LETTERS TO THE EDITOR

Why don't more young men in the UK become fathers?

SIR – In the paper about the discrepancy between the reported sexual behaviour of young men and records of their fatherhood,[1] I speculated whether the recent large scale study of sexual behaviour in Britain would throw light on the problem. Now that it has been published,[2,3] it is clear that it supports the two hypotheses I reckoned were most plausible.

The first related to different patterns of sexual behaviour among young men and women. Here the study showed that women aged 16–24 years reported higher frequencies of sexual intercourse than men of the same age.

The second hypothesis was concerned with the inaccuracy of data in surveys about sexual behaviour. The new study reveals a substantial discrepancy in the reporting of age at first intercourse between men and women. Whereas 18.8% of the men said this was before they were 16, and nearly two thirds of these said their partner was also under 16, only 7.9% of the women reported having sexual intercourse under that age, and three quarters of them said it had been with an older man, aged 16 or more.

So one reason why young men do not become fathers as frequently as young women become mothers is that the men are not having intercourse as often as the women. There is also evidence that the picture of young men's sexual activities obtained from surveys is exaggerated, while that of young women is played down—with some men claiming to be sexually active earlier than they were, and some women not reporting their early sexual activities. Another possible source of error in the surveys is a differential bias in the response rate, with men who are *not* sexually active at an early age, and women who *are*, being under represented among the survey participants. All three explanations could contribute to the discrepancy.

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1 Cartwright A. 'Why don't more young men in the UK become fathers?' *J Epidemiol Community Health* 1994; **48**: 52–4.
2 Wellings K, Field J, Johnson AM, Wadsworth J. *Sexual behaviour in Britain.* Harmondsworth: Penguin, 1994.
3 Johnson AM, Wadsworth J, Wellings K, Field J. *Sexual attitudes and lifestyles.* Oxford: Blackwell Scientific Publications 1994.

Product definition for healthcare contracting

SIR – It is a pity Neil Söderlund[1] writes in the present tense when it comes to the product definition of healthcare contracting, because the future tense is so much more rewarding. Any definition based on discrete episodes of care is limited.

We would have preferred to have seen a description of what we believe is the future – contracting for complete condition interventions. The information technology is available in the form of record linkage. The epidemiological base is available such as the needs assessment work so popular at the moment. If we then link condition contracting to payment based on outcome we will be creating market conditions far more able to encourage rational purchasing than diagnosis-related or healthcare resource groups. Surely their time is transitory.

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1 Söderlund N. Product definition for healthcare contracting: an overview of approaches to measuring hospital output with reference to the UK internal market. *J Epidemiol Community Health* 1994; **48**: 224–31.

Reply

I am sorry that Bowie and Gamlin found my paper insufficiently radical. As is usual with overviews, I concentrated on evidence from existing research, applied to the information framework of the current and near-future NHS as I thought this would be most useful to those working within the contracting environment. Their suggestions as I understand them, however, remain untested empirically, have unresolved conceptual difficulties, and are far further from being practically applicable than their authors imply.

Episode-based product definition undoubtedly has its limitations, but not necessarily more so than other approaches, the "complete condition intervention" (CCI) included. The first problem with CCIs relates to the "complete" component. It is often difficult to determine whether an intervention has been completed or not. Take, for example, treatment for malignancies, where recurrences might manifest months or years after the initial treatment episode. The only alternative would be to set arbitrary cut off points to determine completeness, which would effectively produce nothing more than a time clustered group of care episodes. The second problem is in the definition of "conditions". The borders between conditions may be fuzzy and open to dispute. Would treatment of long term diabetic complications such as retinopathy and renal failure be part of a hypothetical diabetes CCI. It would clearly be in the interests of providers to present every condition as arising de novo. The level of uncertainty in adequately estimating resource requirements, and hence pricing CCIs would be enormous. Thirdly, if a future health service will look anything like the current, different agencies (acute and long stay hospitals, community trusts, general practitioners, and others) are all likely to provide components of intervention for a particular condition. It is difficult to envisage who purchasers would contract with, whether extensive systems of subcontracting would develop, or whether universal providers in the style of US Health Maintenance Organisations would be necessary. Needs assessment may be popular, but the suggestion that it has reached the stage where it can characterise the shifting sands of the universe of condition interventions that need to be purchased is surely far fetched.

The linking of reimbursement levels to outcomes is also a desirable ideal, but how would it work in practice? Easy to detect adverse outcomes are (thankfully) sufficiently rare to make their rates highly variable over contracting periods of one year. Quality of life indices and health status measures are imprecise and impossible to interpret without baseline data. Since it is unclear when many CCIs end, at what point would outcome be measured? Attributing outcomes to a package of interventions over time, rather than other concurrent personal or environmental factors will also be open to considerable debate.

My own experience leads me to believe that most district health authority purchasers currently have great difficulty transforming even existing NHS data into useful purchasing plans. It is surely appropriate to build incrementally from a deeper understanding of existing episode based purchasing instead of simply yearning for the distant, virtual reality world of population based, outcome adjusted, complete condition interventions.

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BOOK REVIEWS

Biomedical and Demographic Determinants of Reproduction. Ed Ronald Gray with Henri Leridon and Alfred Spira. (Pp 482; £45.00): Clarendon Press, Oxford, 1993. ISBN 0-19-828371-7.

This weighty volume is a compilation of papers presented at a seminar held at Johns Hopkins University School of Hygiene and Public Health organised under the auspices of the International Union for the Scientific Study of Population in 1988. The long delay between presentation and publication has only made the need for such a compendium more obvious.

The seminar was an interdisciplinary exchange between demographers, reproductive epidemiologists, and biomedical scientists. According to the editor and primary organiser , the emphasis was on bringing the latest developments in clinical and endocrinological research to those conducting population based research. On balance, however, the demographers make more effort to explain their terminology and methods to the biologist than vice versa.

Organised in 7 sections, the volume provides extensive overviews of the state of knowledge about the determinants of reproduction and presents results of original research, as well as illustrative methodological analyses.

Following the editor's introduction, 3 papers consider determinants of the length of reproductive life – age at menarche and