## GIS in Public Health

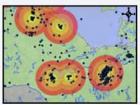
In 1854, John Snow produced a map of the cholera outbreak in London, England. While its

role in the outbreak investigation is debated, this crude map none-the-less gives an informative visual of the case distribution, and clearly identifies the contaminated pump.



Today's GIS allow us to do the same thing and more - with incredible precision and accuracy, and a lot more analytical power.

Whether it's chronic and infectious diseases, injuries, outbreak detection and surveillance, health promotion, intervention programs, or emergency preparedness and response, you can supplement your public health research, analyses and decision-making with the powerful capabilities of GIS.



The GIS Infrastructure can provide you with a variety of spatial data, tools, training and services to help you with your mapping and analyses. We can also

link you to a network of public health professionals, GIS experts and data providers across the nation, and engage in collaborative research efforts. Whatever your spatial need, be it visualization or analysis, we're here to put the right resources in your hands.

If you need sound, evidence-based decision making tools, then GIS must be a part of your toolbox; and the GIS Infrastructure one of your resources.

### Join the Network

Public health professionals with an interest in accessing the GIS Infrastructure resources or learning more about us are invited to visit our website:

www.phac-aspc.gc.ca/php-psp/gis\_e.html

Or, contact us:

gishelp@phac-aspc.gc.ca

Toll-free: 1-877-430-9995

Remember, it's all offered at no cost to you!

We're constantly striving to meet your GIS needs, so don't hesitate to contact us!







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# GIS for Public Health Practice







### The GIS Infrastructure

We are a team within the Agency's Office of Public Health Practice that provides GIS services tailored to the Canadian public health community. We started by asking public health professionals what they need from a GIS Infrastructure, and responded by addressing those needs. We continue to keep this needsbased approach as the basis of what we do.

The GIS Infrastructure supports Public Health GIS through national and international collaborations.

If you're a public health professional, we're here to support your work by providing you with a variety of data, tools, training and services to meet your GIS needs. And best of all, it's offered at no cost to you!

### Data

If your health data has a "place" component, you need spatial data to reference it to its location on earth. That's where we come in. We provide access to various types and levels of spatial data, such as census boundaries, health region boundaries, locations of health care and educational facilities, postal code locations, road networks, and more.

We also recognize that you might need additional data to make your mapping and spatial analyses more meaningful, so we provide access to demographic data, census profiles, National Population Health Survey data, etc.

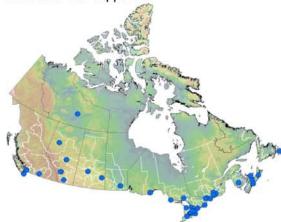
### Tools

We've developed two key tools that are currently being used nationally in the public health community: the Map and Data Exchange and the Public Health Map Generator.

If you need more complex maps or spatia analyses than your resources or skills permit, we're here to help with that too.

# Map and Data Exchange

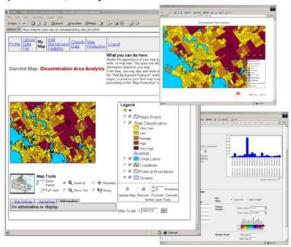
This web-based forum allows you to collaborate, network, and share information and expertise with Canadian public health professionals. It is also used to provide data, news and GIS support.



As of August 2007, more than 350 professionals from over 150 public health groups across Canada - which cover all levels of government (F/P/T/regional), academia and non-government organizations - are networked through this tool. As Public Health GIS interest continues to grow, so does the network.

# **Public Health Map Generator**

If you don't have GIS expertise or software, and want to quickly map and visualize your own health data, then this is the tool for you. All you need is a computer with a web browser and internet connection, a login name and password, and your data.



Just by pointing and clicking, you can link your health data to spatial data and classify it to your liking. You can add other data and background features as you see fit, then hit the "My Map" link to create a map image that you can save, print, insert in reports and presentations, etc. Of course you can go back and forth, making changes, until you're happy with your map before you hit "Map Production", but you get the picture!

The Public Health Map Generator leverages geographic information from the Canadian GeoSpatial Data Infrastructure (CGDI), which furnishes a virtual warehouse of geographic data from an inter-connected network of data suppliers across the country.