

**Master of Public Health - Semester 3**

**Weeks 37 to 41: from Tuesday 8<sup>th</sup> September to 6<sup>th</sup> October 2009**

**Module Code 203, Core curriculum, Epidemiology  
Coordinator : Moïse Desvarieux**

Location : Espace Vinci

Tuesday September 8 <sup>th</sup>	Tuesday September 15 <sup>th</sup>	Tuesday September 22 <sup>rd</sup>	Tuesday September 29 <sup>th</sup>	Tuesday October 6 <sup>th</sup>
9h Study Design 1: case-control studies. Moïse Desvarieux, Ryan Demmer	9h Progression from concept to realization (1) Karine Lacombe	9h Clinical trials (1) Bill Friedewald	9h Interventional epidemiology Philippe Ravaud, Hôpital Bichat Claude Bernard, Paris	9h Causal Inference, confounding and bias Moïse Desvarieux, Ryan Demmer
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
14h Study Design 2: - cohort studies - ecological studies  Moïse Desvarieux, Ryan Demmer	14h Progression from concept to realization (2)  Karine Lacombe	14h Clinical trials (2)  Bill Friedewald	14h Sample size calculations for various study designs. Data collection, centralization, standardization and quality control. Design of study questionnaires and data collection instruments Anders Boyd, Inserm U 707	14h Advanced modeling: understanding the spread of diseases and the efficacy of containment measures Pascal Crepey, Sanofi Pasteur  16h30: Module evaluation
17h	17h	17h	17h	17h

**Master of Public Health - 3<sup>rd</sup> trimester**

**Week 44 : from 26th to 30th October 2009**

**UE 210, Minor A : Infectious Disease Epidemiology**  
**Coordinators Andrea Howard and Caroline Korves**

Location : Espace Vinci

Monday October 26 <sup>th</sup>	Tuesday October 27 <sup>th</sup>	January October 28 <sup>th</sup>	Thursday October 29 <sup>th</sup>	Friday October 30 <sup>st</sup>
<p>9h</p> <p>Introduction to Principles of Infectious Diseases Epidemiology</p> <ol style="list-style-type: none"> <li>Biological basis of infectious diseases epidemiology</li> <li>Immune response and methods for detection of infectious diseases</li> <li>Group work and presentations—Design epidemiologic study to evaluate an infectious disease problem</li> </ol>	<p>9h</p> <p>HIV Epidemiology and Control</p> <ol style="list-style-type: none"> <li>Global HIV Epidemiology</li> <li>HIV Prevention</li> <li>Discussion-critical review of primary studies of male circumcision to prevent HIV transmission</li> </ol>	<p>9h</p> <p>Infectious Disease Surveillance</p> <ol style="list-style-type: none"> <li>Elements of good surveillance system, data sources</li> <li>Applications of a surveillance system: Estimating risk of West Nile virus transmission through the blood supply using surveillance data</li> <li>Discussion-critical review of primary studies of estimating HIV incidence using surveillance data</li> </ol>	<p>9h</p> <p>Outbreak Investigation/Food-borne illness</p> <ol style="list-style-type: none"> <li>Investigation of Outbreaks</li> <li>Food-borne Illnes</li> <li>Case study: outbreak investigation of food-borne illness</li> </ol>	<p>9h</p> <p>Molecular Epidemiology/Infection control in health care settings</p> <ol style="list-style-type: none"> <li>Molecular Epidemiology</li> <li>Infection Control in Health Care Settings</li> <li>Discussion-critical review of primary studies evaluating nosocomial transmission of methicillin-resistant <i>Staphylococcal aureus</i></li> </ol>
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
<p>14h</p> <p>Infectious Disease Transmission Dynamics</p> <ol style="list-style-type: none"> <li>SIR models, estimating <math>R_0</math>, herd immunity</li> <li>Computer lab using Berkeley Madonna to develop SIR models</li> </ol>	<p>14h</p> <p>Tuberculosis Epidemiology and Control.</p> <ol style="list-style-type: none"> <li>Global Tuberculosis Epidemiology</li> <li>Discussion-critical review of primary studies evaluating tuberculosis control</li> <li>Discussion-critical review of primary studies using molecular epidemiology to study tuberculosis transmission</li> </ol>	<p>14h</p> <p>Control of non-TB Respiratory Infections</p> <ol style="list-style-type: none"> <li>Influenza modeling, transmission and control</li> <li>Discussion-critical review of primary studies on influenza vaccination</li> <li>Case study-using surveillance data to evaluate interventions during the SARS epidemic</li> </ol>	<p>14h</p> <p>Sexual transmission</p> <ol style="list-style-type: none"> <li>Methodological issues in studying STI transmission and control</li> <li>Measuring behavioral interventions for STIs</li> <li>Discussion-critical review of primary studies on impact of HSV infection on HIV acquisition and transmission</li> </ol>	<p>Vector-borne transmission</p> <ol style="list-style-type: none"> <li>Biological characteristics of vector-borne diseases</li> <li>Modeling transmission of malaria and effects of control strategies</li> <li>Discussion-critical review of primary studies of the use of bednets to control malaria transmission</li> </ol>
17h	17h	17h	17h	16h30: Module evaluation 17h

**Master of Public Health - 3<sup>rd</sup> trimester**

**Week 45 : from 2 to 6 November 2009**

**UE 211 - Minor B, Chronic Disease Epidemiology**  
**Coordinator Ryan Demmer**

Location : Espace Vinci

Monday November 2 <sup>nd</sup>	Tuesday November 3 <sup>rd</sup>	Wednesday November 4 <sup>th</sup>	Thursday November 5 <sup>th</sup>	Friday November 6 <sup>th</sup>
<p>9h                      Introduction to Chronic Disease                      -Ryan Demmer,                      Columbia University</p> <p>Cardiovascular Disease:                      Definitions and Descriptive Epidemiology                      -Alan Berger,                      University of Minnesota</p>	<p>9h                      Cancer Epidemiology                      -Habibul Ashan,                      University of Chicago</p>	<p>9h                      Genome Wide Association Studies                      -Habibul Ashan,                      University of Chicago</p> <p>Gene Expression Studies                      Diabetes Epidemiology                      -Ryan Demmer,                      Columbia University</p>	<p>9h                      A Socio-Medical Sciences Approach to Chronic Disease                      -Bernadette Boden-Albala,                      Columbia University</p>	<p>9h                      Diet and Chronic Disease                      -David R. Jacobs Jr                      University of Minnesota</p>
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
<p>14h                      Cardiovascular Epidemiology Cont.                      -Russell Luepker,                      University of Minnesota</p> <p>-Moïse Desvarieux,                      Columbia University and EHESP</p>	<p>14h                      Cancer Epidemiology Cont.</p>	<p>14h                      Infections as a Chronic Disease:                      Periodontal Infections                      -Thomas Kocher,                      University of Greifswald                      --Moïse Desvarieux, EHESP                      and Columbia University</p> <p>HIV/AIDS                      -Frank Bocora,                      University of Paris</p>	<p>14h                      A Life Course Approach to Chronic Disease                      -George Davey Smith,                      University of Bristol</p>	<p>14h                      Pharmacovigilance                      -Joe Kim,                      Amgen, London</p> <p>-Pascal Crepey</p> <p>16h30: Module evaluation</p>
17h	17h	17h	17h	17h

**Master of Public Health - 3<sup>rd</sup> trimester**

**Week 51 : from 15 to 19 December 2009**

**Module Code 221; Major A : Design, Concept and Methods in Epidemiology**

**Coordinators : Sharon Schwartz and Moïse Desvarieux**

Location : Espace Vinci

Monday December 14 <sup>th</sup>	Tuesday December 15 <sup>th</sup>	Wednesday December 16 <sup>th</sup>	Thursday December 17 <sup>th</sup>	Friday December 18 <sup>th</sup>
9h Introduction to casual inference	9h Study designs: Randomized control trials. Natural experiments. Cohort study designs	9h Case control studies I	9h Sampling and power	9h Stratified analyses I Main effects. Confounding
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
14h Implications of causality for basic epidemiologic concepts	14h Cohort studies	14h Case control studies II	14h Measurement issues	14h Stratified analyses II Mediation. Effect modification
17h	17h	17h	17h	16h30: Module evaluation 17h

**Master of Public Health - 3<sup>rd</sup> trimester**

**Week 1 : from 4 to 8 January 2010**

**Module Code 222, Major B: Analysis in Epidemiology**

**Coordinator : Mary Beth Terry**

Location : Espace Vinci

Monday January 4 <sup>th</sup>	Tuesday January 5 <sup>th</sup>	January January 6 <sup>th</sup>	Thursday January 7 <sup>th</sup>	Friday January 8 <sup>th</sup>
9h Rationale for multi-variable model	9h Confounding	9h Logistic regression	9h Survival models: Kaplan Meir Cox Modeling	9h Matching: Conditional models and methods
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
14h Statistical considerations: Pure Count	14h Interactive	14h Extension of logistic models, polytomous	14h Other cohort models: Poisson	14h Advanced topics
17h	17h	17h	17h	16h30: Module evaluation 17h

**Master of Public Health - 3<sup>rd</sup> trimester**

**Week 2 : from 11 to 15 January 2010**

**Module Code 223, Major C: « Mental health epidemiology »**

**Coordinator : Viviane Kovess Masfety**

Location : Espace Vinci

Monday January 11 <sup>th</sup>	Tuesday January 12 <sup>th</sup>	January January 13 <sup>th</sup>	Thursday January 14 <sup>th</sup>	Friday January 15 <sup>th</sup>
<p>9h V.Kovess Masfety</p> <ul style="list-style-type: none"> <li>- mental health definitions and paradigms</li> <li>- normal and pathological frontiers</li> <li>- disorders classifications including DSM V</li> <li>prospective</li> </ul>	<p>9h B.Eaton</p> <p>Mental health survey's methodology</p> <ul style="list-style-type: none"> <li>- instruments (checklists, diagnostic instruments)</li> <li>- sampling (general and specific populations)</li> <li>- validation and concordance</li> <li>- translation for international surveys comparison</li> </ul>	<p>9h Special group epidemiology</p> <ul style="list-style-type: none"> <li>- children V.Kovess</li> <li>- adolescents (M.Choquet)</li> <li>- aged people (K.Ritchie)</li> <li>- special population surveys: homeless, prisoners (A.Lovell)</li> </ul>	<p>9h</p> <p>Health care utilisation (V.Kovess)</p> <ul style="list-style-type: none"> <li>- use of care for mental health problems in France and the EU</li> <li>- medical non medical providers, formal and informal providers roles</li> <li>- pharmaco epidemiology for psychotropics</li> </ul>	<p>9h</p> <p>Mental health psychiatry and law in France and Europe (H.J.Salize and D.Thouvenin)</p> <ul style="list-style-type: none"> <li>- Involuntary placements in France</li> <li>- EU comparisons on involuntary placements</li> <li>-Psychiatric patient's responsibility determination</li> <li>- Psychiatric care in prisons</li> </ul>
<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>	<b>12h : Lunch</b>
<p>14h E.Bromet</p> <p>Mental health determinants</p> <ul style="list-style-type: none"> <li>- genetic/ environment,</li> <li>- social factors</li> <li>- traumas ,life events PTSD</li> </ul>	<p>14h E.Bromet and V.Kovess</p> <ul style="list-style-type: none"> <li>- main psychiatric epidemiological surveys in US, Canada, France and EU</li> <li>- WMH results and international comparisons</li> <li>- Psychosis epidemiology</li> </ul>	<p>14h</p> <ul style="list-style-type: none"> <li>- Description of the various dependences from the psychiatric side including pathological gambling and bulimia : epidemiology and risk factors (J.Helzer)</li> <li>- Suicide and behavioural problems (V.Kovess)</li> </ul>	<p>14h</p> <p>The French public health framework (V.Kovess, F. Petit-Jean): a model of integrated comprehensive system "le secteur"</p> <ul style="list-style-type: none"> <li>-prevention and promotion in mental health</li> <li>-rehabilitation: the social aspects</li> </ul>	<p>14h B.Eaton</p> <ul style="list-style-type: none"> <li>- registers in psychiatry</li> <li>- trends in mental health</li> <li>- longitudinal surveys in mental health epidemiology</li> </ul> <p>16h30: Module evaluation</p>
17h	17h	17h	17h	17h