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Letters

Comparative efficiency of national health systems

Developed countries must pay attention to wider issues in helping developing countries

EDITOR—The contribution by Evans et al to the debate on the *World Health Report 2000* deserves a comment on the wider issues of the findings rather than just on their validity. [1] [2] The outstanding feature of the league table on performance is how well most of the countries of the European Union have done and how poorly the countries of sub-Saharan Africa have performed in comparison. This raises the question of whether we in the Western world should be exercising an even greater responsibility than previously for the health of those living in poorer countries.[3] The key activities that must be included in the context of richer Western nations helping poorer ones are the following.

World leaders, especially of the G8, should review the globalisation of the world economies with a view to removing unpayable debts, providing targeted economic aid directed towards sustainable development, making serious inroads into controlling the arms and drugs trade, and resolving conflict.

International agencies should accelerate the development of health and social welfare plans, provide grants for education and training, and encourage research into the most efficient and effective ways of improving health.

Voluntary and philanthropic agencies should enhance their outstanding work in the eradication of disease and famine, and the relief of disaster and poverty.

National governments should increase aid directed towards tackling major diseases, improving education, primary health care, and health promotion, and towards encouraging sustainable development in agriculture.

Political and religious leaders should set aside their differences and personal interests, and work together for the common good of the people they serve.

Corporate business should engage in ethical and non-monopolistic business practices, which avoid exporting unhealthy products, encourage fair trade, pay fair wages, and help to build up commercial and economic foundations.

Health professionals and academic institutions should carry out more basic research into the best methods to achieve health improvement in poor environments.

None of these proposals is revolutionary, and many may seem unrealistic and idealistic. The developed countries have already made major contributions to health improvement in developing countries. But if we don't pay attention to the wider issues, repercussions are likely for all of us.[4] All we shall be doing is perpetuating the misery, suffering, and gross inequalities in health that developed countries are partly responsible for and can do something about.

Gordon Avery, *locum consultant in public health medicine*.
Iechyd Morgannwg Health, Swansea SA1 1LT gordon.avery@morgannwg-ha.wales.nhs.uk

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Methodological problems were understated

EDITOR—Evans et al present an unproblematic image of the methods and findings of the *World Health Report 2000* despite the controversy that has surrounded the report on conceptual, methodological, and procedural grounds.[1] I have published with others concerns about the report and draw attention to some issues relating to the paper.[2]

"Healthy" (or "disability adjusted") life expectancy (DALE), the outcome measure used to estimate the efficiency of health systems, is presented as an unproblematic indicator, despite the lack of necessary data for many developing countries and the consequent arcane computational manipulation, often based on speculative assumptions, that was required to arrive at estimates for 191 countries.[3] Uncertainty intervals were calculated for DALEs, but for the methods used the paper refers back to the report, which refers

back to an internal discussion paper of the World Health Organization that has not yet been released on its website.

Criticism has also been expressed about the technical and ethical bases of the disability weights used in calculating DALE and about the meaning, usefulness, and validity of compressing data on mortality, morbidity, and disability into a single number.[4] Many view death and non-fatal health outcomes as qualitatively different and incommensurable. It is difficult to see how a highly composite measure like DALE, which obscures epidemiological information, will help in meeting the stated objective of improving the evidence base for health policy. To effect change, policy needs to be specific and based on disaggregated data. Given the close correlation of DALE with standard life expectancy, it seems difficult to justify the effort and expense involved in constructing DALEs rather than using more transparent standard measures of mortality and morbidity. The approach to efficiency employed and the use of education rather than income to represent non-health-system determinants of health have also been questioned.[5] Evans et al conclude that more money should be spent on health systems in poor countries and most countries would gain by using health resources more efficiently. Did we not know this already?

The section headed "validity of findings" makes no reference to the extensive literature discussing these and other problems, and Evans et al should have been asked to do this. The paper lends credence to the view that the *World Health Report 2000* enterprise may owe more to institutional marketing than to science.[5] Following pressure from countries and regions, the WHO will not update the assessments of health system performance this year but will initiate a scientific peer review of the methods to be employed in the future.

Malcolm Segall, *associate (retired fellow).*
Institute of Development Studies, University of Sussex, Brighton BN1 9RE m.segall@ids.ac.uk

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Author's reply

EDITOR—People living in poor countries have lower life expectancies, live a higher proportion of their lives in poor health, and spend less on health per person. Our best estimates suggest that their health systems are also less efficient than those in richer countries.[1] We agree with Avery that richer countries should be much more active in seeking ways to improve the health of the world's poor. The World Health Organization has been a strong advocate for vast increases in the resources available for this purpose and continually collaborates with its member states to improve the performance of health systems on the basis of the best possible evidence. Its commission on macroeconomics and health will shortly report on the evidence linking development to improvements in health and estimates of the resources required to scale up health interventions for poor countries.

To improve the performance of health systems, policymakers require many types of information including levels of mortality, non-fatal health outcomes, and the morbidity associated with particular diseases, risk factors, and injuries. Our summary measure of population health, healthy life expectancy (HALE), builds on comprehensive and consistent estimates of fatal and non-fatal health outcomes.[2] The methods have been subject to intensive debate, development, and peer review for well over a decade, and independent estimates have been made in several countries.[3]

An interest in HALE does not prevent policymakers from considering the components separately—fatal and non-fatal health outcomes, and the morbidity associated with different causes. To facilitate this process, we have published this information along with HALE and the uncertainty intervals around key components. [1] [4] Contrary to Segall's contention, HALE provides more information than life expectancy—for a life expectancy of 70, HALE varies from 57 to 65, a major difference.[1]

The WHO estimates are the first attempt to measure health system efficiency in the 191 members of the organisation in a consistent and comparable manner.[2] Because of the importance of the topic and the interest this exercise stimulated, the director general, Gro Harlem Brundtland, decided that the performance of health systems will be assessed regularly by the WHO. To ensure that we benefit from continued external scientific advice, Dr Brundtland has established a consultative process part of which is a scientific peer review group to advise her on the methods to be used in the next round. Science only advances with open debate, and we are confident that the methods will develop rapidly. But the search for scientific perfection should not prevent policymakers receiving the best evidence scientifically available in the meantime.

David B Evans, *director ad interim.*
evansd@who.int

Ajay Tandon, *fellow*.
Global Programme on Evidence for Health Policy

Christopher L J Murray, *executive director ad interim*.
Evidence and Information for Health Policy

Jeremy A Lauer, *economist*.
Global Programme on Evidence for Health Policy, World Health Organization, CH-1211 Geneva, Switzerland

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To improve health care system's performance, drink red wine

EDITOR—Evans et al, from the World Health Organization, compare the efficiency of national health care systems.[1] Efficiency relates to the health you get for the money you spend. The first question then is how to quantify health. Evans et al use healthy life expectancy and thousands of questionable assumptions about morbidity. They fail to explain why they do not take life expectancy (strongly correlated to healthy life expectancy) and hard death rates. They then correct this measure for the minimum achievable health in the absence of a health system. No mention is made of the data and methods used in this enterprise—either in this paper or in that cited.[2]

Evans et al explain health by healthcare expenditure and schooling. They state, "We did not include income per capita, because income is highly correlated with health expenditure," which is a surprisingly easy way of solving the problem of colinearity. Any housewife (and a wealth of literature not addressed by the authors) [3] [4] will tell you that it is income that generates expenditure, and not the inverse. Tall basketball players have large shoe sizes and take many rebounds. Buying larger shoes won't increase their performance.

I will explain the results, duly omitted by the authors. All oil producing countries of the Middle East rank highly. Life expectancy is mediocre, levels of healthcare funding are

poor (<4% of gross domestic product), levels of (female) schooling are low, and minimum achievable health is probably very low. Because their actual wealth is not taken into account, the life expectancy "expected" by poor schooling, poor funding of health care, and a history of poverty is even more mediocre than that observed, meaning that the healthcare service is good.

The healthcare systems of Mediterranean countries are very efficient. These countries experience a remarkably low (cardiovascular) mortality, which is often attributed to the drinking of red wine. Healthcare funding is again poorer than average, so the expected life expectancy is lower than the observed.

Zimbabwe is the poorest performer of all. Zimbabwe funded its health care and schooling better than other sub-Saharan countries. Better funding and higher literacy rates condemn it as inefficient because its expected life expectancy is higher.

Evans et al's conclusions about healthcare efficiency ought to be summarised as follows: keep your people ignorant, underfund your healthcare service, find oil, and drink red wine.

Luc Bonneux, *researcher*.
Department of Public Health, Erasmus University Rotterdam, PO Box 1738, 3000 DR Rotterdam, Netherlands bonneux@mgz.fgg.eur.nl

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Comparative efficiency of national health systems: cross national econometric analysis

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