

Misuse of Statistics Department  
UK Statistics Authority  
Statistics House  
Tredegar Park  
Newport  
South Wales  
NP10 8XG

June 24, 2011

Dear Sir/Madam

I am concerned about the widespread misunderstanding and misuse of NHS waiting time statistics.

Two examples (among a multitude), both written by experts, illustrate this.

**Firstly - an article by Michael Blastland (see attached).**

<http://news.bbc.co.uk/1/hi/magazine/7965785.stm>

Several points need to be made.

1. The NHS statistics used are a measure of the waiting time **so far** (at a particular point in time) of people still waiting for treatment.
2. HES [Hospital Episode statistics] measure actual waiting time (i.e. from going on the waiting list to treatment)
3. If you change the distribution of patients' waiting times, you can alter the "NHS waiting time so far" without having any effect on the HES waiting time. As a simplified example, suppose that (A) every patient is treated after exactly 6 weeks and (B) half of patients are treated immediately and the other half wait exactly 12 weeks. Obviously, the HES mean waiting time is 6 weeks in both cases. In (A), the mean "NHS waiting time so far" will be 3 weeks (assuming a constant inflow of patients) because there will be an equal number of patients on the waiting list who have waited 1 day, 2 days, ... 40 days and 41 days. Using the same argument, in (B), the mean "NHS waiting time so far" will be 6 weeks – i.e. double that of (A).
4. The "NHS waiting time so far" is biased. If the "NHS waiting time so far" is measured every month (say), someone waiting 6 months will be measured 6 times while someone waiting one month will only be measured once. Presumably, someone waiting one day will probably not be measured at all.
5. HES statistics show that the distribution of waiting times has changed markedly.

**Secondly – a Guardian article by Professor John Appleby of the King's Fund (a health think-tank)**

<http://www.guardian.co.uk/society/2006/apr/24/health.lifeandhealth>

*...maximum times now stand at around six months, with 50% of patients admitted to hospital having waited less than seven and a half weeks - half the time patients waited in 1997. [Paragraph 5]*

HES statistics show the professor's statement to be false. He appears to be using the "NHS waiting time so far" statistic. If so, he should have said 50% of patients on the waiting list have waited less than seven and a half weeks so far – and haven't been admitted to hospital.

I would appreciate it if you could look into this and inform everyone of the properties of the different waiting time statistics.

Yours faithfully

John Glenister

What goes down, may also be up

**GO FIGURE**

Different ways of seeing stats

**Hospital waiting times are coming down, right? Well yes, but also no. Once again it all depends on how you do the counting, says Michael Blastland in his regular column.**

It's been a proud and justifiable government boast: no one nowadays is left to stew in discomfort for years on end waiting for a hospital to bless them with an op.

The convenient shorthand for this big improvement in maximum waits - from 18-months a few years ago to an 18-week target now - is that "waiting times have plunged".

Have they? Maybe, maybe not. Recent data raises doubts.

For some, that'll be a surprise that makes no sense. Click through the storyboard to see how it works.

These figures are for England, but Scotland and Wales seem to tell much the same story: median waiting times in the hospital episode statistics (HES) that first rise and then fall back only recently.

The government tends not to quote this data. Its emphasis has been on maximum waiting time targets. But it does also have its own Department of Health figures for what's happened to the middle. These show a striking improvement (see graph, right).

The reasons for the huge differences back in 1997 (41 days versus 99 days) are not obvious. Still, the government figures and the HES figures are now not far apart, the smaller differences now are more easily explained, and they are going in the same direction.

Since they are now closer to agreement, it could be that we can be a little more confident of what's happening. Maybe cuts at the top - which are becoming ever more demanding - are at last conclusively bearing down on the middle too, whichever way you measure it. After years of effort, is this the moment, finally, that we reach the point of unambiguous improvement for Red and the millions like him?