

Statistics - sustaining government or serving society ?

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The Statistical Society of London, later to become the Royal Statistical Society (RSS), was founded in 1834. Many of its founder members' interest in collecting statistics grew out of a desire to show the need for social reforms. One of the first papers it published opened with these words:

'Few persons are to be found in the present day who will hesitate in allowing that the best way of allaying disquietude and of diffusing contentment on the subject of public affairs is an open and clear disclosure of their condition and management....it is in the interest of those who administer the government to perform no acts that will not bear examination, and it has become a right of the public to receive every kind of information which can lead to a correct judgement of their capacity, assiduity and integrity.'¹

Over the century which followed, the RSS took many initiatives on the subject of official statistics. For example, in 1920, it presented a petition to the government asking it to appoint a Parliamentary Committee or Royal Commission to 'inquire into the existing methods of collection and presentation of public statistics and to report on the means of improvement.'² A *Lancet* editorial commented from a medical standpoint:

'Most of the excellences of the Registrar General's publications can be traced back to the genius of a single man, William Farr, and are due to the happy accident that one who combined medical and statistical knowledge in a just proportion was allowed a free hand in days when vital statistics were not of sufficient interest to the general public for it to be worth the while of the uninformed to meddle with them. This is no longer the case.'³

Have things changed since then? Clearly there is nothing new in politicians using statistics in ways which show themselves in the best possible light and discredit their opponents. Many people feel, however, that the Thatcher government has done this to an even greater extent than any of its predecessors. It started in 1981 with a 25 per cent cut in spending on the Government Statistical Service (GSS) following an enquiry by Sir Derek Rayner. This put forward the principle that government should collect only

the statistics which it needs for its own purposes,⁴ and has led to many criticisms that the government wishes to avoid collecting politically embarrassing statistics. The previous view was that while the main purpose of official statistics was to serve the government, they should also be useful to other people. The RSS held a meeting at which these changes were deplored by the great and the less great.⁵ After this, it took little action for nearly a decade, despite the government's increasingly blatant and misleading use of statistics.

When asked by Radical Statistics Health Group early in 1986 to take action about the government's misleading use and restricted publication of National Health Service statistics, the RSS's response was to suggest that the Group ask the RSS Medical Section to hold a meeting on the subject. The meeting on 'The quality of official health statistics' was held jointly with the Society for Social Medicine in July 1987, and attracted a large audience of concerned people.⁶ Government and NHS statisticians described the range of statistics they produced, and people working in a variety of settings, ranging from hospital and community health services, community health councils, voluntary organisations and the press talked about some of the problems they faced when trying to find and use the data. Ironically, both societies had delegated the organisation of the meeting to people associated with Radical Statistics!

Although the Royal Statistical Society set up an Official Statistics Study Group, it did not make any public response until 'Cooking the books?', a programme about government statistics was broadcast in January 1989 in Channel 4's 'Dispatches' series. This gave ten examples of ways in which the production and presentation of official statistics are manipulated politically. The examples included some which Radical Statistics Health Group had been raising repeatedly over the preceding four years. The programme was followed by a full page set of articles in the Guardian and was repeated in April.

'Integrity' and government statistics

The RSS was unsure how to respond. It discussed the possibility of asking a group of distinguished past presidents to look into the ten examples from the 'Dispatches' programme to see if the criticisms were justified. In the autumn after a further series of articles about official statistics, in the Independent this time, the Society announced that it had asked the head of the civil service to allow Jack Hibbert, the head of the GSS to talk at a meeting on December 6. He prepared a brief paper, which started by stating 'it is my aim as head of the Government Statistical service to ensure that the statistics are accepted as an

objective representation of the facts.'⁷ He closed by setting out three questions which he felt should form the basis of the discussion:

(a) Why is a distinction so rarely made between the statistics produced by the GSS and the uses to which others - both inside and outside government - put them?

(b) Are the practices and conventions currently followed to maintain public confidence adequate? Does anything need to be done to strengthen them?

(c) How should statistics which the government does not need for its own purposes be produced and financed?'⁷

Not surprisingly, the discussion ranged more widely, with several people challenging his assumptions that government statistics are neutral, objective 'facts' produced in a pure vacuum and do not enter the political process until they become public when malign people then 'misuse' them. This is unrealistic, as decisions taken throughout the production of official statistics are open to political influence, either through overt decisions or as an indirect consequence of the prevailing political atmosphere.

Political influences on the production of official statistics

Firstly there are decisions about what statistics should be collected. There is an urgent need to challenge the assumption that the GSS should collect only the statistics which meet the immediate political needs of the party in power. There is no evidence that either market forces or voluntary efforts will or can fill the gaps to ensure that we have the range of statistics needed by the wider community as a framework within which policy can be debated in a democracy.

Next there are questions about how statistics are classified and defined. It is true that the GSS publishes its methods and definitions, but it often does so in places known only to the specialist. As a result, to take just one example, the press and the public may not be aware of the difference between a 'new hospital scheme' and a hospital. Many hospital developments take place in a number of phases, each of which can be made up of one more more 'schemes'. There is no precise definition of a 'scheme'. It might be a large block of wards and operating theatres, or it might be a boiler house or a car park.

In the analysis and presentation of statistics, there is plenty of scope for dubious manipulation in the choice of time scales, in presenting percentage changes rather than absolute values and in using logarithmic scales to present data to people who are unlikely to understand logarithms. Despite these complexities, at the RSS meeting on December 6, Jack Hibbert expressed the view that statisticians need not be involved in the interpretation of statistics. Referring to the convention of separating statistics published by the Government Statistical Service from comments made on them by ministers, he said:

'The need at the same time to maintain statistical objectivity and to enable the government of the day and others to give their interpretation of the statistics means that the conventions need to be followed rigorously. Furthermore, except in respect of purely technical aspects it would be quite wrong to look to the GSS, as is sometimes suggested, to pass judgement on those interpretations.'⁷

As well as questioning whether interpretation should be left to politicians of any party, it could also be asked whether some statistical assistance would help them understand the data better.

Finally, there are the problems of dissemination. These not only include whether data are published, how much the publications cost and whether any efforts are made to tell the world that they have been published. The availability of data sets for secondary analysis is also an issue. There is also the problem of whether outside research workers can get funding to do the work, whether they are allowed to publish their findings freely, and whether they write them in unreadable language and bury them in obscure academic journals.

Statistics and the internal market - 'Framework for information systems'

The same influences can be seen at work in the process of consultation about statistics in the aftermath of the NHS White Paper. The White Paper⁸ and the Working Papers issued with it carried more than a hint that long overdue investment in information technology would at last be made.

The White Paper came at a time when the new systems for collecting NHS data in England, which had been set up following the report of the Steering Group on Health Services Information, or Korner Committee as it is usually known, were not yet fully working. This was despite the fact that most of

them had been due to start on April 1 1987 and the rest on April 1 1988. The fact that health authorities had been asked to implement Korner systems within their existing resources at a time of financial crisis made it difficult for them to meet these April Fools' Day targets. Many were not able and some still are not able to collect all the data required.

There were also more ominous signs. Hospitals and units which opted out were only to be asked to submit the minimum of information centrally. What did this mean? A parliamentary question from Frank Dobson, asking 'which sets of Korner data will be collected from National Health Service hospital trusts' received a somewhat evasive reply on March 6 1989. The minister said 'We shall be giving detailed consideration over the coming months to the information which will be needed centrally when National Health Service hospital trusts are established.'⁹

On January 17 1990, when the NHS and Community Care Bill was already well on its way through parliament, the results of the deliberations about information were published in Working Paper 11. Entitled 'Framework for information systems: overview'¹⁰, it announced a consultation exercise which closed on March 31. The document and consultation were launched by junior health minister, Roger Freeman, speaking at a conference in Birmingham on a day when the press had more exciting things to write about. As a result it was not widely reported.

The Working Paper was circulated to health authorities, family practitioner committees and professional organisations in a 3 inch thick box of papers. The next two papers in the pile have similar titles, 'Framework for information systems: IT'¹¹ and 'Framework for information systems: information'.¹²

The IT document is described as the 'consultative document comprising recommendations of review project 25 on information'. It is divided into short term and long term goals. The short term goals are to implement a massive list of systems, mainly for operating and monitoring contracts, by April 1991. The longer term goals include building up computer networks, something many other organisations including the underfunded universities and polytechnics have already done in the 1980s, and the design of information systems. These are things which need doing anyway. It is a pity they have to take second place to the setting up of the internal market. On the other hand, it is even more of a pity that work has not started on them long ago and that the internal market is the price we have to pay for the prospect of having them at some unspecified time in the future. The information document, described as the 'consultative document comprising recommendations of the department

review project 34 on information', has no less than 13 annexes, broadly relating to categories used for Korner systems.

A major change is the plan to change the basis of district health authorities' data collection activities. From April 1 1993 on, they will collect data about health care received by their resident population, instead of collecting data about the activities of services in the district. The proposal is that, in the 'internal market', information about services provided to people living in each district will be passed back to the district health authority, together with the 'provider's' invoice. In principle, it seems a good idea to collect statistics on a population basis. The question is whether health authorities will have the human and financial resources to achieve this change by April 1993 as requested. Before this, they have gargantuan computing tasks to achieve by April 1991 to set up contract systems as well as making existing systems work.

Not surprisingly, one of the questions in the consultation is whether opted out units will have to contribute to national systems. The documents show them in flow charts, along with private hospitals treating NHS patients, but the text is more guarded. There is also a suggestion that district health authorities may not have access to information about care given to people whose GPs opt out. If opted out services are not included, there will be considerable gaps in our national statistics.

This may be relevant to the announcement that the Department of Health is to review, by June 1990, its requirements for data to be submitted centrally. The argument, that this needs to be done 'to reduce the burden on health authorities' is depressingly familiar, as it was used to justify the Rayner cuts in the Government Statistical Service. It is followed by the equally dismal and familiar rhetoric about the government collecting only the data it needs for its own purposes. It also seems to ignore any possibility that the Department of Health could have a co-ordinating role in passing comparative statistics other than 'performance indicators' back to the district of residence and monitoring rare events on an national scale, let alone the question of whether national statistics provide a useful benchmark with which local data can be compared.

Do we need a new agenda for statistics?

Many medical statisticians working outside the NHS and the GSS are unaware of these changes. The ever increasing development of statistical methodology over the years has changed the work of statisticians. Use of official statistics probably forms a much smaller part of the work of statisticians outside government today than it did in the past and the upper echelons of the RSS are dominated by professors of theoretical statistics. This

may be why official statistics have received less of the profession's attention in recent years than in the past. Although the RSS has now set up an enquiry into official statistics, it has moved far from the position set out in in 1838 in the introduction to the first issue of its journal:

'Statistics may be said to be...the ascertaining and bringing together of those "facts which are calculated to illustrate the conditions and prospects of society" and the object of statistical science is to consider the results which they produce, with the view to determining those principles on which the well being of society depends.... It is unnecessary to show how every subject relating to mankind itself, forms a part of statistics In fact as all things on earth were given to man for his use, and all things in creation were so ordained as to contribute to his advantage and comfort, and as whatever affects man individually affects also man in a state of society, it follows that statistics enter more or less into every branch of science, and forms that part of each which immediately connects it with human interests.'¹³

Although there were problems with this 1830s liberalism, the spirit of humanity and concern for society which informed it is something we lack in the 1990s. When statisticians are bogged down with methodological and computing problems on the one hand and researchers as a whole worry about where their next project will be funded on the other, it is not easy to make time to work out a new agenda for statistics. Radical Statistics is discussing the possibility of doing so, although it would be unwise to ignore the continuing misuse of statistics while doing so. We make no rash promises to achieve a new agenda, but would welcome anyone who would like to join us in our search for one.

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Postscript - 'The next steps'

This article was originally written for 'Critical public health'. There have been two relevant publications since this was sent off to them earlier this year. These were the Royal Statistical Society's report on official statistics, which is discussed elsewhere in this issue and 'Framework for information systems: the next steps', the Department of Health's response to the consultation on Working Paper 11. Publication took place on June 14, when people who had replied to the consultation were invited to go to a free conference at the Metropole Hotel at Birmingham Exhibition Centre to hear what had been decided.

Radical Statistics did not manage to reply, but Miranda Mugford and I had replied in our professional capacities, so we went to spend the day sitting on the hotel's pretentious but uncomfortable chairs to hear the contents of the document regurgitated. We were relieved to hear that some of the proposals which would have made maternity statistics even more incomplete that they are at present had been dropped. More generally, it had fortunately been decided that not only opted out hospitals and units but also private units which had contracts with the NHS should provide the most of the same data as units which remained fully within the NHS.

Nearly every presentation was followed by questions from health authority staff asking where they were going to get the money and the staff to do all the work set out in 'The next steps' and meet the deadlines stipulated. Half way through the day a solution was put forward to the staffing problem. Existing staff should be retrained in information work. It was not revealed who should do their current jobs, and someone quickly pointed out that it might be difficult to retain staff in the NHS once they had acquired the new IT skills. As for the availability of money, Department of Health officials had to admit that they were unable to answer this crucial question.

The overall impression was that although some districts and units might have good systems for some things, the prospect for the quality and coverage of NHS statistics as a whole is extremely bleak.

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Critical Public Health, formerly known as Radical Community Medicine, is a quarterly journal for everyone interested in health, health services and changing health policy and practice. Subscriptions are £10 per year for UK and Ireland, £13 for Europe and world surface mail and £18 per year for world air mail, and should be sent to 55 Fairbridge Road, London N19 3EW.