Commentary
Ten popular health economic fallacies*
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Summary
Important decisions about the financing, determining priorities in and provision of health services depend on beliefs about facts and relationships. It is argued in this paper that many popular beliefs are either logically wrong or are not supported by the evidence. Important errors exist in the beliefs about the effects of technology and ageing populations on health care costs, affordability of care, capital resources, financing mechanisms, efficiency and economies of scale, the growth of litigation, priority setting and the importance of getting people back to work. This paper aims to correct some of these fallacies and suggest alternative beliefs that better match the theory or fit the evidence.

Keywords: financing and provision of health services, health economics, fallacies

Introduction
In 1969 E. J. Mishan published his 21 Popular Economic Fallacies. The distinctive feature of these is that they are plausible but wrong. This paper has the more modest ambition of discussing ten popular beliefs about health services which are also credible but largely wrong. The title suggests these are economic fallacies, but it may be more accurate to describe them as fallacies often encountered by health economists. In the spirit of interdisciplinary working they might be better described as public health fallacies. However, they have been chosen on the basis of a significant economics dimension. It is easy to think of other public health fallacies (waiting lists matter, prevention is always better than cure, or that there is a shortage of hospital beds), but these are ignored in this paper.

There is no confusion more dangerous than the plausible. Many of the fallacies outlined below have the added feature of frequent repetition, often by those who appear to understand. Some are wrong because they are just wrong. Others could in principle be right, but the evidence suggests otherwise. Some have been put in the list despite continuing debate. These are given the appropriate health warning.

The fallacies

Advances in medical technology increase health care costs
Wrong. The opposite is the case. Advances in technology in themselves can only lower costs. The argument is simple. If a new drug or appliance does the same job at lower cost, then choose it. If it does the same job at higher cost, reject it. Therefore the only possible effect of a technological advance is to lower cost.

There are, of course, many technical advances that increase the quality of care, or increase the range of treatments that improve health. The first is often hard to assess. Tools for measuring quality are never adequate to describe in full the benefits of better quality of care. Many features of quality are unrelated to equipment or drugs. In some cases the effects are not known (e.g. if selective serotonin reuptake inhibitors (SSRIs) are more effective than tricyclics (TCAs) as a first line treatment for depression), or cannot be known without implausibly large-scale studies (e.g. if SSRIs are associated with lower suicide risk). The best available evidence may be poor. But the onus is on those who propose adoption of new drugs or equipment to show how the additional costs are justified in better quality of care.

Some new techniques or treatments add to the stock of effective interventions. Good examples are neonatal extracorporeal membrane oxygenation (ECMO), surfactant for respiratory distress in neonates and genetic screening for haemoglobinopathies. It is probable that some of these are cost-effective, but new therapies should not be adopted unless they can be shown to produce sufficient health gain to justify the cost.

The ageing of the population will lead to a dramatic increase in health care costs
Probably wrong. The mistake is to look at costs of care by age, and model how increasing the number of elderly people might increase the total cost. There are at least three reasons why it is unlikely that ageing per se will have a dramatic effect on costs. First, the patterns of morbidity are also changing, so that the health of a person is likely to be improving at any age. Second, the cost of services is related to proximity to death more than age, and it seems to be the case that the cost of terminal illness...
falls with age (correcting for cause of death). The expensive care is normally the care of the last illness, and we only die once. Third, ageing is also supplying more informal carers who are fit and able to help. It is much more probable that the effects of ageing will be only modest increases in the total cost of care, mainly as a result of some increase in the overall amount of non-life-threatening chronic disease.

There should, however, be some concerns. It may be that the observed lower costs of terminal illness reflect undertreatment (in the sense of failure to provide cost-effective services) in older people. It is also likely that the participation rate in the economy (that is, the proportion of people working or seeking work) will fall with an ageing population (although this ignores potential effects of longer life on retirement age). Low participation rates lead to high dependence on the working population to finance and provide care. This fallacy is important because misunderstanding the causes may lead to bad policies, especially policies to duplicate funding mechanisms, increase transactions costs and introduce fees for services.

**Buildings are expensive**

Wrong. Much of the planning and management of health services in the United Kingdom is based on the idea that capital resources are very scarce. On careful examination capital (facilities and equipment) is relatively cheap. If a building can justify itself over 40–100 years, the significance of the initial cost is small. Experience shows that the cost of new health services facilities (including equipment) is in the range from 50 to 200 per cent of the annual running costs. If a building costs £20 million the cost of operating the services is likely to be in the range of £10 million to £40 million. Even when very expensive technology is used, such as imaging equipment, the cost of staff for these services is very large.

The reality is that in health services the significant cost is to pay people, and it is a false economy to use inappropriate buildings which increase staff costs. It is sometimes possible to justify new facilities in terms of running cost savings for only a few years. The problem is that it is common for new buildings not to offer cost advantages. Sometimes this is because they allow more expensive but much better services, but often it is because they are more expensive with little gain in quality.

**We should use new hospital buildings to avoid wasting the money invested in them**

Wrong. Many new and expensive health facilities should not have been built. The waste relates to the decision to build and not the decision not to use. If a building has the effect of raising the cost or reducing the appropriateness of health care delivery it should not be used. Making bad use of a facility that has been built in error is worse than making no use of it. Determination to use new buildings is part of the wider phenomenon, the Edifice Complex, that requires architectural solutions to all problems.

Governments cannot afford to spend more money on health services, so we must make wider use of private funds for capital development, and use supplementary insurance with fees for services

Wrong. Most Western countries have seen a significant growth in spending on health services, and the proportion of gross domestic product devoted to services has been increasing. This is entirely to be expected for two reasons. First, research shows that demand for health services rises more than proportionately to income (in the technical sense, health services are luxury goods). As a country becomes richer it will choose to spend on health services. In addition, as health care is a handicraft industry the relative prices are likely to rise, as pointed out by Baumol in his 1996 Office of Health Economics lecture. The point here is simply that as an economy grows, industries which mechanize produce goods at generally falling prices, and those with high levels of human inputs become relatively expensive. We should not be over-concerned about this trend, as the growing wealth of the country means that we can have more of everything, and as we become richer it becomes easier not more difficult to fund health services.

To sort out the fallacies around government expenditure, and control of spending on health services, we need to be clear why governments wish to limit public expenditure in general and health sector spending in particular. There are some particular reasons for government concern about market failure resulting from the asymmetry of information and the need to protect the public from misuse of power by monopolies. But the main arguments for control are macroeconomic. High rates of economic growth depend on high levels of resources for investment and low interest rates. There is an argument that government spending ‘crowds out’ private spending. As government spending at the margin tends to be financed from borrowing, higher spending by government increases demand for loans, and raises interest rates. Taxes also reduce the supply of funds, again potentially raising interest rates. These in turn reduce investment, and may reduce the rate of growth.

Higher private spending on health services also crowds out investment. From the point of view of macroeconomic policy it makes almost no difference whether spending on health services is private or public – all that matters is how much is spent on health services. The only consideration is that it may be the case that public spending is generally financed by taxes from relatively rich people who may save and invest more than poorer people. More fees and direct payments may therefore crowd out other consumption and not investment, as it is poorer people paying. But within any distribution of incomes there is no macroeconomic advantage in private over public health spending. The most obvious consequence of shifting from public to private spending is to shift the burden from the relatively rich to the relatively poor.

Of course, the problem with public spending is tax. People do not like paying tax. However, experience also suggests they...
Wrong. The relationship between health services and ability to work is slight, both because only a small proportion of interventions increase ability to work, and because most are given to people below and above working age. This does not mean they are unimportant, but simply that the benefits are in terms of better health. In addition, it is not clear that getting people back to work increases national output. It is possible to argue about the current level of unemployment, but a reasonable estimate is that in the United Kingdom there are around three million people willing to work but not currently employed. Not all of these are suitable to do some of the more skilled and technical work, but few people do such specialized work that they are irreplaceable. It is worth remembering that graveyards are full of indispensable people.

Costs of care will be lowered by ‘rationalizing’ services and closing small hospitals

Wrong. Evidence of economies of scale in hospital services is hard to find, and the main evidence is that there are significant economies of scale only at the level of particular services (normally those with expensive equipment). Common sense and some evidence may mean that hospitals with around 150–200 beds can be more efficient than those smaller than this. The real problem is that hospitals are really sheds with workshops inside and not single institutions. There is no evidence that widening the scope of a hospital’s activity leads to lower costs. There is anecdotal evidence that the problems of managing highly complex hospitals increases costs. In a case study of a small hospital it was possible to see very flexible use of professional staff, and costs were consequently no higher than in larger hospitals. Retraction models of hospitals show that it is possible to reduce costs almost in proportion to the number of patients (although the process is lumpy). In many cases the closure of small hospitals fails to release any funds as the services are transferred to higher cost facilities. No-one has ever demonstrated ‘rationalization’ as a rational way to save money.

Although there are no well-documented cases of mergers and closures of small institutions saving money, it does remain possible that merger of particular services (e.g. intensive care, accident and emergency services, cardiac surgery) may yield significant savings, and may be associated with improvements in quality. Some parts of pathology also have great potential to show economies of scale. There is, however, no evidence that a wider scope of services is helpful.

We should focus resources on those diseases which are responsible for the largest burden of morbidity and premature deaths

Wrong. It is tempting always to seek solutions to the largest problems. However, to maximize the impact of health interventions we should concentrate on the size of solutions and not the size of problems. The diseases with the largest burden are often those where treatments are expensive and
relatively ineffective. In contrast, solutions to apparently smaller health burdens may be more effective. The early attempts to rank interventions on the basis of their cost-effectiveness demonstrate that the solution to a relatively small problem (e.g. arthritis of the hip) may be more effectively treated than more serious and life-threatening conditions (such as coronary heart disease), and may be a higher priority for resources. 15

It is better to focus health promotion on those who are young and fit

Probably wrong. It is tempting to look for complete prevention of diseases, and to attempt to maximize the effects of health promotion. The error is to look only at the benefits side of the equation. The costs of achieving primary or secondary prevention depend on how easy it is to identify the relevant population group and how easy it is to achieve the required change. Healthy, young people individually face low risks of serious disease. It is therefore necessary to intervene with a large number to make a significant effect on health. The fact that people are well also means they are not strongly motivated to improve lifestyles. Focus on older, sicker people means fewer interventions make more difference to more motivated people. In a recent study of secondary prevention in heart disease it was shown to be more cost-effective to include certain categories of women, who have lower risk than men of the same age, but are much more likely to change behaviour and comply with treatment. 16,17 Once again, the principle should be to intervene where intervention is cost-effective, and not simply where problems are large.

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References


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