Wiener Biometrische Sektion
der Internationalen Biometrischen Gesellschaft
Region Österreich – Schweiz

http://www.meduniwien.ac.at/wbs/

Einladung zum

Biometrischen Kolloquium

am Montag, den 7. Juni 2010 um 11:00 Uhr (s.t.)

in der Informatikbibliothek (Ebene 3, Raum 88.03.806) der
Besonderen Einrichtung für Medizinische Statistik und Informatik
(MSI) der Medizinischen Universität Wien
Spitalgasse 23, 1090 Wien

Vortragende:

Linda Beale

Small Area Health Statistics Unit,
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The UK Small Area Health Statistics Unit: approaches to spatial epidemiology

Wir freuen uns auf zahlreichen Besuch.

Georg Heinze	Martin Posch
Präsident	Sekretär

The UK Small Area Health Statistics Unit: approaches to spatial epidemiology

Linda Beale
Small Area Health Statistics Unit
Imperial College London

The Small Area Health Statistics Unit (SAHSU) based at Imperial College London was established in 1987 following a recommendation of the Black enquiry into the incidence of leukaemia in children and young adults near the Sellafield nuclear plant. The main aim of SAHSU is to assess the risk to the health of the population from environmental factors, with an emphasis on the use and interpretation of routine health statistics.

SAHSU now forms part of the recently established MRC Centre for Environment & Health, held jointly between Imperial College London and King's College London. The main conceptual thrust of the Centre is to integrate individual-level and small-area analyses of environmental exposures and health - using advanced geographical information systems (GIS) and statistical modelling techniques. SAHSU holds a wealth of health and exposure datasets, predominately for England and Wales, including births, still births, deaths, cancer incidence and hospital admissions data. This data is stored on a secure database and using geographical information systems is possible to link health, environmental and other data, integrating the data into a common geographic form. Furthermore, a GIS provides a means of modelling unmeasured characteristics (e.g. exposure) and provides a basis for health risk assessment.

Disease mapping is a valuable method for exploring spatial patterns of health outcomes. Such maps may identify excess risks potentially caused by environmental hazards; in addition they may identify data quality problems. Potential environmental health risks can be evaluated using risk analysis of exposure caused by local point, line or area sources of pollution. Spatial epidemiological studies have, however, a number of limitations that may impact analysis and a number of factors must be taken into account both in terms of the data quality as well as in the interpretation of any results.

Drawing upon a unique set of applications and studies undertaken in SAHSU, the approaches used and the overall value of taking a geographical approach to epidemiology and health research will be discussed.