TOP TEN LIST

TEN BEST WAYS TO ENSURE A BAD PUBLIC HEALTH GEOGRAPHIC INFORMATION SYSTEM (GIS)
OR
"JUST BECAUSE IT CAN BE MAPPED, SHOULD IT BE?"

With apologies to David Letterman, and thanks for editorial assi stance to Elizabeth Kirby and for their insights to the following Internet contributors:

Jeffrey Gould, U. California-Berkeley
Geoffrey Jacquez, Biomedware
Kate Kvale, Wisconsin Division of Public Health
Russel Rickard, Colorado Department of Public Health and Environment
Michael Bales, Centers for Disease Control and Prevention

R.S. Kirby, U of WI Medical School, October 3, 2001

Number 10

Allow Congress (or state legislators) to mandate when public health GIS applications should be created.

Corollary: legislate the content and uses of the data stored in the GIS.

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 9

Focus only on local data, relating to *your* jurisdiction, for health events occurring within that jurisdiction.

If it didn't happen, here, to people who live here, it doesn't matter.

Corollary: allow GIS users pinpoint the exact locations of cases (i.e. AIDS patients in your community)

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 8

Keep no documentation as the GIS is developed.

Complement this with sufficient turnover in database staff that no one knows how or why any of the tables were created, what the codes mean, how the data were geocoded, or how specific fields, tables, and layers relate to one another.

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 7

Ignore risk communication completely.

Who cares what the public thinks?
Does the public really need to know?

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 6

Don’t set aside any budget for running the GIS.

Purchase the software, use existing hardware regardless of its capacity, populate the database, and walk away. If the application is any good at all, it will function for years on its own. If not, why throw good money after bad?

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 5

Assume that the geocoded records are the only data there are.

Never evaluate the quality of your geocoding process: 65% success should be good enough for government work! The unmapped records must be similar to those you mapped – right???

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 4

Only use familiar methods of cartographic presentation.

Analyze data across administrative units (i.e. counties, ZIP Codes, municipalities, census tracts and block groups). No one understands how to read an isopleth map anyway!

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 3

Allow only certified professionals or outside consultants to interpret and evaluate results and reports prior to dissemination.

Panels of local experts are too likely to bring a relational conception of space and detailed knowledge of the local context to the table – this will confuse and confound the spatial analysts and should be avoided at all cost.

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 2

Never do statistical analyses to identify disease clusters, never report p-values or confidence intervals, and never use the color red.

Instead, draw conclusions from an N of 1 – the public (or the press) will be gratified when next year there is an N of 0. Politicians can then take credit for an enormously successful public health intervention.

Corollary: use the wrong spatial statistics tests, and ignore exploratory data analysis using conventional methods.

Top Ten List: Ten Best Ways to Ensure a Bad Public Health GIS

Number 1

Don’t let goals and objectives interfere with the creative process in designing and implementing your GIS.

Instead, rely entirely on the data-driven approach, and never utter the word *hypothesis*.