

# Unequal to the task: deprivation, health and UK general practice at the millennium

Norman Beale

## Summary

*The NHS is over 50 years old, but health inequalities remain prevalent in the United Kingdom (UK). Material deprivation may be less apparent; however, social deprivation is becoming worse while the markers of socioeconomic disadvantage remain unsatisfactory. Health is an even more elusive concept; nevertheless, the evidence for an increasing association between deprivation, poor health, and early death is overwhelming. Equally unavoidable is the impact of this social degradation on UK primary care. Service industries have deserted deprived communities but, on the whole, GPs struggle on. Denied the supplementary resources they deserve they become disenchanted, too exhausted to convert incentives into rewards. Clear-headed strategic thinking from the top brass is overdue.*

## Introduction

THIS is a discussion of deprivation and health as it now impinges on British general practice. Despite recent bugle calls<sup>1</sup> this analysis is limited to the United Kingdom (UK); the parochialism is intentional but, I hope, excusable. Even within such constraints the task is daunting. The sheer mass of evidence is so overwhelming that Professor Johan Mackenbach of Erasmus University, Rotterdam has opened a 'Documentation Centre on Socioeconomic Differences in Health'.<sup>2</sup> The sheer volume of its output is eloquence enough: in its latest published catalogue of accessions for the year 1999 they identified 55 papers on deprivation and health newly published in the world medical literature — more than one a week. When Monet stood back from his blobs and splashes he was able to see, usually, water lilies. By the end of this eclectic review the reader will perceive, I hope, how socioeconomic deprivation is defined and measured, its corrosive effect on health, how it is politicised, and how pernicious is its influence in British primary care. The final composition is, perhaps, more Cubist than Impressionist but, if it provokes any reaction short of outrage, it will have served its purpose.

The National Health Service, introduced in 1948, was probably the best realisation of the postwar visions of social equity in British society. However, it has failed to remove inequalities in health and even in access to health care. The immediate postwar academics in social medicine also lost their utopian vision that peacetime public health would be a means of 'social intervention' and a leveller.<sup>3</sup> After 50 years, general practitioners (GPs) still have to cater for widely different expectations of health and longevity.<sup>4</sup> In fact, the health-wealth divide in the UK is increasing despite overall affluence to the point of ostentation.<sup>5</sup> The burden of illness and premature death borne by the British poor '... dwarfs almost every other health problem'.<sup>6</sup> From being, in 1970, twelfth out of the 24 countries in the OECD life expectancy league table, we have slipped to seventeenth.<sup>6</sup> The social divide affects childhood development in a way that stores up problems over the decades, as revealed by the fates of the famous 1946 birth cohort.<sup>7</sup> Julian Tudor Hart was a GP in a very deprived community and coined the phrase 'inverse care law' — which states that those who most need medical care are the ones least likely to receive it.<sup>8</sup> More recently, he has observed that 'things are getting better but people are getting worse'.<sup>9</sup>

## 'For the poor always ye have with you' (John 12:8)

*'Our cottage was nearly empty — except for people. There was a scrubbed brick floor and just one rug made of scraps of old clothes pegged into a sack ... All the village houses were like this. Our food was apples, pota-*

N Beale. MA, MD, FRCGP, general practitioner, Northlands R&D Practice, Northlands Surgery, Calne, Wiltshire.

## Address for correspondence

Dr Norman Beale, Northlands R&D Practice, Northlands Surgery, North Street, Calne, Wiltshire SN11 0HH. E-mail: nbrndcal@aol.com

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*toes, swedes and bread, and we drank our tea without milk or sugar ... Nobody could get enough to eat no matter how they tried. Our biggest trouble was water. There was no water near, it all had to be fetched from the foot of a hill nearly a mile away. "Drink all you can at school", we were told — there was a tap at school.*<sup>10</sup>

No-one thinks that poverty like this is still prevalent in the UK. But it was once commonplace in scattered rural communities such as this one and compressed into the grotesque and squalid tenements of our carbon-coated cities. In fact, these social conditions were the norm until the second half of the 20th century.<sup>11</sup> So who are the poor now? Today's commentators eschew all-inclusive social spectra and talk of 'marginalised' groups or 'underclasses' who are not just 'financially challenged'.<sup>12</sup> Just as compromised, they say, are those with learning difficulties, the homeless, asylum seekers, travellers, and addicts. GPs certainly meet all of these people in their surgeries, their problems compounded into a toxic amalgam. However, the absence of absolute poverty allows a 'culture of complacency':<sup>13</sup> the 'poor' have been replaced by the 'deprived'.

Peter Townsend, the guru of deprivation science, has strongly advocated a conceptual distinction: social deprivation (contacts and status) on the one hand and material deprivation (things) on the other. However, he still attempts an all-embracing definition of deprivation, as:

*'... disadvantage relative to the local community or the wider society or nation ... People can be said to be deprived if they lack the material standards of diet, clothing, housing, household facilities, working, environmental and locational conditions ... ordinarily available to their society, and do not participate in or have access to the forms of employment, occupation, education, recreation, family and social activities and relationships which are commonly experienced or accepted.'*<sup>14</sup>

On the other hand, a bullish journalist of the 'wealth trickles down' school recently described the deprived as 'those who aren't rich, yet', as if the situation were rapidly improving. In fact, the reverse is true: the number of Britons on very low incomes — on less than 40% of national average — rose from 7.3 million in 1995 to 8.4 million in 1998.<sup>15</sup> The poor are still with us.

## Dummy variables

Only the Inland Revenue 'know' the rich and the poor — by what they own — and they protect these data with the obsessive paranoia we expect of them. The Meccano approach to deprivation modelling, the use of proxy markers bolted together, is unavoidable but leads to unproductive debate, to 'formula fever'.<sup>16</sup> Listing all the many markers of deprivation that have ever been devised therefore serves little purpose. Some, however, are common currency.

If we are relieved to find 'insanitary' conditions abolished, why is it that we still use the original instrument designed to survey them? It was in 1911 that Stevenson, the then British Registrar General, codified social class. He used five categories based on 'father's work on Census day', his primary objective being to analyse infant mortality. This is now

exceptional and we live in a fragmented society where many homes have no fathers at all, let alone ones in full-time jobs. The Office for National Statistics itself admits that deriving occupational details from Census forms is difficult<sup>17</sup> and social class based on employment underestimates mortality differences in society,<sup>18</sup> especially among women.<sup>19</sup> Is it from laziness, blindness, or worse? Is it a cock-up or conspiracy that leads public health colleagues to refer to such Census data as 'the gold standard'? Do other GPs ponder the same questions as I do?

By definition, Census data are substantially out of date by the beginning of any decade<sup>20</sup> and, in any case, distorted when significant minorities in the population — and therefore the data about them — go missing.<sup>20</sup> There are also fundamental worries about how we interpret Census data, even if we can overlook the warts. Many of those in work receive wages that are woefully meagre but which bar them, just the same, from social security benefits: they fall into the 'poverty trap'. In rural areas, car ownership is absolutely essential for mobility and therefore a totally inappropriate symbol of affluence — what we might term 'the silage trap'. Then there is the 'ecological fallacy': it is obviously naïve to assume that all those living in any defined district are socioeconomically uniform. First recognised by Robinson<sup>21</sup> in the 1940s, this has tantalised medical geographers ever since. To aggregate social data on such individuals, determine an area average, and then reverse extrapolate, is clearly flawed and yet again underestimates effect.<sup>22</sup>

The 'Townsend Index'<sup>23</sup> combines unemployment, car ownership, home ownership, and overcrowding (over one person per room per home) at an aggregate level for local authority wards (1000 to 15 000 people). In a variant developed in Scotland,<sup>24</sup> Vera Carstairs and Russell Morris trade 'unskilled' employment for owner-occupancy and are able to focus down to the level of postcodes (average 35 persons).

Years of education is a popular proxy marker of deprivation across the world<sup>25</sup> but eschewed here even though it is shown to be a valid predictor of social conditions and mortality.<sup>26</sup> Other analysts have suggested the use of voting patterns,<sup>27</sup> prescription charge exemption,<sup>28</sup> and levels of unemployment *per se*.<sup>29</sup> None of these have caught on — they are all confounded in one way or another. We appear to have stalled at the start, but at least the social scientists have agreed on the essential criteria of what is being looked for.<sup>30</sup> A valid deprivation index will:

- reflect the socioeconomic dimension to inequality;
- reflect the experiences of the whole population; and
- be sensitive to changes in the distribution of the population.

## 'The rich are healthy, the poor are not'<sup>31</sup>

The only consensus on the definition of health is that there is no consensus. But however expressed, the evidence that good health and deprivation do not share a duvet is overwhelming<sup>32-34</sup> and, at last, admitted officially.<sup>35</sup> Longitudinal mortality evidence is the best. In 1972, the standardised mortality ratios for professionals and unskilled workers in England and Wales were, respectively, 77 and 137 (average = 100); by 1992 the discrepancy had widened from 66 to

189.<sup>36</sup> But the health/wealth divide is not uniquely British. Reports from Holland,<sup>37</sup> France,<sup>38</sup> Finland,<sup>39</sup> Spain,<sup>40</sup> Italy,<sup>42</sup> America,<sup>42</sup> and Australia<sup>43</sup> all corroborate one another — deprivation means declining health, if not early demise. The evidence is also multidimensional. The effect is discernible throughout life,<sup>7,44,45</sup> throughout the range of affluence,<sup>46</sup> and among both dense and sparse populations.<sup>47</sup> It pervades the whole spectrum of the disease process, from incidence,<sup>48</sup> to disease stage at diagnosis,<sup>49</sup> to sick-bed experience,<sup>50</sup> to rigour of investigation,<sup>51</sup> to doctor–patient communication,<sup>52</sup> to types of treatment,<sup>53</sup> to survival prospects.<sup>54,55</sup> We also have many reports showing that access to health care is unevenly distributed<sup>56</sup> and that the administration of that care is unfairly applied.<sup>57</sup> Medical meteorologists, such as the late Jonathan Mann from Harvard have even predicted the health/wealth divide of our future — that HIV, once established in a society, will come to be concentrated among the deprived.<sup>12</sup>

Not everyone believes the evidence that poverty causes disease, however overwhelming it may be. Some detractors resort to the chicken/egg conundrum: what comes first — poor health or poverty? Although poor health may prove to be a financial embarrassment (the ‘selection’ hypothesis), this is only a minor component of the overwhelming trend — that deprivation leads to poor health and premature death (the ‘causation’ hypothesis).<sup>58</sup> The selection/causation debate has been resolved by the resurgence of research into unemployment. When mass redundancies occur the health of those losing jobs deteriorates.<sup>59</sup> It is perverse in the extreme to suggest that any prior poor health is ‘selecting’ these individuals for their social deprivation: they were each fit enough to be holding down a job, after all.

When exhausted or exasperated, a family doctor may silently blame the individuals concerned, seeing only their haplessness and their destructive personal habits. Most regret the judgement later, having the humanity to see that they would behave just the same in similar circumstances. At regimental headquarters they suffer no such qualms. Charlton,<sup>60</sup> a public health physician from Newcastle, apparently blind to the dystopia we live in, proposes a ‘salutogenic’ model of health. Salutogenesis regards health as the *abnormal* state which is ‘an achievement’ in the face of ‘endemic environmental hostility’. This is not merely arcane — since he then argues that poverty and health are therefore unrelated — if only everyone practised health ‘promotion’ and led a healthier lifestyle then all would be healthy. His history is faltering. He overlooks, of course, the salient fact that even when the better off smoked more, consumed a higher fat diet, and took far less exercise, they still had better health prospects.<sup>61</sup>

It has also become clear, thanks to the work of Richard Wilkinson at Brighton,<sup>62</sup> that there is another component besides the direct effect of deprivation on individuals. Population health is better for all in those societies in which the dichotomy between the richest and poorest is smallest, whatever the absolute levels of affluence and whatever the local structure of health care. In other words, a wide distribution band matters more than a poor average. This is obviously entirely out of the hands of the medical profession: just as GPs cannot be held responsible for the quality of the

water that their patients drink, they cannot be expected to reform economic policy.

## Fair shares in health care? You should be so lucky

Banks and retail chains have decamped from deprived areas of the UK; however, general practices have mostly clung on even though such groups are, themselves, deprived.<sup>63</sup> It is in these teams that one finds the features of community desecration as they affect UK general practice.<sup>64</sup> Such areas suffer from lack of hope and aspiration.<sup>65</sup> The most poignant insights certainly come from GPs working in these areas: ‘We live there — we should know’.<sup>66</sup> Practice personnel suffer abuse — verbal and sometimes physical.<sup>67</sup> They have to co-exist with crime, drugs, squalor, unemployment, mobile populations, and drop-outs who drop in. Consultations are more stressful, more time-consuming and, lacking continuity, often serve little purpose.<sup>66</sup> The patients are less well but also less articulate and less amenable, having what has been described as ‘immediacy of perception’ — a problem becomes a panic that *must* have attention *now*.<sup>68</sup> Out-of-hours work is busier and often inappropriate,<sup>69</sup> more likely to be domiciliary and, since the patients lack their own transport,<sup>70</sup> therefore more wearing. These troops face a tougher enemy and should expect more ammunition — they don’t get it.

Capitation — the principle of a fee per registered patient per unit time — was introduced into UK medicine by Lloyd George in 1911. It is yet more surviving Edwardiana but, unlike social class, it retains some validity. It was finally extended to the whole population in 1948 and is still the bedrock of a GP’s income. At first sight the assumption of ‘more patients, more income’ seems only fair. Unfortunately, this assumes that workload is proportionate only to the ‘list’ size and this is so far from the case as to be risible, as we have discussed. Capitation payments were eventually refined in 1966 so that the elderly (and now the very elderly) attract respectively higher payments. The route to resource allocation matching health deprivation surely lies somewhere here but has never been developed rationally.<sup>71</sup>

The census-based ‘Jarman’ index<sup>72</sup> is used nationally to estimate locality deprivation and enhance capitation payments for some UK GPs. It was in January 1981 that Brian Jarman, Professor of Primary Care at St Mary’s Hospital in London, prompted by his membership of a study group on primary health care in inner London,<sup>73</sup> polled every tenth GP across the country. He asked them to prioritise, from a list of stereotyped patients, those which they saw as causing most workload.<sup>72</sup> The objectivity of such an exercise is far from established: doctors are no less prejudiced than other groups in society, as evidenced by the recent tongue-in-cheek but sobering audit of how many women who attend STD clinics are *really* called Sharon.<sup>74</sup> But from a 70% response, Jarman created a batting order. Using a mixture of ethnic, age, and family composition variables he extracted, from decaying Census data at electoral ward level, what he christened UPA8 (Under-Privileged Area 8) scores.<sup>72,75</sup> These dubiously derived ciphers strongly imply deprivation although the declared intention was to determine only variations in GP workload. Admittedly, the two phenomena are

obviously related, but many people — not always notorious cynics — have questioned the validity of the sequence: *'tell me which patients give you heartsink ... and I'll tell you if you have a deprived population in your practice'*<sup>76-82</sup>

Before the dust of debate had even risen, a Minister of Health was being advised that a completely untried tranche of compulsory reforms of UK primary care that he was determined to introduce<sup>83</sup> would bankrupt many general practices based in deprived communities.<sup>84</sup> Ebullient and dogmatic as ever, he plucked 'Jarman' from the test bench, tearing up the instruction sheet as he did so, and used it to launch 'Deprivation Payments' to save such practices from financial ruin. A polemic had become a political football. Despite the refinement of allocating the scores at enumeration districts (the area covered by Census enumerators — average 450 persons) a botch remains a botch. And, like Dr Frankenstein's monster, it has turned on its parents. Very small shifts in the local Jarman scores between successive Census returns can result in financial mayhem in many general practices, destabilising the local service rather than enhancing it.<sup>85</sup> It is also bizarre to find that the basic tenet of 'Jarman' remains completely untested except for a single study that was performed, believe it or not, in Amsterdam!<sup>86</sup>

The force-feeding of fundholding proved not only to increase inequalities among patients but to exacerbate the inequalities between practices themselves.<sup>87,88</sup> Various other modifications have been bolted onto the 1990 reform of the NHS (and many others abandoned). Identifying 'health action zones'<sup>89</sup> is an attractive initiative and if the powers-that-be think they can 'star war' their way to health equality, then all the better. Somehow I doubt it. The most likely place in which we will find, if ever, the answers to the UK's health inequality is in practices, in consultations, in patients, in the bricks and mortar of primary care. But be it inadvertent or by design, successive reforms of the NHS (and now we have another one<sup>90</sup>) have resulted only in the entrenchment of privilege. In fact, reforms of UK general practice usually suffer from the same fault: politicians in a fix when the NHS comes under fire are panicked into urgent reform instead of analysing the problems properly. The latest exercise<sup>90</sup> differs only because the financial investment is larger.

### **'If only health services had to deal only with illness'**<sup>91</sup>

'The health of the people is the highest law' is the slogan to be found above the entrance to the 1937 Southwark Health Centre.<sup>92</sup> The Aldermen of this depressed south London borough knew a good 'mission statement' when they saw one and were prepared to invest in it. It is a shame that all politicians don't know their Cicero. What UK general practice needs to 'deliver' health to the people is real support and encouragement to give unequal shares unequally, the only eventual answer to inequality.<sup>93,94</sup> This is yet to happen in a way that meets even the obvious requirements of an inequality marker for UK general practice. Such an index must be:

- a reflection of GP workload (here Jarman is right) but not only in the quantitative domain — qualitative issues are just as important;

- equally applicable in conurbations and in scattered, rural populations;
- adjusted capitation-based to avoid the perversity of entrepreneurship, where those best able to bid successfully are the endowed practices having the time and energy;
- a measure of need and not visible demand, of both patients and their primary care teams; and
- an aggregate from patients or households.

I see the last requirement as particularly vital, for isolated pockets of deprivation are currently lost in the enumerator averages — be it the hovel above the 'take-away' or the farm labourer's 'cottage'. So where do the answers to resolving UK health inequalities lie? Are they secreted, at all, within primary care? I have no messianic pretensions: even sorting the literature is nigh on impossible. What is self-evident is that we need to be able to measure the socioeconomic status of individuals or households and thence the socioeconomic footprint of each UK practice and deliver to it the resources it deserves in a transparent way that cannot be challenged or diverted. Clearly we can't do it now<sup>95-102</sup> for the complications are overwhelming, especially in view of the fact that practices recruit patients in a pick-and-mix fashion that rarely bears any conceivable relation to local administrative boundaries. The 1433 residents of one small inner-city area of Edinburgh, for instance, were found to be registered at any of 43 general practices in the city.<sup>103</sup> The weakest — the 'deprived' — practices appear to be the most widely scattered.<sup>104</sup>

Some pointy-heads must invent, therefore, better ways of marking deprivation in UK general practices. Then, and only then, might we fairly apply resource formulae that would match need. After equality in take-home pay was ensured, doctors in deprived areas would then have the best inducement to invest and not the worst,<sup>87,88</sup> and the most hope for seeing improvements in local well-being. Recruitment might pick up and morale may be restored. We could 'load, take aim, and fire' instead of the reverse, resources would hit appropriate targets, and the narrowing of the health gap that we were enjoying until the 1980s might be resumed.

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