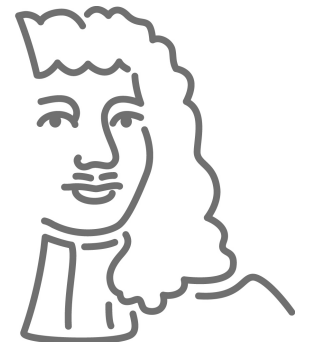


# Basic Medical Statistics Course

## Introduction

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**NKI-AVL**



The Netherlands Cancer Institute  
Antoni van Leeuwenhoek Hospital

# Welcome to the Basic Medical Statistics Course

- 2 types of sessions
  - Lectures: 9:00-10:30 h & 13:30-15:00 h in PBA
  - Practicals: 10:30-12:30 h & 15:00-17:00 h in Z4
- Emphasis on methods specific for cancer & other chronic diseases, not necessarily for other outcomes (e.g., infectious diseases)
- Active participation welcome (questions, comments, examples, own analysis w/ SPSS or other software), particularly during practicals

## Course website

<http://www.nki.nl/basic-medical-statistics-course/>

- Course material (slides, data sets, SPSS code)
- Supplementary material (books, papers)

# Faculty

- Katarzyna Jozwiak, PhD (Applied Mathematics)  
k.jozwiak@nki.nl, tel 9074, room H8.09
- Wilma Heemsbergen, PhD (Epidemiology)  
w.heemsbergen@nki.nl, tel 2144, Department of Radiotherapy
- Patrycja Gradowska, PhD (Applied Mathematics)  
p.gradowska@nki.nl, tel 7990, room H8.09
- Michael Hauptmann, PhD (Statistics)  
m.hauptmann@nki.nl, tel 1047, room H8.40

# Where to look up things

- Gerard Dallal's "Little Handbook of Statistical Practice"  
<http://www.tufts.edu/~gdallal/LHSP.HTM>
- John McDonald's "Handbook of Biological Statistics"  
<http://www.biostathandbook.com>
- David Garson's e-books, e.g., on multivariate analysis  
<http://www.statisticalassociates.com> (free after registration)
- UCLA Stat Computing <http://www.ats.ucla.edu/stat>
- Petrie & Sabin: Medical Statistics at a Glance. Blackwell 2005.
- Mood, Graybill, Boes: Introduction to the Theory of Statistics. McGraw-Hill 1974.

# Learning objectives

- Understand basic principles
- Adequately identify & describe objectives for statistical evaluation
- Explore data for information content & limitations
- Conduct standard analyses
- Appropriately interpret quantitative results
- Critically assess quantitative aspects of the literature in your field
- Know when to ask a statistician for help

## Help is available

- Statisticians in the Biostatistics Group (Department of Epidemiology & Biostatistics) on H8

<http://www.nki.nl/divisions/psychosocial-research-and-epidemiology/hauptmann-m-group/>

- Links to online calculations

<http://statpages.org>

# Our general attitude towards statistical analysis

- Look carefully at raw data & simple tables
- Use simple summary statistics
- Describe your data in absolute numbers
- Use complicated methods only if they add to the interpretation