

# International Clearinghouse for Birth Defects Surveillance and Research Monthly Newsletter

#### April 2022

Issue 2022-04

# **ICBDSR ANNUAL MEETING**

The **48**<sup>th</sup> **ICBDSR Annual Meeting** will be held from **September 18**<sup>th</sup> **to 21**<sup>st</sup>, **2022** in Bologna, Italy, at Hotel Relais Bellaria. It will bean in-person meeting with the possibility to join the scientific session by live stream.

We invite you to submit **abstracts for oral and/or poster presentation** at the ICBDSR Annual Meeting. The **oral sessions** at the Meeting will be thematic; thus, abstract topics should fit one of the following thematic areas:

- Birth defect surveillance and descriptive epidemiology (including surveillance methodology)
- Risk factors for birth defects
- Rare disease
- Covid-19 and reproductive outcomes
- Impact of the pandemic on birth defects surveillance, prevention, and care

Abstract topics for the **poster session** may include, but are not limited to:

- 1. Birth defects surveillance and descriptive epidemiology (including surveillance methodology)
- 2. Risk factors for birth defects
- 3. Rare disease
- 4. Covid-19 and reproductive outcomes
- 5. Impact of the pandemic on birth defects surveillance, prevention, and care
- 6. Molecular genetics / molecular epidemiology / epigenetics and birth defects
- 7. Prenatal screening, early pregnancy / birth / postnatal outcomes
- 8. Psychosocial impacts of birth defects, quality of life, education and other related issues

Authors of accepted posters may be present either in person or virtually and all will be required to send a prerecorded presentation of the poster, in order to make it available online.

Authors of an accepted poster who will attend in person are encouraged to bring a traditional poster to allow interactions with colleagues present in person.

The abstract is to be submitted using the <u>electronic abstract submission form</u> on the ICBDSR website Deadline for submission of abstracts is **June 15, 2022.** 

Information on hotel reservation and registration: <u>http://www.icbdsr.org/48th-icbdsr-annual-meeting/</u>

Venues of future Annual Meetings: 2023: Malta 2024: Prague (Czech Republic)



# World Birth Defects Day – WBDD, March 3<sup>rd</sup>

Look at some of the different activities that were done across the world to promote the World Birth Defects Day: <u>https://www.worldbirthdefectsday.org/category/partner-activities-examples/</u>

Continue to raise awareness on birth defects throughout the year! 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>.

#### **ICBDSR ALESSANDRA LISI AWARD**

We are pleased to announce the 2022 Edition of the *"Alessandra Lisi Award"*. This award was established in 2007, in memory of Alessandra Lisi, a young researcher at ICBDSR Coordinating Centre,

#### **Eligibility requirements**

- ✓ Active contribution to the epidemiology or surveillance of birth defects, preferably with a nICBDSR full member program
- ✓ Evidence of a promising research career and ongoing commitment to the field, as demonstrated by high quality publications in peer-reviewed journals, initiating or coordinating research projects, or obtaining funding for research in the field of birth defects epidemiology.
- ✓ Candidates must be within seven years of the date from their last formal training in a field directlyrelated to the disciplines of Birth Defects, Developmental Biology, Epidemiology, or Teratology (e.g. degree conferral, postdoctoral fellowship, residency program, etc.)

#### Application

The application package should be sent electronically to <u>centre@icbdsr.org</u>. See full information at <u>http://www.icbdsr.org/alessandra-lisi-award/</u>

#### Nature of the award

The winner will receive a plaque and a travel stipend to attend the ICBDSR Annual Meeting, held in Bologna, Italy, from 18<sup>th</sup> to 21<sup>st</sup> September 2022.The award will be presented at the meeting, during which the awardee will present his/her research onbirth defects.

#### Timeline

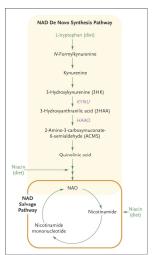
June 30<sup>th</sup> : Deadline for submitting application

July 15<sup>th</sup>: Notification of the winner

**September 19**<sup>th</sup>: Award winner will give his/her presentation at the ICBDSR Annual Meeting Information on the Award and past Awardees at <u>http://www.icbdsr.org/alessandra-lisi-award/</u>

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

**1. Gene-environment interactions causing birth defects?** Many have talked about this and speculated about possibilities, but few true examples have been identified to date (can you name some? Let us know and we will publish them in the next newsletter). One described a little while ago and now resurfacing is related to the metabolism of **niacin:** <u>https://www.nejm.org/doi/full/10.1056/NEJMoa1616361</u>. Basically, genetic variant in the NAD pathway may lead to niacin deficiency (potentially treatable) and to patterns of multiple congenital anomalies – interestingly, patterns that resemble **diabetic embryopathy**and **VACTERL** association. The 2017 paper looked at genes encoding two of the steps of the NAD pathway, but just in the last weeks a team from the Undiagnosed Disease Network has discovered that a gene encoding an earlier step causes similar anomalies. Will this lead to more discoveries and perhaps prevention?



**2.** The App of the Quick Reference Handbook (QRH) continues to be available on IOS and Apple stores, free of charge.

This app brings to the mobile enviroment the QRH developed by ICBD / ICDSR in collaboration with CDC and WHO. Now, checklists, definitions, codes, diagnostic pearls, photos and diagrams for several major internal and external anomalies are literally at your fingertips.

Quick Reference Handbook Tax International Clearinghouse For Birth Defects Surveillance Designed for iPad Free

Screenshots iPad iPhone



- IOS: <u>https://apps.apple.com/ie/app/quick-reference-handbook/id1592730552</u>

- Android: https://play.google.com/store/apps/details?id=com.icbdsr.qrh&hl=en\_US&gl=US

Thank you for your help in improving and disseminating knowledge on congenital anomalies.

For the ICBD, Lorenzo Botto, ICBD Director

# What's Going on

#### WHO Technical Working Group on Burden of Birth Defect (TWGBBD)

WHO is seeking to revise previous birth defect estimates from 2006 and wishes to establish the WHO Technical Working Group on Burden of Birth Defect (TWGBBD): for further information please see: <a href="https://www.who.int/news-room/articles-detail/who-technical-working-group-on-burden-of-birth-defects">https://www.who.int/news-room/articles-detail/who-technical-working-group-on-burden-of-birth-defects</a>

# Call for Abstracts: The 29<sup>th</sup> International Conference on Spina Bifida and Hydrocephalus- Diverse Needs, Same Rights

The International Federation for Spina Bifida and Hydrocephalus (IF) invites you to present your work during the upcoming 29<sup>th</sup>International Conference on Spina Bifida and Hydrocephalus - Diverse Needs, Same Rights

- The call for abstracts is open now, see the guidelines <u>here</u>.
- Who? Everyone, including IF Members for country updates.

For more details, see here

#### London School of Hygiene & Tropical Medicine (LSHTM): Master's Q&A webinars

<u>Sign up</u> for upcoming sessions which will take place on Zoom. Programme Directors, Student Ambassadors and Admissions team will be on hand to answer questions. The link for joining each webinar will be sent automatically on registration. Upcoming webinars:

Master's programme	Date and Time (GMT+1)
MSc Health Data Science	Wednesday 4 May, 12-1pm
<ul> <li>MSc Immunology of Infectious Diseases</li> </ul>	Wednesday 4 May, 2-3pm
<ul> <li>MSc Nutrition for Global Health</li> </ul>	Wednesday 4 May, 3-4pm
<ul> <li>MSc Medical Entomology for Disease Cont</li> </ul>	rol/
MSc Medical Parasitology	Thursday 5 May, 12-1pm
<ul> <li>MSc Medical Statistics</li> </ul>	Thursday 5 May, 2-3pm
MSc Sexual & Reproductive Health Policy	
and Programming	Thursday 5 May, 3-4pm
<ul> <li>MSc Veterinary Epidemiology</li> </ul>	Monday 9 May, 12-1pm
<ul> <li>MSc Medical Microbiology</li> </ul>	Monday 9 May, 1-2pm
<ul> <li>MSc Epidemiology</li> </ul>	Monday 9 May, 2-3pm
<ul> <li>MSc Public Health (also 11 May)</li> </ul>	Monday 9 May, 3-4pm
<ul> <li>MSc Demography &amp; Health/MSc Reproductive</li> </ul>	

&SexualHealth Research

• MSc Public Health for Development

MSc Control of Infectious Diseases

• MSc Public Health (also 9 May)

Tuesday 10 May, 12-1pm Tuesday 10 May, 1-2pm Wednesday 11 May, 12-1pm Wednesday 11 May, 1-2pm

Full details for each programme can be found on the Master's degrees section of LSHTM website.

The <u>National Capital Consortium for Pediatric Device Innovation</u> (NCC-PDI), in collaboration with <u>MedTech</u> <u>Innovator</u>, is accepting applications for its annual *"Make Your Medical Device Pitch for Kids!"* competition. Recognizing the wide range of unmet needs for diagnostic and therapeutic devices designed especially for children, this year's competition is open to any innovation in medical technology that addresses a significant unmet need in pediatric medical care. Further information <u>here</u>.

# **US National Public Health Week (NPHW)**

The week April 4-10 was the 27<sup>th</sup> National Public Health Week (NPHW). The theme this year is: *Public Health Is Where You Are*. The American Public Health Association (APHA) created a toolkit with some great information: <u>https://www.nphw.org/Tools-and-Tips/Toolkit</u>

# 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 1<sup>st</sup> Friday of the month

# **Outcomes and Longitudinal Studies**

Coi A, Santoro M, Pierini A, Rankin J, Glinianaia SV, Tan J, Reid AK, Garne E, Loane M, Given J, Ballardini E, Cavero-Carbonell C, de Walle HEK, Gatt M, García-Villodre L, Gissler M, Jordan S, Kiuru-Kuhlefelt S, KjaerUrhoj S, Klungsøyr K, Lelong N, Lutke LR, Neville AJ, Rahshenas M, Scanlon I, Wellesley D, Morris JK. <u>Survival of children with rare structural congenital anomalies: a multi-registry cohort study</u>. Orphanet J Rare Dis. 2022 Mar 29;17(1):142. doi: 10.1186/s13023-022-02292-y. PMID: 35351164; PMCID: PMC8966236.

Sadoo S, Nalugya R, Lassman R, Kohli-Lynch M, Chariot G, Davies HG, Katuutu E, Clee M, Seeley J, Webb EL, MutoniVedastine R, Beckerlegge F, Tann CJ. <u>Early detection and intervention for young children with early developmental disabilities in Western Uganda: a mixed-methods evaluation</u>. BMC Pediatr. 2022 Mar 26;22(1):158. doi: 10.1186/s12887-022-03184-7. PMID: 35346133; PMCID: PMC8962031.

# **Genetics and Genomics**

Leite AJDC, Pinto IP, Leijsten N, Ruiterkamp-Versteeg M, Pfundt R, de Leeuw N, da Cruz AD, Minasi LB. <u>Diagnostic yield of patients with undiagnosed intellectual disability, global developmental delay and multiples</u> <u>congenital anomalies using karyotype, microarray analysis, whole exome sequencing from Central Brazil</u>. PLoS One. 2022 Apr 7;17(4):e0266493. doi: 10.1371/journal.pone.0266493. PMID: 35390071; PMCID: PMC8989190.

# **Prevention / Risk Factors**

Yasmin S, Siddiqa A, Rockliffe L, Miyan J. <u>Knowledge of Neural Tube Defects and Prevention Through Folic Acid</u> <u>Use Among Women in Faisalabad, Punjab, Pakistan: A Cross-Sectional Survey.</u> Int J Womens Health. 2022 Mar 30;14:425-434. doi: 10.2147/IJWH.S347887. PMID: 35386938; PMCID: PMC8978686.

Makarious L, Teng A, Oei JL. <u>SIDS is associated with prenatal drug use: a meta-analysis and systematic review</u> of <u>4 238 685 infants.</u> Arch Dis Child Fetal Neonatal Ed. 2022 Apr 8:fetalneonatal-2021-323260. doi: 10.1136/archdischild-2021-323260. Epub ahead of print. PMID: 35396270.

Palmsten K, Suhl J, Conway KM, Kharbanda EO, Ailes EC, Cragan JD, Nestoridi E, Papadopoulos EA, Kerr SM, Young SG, DeStefano F, Romitti PA; National Birth Defects Prevention Study. <u>Influenza vaccination during</u> pregnancy and risk of selected major structural non-cardiac birth defects, National Birth Defects Prevention

Study 2006-2011. Pharmacoepidemiol Drug Saf. 2022 Apr 2. doi: 10.1002/pds.5435. Epub ahead of print. PMID: 35366035.

Wartman C, VandenBerg A. <u>Valproate: Not All Boxed Warnings Are Created Equal</u>. Ann Pharmacother. 2022 Apr 7:10600280221085991. doi: 10.1177/10600280221085991. Epub ahead of print. PMID: 35392666.

Wensink M, Lu Y, Tian L, Jensen TK, Skakkebæk NE, Lindahl-Jacobsen R, Eisenberg M. <u>Nervous system drugs</u> <u>taken by future fathers and birth defects in offspring: a prospective registry-based cohort study</u>. BMJ Open. 2022 Mar 30;12(3):e053946. doi: 10.1136/bmjopen-2021-053946. PMID: 35354621.

#### Infections, including COVID-19

Balachandren N, Davies MC, Hall JA, Stephenson JM, David AL, Barrett G, O'Neill HC, Ploubidis GB, Yasmin E, Mavrelos D. <u>SARS-CoV-2 infection in the first trimester and the risk of early miscarriage: a UK population-based prospective cohort study of 3041 pregnancies conceived during the pandemic.</u> Hum Reprod. 2022 Apr 7:deac062. doi: 10.1093/humrep/deac062. Epub ahead of print. PMID: 35389480.

Naqvi S, Naqvi F, Saleem S, Thorsten VR, Figueroa L, Mazariegos M, Garces A, Patel A, Das P, Kavi A, Goudar SS, Esamai F, Mwenchanya M, Chomba E, Lokangaka A, Tshefu A, Yousuf S, Bauserman M, Bose CL, Liechty EA, Krebs NF, Derman RJ, Carlo WA, Hibberd PL, Billah SM, Peres-da-Silva N, Haque R, Petri WA Jr, Koso-Thomas M, Nolen T, McClure EM, Goldenberg RL. <u>Health Care in Pregnancy During the COVID-19 Pandemic and Pregnancy Outcomes in Six Low-and-Middle-Income Countries: Evidence from a Prospective, Observational Registry of the Global Network for Women's and Children's Health. BJOG. 2022 Apr 4. doi: 10.1111/1471-0528.17175. Epub ahead of print. PMID: 35377514.</u>

Song X, Li Q, Diao J, Li J, Li Y, Zhang S, Chen L, Wei J, Shu J, Liu Y, Sun M, Sheng X, Wang T, Qin J. <u>Association</u> <u>Between First-Trimester Maternal Cytomegalovirus Infection and Stillbirth: A Prospective Cohort Study</u>. Front Pediatr. 2022 Mar 17;10:803568. doi: 10.3389/fped.2022.803568. PMID: 35372174; PMCID: PMC8970618.

#### **Epidemiology and Surveillance**

Fernandes PS, Magalhães LR, Pezzini TR, de Sousa Santos EF, Calderon MG. <u>Congenital heart diseases trends in</u> <u>São Paulo State, Brazil: a national live birth data bank analysis</u>. World J Pediatr. 2022 Mar 26. doi: 10.1007/s12519-022-00543-3. Epub ahead of print. PMID: 35338440.

Howley MM, Williford E, Agopian AJ, Lin AE, Botto LD, Cunniff CM, Romitti PA, Nestoridi E, Browne ML; National Birth Defects Prevention Study. <u>Patterns of multiple congenital anomalies in the National Birth</u> <u>Defect Prevention Study: Challenges and insights.</u> Birth Defects Res. 2022 Mar 11. doi: 10.1002/bdr2.2003. Epub ahead of print. PMID: 35277952.

Kumar J, Saini SS, Sundaram V, Mukhopadhyay K, Dutta S, Kakkar N, Kumar P. <u>Prevalence & spectrum of congenital anomalies at a tertiary care centre in north India over 20 years (1998-2017).</u> Indian J Med Res. 2021 Mar;154(3):483-490. doi: 10.4103/ijmr.IJMR\_1414\_19. PMID: 35345074.

Nava de Escalante Y, Abayomi A, Erickson A, Ye X, Armour R, Arbour L, Langlois S, Henry B<u>. Implementation of the BC Congenital Anomalies Surveillance System (BCCASS).</u> Can J Public Health. 2022 Feb 11. doi: 10.17269/s41997-021-00607-3. Epub ahead of print. PMID: 35149971.

#### **Recommendations from readers**

No recommendation this month

**News from ICBDSR Executive Committee** 

#### **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,**551 trainees** from **72 countries** have joined the online course. Additional information is available at <a href="http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/">http://www.icbdsr.org/online-self-paced-course-on-birth-defect-surveillance-and-prevention/</a>. The registration form is available at <a href="http://www.icbdsrtraining.org/login/signup.php">https://www.icbdsrtraining.org/login/signup.php</a>? Once registered, you will receive an email with guidance on how to register in the course platform <a href="http://www.icbdsrtraining.org">www.icbdsrtraining.org</a> and how to self-enroll in the self-paced course in either English or Spanish.

#### **COVID-19 DATA**

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

Globally, as of 5:22pm CEST, **25 April 2022**, there have been **507.501.771 confirmed cases of COVID-19**, including **6.220.390 deaths**, reported to WHO. As of **18 April 2022**, a total of **11.324.805.837 vaccine doses** have been administered.

**United States:** US Centers for Disease Control and Prevention (CDC) provide COVID Data Tracker in the United States at <u>https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/index.html</u>

**Europe:** European Centre for Disease Prevention and Control (ECDC) providesdata on the daily number of new reported COVID-19 cases and deaths by EU/EEA <u>https://www.ecdc.europa.eu/en/cases-2019-ncov-eueea</u>

Africa: Latest updates on the COVID-19 crisis from Africa CDC https://africacdc.org/covid-19/.

**Southeast Asia:** Covid-19 Tracker by country from Center for Strategic & International Studies (CSIS) <a href="https://www.csis.org/programs/southeast-asia-program/projects/southeast-asia-covid-19-tracker">https://www.csis.org/programs/southeast-asia-program/projects/southeast-asia-covid-19-tracker</a>

#### **Meetings and Conferences**

**Global Experts Meeting on Pediatrics & Neonatology,** 25-27 April 2022, Las Vegas, USA - Recent advancements and emerging technologies for Pediatrics. https://frontiersmeetings.com/conferences/pediatrics/

**16<sup>th</sup>Congress of the European Society of Contraception and Reproductive Health,** 25-28 May 2022, Ghent, Belgium - Challenging times, are we ready? Novel approaches to sexual and reproductive health. <u>https://escrh.eu/event/16th-esc-congress/</u>

**ATINER 8<sup>th</sup> Annual International Conference on Public Health**, 20-23 June 2022, Athens, Greece. The aim of the conference is to bring together academics and researchers from all areas of Public Health and related disciplines.Both remote (online or pre-recorded) and onsite presentations will be accepted. <u>https://www.atiner.gr/publichealth/</u>

**Society for Birth Defects Research and Prevention 62<sup>nd</sup>Annual Meeting**, Hyatt Regency Vancouver, Vancouver, British Columbia, Canada, June 25-29, 2022. The Annual Meeting and Education Courses will take place in-person and will include a virtual experience to make remote participation possible in the event a registrant cannot attend in person. The theme for this year's meeting is *"From Bench to Bedside and Back Again"*. https://www.birthdefectsresearch.org/meetings/2022/

**International Conference on Epidemiology & Public Health**, 25-25 July 2022, Toronto, Canada - New Challenges, Innovations & Current Trends in Epidemiology & Public Health. https://scientificwisdom.org/conferences/epidemiology-publichealth.html

29<sup>th</sup>International Conference on Spina Bifida and HydrocephalusDiverse Needs, Same Rights, 5-9 September 2022 [updated dates] - online or Hybrid conference, depending on the COVID-19 situation. https://www.ifglobal.org/our-work/if-conferences/

**34**<sup>th</sup> **Annual Conference of the International Society for Environmental Epidemiology (ISEE**), 18-21 September 2022, Athens, Greece. <u>https://isee2022.org/</u>

**EAPS 2022 - 9<sup>th</sup> Congress of the European Academy of Paediatric Societies**, 7-11 October 2022, Barcelona, Spain - Shaping the Future of Child Health. <u>https://eaps2022.kenes.com/</u>

**7<sup>th</sup> Annual Conference of the International Neonatology Association Committee (INAC)**, 17 – 20 November 2022, Dubai. <u>https://worldneonatology.com/2022/</u>

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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