



# Geographic Information System (GIS). SIGEpi

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# Influenza A(H1N1). 2 May 2009



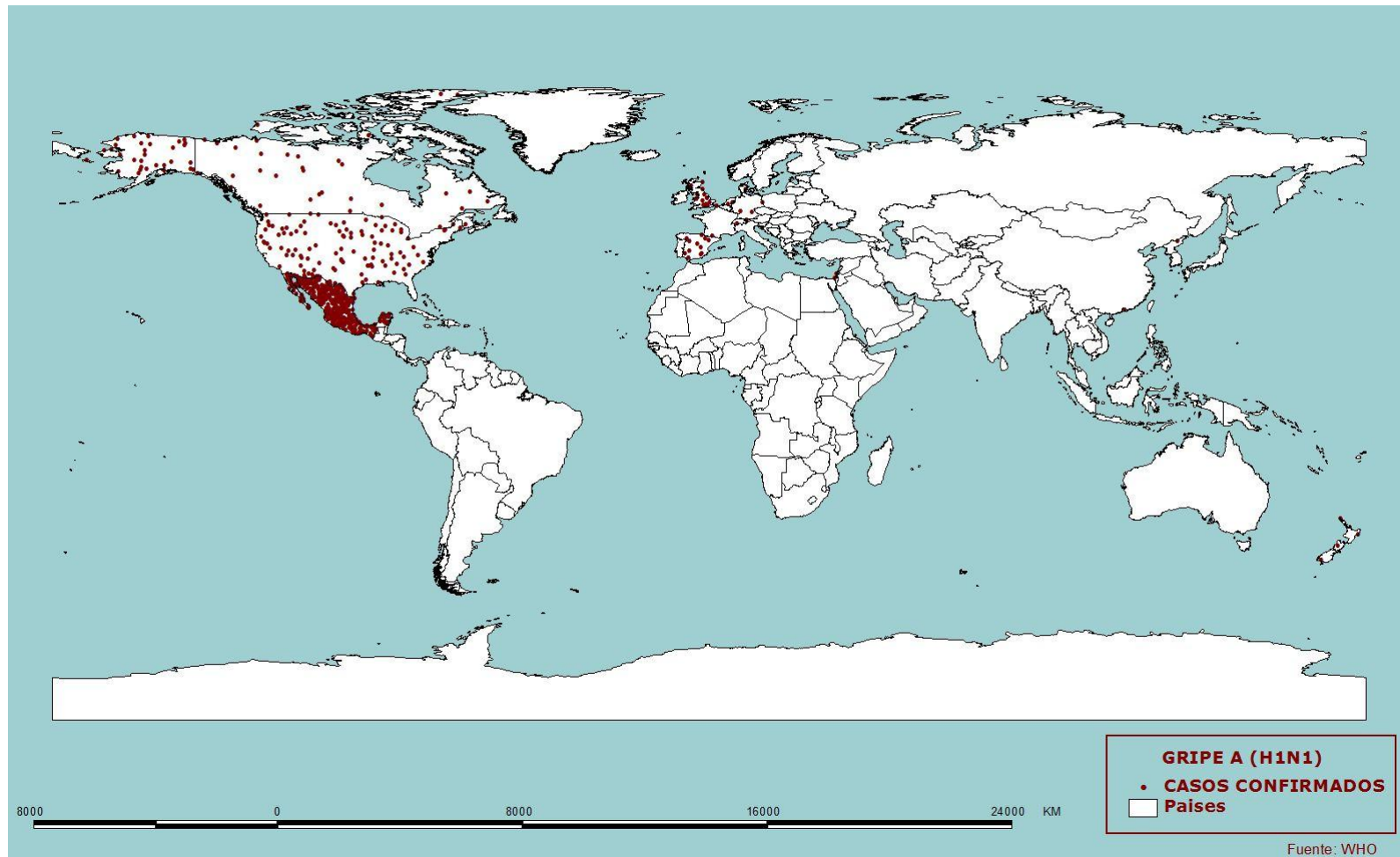
## Influenza A(H1N1) - update 9

- 2 May 2009 -- The situation continues to evolve. As of 06:00 GMT, 2 May 2009, 15 countries have officially reported 615 cases of influenza A(H1N1) infection.
- Mexico has reported 397 confirmed human cases of infection, including 16 deaths. The 241 rise in cases from Mexico compared to 23:30GMT of 1 May reflects ongoing testing of previously collected specimens. The United States Government has reported 141 laboratory confirmed human cases, including one death.
- The following countries have reported laboratory confirmed cases with no deaths - Austria (1), Canada (34), China, Hong Kong Special Administrative Region (1), Denmark (1), France (1), Germany (4), Israel (2), Netherlands (1), New Zealand (4), Republic of Korea (1), Spain (13), Switzerland (1) and the United Kingdom (13).

# Influenza A(H1N1). 2 May 2009



## Confirmed Cases



# Cholera outbreak in London, 1854



John Snow

# Some Uses of maps in Health

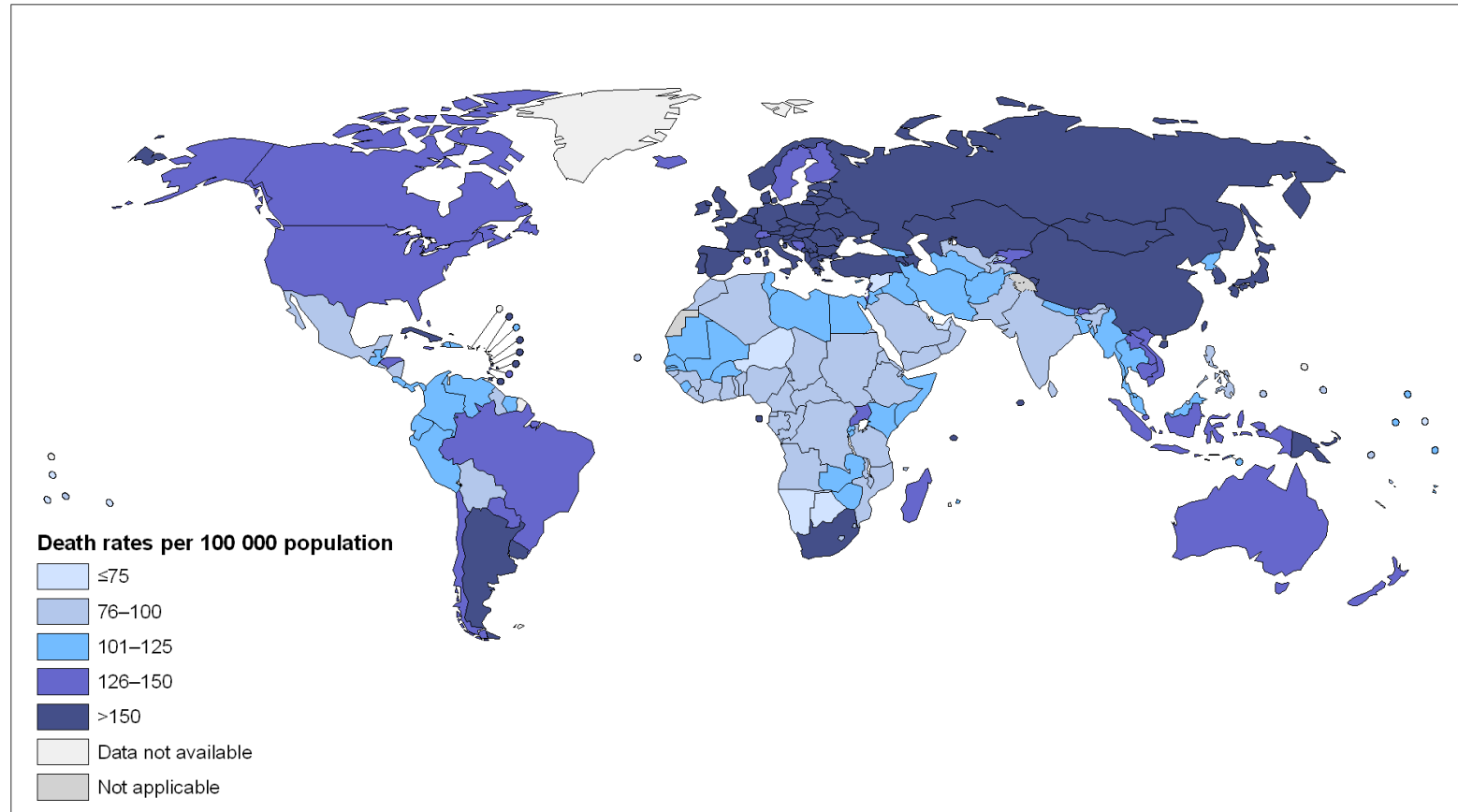


- **Determination of health situation in an area**
- **Surveillance of health events**
- **Generation and analysis of research hypothesis**
- **Identification of high risk groups**
- **Planning and programming of health services**
- **Environmental risk analysis**
- **Monitoring and evaluation of health interventions**

# Spatial distribution of health events



Cancer, death rates per 100 000 population, age standardized  
Males, 2008



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization  
Map Production: Public Health Information  
and Geographic Information Systems (GIS)  
World Health Organization



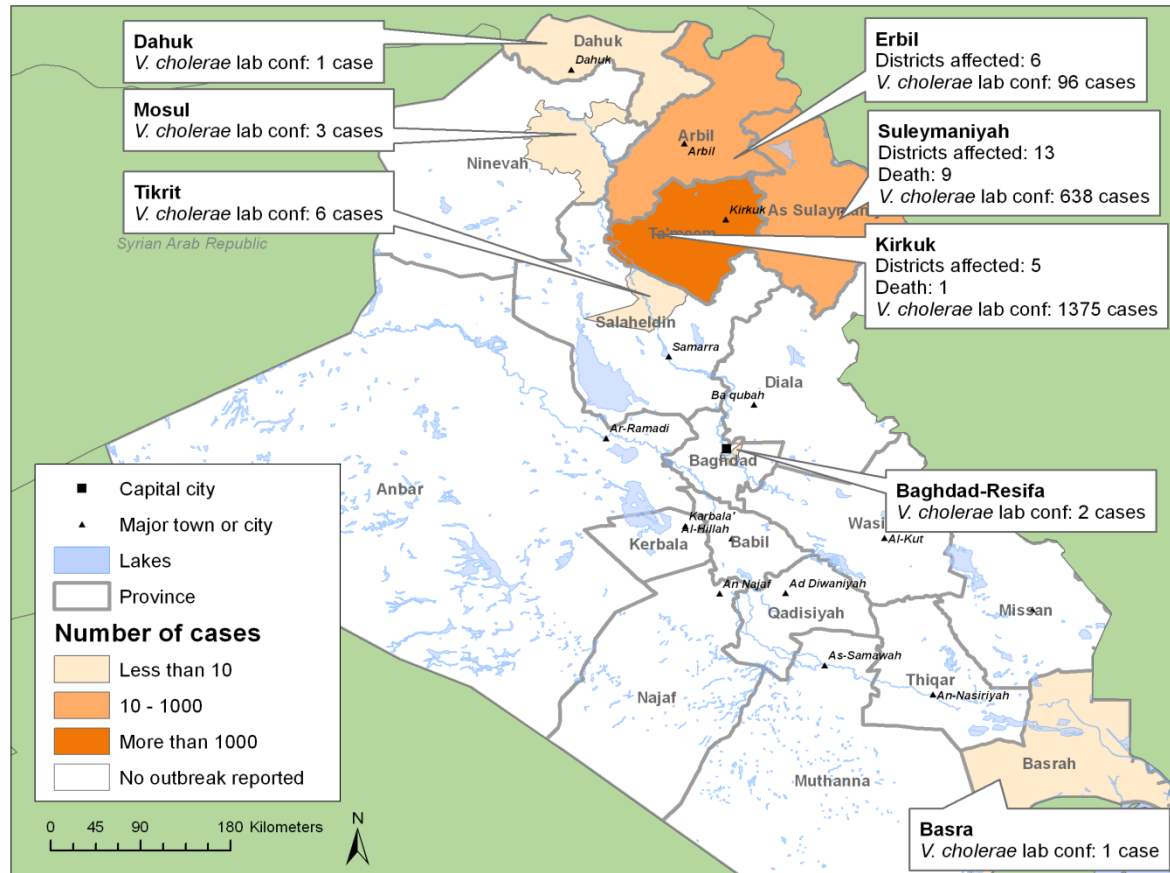
**World Health Organization**

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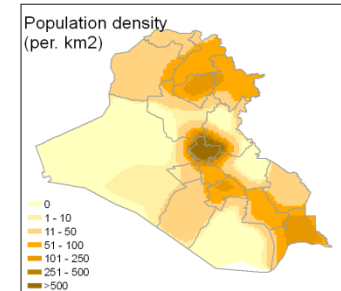
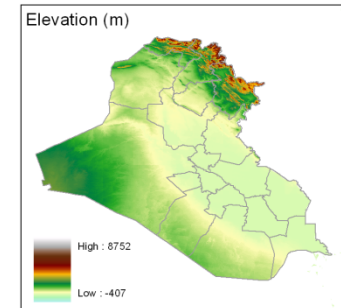
# Evaluation of interventions and public health programs



Cholera in Iraq: Lab confirmed cases, 14 August - 24 September 2007



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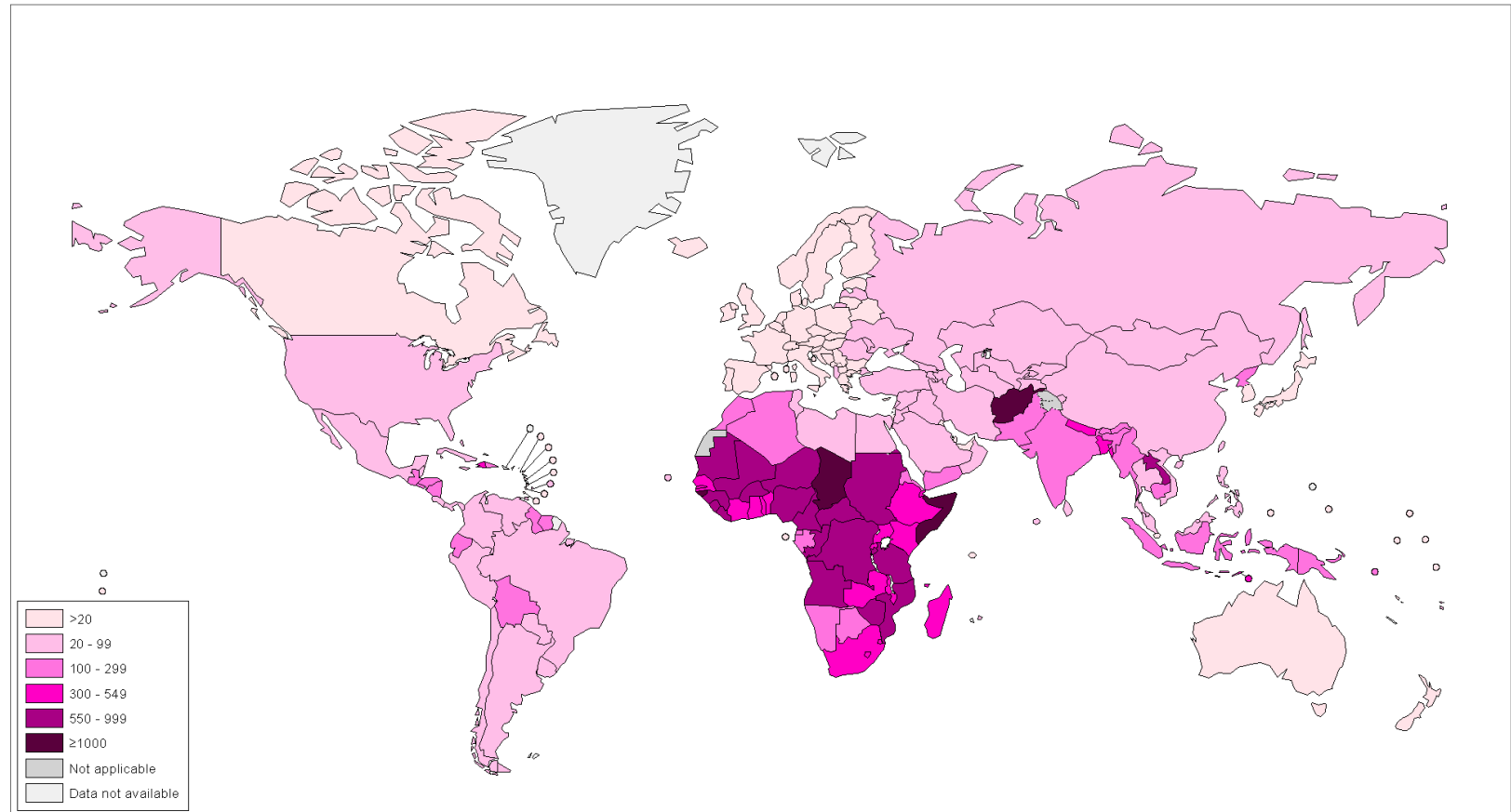
Data Source: WHO Office, Iraq Summary, DCW, GTOPO  
Map Production: Public Health Mapping and GIS Communicable Diseases (CDS), World Health Organization.  
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# Health indicators



Maternal mortality ratio (per 100 000 live births), 2008



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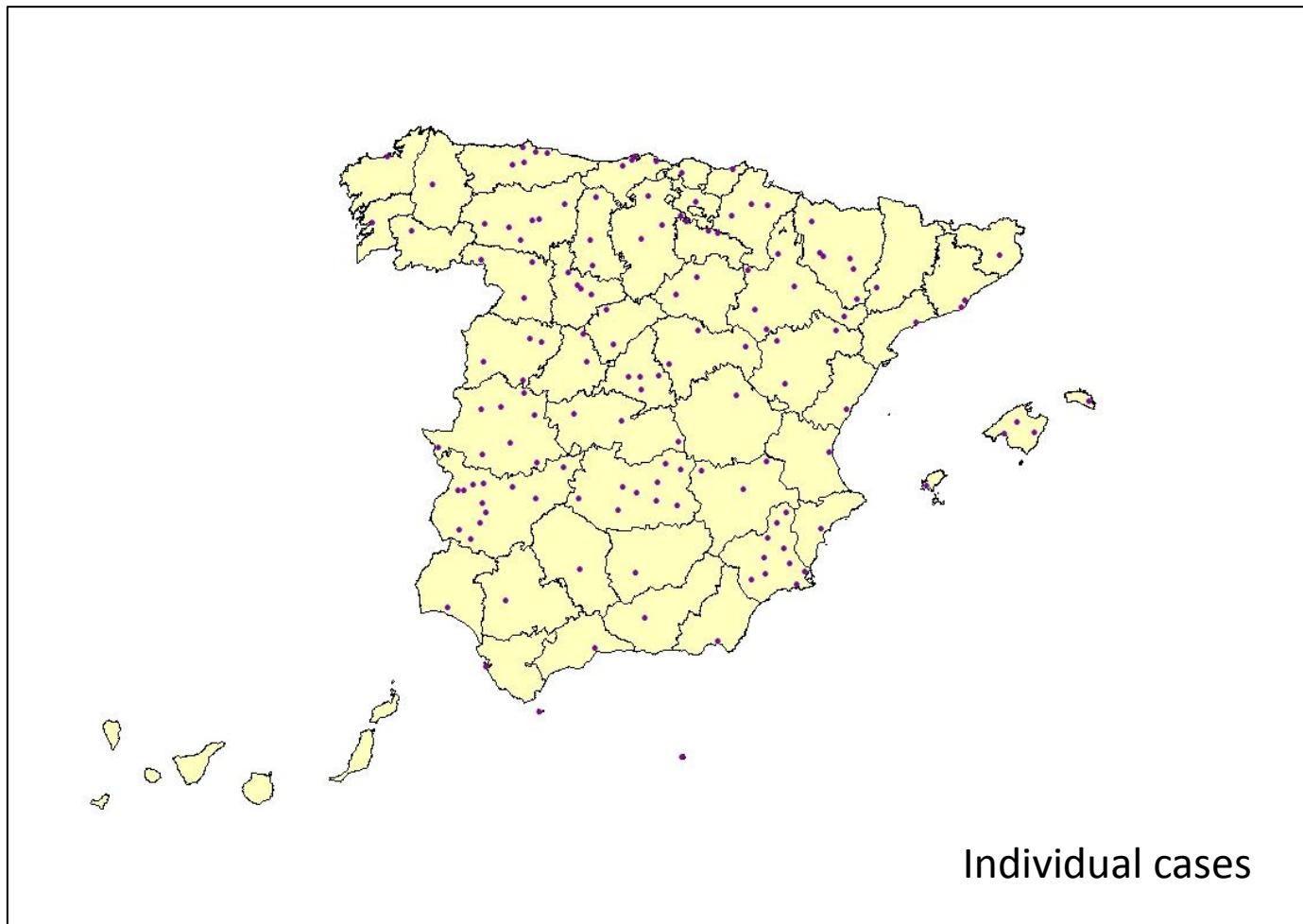
Data Source: World Health Organization  
Map Production: Public Health Information and Geographic Information Systems (GIS)  
World Health Organization



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# Cases. Point map





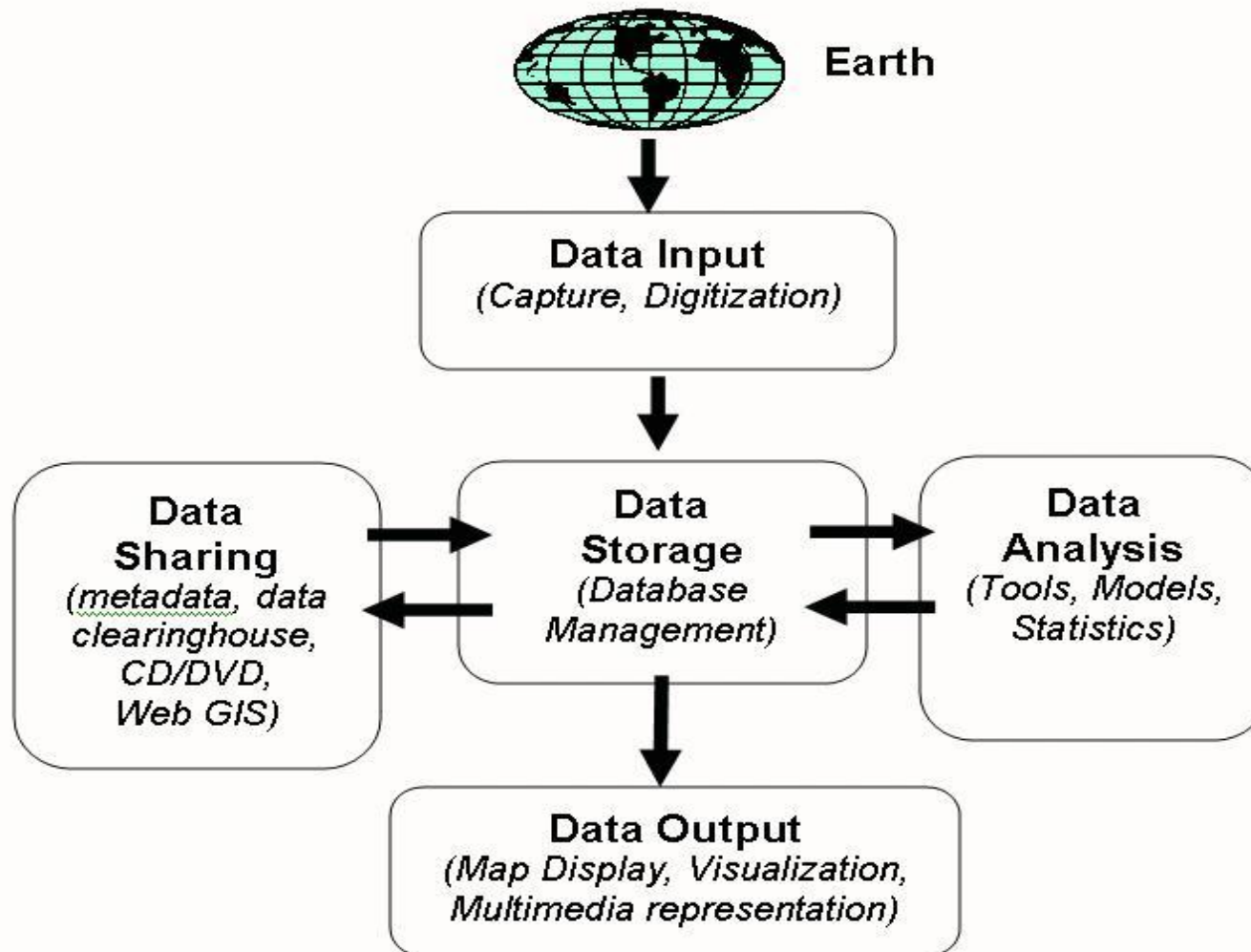
## Influenza sentinel surveillance. Spain

<http://vgripe.isciii.es/gripe/inicio.do>

## Health map

<http://healthmap.org>

# Geographic Information System





**PAHO SIGEpI Web Site:**

**<http://ais.paho.org/SIGEpI>**

# What is SIGEpi?



It is a Geographic Information System (GIS) designed for applications in Epidemiology and Public Health, including specific analytical procedures for:

- Mapping of health indicators
- Assessing health situation
- Spatial analysis
- Public health surveillance
- Exploratory data analysis

