

**EDITORIAL**

Philip Bertrand

The subject of statistics is currently in some turmoil. Not only is there a feeling of pressure through the merger of the IOS and the Royal Statistical Society but so also is our desire that the RSS adopt an active role in pursuit of social change for the better. Wherein lies the root cause of our distress that enough is not being done about self-evident deficiencies in the society we live in? To us the facts are self-evident. That there is social deprivation is evident in the nationally published statistics, evident in the schools, evident in the hospitals, evident in the legal system, evident in the homes and evident in the street. But the Government claims it is doing 'what it can with the resources available', 'there is a recession on', 'there have been improvements ... here ... and there ... and there...'

It is our duty as citizens to point out the deficiencies we see. We push that something be done to correct the deficiencies. When something is done then our ever worrying minds move on to try for still better improvements. The progress of improvement takes more time and effort than most of us have to devote to it.

Having reflected on the problem for some time I have realised that in Britain there is no-one whose job it is to bring about improvements in the things that are done. Whether it is in society or in some organisation we work in, we are employed to carry out the tasks assigned to us. At least, that is the British management method. The problem is that this results in an in-built tendency for society to tend to stasis, then to, indeed, eventually decay. It may then seem a puzzle that society in terms of average wealth appears to be gradually improving. But this is accompanied by an increase in the wealth of the wealthy and an increase in the poverty of the poor.

The hierarchical system of our society leads many in it to wish to retain their position of relative wealth in it, to neither rock the boat nor to seek implementation of change for the better. It is evident that this is not just a feature of capitalist societies. It is quite evident that the social structure in communist countries has suffered, still suffers, from the same in-built inertial resistance to change. The problem to my mind is how to enable a society to evolve for the benefit of all without the system falling into some rigid hierarchy dedicated to the perpetuation of an 'elite' minority in a never ending position of social supremacy. Throughout history this has been the tendency of societies. The long history of China, India, Asia, Europe and the Americas abound with examples. What is interesting is that a society may have a spurt of freedom, of liberty, of openness, but after a while the momentum for such collapses, whence some rigid hierarchical system results.

For me the real challenge facing the world is to find some social model that will in some sense allow the society to optimally evolve without falling into some rigid caste-like or hierarchical system wherein some sub-group perpetuates itself in a dominant position at the top of human society preventing further development.

Do I hear you say that this is in the domain of politics, not statistics? No, I tell you, this is Statistics. Maybe it is Radical Statistics, but it is quite definitely the subject of Statistics.

This problem is in fact Statistics, pure and simple. For statistics is the study of populations. Its origin and true meaning is the study of human populations. Essentially the study of the methods by which societies could be structured is the proper study of the subject of STATISTICS.

What, however, is the real message I am trying to convey? For the Radical Statistician to put across a message, that some particular set of figures really indicates that certain improvements and changes should be made, requires time and perseverance and, somehow, the selling of the statistics.

It can so often involve the rejection of the ideas, at least in the beginning, because the people taking the decisions cannot find their way through the sheer complexity of the figures before them, for they are not statisticians. They find it much easier to jump to conclusions and operate with 'seat of the pants' actions and 'gut' reactions. We must find a way to make the true, multi-dimensional figures easier to understand by Mr and Mrs Average. Text, tables and detailed arguments are difficult for most people to follow easily. Pictures, in colour and moving increase the speed of assimilation of ideas by a six-fold factor. How can we progress to making Radical Statistics vivid and alive for the majority?

**RATIONING HEALTH CARE: CARELESS TALK COSTS LIVES**

A Conference for all concerned with the provision of health care, organised by the Radical Statistics Health Group and The Public Health Alliance.

Saturday 14 November 1992, 10.30-4.30, at the YWCA, Great Russell Street, London WC1.

This conference will explore some of the myths and ethical issues surrounding the concept of rationing health care: Is there an infinite demand for health care? Does rationing promote 'health gain'? Can a balance be found between acute and continuing care? What lessons are there to be learned from local authority experiences of rationing? Will the public and the patient/user have a say? Who decides what and who should be rationed?

The new, 'reformed' NHS, with its purchase/provider culture, needs to address these issues. As money becomes tighter and 'The Health of the Nation' strategy requires greater progress in health promotion, the question of how to allocate health resources is more urgent than ever.

Speakers include Mark Williams, David Hunter, John Stewart, Len Doyal and Anna Coote.

Fees: £30 for those funded by their organisations, £15 for self-funding individuals. There will also be a few free place. Details and booking forms from:

The Public Health Alliance  
Room 204, Snow Hill House  
10-15 Livery Street  
Birmingham B3 2NU  
Tel: 021 235 3698  
Fax: 021 236 1595

**Access by road:**

From the M6: leave M6 at 'spaghetti junction' taking the A38(M) towards the city centre. Approaching the city centre stay on the A38 following signposts for Bristol, essentially following the right hand lane though all the underpasses until you emerge on to Bristol Street which becomes Bristol Road. You should be heading along the A38 towards local district Selly Oak. About three miles beyond city centre at the end of a dual carriageway just before the Gun Barrels turn right in Edgbaston Park Road.

Proceed up Edgbaston Park Road. First left off this road is the pub car park, second left 100 yards on the left is St Francis Hall. Next left is University /road East where on turning into you will find the Student's Union on your left. St Francis Hall is to the left of the Student's Union. Access to the campus may be blocked by barriers.

From the south via M5: leave M5 at Lydiate Ash (junction 4) taking the A38 to Birmingham city centre. Proceed for about ten miles passing through Rubery, Northfield and Selly Oak. You should be proceeding along the Bristol Road along whence just before coming onto a dual carriageway turn left by Gun Barrels pub into Edgbaston Park Road. Then proceed as above.

**Access by rail:**

It is best to get to New Street station and change to a local train going to 'University' station (the only one in Britain! - buy your ticket to 'University') in the direction of Redditch. University station is two stops from New Street, after 'Five Ways'. Emerging from University station, turn left and head straight on eastwards by roadways and footpaths for about a third of a mile passing first under Staff House then under the Maths and Physics bridge until, just before Edgbaston Park Road, the Students Union is on your right with St Francis Hall next to it.

**Access by bus:**

From the city centre take a bus towards Selly Oak (61, 62 or 63), alighting at Edgbaston Park Road, whence as above.

**The Royal Statistical Society****AN OPPORTUNITY NOT MISSED: THE AGM OF THE ROYAL STATISTICAL SOCIETY**

Cecilio Mar Molinero

The general meeting of the RSS was different in nature from earlier such events. The merger with the Institute of Statisticians (IoS) means that the rules that govern the Society are to be re-drafted. To this effect the AGM was to be followed by a discussion on the future of the Society.

For those who had not seen the announcement, it may be worth pointing out that issues under debate are: (i) whether the RSS should be a more democratic society, (ii) whether Council and Officers should or should not be elected, (iii) whether there should be an international (or European) dimension to the activities of the RSS, (iv) whether the RSS should become involved in relation to public policy issues, (v) other matters of internal organisation such as the services that the society offers to members, and how the merger with the IoS will affect the organisation.

The meeting was announced for Wednesday 10th June. It is probably the worst possible date for those of us who work in the academic world, just in the middle of the examinations period. I was not planning to go but was contacted by Alison Macfarlane, Roy Carr Hill, David Drew, Andrew Philpott Morgan, and Ludi Simpson,

as far as I can remember. My apologies to anyone I have missed. Some people just spoke to me, others sent written communications. There were many points in common between my own thoughts and those of all the above, and producing a composite statement was not too difficult. I did not have the time to discuss my statement with anybody except with Andrew, who was also present at the meeting.

At the AGM, Professor Fred Smith, the retiring president, explained the way in which the Society is being run. It is not a democratic institution but a kind of XIXth century club regulated by a principle of enlightened despotism. Council, the supreme body of the Society is not usually elected. Individuals are invited to become members. Invitations take into account the different professional interests of members, regional balance, and even gender. This attempts to produce a balanced representation and, Fred Smith claimed, does so successfully (but see RS51 for another view). Officer vacancies are also filled in this gentle way. Never had this system been challenged until the current year when an alternative nomination was made. Fred Smith did not propose a solution. He just limited himself to explaining the situation and then left the matter open to debate.

We had contributions from the treasurer of the society and from the IoS before contributions from the floor were invited. I was the first person to speak. This was fortunate since it helped, in a way, to set our own agenda, and my statement was heard by all the audience, before people started to disappear in order to catch their trains.

I introduced myself as a member of Radical Statistics. For those unaware of the way in which the group works, I defined it in the way one of my Southampton colleagues summarised it when I described RadStats to him: "Just good statistics". This brought a smile to the audience.

Next, I recalled that the Olympic games were about to take place, and that the athletes would be staying in a street called Avenue of Icaria. Icaria is an imaginary paradise invented by Etienne Cabet in the 1840s in which no important decision was to be taken without first consulting the statistical evidence and debating it in a public assembly where the statistician would explain the implication of the choices to be taken. This was also the spirit that led to the creation of the RSS. There was a need, I argued, to go back to our roots and become involved again in public issues.

Series A, it can be argued, deals with matters of general interest where policy interfaces with Statistics but by its very nature as an academic journal it is too slow to publish matters of current interest and is not an organ of debate. This is, therefore, a need to be fulfilled. The obvious proposal (and here I followed Alison, Andrew and David) that RadStats was making is that News and Notes should be upgraded into a magazine of current interest issues. For example, just before the general election there was much talk about waiting lists in hospitals, and the Nuffield Health Report was released. This material was of general interest and should have been reported in an upgraded News and Notes magazine with comments and reactions.

The RSS should, therefore, be involved in matters of public policy. I suggested this and I said that the RSS should react to initiatives such as the Rayner Report whenever they take place. The RSS should monitor the quality and integrity of official statistics, which would only be the continuation of a process already started. A connected proposal would be the setting up of panels of experts who could give an informed opinion at short notice on matters of current interest; the ethnic question in the '91 Census is an example of good practice.

Being involved in current issues implies a more prominent role for applied statisticians. These should be encouraged to sit in the committees of the society and since other societies do applied work often with a heavy statistical component, we should have joint meetings with other societies.

Finally, I turned to the matter of measurement. Roy Carr Hill wanted this to be mentioned, as measurement is not a neutral activity. Any measure is open to

analysis and critique on an ideological, political, and sociological level and such debate should be recognised and encouraged. I proposed the creation of a system of BSS: British Statistical Standards to ensure, at least, that any statistical measurement is clearly defined and understood. This would bring the RSS towards what is current practice in other learned Societies, such as the Chartered Engineers. Standards could be revised and modified, but no statistic should be produced without the statement: "This conforms to British Statistical Standard number XXX".

I concluded by stating that we, of course, welcome international co-operation.

I think that I covered most of the points that were made to me, and that my statement had some form of coherent structure. Perhaps we should continue this debate within RadStats and produce a vision of future for RSS towards which we could be working.

I had the impression that my contribution was well received. There was applause and I had an immediate response from one of the officers of the Society. We were told that I had produced many proposals for change. Then he described the byzantine way in which rules are changed in the Society. The conclusion is that under existing regulations neither RadStats, nor anybody else, can hope for any change in the way the Society operates. Other speakers raised many of the same issues that I had touched upon.

The meeting ended with no conclusions and no summing up. It is now up to Council to debate the future structure of the society taking into account the views expressed.

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## ROYAL STATISTICAL SOCIETY CONFERENCE IMPROVEMENTS IN OFFICIAL STATISTICS?

David Wroe in his talk to RSS repeated Chancellor Lamont's denunciation of those who "misinterpreted the Rayner Report". If there ever was a restriction of Official Statistics to meeting government needs this was not to be the case now, and the new published framework for the CSO agency makes this explicit, according to the Deputy Director of the Central Statistical Office.

His evidence of this change on the ground was that (a) the CSO will give anyone any tabulations of CSO material that they ask for, with an invoice thrown in; and (b) CSO is collecting PRODCOM business statistics that they would not have collected merely for government needs, at the behest of ... the EC. Indeed the EC was the only named way of lobbying the CSO!

It did sound rather as if CSO will do anything it is paid to do or forced to do. The CSO advisory committee is made up (entirely?) of representatives of business and other government departments.

However, the looser language used by Wroe and his explicit rejection of the Rayner doctrine (official statistics only where they serve government needs) at least leaves room for both dialogue and pressure on the CSO, and government departments too.

David Wroe came to the RadStats stall and asked for our ideas on improved economic statistics. Please reply direct and via Andrew Philpott Morgan of the nascent RadStats Economic Statistics subgroup (see inside front cover).

### The RadStats stall

We staffed a stall throughout the RSS conference, and threw a party after the Lord Mayor's reception. Half a dozen new subscribers were recruited, and £35 worth of back-issues sold.

## ROYAL STATISTICAL SOCIETY: LOOKING TO THE RSS'S FUTURE

David Drew, Sheffield Halam University

The recent editorials and correspondence in 'News and Notes' have been interesting and at times amusing. It is a good idea for the RSS to reflect on the impact of statistics and statisticians on society in the 1990s. It would appear that statisticians have a higher status in some other countries relative to our own. It seems curious that writers should lament the lack of professorial chairs in universities as a measure of statisticians not enjoying the status they deserve. So what's wrong?

The strength of statistics is that it can be applied to a wide range of subjects and issues. If mathematics is the Queen of the Sciences, Statistics is the Handmaiden of all. It is therefore in applications that statistics and statisticians are really useful. (That is not to say that theory and mathematical statistics are not useful, it is vitally important in order that Statistics as a science can then be applied.) It is therefore in applications that we can be seen to be useful in society as a whole. The history of statistics gives us some guide to this, witness the fact that 'Student' was working the Guinness Brewery at the time of the development of the 't' test and that the 19th century statisticians were heavily engaged in work and discussions on poverty, political economy and what today would be called sociology, as we can see from early volumes of the Journal of the Royal Statistical Society.

What does this mean today then? Whilst not neglecting theory we should realise the strength we have as Applied Statisticians. We can help epidemiologists, sociologists, economists, doctors, historians and educationalists. It is these areas which are reflected in Volume A of the Journal, 'Statistics in Society'. In my view the Society should strengthen this part of its work as indeed it has tried to do. It should encourage the publication of such applied work in its Journal. In order to do this, it should, in my view, shorten the referee period for papers because some papers appear which were received in the first place up to two years before publication. Authors working in current applied and policy related areas do not wish to wait two years to see their work published, it might be out of date by then.

In the second place the RSS should foster its links with other bodies and have joint meetings and conferences. I was very pleasantly surprised recently to be at a meeting of the International Sociological Association Research Committee, at Trento, Italy, to give a paper. Most of the papers had a large statistical component. The interaction between ourselves as statisticians and the area in which we apply our knowledge (sociology in my case), should be fostered.

In the third place, RSS should encourage Applied Statisticians to seek office in local committees and sections. At present there is a preponderance of academics, many coming from the more theoretical branches of our subject and from the upper echelons of our universities.

In the fourth place, RSS should play an active role in the discussion of quality and integrity in official statistics. The reduction since 1979 of the range and quality of statistics produced by government is, many statisticians feel, little short of a national scandal and this should be monitored and discussed within the RSS. Happily, this process has taken place and we feel the need for it to continue.

In the fifth place, RSS should continue to play a role in public policy issues which directly relate to the work of statistics. In this respect the discussion in the early 1980s of an ethnic question in the 1981 Population Census

is an example of good practice. This was a major policy issue and one about which many of us had a view.

Should the RSS be a more democratic society? Statisticians are quite often fairly unstuffy people and the lack of formality in some areas is welcome. On the other hand the sections seem rather remote. Maybe this is because I have never actively participated in one myself.

There should certainly be an international and European dimension to our activities and such links with sister organisations should be fostered.

## GROUP CONTRIBUTIONS

### THE HEALTH GROUP

#### A GROWING HEALTH SERVICE?

The government repeatedly claims that it has been pouring unprecedented sums of money into the NHS. During the general election campaign Conservative politicians asserted that spending had increased by 50 per cent in 'real terms' since 1979. This paints a picture of the NHS which few of its staff or users would recognise. The government used similar claims to argue that the sweeping changes it made to the NHS in April 1991, were needed because 'simply injecting more and more money is not, by itself, the answer.'

Figures quoted by the government compare changes in total spending on the NHS, either in the four countries of the United Kingdom, or in England alone with trends in general inflation. This measures the 'economic cost', the cost of the NHS to the country. It is not a realistic measure of what the NHS can buy, as the way it spends its money is not typical of the economy as a whole. The costs of the goods and services it buys, particularly staff salaries, which accounted for 76 per cent of the running costs of the hospital and community health services in 1989-90, have risen faster than general inflation. To measure trends in what the NHS can buy with its money, which is called 'input volume', cash spending can be compared with the index of NHS pay and prices.

Thus between the financial years 1978-79 and 1990-91 (see figure 1), the 'economic cost' of total spending on the NHS in England increased by 42.8 per cent ahead of general inflation. 'Input volume', NHS purchasing power, increased by only 19.3 per cent over the same period. These increases apply to the NHS as a whole. Changes had been occurring at a different rate, both regionally and within different parts of the NHS. It is becoming increasingly difficult to follow these consistently, because of successive changes both in the way the NHS is organised and in its accounting methods. Because of this, the graphs used here to illustrate spending in different parts of the NHS use two different symbols to highlight a major change of definition during 1985-86 (see figure 2).

Nearly two thirds of NHS spending in England goes on the running costs of the hospital and community health services. Over the period 1978-79 to 1990-91, spending on these increased by 37.2 per cent ahead of general inflation, but only 13.7 per cent ahead of NHS pay and prices. Even this presents a favourable picture, as input volume increased by only 8.3 per cent over the 11 year period 1978-79 to 1989-90, and then rose by 5.0 per cent in the single financial year 1990-91. Much of the discrepancy resulted from the government's failure to fully fund the series of pay rises it has awarded to doctors, nurses, midwives, health visitors and professions supplementary to medicine, such as physiotherapists and occupational therapists.

The original version of this article appeared in 'Socialist' before the general election. This version first appeared in 'Health Matters', issue 11, Summer 1992.

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## PERFORMANCE INDICATORS SUBGROUP

### THE RESPONSE TO THE CHALLENGE FROM THE NORTHERN GROUP

MIKE QUIGGIN AND LUDI SIMPSON, BRADFORD

On 10 September the Audit Commission published its requirements of Local Authorities to fulfil the Citizen's Charter (*Citizen's Charter Performance Indicators*, Audit Commission, 1 Vincent Square, SW1P 2PN, £5). These are in draft form; their final form (due December 1992) will have to be collected by councils in 93/94, published in December 1994 by each council and in collected form in 1995 by the Audit Commission itself. This last publication will be the basis for the much debated league tables. We all want better information from the government (and better services) whether local, national or EC. Are the proposals the answer?

Some of us in the northern group have met a few times to consider performance indicators in the public sector. The attached press release is one of the results. Among the major problems with the Audit Commission proposals are these three: Firstly, many of the measures can be criticised very easily as not fairly measuring any aspect of performance of an authority. They are not valid. Secondly the whole approach is based on comparing different areas with different needs and circumstances, which the proposals hardly touch upon. This is the 'adjustment' or 'value-added' debate, which has been aired for many years around how to publish exam results. Finally, the idea that local authorities should direct their attention to nationally-decided measures of performance undermines the notions of local priorities and local democracy: the very production of national measures of performance in a tight economic climate channels local priorities towards a 'central tendency'.

The press release was taken up by the independent (without acknowledging us), the Morning Star and Social Work Today.

We have ideas to write about performance indicators in the public sector more generally. Laura's piece elsewhere in this issue takes specific examples to look at the league table problem.

There are many more angles we want to discuss, sometimes it seems that there are too many: what kind of performance measures might really help improve public sector performance, if any? What statistics are needed to help political struggle for better services? What relationship does the Citizens Charter have to Total Quality Management?

Since the Northern Group is not involved as a whole, we have had to call ourselves the Performance Indicators Group, which also gives you the opportunity to get involved, wherever you live. Get in touch with your ideas for public work. We will also have a session at RadStats conference in February. The press release is reproduced below.

## PRESS RELEASE

The Audit Commission - Performance Indicators for Local Authorities.  
CARING BY NUMBERS ?

The Audit Commission's proposals for monitoring local authority performance are meaningless, unworkable, and will lead to the further erosion of local democracy. They deny local government's role in responding to local needs, and representing local people's priorities. The measurements proposed represent a centralising approach, and will not enable citizens to measure the performance of their local authority in meeting their needs.

The government's Citizen's Charter is proclaimed as making local councils more accountable to the public. Many local authorities under different political control such as Wolverhampton, York and the Wrekin already conduct regular surveys among the public and seek their views in meetings and in other ways. Among the limitations of the government's Citizen's Charter are:

- Only compulsory services are to be monitored.
- Why not other services, say provision of nursery places for three year olds? No measures dealing with local priorities are included.
- No attempt is made to find out what local residents think about the services provided.
- The measures seem to be designed to force local authorities' attention even further towards only meeting minimum levels dictated by national policy, rather than consulting locally, finding out people's preferences, and what they are willing to pay for.
- The Social Services indicators in particular are a checklist of the new community care program.
- They are neither one thing nor the other. The number of indicators chosen (200) is a poor compromise between the few needed to indicate how well an authority is doing overall, and the many required to properly assess any one aspect of a service.

The indicators are supposed to measure performance in providing services, and the quality of those services, however -

- The Commission itself admits that the proposed measures provide "a generally unsatisfactory measure of the quality or effectiveness of services", so they are useless for the purpose of the legislation.
  - The large bulk of the indicators are measures of expenditure per head. Yet local government expenditure is already determined by government, who set each Standard Spending Assessment and cap authorities who wish to provide more resources. So these measures cannot reflect local authority activity.
  - None of the proposed measures are to be adjusted for local factors. This means that they will not be comparable between councils.
- It is utterly inadequate to say that "those who wish to learn from them are capable of making sensible allowances for obvious differences".

Experience with two decades of comparative figures from CIPFA has shown that these kinds of statistics can be very misleading without knowledge of things like the needs of the local population, local costs, and local priorities and problems.

Taking only one of the measures -

"How much is spent on people with physical disabilities?"

This will mainly depend on how many elderly people live in the council area, so making comparisons between two councils, say one with many old people, and one with few old people, could be very misleading, if you want to assess how well your council is doing in caring for the disabled.

The Audit Commission has not listened to public opinion

The Audit Commission itself commissioned a public opinion survey to support their work. Why have the results not been published? Many public opinion surveys are commissioned by local authorities themselves. They show that people do not generally think that expenditure limits are as important as quality services. They also show different priorities in different parts of the country. Do the Government and the Audit Commission not respect public opinion?

Local services at stake

The effect of these proposals will be to put local authorities under the spotlight, with no defence against uninformed criticism. As such, they will help the government to reduce and further privatise local services.

At the same time citizens will not be provided with adequate material to mount informed criticism. This is the worst of both worlds for the poll tax payers. Local government, and the principal of subsidiarity, will be even further undermined if this ill thought out system is put into practice.

Treating quality and accountability seriously

In business, Total Quality Management insists that inspection of inputs and outputs is wasteful bureaucracy. Instead the processes that produce reliable, quality products should be continuously monitored by those involved, who must have the power to correct faults and be trusted to spot them. Customer opinion must be respected as the final judge of quality products.

It is much the same in public services.

Improving public services and making them accountable is a necessary ongoing task which local authorities are already taking seriously. The Audit Commission proposals are at best irrelevant and at worst will divert a lot of existing and future efforts by service providers and users.

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LEAGUE TABLES - NO SCORE DRAW

Laura Strathearn, Bradford

Performance indicators equip service providers with a great deal of comparative data, either via comparative assessments on national 'league tables', or via comparisons of a single service over a time period.

This paper will examine one example of a national 'league table' comparison to highlight the problems inherent in the over-simplicity of the approach, thereby drawing into question the validity and reliability of 'league tables' as a meaningful measurement of performance.

"Indicators do not themselves supply answers, on the contrary they raise questions and highlight issues for further discussion and investigation. Their strength is to place local activities in a national context. What may seem reasonable locally may appear less acceptable when compared with the position in other authorities. (From: 'Health Service Indicators - Some Background Information', Management Executive Information Management Group).

The 'league tables' approach, by definition, ignores local differentials. This is seen as its 'strength'. 'League tables' whole raison d'etre being to pick up local shortcomings in services (i.e. indicators of 'poor' performance) out of the wider national picture. The underlying argument is that this results in greater accountability.

The first difficulty with this approach is that it can too easily result in an homogeneous mediocrity in service delivery and provision, with 'poor' and 'excellent' performers alike aiming for the mean.

The second difficulty arises over the meaningfulness and indeed the reliability and validity of the measurement system itself. How meaningful is it to compare two Metropolitan District Local Authorities such as Bradford and Wakefield, even considering their geographical proximity? What do we learn by knowing that in 1988/89, 71% of Bradford's and only 65% of Wakefield's citizens aged 75 years and over, received a home help service? (From: 'Key Indicators of Local Authority Services 1988/1989 -Table F18'). Are we to infer that Bradford is molly-coddling its elderly, or that Wakefield's citizens are not receiving the care they need? Perhaps Wakefield has better health prevention initiatives and services and subsequently their elderly are physically fitter and more able to care for themselves? Or, perhaps traditional family support networks have broken down to a larger extent in Bradford? Or, perhaps Wakefield makes greater use of its voluntary sector? We could go on guessing.

These kinds of external inputs are not irrelevant. They are directly connected in a causal relationship with the statistics on the 'league table'. Without the means of accessing such external inputs, we have no way of knowing if we are comparing 'like with like', i.e. performance against performance / external inputs against the same external inputs / external inputs against different external inputs / performance against external inputs? Consequently, the league table comparison as a comparison of performance is rendered unreliable and therefore invalid.

Given that 'indicators do not themselves supply answers', they do seem to raise rather a lot of questions, not least of which is: Are these indicators of performance?

The inherent problem with 'league tables' is that they are measurements of output only. In the Bradford/Wakefield example, the output measurement is merely the percentage of the elderly population aged 75 years and over who have received a home help service during 1988/89. Individuals receiving this service are counted only once, irrespective of the frequency, labour intensity and timescale of the service (these factors, it is to be assumed, are 'internal inputs'). This kind of arguably more meaningful data is not made available in 'Key Indicators of Local Authority Services 1988/1989', which merely provides a head count, and an unreliable one at that.

A brief analysis of the above internal inputs readily demonstrates that their omission in 'Key Indicators of Local Authority Services 1988/1989' begs the very question as to the degree of service being provided. These internal inputs are significant performance factors:

#### 1. Frequency of Home Visits

a. Ratio of total number of clients to total number of home visits.  
This would show the average number of visits per client and would still be practicable for 'league tables'. However, this comparison could be misleading as a 'poor' performance may merely reflect a local authority with a larger distribution of elderly people who are disabled / frail / incontinent, etc.

This problem could be overcome by:

b. Still using the ratio of clients to number of home visits model, but further breaking down the data into client groups e.g. by age groups, mobile / not mobile, can bath alone / not bath alone, continent / incontinent, confused / lucid, etc.

This model is superior in terms of measurement of performance as it actually attempts to measure service delivery against client need.

#### 2. Level of Care and Labour Intensity

a. Ratio of total number of staff hours available to total number of visits.  
This would show the average number of hours spent per visit. However, this comparison could also be misleading for similar reasons to 1a.

b. Ratio of total number of staff hours available to total number of clients.  
This would show the average number of hours spent per client. As in 1b, this could be broken down by more detailed client profile categories. We could also ask whether more than one member of staff was involved for toileting, lifting, etc.

Useful also for home help workload comparison.

#### 3. Timescale

The league table gives no indication of the duration of the service e.g. Mr White may only have had a home help for the first few days after his discharge from hospital, but his data will be counted along with Mrs Brown's who requires home care 3 hours a day, 7 days a week.

Therefore, a breakdown of long-term and short-term care distributions would give a greater indication of service demands within authorities.

All of the above internal inputs are indisputably significant if our concern is the measurement of performance, rather than a mere head counting exercise. Cross-tabulation of 1, 2 and 3 would provide a more valid measurement of performance, because it makes clear exactly what we are measuring. As such, it is an informative tool for strategic planning. 'League table' comparisons are rendered more reliable and therefore useful by the possibility of comparing 'like with like', i.e. local authorities with similar client distributions in terms of mobility, incontinence, long/short-term care, etc. Therefore with this model we gain a greater degree of accuracy in determining 'poor' and 'excellent' performers.

Using the cross-tabulation of the internal inputs model might reveal Bradford and Wakefield to have equivalent scores. Conversely, we might find the 'scores' reversed to Wakefield 71% - Bradford 65%. A more probable outcome is that there are few grounds for a legitimate comparison of these two local authorities, i.e. the internal input variables may show a widely differing client group distribution. But this sort of detail of information is not available. All we have is the simple 'league table' head count, as do local authorities.

Aside from 'league tables' inability to distinguish performance from external input factors, head counts are meaningless because they give no indication of service input. As these internal inputs are the constituent elements that constitute the performance, their omission again raises doubt as to the efficacy of the league table as a performance measurement system. It is analogous to a theatre critic giving a review of a West End musical and only mentioning how many people were in the audience.

The point here is that in order to achieve the simple means for a national comparison on league tables, local authorities are engaging in a reductionist absurdity. To be able 'to place local activities in a national context', statistics for local activities are being over-simplified by being reduced down to the common denominator. But in so doing, as we have seen, the means undermine the validity of the ends, namely, the very comparative performance measurement itself.

We are in effect getting less rather than more information; and this limited information may greatly distort the picture of the level of service input actually being provided. If accountability is given as the rationale for performance indicators, then this distortion could have significant implications for the ongoing delivery of services. 'Poor' performing local authorities may falsely shift already limited resources from an ostensibly 'high' scoring service delivery area, to the 'low' scorer, in order to gain a more respectable ranking on the 'league table'. The invalidity of the 'league tables' as a measurement of performance,

effectively renders this adjustment in services a move from a 'No Score Draw' to a 'No Score Draw'.

The sort of reality that the 'league table' can't show is in all probability both Bradford's and Wakefield's demands for home help services exceeded the services available.

## THE HEALTH OF THE NATION: WHERE ARE WE NOW?

### POTENTIAL RESEARCH INVESTIGATIONS INTO INEQUALITIES IN HEALTH

Philip Bertrand

#### INTRODUCTION

The joint meeting of the Radical Statistics group and Public Health Alliance held on 21st September 1991 in London was the scene of much informed discussion and lively debate on the Government's White Paper 'The Health of the Nation'. As the raconteur of the group discussing inequalities in health, I very briefly presented to the meeting my summary of our discussion. Later, a typed version of that summary was sent to help in the production of the Health of the Nation, a report jointly produced by the Public Health Alliance and the Radical Statistics Group for circulation to those participating in the meeting. I later revised that summary and added some ideas of my own. Unfortunately, I had no list of those at the meeting, so I am unable to ascribe authorship to many of the ideas herein. I hope the originators of or contributors to these ideas would identify the components of the article they contributed and were to send a full account of them to Radical Statistics for publication. The following revised version I sent to the Department of Health for their consideration in October 1991.

#### KEY AREAS FOR RESEARCH AND INVESTIGATION

There are a number of key areas that need to be researched and investigated.

In all these areas we need to know HOW BIG THE PROBLEM IS. That is, do the research to find out.

##### 1. Fairer distribution of income:

There is considerable evidence that inequalities in health arise from inequalities in income distribution. Any measure of income indicates low disposable income correlates with poor health. There is evidence that it is not the richest countries that have the best health but it is the countries with the fairest distribution of wealth.

It should be noted that immediate correction of the imbalance in income distribution would not correct the problem overnight, for there are now many in-built 'health disabled' people consequent upon past ill health leading to possible chronic situations for many persons which will last for many years to come.

##### 2. Low income leads to entrenched ill health problems:

Families (those with both parents present and those with single parents) on low incomes with children in materially and socially deprived circumstances: this leads to children often being brought up in circumstances where they also have poor health.

Illness of either child or mother likely to be transmitted to the other.

This leads to the child's education suffering (if the parent, or one of several children is ill the mother is unable to escort children to school), to possible cumulative educational deprivation (note that education is the principal means by which any individual may honestly improve his/her income) and social maladjustment for the child. To lack of knowledge by the child of adverse factors affecting his/her health and to his/her social alienation and to criminalisation. Then to such individuals causing injury to others through anti-social behaviour which leads to additional health costs born by society.

##### 3. Health problems of the elderly:

The elderly form an increasing proportion of society. Health costs of society per employed person are bound to increase as the health of society improves. This is because as people age they eventually do succumb to ill health, often chronic and long lasting with considerable care costs attached.

##### 4. Institutional causes of ill health:

Accident prone environments at work: It is essential that good safety standards are followed by industry. It is essential that companies such as those in the building sector be 'policed' with regard to ensuring that safety standards are maintained. The high cost of industrial injuries is currently borne by the tax payer, and companies producing cheap products are doing so at health costs being borne by the tax payer. The private individual when suffering work related injury does not have the resources, neither financial nor emotional (when ill) to go to law over several years to obtain industrial compensation. Companies could perhaps automatically be required to pay a very large fine for any employee or subcontractor's employee who suffers injury whilst carrying out his/her duties.

Many accidents lead to chronic ill health at a cost borne by the rest of society whilst it costs nothing to the agent responsible.

##### 5. Earning power:

A long held view has been that people move up and down social classes as they change jobs. There is much evidence that the educational and material resources of the family of origin have the major influence on earning power and on social class.

##### 6. Poor health factors:

There is considerable evidence that the poorer social class are more likely to smoke, drink, have inappropriate exercise, don't immunise children, etc.

##### 7. Dietary factors:

These have largely not been a feature in the poor health of lower social groups, for people with higher incomes also have generally eaten foods with unsuitable dietary characteristics.

##### 8. Stress at work/in the home:

Leads to ill health and/or accidents and/or breakdown in family life. Stress caused by low income, overwork, cynical management. Solve with higher wages and shorter working week.

There is a need to support GP-based Occupational Health projects as in Sheffield, Bradford, Camden, Liverpool.

##### 9. Iatrogenic illness:

Many illnesses are the consequence of mistakes made by the medical profession or side effects of treatment. These may be a consequence of a wide variety of causes, stress on or illness of staff, preventable mistakes, lack of training, faults in the system of diagnosis, treatment, after care, lack of understanding by



the patient or other staff of correct procedures, incorrect dosage administration, etc.

#### 10. Topics for Research:

The Black report of a decade ago identified numerous material factors that were worthy of research, but these have not been followed up:

- (a) Damp housing
- (b) Accumulations of factors
- (c) Babies born with defects: e.g.: neural tube defects. Why? because of lack of vitamins from the mother. This could be prevented or much reduced. Society is carrying a considerable cost of supporting these children throughout life because known preventative actions have not been carried out.
- (d) GPs have considerable knowledge of common diseases, such as asthma in children. They have many ideas that could be investigated with a view to eliminating or reducing effects of diseases. Many specific investigations could be carried out by means of surveys. To ensure the validity of these statisticians must be involved.
- (e) There is a need for research along lines of USA, Canada, Australia and Scandinavian countries showing the per cent of illness due to work. (Around 20% to 30% of all illnesses in all categories of disease.) In some areas of high industrial activity some GP's and surgeons consider that 60% are suffering ill health due to work.
- (f) Work place based causes of heart disease: low income, stress, various chemicals (solvents, dust, metals), shift work, low status, lack of peripheral support (family, illness etc.).
- (g) Implement Black report recommendations to eradicate child poverty made a decade ago.
- (h) Support research investigations on the importance of effect of income distribution on health.
- (i) Women in the caring professions have recently shown a big increase in muscular/skeletal disorders (possibly through moving increased numbers of elderly people around). They are probably working too long hours or inappropriate shifts. This leads to their ill health and increased costs for society.
- (j) Possibly increased stress in other professions (teachers, medical, etc., also causing increases in illness prevalence.
- (k) Factors such as unitary development plans for local areas: supposedly designed to provide recreation for the population, are often located too far from the population they are designed to serve: the people cannot get to them because it is too dangerous for children, women and men to go out on the streets at night to walk to them when they cannot afford a car.
- (l) Capriciousness with regard to local authority finance: has led to impossibility of long term planning and frustration of attempts to solve these problems. The people have been suffering from over-government.
- (m) Morbidity: There is insufficient research into morbidity. One suggestion is that all computerised GP info be fed into a central computer where it could be analysed. As a statistician I see that the cost of this would be prohibitive, but a sample of GPs perhaps of only 0.2% (using some cluster sampling method) could provide this information with some accuracy on an on-going basis.

#### OTHER AREAS FOR INVESTIGATION

I (PVB) added the area for investigation, 9. Iatrogenic illness, after the meeting. It is a problem which the medical profession would rather did not exist and is particularly sensitive. It does appear that it will not be tackled unless some political initiative is taken. There is a danger that real problems will just be swept under the cloak of some medical quality improvement programme. The public needs information on the matter, not platitudes. Since the meeting I would also like to add the following topics:

Undiagnosed and incorrectly diagnosed illness: There is inevitably in our society a proportion who have undiagnosed illness. This can be critically so with children where failure to recognise illness early in life can lead to lifelong disability, deafness and blindness being only two examples. The extent of these problems and proposals for their resolution need to be investigated and widely discussed and should be included in the research topics 10(c) and 10(d) above.

Self diagnosis by patients: Advances in information technology are rapidly making possible on-line computer systems where patients with worrying medical conditions can easily key in their symptoms in privacy. The computer can interact with the patient in an impersonal manner without any emotional entanglements or embarrassments between patient and clinician. Causes of problems, possible solutions, relative frequencies or likelihoods will all in the not too distant future become available to the public. The medical profession in Britain can either take the lead in this area or it will be done abroad as it would clearly be a most lucrative venture as there is evidently a worldwide market for such information. In the future such computer systems will become available either in libraries or in doctors' surgeries.

#### ARTICLES

##### THE INVISIBLE PEOPLE

Malcolm Williams, SSRU, City University

Millions of tourists every year take away a picture post card image of Cornwall. Cream teas, pasties, pirates and quaint locals. The superficial picture that the tourist industry and the media are anxious to promote is of a contented and prosperous community. The reality is far from this. Cornwall is one of the poorest parts of Britain, yet unlike other areas, as for example the North East or Merseyside, that poverty is hidden. Cornwall and the Cornish are for the most part statistically 'invisible'.

In this article I will show how Cornwall's poverty is 'hidden' in official statistics and argue that this concealment is in itself a contributory factor in this poverty.

For statistical and planning purposes Whitehall divides Britain into ten regions. Regional statistics are produced on a huge range of topics: unemployment, health, income, education etc. Because data is habitually gathered and presented on a regional basis the regions come to be regarded as effective social and cultural units with the data taken to be representative of the people who live in that region. Large intra-regional differences are inferred to be absent when data is presented. Indeed the rationale behind regional statistics is that they present