Letters

Modified Mediterranean diet and survival

Evidence for diet linked longevity is substantial

Editor—The EPIC-elderly cohort study was designed to investigate the association between a modified Mediterranean diet and longer life expectancy among an elderly subpopulation (older than 60) that is part of the larger EPIC (European Prospective Investigation into Cancer and Nutrition) cohort.[1 2]

Focusing the attention on a sample with a more restricted age range seems to reinforce previous findings on diet linked longevity, but important risk factors were not taken into account in collecting the data.

Total cholesterol, low density lipoprotein cholesterol, high density lipoprotein cholesterol, and blood pressure are well known determinants of cardiovascular disease. The study's outcomes are expressed in term of mortality, and cardiovascular disease remains the most important of all causes of death. The benefits of a healthy eating pattern with respect to these variables have been shown.[3]

The same might not be sustained if the total EPIC cohort were considered (aged 20-85).[2] Have the authors considered any possible statistical gain from including these risk factors in the analysis when considering the younger subgroup? We believe that the conclusions for participants older than 60 are stronger if the risk of cardiovascular disease in men and women after the menopause is considered.

In a world in which people eat mainly processed foods that are rich in saturated fats, the analysis is a warning to adopt a healthier dietary pattern and, broadly, lifestyle changes.

Emanuele Cereda *clinical nutritionist*
emanuele.cereda@virgilio.it

Alexis E Malavazos *clinical nutritionist*
Carla Favaro *professor*
Anna M Pagani *senior researcher*
School of Clinical Nutrition, Faculty of Medicine, University of Milan, 20133 Milan, Italy

Competing interests: None declared.

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Key confounder was missed

Editor—The title "modified Mediterranean diet" for the study reported by Trichopoulou et al is unfortunate and vague,[1] as would be a "modified Asian or American" diet. To many Westerners it might simply say: eat more pasta. The modification in the study diet variable was the addition of polyunsaturates to the numerator of the diet score. This, however, is problematic in not differentiating between the often excessive omega 6 linoleic acid[2] and the mostly deficient family of the three main omega 3 fatty acids (one plant based and two fish based).[3]

While justifying (on the basis of reference 12 in part 2 of the discussion section of the paper) adding polyunsaturates to the diet score numerator because of coronary heart disease benefits, the authors misrepresent the study. Plant based omega 6 had actually dropped (by 7% in plasma fatty acids, at one year) and by far the greatest change in fatty acids was a quantitatively small but proportionally large increase in plant based omega 3 α linolenic acid (+67% in plasma at one year).[3] This study specifically tried to increase (successfully) the ratio of omega 3 to omega 6 with a margarine made from canola (rape, colza) oil that was supplied to the study, not to increase polyunsaturates. Total polyunsaturates were 5% lower in serum in study participants than in controls after one year, not higher (table 4 in De Lorgeril et al[4]).

Part of the benefit of a traditional Cretan-Mediterranean diet was probably omega 3, as outlined by Leaf in an editorial.[3] The study reported by Trichopoulou et al adds the omnipresent vegetable oil omega 6 linoleic (over 50% of the fatty acids in soy, corn, cottonseed, sunflower, and safflower oils, for example) into the equation, for which clinical benefits have never been shown.[2]

Eddie Vos *maintains health-heart.org*
Sutton (Qc), Canada J0E 2K0
vos@health-heart.org

Competing interests: None declared.

1 Trichopoulou A, Orfanos P, Norat T, Bueno-de-Mesquita B, Ocke MC, Peeters PH, et al. Modified Mediterranean diet and survival: EPIC-elderly prospective cohort study. *BMJ* 2005. doi:10.1136/bmj.38415.644155.8F (published 8 April 2005).
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Author's reply

Editor—Cereda et al argue that lipid profile and blood pressure at baseline should be controlled for and that our study does not necessarily show a benefit of the Mediterranean diet (modified or not) among younger individuals. Blood lipids and blood pressure are determined by diet, alcohol intake, and physical activity, which have been evaluated in our study, as well as by poorly identified genetic factors. Blood lipids and blood pressure are therefore more likely to act as mediators of the effects of the evaluated factors rather than as confounders. Mediators, in contrast with confounders, should not be controlled for in the statistical analysis.[1] Suggestive evidence exists that the Mediterranean diet may also be beneficial among younger adults,[2] but we agree that this deserves further investigation.

Vos disagrees with the title "modified Mediterranean diet" and also cites references indicating that the benefit from polyunsaturated lipids may be limited to increased intake of omega 3 fatty acids and be unrelated to omega 6 fatty acids. With respect to his first point, the intention was to indicate that the diet we studied, although not strictly Mediterranean as characterised by the consumption of olive oil, still focuses on avoidance of saturated lipids, as traditionally done in the Mediterranean region. With respect to his second point, evidence exists that supports an important role of omega 3 fatty acids, but there is also evidence that vegetable lipids in general may have beneficial effects.[3] As an aside, it is worth clarifying that the traditional Cretan diet, although strongly dependent on high olive oil intake, was never centred on fish consumption. In any case, epidemiological evidence provides the empirical background on the basis of

which aetiological hypotheses have to be judged and perhaps modified.

Antonia Trichopoulou *professor of nutrition and preventive medicine*
Department of Hygiene and Epidemiology, University of Athens Medical School, Athens 11527, Greece
antonia@nut.uoa.gr

Competing interests: None declared.

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Licensing diagnostic tests may benefit everyone

Editor—Gluud and Gluud compare the introduction of new diagnostic tests with that of a new drug.[1] However, laboratory diagnostic tests need only to prove that they are able to measure a given analyte, not that the measurement is of any use in managing patients. An inappropriately used test may have "side effects" leading to a delay in diagnosis or further investigation for a condition that the test result has wrongly suggested. Conversely, the introduction of a valuable test in the United Kingdom can often be piecemeal, subject to the vagaries of particular clinicians' demand and the priorities of local funding.

Gluud and Gluud mention using the pharmaceutical model effectively to "license" a clinical test for use. In the UK this would require a joint approach from the diagnostics industry and a Department of Health agency to acquire sufficient information on the clinical utility of a new test before it becomes routinely available. Many laboratories would be willing to participate together as a network to carry out these "diagnostic trials."

Once a beneficial test has been licensed the challenge is to avoid a postcode lottery in its use. In the UK widespread introduction within the NHS could then be facilitated by an organisation equivalent to the role that the National Institute for Health and Clinical Excellence (NICE) has in recommending a particular drug's use.

This way forward could prove beneficial to all parties. For the diagnostics industry, currently under financial pressures in only manufacturing "generic" tests, it could allow a widespread deployment of a new diagnostic test. For academic medicine in the UK the diagnostic trials could represent a new direction that is also free from many drug related European Union directives. And patients can be more confident that they will not become the victim of an unproved or misused diagnostic investigation.

Eric S Kilpatrick *consultant in chemical pathology*
Hull Royal Infirmary, Hull HU3 2JZ
Eric.Kilpatrick@hey.nhs.uk

Competing interests: None declared.

1 Gluud C, Gluud LL. Evidence based diagnostics. *BMJ* 2005;330:724-6 (26 March.)

Radiotherapy in breast reconstruction is mostly safe

Editor—Ahmed et al say that radiotherapy can increase the complications of breast reconstruction and adversely affect outcome.[1] This point is not clearly justified.

The literature on the effect of radiotherapy on reconstructed breasts is based mostly on small retrospective series, with wide differences in reported complication rates. Objective measurement of fibrosis and capsular contracture is difficult, relying on clinical classification[2] or some form of tonometry. Assessment of cosmesis is subjective and may vary between experienced surgeons.[3] Radiotherapy technique is often poorly described. In one of the larger studies of radiotherapy after TRAM flap reconstruction one third of patients received a chest wall dose of 60-70 Gy.[4] At this dose, complications are perhaps not surprising. Two more recent studies with carefully described and apparently well controlled radiotherapy did not report increased complications, contracture, or poor cosmesis in TRAM-flap and LD reconstructions after mastectomy.[5 w1]

A major concern with irradiation of breast implants is the increased risk of capsular contracture, a chronic process that also occurs in non-irradiated augmented breasts and reconstructions.[2] This seems to occur more often in irradiated reconstructions than in non-irradiated ones, and also when breasts are reconstructed in previously irradiated fields.[w2 w3] However, radiotherapy does not clearly correlate with the degree of contracture.[w2] When applanation tonometry was used, a difference in compliance of irradiated and non-irradiated implants was observed at six months that did not persist at 12 months.[w4]

To suppose that radiotherapy will cause a degree of chronic change in the reconstructed breast, as it does in most tissue including irradiated normal breasts, is reasonable. This does not necessarily imply morbidity or detract from the cosmetic result. To avoid irradiating the reconstructed breast if possible, by advance planning, is prudent. When radiotherapy to the reconstructed breast is clinically indicated, the evidence shows that careful treatment can be given safely in many cases.

Martin J Rolles *specialist registrar, clinical oncology*
Wessex Radiotherapy Centre, Royal South Hants Hospital, Southampton SO14 0YG
rolles@ukgateway.net

Competing interests: None declared.

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Additional references w1-w4 are on bmj.com

Health care is paradox in India

Editor—The National Rural Health Mission is an ambitious yet sincere effort of India's health ministry.[1] It is reassuring to note the commitment to raise the annual spending on health care to more than 2% of gross domestic product, which had fallen to 0.9% in the past few years.

India is a land of striking inequalities. More than 70% of its population lives in rural areas, where only 20% of the total hospital beds are located. Yet India is proudly announcing that it is ready to cater to "health tourists" from the developed world. The advances in health care are accessible to only a very small percentage of Indians. With the influx of medical tourists the healthcare inequality is bound to widen.

Corporate hospitals are well known for "poaching" doctors from government and teaching institutions, luring them with huge sums of money, which often paralyses the government's healthcare infrastructure.

How can a country allow its doctors, who were educated at the people's expense, to cater for affluent patients from developed countries when more than 1300 people die every single day from a completely curable disease such as tuberculosis?

Most medical education in India is government sponsored, but no mechanisms are in place to ensure that the beneficiaries of this subsidised education pay back the people who have contributed to their education.

India is probably the world's leading exporter of trained medical professionals (doctors, nurses, paramedical workers). Some of the world's poorest people living in rural India actually subsidise the medical care provided to people from developed countries, either in the form of health tourism or "export" of medical skills.

Only when these issues are dealt with can the rural health mission become successful—quality healthcare delivery requires that trained professionals are made available where they are most needed.

Susheel Oommen John *consultant*
Leprosy Mission, New Delhi 110 001
susheel.john@gmail.com

Competing interests: None declared.

1 Mudur G. India launches national rural health mission. *BMJ* 2005;330:920-a. (23 April.)

Who needs health care?

Health care may be an oxymoron

Editor—Before decrying preventive medicine in her article "Who needs health care—the well or the sick?" Heath should have defined the term.[1] The best of preventive medicine has saved more lives and reduced more suffering at far less cost than all medical interventions, whether in the shape of immunisation, improved sanitation, or better diet. Prevention is about population interventions that are usually low cost and lead to reduced disability and death.

I believe that Heath is really talking about expensive interventions for chronic disease, usually the result of excess use of unneeded drugs such as alcohol and tobacco, or lack of exercise, among others. When these behaviours catch up with people they consult a doctor, having read of medical miracles in the newspapers and believing that medical intervention will regain a state of health.

These activities on behalf of older people in developed countries (which I think is what Heath is talking about) are not prevention (primary or secondary). If this article helps people think twice about the use of the terms "health care" and "medical care" and learn to distinguish between them it will have been useful. National and individual resources can be put to better use than the medical fad of the minute.

The policy and philosophical issues of prevention compared with medical care are important. This article confused the issues. Preventive medicine is a well defined discipline. The terms prevention and health care are often used incorrectly by medical professionals and lay people. I encourage the editors to devote an issue to the advances in prevention in developed and developing countries over the past 50 years to provide readers with a clearer understanding of prevention compared with medical care.

Christopher M Buttery *professor of public health*
Virginia Commonwealth University, Richmond, VA 23298, USA
rokimbo@comcast.net

Competing interests: None declared.

1 Heath I. Who needs health care—the well or the sick? *BMJ* 2005;330:954-6. (23 April.)

Preventive medicine deserves more respect

Editor—I agree with Heath that the waning of professional power among healthcare professionals has been wrongly perceived to be in the interest of patients' autonomy, whereas increasing corporate power has done more harm, albeit indirectly, to patients' autonomy.[1]

SILVIO FIORE/TOPFOTO

I also agree about the relation between longevity and self reported illness. Heath seems to attribute this to the supposition that when society achieves good health, it has greater expectations of health and consequently more fear and anxiety when health seems threatened by real or perceived risks.

This observation is, however, not surprising if the response of society to improving health is conceptualised in similar ways to Maslow's description of the hierarchy of human needs.[2] Society can be considered an individual entity for the purpose of this concept. Accordingly, a society that is still grappling with ill health will not move on to expectations of higher needs, whereas a society whose basic ill health issues seem resolved will naturally expect something higher—longer and quality life as well as abolition of uncertainties in health.

According to Maslow, any gaps in the need level at which an individual operates may result in reversion to earlier need levels to "remove" the gap. To suggest the devolution of resources away from preventive medicine in a society that is already health primed such as ours will only lead to an unhealthy reversion to a lower needs status with its attendant challenges. Preventive medicine deserves more respect than has been accorded in the article.

Kelechi E Nnoaham *public health specialist registrar*
Cherwell Vale Primary Care Trust, Oxford Road, Banbury OX16 9AL
kcnnoaham@yahoo.com

Competing interests: None declared.

1 Heath I. Who needs health care—the well or the sick? *BMJ* 2005;330:954-6. (23 April.)
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Preventive medicine has potentially big role

Editor—I am frustrated at Heath's and Godlee's view of preventive medicine.[1 2] They both argue against excessive drug prescribing and treating risk factors, seeing these as aspects of preventive medicine. What is preventive medicine, and why does preventive medicine have to be practised by the medical profession?

I agree with both of them on the futility of merely postponing death while undermining health. A recent paper in the *BMJ* showed how medical knowledge can be used to improve people's health, but only if the government is willing to make big changes in cooperation with big industry.[3]

Medical knowledge should be used to be truly preventive. Government policy needs to be changed to make it easy for the nation to stay healthy. Schools need compulsory nutritional standards, increased hours of exercise on a daily basis, and improved overall levels of education. The government needs to work with the food industry to tax unhealthy foods, and smoking must be banned in public places. The environment, which includes water and air quality, must be preserved by policies. These are just a few examples of where medical knowledge can be used to make a real difference.

If only a tiny percentage of the drugs budget of pensioners went towards better school nutrition and school sports facilities, the money would be better spent. Preventive medicine has a great potential role even if it is not to be administered by doctors.

PS: My daily run doesn't make me miserable.

Benjamin Dean *senior house officer*
Radley College, Abingdon, Oxfordshire OX14 2HU
djdeeno1979@yahoo.co.uk

Competing interests: None declared.

1 Heath I. Who needs health care—the well or the sick? *BMJ* 2005;330:954-6. (23 April.)
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Investment in health promotion is miserably small

Editor—I was struck by the different businesses included in the broad swipe against prevention and health promotion in Heath's article—national screening programmes, the pharmaceutical industry, health food stores, general practice, and NHS health promotion.[1]

Some of the referenced targets are fair game—for example, hormone replacement therapy or prescribing statins. But the notion that the United Kingdom invests huge amounts in "the vast bureaucracy of health promotion" was laughable.

The UK has some 2000 health promotion specialists, out of a total workforce of 1.3 million. Fewer than two of every 1000 NHS staff are devoted to health promotion and leading out on the national agenda, "Choosing Health," alongside colleagues in public health. Evidence for the effectiveness of health promotion is available but not mentioned—for example, reviews by the Health Development Agency (now the National Institute for Health and Clinical Excellence (NICE), www.publichealth.nice.org.uk) and the International Union for Health Promotion and Education (www.iuhpe.org). Clear examples include the reductions in road crashes and adult smoking rates.

Brian Neeson *chair, Association for Health Promotion in Ireland*
Health Promotion Centre, Health Service Executive, Mid-Western Area, Parkview House, Pery Street, Limerick, Republic of Ireland
Brian.Neeson@mailh.hse.ie

Competing interests: None declared.

1 Heath I. Who needs health care—the well or the sick? *BMJ* 2005;330:954-6. (23 April.)

Old people are faced with dilemma as families disintegrate

Editor—Heath describes a current trend that has to be kept in check.[1] Recent research findings may strike everyone with mortal fear on occasion. Multinational companies do their bit to allay this fear by producing "antidotes" at an equally rapid pace and at "competitive prices," lest others overtake them in their philanthropy.

Maybe if someone lands on Mars some day there will be a big hoarding showing possible health hazards, and another, equally big if not bigger hoarding, announcing what products are available as antidotes and investigative facilities, with possibly a tag mentioning that a percentage of every purchase is for the poor people of Planet Earth.

In close knit societies that take care of their weak, infirm, and old people, as in the remote villages of India and Botswana, people are not that worried as they age

because they know that they will be looked after to the end. However, with families disintegrating, old and infirm people become worried because there is no one to look after them as they deteriorate—hence their desire to remain healthy, to be able to fend for themselves. Most of them do not fear death and have no desire to prolong their lives. Their fears are laid to rest by the preventive and proactive actions that they take, based on what they hear and see. Maybe a better and vetted comprehensive health education policy for the masses needs to be in place that recommends only indisputable preventive and proactive measures.

Rajesh Chauhan *consultant in family medicine and communicable diseases*
Akhilesh Kumar Singh *senior resident neurology*
Parul Kushwah. *family medicine practitio*ner
309/9 AV Colony, Sikandra, Agra-282007, India
drchauhanrajesh@yahoo.com

Competing interests: None declared.

1 Heath I. Who needs health care—the well or the sick? *BMJ* 2005;330:954-6. (23 April.)

Consumer advertising and doctors' prescribing

Doctors may end up treating the effects of scaremongering

Editor—Gottlieb reports a study finding that consumer advertising influences doctors' prescribing.[1] Recently I have had several patients attend as a result of being frightened by advertisements in the popular press. They had seen and responded to an advertisement asking if their family was infected with fungus. They had sent away for the offered literature and then attended my surgery asking for an antifungal drug by name.

Diagnosis of tinea nail infections was confirmed, and the patients wished to be treated with the stated drug despite the risk profile, expense to the NHS, and the harmlessness of the condition. Is this freedom of information and patient autonomy or scaremongering and commercial opportunism?

Graham L G McAll *general practitioner*
126 Devonshire Street, Sheffield S3 7SF
graham.mcall@gp-c88076.nhs.uk

Competing interests: None declared.

1 Gottlieb S. Consumer advertising influences doctors' prescribing, study finds. *BMJ* 2005;330:983. (30 April.)

Doctors and patients alike need to be empowered by information to improve quality of care

Editor—The most interesting result from the study reported by Gottlieb is not that patients' requests influence the choice of treatment, which is good to hear, but that minimal acceptable care was given in only 56% of cases where the patient made no request for drugs (general or specific).[1] Given type 1 and type 2 errors,[2] advertising directly to consumers seems to help to generate correct treatment more than it leads to incorrect treatment (inappropriate choice of drug).

My immediate reaction is not to recommend advertising directly to consumers (there are far too many caveats to be applied) but to query why clinicians needed to be prompted to provide a minimal level of care. This is not to pillory doctors, who have much to contend with (including "standard patients"), but to consider whether we need improvements in the use of care protocols and decision-support systems to improve the quality and consistency of care.

McAll's comment (previous letter) about the harmlessness of the condition may imply that doctors take a very "medical" view of the problem without considering the impact on the social life and sense of wellbeing of the patient. The drug treatment is probably not the best choice as a first option, but neither is ignoring the condition as "harmless," especially when patients have clearly gone to some trouble to find out about their condition before bothering their doctor.

Being "empowered" by information may enable patients to push for the treatment they need. Doctors too need to be empowered by information about best practice and effective alternative treatments, as well as having ready information to give to patients to support their recommendations.

Peter D Singleton *senior associate*
Judge Institute of Management, University of Cambridge, Cambridge CB2 1AG
peter.singleton@chi-group.com

Competing interests: PS is coauthor of *The Informed Patient* reports, produced under unrestricted research grants from Johnson and Johnson.

1 Gottlieb S. Consumer advertising influences doctors' prescribing, study finds. *BMJ* 2005;330:983. (30 April.)
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"Track changes" tracks ghost writers

Editor—Eaton reports that medical editors have issued guidance on ghost writing.[1]

As a regular peer reviewer for medical journals I am sometimes surprised to see doctors writing on themes that I know are outside their usual field of interest or knowledge. About two years ago I was reviewing such a paper submitted electronically when I made an amusing discovery: when I turned on the track changes function, commentaries made by the drug company popped up. Needless to say, I rejected the paper.

As we all know, the problem with ghosts is that it is very difficult to prove their existence. This was a rare example of ghost tracking.

Steinar Madsen *chief consultant*
Norwegian Medicines Agency, Sven Oftedalsvei 8, N-0950 Oslo, Norway
steinar.madsen@noma.no

Competing interests: None declared.

1 Eaton L. Medical editors issue guidance on ghost writing. *BMJ* 2005;330:988. (30 April.)

Right patient, right treatment, right time

Editor—Braithwaite issues an interesting challenge in his personal view on axioms governing health sytems.[1] Collins shows how companies moving from good to great do so by developing a "hedgehog" principle.[2] The hedgehog principle is that great companies do repeatedly what they are good at and that they stop doing anything they are not good at, no matter how worth while or interesting these activities could be. Great companies take a complex world and simplify it so that it becomes clear for them, their staff, and their customers what they should be doing.

When these companies have discovered their hedgehog principle they implement it both by a "to do" list and a "to stop doing" list. The NHS at present does not have a hedgehog principle and suffers badly for this lack.[3–5]

I want to propose a hedgehog principle for the NHS—namely, that it should aim to get the right patient to the right treatment at the right time. We can, and will, be debating forever about who the right patient is, what their right treatment is, and what the right time is. However, the basic aim remains sound, whatever changes in medical knowledge come through.

Doctors and others working on remedial treatment of patients should specifically work for a national medical service. Illness definition and treatment is what doctors are (or should be) good at doing. A clear focus for the service will be empowering for doctors and managers with shared goals allowing them to organise well so patients get a good service.

Those who want to work on the equally important aim of improving the health of the public should move outside of the national medical service towards a separate public health generation service with a wider remit to society, and not to its casualties.

Peter Davies *general practitioner*
Shelf Health Centre, Halifax, West Yorkshire HX3 7PQ
npgdavies@blueyonder.co.uk

Competing interests: None declared.

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