

**Syllabus– Perinatal and pediatric epidemiology**

<b>N° : 238</b>	<b>Perinatal and pediatric epidemiology</b>
<b>Coordinator</b>	<p>Florence Bodeau-Livinec, MD, PhD          Professor, EHESP, France          Ecole des Hautes Etudes en Santé Publique (EHESP) Avenue du Professeur Léon Bernard- CS 74312 35043          Rennes Cedex France          Tel: +33 (0)2 99 33 35 15          Mobile: +33 (0)6 37 12 58 74          Fax: +33 (0)2 99 02 26 75          Email: <a href="mailto:florence.bodeau-livinec@ehesp.fr">florence.bodeau-livinec@ehesp.fr</a>          INSERM U1153, Equipe de recherche en Epidémiologie Obstétricale, Périnatale et Pédiatrique (EPOPé) ; Centre de Recherche Epidémiologie et Biostatistique Sorbonne Paris Cité (CRESS) Adjunct Assistant Professor, New York University Medical Center, NY, USA</p>
<b>Dates</b>	January 7 <sup>th</sup> to 11 <sup>th</sup> 2019
<b>ECTS</b>	3 ECTS
<b>Duration</b>	5 days of 6 hours = 30 hours
<b>Location</b>	EHESP 20 Avenue George Sand 93210 LA PLAINE ST DENIS
<b>Description</b>	<p>Perinatal and pediatric epidemiology's goal is to monitor pregnancy and children's health and to study determinants for poor outcomes in childhood.</p> <p>DIFFERENT FIELDS INVOLVED:          This course is designed to provide an introduction to perinatal and pediatric epidemiology focusing on several areas important in this field: preterm birth, infectious diseases, developing countries, international comparisons of care and practices, birth defects, nutrition, childhood development and deficiencies. A broad overview of the field will be given discussing tools used during pregnancy and childhood.</p> <p>EMPHASIS ON METHODS:          During this course, we will discuss epidemiologic methods. Different study designs will be studied and discussed during the week through seminars and articles. Epidemiological concepts will be reviewed with practical examples, including confounding, modification effect, multivariate analyses, study design, biases.          This course will focus specifically on study designs and creating protocols.</p>
<b>Prerequisites</b>	<p>Introduction to Epidemiology          Design and concepts</p>
<b>Course requirement</b>	<p>Attendance in lectures, which will be as interactive as possible, is required.          Attendance and active participation in tutorials and discussions are essential. If you have to miss a tutorial, please notify your tutor in advance.          All absences must be justified to the class instructor. All supporting documents are provided to the end-of-year panel. Students who are more than 10 minutes late may be denied access to a class. Repeated late arrivals may be counted as absences.</p>
<b>Course learning objectives</b>	<p>Students who complete this course will be able to:</p> <ul style="list-style-type: none"> <li>Discuss the key concepts in perinatal and pediatric epidemiology</li> <li>Apply epidemiologic tools and methodologies to understand determinants of perinatal and pediatric health</li> <li>Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers</li> </ul>

<b>Structure</b> (details of sessions title/spaeker/date/duration )	<p><i>Day 1:</i> Introduction and seminar on malaria in pregnancy Monday, 9h-12h and 13h-16h</p> <p><i>Day 2:</i> Lecture on twins and births defects. Seminar on environmental epidemiology. Tuesday, 9h-12h and 13h-16h</p> <p><i>Day 3:</i> Seminars on growth in childhood Wednesday, 9h-12h and 13h-16h</p> <p><i>Day 4:</i> Seminar on maternal mental health, and lecture on Barker's hypothesis and registers Thursday, 9h-12h and 13h-16h</p> <p><i>Day 5:</i> Seminar on Pregnancy complications in an African context, and evaluation Friday, 9h-12h and 13h-16h</p>
<b>Resources</b>	Some additional readings, mainly articles, will be posted on REAL prior to each lecture.
<b>Course requirement</b>	None
<b>Grading and assessment</b>	<p>Three or four students will present and discuss one article every day chosen by the invited speaker. The article will be sent one week in advance. Studying articles from and chosen by these invited speakers will present an opportunity to discuss articles directly with these experts.</p> <p>Students will also work on an assignment. They will present their assignment on the last day of the week. One hour will be dedicated to explain this assignment at the beginning of the week. Students will learn to come with their own scientific ideas and to present appropriately their proposal.</p> <p>Grading: 30% for the article presentation 70% for the assignment</p> <p>Note also that students will complete a questionnaire that assesses their own and their teammates' contributions to group work. All team members will receive the same grade except if it is clear that a student has not participated effectively (attended and contributed to meetings; made timely, helpful contributions; been constructive, etc.). In that case, the student's grade will be lowered accordingly.</p>
<b>Course policy</b>	<p><b>Attendance &amp; punctuality</b> <b>Regular and punctual class attendance is a prerequisite for receiving credit in a course.</b> Students are expected to attend each class. Attendance will be taken at each class.</p> <p>The obligations of attendance and punctuality cover every aspect of the course: - lectures, conferences, group projects, assessments, examinations, as described in EHESP Academic Regulations <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article. 3).</p> <p>If students are not able to make it to class, they are required to send an email to the instructor and to the MPH program coordinating team explaining their absence prior to the scheduled class date. All supporting documents are provided to the end-of-year panel.</p> <p>Students who miss class are responsible for content. Any student who misses a class has the responsibility for obtaining copies of notes, handouts and assignments. If additional assistance is still necessary, an appointment should be scheduled with the instructor. Class time is not to be used to go over material with students who have missed class.</p> <p><b>Lateness:</b> Students who are more than 10 minutes late may be denied access to a class. Repeated late arrivals may be counted as absences (See <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article. 3 Attendance &amp; Punctuality)</p>

	<p><b>Maximum absences authorized &amp; penalty otherwise</b> Above 20% of absences will be designated a fail for a given class. The students will be entitled to be reassessed in any failed component(s). If they undertake a reassessment or they retake a module this means that they cannot normally obtain more than the minimum pass mark (i.e. 10 out of 20)</p> <p><b>Exceptional circumstances</b> Absence from any examination or test, or late submission of assignments due to illness, psychological problems, or exceptional personal reasons must be justified; otherwise, students will be penalized, as above mentioned. Students must directly notify their professor or the MPH academic secretariat before the exam or before the assignment deadline. Before accepting the student's justification, the professor or the MPH academic secretariat has the right to request either a certificate from the attending physician or from a psychologist, or from any other relevant person (See <a href="http://mph.ehesp.fr">http://mph.ehesp.fr</a> EHESP Academic Regulation Article 4 Examinations).</p> <p><b>Courtesy:</b> <u>All cell phones/pages MUST be turned off during class time.</u> Students are required to conduct themselves according to professional standards, eating during class time is not permitted during class time, such as course or group work.</p>
<b>Valuing diversity</b>	Diversity enriches learning. It requires an atmosphere of inclusion and tolerance, which oftentimes challenges our own closely-held ideas, as well as our personal comfort zones. The results, however, create a sense of community and promote excellence in the learning environment. This class will follow principles of inclusion, respect, tolerance, and acceptance that support the values of diversity. Diversity includes consideration of: (1) life experiences, including type, variety, uniqueness, duration, personal values, political viewpoints, and intensity; and (2) factors related to "diversity of presence," including, among others, age, economic circumstances, ethnic identification, family educational attainment, disability, gender, geographic origin, maturity, race, religion, sexual orientation and social position.
<b>Course evaluation</b>	EHESP requests that you complete a course evaluation at the end of the school year. Your responses will be anonymous, with feedback provided in the aggregate. Open-ended comments will be shared with instructors, but not identified with individual students. Your participation in course evaluation is an expectation, since providing constructive feedback is a professional obligation. Feedback is critical, moreover, to improving the quality of our courses, as well as for instructor assessment.

Session Title Monday	<b>Introduction Malaria in pregnancy</b>
Speakers	<p><b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr</p> <p><b>Invited speaker:</b> Asia Maselko, UNC Chapel Hill</p>
Learning Objectives	<p>Apply epidemiologic tools and methodologies in the field of perinatal and pediatric epidemiology</p> <p>Discuss the key concepts related to environment</p> <p>Critically appraise and interpret the findings of papers in this field</p>
Duration	6 hours
Training methods	<p>9 am-12: Morning: Presentation of the week, With the coordinator, review of the main concepts, literature review and methodological issues in the field of the day and lectures</p> <p>1-2 pm: work on assignment</p> <p>2-3 pm Invited speaker with discussion around the article and conference</p> <p>3-4 pm: A group of students will present an article from the invited speaker</p>

Session Title Tuesday	<b>Environment and Perinatal and Pediatric Epidemiology</b>
Speakers	<p><b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr</p> <p><b>Invited speakers:</b> Cécile Chevrier, Inserm, Team Epidemiological Research on Environment, Reproduction and Development</p>

Learning Objectives	Apply epidemiologic tools and methodologies to understand determinants of perinatal and pediatric health Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers in the field of malaria in pregnancy
Duration	6 hours
Training methods	9 am-12: Morning: Presentation of the week, With the coordinator, review of the main concepts, literature review and methodological issues in the field of the day and lectures 1-2 pm: work on assignment 2-3 pm Invited speaker with discussion around the article and conference 3-4 pm: A group of students will present an article from the invited speaker

Session Title Wednesday	<b>Global health Growth in childhood</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speaker:</b> Jérémie Botton, Inserm U953, Team ORCHAD
Learning Objectives	Understand key concepts related to global health in the field of pediatric and perinatal epidemiology, and growth in childhood Discuss the key concepts in relation to preterm births and perinatal epidemiology Apply epidemiologic tools and methodologies to understand determinants of perinatal and pediatric health Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers in the field of growth in childhood
Duration	6 hours
Training methods	9 am-10: work on assignment 10-11: seminar by FBL 11-12: A group of students will present an article from FBL 1-2 pm: work on assignment 2-3 pm Invited speaker with discussion around the article and conference 3-4 pm: A group of students will present an article from the invited speaker

Session Title Thursday	<b>Twins, Birth defects and Barker's hypothesis Pediatric Epidemiology Preterm birth and Low birth Weight</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speaker:</b> Dr Raquel Gonzales, ISBGlobal Barcelona
Learning Objectives	Understand key concepts related to twins, birth defects and barker's hypothesis Discuss the key concepts in relation to preterm births and perinatal epidemiology Apply epidemiologic tools and methodologies to understand determinants of perinatal and pediatric health Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers in the field of clinical trial related to malaria in pregnancy
Duration	6 hours
Training methods	9-11: seminar by Asia Maselko 11-12: A group of students will present an article from Pierre-Yves Ancel 1-2 pm: work on assignment 2-4 pm Lectures on Barker's hypothesis and register of impairment in childhood

Session Title Friday	<b>Pregnancy complications Evaluation</b>
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Speakers	<p><b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP  Florence.bodeau-livinec@ehesp.fr</p> <p><b>Invited speaker:</b> Raquel Gonzales</p>
Learning Objectives	<p>Discuss the key concepts in perinatal and pediatric epidemiology related to pregnancy complications in an African context (HIV)</p> <p>Critically appraise and interpret the findings in this field</p>
Duration	6 hours
Training methods	<p>9 am-10: seminar by Raquel Gonzales</p> <p>10-11: A group of students will present an article from Raquel Gonzales</p> <p>11-12 and 1-4 pm: assignments presentations. Jury: FBL, Asia Maseko and Raquel Gonzales.</p>