

## Bookmarks: Health statistics

John Blenkinsopp

Clinical Effectiveness Advisor, University Hospital of North Tees, UK

john.blenkinsopp@nth.nhs.uk

*The development of evidence-based practice means that health professionals have to make sense of statistics.*

Appraising evidence or auditing without an understanding of odds ratios, numbers needed to treat or statistical process control (SPC) can be very difficult. Those who doubt the potential benefits of statistics in health care should have a look at a NIH site<sup>1</sup> which recognises that efficient use of cumulative sum charts (a type of SPC) on mortality rates would have recognised the crimes of Harold Shipman much earlier. A search of the BBC Web site<sup>2</sup> gives over 900 hits – showing how much statistics drive the health service. The level of quality in the NHS has to be measured by statistics and they are a simple fact of life for health staff – so how do we find and use them?

*'When she told me that I was average, she was just being mean' or 'Old statisticians never die, they just become non-significant'.*

As a beginner, a good site for making sense of statistics is the Lancaster University Statistics Glossary<sup>3</sup> which summarises all of the main terms used. The site gives some basic definitions, describes forms of data and explains concepts in a simple accessible way; for example, probability is explained using playing cards.

As you might imagine, the majority of health statistics are provided by the Department of Health (DH) who previously had a reputation for producing Web sites that are difficult to navigate. I can remember discussing this at a conference and the general consensus was that it was easier to search for DH information via Google than via the DH Web site. My feeling is that this is changing and that the sites are becoming easier and more efficient to use. If you are searching for national statistics, a core site to look at is the National Statistics Web site<sup>4</sup> which describes itself as the 'Home of British Statistics'. The home page is interesting and bombards you with

data but is very 'busy' in that there are many headings and rolling news headlines to contend with. The health statistics area is surprisingly not listed under 'Key statistics' and you have to allow time to find that part of the Web site. Within this, many of the major health issues in the UK are listed in the Health Statistics Quarterly (HSQ).<sup>5</sup> Although this is a quarterly publication which requires a subscription, there are many free links to statistical content; for instance, the HSQ news release is free and summarises the statistics listed in the main publication.

If you are interested to see how your local hospital (or your

employer) is doing, the Hospital Activity Statistics<sup>6</sup> from the DH can be very useful. This site provides a range of statistics collated from data taken from NHS trusts. For instance, if you wanted to see how your Trust compared against the 4-hour A+E waiting rule, this site gives you the detail. The data are collected quarterly and cover 1988 to date. Other related sites such as the DH Performance Statistics pages<sup>7</sup> give a wide range of statistics related to major health issues such as smoking, alcohol, sexual health and morbidity. Some of the statistics can be quite

disconcerting; for example, you can find statistics related to age and death which allow you to work out how many years you have left!

The Hospital Episode Statistics (HES) site<sup>8</sup> provides information on in-patient care delivered by NHS hospitals in England. It is produced by the Health and Social Care Information Centre. The Web site describes it as 'the national statistical data warehouse for the care provided by NHS hospitals'. The Web site provides general information on the statistics available, and gives access to standard data tables analysing in-patient care by many criteria. You can also use the Web site to request specific analysis depending on your own requirements.

For independent statistical information, the Dr Foster site<sup>9</sup> is extremely detailed and gives data such as number of beds on a unit or how long you will expect to have to wait to see a particular consultant, and compares them with others in the local area. The downside of the site is that many hospitals have chosen not to provide information and it can be difficult to follow the comparative data.

Finally, if you have had enough of statistics, the Internet Gallery of Statistics Jokes<sup>10</sup> might suit you with classics such as 'When she told me that I was average, she was just being mean' or 'Old statisticians never die, they just become non-significant'.

### Web sites

1. <[www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list\\_uids=12927439&dopt=Citation](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12927439&dopt=Citation)>.
2. <[www.bbc.co.uk](http://www.bbc.co.uk)>.
3. <[www.cas.lancs.ac.uk/glossary\\_v1.1/main.html](http://www.cas.lancs.ac.uk/glossary_v1.1/main.html)>.
4. <[www.statistics.gov.uk](http://www.statistics.gov.uk)>.
5. <[www.statistics.gov.uk/statbase/Product.asp?vlnk=6725&More=N](http://www.statistics.gov.uk/statbase/Product.asp?vlnk=6725&More=N)>.
6. <[www.performance.doh.gov.uk/hospitalactivity/index.htm](http://www.performance.doh.gov.uk/hospitalactivity/index.htm)>.
7. <[www.dh.gov.uk/PolicyAndGuidance/Performance/fs/en](http://www.dh.gov.uk/PolicyAndGuidance/Performance/fs/en)>.
8. <[www.hesonline.nhs.uk/Ease/servlet/DynamicPageBuild?siteID=1802](http://www.hesonline.nhs.uk/Ease/servlet/DynamicPageBuild?siteID=1802)>.
9. <[www.drfooster.co.uk](http://www.drfooster.co.uk)>.
10. <[www.ilstu.edu/~ggramsey/Gallery.html](http://www.ilstu.edu/~ggramsey/Gallery.html)>.