Internet Searches used for Epidemic Tracking Case Study

Internet users have grownaccustomed to using Google to search for all kinds of information: the definition of a word, the latest news about a celebrity, or the possible cause of an ache or pain. Now it turns out that Google may be one of the more powerful tools for predicting disease outbreaks—some say even more powerful than the best tools of the Centers for Disease Control and Prevention (CDC).

In 2008 Google launched Google Flu Trends, an application that compiles aggregated data from key word searches for clinical terms, such as *thermometer, chest congestion, muscle aches*, or *flu symptoms*. Google reports the data on a website, which then provides an early warning system for the locations of new flu outbreaks. Because the data are collected from searches performed each day, trends in flu symptoms become apparent much more quickly than when they are based on data reported during office visits or in lab reports from physicians around the country. When the CDC compared actual cases over the course of a year with Google’s findings, the data from the two sources matched.

* Is there any possible downside to this approach to data collection?
* How might data collected in this way *not* be representative of a particular population?