

**Syllabus– Perinatal and pediatric epidemiology**

N° : 238	Perinatal and pediatric epidemiology
<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 17 <sup>th</sup> to 21 <sup>th</sup> 2022
<b>ECTS</b>	3 ECTS
<b>Duration</b>	5 days of 6 hours = 30 hours and 2 hours of tutoring if needed.
<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: pregnancy, child's health, infectious diseases, developing countries, international comparisons of care and practices, 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 and FIELD WORK            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. Practical issues from the field will be raised.            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>Competences</b>	<p><u>Competences from the ASPHER framework :</u></p> <p>1.2 Is able to describe the key features of the epidemiology of the significant causes of morbidity and mortality in the population for which they have responsibility</p> <p>1.3 Uses vital statistics and health indicators effectively to increase knowledge and generate evidence about population health, including within at-risk and vulnerable groups</p> <p>1.4 Knows how to retrieve, analyse and appraise evidence from all data sources to support decision-making</p> <p>1.5 Is aware of the health needs of the population based on considerations of the burden of disease, indicators, characterization of risks and demand for and access to health care</p> <p>1.6 Contributes to or leads community-based health needs assessments, ensuring that these assessments consider biological, social, economic, cultural, political and physical determinants of health and wider determinants of health such as deprivation</p> <p>1.7 Designs and conducts qualitative and/or quantitative research that builds on existing evidence and adds to the evidence base for public health practice, involving relevant stakeholders in this process</p> <p>1.9 Develops and implements standards, protocols and procedures that incorporate national and/or international best practices in the health system</p> <p><u>Teaching activities :</u></p> <ul style="list-style-type: none"> <li>- Lectures : being aware of health needs and health determinants in this field including a vulnerable population</li> <li>- Article critique : discussing study design of a study in the field of perinatal and pediatric epidemiology taking into account all types of potential determinants, discussing key epidemiologic indicators, discussing statistical analyses</li> <li>- Writing a grant proposal and designing a study : developing a study protocol to bring information for public health evidence</li> </ul> <p><u>Evaluation :</u></p> <ul style="list-style-type: none"> <li>- Article presentation</li> <li>- Assignment including a letter of intent for a grant proposal</li> </ul>
<b>Structure</b> (details of sessions title/speaker/date/duration )	<p><i>See schedule</i></p>
<b>Resources</b>	<p>Some additional readings, mainly articles, will be posted on REAL prior to each lecture.</p>
<b>Course requirement</b>	<p>None</p>
<b>Grading and assessment</b>	<p>Students will present and discuss one article every day chosen by the invited speaker. The article will be sent at least 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. 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 may 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>

<p><b>Course policy</b></p>	<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.  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).  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.  .  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.    <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)    <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).    <b>Courtesy:</b> All cell phones/pages MUST be turned off during class time.  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>
<p><b>Valuing diversity</b></p>	<p>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.</p>
<p><b>Course evaluation</b></p>	<p>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.</p>

Session Title Monday	<b>Introduction Surveillance of perinatal health</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speaker:</b> Nolwenn Regnault, Santé Publique France
Learning Objectives	<ul style="list-style-type: none"> <li>- Apply epidemiologic tools and methodologies in the field of perinatal and pediatric epidemiology</li> <li>- Discuss the key concepts related to surveillance in the field</li> <li>- Learn how to build a grant proposal</li> </ul>
Duration	6 hours

Session Title Tuesday	<b>Child's health Social inequalities</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr  Speakers: Florence Bodeau-Livinec and Mélanie Bertin
Learning Objectives	<ul style="list-style-type: none"> <li>- Understand key concepts related to social inequalities in the perinatal field, and child's health with an example in Benin, sub-Saharan Africa</li> <li>- Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers</li> </ul>
Duration	6 hours

Session Title Wednesday	<b>Nutrition in pregnancy Pharmacoepidemiology</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speakers:</b> Gino Atogba and Jérémie Botton, ANSM
Learning Objectives	<ul style="list-style-type: none"> <li>- Understand key concepts related to nutrition in pregnancy and pharmacoepidemiology in the perinatal and pediatric field</li> <li>- Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers</li> </ul>
Duration	6 hours

Session Title Thursday	<b>Maternal health maternal depression and HIV</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speakers:</b> Raquel Gonzales, ISBGlobal Barcelona and Judith Van Der Waerden, INSERM
Learning Objectives	<ul style="list-style-type: none"> <li>- Understand key concepts related to HIV in pregnancy</li> <li>- Understand key concepts related to maternal health and especially related to maternal depression</li> <li>- Critically appraise and interpret the findings of perinatal and pediatric epidemiology papers in the field of clinical trial related to malaria in pregnancy</li> </ul>
Duration	6 hours

Session Title Friday	<b>Mother to child's health Malaria and Environment</b>
Speakers	<b>Lecturer:</b> Florence Bodeau-Livinec, MD, MPH, PhD EHESP Florence.bodeau-livinec@ehesp.fr <b>Invited speakers:</b> Raquel Gonzales, ISBGlobal Barcelona <b>And</b> Cécile Chevrier, Inserm, Team Epidemiological Research on Environment, Reproduction and Development
Learning Objectives	<ul style="list-style-type: none"> <li>- Discuss the key concepts in perinatal and pediatric epidemiology related to pregnancy complications in an African context (malaria)</li> <li>- Discuss the key concepts in environment and perinatal health</li> <li>- Critically appraise and interpret the findings in this field</li> </ul>
Duration	6 hours