

BC Environmental and Occupational Health Research Network GIS Group

Informal minutes: March 30, 2007

Attendees:

Mieke Buller (BCCDC, GIS)
Sunny Mak (BCCDC, GIS)
Brendan Mathers (VIHA, GIS)
Ruth Whitefield (for Ruth Cridland) (Fraser Health)
Genevieve Prudhomme (Fraser Health)
Christine Ronning (Interior Health)
Eleanor Setton (UVIC PhD student)

Communications:

Eleanor and Pat Atherton are working on the message board. Users will have to register, and then will receive an email notification whenever a new topic is started. Users can then go to the message board and subscribe if they want to follow the topic, in which case an email will arrive every time there is a new post. Users who do not subscribe will only get email when new topics are started, but can also go to the message board anytime to look at the discussions. Eleanor will send out an email when all is up and running.

Upcoming Events:

Sunny Mak forwarded the call for abstract for the provided confirmed dates for Public Health Geomatics Conference – September 16th – 19th, 2007. Sunny will check re: any funding possibilities for travel to the conference. Registration may be ~ \$500.

Eleanor has started to organize some webinars for the group, but will also let all BCEOHRN members know about the topics/dates. So far:

May 31st (Thursday) 1pm – 2:30 pm: Rate Smoothing for Mortality and Morbidity Maps - Dr Ying MacNab, UBC Department of Health Care and Epidemiology, Associate Professor.

Dr. MacNab has extensive experience in the use and development of methods for mapping disease. She will provide an overview of ‘rate smoothing’, a useful technique for mapping mortality and morbidity over time:

Development of methods for the analysis of cancer or other mortality rates for local health regions is an important area of research. Public health professionals and policy makers use these regional rates, usually presented in the form of maps, to determine chronic disease ‘hotspots’ requiring medical follow up, or to identify specific areas whose populations are at elevated risk for certain diseases. Since several causes of death are area-specific, an analysis of the regional differences in mortality rates can help to identify factors which may be linked to different causes of mortality and, hence, generate hypotheses for epidemiological study.

The usual method of analysis yields regional mortality rates which lack precision, mainly for those regions where the population sizes are not large; there are several of these in British Columbia. The problem has acute ramifications at the policy-making level where a small-population region may be identified as a 'hotspot' in one year, and not in the next, simply because of the large variability in the rate estimate. There is an important requirement of reliability in the estimates for the policy makers who direct programs at the level of the local health areas which must be addressed.

Several new methods have been proposed recently to improve the rate estimates. Most of these involve some type of 'spatial smoothing'. The development of 'smoothed' maps of rates is one which has generated a lot of interest lately. This is especially true because of some recent advances in Bayesian Statistics which have generated some new tools applicable to this problem.

July 2007: Spatial Epidemiology: an overview of techniques - speaker TBA

This webinar will focus on the use of GIS for the epidemiological study of environmental pollutants/risks.

September 2007: Spatial statistics and disease surveillance - Dr. Trisalyn Nelson (UVIC) and Sunny Mak (BCCDC)

This webinar will focus on how spatial statistics are used for disease surveillance

General Updates:

- Sunny/Mieke – nothing much new to report
- Genevieve/Ruth – still at early stages of exploring opportunities for GIS at Fraser Health
- Brendan is starting some work on “Understanding the Early Years”, a federally funded initiative to undertake mapping of community asset inventories. He will be working on the CRD. Also, the community health atlas internet map site will be going public in a few weeks.
- Christine has been working on ambulance drive times and looking at employee residence patterns. Also exploring co-morbidity for some diseases (diabetes for now) via mapping. Starting to get the 2006 census data
- Eleanor – starting to work on some provincial mapping of health/wellness, will provide more details as project progresses past theoretical stage, will also circulate an soon to be released 'BC Wellness Atlas' link.

THANKS TO ALL!!!

NEXT CALL: April 27th, 10:00am to 11:00am