- 1 Davies RH, Harvey I, Newton-John H, Ward TA. Home ventilation of a child with motor and sensory neuropathy. BMJ 1996;313:153-5. (20 July.)
- 2 Goldberg AI, Faure EA, Vaughn CJ, Snarski R, Seleny FL. Home care for life-supported persons: an approach to program development. J Pediar 1984;104:785-95.
 Robinson RO. Ventilator dependency in the UK. Arch Dis
- Child 1990;65:1237-9.
- 4 Fields AI, Rosenblatt A, Pollack MM, Kaufman J. Home care
- a relies rat, resentual ray to lack why sedman j. Home care cost-effectiveness for respiratory technology-dependent children. Am J Dis Child 1991;145:729-33.
 5 Muir JF, Voisin C, Ludot A. Organization of home respiratory care: the experience in France with ANTADIR. Monaldi Arch Chest Dis 1993;48:462-7.

GPs need to be more proactive in providing health care to teenagers

EDITOR,-When asked what type of contraceptive services they want, teenagers say that they want services that are local and that are accessible every day and in an emergency. This type of service is more readily provided by general practice. In addition, general practitioners and their colleagues have the opportunity to discuss health issues in general with teenagers. There is evidence, however, that teenagers receive suboptimal care in general practice and that general practitioners frequently fail to make the most of the opportunities afforded by routine consultations.¹ As Anna Graham and colleagues have found, those teenagers most in need of help and information may be those least likely to receive them.²

Colleagues and I tried to address the problem of teenage health care in a deprived inner city population by running weekly teenage clinics in two general practices in east London over six months. This model has been tried with some success elsewhere, although published reports largely refer to middle class, affluent populations.³⁻⁵ Despite approaching all 13-17 year olds in the practices directly, we achieved only a 7% (63/867) attendance among all those invited. We had greater success when we targeted 15 and 16 year olds and invited them to the clinic for booster doses of tetanus and polio vaccine, achieving an attendance of 12% (43/349), as opposed to 2% (6/262) among those receiving general invitations. Colleagues attempting to run teenage clinics in similarly deprived areas have experienced similarly low attendance (personal communications).

Teenage clinics may therefore not be the answer to improving access to contraception and health care for high risk teenagers. General practitioners may need to be more proactive in routine consultations, allow flexibility in appointment systems, and, above all, ensure confidentiality. We may also need to acknowledge the public health dimension of unplanned pregnancy and be prepared to work in schools and other non-traditional settings, liaising more closely with other agencies both within and outside the health sector.

The most important consequences of unplanned pregnancy among teenagers are socioeconomic rather than medical, and the problem should be addressed at this level. Nevertheless, health professionals, particularly general practitioners, have an important role in health education and the provision of services. With the increasing concern about teenage health, we need to take up the challenge.

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- 1 Jacobson LD, Wilkinson C, Owen PA. Is the potential of teenage consultations being missed? A study of consultation times in primary care. Fam Pract 1994;11:296-9. 2 Graham A, Green L, Glasier AF. Teenagers' knowledge of
- emergency contraception: questionnaire survey in south east Scotland. BMy 1996;312:1567-9. (22 June.)
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- 3 Donovan CF. Is there a place for adolescent screening in general practice? Health Trends 1988:20:64. 4 Hibble A, Elwood J. Health promotion for young people.
- Practitioner 1992;236:1140-3. 5 Campbell A, Edgar S. Teenage screening in a general practice setting. *Health Visitor* 1993;66:365-6.

Survival of patients initially resuscitated from out of hospital cardiac arrest

Study did not include patients admitted for intensive care

EDITOR,—Stuart M Cobbe and colleagues report their study of the survival of patients initially resuscitated from cardiac arrests that occurred outside hospital.1 They do not mention the number of patients admitted to intensive care units after cardiac arrest. From the methodology their study seems to have included only those patients admitted to hospital wards. Patients admitted to intensive care units after cardiac arrest require continuing cardiorespiratory support and have suffered greater hypoxic cerebral injury. Inclusion of these patients in the study would have led to a higher incidence of neurological disability and a higher mortality.

I recently carried out an audit of patients admitted after cardiac arrest to the intensive care unit at Auckland Hospital, New Zealand. From the department's database I identified 63 patients as having required admission for intensive care during 1 January 1994 to 31 December 1995. Forty four patients who had had a cardiac arrest outside hospital were admitted to intensive care, of whom 29 died during their inpatient stay. The average age of survivors was 62 (range 28-90) and of non-survivors 59 (37-82). Advanced age was not found to be a bar to survival. Survivors were found to have had a higher initial Glasgow coma score on arrival in hospital.

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1 Cobbe SM, Dalziel K, Ford I, Marsden AK. Survival of 1476 patients initially resuscitated from out of hospital cardiac arrest. BMy 1996;312:1633-7. (29 June.)

Author's reply

EDITOR,-Our study entailed scrutiny of the discharge summaries from every acute hospital in Scotland, and it did not prove practical to obtain information on the time that patients spent in intensive care units. Indeed, the definition of intensive care differed between teaching and non-teaching hospitals. For the purposes of our survey, the phrase "admitted to a hospital ward" meant admission to any hospital ward, whether general medical, coronary care, or intensive care. The phrase was used to identify patients in whom spontaneous circulation returned for long enough for them to be admitted from the accident and emergency unit.

We agree with Ian Hatcher's observations that mortality in patients requiring admission for intensive care is higher than that in patients whose clinical condition is sufficiently stable to allow admission to a coronary care unit or a general medical ward.

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Data on eligibility for thrombolytic treatment cannot be generalised

EDITOR,-John K French and colleagues conclude that only about half of patients admitted to coronary care units with definite or probable myocardial infarction are eligible for thrombolytic treatment, with most of the remainder presenting more than 12 hours after the onset of symptoms.1 This rather low rate of eligibility, based on local data from Auckland, should not be regarded as a universal standard. At Newham General Hospital in east London the data entered prospectively into the coronary care unit's database are very different. Of 1184 patients with definite myocardial infarction in whom the duration of chest pain was recorded, 1120 (94.6%) were admitted within 12 hours of the onset of symptoms, compared with 576 (53.3%) of the 1081 patients in Auckland. This had important implications for treatment, with 869 (73.4%) of our patients receiving thrombolytic treatment compared with 470 (43.5%) in Auckland, although the hospital mortality in Newham was slightly higher (157 (13.3%) v 138 (12.8%)).

There is unlikely to be a single explanation for these differences, but it is reasonable to deduce that patients are able to get to hospital quicker in the densely populated inner city area served by Newham General Hospital than in Auckland. The difference in mortality can probably be attributed to differences in the risk characteristics of the patients. For example, all the patients at Newham General Hospital had definite myocardial infarction (albeit according to slightly different criteria from those used by French and colleagues) and 242 (20.4%) were diabetic compared with 124 (11.5%) of the patients in Auckland.

A more important general point to be drawn from the differences between the two sets of data is that variables such as hospital mortality and the proportion of patients receiving thrombolytic treatment (which threaten to form the basis for hospital league tables in Britain) are often subject to influences beyond medical control and are not, therefore, amenable to simple comparison between units. Certainly, French and colleagues should not assume that their conclusions about eligibility for thrombolytic treatment in Auckland can be generalised to coronary care units in other parts of the world, where local geography and patient populations are likely to be different.

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1 French IK, Williams BF, Hart HH, Wyatt S, Poole JE, Ingram C, et al. Prospective evaluation of eligibility for thrombolytic therapy in acute myocardial infarction. BM7 1996;312: 1637-41. (29 June.)

Sunscreens, suntans, and skin cancer

Local councils should remove sunbeds from leisure centres

EDITOR,-J M McGregor and A R Young's editorial on sunscreens, suntans, and skin cancer prompts me to make several observations.¹ The worldwide epidemic of skin cancer continues unabated, with reported cases of non-melanoma skin cancer and melanoma at least doubling every 10 years.^{2 3} There is little argument that ultraviolet B radiation is the prime promoter of non-melanoma skin cancer, but there is increasing evidence that ultraviolet A is a promoter of