**Syllabus Module 221**

<table>
<thead>
<tr>
<th>Module # 221</th>
<th>Social and behavioral sciences : Major Ageing, Chronic diseases &amp; LT care</th>
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</thead>
<tbody>
<tr>
<td>UE coordinator</td>
<td>Dr Martine Bellanger, Professor of Economics, EHESP <a href="mailto:Martine.Bellanger@ehesp.fr">Martine.Bellanger@ehesp.fr</a></td>
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<tr>
<td>Dates</td>
<td>From January 21 to 25, 2019</td>
</tr>
<tr>
<td>Credits/ECTS</td>
<td>3 (1 ECTS = 25h student's work)</td>
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<tr>
<td>Duration</td>
<td>Number of days: 5</td>
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**Module description**

This module is based on evidence that chronic diseases have become a major public health concern not only in high income countries, but also in low and middle ones. In the developed countries, chronic diseases are frequently seen in association with aging. Although we recognize that efforts have been made to tackle this problem in terms of medical and social care, improvement is still needed in terms of life-long prevention. This course focuses on social, organizational and behavioral approaches and methods in order to provide a good understanding of the public health issues involved. Intersectorial actions and policies implemented by national and sub-national policy makers and planners are analyzed and reviewed. A comprehensive and integrated approach in terms of the 'long term care model/chronic care models' forms the thread running through the course. Particular attention is given to interactions between various health and social professionals, between hospitals and nursing homes, as well as to interactions between informal resources and formal resources. Valuing informal resources through different economic methods will also be specific dimension of approaching long term care issues. Finally, a particular focus on worldwide breast cancer primary prevention will be given during the module, as a way to tackle with some chronic care conditions. Students will have the opportunity to study and assess a wide range of international policies and reforms and their impacts at different levels (e.g. OECD & EU countries, and global level)

**Prerequisites**

Basic knowledge in economics and health & social policy

**Course learning objectives**

**Learning objectives**: at the end of the module, the students should be able to:

- Identify organizational and behavioural approaches involved in primary public health prevention, especially for breast cancer
- Discuss the role of different stakeholders in the planning and implementation of policies and programs tackling chronic and long term care issues worldwide, including a case on Latin America
- Use advanced qualitative and quantitative methods to evaluate interventions related to people with chronic conditions such as Alzheimer disease and cancer
- Identify and critique various data sources for Global Burden of Disease (GBD) using Disability Adjusted life year (DALY) or Potential years of life lost (PYLL)
- Use ‘long term care models’ & ‘chronic care models’ to provide interventions based on cooperation between professionals, services and informal caregivers.
- Conduct research that integrates models and appropriate methods for conducting practice in LT care and chronic settings
- Contribute to effective public health programs in the domain of aging, LT and chronic diseases

**UE Structure details of sessions title/speaker/date/duration**

Specific leaning objectives are noted for each session. At the end of each session, students should know and be able to accomplish the session's learning objectives.

- **Session 1.** Common challenges for aging, LT care & chronic diseases & Global burden of disease, Martine Bellanger Jan 21, 3H
- **Session 2.** Development of international programs for cancer prevention : the example of breast cancer, Sophie Lelievre, Jan 21, 3H
- **Session 3.** Economic evaluation of LT Care: Methods & Applications, M Bellanger, Jan 22, 3H
- **Sessions 4.** Elderly and Chronic diseases in Latin America: health systems strengthening, and key country strategies in primary, secondary and tertiary prevention, F Lavadenz Jan 22 3H
- **Session 5.** The long road to primary prevention of cancers, S Lelievre, Jan 23, 4H30
- **Session 6-7-9.** Economics of prevention and modelling of primary prevention, Janvier 23- 24 8H00
Course requirement

Students are expected to attend all lectures. Beyond 4:00 pm, students are required to read some materials, practice cases and prepare their individual project.

Grading and assessment

Individual in class assignment and homework: 40% of the final grade & Final test 60%

Details assignments:

<table>
<thead>
<tr>
<th>#</th>
<th>Assignment topic</th>
<th>%</th>
<th>Type</th>
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<tbody>
<tr>
<td>1</td>
<td>First assignment Tuesday 22 /01/2019</td>
<td>10%</td>
<td>Individual</td>
</tr>
<tr>
<td>2</td>
<td>Second Assignment 24 /01/2019</td>
<td>10%</td>
<td>Individual</td>
</tr>
<tr>
<td>3</td>
<td>Third Assignment 25/01/2019</td>
<td>20%</td>
<td>Individual</td>
</tr>
<tr>
<td>4</td>
<td>Final test on Feb 8 2019</td>
<td>60%</td>
<td>Individual</td>
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Location

EHESP-MSH Avenue George Sand, La Plaine St Denis Greater Paris

Readings

Articles (on electronic reserve):

Articles available on REAL website

Website
http://globocan.iarc.fr/
http://www.afro.who.int/
http://www.healthdata.org/ Institute for Health Metrics

Additional articles will also be provided in class

Course policy

Attendance & punctuality
Regular and punctual class attendance is a prerequisite for receiving credit in a course. 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 http://mph.ehesp.fr 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.

**Late time:** Students who are more than 10 minutes late may be denied access to a class. Repeated late arrivals may be counted as absences (See http://mph.ehesp.fr EHESP Academic Regulation Article. 3 Attendance & Punctuality)

**Maximum absences authorized & penalty otherwise**
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)

**Exceptional circumstances**
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 http://mph.ehesp.fr EHESP Academic Regulation Article 4 Examinations).

**Courtesy:** 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.

<table>
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<tr>
<th>Valuing diversity</th>
<th>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.</th>
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<tbody>
<tr>
<td>Course evaluation</td>
<td>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.</td>
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## Session 1

**Common challenges for aging, LT care & chronic diseases & Global burden of disease estimation**

### Speakers

Dr. Martine M Bellanger  
Professor, Head of the MPH Programs, EHESP  
martine.bellanger@ehesp.fr

### Session Outlines

- Health and economic effects of aging and of chronic diseases and implications in terms of care  
- Statistics: Worldwide statistics and per income level type of countries  
- Global Burden of Diseases (GDD), concept and definition  
- Estimation of Burden of diseases : Global Health Estimates GHE 2013  
- Analysis of trends 2000-2011

### Learning Objectives

At the end of the session, students will be able to:
- Identify the critical factors associated with health effects of aging and chronic conditions  
- Analyze economic impacts of health effects on individuals and society  
- Use different databases and estimates such as DALYs, Potential years of life lost (PYLL)  
- Critically assess the measures used and the consequences in different countries studied

### Duration

3 hours

### Training methods

Lecture  
In class applications

### Reading

Eikemo TA & Mackenbash JP, GBD EuropeThe potential for reduction of health inequalities in Europe, Report for EU Project 2014  
Additional reading will be made available on REAL online course platform.

### Validation

An individual assignment will be given during this first session. Students will have to review published literature, use available data on a topic related to aging, chronic conditions, prevention and LT care based upon different approaches proposed along with all sessions. While students are encouraged to work cooperatively in the completion of assigned tasks, all reports should reflect individual efforts.

## Session 2

**Development of international programs for cancer prevention the example of breast cancer**

### Speakers

Sophie A. Lelièvre, DVM, LLM (Public Health), PhD  
Department of Basic Medical Sciences  
Associate Director, Collaborative Science Purdue Center for Cancer Research, IN, US  
leliervre@purdue.edu

### Session Outline

- Introduction: What is cancer? cancer as a specific chronic disease  
- Cancer prevention & international efforts to foster early detection of Breast Cancer (BC)  
- Early detection of BC, and screening  
- Issues around BC screening, in the US, France and Ghana  
- Applications of cancer prevention

### Learning Objectives

At the end of the session, students will be able to:
- Describe international cancer prevention perspectives
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<tr>
<th><strong>Session 3</strong></th>
<th><strong>Economic evaluation of LT Care: Methods</strong></th>
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</table>
| **Speakers** | Dr. Martine M Bellanger  
Professor, Head of the MPH Programs, EHESP  
martine.bellanger@ehesp.fr |
| **Session Outlines** |  
- Evaluation of long term care: context & perspectives  
- Dementia Facts and Figures and resources used for patients with dementia  
- Market versus non market provision of care  
- Societal perspective to estimate LT care resource used  
- Issues when valuing long term care  
- Methods for giving monetary value to informal care |
| **Learning Objectives** | At the end of the session, students will be able to:  
- Identify key economic & public issues related to caring people with chronic conditions, such as dementia in a long term.  
- Analyze theoretical approaches to value informal care  
- Use different methods to estimate long term care resources  
- Compare and evaluate the different methods used and their consequences in terms of policies |
| **Duration** | 3 hours |
| **Training methods** | Lecture  
In class applications, |
Additional reading will be made available on REAL online course platform |
<p>| <strong>Validation</strong> | Validation is included in both the overall session assignment and the final written exam planned on Feb 8 2019 |</p>
<table>
<thead>
<tr>
<th>Sessions 4</th>
<th>Elderly and Chronic diseases in Latin America: health systems strengthening, and key country strategies in primary, secondary and tertiary prevention</th>
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</table>
| Speakers  | Dr. Fernando Lavandez  
Senior Health Policy Analyst, World Bank, Washington DC |
| Session Outlines |  
- Demographic transition in Latin American countries  
- Aging in LAC and Support for the Elderly and poverty in the life cycle  
- Elderly burden of disease worldwide |
| Learning Objectives | At the end of the session, students will be able to:  
- Identify different LT care policies towards the elderly LAC.  
- Analyze LT care funding systems and recent reforms in LAC |
| Duration   | 6 hours |
| Training methods | Lecture  
In class application: Study case |
| Validation | Validation is included in both the overall session assignment and the final written exam planned on Feb 8 2019 |

<table>
<thead>
<tr>
<th>Session 5</th>
<th>The long road to primary prevention of cancers</th>
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| Speakers  | Sophie A. Lelièvre, DVM, LLM (Public Health), PhD  
Department of Basic Medical Sciences  
Associate Director, Collaborative Science Purdue Center for Cancer Research, IN, US  
lelievre@purdue.edu |
| Session Outline |  
- Context for developing primary prevention of cancer  
- The example of the pan American health organization (PAHO) for cancer prevention, what about elsewhere?  
- Prevention strategies: based on the causes for specific types of cancers  
- Genes & Cancer  
- Epigenetics and primary breast cancer prevention |
| Learning Objectives | At the end of the session, students will be able to:  
- Describe approaches supporting integrative primary cancer prevention  
- Demonstrate the role of behavioral factors, environmental factors to be included in prevention  
- Recommend appropriate integrative services and interventions associated with primary prevention  
- Translate integrative research on prevention into actionable wellness plans |
| Duration   | 5 hours |
| Training methods | Lecture  
Exercise: implementing a cancer prevention program based on healthy diet and exercise. The importance of Public Value |
### Reading


Website http://www.purdue.edu/discoverypark/ibcn/

Additional papers will be provided on site

### Validation

Validation is included in both the overall session assignment and the final written exam planned on Feb 9, 2019

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### Session 6-7-9

**Economics of prevention and Modelling economic indicator and prevention strategies & Breast cancer**

#### Speakers

Dr. Martine M Bellanger  
Professor, Head of the MPH Programs, EHESP  
martine.bellanger@ehesp.fr

#### Session Outlines

- Economics of prevention: some reminders  
- Cost – Effectiveness of Prevention  
- Data analysis & Interpretation of findings  
- Discussion

#### Learning Objectives

At the end of the session, students will be able to:

- Apply different methods to estimate prevention strategies, and especially for Breast Cancer  
- Discuss strengths and drawbacks of the methods used  
- Explore potential applications to other chronic conditions

#### Duration

8 hours

#### Training methods

In class applications

#### Reading


#### Validation

Validation in the assignment for this session and in the final written exam planned on Feb 8, 2019

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### Session 8

**“Priority setting” in Cancer in El Salvador (Cervical cancer).**

#### Speakers

Dr. Fernando Lavandez  
Senior Health Policy Analyst, World Bank, Washington DC

#### Session Outlines

- NCDs in LAC and health system responses: priority setting  
- Health Financing strategies for cervical cancers in LAC: the case of Salvador
### Learning Objectives

At the end of the session, students will be able to:
- Demonstrate the strengths and drawbacks of different systems & policy prevention in LAC
- Assess the impacts of public policies for preventing cervical cancer in Salvador

### Duration

3 hours

### Training methods

Lecture, case study and in-class discussion

### Reading

Additional reading will be made available on REAL online course platform

### Validation

Validation is included in both the overall session assignment and the final written exam planned Feb 9 2019

### Session 10

**Calculation of the disease burden associated with environmental chemical exposure: Application of toxicological information in health**

**Speakers**

Dr. Martine M Bellanger  
Professor, Head of the MPH Programs, EHESP  
martine.bellanger@ehesp.fr

**Session Outlines**

- From Dose Response to Population Fraction Attributable  
- Cost estimates  
- Burden of Disease  
- Global estimates

**Learning Objectives**

At the end of the session, students will be able to:
- Demonstrate how integrate care toxicological, epidemiological and economic approaches  
- Describe the burden of disease for main chronic conditions  
- Assess critically different papers retrieved from the literature  
- Identify lessons learnt estimation of burden of diseases at the global level

**Duration**

3 hours

**Training methods**

Lecture, In class applications

**Reading**


**Validation**

Validation is included in both the overall session assignment and the final written exam planned on Feb 9 2019