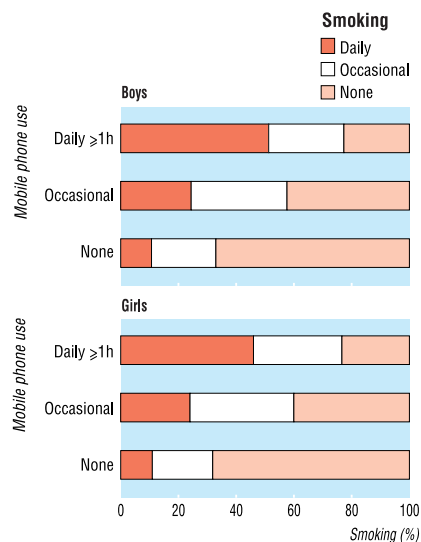


Mobile phone use has not replaced smoking in adolescence

EDITOR—Charlton and Bates hypothesised that the fall in smoking and the rise in ownership of mobile phones among adolescents in the late 1990s were related.¹ Mobile phones were argued to be competition to cigarettes by competing for the spending money that is scarce in adolescence. We tested this hypothesis in Finnish adolescents.

We collected cross sectional data in February 2001 from nationally representative samples of 14, 16, and 18 year old Finns by using a self administered structured mailed questionnaire (adolescent health and lifestyle survey). The samples comprised 9309 adolescents, and the response rate was 70% (6516). We used cumulative logistic regression models to study the associations between the dependent variable, smoking status (never tried or smoked once, smoked at least twice but not smoking daily, smoking daily), and the explanatory variables, mobile phone use (not at all, occasionally or daily for less than 1 hour, daily for at least 1 hour), the amount of weekly spending money (cut-off points: first and third distribution quarters by age and sex), and sex.

Among the respondents, 57% (3518) had smoked at least twice, 24% (1507) smoked daily, and 91% (5582) used mobile phones. The proportion of smokers was positively associated with the amount mobile phones were used (figure).



Smoking prevalence by mobile phone use among 14 to 18 year olds

In the logistic regression analysis the univariate association between smoking and mobile phone use was positive, so that the amount of smoking increased in proportion to the use of mobile phones ($P < 0.001$). Taking account of the amount of spending money did not change the association. In the multivariate model the cumulative odds ratio for increased smoking was 7.7 (95% confidence interval 6.1 to 9.9) in participants using a mobile phone at least 1 hour daily compared with those not using a mobile phone at all.

Often adolescents both smoke and use mobile phones, and this association remains when the amount of weekly spending money is taken into account. A high proportion of Finnish adolescents use mobile phones, but their use is associated with health endangering lifestyles indicated by smoking. This association may not, however, apply to countries at different stages on the innovation diffusion curve² or where parents do not help pay for their children's mobile phone costs as much as they do in Finland (T A Wilska, Nordic sociological conference, Reykjavik, August 2002). The symbolic role of mobile phones and smoking in modern adolescent cultures needs to be studied.³

Leena Koivusilta researcher
leena.koivusilta@utu.fi
Department of Social Policy, FIN-20014 University of Turku, Turku, Finland

Tomi Lintonen senior assistant professor
Arja Rimpelä professor of community health
School of Public Health, FIN-33014 University of Tampere, Tampere, Finland

- 1 Charlton A, Bates C. Decline in teenage smoking with rise in mobile phone ownership: hypothesis. *BMJ* 2000;321:1155.
- 2 Rogers EM. *Communication of innovations*. New York: Free Press, 1995.
- 3 Campbell C. *The romantic ethic and the spirit of modern consumerism*. Oxford: Blackwell, 1987.

Medical school applications

Pool of potential medical students needs to be enlarged

EDITOR—McManus says that the only way to increase the pool of medical school applicants is to lower A level requirements or to increase the pool of A level chemistry candidates.¹ We argue that a better pathway to recruiting successful medical students is to appeal to a much larger pool both of able school pupils and of mature, older graduates

and health professionals. Selection from this enlarged pool should be based on overall academic ability, which predicts both the likelihood of staying the course and ultimate success more powerfully than having science A levels and assessment of the personal qualities required to be a good doctor.²⁻⁴

The real challenges are of affirmative action (making medicine seem an attractive career to the many young people who have the appropriate potential but are not currently considering it) and of tailoring undergraduate curriculums to meet the needs of students with the necessary scientific reasoning abilities but without the science knowledge base. Specific elements of such a strategy would include:

- Dispelling myths to school pupils and their teachers that medicine is an option only for scientists and requires unreasonable levels of dedication and study
- Broadening the range of A levels accepted without lowering grade requirements
- Expanding graduate and professional entry and access to medicine programmes⁵
- Defining (parsimoniously) the science base that is relevant to medicine and helping students learn it through guided discovery in a clinical context.

Cornelius Katona dean designate
Kent Institute of Medicine and Health Sciences,
University of Kent at Canterbury, Kent CT2 7PD
c.katona@ukc.ac.uk

Philippa Katona principal in general practice
Lower Clapton Health Centre, London E5 0PQ

Margaux Katona sixth form student
Francis Holland School, London NW1 6XR

CK is dean designate, Kent Institute of Medicine and Health Sciences, University of Kent at Canterbury, which is working with the Guy's, King's, and St Thomas's School of Medicine and academic and healthcare organisations in Kent to deliver a graduate and professional entry medical student programme. PK is an honorary senior lecturer in general practice and participates in teaching medical students at all stages of their undergraduate training. She finds teaching graduate students a very positive experience. MK is currently studying for A levels in psychology, English, and chemistry and hopes to take a psychology degree before (perhaps) applying for graduate entry into medicine.

- 1 McManus IC. Medical student applications—a critical situation. *BMJ* 2002;325:786-7. (12 October.)
- 2 Arulampalam W, Naylor RA, Smith JP. A hazard model of the probability of medical school dropout in the United Kingdom. Coventry: University of Warwick. www.warwick.ac.uk/fac/soc/Economics/research/twerp.html (accessed 14 Oct 2002).
- 3 Ferguson E, James D, Madeley L. Factors associated with success in medical school and in a medical career: systematic review of the literature. *BMJ* 2002;324:952-7.
- 4 Hurwitz B, Vass A. What's a good doctor, and how can you make one? *BMJ* 2002;325:667-8.
- 5 Pritchard L. Access all areas. *BMA News* 2002 Sep 7.

Compensating factors do not compensate for poor A level performance

EDITOR—Although statistical analysis of students' progression and performance in general finds school attainment to be a significant determinant, doubt about the validity of this finding seems to be considerable. The finding is based on the widely held view that nearly all medical students who entered on the basis of A level qualifications scored 30 points.¹⁻⁴ If this were true, then it would indeed be impossible to infer any statistical relation between performance in A levels and later outcomes of medical students. Crucially, a surprisingly large variation exists in the A level scores of medical students.

The only currently available dataset for the full population of medical students, used in our own work,^{2,3} is from universities' statistical records. This contains precise and complete information on pre-university qualifications for all medical students completing a medical degree in the United Kingdom between 1991 and 1997.

Of the population of students in English medical schools, 94% of students entered with A/AS levels as their main entry qualifications in 1985. Over time, a small decline has occurred, to 90%, among the 1993 entrants (completing in 1999). Of these students, only 28% had a full 30 point score (AAA) in 1985. In 1993, this proportion was 33%. The percentage achieving a score of 26 to 29 (22 to 25) points decreased slightly, from 44% (24%) in 1985 to 42% (20%) in 1993. This variation in the A/AS scores enables us to look at the effect of varying entry qualifications on dropout behaviour of the students.

The dataset does not contain information on the criterion by which students with A level scores notably below 30 points were accepted on to a medical school degree programme. If, however, students showed some compensating factors that offset lower A level performance, then they would be expected to have the same probability of dropping out as a student with higher A level scores. We have observed a significant negative relation between a student's probability of dropping out and A level score once other observable personal and university characteristics were controlled for, which implies that any compensating factors do not compensate for poor A level performance. Therefore, appropriate support programmes must accompany any policies aimed at widening participation by lowering entry qualifications.

Wiji Arulampalam *professor*
wiji.arulampalam@warwick.ac.uk

Robin A Naylor *reader*
Jeremy P Smith *reader*
Department of Economics, University of Warwick,
Coventry CV4 7AL

1 McManus IC. Medical student applications—a critical situation. *BMJ* 2002;325:786-7. (12 October.)

2 Arulampalam W, Naylor RA, Smith JP. *A hazard model of the probability of medical school dropout in the United Kingdom*. Coventry: University of Warwick, www.warwick.ac.uk/fac/soc/Economics/research/twerps.html (accessed 14 Oct 2002).

3 Arulampalam W, Naylor RA, Smith JP. *Factors affecting the probability of first-year medical student dropout in the UK: a logistic analysis for the entry cohorts of 1980-1992*. 2002. www.warwick.ac.uk/Economics/arulampalam/research/medics_tscs.pdf (accessed 9 Dec 2002).

4 Burr SA. Medical school applications—not a critical situation. Electronic response to Medical school applications. *bmj.com* 2002. bmj.com/cgi/eletters/325/7368/786#26218 (accessed 8 Jan 2003).

Applications have increased again for second year running

EDITOR—McManus may have been overly pessimistic in his assessment of the attractions of medicine as a career.¹ Predicting trends based on limited data is dangerous, but the latest figures for applications to medical schools which had arrived with the universities and colleges admissions service by the deadline of 15 October 2002 show a 28.1% rise compared with the year before. This is the second year in which there has been an increase. The number of applications is 14 040 for a target of 7135 places, giving a ratio of 1.97 applicants for every place despite the higher number of places.

Arulampalam et al (previous letter) also display unwarranted pessimism. It is clear from their data that a higher percentage of individuals with lower A level scores drop out, but the number of dropouts even in this group is low and the data can be interpreted to show that most individuals with lower scores succeed. Should we prevent them from entering the profession, or should we be looking for better selection criteria that identify who is really suited to a career in medicine?

I endorse the view of the Katonas (overleaf), that broadening the range of applicants does not mean lowering standards and provides a potential pool of applicants, which might maintain the number of applications even if McManus's prognostications prove to be correct.

Samuel J Leinster *dean*
School of Medicine, Health Policy, and Practice,
University of East Anglia, Norwich NR4 7TJ
s.leinster@uea.ac.uk

SL is dean of the School of Medicine, Health Policy, and Practice at the University of East Anglia. This school is one of the two new schools of medicine to open this year and is actively looking at alternative selection criteria for medical students.

1 McManus IC. Medical student applications—a critical situation. *BMJ* 2002;325:786-7. (12 October.)

Medicine and myth need to be separated

EDITOR—That Britain needs more doctors is a myth that arises, in part, from the need of the professions to protect existing structures and institutions from change.¹ Much of medical care can be broken down into discrete tasks that do not require the training and costs associated with doctors, or even nurses. We do not need more doctors; we need more clarity in thinking about processes and outcomes.

The current expansion of medical schools is a disaster; an expensive solution that will lock many bright and capable people into unchallenging jobs and deprive

the wider economy of a considerable source of talent and enterprise.

Douglas Salmon *general practice partner*
Birmingham B20 3HE
donsalmon@hotmail.com

1 McManus IC. Medical student applications—a critical situation. *BMJ* 2002;325:786-7. (12 October.)

Public access defibrillators

Potential efficacy of public access defibrillation may be underestimated

EDITOR—Pell et al provide useful data on the appropriate location of public access defibrillators.¹ Not all of their conclusions, however, seem to be based on firm evidence.

They say that arrests that occur in obvious sites for locating defibrillators already have the shortest response times, yet only 340 out of 2646 (13%) patients in a suitable site received an ambulance within 3 minutes. Response time is not defined: a detail important in allowing valid comparison with other early defibrillation strategies.

The Department of Health defines this interval as starting when a chief complaint is identified by an ambulance dispatcher and ending when an ambulance stops at the scene. The time taken for a bystander to determine that action is needed and make a 999 call, as well as the time taken by the crew to reach the patient's side and deliver a counter-shock, are excluded.

The complete interval from collapse to first counter-shock is a key variable in determining outcome from cardiac arrest.² Public access defibrillators may reduce the delays inherent in dialling 999 and consequently the time to first shock, even when the ambulance response is under 3 minutes. This potential benefit has not been included in the model used by Pell et al. Neither do they allow for the incremental benefits of a reduction in response time at intervals of more than four minutes. Mortality increases by 4% for each minute's delay to first shock.³

The authors say that provision of automated external defibrillators to other first responders could double overall survival to discharge, referring to their previously published article.¹ This paper does not provide such evidence, concluding only that responding to 90% of calls within five minutes would increase the proportion of survivors to 10-11%. It requires a very large assumption to suggest that first responders could produce such a huge reduction in response times.

Pell et al recommend that public access defibrillators should not be preferred to bystander cardiopulmonary resuscitation. However, early cardiopulmonary resuscitation combined with early defibrillation doubles the number of survivors of early cardiopulmonary resuscitation alone.⁵

Pell et al's predictions of the impact of public access defibrillators are based on a model that does not include all of its potential benefits. They have not conclusively shown that public access defibrillators are

less effective than bystander cardiopulmonary resuscitation or first responder defibrillation schemes.

Malcolm F Woollard *executive officer*
Pre-hospital Emergency Research Unit, University of Wales College of Medicine, Cardiff CF11 8PL
Malcolm.woollard@btconnect.com

- Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. Potential impact of public access defibrillators on survival after out of hospital cardiopulmonary arrest: retrospective cohort study. *BMJ* 2002;325:515-7. (7 September.)
- Nichol G, Stiell IG, Laupacis A, Pham B, De Maio VJ, Wells GA. A cumulative meta-analysis of the effectiveness of defibrillator capable emergency medical services for victims of out-of-hospital cardiac arrest. *Ann Emerg Med* 1999;34:517-25.
- Weaver WD, Cobb LA, Hallstrom AP, Copass MK, Ray R, Emery M, et al. Considerations for improving survival from out-of-hospital cardiac arrest. *Ann Emerg Med* 1986;15:1181-6.
- Pell JP, Sirel JM, Marsden AK, Ford I, Cobbe SM. Effect of reducing ambulance response times on deaths from out of hospital cardiac arrest: cohort study. *BMJ* 2001;322:1385-8.
- Eitel DR, Walton SL, Guerci AD, Hess DR, Sabulsky NK. Out-of-hospital cardiac arrest: a six year experience in a suburban-rural system. *Ann Emerg Med* 1988;17:808-12.

Defibrillators in public places save lives

EDITOR—Most of the over 70 000 deaths every year in the United Kingdom from sudden cardiac arrest are due to ventricular fibrillation. Strategies to reduce the delay in performing defibrillation (the main factor determining survival) include placing defibrillators in busy public places for use by those present, or equipping first responders who can reach a victim before an ambulance.

Pell et al apply a statistical model to estimate potential survival after more widespread public provision of defibrillators.¹ Their technique relies heavily on historical data from patients attended by the Scottish ambulance service within 3 minutes, which they consider analogous to a defibrillator placed in a public place. They consider the predicted increase in survival (5% to 6.3%) inadequate to justify such deployment and that it is more appropriate to equip first responders.

The Resuscitation Council (UK) has recently launched a national database of resuscitation attempts in both scenarios, and data already collected do not support Pell et al's predictions.

Attempted resuscitation reported in 126 subjects in public places (British Heart Foundation or Department of Health defibrillators) record defibrillator attachment on average 4.5 minutes after collapse (63% given shocks and 20 (15.9%) known survivors to hospital discharge). In 177 cases attended by first responders, the defibrillator was attached at a mean of 11.34 minutes (33% received shocks, but only 5 (2.8%) survived). The difference between the proportions surviving in the two groups is highly significant ($P < 0.001$).



The reasons for the discrepancy between data from actual cardiac arrests and their predictions are unclear but may include:

- (1) Defibrillators in public places more effectively reduce time to defibrillation.
- (2) Placing defibrillators in areas of known high frequency of cardiac arrest is an effective strategy.
- (3) Victims in public places receive basic life support earlier.
- (4) Patients who have a cardiac arrest in public places differ from others with cardiac arrest.
- (5) Historical data relating to ambulance attendance within 3 minutes are a poor surrogate for the actual time between collapse and defibrillation—for example, because delays in making the emergency call are not included.

The data agree with those of other studies showing the value of having defibrillators available in public places with the minimum delay^{2,3}; they offer a valuable means of saving some victims of cardiopulmonary arrest. Although first responders may provide a means of treating others, these data confirm other reports that only modest benefit will result until their response times are greatly improved.⁴

Michael C Colquhoun *senior lecturer*
University of Wales College of Medicine, Cardiff CF14 4XN
colquhoun@bishopsfrome.u-net.com

- Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. Potential impact of public access defibrillators on survival after out of hospital cardiopulmonary arrest: retrospective cohort study. *BMJ* 2002;325:515. (7 September.)
- Valenzuela TD, Roe DJ, Nichol G, et al. Outcomes of rapid defibrillation by security officers after cardiac arrest in casinos. *N Engl J Med* 2000;343:1206-9.
- Willoughby PJ, Caffrey S. Improved survival with an airport based PAD system. *Circulation* 2000;102:II-828.
- Myerburg RJ, Fenster J, Velez M, Rosenberg D, Lai S, Kurlansky P, et al. Impact of community-wide police car deployment of automated external defibrillators on survival from out of hospital cardiac arrest. *Circulation* 2002;106:1058-64.

Authors' reply

EDITOR—Our results clearly show that people who have cardiac arrests in sites suitable for locating public access defibrillators already have shorter response times than those who have arrests elsewhere. We accept that further reductions in response time are achievable in this subgroup—this was the basic premise of our model.

Response time is clearly defined in our methods as the interval from 999 call to arrival of the ambulance on site. Time of arrest is unreliable for arrest witnessed by bystanders and unavailable for unwitnessed arrests, and time of first shock is irrelevant to patients who do not receive shocks. Therefore ours is the only definition of practical use in such a study.

We hypothesised that public access defibrillation would achieve an average collapse to first shock interval equivalent to a 3

minute ambulance response time. We tested the robustness of the assumption by calculating the survival on the basis of a 2 minute or 4 minute response, without reaching substantially different conclusions.

The data quoted by Colquhoun support our own results. His figure of 15.9% survival after use of public place defibrillators is almost identical to our own prediction of 16.2% survival in this group. But only a minority of prehospital arrests occur in public places. Therefore, we calculated that public place defibrillators would improve overall survival from 5.0% to only 6.3%. To achieve this level of improvement would require deployment of 2646 defibrillators in Scotland alone, and probably 10 times that number in England and Wales. Even this estimate makes the implausible assumption that future cardiac arrests will occur at the site of previous arrests. Our results are not unique. Gratton et al reported that over a one year period in Kansas City 922 cardiac arrests in the community occurred in 900 separate locations. Of the 16 locations where more than one arrest occurred, only five were public places.¹

We previously calculated that reducing the 90th centile for ambulance response time from 14 minutes to 5 minutes could increase cardiac arrest survival from 6% to 11%.² A 5 minute response time is a very challenging target, which cannot currently be met by ambulance services alone. Our argument is that increased ambulance resources, improved deployment methods, and the inclusion of non-traditional first responders equipped with defibrillators are all needed to achieve significant improvement in the survival of most people who have a cardiac arrest, who do not arrest in a public place.

Jill P Pell *honorary clinical senior lecturer*
Jane M Sirel *research assistant*
Nicola L Walker *senior house officer*
Stuart M Cobbe *Walton professor of medical cardiology*
stuart.cobbe@clinmed.gla.ac.uk

Department of Medical Cardiology, Glasgow Royal Infirmary, Glasgow G31 2ER

Andrew K Marsden *medical director*
Scottish Ambulance Service Headquarters, Edinburgh EH10 5UU

Ian Ford *professor of statistics*
Robertson Centre for Biostatistics, University of Glasgow, Glasgow G12 8QQ

1 Gratton M, Linholm DJ, Campbell JP. Public access defibrillators. Where do we place the AEDs? *Prehospital Emergency Care* 1999;3:303-5

2 Pell JP, Sirel JM, Marsden AK, Ford I, Cobbe SM. Effect of reducing ambulance response times on deaths from out of hospital cardiac arrest: cohort study. *BMJ* 2001;322:1385-8.

Fire extinguisher model of public access defibrillation is unlikely to prevent many deaths

EDITOR—We agree with Pell et al that committing significant resources to widespread public access defibrillation is not justified.¹

The American Heart Association described four levels of public access defibrillation.² We assessed the likely impact in south Cumbria of level four public access

Location of acute cardiac events attended by ambulance service in south Cumbria, 1997-8. Values are numbers (percentages) of events

Place	Cardiac arrest (n=210)	Chest pain (n=1889)	Collapse (n=55)	Dead on arrival of ambulance crew (n=121)	All events (n=2275)
Private	146 (69.5)	1564 (82.8)	29 (52.7)	105 (86.8)	1844 (81.1)
Public	58 (27.6)	296 (15.7)	24 (43.6)	11 (9.1)	390 (17.1)
Not known	6 (2.9)	29 (1.5)	2 (3.6)	5 (4.1)	42 (1.8)

defibrillation, the fire extinguisher model, in which an extensive network of prominently displayed defibrillators is available for the use of untrained lay bystanders.

From ambulance data we identified all potential acute cardiac events attended by the ambulance service over two years in south Cumbria (table). Estimated survival rates from cardiac arrest overall and for arrests in public places were 10% and 16% respectively.

Of 331 cardiac arrests and deaths diagnosed on arrival of ambulance crew, 69 (21%) occurred in a public place. We estimated that in the worst case scenario 29 (9%) cases would be potentially amenable to public access defibrillation because of accessible location and treatable cardiac rhythm; in the best case scenario we estimated 60 (18%) cases. We used one way sensitivity analysis to apply a range of survival rates to these data. If the survival rate from cardiac arrest with public access defibrillation was 30%, 4-7 additional lives could be saved each year in south Cumbria; more realistically, 1-3 lives could be saved. Arrests occurred in a wide range of public places. Equipping all types of location would cost an estimated £10.5m.

The maximum reported survival rate from ventricular fibrillation after public access defibrillation is 70% in large sports stadiums with teams of professional first responders and in casinos.^{3,4} Reported survival from witnessed ventricular fibrillation in airports is 23.5%.⁵ These settings are not representative of lay bystander public access defibrillation in a predominantly rural area; a putative survival rate of 30% may be overoptimistic.

Our estimate of impact is based on the assumptions that an extensive network provides defibrillator access in all cases occurring in public places, that arrests are witnessed and recognised, and that bystanders are willing and able to act appropriately and immediately. If any of these criteria was not fulfilled the expected impact in terms of lives saved would be further reduced.

Our data imply that the fire extinguisher model of public access defibrillation is likely to save very few additional lives at a very high cost, its impact on overall mortality from cardiovascular disease being negligible.

Judith Chaloner *specialist registrar in public health*
Nick Gent *consultant in health protection*
 Cumbria and Lancashire Health Protection Unit,
 Preston Business Centre, Preston PR2 8DY

1 Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. Potential impact of public access defibrillators on survival after out of hospital cardiopulmonary arrest: retrospective cohort study. *BMJ* 2002;325:515. (7 September.)

2 Ornato JP, Hankins DG. Public access defibrillation. *Prehosp Emerg Care* 1999;3:297-302.

- 3 Wassertheil J, Kenae G, Fisher N, Leditschke JF. Cardiac arrest at the Melbourne Cricket Ground and Shrine of Remembrance using a tiered response strategy—a forerunner to public access defibrillation. *Resuscitation* 2000;44:97-104.
- 4 Valenzuela TD, Bjerke HS, Clark LL, et al. Rapid defibrillation by nontraditional responders: the Casino project. *Acad Emergency Med* 1998;5:414.
- 5 O'Rourke MF, Donaldson E, Geddes JS. An airline cardiac arrest program. *Circulation* 1997;96:2849-53.

Data from Cuba

EDITOR—Engdahl wrote: “Despite enormous efforts to improve survival during the past three decades, cardiac arrest outside hospital still makes a disproportionately large contribution to mortality in the Western world.”¹ This is also the case in developing countries.

Human beings often translate their technological dreams into action without real validation of the new interventions. That is so in the case of the deployment of automated external defibrillators in selected sites, to be used by (trained) laypeople, as a way to achieve faster defibrillation and improved survival after cardiac arrest outside hospital.^{1,2} Pell et al clarified the potential (and actual) impact of this public health intervention.³

We studied the place where 42 575 deaths due to acute myocardial infarction occurred in three Cuban provinces from 1990 to 1999. The provinces were: Ciudad de La Habana, in the western part of the country, where the capital city is, a totally urban province; Cienfuegos, in the central and southern part of the island, with 75% urban areas; and Las Tunas, in the eastern part, with about 60% urban areas.

The percentages of deaths outside hospital due to cardiac arrest were: Ciudad de La Habana 56.8%, Cienfuegos 68.8%, and Las Tunas 59.5%. The table shows the proportion of patients who died outside hospital (24 864) by age (<60 and ≥60 and over) and place of death.

In spite of some differences among provinces, most deaths from acute myocardial infarction outside hospital happened in patients' homes, especially for elderly people, which is not surprising. The lower percentages of those who died at other places, the target group for a defibrillation programme, are also evident.

Deaths due to acute myocardial infarction outside hospital, by age (<60 and ≥60 years) and place of death in three Cuban provinces, 1990-9

	No of deaths outside hospital		No (%) in other health institution		No (%) in domicile		No (%) in other place	
	<60	≥60	<60	≥60	<60	≥60	<60	≥60
Ciudad de La Habana	2696	16 522	348 (12.9)	1107 (6.7)	1558 (57.8)	13 631 (82.5)	790 (29.3)	1784 (10.8)
Cienfuegos	432	2 769	100 (23.1)	382 (13.8)	252 (58.4)	2 221 (80.2)	80 (18.4)	166 (6.0)
Las Tunas	362	2 083	24 (6.6)	127 (6.1)	247 (68.2)	1 718 (82.5)	91 (25.2)	238 (11.4)

We therefore agree with Engdahl that a careful examination of the epidemiological conditions in the community, such as the one presented by Pell et al, is essential before considering the benefits of implementing a public access defibrillation programme. This is crucial in developing countries, such as Cuba, where scarce money must be invested in appropriate interventions with a proved impact on public health.

Alfredo D Espinosa-Brito *professor of internal medicine*
 espinosa@perla.inf.cu

Alfredo A Espinosa-Roca *instructor of internal medicine*

Yenisey Quintero-Méndez *resident*
Yainel Cutiño-Maás *resident*

Internal Medicine Department, Hospital Dr Gustavo Alderdegua Lima, Ave 5 de Septiembre y Calle 51A, Cienfuegos 55 100, Cuba

1 Engdahl J. Outcome after cardiac arrest outside hospital. *BMJ* 2002;325:503-504. (7 September.)

2 Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. Potential impact of public access defibrillators on survival after out of hospital cardiopulmonary arrest: retrospective cohort study. *BMJ* 2002;325:515. (7 September.)

Society of Homeopaths does not advise against vaccination

EDITOR—Schmidt and Ernst concluded that some homeopaths and chiropractors advise against measles, mumps, and rubella (MMR) vaccination. Their survey seems to have used dubious and possibly unethical methods to extract potentially sensational information.¹ Public confidence in our profession may have been dealt a blow by this piece of reporting.

The Society of Homeopaths does not encourage its members to advise patients against vaccination. The society acknowledges that there is much anecdotal and scientific evidence to support the arguments presented both for and against vaccination. It believes that parents should be supported in making rational informed decisions about the short and long term implications of vaccination for their children.

Homeopaths on the society's register have been trained to a very high standard and undergone a rigorous registration process. This registration process uses as one of its main reference points the national occupational standards for homeopathy published in 2000.² The Society of Homeopaths, the Faculty of Homeopathy, and other homeopathic organisations all contributed to the development of these standards. Our members are fully insured, abide by a strict code of ethics and practice, and are expected to

participate in regular activities for continuing professional development.

The society's development as a professional organisation was commended by the House of Lords Select Committee's report on complementary and alternative medicine.³ This report also recommended that the different organisations representing homeopaths should come together to set up a single register.

Acknowledging that it can be difficult for members of the public to make sense of the plethora of qualifications and professional organisations, the Society of Homeopaths is therefore working with other bodies in the Council of Organisations Registering Homeopaths to establish a single register.

Susan C Crump chair

Melanie Oxley vice chair

Society of Homeopaths, Northampton NN1 4HU
s.crump@homeopathy-soh.org

1 Schmidt K, Ernst E. Aspects of MMR. *BMJ* 2002;325:597. (14 September.)

2 Healthwork UK. *National occupational standards for homeopathy*. Bristol: Healthwork UK, 2000.

3 House of Lords Select Committee on Science and Technology. *6th report: complementary and alternative medicine*. London: Stationery Office, 2000.

Consuming alcohol on duty may have adverse consequences

EDITOR—Ahmad et al found that over 14% of doctors in the United States considered that social drinking of alcohol while on call was acceptable and 25% thought that it would be safe to consume a small amount of alcohol while on call for their specialty.¹ I offer a medicolegal perspective on this debate.

In clinical practice the occasional mistake is inevitable. If a mistake is made and the clinician concerned is later found to have been drinking, then, in our experience at the Medical Defence Union, the clinical care may be more difficult to defend.

To put this in context, we are aware of only one recent claim in which it was alleged that a doctor had been drinking when the alleged negligence occurred. Each year we are asked to help several doctors who are accused of smelling of alcohol while at work or of their performance being affected by alcohol. We have helped these members with a range of matters from patients' complaints and employers' disciplinary procedures through to General Medical Council conduct and health procedures.

It is not the Medical Defence Union's role to give clinical advice, and we do not wish to be killjoys, but readers should be aware that some doctors who have consumed alcohol while on duty have suffered adverse medicolegal consequences.

Matthew Lee medicolegal adviser

Advisory Services, MDU Services Limited, London SE1 8PJ
advisory@the-mdu.com

1 Ahmad T, Wallace J, Peterman J, Desbiens NA. Doctors' perceptions of drinking alcohol while on call: questionnaire survey. *BMJ* 2002;325:579-80. (14 September.)

Risk assessment scales poorly predict pressure ulceration

EDITOR—Several fundamental issues around the use of pressure risk scales are highlighted by the article by Schoonhoven et al.¹

These scales are poor predictors of pressure ulcer development, but nurses are encouraged to use them to meet the clinical governance agenda. The guidelines from the National Institute for Clinical Excellence recommend their use as an aide-mémoire, which should not replace clinical judgment.² Nurses should not rely on these scales, but they do at least offer a framework for assessment, unlike clinical judgment. The evidence from the study by Schoonhoven et al is that these tools may have some value in detecting patients who will develop pressure ulcers, but with a high number of false positive responses.

This has resource implications in providing prevention strategies for patients who will not develop pressure ulceration. Using the Braden scale, we calculate that 728 of the 2190 patient weeks (33%) would require measures to prevent 59 ulcers (assuming 100% success in those identified). This would also fail to identify 76 patients who would receive no prevention but who would develop pressure ulceration.

Although identifying patients at high risk is important, having firm evidence on the value of different pressure relieving strategies is equally essential. Few quality trials on the use of pressure relief have been reported in the literature. A trial of a pressure relieving mattress in high risk patients reduced the one week incidence from 65% to 25%, but these trials are rare, and even with optimum care one quarter of patients still developed ulceration.³

With changes in demography, earlier discharge from hospital, the threat of litigation, and an ever higher reliance on community services, nurses and clinicians will need more potent evidence to support their management of patients at risk of pressure ulcer development.

Peter J Franks professor of health sciences

Christine J Moffatt professor of nursing

Centre for Research and Implementation of Clinical Practice, Faculty of Health and Human Sciences, Thames Valley University, London W5 2BS

Donna Chaloner clinical nurse specialist

Walsall Primary Care Trust, Short Heath Clinic, Willenhall WS12 5PR

1 Schoonhoven L, Haalboom JRE, Bousema MT, Algra A, Grobbee DE, Grypdonck MH, et al. Prospective cohort study of routine use of risk assessment scales for prediction of pressure ulcers. *BMJ* 2002;325:797-801. (12 October.)

2 National Institute of Clinical Excellence. *Pressure ulcer risk assessment and prevention. Inherited clinical guideline B*. London: NICE, April 2001.

3 Hofman A, Geelkerken RH, Wille J. Pressure sores and pressure-decreasing mattresses: controlled clinical trial. *Lancet* 1994;343:568-71.

Papua New Guinea needs law and order above all

EDITOR—The article by Swartz and Dick on managing chronic disease in less developed countries is timely and important.¹ Papua

New Guinea is in the middle of the disease transition. It still has a major burden of acute infectious diseases—malaria, tuberculosis, measles, pneumonia—and ever increasing rates of diabetes mellitus and cardiovascular disease. The AIDS figures and deaths are rising remorselessly.

In Port Moresby, the capital city, the poor live in large unsanitary settlements. Little community caring is being done because people have migrated from all over the island, far from the village communities and relatives (*wantoks*), the extended family that was the backbone of care in the past. The settlements have limited sanitation, few houses have inside water or lavatories, electricity is unusual, and violence is rife.

Health professionals are not prepared to go into the settlements to provide a home nursing or palliative care service. They are attacked or murdered, and women nurses are raped. Dying of AIDS with cryptosporidial diarrhoea and 20 or more bowel actions a day in such surroundings is hell—and a long drawn out hell.

The first requirement is protection and law and order, winning communities to police themselves, providing protection for carers, and restoring confidence to them. The people care and want to help. The staff are kind, competent, and generous, but their safety and wellbeing is vital for a sustainable response to a long term problem.

Peter A Sims professor of public health medicine

School of Medicine, PO Box 5623, Boroko, NCD 111, Papua New Guinea
petersims@upng.ac.pg

1 Swartz L, Dick J. Managing chronic diseases in less developed countries. *BMJ* 2002;325:914-5. (26 October.)

Free smoke alarms: a fire officer responds

EDITOR—As a professional fire officer I read with interest the article and ongoing debate on the issue of free smoke detectors and the suggested outcomes from the research.¹ One element perhaps overlooked in the debate is ownership, which has two components.

The first is the gift of the smoke detector itself. Being given one doesn't bring with it the same sense of ownership as working for and buying one. It would not be appropriate to discuss the relative merits or otherwise of purchasing power, given the socioeconomic elements of the study, but the relative cost of these units through subsidised purchase might help to address concerns.

The second component is the ownership of risk, which is much more difficult to grapple with. In Dorset we have developed a multiagency community safety centre, "Streetwise," in which visitors, mostly children, confront several safety related issues, fire being one.

Our messages are intended to provide a holistic safety message for each visitor. The overall intention is to provide every visitor with some of the underlying tools for life, which we hope will ensure that they

recognise their personal responsibility to contribute to a safer environment for us all.

Research is ongoing on providing sprinklers for houses. My colleagues and I are hopeful that this will bring about an increase in active systems that will not only inform those in the property of a fire but tackle it as well. The long term aim is to ensure that sprinklers become as widely regarded as a must have in a new home as fitted carpets are now. The costs are about the same.

Undoubtedly the focus of installations will be mandated to premises at the highest risk. In many deaths and serious injuries caused by fire a high proportion of people are affected by drugs or alcohol, with the associated debilitating effects. Perhaps this is another area worthy of research.

Like many professionals, members of the fire service are working widely to promote fire prevention and reduce deaths and injuries, whose costs to health budgets are notable.² I add my support to the humble smoke detector, which, if properly installed and maintained, has an important part to play in helping to create a safer society for us all.

Roger Greet *deputy chief fire officer*
Dorset Fire and Rescue Service, Dorchester, Dorset DT1 1FB
dco@dorsetfire.gov.uk

1 DiGiuseppi C, Roberts I, Wade A, Sculpher M, Edwards P, Godward C, et al. Incidence of fires and related injuries after giving out free smoke alarms: cluster randomised controlled trial. *BMJ* 2002;325:995-7. (2 November.)
2 Community Fire Safety Task Force. *Safe as houses*. London: Home Office, 1997.

Mastectomy is not always so bad

EDITOR—I was alarmed by the choice of photograph used to illustrate Gottlieb's news item on mastectomy versus lumpectomy for breast cancer.¹ It portrays an elderly woman with extensive scarring of the chest and what seems to be a recent midline abdominal scar. I think most breast surgeons would agree that this is not typical of the expected appearance "several months after mastectomy."

Gottlieb says that mastectomy is still indicated in those patients who do not have small tumours (<2 cm). Any woman researching her condition before embarking on a course of treatment would probably be horrified by the photograph and may not agree to such surgery, even if it were in her best interest.

I underwent a mastectomy (out of choice) for breast cancer three years ago, at the age of 41. Thanks to the skill of my surgeon, the scar on my chest is almost invisible, and I have declined a reconstruction. Not only was my tumour >2 cm, but it comprised two adjacent, but not contiguous, tumours. Even if I had opted for a lumpectomy I would have had to have a subsequent mastectomy—two operations instead of one.

The *BMJ* must realise that a wide range of people outside the medical profession access the journal. The photograph was probably chosen deliberately to show mastectomy at its most disfiguring, but I wonder if it was properly thought through.

Kate F Gould *consultant microbiologist*
Freeman Hospital, Newcastle upon Tyne NE25 8AR
kate.gould@nuth.northy.nhs.uk

1 Gottlieb S. Lumpectomy is as effective as mastectomy for breast cancer. *BMJ* 2002;325:921. (26 October.)

Theme issue for medics and health informed public

Maybe not such a good idea

EDITOR—It is a good idea for people to be informed about health matters, to take more responsibility for their health, and to realise the benefits and limits of medicine.¹ Whether it is a good idea to try to accomplish this through altering the format and content of the *BMJ* is another matter.

I think that the *BMJ* is first and foremost a trade paper, and its primary purpose should be to educate and inform practitioners of that trade. I also think that the reason why it is read outside the profession is because of the characteristics that make it a successful trade paper: the quality and detail of its articles, which arise out of who they are aimed at—namely, the medical profession. Changes to the content and format to appeal to a broader readership, whether for the reasons proposed by Eaton in her editorial or simply to increase sales, would, I think, diminish the journal, making it of less use to its primary readership and ultimately unsatisfying also for the non-professionals who choose to read it.

An analogy with another trade may seem odd but may have some usefulness.

I am interested in cinema and occasionally read trade magazines such as *Variety*. Many articles in the magazine are abstruse or irrelevant to someone outside the film business, but some are of interest, and the film reviews are excellent. The reason for this is that the reviews are aimed at a specific audience which needs to know an un glossed assessment of the strengths and weaknesses of a film.

If the editors of *Variety* decided to change the format to appeal to a broader audience they would probably have to remove articles of relevance to those in the trade to make room for more lightweight, "moviegoer friendly" articles and reviews. In the process the paper would become less authoritative and so of less use to those in the trade and of less interest to outside readers who want to know more about films and the film business than can be found in the general press.

The same thing might happen if the changes of the proposed theme issue of the *BMJ* were to be adopted. If the editors at the *BMJ* are set on doing this, by all means let us see the result, but it seems that some of the suggestions for articles (a celebrity interview) do not sound very inspiring.

James D Curran *general practitioner*
Glasgow G41 3LQ
jdc@dircon.co.uk

1 Eaton L. A theme issue for medics and an increasingly health informed public. *BMJ* 2002;325:984. (2 November.)

What the future might hold for the *BMJ* in 2013

EDITOR—With reference to the editorial by Eaton,¹ what will the *BMJ* look like in 2013, being a scholarly journal that is responsive to consumers?

Firstly, each article on the web should have a patient friendly, journalistic summary attached. The *BMJ* already produces press releases (which serve a similar function), so why not add this "lay abstract" to each article? Having the authors draft such a lay abstract may make them think about what their research means in lay terms.

Secondly, clinically relevant articles published in the *BMJ* should facilitate shared decision making by also providing an attachment containing "Questions you should ask your doctor," to facilitate a discussion between patient and health professional to determine whether this article contains information that is relevant for their condition.

This checklist can be downloaded and brought into the consultation, and it also contains references for the doctor to the original article in the *BMJ* and links to further information for the health professional. Thus, patients will be catalysts for bringing evidence into practice.

Thirdly, as patients will be able to access their electronic health record on the web (much as they access their bank account online today), personalised links to articles relevant for them will be dynamically and automatically generated in their web based records. For example, a patient with diabetes receives automatic links to new articles on diabetes flagged on *bmj.com* as important for consumers. The health professional can also issue an "information prescription," adding further links on the web based health record to patients' education material and articles on the web.

Fourthly, the *BMJ* website will also allow and encourage patient feedback and serve as a research tool. For example, if a qualitative study is being published about preferences, needs, motives, or experiences of patients and healthcare consumers, why not invite people to submit additional comments into a structured questionnaire and reanalyse the database to see whether additional themes emerge?

Gunther Eysenbach *senior scientist*
Centre for Global eHealth Innovation, Toronto General Hospital, R Fraser Elliott Building, 4th Floor, room # 4S435, 190 Elizabeth Street, Toronto, ON, Canada M5G 2C4
geysenba@uhnres.utoronto.ca

1 Eaton L. A theme issue for medics and an increasingly health informed public. *BMJ* 2002;325:984. (2 November.)

bmj.com

Letters appearing here are an edited selection of rapid responses originally posted on *bmj.com*

We ask for all letters to the editor to be submitted as rapid responses via *bmj.com*. For advice see: bmj.com/rapidresponses