

# Should general practitioners have any role in maternity care in the future?

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**SUMMARY.** *Maternity services in England are currently being reorganized. The success of the changes will be judged against the recommendations of the Changing Childbirth report. This paper describes the nature of maternity care and of general practice. It is argued that maternity care provision by general practitioners is a central and essential part of British general practice. Specifically, it is shown how general practitioners can help to achieve the objectives of the report, and thus, have a future role. It is suggested that all general practitioners who wish maternity care to remain an essential part of general practice need to argue the case with providers and purchasers. If they do not, then it is quite likely that general practitioners will be increasingly excluded as the commissioning and contracting mechanisms become more effective with midwives providing low-risk care and consultant obstetricians high-risk care.*

**Keywords:** *maternity care; women's needs; general practice characteristics.*

## Introduction

A FEW years ago, an editorial in the *British Journal of General Practice*<sup>1</sup> stated that there were four problems preventing the continuing participation of general practitioners (GPs) in *intrapartum* care: lack of facilities; vocational training emphasizing the abnormal; poor remuneration; and lack of role definition. All those involved in maternity care, not just GPs, need to discuss and agree the last of these, upon which the others depend. What is the role of the GP, not in *intrapartum* care alone, but in *maternity care in general*? I would contend that we have come to a crossroads where many are doubting the role of the GP in any maternity care.

The GP's role following *Changing Childbirth*<sup>2</sup> is likely to be increasingly questioned by health professionals, managers and particularly by purchasers of maternity care. Some midwives and obstetricians have already questioned whether GPs will have a future role in maternity care, despite both the Winterton<sup>3</sup> and *Changing Childbirth*<sup>2</sup> reports stating that committed GPs will continue to have an important role.

However, purchasers of care will question the role of GPs in maternity care if they purchase low-risk care from midwives and high-risk care from obstetricians. Many GPs will also have to address this question as maternity care becomes part of fund-holding and commissioning. If practice-based contracts become common, then health commissions will certainly wish to address the question of what GPs can contribute to maternity care.

Thus, there is an urgent need for GPs (and others) to address this issue. What can the GP contribute to maternity care following *Changing Childbirth*? To answer this important question, we must first consider four preliminary questions:

- What is maternity care?
- What do women want from maternity care?
- What are the key recommendations of the *Changing Childbirth* report?
- What are the key characteristics of general practice?

## What is maternity care?

Maternity care can be divided into three related but distinct areas. These are: core clinical care, related clinical care and indirect care.

Core clinical care comprises the traditional antenatal, intrapartum and post-natal care. Related clinical care is less well defined but might include contraception, infertility management, pre-pregnancy care, genetic counselling and health education, abortion advice, adverse (e.g. malformed fetus or miscarriage) outcome counselling, neonatal care, treatment of post-natal depression, child surveillance and immunization.

Indirect care is non-clinical care. It includes areas such as Maternity Service Liaison Committee membership, quality assurance and audit, booking and transfer policies, purchasing and commissioning of care, and the production of clinical guidelines and protocols.

Potentially, GPs could contribute to one or more of these areas of maternity care. But should they? Is general practice the most suitable setting for the provision of maternity care? What framework does *Changing Childbirth* put in place? Most importantly, what do women want?

## What do women want from maternity care?

Much published evidence suggests that women particularly want choice and continuity of carer.<sup>2-8</sup> The government has confirmed its intention 'to extend patient choice' and states that 'the patients' needs will always be paramount'.<sup>9</sup>

There is a strong ethical argument for allowing women to choose where they deliver and who provides care. Such arguments for patient autonomy have to be viewed within the context of the equitable distribution of limited resources.<sup>9</sup>

Women welcome being cared for by a known midwife<sup>5</sup> and a known doctor, although a significant minority are not concerned about continuity or wish a doctor to be responsible for their antenatal care.<sup>6</sup> They are greatly reassured by the presence of a known and trusted professional during labour, especially if problems arise.<sup>2</sup>

Most women who see both their GP and a midwife at their booking visit are satisfied with this arrangement, whereas the majority of those who receive uniprofessional care are dissatisfied. Of these, the majority would prefer to see both professionals at booking (J Hewison, personal communication).

Using focus groups, the National Childbirth Trust found<sup>11</sup> that most of its branch members wanted their GPs to provide: up-to-date information about choices and about clinical matters; continuity of carer as part of a motivated, interested, accessible and harmonious maternity care team; pre-pregnancy care; appropriate referral and sharing of care with adequate time to discuss anxieties; home birth medical cover if desired; a visit early after their return home; contraception advice; and neonatal and feeding advice if necessary.

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### What are the key recommendations of the *Changing Childbirth* report from the Expert Maternity Group?

The aim of all the recommendations of this report is to change maternity care to ensure that it is woman-centred, and not professional- or institution-centred. It aims to make care *accessible, appropriate, effective* and *efficient*. It contains various recommendations, and in particular, ten indicators of success (see Appendix 1) that are to be achieved within 5 years (by early 1999). The report has been accepted by the government in full, and an NHS executive letter to health authorities has been issued.<sup>12</sup>

Women are to be empowered to control their care. They are to be given unbiased and up-to-date information so that they can make informed decisions. Care is to be accessible, community based, cost-efficient and effective. Care is to be monitored to ensure that it is of high quality, and women are to become centrally involved in such monitoring and also in planning of their care. They are to receive continuity of care from known carers.

### What are the key characteristics of general practice?

What is general practice? There are many definitions, some long<sup>13,14</sup> and some short.<sup>15-17</sup> Three short ones are consistent with what women want from maternity carers. First, general practice is 'a form of primary care in which people have a personal, continuing relationship with a doctor'.<sup>14</sup> Secondly, general practice is concerned with 'the mental and physical health of individuals, usually within the context of their families, as well as the health of the family itself, seen as a unit or as a small community of individuals'.<sup>16</sup> Thirdly, general practice provides 'comprehensive, continuing, coordinated, accessible and accountable care'.<sup>17</sup>

To discuss whether committed GPs should provide practical maternity care in the future, one should consider seven key characteristics of the discipline of general practice. Taken individually, they are not unique to general practice, but as a whole, they are a unique set of characteristics that make general practice particularly suited for the provision of routine maternity care.

The key characteristics of general practice are:

1. It provides accessible care for individual patients *and* the defined population to which they belong.
2. It provides continuity of care (i.e. over time, place, problem).
3. Both disease *and* illness are managed in context.
4. It aims to prevent illness and disease and promote health.
5. Patients' ill-defined problems are sorted.
6. It provides coordination of care.
7. It manages resources.

Ideally, GPs will contribute to achieving the objectives and indicators of success of *Changing Childbirth*. The ideal contribution of GPs will be discussed in the context of the key characteristics of general practice listed above.

#### 1. Individual patients and the defined population to which they belong

The basis of general practice, like other health care disciplines, is the consultation and the doctor-patient relationship. Ideally, GPs are their patients' advocate above all else. They listen and then provide information and/or advice after agreeing common ground with the patient. Thus, the pregnant woman should ideally receive informed, unbiased information, usually from a known carer,<sup>6</sup> and she will then make an informed decision about her maternity care (*indicator 10*). Much of the impetus for the *Changing Childbirth* report was the fact that this ideal is not being achieved in practice.

Increasingly, GPs must also focus on the population of

patients that they serve. This used to be their personal or practice list, but with the advent of fundholding and commissioning, they will have a much wider perspective. They are the clinical group who are best placed to purchase maternity care in the context of other health care needs (*all indicators*); indeed, they are the only group that can do this — midwives and consultant obstetricians cannot because of their narrower focus.

#### 2. Continuity of care

Continuity of care is central to the provision of care by GPs (*indicators 4 and 5*). This is not just the personal commitment to the patient over time, but also continuity over place (the surgery, their home and in hospital) and of all the dimensions (medical, social, psychological and spiritual) of patients' problems (*accessible care*). Thus, the GP is a true generalist, with breadth of experience that does not need to be in great depth, although many will have in-depth knowledge of a specific area because of a particular interest<sup>18</sup> (*appropriate care*). Women value such continuity of GP care.<sup>2</sup> The GP's focus is wider than that of the midwife (principally normal maternity care) and of the consultant obstetrician (principally abnormal maternity care). The GP takes a wider view of a woman's pregnancy in the context of caring for her other health problems, for her other non-medical problems, for her health before and after this pregnancy, and for her family's health.

#### 3. Both disease and illness, in context

GPs care for their patients' illnesses (what patients believe to be wrong with them) and their patients' diseases (what the doctor labels the patients as having wrong with them), in the larger context of the patients' life. Patients are cared for in the context of their exterior milieu: their personal history, their family and their culture. Like midwives, GPs regard pregnancy as a normal physiological event that is part of normal life experience and normal family life. Much of their work is concerned with minor variations in normal health; pregnancy fits perfectly into this role (*appropriate care*). In contrast, consultant obstetricians are concerned overwhelmingly with diseases caused by abnormalities of patients' interior milieu.

#### 4. Prevention of illness and disease and health promotion

Whenever possible, doctors should prevent problems that precipitate illness and disease, and as the professional of first contact, GPs are well placed to do this (*accessible and appropriate care*). They need to bear in mind continuously the patients' exterior milieu and the population for which they care. They can potentially influence patient behaviour indirectly through the patients' family and friends, whom patients are likely to 'consult' before they consult their GP. The primary health care team is increasingly the conduit through which health promotion is being advanced; as part of this team, both midwives and GPs are in a central position to offer appropriate health promotion advice.

#### 5. The early sorting of patients' ill-defined problems

General practitioners have the difficult but fascinating task of sorting their patients' undifferentiated presenting problems to tease out the early symptoms and signs of specific illnesses and diseases<sup>19</sup> for which they can offer definitive help (*appropriate care*). This applies equally well to maternity care. They are used to coping with uncertainty daily. If a problem develops, they will usually either wait and see or deal with it, avoiding unnecessary referral (*effective and efficient care*). Midwives seem less able to cope with such minor problems without referral to consultant obstetricians, as shown by the fact that referral rates<sup>20,21</sup> for midwife-led care are significantly higher than equivalent rates for

GP-led care.<sup>22</sup> Similarly, it is well recognized that hospital carers who are used to dealing with abnormal pregnancy may intervene inappropriately in a low-risk pregnancy because they misinterpret the positive predictive value of a symptom or a sign.<sup>23,24</sup>

### 6. Coordination of care

General practitioners coordinate care for their patients by providing an overview of care and acting as a communication conduit between those providing care (*effective and efficient care*). They initiate most referrals within the primary health care team, and those to secondary carers, and those to other caring agencies, such as social workers and counsellors (*appropriate care*). They certainly should receive communications from all parties providing care for their patients.

In nearly all other areas of general practice, the GP is familiar with acting as a gatekeeper — deciding who should be referred elsewhere. This is a major responsibility both within the doctor–patient relationship but also within the purchasing of care. In contrast, the gatekeeper role of the GP has been eroded in maternity care, with all women usually being referred automatically to secondary care followed by the consultants deciding who is ‘safe’ for primary care. The principle of the lead professional coordinating care sits well within general practice and is identical to the role that GPs already have in other clinical areas (*indicator 4*).

### 7. Management of resources

Finally, GPs are increasingly responsible for managing the health care resources that their patients use, both through clinical decisions about prescribing, referral and investigation, and through overt management decisions such as the placing of contracts and the commissioning of care. Such resources include their own time and that of practice staff.

Thus, GPs can ensure that care is both clinically effective and cost-efficient. Their involvement in maternity care will not only provide appropriate care through purchasing but also conserve resources by avoiding unnecessary referral whether this is within or outside primary care.

### General practitioners’ actual contribution to clinical care

A 1992 national survey of UK GPs<sup>25</sup> found that about 31% claimed to provide labour care, and 90% antenatal and post-natal care; 27 and 95%, respectively, stated that they wished to provide such care in the future. There are regional variations in GPs’ provision of maternity care, with up to half providing labour care in some areas.<sup>26,27</sup> Half of GP trainees believed that GPs have an important role in normal labour and one-third intended to provide intrapartum care.<sup>28</sup>

#### *Appropriate and efficient antenatal care*

General practitioners should provide personal, competent, accessible and appropriate antenatal care that women want. If GPs are already trained to and actually do provide high-quality community-based antenatal care, should resources be used to retrain hospital midwives to duplicate such care? GPs are already educated and trained to order and to interpret investigations and to refer as appropriate. GPs have another advantage of being able to manage and treat concurrent chronic illness, intercurrent illness and minor abnormalities without referral outside of primary care. Thus, their involvement in antenatal care is not just clinically effective but also cost-effective.

#### *Intrapartum care*

The majority of GPs provide little labour care. The trends in GP intrapartum care provision are the closure of isolated GP units,<sup>29</sup> falling involvement in labour care<sup>30</sup> and deskilling in terms of practical labour tasks.<sup>29</sup> There remains a small ‘hard core’ of 10–15% of committed GPs who still provide labour care in hospital<sup>25</sup> and/or at home,<sup>31</sup> have a reasonable caseload, do perform labour procedures (e.g. forceps) and who provide continuity of care throughout pregnancy<sup>6,27,31</sup> as well as throughout the patient’s life and for her family.<sup>32</sup>

#### *Post-natal care*

Most GPs provide minimal post-natal care apart from the ‘6-week check’.<sup>27</sup> The exception are GPs who provide intrapartum care, who do provide more post-natal care than their colleagues,<sup>27</sup> thus enhancing the continuity of care that is central to *Changing Childbirth*. Women wish their GP to visit them at home soon after delivery.<sup>11</sup> Post-natal care does not end with the 6-week check. Post-natal depression, feeding problems and family disturbance can all occur and present later. It is the GP who continues to provide care for these problems.

### Three crucial indicators of success of particular importance to GPs (Appendix 1)

(1) *Every woman should know the lead professional who has a key role in the planning and provision of her care*

A GP could be the lead professional, if a woman requests this, and this would be very appropriate, as already argued. A GP who does not wish to provide intrapartum care can still provide continuity of antenatal and post-natal care. In this case, to achieve the continuity of care indicator of success requires all those midwives who *might* provide delivery care for a woman to meet her antenatally. With the present number of antenatal visits, it seems unlikely that continuity will improve in the future unless some sort of extra antenatal social or educational meeting is organized. If this indicator is belittled into the surrogate indicator of ‘*having met*’ rather than ‘*know*’ the carer that delivers her, then it could be achieved just as easily by GPs providing antenatal care with the same type of extra event being necessary for pregnant women to meet a number of midwives, one of whom will deliver her.

(2) *At least 75% of women should know the person who cares for them during their delivery*

If the GP also provided intrapartum care and attended the delivery, then this would provide excellent continuity and help achieve the target of 75% of women knowing the person who cares for them during delivery. Whether such continuity of GP care does indeed help achieve this particular target depends upon how it is interpreted. It is rare for only *one* person to provide care at delivery. Would the indicator be met if a person who the woman knew provided care at delivery? Or must it be the *principal* person providing care that is known to her? Would this indicator be satisfied if a known carer provided care during labour but not at delivery? Certainly, the indicator does not state that the known person has to be a midwife, which is how it has been commonly interpreted. Perhaps the best model to provide continuity and meet this 75% target is that of the committed GP providing intrapartum care and the community midwife offering a choice of either a home birth or a domino delivery.<sup>33</sup> Such a model would require little retraining and minimal disruption of existing services. The *Changing Childbirth* report itself is supportive of committed GPs working in this model. GPs need to exert pressure in their locality to ensure that they can continue to

provide such care in partnership with the practice community midwife and that such 'domino' schemes are not lost in the drive to reorganize into teams. It should be noted that published work so far shows that such teams do not provide good continuity.<sup>34</sup>

(3) *At least 30% of women delivered in a maternity unit should be admitted under the management of the midwife*

GPs should support midwives having direct access to maternity beds and also the target of 30% midwife admissions so that women can have a true choice, especially in those units where there is no GP intrapartum care as an alternative to consultant care. However, there is a danger that, in units where there is GP labour care, particularly isolated units, such bookings may be changed to midwife bookings as an easy way of achieving this indicator. If this were done, then women's choice would be effectively reduced, the opposite of what *Changing Childbirth* aims to achieve. The new system should permit and encourage committed GPs to provide intrapartum care. Many low-risk women previously booked by consultants will in future be booked by midwives from practices whose GPs do not provide labour care.

### Conclusion

General practitioners providing maternity care are at a crossroads. They can either provide the type of maternity care that women want and which the government supports, or they can refuse to change and gradually, perhaps even quickly, be excluded from any maternity care. They have to be able to justify the care that they wish to provide as purchasers of maternity care decide from where, how much, and what type of maternity care to contract. Some GPs will not wish to provide maternity care, and there will be a need to retrain and to reorganize midwives to take their place in the provision of low-risk, community-based maternity care. Those GPs who wish to continue to provide or perhaps enlarge their role in maternity care need to convince commissions and their colleagues that they have something to offer that women want which is consistent with the indicators of success of the *Changing Childbirth* report. The introduction of practice-based contracts will raise further awareness of this debate.

I believe that excluding GPs from any maternity care would be a great loss to our discipline because the provision of maternity care is an essential part of providing continuity of caring for women and for their families and should be part of general medical services in the UK. More importantly, I believe that if GPs become excluded from all maternity care, perhaps by default, then women will lose out. Their choice of maternity care and carer will be reduced and they will lose the advocacy of the group of professionals that provides them with the great majority of their personal medical care throughout their lives. One of the core functions of GPs is to act as patients' advocates within the doctor-patient relationship to advise, and thus, to help with the many varied problems that they present; this should include maternity care. If GPs opt out of all maternity care, women will lose a powerful advocate, one that they may sorely miss at some time in the future both collectively and individually.

**Appendix 1.** The indicators of success of the *Changing Childbirth* report.<sup>2</sup>

1. All women should be entitled to carry their own notes.
2. Every woman should know one midwife who ensures continuity of her midwifery care — the named midwife.

3. At least 30% of women should have the midwife as the lead professional.
4. Every woman should know the lead professional who has a key role in the planning and provision of her care.
5. At least 75% of women should know the person who cares for them during their delivery.
6. Midwives should have direct access to some beds in all maternity units.
7. At least 30% of women delivered in a maternity unit should be admitted under the management of the midwife.
8. The total number of antenatal visits for women with uncomplicated pregnancies should have been reviewed in the light of the available evidence and the guidelines of the Royal College of Obstetricians and Gynaecologists.
9. All frontline ambulances should have a paramedic able to support any midwife who needs to transfer a woman to hospital in an emergency.
10. All women should have access to information about the services available in their locality.

### References

1. Young GL. General practice and the future of obstetric care. *Br J Gen Pract* 1991; **41**: 266-267.
2. Expert Maternity Group. *Changing childbirth* (the 'Cumberlege' report). Part I. Report of the Expert Maternity Group. London: HMSO, 1993.
3. Health committee second report (the 'Winterton' report). *Maternity services*, Vol. 1, report together with appendices and the proceedings of the committee. House of Commons, Session 1991-2. London: HMSO, 1992.
4. Jewell D, Young G, Zander L. The case for community based maternity care. Penrith: Association for Community Based Maternity Care, 1992.
5. Flint C, Poulengeris P. *The know your midwife report*. London: Heinemann, 1987.
6. Smith LFP. Views of pregnant women on the involvement of general practitioners in maternity care. *Br J Gen Pract* 1996; **46**: 101-104.
7. Taylor A. Maternity services: the consumer's view. *J R Coll Gen Pract* 1986; **36**: 157-160.
8. Death of choice. *AIMS Q* 1989; **1**: 1.
9. The secretaries of state for Health, Scotland and Wales. *Working for patients*, CM555. London: HMSO, 1989.
10. Smith LFP. Ethical dilemmas and GP fundholding. In: *The challenge of changing childbirth. A midwifery educational resource pack*. London: ENB, 1995.
11. Hutton E. What women want from midwives, obstetricians, general practitioners, health visitors. London: National Childbirth Trust, 1994.
12. NHS executive letter EL(94)9.
13. Leeuwenhorst Working Party. A statement by the working party appointed by the second European conference on the teaching of general practice. Leeuwenhorst, Netherlands: Leeuwenhorst Working Party, 1977.
14. The nature of general medical practice, Report from General Practice 27. London: The Royal College of General Practitioners, 1996.
15. RCGP. The educational needs of the future general practitioner. *J R Coll Gen Pract* 1969; **18**: 358-360.
16. Helman CG. Research in primary care: the qualitative approach. In: Norton PG, Stewart M, Tudiver F, et al. (eds). *Primary care research*. Newbury Park: Sage, 1991.
17. Culpepper L. Family medicine research: major needs. *Fam Med* 1991; **23**: 10-14.
18. McWhinney IR. *A textbook of family medicine*. Oxford: Oxford University Press, 1989.
19. McWhinney IR. *The early signs of illness*. London: Pitman Medical, 1964.
20. Street P, Gannon MJ, Holt EM. Community care in West Berkshire. *BMJ* 1991; **302**: 698-700.
21. Hundley VA, Cruikshank FM, Lang GD, et al. Midwife managed delivery unit: a randomised controlled comparison with consultant led care. *BMJ* 1994; **309**: 1400-1404.
22. Smith LFP, Jewell D. Contribution of the general practitioners to hospital intrapartum care in maternity units in England and Wales in 1988. *BMJ* 1991; **302**: 13-16.
23. Tew M. In: Marsh GN (ed). *Modern obstetrics in general practice*. Oxford: Oxford University Press, 1986.

24. Treffers PE, Eskers M, Kleiverda G, *et al.* 1990. Home births and minimal medical interventions. *JAMA* 264: 2203-2208.
25. General Medical Services Committee. Report. London: British Medical Association, 1992.
26. Baker R. General practice in Gloucestershire, Avon and Somerset: explaining variations in standards. *Br J Gen Pract* 1992; 42: 415-418.
27. Smith LFP. Provision of obstetric care by general practitioners in the south western region of England. *Br J Gen Pract* 1994; 44: 255-258.
28. Smith LFP. Roles, risks and responsibilities in maternity care: trainees' beliefs and the effects of practice obstetric training. *BMJ* 1992; 304: 1613-1615.
29. Campbell R, MacFarlane A. Where to be born? The debate and the evidence. Oxford: National Perinatal Epidemiology Unit, 1994.
30. Smith LFP, Jewell D. Contribution of general practitioners to hospital intrapartum care in maternity units in England and Wales in 1988. *BMJ* 1991; 302: 13-16.
31. Brown DJ. Opinions of general practitioners in Nottinghamshire about provision of intrapartum care. *BMJ* 1994; 309: 777-779.
32. McWhinney IR (1982) Continuity of care. *J Fam Pract* 15: 847-848.
33. Smith LFP. Domino schemes preferable to team midwifery. *BMJ* 1993; 307: 800.
34. *Mapping team midwifery*, IMS report series 242. Institute of Manpower Studies, March 1993.

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