

Welcome to the Master's Open Day Master of Epidemiology

Leo Schouten
Programme coordinator



Leo Schouten, PhD

Programme coordinator Master of Epidemiology and Research Master Health Sciences

- **Medicine (1975-1981)**
- **PhD in Cancer Epidemiology (1996)**
- **Head of the Cancer Registry (1983-2000)**
- **Associate Professor in Cancer Epidemiology, UM (2000-)**
Main research focus: causes and prognosis of cancer



Rob de Bie, PhD Professor of Physiotherapy Research

Teacher at the Master of Epidemiology and Health Sciences Research Master programmes

- Physiotherapy (1983-1987)
- Human movement sciences (1987-1991)
- Epidemiology (1991-1992)
- PhD in Medicine (1998)
- Full professor (2003)
- Director of education Health (2011-2017)



Content

- What is Epidemiology about?
- Main themes
- Course outline & details
- What the future might bring
- Meet (former) students



Epidemiology

“A fascinating field using statistics, tracking methods and problem solving to study the causes and course of diseases and the effect of clinical interventions in a community”

Why?

- It is fundamental to improving public health
- Collaboration with many different scientific disciplines

An example: 'smoking and cancer'

- Associated with increased risk of many types of cancer, e.g.:
 - Lung cancer
 - Head & neck cancer
 - Bladder cancer
 - Renal cell cancer, etc

- There is one cancer with a **decreased** risk...

Smoking and endometrial cancer



Smoking status	Relative Risk	95% CI
Never	reference	reference
Former	-17%	-42 to +20%
Current	-41%	-60 to -12%

Loerbroks *et al*, Cancer Causes Control, 2007

Explanation?

Why Epidemiology in Maastricht?

- A solid theoretical, methodological, and statistical basis for designing and implementing research projects
- The opportunity to conduct an impactful research project under the guidance of a personal supervisor
- A stimulating international academic environment
- Lectures by prominent renowned scientists and professors

Why Maastricht: three choices

Master of Epidemiology, 1 year full-time

Master of Epidemiology, 2 years part-time

Health Sciences Research Master, 2 years full-time

Health Sciences Research Master

Master of Epidemiology

Two year full-time

One year full-time
or two years part-time

32 weeks internship
(master-pupil)

12 weeks internship
+ preparation

Additional topics
(Qualitative research, Health
Technology Assessment,
Ethics)

Applied and genetic
epidemiology

Elective modules in Year 2

Main topics of master

- Observational research
- Intervention research
- Advanced statistical analyses
- Clinimetrics
- Genetic and Molecular Epidemiology
- Systematic Literature Review and Meta-analysis
- Writing a research protocol
- Internship and theses

Course outline / Epidemiology full-time

Period	Tuesdays	Fridays	Weeks	
1	Introduction to Epidemiology 1 ECTS		1	
1	Observational Research 6 ECTS	Intervention Research in Health Care 6 ECTS	7	
2	Advanced Statistical Analysis Techniques 6 ECTS	Writing a Research question and outline 1 ECTS	Clinimetrics: from Biomarkers to Quality of Life 5 ECTS	8
3	Applied Epidemiology 3 ECTS	Molecular and Genetic Epidemiology 3 ECTS	4	
4	Writing a Research Protocol 6 ECTS	Systematic Literature Review 6 ECTS	8	
5&6	Master Research and Thesis 18 ECTS		12	

Course outline / Epidemiology part-time

year 1

Period	Tuesdays	Fridays	Weeks
1	Introduction to Epidemiology 1 ECTS		1
1	Observational Research 6 ECTS	Intervention Research in Health Care 6 ECTS	7
2	Advanced Statistical Analysis Techniques 6 ECTS	Writing a Research question and outline 1 ECTS	Clinimetrics: from Biomarkers to Quality of Life 5 ECTS
3	Applied Epidemiology 3 ECTS		Molecular and Genetic Epidemiology 3 ECTS
4	Writing a Research Protocol 6 ECTS		Systematic Literature Review 6 ECTS
5&6	Master Research and Thesis (1st half) 18 ECTS		12

Course outline / Epidemiology part-time

year 2

Period	Tuesdays	Fridays	Weeks	
1	Introduction to Epidemiology 1 ECTS		1	
1	Observational Research 6 ECTS	Intervention Research in Health Care 6 ECTS	7	
2	Advanced Statistical Analysis Techniques 6 ECTS	Writing a Research question and outline 1 ECTS	Clinimetrics: from Biomarkers to Quality of Life 5 ECTS	8
3	Applied Epidemiology 3 ECTS	Molecular and Genetic Epidemiology 3 ECTS	4	
4	Writing a Research Protocol 6 ECTS	Systematic Literature Review 6 ECTS	8	
5&6	Master Research and Thesis (2nd half) 18 ECTS		12	

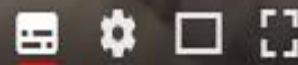
Programme details

- Problem-based learning
 - Small groups under supervision of teachers
- Lectures
- Practicals
- Writing skills
- Presentations
- Internship with intensive supervision

MARJOLEIN I am doing the Epidemiology master.

Maastricht University

0:15 / 2:48



Visitation & accreditation

- **Master of Epidemiology**
(and **Health Sciences Research Master**)
recognized for registration as 'epidemiologist A' by the Netherlands
Epidemiological Society
(april 2018)
- Positive assessment by the QANU
(april 2018)

Evaluation (2013-2018)



	Grade	Scale
Grade program in general	7.3-8.1	1-10
If I was to start all over again, I would choose for this programme	3.7-4.4	1-5
The supervisor was an expert in the topic	4.2-4.6	1-5
Grade functioning supervisor	8.3-8.6	1-10

Career perspectives

PhD
student

- As PhD student at universities

Research
and
teaching

- Universities, hospitals
- Pharmaceutical companies
- National institutes like TNO, RIVM

Health
policy

- Local, regional or national level
- e.g. municipal health services

A selection of PhD theses from our students



Physical therapy in COPD (Emmylou Beekman)

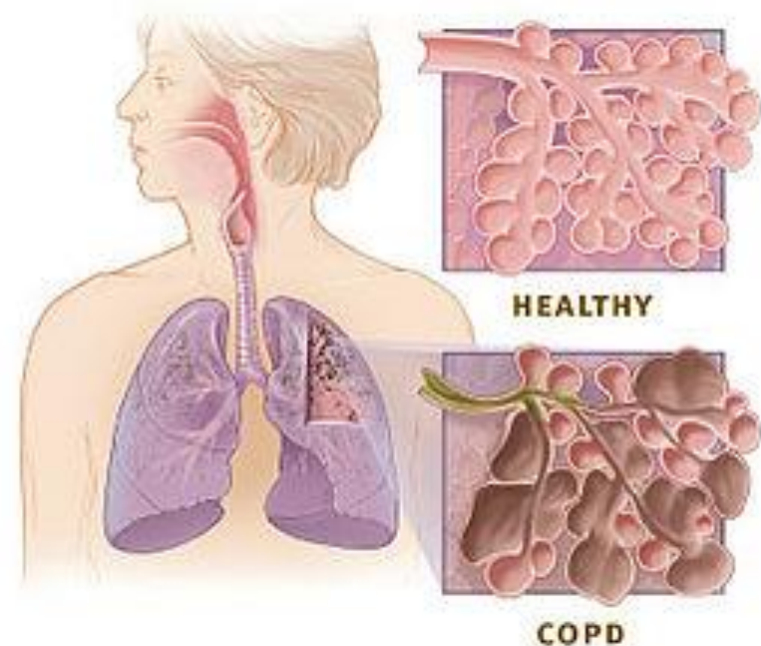
- In the Netherlands around 600.000 persons with COPD
- Around 7.000 die of COPD annually

- Worldwide 251 million cases, of whom 3.2 million die annually
- Quality of life is very bad in severe cases
- The primary cause of COPD is exposure to tobacco smoke (either active smoking or secondhand smoke)
- Other risk factors include exposure to indoor and outdoor air pollution and occupational dusts and fumes

- Can physiotherapy influence quality of life and improve ADL?

Yes it can!

- A randomized controlled trial showed a reduction of exacerbations by 80%
- Moreover, impact of concurring co-morbidities was firmly reduced
- Reduction of related death was halved
- New measurement instruments were developed and validated



Vacancies



Medécins Sans Frontières

Position Description

Epidemiologist

Location

MSF Holland

Department

Salary

✓ [Apply Now](#)

Job Brief

Your work as an epidemiologist will be very diverse. Your responsibilities may include gathering epidemiological data (including active case finding) during disease outbreaks.

Your job

Your work as an epidemiologist will be very diverse. Your responsibilities may include gathering epidemiological data (including active case finding) during disease outbreaks.

This could be for such diseases as meningitis, measles or cholera. Your work will help direct teams in their responses, including case management, vaccination and/or water and sanitation interventions. You may also conduct mortality and nutrition surveys, set up and evaluate monitoring and surveillance systems, carry out operational research, and provide epidemiological support to complex projects in order to enhance evidence-based decision-making.



Aandoeningen &
Ziektebeelden

Specialismen &
Afdelingen

Service &
Contact



< Onderzoeker in opleiding (OIO) Reumatologie

Wij zijn geaccrediteerd door



Algemene informatie

Het Maasstad Ziekenhuis levert topklinische zorg in de regio Rotterdam. Het ziekenhuis heeft de ambitie uit te groeien tot toonaangevend ziekenhuis met professionele kwaliteit en veiligheid als belangrijke pijlers. Betrouwbaar, deskundig, verbindend, ambitieus en gastgericht staan als kernwaarden centraal in al ons handelen. Ons ziekenhuis is JCI en STZ gecertificeerd en is lid van de Santeon ziekenhuizen.

De afdeling

De afdeling reumatologie van het Maasstad Ziekenhuis is op zoek naar een onderzoeker in opleiding voor 36 uur per 1 januari 2019 (eerder starten is mogelijk). De afdeling reumatologie heeft een eigen onderzoeksgroep voor patiëntgebonden onderzoek dat onder andere bestaat uit reumatologen en (research)verpleegkundigen. Daarnaast heeft de afdeling diverse wetenschappelijke samenwerkingsverbanden, waaronder de afdeling reumatologie van het Erasmus MC.

De functie

Het onderzoeksproject richt zich op het definiëren en objectiveren van Value Based Health Care, oftewel "waarde-gedreven zorg" voor patiënten met gewrichtsklachten. Door middel van dit onderzoeksproject willen wij de waarde van zorg definiëren en deze relateren aan de uitkomst welke relevant zijn voor de patiënt (ICHOM indicatoren) en gemaakte kosten (over de lijnen van zorg). Als onderzoeker zal u direct

Vacancies

Assistant professor
Maastricht University

Go
the extra
mile

Universitair docent m/v (0.55 fte)

Geplaatst	Deadline	Locatie
1 nov	18 nov	Maastricht



FUNCTIEOMSCHRIJVING

De vakgroep epidemiologie werkt samen met het Integraal Kankercentrum Nederland (IKNL) m.b.t. het benutten van de vele gegevens die worden verzameld in het kader van de Nederlandse Kankerregistratie. De kankerregistratie heeft tot doel om ten bate van de gezondheidszorg en van de patiënt, nieuwe wetenschappelijke kennis te genereren over betere of optimale diagnostiek, stadiëring, prognose en behandeling.

M.b.t. een nog nader te bepalen onderwerp zullen gegevens uit de kankerregistratie worden geanalyseerd m.b.t. trends in incidentie,

> Solliciteer nu (nog 4 dagen)

Specificaties

-  Hoogleraren, UHD's, UD's & lectoren
-  Gezondheid
-  20.9–22 uur per week, tijdelijk
-  €3545–€4852 per maand
-  Gepromoveerd
-  # AT2018.308

Werkgever



Maastricht University



Admissions

- University bachelor in a relevant domain
- University of Applied Sciences bachelor in a relevant domain
 - + sufficient background in methodology and statistics
 - + possibly GRE-test
- Requirements regarding English language may apply
- See Admissions stand and website for additional information



Application deadlines to start in September 2019

- **Students who apply for a UM-wide scholarship**
up to and including 1 February 2019
- **Non-EU/EEA-students**
up to and including 1 May 2019
- **EU/EEA-students**
up to and including 1 June 2019

Admission related questions?

Please visit the stand from the Board of Admission at the information market for a personal talk with our staff members





Meet...

former students

Lloyd Brandts

Educational background

- BSc Health Sciences at UM (2011-2014)
- MSc Epidemiology at UM (2014/2015)

Why did I choose for the Epidemiology Master?

- Acquiring knowledge on study designs and statistical analyses techniques to investigate complex, but also simple questions, that are otherwise difficult to answer.
- Learning basic research tools that are applicable for a wide variety of topics.

Current Position

- PhD Candidate at the Department of Epidemiology (2016-2019)

What are my tasks?

- Doing research and publishing results
- Education
- Visiting and presenting on conferences

Current (PhD) project

Studying lifestyle, reproductive, and parental factors that are associated with reaching an old age (e.g. 90 years).



How do we answer these questions?



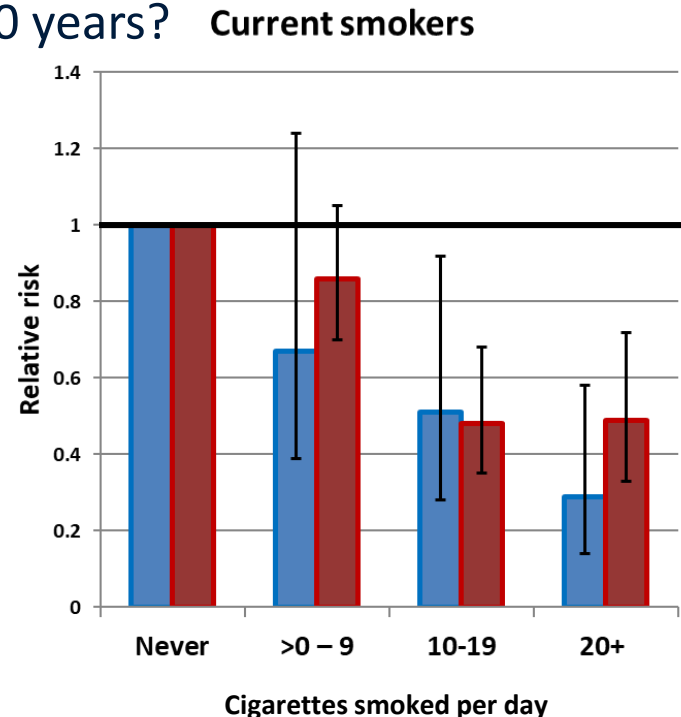
- Using a prospective cohort design
- Participants filled in a questionnaire at the age of 68-70 years about their lifestyle etc.
- Follow-up (+/- 20 years) of participants at age 68-70 years until the age of 90 years.
- Which lifestyle characteristics were associated with survival to the age of 90 years?

Example:

Men who had **never smoked tobacco** at the age of 68-70 years had **25.6%** chance of reaching the age of 90 years. **Smoking men who smoked 20 cigarettes per day or more** at age 68-70 years had **7.4%** chance of reaching the age of 90 years, after adjustment for other potential confounders.

For **women** these percentages were **36.5%** and **17.9%** respectively

(Brandts et.al. 2018. *Geriatrics & Gerontology International*)





Meet...

current students

Hi, my name is Lisanne from the Netherlands **Epidemiology master's student**

Follow me on Facebook and find out about my progress and experience during the master



www.facebook.com/MasterChallengeLisanne/



Questions?

Contact information

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**Good luck with your study selection
and see you in Maastricht!**

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