Royal Tropical Institute
KIT Biomedical Research

Introduction to Geographic Information Systems (GIS) in disease control programmes

18 June – 29 June 2012

The International Institute for Geo-Information Science and Earth Observation (ITC), Enschede and the Royal Tropical Institute (KIT), Amsterdam, The Netherlands, jointly organise a course titled "Introduction to GIS in disease control programmes", bringing together expertise in geographic information systems and its application for disease control.

Geographic Information Systems (GIS) is a powerful tool for planning and assessment of health interventions and is increasingly recognised as an essential instrument in disease control. GIS can effectively be applied to improve health care provision in disease control.

For whom is the course relevant?
The course is open to professionals in the health sector, but is especially targeted to programme officers, data-managers working in disease control, researchers, and students in the field of public health or epidemiology.

Proficiency in English and computer literacy is required. Prior exposure to GIS, including practical skills in GIS is not needed to follow this course. It is strongly recommended that participants bring their own data to the course. The facilitators will help you throughout the two weeks to convert your data into a basic GIS. If the number of applications will exceed the number of places on the course, priority will be given to those that will be able to bring their own database.

Programme
During the first week in Enschede participants will be familiarised with key concepts and techniques in GIS with emphasis on developing basic software skills. Topics include the following themes: Data collection, Data storage, Exploring data, Data analysis and Visualisation. Important issues are the spatial and temporal characteristics of health data, geo-referencing, basic database and visualisation principles and differences in functionality between general GIS software compared to specific health applications (Health Mapper).

The second week at KIT will provide the opportunity to apply the GIS skills that have been learned in the first week into a public health context. The course will address specific problems in the field of planning and evaluation of disease control programmes. Source data will be provided which allows the participants to practice independently or in small groups on case studies. Furthermore, the applied techniques will be used to create a basic GIS for the participant's own data.

The case studies are grouped among the following areas of application of GIS and disease control:

- Exploration of patterns of disease in space and time.
- Epidemiological assessment and analysis of patterns and risk factors of disease in time and place including risk mapping
- Assessment of accessibility and availability to diagnostic and treatment centres.
- Visualising Health Management Information, such as programme indicators, human resources, laboratory performance indicators - for monitoring and evaluation of programme performance.

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The course will use ArcView/ArcGIS. Participants will obtain a one-year student license of ArcGIS (ArcView).

Course dates and location
Starting date: 18 June 2011
Duration: 2 weeks
Location: ITC (Enschede) and KIT (Amsterdam)
Fee: €1.480 (2012)
Application deadline: 4 May 2012
Online registration: http://www.itc.nl/Pub/study/Courses/C12-GIP-SCD-01

Applicants must cover their own travel and substance costs.
Subsistence costs are estimated to be €1.500.

Funding: NFP fellowship could be obtained for this course. www.nuffic.nl
Deadline: 1 October 2011

More information: **www.kit.nl** and **www.itc.nl**, or email to Mirjam Bakker (**M.Bakker@kit.nl**) **or** (**BiomedicalResearch@kit.nl**)