Chen et al. Periconception Red Blood Cell Folate and Offspring Congenital Heart Disease : Nested Case-Control and Mendelian Randomization Studies, Ann Int Med 2022: <u>https://pubmed.ncbi.nlm.nih.gov/35994746/</u> Hope you enjoy this topic.

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 <u>centre@icbdsr.org</u> by the 1st Friday of the month

Risk factors, protective factors

Mai CT, Evans J, Alverson CJ, Yue X, Flood T, Arnold K, Nestoridi E, Denson L, Adisa O, Moore CA, Nance A, Zielke K, Rice S, Shan X, Dean JH, Ethen M, Hansen B, Isenburg J, Kirby RS. <u>Changes in Spina Bifida Lesion Level after Folic Acid Fortification in the US.</u> J Pediatr. 2022 Oct;249:59-66.e1. doi: 10.1016/j.jpeds.2022.06.023. Epub 2022 Jun 27. PMID: 35772508.

Adrien N, Orta OR, Nestoridi E, Carmichael SL, Yazdy MM, For The National Birth Defects Prevention Study. <u>Early pregnancy vitamin D status and risk of select congenital anomalies in the National Birth Defects</u> <u>Prevention Study</u>. Birth Defects Res. 2022 Oct 6. doi: 10.1002/bdr2.2101. Epub ahead of print. PMID: 36203383.

Tsega T, Tesfaye T, Dessie A, Teshome T<u>. Nutritional assessment and associated factors in children with</u> <u>congenital heart disease-Ethiopia.</u>PLoS One. 2022 Sep 23;17(9):e0269518. doi: 10.1371/journal.pone.0269518. PMID: 36149845; PMCID: PMC9506638.

Richard MA, Yang W, Sok P, Li M, Carmichael SL, von Behren J, Reynolds P, Fisher PG, Collins RT, Hobbs CA, Luke B, Shaw GM, Lupo PJ. <u>Differential newborn DNA methylation among individuals with complex congenital heart defects and childhood lymphoma</u>. Birth Defects Res. 2022 Oct 13. doi: 10.1002/bdr2.2105. Epub ahead of print. PMID: 36226634.

Zou W, Xie S, Liang C, Xie D, Fang J, Ouyang B, Sun L, Wang H. <u>Medication use during pregnancy and birth</u> <u>defects in Hunan province, China, during 2016-2019: A cross-sectional study.</u> Medicine (Baltimore). 2022 Oct 7;101(40):e30907. doi: 10.1097/MD.00000000030907. PMID: 36221426.

Mohan Dass NL, Botto LD, Tinker SC, Canfield MA, Finnell RH, Gallaway MS, Hashmi SS, Hoyt AT, Nembhard WN, Waller DK; National Birth Defects Prevention Study. <u>Associations between maternal reports of periconceptional fever from miscellaneous causes and structural birth defects</u>. Birth Defects Res. 2022 Sep 1;114(15):885-894. doi: 10.1002/bdr2.2068. Epub 2022 Aug 6. PMID: 35932236.

Epidemiology and Outcomes

Einerson BD, Nelson R, Botto LD, Minich LL, Krikov S, Waitzman N, Pinto NM. <u>Prenatally diagnosed congenital</u> <u>heart disease: the cost of maternal care.</u> J Matern Fetal Neonatal Med. 2022 Oct 3:1-7. doi: 10.1080/ 14767058.2022.2128660. Epub ahead of print. PMID: 36191921.

Dittrich S, Arenz C, Krogmann O, Tengler A, Meyer R, Bauer U, Hofbeck M, Beckmann A, Horke A. <u>German</u> <u>Registry for Cardiac Operations and Interventions in Patients with Congenital Heart Disease: Report 2021 and</u> <u>9 Years' Longitudinal Observations on Fallot and Coarctation Patients</u>. Thorac Cardiovasc Surg. 2022 Dec;70(S 03):e21-e33. doi: 10.1055/s-0042-1757175. Epub 2022 Sep 29. PMID: 36174655; PMCID: PMC9536750.

Daltveit DS, Klungsøyr K, Engeland A, Ekbom A, Gissler M, Glimelius I, Grotmol T, Madanat-Harjuoja L, Ording AG, Sørensen HT, Troisi R, Bjørge T. <u>Sex differences in childhood cancer risk among children with major birth</u> <u>defects: a Nordic population-based nested case-control study</u>. Int J Epidemiol. 2022 Sep 30:dyac192. doi: 10.1093/ije/dyac192. Epub ahead of print. PMID: 36179253.

Benjamin RH, Canfield MA, Marengo LK, Agopian AJ. <u>Contribution of preterm birth to mortality among</u> <u>neonates with birth defects.</u> J Pediatr. 2022 Oct 10:S0022-3476(22)00880-0. doi: 10.1016/j.jpeds.2022.10.002. Epub ahead of print. PMID: 36228684.

Emerging infections, including Covid-19

Hernández-Díaz S, Smith LH, Wyszynski DF, Rasmussen SA. <u>First trimester COVID-19 and the risk of major</u> congenital malformations-International Registry of Coronavirus Exposure in Pregnancy. Birth Defects Res. 2022 Sep 1;114(15):906-914. doi: 10.1002/bdr2.2070. Epub 2022 Aug 5. PMID: 35929997; PMCID: PMC9538886.

Recommendations from readers

No recommendations this month

News from ICBDSR Executive Committee and ICBDSR Members

ECEMC Annual Meeting - November 10-12, 2022

The 43rdAnnual Meeting of the Spanish Collaborative Study of Congenital Malformations (ECEMC) and the Update Course on the Investigation of Congenital Defects will be held in Valencia, Spain, from November 10 to 12, 2022.

These events will be organized by the ECEMC Coordinating Group and the ECEMC Group of the Valencian Community. Scientific Program and registration form: <u>http://www.fundacion1000.es/Reuniones-cientificas-del-ECEMC</u>

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. Additional information is available at http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/. Please, register through the online http://www.

Meetings and Events

A list of future Meetings & Events is available at <u>http://www.icbdsr.org/meetings/</u>. All readers are kindly invited to contribute to this section of the Newsletter, sending information about future meetings/events at <u>centre@icbdsr.org</u>

International Clearinghouse for Birth Defects Surveillance and Research (ICBDSR)

Website: <u>www.icbdsr.org</u> ICBDSR training platform: <u>www.icbdsrtraining.org</u> Facebook: <u>www.facebook.com/ICBDSR</u> Instagram: <u>https://www.instagram.com/icbdsr/</u> Twitter:@icbdsr<u>https://twitter.com/ICBDSR</u>

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