Primary Care Obstetrics and Perinatal Health

An annotated bibliography

by

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Contents

The idea of composing this bibliography was born during preparations for an international congress on *Primary Care Obstetrics and Perinatal Health* held on the 21st and 22nd of March, 1991, in 's-Hertogenbosch, The Netherlands. It can be therefore looked upon as spin-off. For that reason, the design of the document is in broad outlines comparable with the structure of the congress. However, this bibliography is also one of a series of bibliographies edited by the bibliographic department of the Netherlands Institute of Primary Health Care (NIVEL).

A wide variety of topics has already been discussed in this series. All publications have in common that they deal with their subjects from the perspective of primary health care. Most of the documents are in Dutch. However, as it was considered that the area of distribution might be broadened by using the English language as a vehicle of communication, it was agreed to publish a number of the documents in English. The bibliographies of '*patient compliance*' and of '*community nursing*' are good examples of the effort made to concretize this policy. A central bottleneck within this procedure is the language in which the original documents are published. The mainstream of bibliographies incorporates publications of Dutch origin.

It was clear from the start that I had to call upon outside expertise. It was also necessary to implement a division of labor. It should be taken into account that, as a librarian, I am not a specialist in obstetrics. The objective was to conceive an annotated bibliography which gives a valid outline of the *state of the art* of the field concerned.

This document was composed on a microcomputer using WordPerfect, version 5.0. The rough draft was corrected by means of the spellingmodule of this programme. As *WordPerfect* is of American origin, the spelling used is in accordance with American standards. We hope our English readers will accept our apologies for this choice.

However, we hope that this publication will give you an insight in the trends within the field of primary care obstetrics and will prove useful to you as an introduction to this field.

Hans Kuijlen, bibliographer.

Introduction

This introduction consists of two main parts. Bibliographic aspects are dealt with in the first part, while in the second part attention is paid to matters of content. An outline of the structure of the bibliography is given in this section.

1. Bibliographic procedures

In this section we will describe and justify the sources and methods used in composing this document. In the first paragraph a description is given of the searches that were performed and of the descriptors used for these reasons. In the next paragraph we will explain the ways in which the final selection was made and justified, and the methods we used in this matter.

The collected material was derived from several sources. On the basis of the general concepts that will be discussed within the context of the International Congress on Primary Care Obstetrics and Perinatal Health, a selection of keywords was made, that were derived from the *medical subject headings* incorporated in the *Index Medicus*[1], and in the thesaurus of the automated catalogue of the library of the Netherlands Institute of Primary Health Care (NIVEL).

In more detail, two different databases were referred to in the search. Within the search two types of key entrances were used. In the next section a brief, but nevertheless complete description is given of the performed searches and the tools that were used. The first entrance in the databases consisted of subject descriptors. The second entrance consisted of the names of the speakers that were invited to the congress. The two aforementioned databases were an on-line version of *Medlars*[2] and the NIVEL library's catalogue[3]. In the case of *Medline* the descriptors were, as said before, authorized medical subject headings from the *Index Medicus*. In the first Medlars selection the chosen headings were used in disjunction. The reviewed descriptors appeared in alphabetical order: *delivery*; *home-childbirth*; *midwifery*; *obstetrical-nursing*; *obstetrics*; *perinatal-care*; *pregnancy-tests*. This search resulted in a raw selection containing 4812 hits. This selection was limited to the original languages in which the documents were to be published: Dutch, English, French and German. 3833

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1 The subject headings can be looked upon as controlled entries in a hierarchical thesaurus with cross-references.

2 We have been using the database MEDL via the host-organization DATA-STAR.

3 All searches were performed in the first week of November 1990.

Hits remained in the selection. This assortment was combined in conjunction, and in different operations, with the terms *primary health care* (35 hits); *mortality* (78 hits); *morbidity* (52 hits); *outcome and $*[4] (28 hits); mt[5] (103 hits); *quality of $* (255 hits); and *review* (25 hits). The resulting sets are not exclusive; there is some overlapping between them. The subsets were further limited by the use of the descriptor *human* in a conjunctive way. For articles published in periodicals an additional criterion was formulated: they had to be published after 1987. In some cases exceptions were made to this rule.

A second group of subsets of publications was created by using, as selective criteria, the names of the speakers that were invited to the congress.
For the record, the above mentioned sets of publications solely contain articles that were published in a selected number of periodicals. For a complete list of the periodicals that were used, we refer to the printed edition of the Cumulative Index Medicus, volume 30, part 1.

A final selection resulted from a search in which the catalogue of the NIVEL-library was used. This catalogue contains documentary information on books, reports, articles and grey publications gathered within the context of the institute's collection policy. The environment of the term *verloskunde*[6] within the thesaurus, was searched. For this procedure the Boolean denotation that was used is called *generic*. The result was a set containing over 900 publications. From this collection, only documents written in English were selected for further investigation.

Although articles in periodicals are among the fastest official vehicles[7] for transportation of innovative information, some books will also be included in this bibliography. With reference to the books that were annotated within this context, the reader will have to take into account that these documents are a part of the relatively small book collection of the NIVEL. Therefore, the books included do not give a complete outline of what is published in book-form within the field of obstetrics.

For practical reasons, and for reasons of content the various sets had to be further limited. For example, not all publications were equally relevant to the subject. Another argument for further restriction is that, in general, automated literature searches are sensitive to bias. The validity of the collection was

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4 The $-sign is the formal symbol to truncate a descriptive string used within the query language.

5 MT is a shortcut for the descriptor methods.

6 This expression is equivalent to the English word obstetrics.

7 Its status as a fast means for spreading innovative knowledge is said to be challenged by electronic publishing. However this threat is not as manifest as it seemed to be a decade ago.

guarded on the basis of face-validity. This was one of the main reasons for involving specialists with different scientific backgrounds in the process of selecting documents and compiling this bibliography, particularly specialists in the field of obstetrics.

For obvious reasons intensive cooperation between researchers and the bibliographer was called for in order to produce this work; the project requires both bibliographic and strictly scientific skills.

In the first consultation the cluster of documents was reduced to more manageable proportions. Whenever present, titles and abstracts were used as selective criteria. The results were provisionally classified. In the second round, these chapters were critically reviewed and, if necessary, restructured and rearranged. In cases of severe doubt, and in cases where we could not get hold of the original document, publications were removed.

2. Primary Care Obstetrics

Primary care obstetrics differs greatly from one country to the other, even when only industrialized countries are considered.

In general, primary care obstetrics is practiced by midwives and general practitioners. It must be clear that the pathology of pregnancy and delivery belongs to the realm of obstetricians. There are, however, considerable differences between countries as to the level of competence of midwives, the amount of participation by general practitioners, the level of authority of different obstetricians and the places of birth.

The literature on primary care obstetrics can be roughly subdivided into studies which are related to local variations. What midwives and general practitioners actually do and how they interact with obstetricians and patients, depends largely on the organization of the health care of the countries involved. The obstetrical outcome in terms of labor characteristics and fetal indicators are less influenced by the organization of primary health care and the assessment of the quality of care. The detection of risk factors for perinatal problems are not likely to be affected by local variation in primary care obstetrics.

Accordingly, we have classified the available titles and abstracts in the following chapters[8]: *1. Organization of Obstetric Care, 2. Peri- and Postnatal Care by Midwives and General Practitioners, 3. Interaction between Primary and Secondary Obstetric Care, 4. Role and Wishes of the Pregnant Women, 5. Quality Assessment in Primary Care Obstetrics and Perinatal Health, 6. Methodology of Obstetric Care Research.*

In most cases, the abstracts used in this bibliography are taken from external

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8 The titles of these chapters correspond to the themes discussed at the congress. An extra chapter is added concerning the planning and organization of obstetric care.

sources. These sources are mentioned at the end of each abstract. When no source is mentioned, this means that the abstract was written by the compiler. As may be expected, this routine has some internal repercussions on matters of style. The abstracts have only an indicating function and are not meant to be substitutes for the original paper. Therefore style is not a major issue of concern. Also the abstracts are not indicative of the quality of the publications.

Within each chapter the titles of the publications are indexed alphabetically on the name of the first author. Both authors index and a subject index are included to facilitate the use of this bibliography. We hope it will prove useful to scientists, professionals and students who want to acquaint themselves with the field of primary care obstetrics.

1. Organization of Obstetric Care

BELL, K.E., MILLS, J.I.
Certified nurse-midwife effectiveness in the health maintenance organization obstetric team.
Obstetrics and Gynecology; 74, 1989, no. 1, p. 112-16, refs.

This study of the effectiveness of certified nurse-midwives in a health maintenance organization (HMO) led to five conclusions: 1) Maternity patients accepted certified nurse-midwife care; 2) the general female HMO population had little awareness of what function certified nurse-midwives performed but was open to receiving certified nurse-midwife care once the role was explained; 3) certified nurse-midwives reduced inpatient cost; 4) the use of certified nurse-midwives did not affect perinatal outcomes; and 5) physicians and certified nurse-midwives worked well together as team members. Certified nurse-midwives proved to be an unqualified success as team members in this setting. Author.

BERRY, A.J., METCALF, C.L.
Paradigms and practices: the organization of the delivery of nursing care.
Journal of Advanced Nursing; 11, 1986, no. 5, p. 589-97, refs.

The patient allocation paradigm of nursing care is slowly superseding the task allocation paradigm. A research study reported here upon the introduction of patient allocation in a maternity hospital, found that patients experienced few significant changes in their levels of satisfaction; similar to previous studies this research found that the nurses reported significant gains in their levels of satisfaction. Following analysis of the 'medical model' assumptions inherent in the two paradigms and the methods used in the studies, it is suggested that a third paradigm of nursing care is emerging, a 'patient centered' paradigm within which the patient is a participating individual. Author.

BLONDEL, B., PUSCH, D., SCHMIDT, E.
Some characteristics of antenatal care in 13 European countries.
British Journal of Obstetrics and Gynaecology; 92, 1985, no. 6, p. 565-68, refs.

This study compares the organization of antenatal care in 13 European countries having a fetal and infant mortality rate below 20 per 1000. The countries differ in the number of perinatal visits, the role performed by midwives and the use of home care. The study shows that there is no single model of antenatal care among countries having similar fetal and infant mortality. Author.

BUEKENS, P.
Variations in provision and uptake of antenatal care.
Baillière's Clinical Obstetrics and Gynaecology; 4, 1990, no. 1, p. 187-206, refs.

Antenatal care provisions vary from one country to another. In Europe, in some countries most of the care is provided by obstetricians, while in other countries the role of midwives is more important. Many women are attended by general practitioners in Canada and, to a lesser extent, in the U.S. Involvement of traditional birth attendants in antenatal care in more than 5% of the pregnancies has been reported only in Guatemala, Honduras and Mexico. Several indicators may be used to measure the utilization of antenatal care: the percentage of women receiving care, timing of the first visit, proportion of women receiving late or no care, number of visits and indexes of adequacy of antenatal care. Recent world data are provided. The percentage of women receiving antenatal care is higher than 90% in many countries, including some developing countries. However the proportion of women with late or no care is increasing in the U.S. Women of low socio-demographic status are at high risk of having inadequate care. Financial barriers play a major role. Inadequate system capacity, distance, long waiting time, lack of child care and differences in culture, attitude and knowledge are other important barriers. Improving the services and outreach of non-participating women both may increase the utilization of antenatal care. Over-utilization should also be a matter of concern. It could be better addressed by decreasing the recommended number of visits than by requesting the users to pay a part of the costs. Author.

BUTTER, I., LAPRE, R.
Obstetric care in The Netherlands: manpower substitution and differential costs.
International Journal of Health Planning and Management; 1, 1986, no. 2, p. 89-110, refs.

Trends in The Netherlands show an expanded role for obstetricians in hospital-based prenatal and natal care, as well as a shift in postnatal care away from hospitals to domiciliary care. While general practitioners attend a steadily declining share of total births, midwives continue to play a central role in providing support for over 40 per cent of all births and in attending nearly two thirds of all home births, which, in The Netherlands, is the preferred option for more than a third of childbearing women. As shown in the figures, the shifting of births to hospitals, and of postnatal care out of hospitals produce opposite effects on obstetric expenditures. Cost differences are primarily associated with variation in location of care, and only secondarily with variation in the providers of care, underscoring the importance of contrasting styles of obstetric management and their

influence on costs. In the context of these observed transitions, the increasing popularity of policlinical deliveries constitutes a pivotal force, the impact of which to date, appears to have been neglected by planners and health care decision makers. Author.

CAMPBELL, R., MACFARLANE, A.
Place of delivery: a review.
British Journal of Obstetrics and Gynaecology; 93, 1986, no. 7, p. 675-83, refs.
Policies about place of delivery have tended to be formulated without looking either at existing evidence or without doing new research into the relative safety for women and babies of delivery in different settings. This article reviews published research on the subject, and finds that many of the data required have not been collected. Furthermore, many analyses fail to take into account selection biases or differences in the birthweight distribution and the incidence of congenital malformations among babies born in different settings. Nevertheless, some tentative conclusions can be drawn. The available evidence does not support claims that, for the baby, iatrogenic risks of obstetric intervention outweigh the possible benefits. At the same time, there is no evidence to support the claim that the shift to hospital delivery is responsible for the decline in perinatal mortality in England and Wales nor the claim that the safest policy for all women is to be delivered in hospital. Author.

DIXON, T.
The home birth controversy: editorial.
Canadian Family Physician; 33, 1987, no. 5, p. 1097-99, 18 refs.
Editorial article on the quality of obstetrical care in the home situation. The subject of alternative birth settings is associated with widely divergent opinions and lack of good data. The historical trend toward hospital delivery continued in the face of initially disturbing levels of morbidity and mortality. The shift to hospital confinement was a social movement that took place at a time when labor and delivery were matters of life and death, rather than a scientific movement based on adequate data and well-tested hypotheses. The home-birth movement nibbles at our complacency and challenges our conceived ideas.

FUTURE
The future of obstetrics and gynecology. Council on Long Range Planning and Development with the cooperation of the American College of Obstetricians and Gynecologists.
Journal of the American Medical Association; 258, 1987, no. 24, p. 3547-53, refs.

The American Medical Association Council on Long Range Planning and Development has identified trends in the environment of medicine that are likely to affect the future of obstetrics and gynecology practice. The professional liability crisis is among the most potent factors affecting the types and numbers of services that obstetricians and gynecologists will provide in the future. The setting for obstetrics and gynecology practice is likely to be affected by advances in technology and trends in delivery and reimbursement systems. Two factors with potential to affect the organization of practice are the high numbers of women entering the specialty and increasing practice expenses, largely associated with liability costs. Other factors affecting future patterns of delivery include the anticipated aging of the female population in need of these services and the changing social and economic roles of women. In particular, the feminist movement has focused more attention on women's health care and is expected to have a continuing impact on the delivery of obstetric and gynecologic care. The Council concludes that the most salient issues for the specialty in the future will be the following: (1) the direction of the professional liability crisis, (2) medical practice competition, (3) the feminization of poverty, (4) ethical issues arising from technological and social imperatives, (5) the changing gender profile of the specialty, and (6) the impact of the feminist movement on women's health care. Author.

HAKALA, T.

Obstetric care, pregnancy risk factors and perinatal outcome in the province of Uusimaa, Finland, in 1980-1981.

Annales Chirurgiae Gynaecology Supplementum; 203, 1987, p. 1-83, refs.

This study was carried out in order to learn more about the present state of obstetric care and perinatal outcome in the province of Uusimaa, Finland. The studied subjects consisted of 29,061 pregnant women, 313 multiple pregnancies and 29,374 newborn infants born in the years 1980 and 1981. The information gathered was mostly retrospective. The overall frequency of LBW children was 3.9 per cent, of very LBW children 0.8, of preterm children 5.8, of very preterm children 0.7, and of post-term children 4.7 per cent. The overall frequency of neonatal transfers to a pediatric ward was 8.6 per cent. Since 1975 centralization of high risk deliveries has increased in Uusimaa, as judged by the frequencies of LBW children born at the two largest delivery units and four district hospitals. Almost 95 per cent of expectant mothers began their antenatal classes before 16 weeks of gestation. Late admission to antenatal care after week 15 was an independent risk factor for unfavorable pregnancy outcome. The caesarean section rate was 16.5 per cent. The frequencies were highest at the State Maternity Hospital (19.7%) and Helsinki University

Central Hospital (18.2%). The frequency varied largely in district hospitals (5.9-16.3%). This resulted partly from different indications for caesarean sections in these hospitals. The mean age of the parturients was 28.5 years. The best pregnancy outcome was observed in women aged 25-29 years. Almost half of the parturients were primiparous, and only 4.0 per cent were quadri- or grand multiparous. Secundiparous women showed the best pregnancy outcome. Terti-parity or more was not a risk factor per se. The difference in the frequency of unfavorable outcome between secundiparas and terti-paras or more disappeared after those with unsuccessful histories were excluded, while the difference still remained significant between primi- and secundiparas. Of all pregnant women, 23 per cent had experienced one and 6.4 per cent several spontaneous or legally induced abortions. The effect of the number of abortions on the frequency of preterm and very preterm deliveries was linear in both singleton and multiple pregnancies. Almost 70 per cent of the parturients belonged to the two highest social classes and 86 per cent of them were married. Children of married women from higher social classes had the best perinatal outcome. Unmarried women from lower social classes more often had 'behavioral' risk factors; they were more often heavy smokers, were uncertain about the dates, had two or more abortions and had neglected maternity care. Author.

HALL, M., MACINTYRE, S., PORTER, M.
Antenatal care assessed: a case study of an innovation in Aberdeen.
Aberdeen: Aberdeen University Press, 1985. app., bibl., ind.

This book describes the history, introduction and evaluation of a new system of antenatal care introduced in Aberdeen in 1980. It addresses four main issues of major topical concern to all those interested in maternity care or reform in the health services:

- of what does routine antenatal care in a modern industrialized nation consist? More specifically, who provides care for whom, how often, in what location, recording what measurements and information, and with what consequences?;
- to what extent does it achieve its aims of, firstly, detecting and then preventing, managing and treating complications of pregnancy and, secondly, dealing with expectant mothers' needs for information, advice and reassurance?;
- how is antenatal care viewed by the various parties to it: expectant mothers; general practitioners; midwives; and obstetricians;
- to what extent is it possible, firstly, to change antenatal care and, secondly, to assess it? Publisher.

HEMMINKI, E.
Obstetric practice in Finland, 1950-1980: changes in technology and its relation to health.
Medical Care; 21, 1983, no. 12, p. 1131-43, 18 refs.

The purposes of the paper are to describe changes in the technologic methods used in Finnish obstetric practice and to relate them to some measures of the health of infant and mother. Antenatal care in Finland still largely retains its original low-technological character, but changes toward more technology-orientated care can be seen. The management of labor and deliveries changed dramatically in the latter half of the 1960s and continued to change in the 1970s. More and more births occurred in large, specialized hospitals instead of in small, local hospitals. Electronic fetal monitoring, drug treatment of labor (oxytocin and analgesia), deliveries with instruments, and caesarean sections became common. Comparisons of perinatal mortality by county and by hospital suggest correlations between the technologic methods studies, especially caesarean sections, and decreasing perinatal mortality probably do not reflect direct causal relationships. Author.

HEMMINKI, E.
Content of prenatal care in the United States: a historic perspective.
Medical Care; 26, 1988, no. 2, p. 199-210, 59 refs.

The purpose of this study was to describe the content of prenatal care in the United States over a period of time. Secondary data sources were reviewed and selected data were analyzed, mainly from the last two decades. Data reviewed included special surveys from the National Center for Health Statistics, advice given by professional organizations, obstetric textbooks, commercial advertisements in obstetric journals and occasional surveys. The data suggest that American prenatal care has emphasized screening for biomedical problems, while health education and support functions have been less central focused. It appears that some prenatal practices from earlier years, such as strict weight-gain restrictions, wide use of diuretics and certain other drugs, use of x-ray, have been harmful. Author.

HINGSTMAN, L., BOON, H.
Obstetric care in The Netherlands: regional differentiation in home delivery.
Social Science and Medicine; 26, 1988, no. 1, p. 71-78, app., 27 refs.

In this paper, attention is focused on home delivery in The Netherlands, which still accounts for 36% of the total number of deliveries. Compared to countries with similar level, of socio-economic development, home delivery plays a more important role within Dutch obstetric care.

To understand this unique situation, one needs to have insight into the organization and structure of Dutch obstetric care, which is described in the first part of this paper. In the second part of this paper, regional differentiation in the relative importance of home delivery is described. Finally, regression analysis is used in order to explain the observed regional pattern. A brief abstract from the vast amount of Dutch literature, on the discussions between advocates and adversaries of home delivery, is included in an appendix. Author.

HOUD, S.
Being a midwife in Europe.
Health Promotion; 3, 1988, no. 3, p. 293-97, refs.

In *Having a baby in Europe* (WHO, 1985), the report of the WHO Perinatal Study Group, the main findings were the great differences in the care recommended and given in European countries. This article examines midwives' work. Where and how do they work in European countries? What are the differences in their work, and do they make a difference to the outcome for the child or its family?

The main topics covered, are legislation, the number of midwives, education, professional attitudes, and professional autonomy.

HOWELL, E.M., BROWN, G.A.
Prenatal delivery, and infant care under Medicaid in three states.
Health Care Financing Review; 10, 1989, no. 4, 321-28,

Medical services and expenditures were analyzed for care during the prenatal-, delivery, and post-delivery periods in three States: California, Georgia, and Michigan. Uniform data were used from the Health Care Financing Administration's Medicaid Tape-to-Tape project of 1983-84. Results indicate that from 16 to 24 per cent of all births in the afore mentioned States, during the study period, were financed by Medicaid. Overall, the study showed that more than one-half of expenditures for the study population were for the delivery hospitalization, and less than 12 per cent were for prenatal care. As expected, a substantial proportion of expenditures, up to 41 percent of total delivery payments, were for high-cost deliveries. From 33 to 41 percent of total Medicaid expenditures for aid to families with dependent children were for pregnancy, delivery, and newborn care in 1983. Author.

KAMINSKI, M., BLONDEL, B., BREART, G.
Management of pregnancy and childbirth in England and Wales and in France.
Paediatric and Perinatal Epidemiology; 2, 1988, no. 1, p. 13-24, refs.

This paper reviews national data on obstetric and neonatal practices in England, Wales, and France between 1970 and 1980. The data have been derived from national statistics and surveys on national samples of births in 1970, 1975 and 1980 in England and Wales, and in 1972, 1976 and 1981 in France. The analysis shows that there was no major difference in pregnancy outcome, but that there were wide variations in medical practices and their trends over time. The main differences were: in England and Wales there was a higher number of antenatal visits, a higher percentage of inpatient admissions during pregnancy, a higher rate of induction, more episiotomies, a higher rate of resuscitation at birth, and a higher rate of admissions to neonatal special care units; in France, there was a higher rate of caesarean sections before and during labour, some evidence of a more active management of labour, and a longer post-natal hospital stay. These differences in practice reflect differences in objectives and assessment of the effectiveness of care between the two countries. The differences point out the need for better monitoring and evaluation of obstetric and neonatal practices. Author.

KITZINGER, S., DAVIS, J.A. (EDS.)
The place of birth: a study of the environment in which birth takes place with special reference to home confinements.
Oxford: Oxford University Press, 1978. refs., ind.

This is a multidisciplinary study of the environment in which childbirth takes place in developed countries today. The conditions under which at home is or is not advisable, are carefully defined, and the authors examine birth at home as a reasonable alternative to hospital confinement for those women who are not *'at risk'*. The book argues that the proportion of confinements at home should be increased for emotional, sociological, and financial reasons. Hospital confinements are also discussed and suggestions made for the improvement of the quality of care. Publisher.

LAGOE, R.J.
Obstetric hospital stays by diagnosis related groups: a community-based analysis.
American Journal of Obstetrics and Gynecology; 154, 1986, no. 4, p. 873-78, refs.

The study, taken between 1981 and 1984, analyzed obstetric inpatient hospital stays by diagnosis-related group in Sacramento, California, and Syracuse, New York, two areas with similar admission rates. The sample included 123,308 hospital discharges. The data indicated that aggregate obstetric stays in Syracuse were 32.9% longer than those in Sacramento, which was typical of differences between these stays in the western and

northeastern United States. Obstetric stays in both areas declined between 1981 and 1984; however, the rate of decline in Sacramento (6.1%) was substantially higher than that of Syracuse (3.5%). Variability of obstetric stays was substantially lower in Syracuse for most diagnosis related groups, including those with the largest caseloads. These results suggest that community and regional differences in obstetric hospital stays may be produced by system-wide consumer preferences and physician practice patterns, more than by hospital bed availability, health maintenance organization activity or other factors. Author.

LEJEUNE, C., CAILLOIS, D., REMY, M., TUBIANA, P., HOVE, D. VAN
[Pediatric management in public maternity hospitals. National survey for the year 1983.]
Archives Francaises de Pediatrie; 43, 1986, no. 8, p. 649-53, refs.

The authors report the results of a french national survey concerning the means of pediatric management of neonates in public maternity hospitals, during the year 1983. The answering rate was 56% from the 508 maternity hospitals surveyed and 87% in the Ile-de-France area. An important deficiency in human and technical resources is apparent from the results: there was no nursery nurse in more than two thirds of the maternity hospitals responding; 86% were below the desirable standards for pediatrician attendance (one weekly attendance per 100 labors per year) and 51% had less than half this personnel; 20% had no pediatric on-call system; there was a clear-cut deficiency for care and supervision equipment and for emergency laboratory tests necessary for the preparation before transfer of neonates with severe distress. A major reorganization of this system is necessary in order to improve perinatal mortality and morbidity. Author.

MERKATZ,, I.R., THOMPSON, J.A., MULLEN, P.D., GOLDENBERG, R.L. (EDS.)
New perspectives on perinatal care.
New York: Elsevier, 1990. refs., ind.

This book was conceived when it became clear that the considerable effort invested in background works done in preparation of the activities of the *Public Health Service Expert Panel on the Content of Prenatal Care*, could not in itself be lost to the scientific community. The task of writing a detailed review of all the relevant literature had been long, demanding, and often frustrating with respect to the provision evidence for effectiveness of specific components of perinatal care. In most instances there had been little prior precedent for such an analysis, particularly within the framework of the broadened objectives of prenatal care defined by the Panel.

The book is organized into five major parts, plus an epilogue to the report of the Panel dealing with its public health implications. The first part provides a historical overview of prenatal care in the United States and an introduction to the need for a new perspective in the 90's. It reviews the criteria employed by the experts for evaluating evidence regarding the effectiveness of prenatal interventions as well as the reported accuracy of various obstetric risk assessment instruments for predicting adverse pregnancy outcome. The second part highlights the advantages of preconception care for both healthy women and women with preexisting medical problems. The problems associated with unintended pregnancies are juxtaposed, after which the state of knowledge with respect to accurately dating pregnancy, teratologic risks, and prenatal genetic diagnosis is reviewed. Parts III and IV of the book respectively deal with the specifics of how prenatal care is structured to respond both to psychological/environmental risks and to obstetrical or medical problems. Discrete potential adverse outcomes of pregnancy are identified and targeted by the essayists. The overall process of prenatal care is innovatively reviewed in this context. The final section then deals with new opportunities for enhancing care through expanded providers, greater commitment to health education, comprehensive services for pregnant adolescents and programs of home visitation for high risk women. Author.

MILLER, C.A.
A review of maternity care programs in Western Europe.
Family Planning Perspectives; 19, 1987, no. 5, p. 207-11, refs.

This review of maternity care and services in 10 Western European countries that enjoy more favorable infant mortality rates and births-weight outcomes than does the United States finds that patterns of maternity care vary greatly from one country to another, with one important exception: No pregnant women in Europe needs to ask how or where she will receive care or who will pay for it. All of the countries studied provide various options for prenatal care, but the options are all part of well-defined provider systems that are universally available, are well-know and involve no charges or negligible charges. Author.

NOTZON, F.C.
International differences in the use of obstetric interventions.
Journal of the American Medical Association; 263, 1990, no. 24, p. 3286-91, 19 refs.

This study investigated current levels and trends between 1975 and 1986 in the rates of caesarean section in 21 countries, and of operative vaginal delivery in 14 countries. Sharp differences in national obstetric practices

were found, with caesarean rates ranging from a high of 32 (Brazil) to 7 (Czechoslovakia) per 100 hospital deliveries, and operative vaginal rates from 16 (Canada) to 2 (Czechoslovakia) per 100 hospital deliveries. For most countries, rates of caesarean section have risen as operative vaginal rates have fallen, but some important exceptions exist. A comparison of caesarean section rates for multiple births and breech delivery, two complications of labor and delivery that can be objectively diagnosed, demonstrates that caesarean section rates for these complications rose sharply in almost every country from 1980 to 1985. A comparison of 1985 national rates of intervention and measures of birth outcome, found no significant relationship between the two. While such ecological comparisons are imperfect at best, this does not indicate that low levels of early infant mortality can be achieved in some populations, despite a low rate of caesarean deliveries. Author.

ONION, D.K., MOCKAPETRIS, A.M.
Specialty bias in obstetric care for high-risk socioeconomic groups in Maine.
Journal of Family Practice; 27, 1988, no. 4, p. 423-27, 11 refs.

From 1982 to 1984, 46,501 infants were born in Maine hospitals in 46,286 deliveries, of these infants 6,343 were born to women on state Medicaid (Title 19), and 6,307 were born to women with no health insurance. In comparison with other babies born in Maine during those years, more infants in these presumed low socioeconomic groups either died, were transferred immediately to other hospitals, had low birthweights, or were readmitted to a hospital within 30 days of birth.

Of all deliveries, 105 family physicians or general practitioners performed 22 per cent, 82 obstetricians performed 69 per cent, and 16 osteopathic physicians performed 5 per cent. However of Medicaid deliveries, obstetricians delivered only 59 per cent, while family physicians, general practitioners and osteopaths delivered commensurately more. The decreased proportion of Medicaid patients cared for by obstetricians was especially prominent in Maine's urban hospital service areas. Pediatricians, on the other hand, cared for the same proportion of Medicaid children as they did all children in all hospital service areas in the state.

The distribution of low socioeconomic, higher obstetric risk patient groups among various medical specialties, as demonstrated in these data, should be considered by health planners, malpractice insurers, and health insurers including state Medicaid programs. Author.

PARAZZINI, F., VECCHIA, C. LA
Perinatal and infant mortality rates and place of birth in Italy, 1980.
American Journal of Public Health; 78, 1988, no. 6, p. 706-07,12 refs.

In 1980, the ratio of home birth to public hospital perinatal and neonatal mortality rates decreased from Northern to Southern Italy, being inversely related to the proportion of home deliveries, and probably reflecting the effect of planned versus unplanned home births. Post neonatal mortality rates in Southern Italy were about four times as high in children born at home (9.5/1,000 live births) than those delivered in public hospitals (2.6/1,000 live births), probably reflecting differences in the socioeconomic status according to the birthplace selection in various regions. Author.

PHAFF, J.M.L. (EDS.)
Perinatal health services in Europe: searching for better childbirth. Published on behalf of the World Health Organization, Regional Office for Europe.
London: Croom Helm 1986. refs., app.

This book is based on five years of research by a Perinatal Study Group set up by the European Regional Office of the World Health Organization. The group consisted of about twenty experts from twelve European countries and included obstetricians, pediatricians, epidemiologists, public health specialists, midwives, nurses, sociologists, psychologists and economists. Its work reported in this book presents a critical review of obstetrics and neonatal health care in Europe. In particular, the authors express their uneasiness about the recent trends towards technicalization and super-specialization in perinatal health care in Europe, and about the loss of human contact and of the concept of normality within this care. Much of the data reported in the book is not available elsewhere and the book will be important reading for professionals involved in perinatal care and for policy-makers in this field. Publisher.

ROSSER, W.W., MUGGAH, H.
Who will deliver Canada's babies in the 1990s?
Canadian Family Physician; 35, 1989, no. 12, p. 2419-24, 25 refs.

Family physicians and obstetricians are rapidly discontinuing obstetric practice. Infringement on lifestyle and threat of litigation are the two most important reasons for the withdrawal of both family physicians and obstetricians from obstetric practice. Only 4% of each medical school graduating class will enter practice as fully trained obstetricians. The most likely way to avoid future gaps in obstetric care is to attract more students and family medicine trainees to obstetrics. Strategies to stimulate undergraduate interest in low-risk obstetrics, to attract family medicine residents to pre-natal and intrapartum care, and to retain more of the family physicians and obstetricians now involved in delivering babies, urgently require attention. Author.

ROSTOW, V.P., OSTERWEIS, M., BULGER, R.J.
Medical professional liability and the delivery of obstetrical care.
New England Journal of Medicine; 321, 1989, no. 15, p. 1057-60, 26 refs.

Summary of a report on a two-year study of the effects of medical professional liability on the delivery of obstetrical care, as conducted by the Institute of Medicine of the National Academy of Sciences. The committee concluded that the professional-liability problem has adversely affected the delivery of obstetrical services, especially to disadvantaged women, those living in rural areas and those with high-risk pregnancies. The committee also concluded that obstetrical claims are more numerous and more severe than those in other specialties. These differences have recently been magnified. The available data support the conclusion that the cost of malpractice insurance further reduces the already low rates of participation in Medicaid by obstetrical providers in most jurisdictions. The committee made both long-term and short-term recommendations in an effort to resolve the problem of professional liability in obstetrics. The long-term recommendations include alternatives for the Tort system, demonstration projects, a national database on malpractice claims, and a systematic assessment of technology. The short-term solutions refer to the problems of access among the poor, immunities offered by the Tort Claims Act, contributions to the coverage for Medicaid providers and the expansion of the National Health Service Corps.

SAMUELOFF, A., MOR YOSEF, S., SEIDMAN, D.S., NAVOT, D., OHEL, G., SIMON, A., RABINOWITZ, R., SCHENKER, J.G.
The 1984 national perinatal census: design, organization and uses for assessing obstetric services in Israel.
Israel Journal of Medical Sciences; 25, 1989, no. 11, p. 629-34, refs.

A nationwide perinatal census was conducted in Israel, in which medical, social, ethnic and demographic information was collected on all births that took place in Israel within a predefined 3-month period. The present study is the first to include 22,814 births that took place in all the obstetric units in Israel. The perinatal mortality rate decreased from 23.7 in 1964-68 to 13 in 1983-84. The frequency of caesarean section deliveries almost doubled over the last decade, while the use of forceps decreased significantly and the use of vacuum extraction did not change. The rate of low birthweight, however, remained constant over the last two decades. The level of hospital care has been shown to be significantly associated with perinatal mortality. The Israeli Perinatal Census may be used to provide information needed for promoting priority objectives for pregnancy and infant health, such as improving health status, identifying risk factors,

increasing public and professional awareness, and improvement in services by protecting mother and fetus. Author.

SCHERJON, S.

A comparison between the organization of obstetrics in Denmark and The Netherlands.

British Journal of Obstetrics and Gynaecology; 93, 1986, no. 7, p. 684-89, refs.

A comparison was made between two types of obstetric organization: total hospitalization as in Denmark, and a system that allows a choice between hospital and home delivery, provided there are no medical contra-indications, as in The Netherlands. Until the end of the 1950s, the current Dutch view prevailed in Denmark. But Denmark reevaluated its organization in the late 1960s and adopted the international preference for total hospitalization. The change was not caused by disappointing obstetric results, nor was it the result of strong pressure from pregnant women. The change was associated with a considerable increase in instrumental deliveries. In both countries, the perinatal mortality rate decreased continuously, but in Denmark the improvement in early neonatal mortality was at a slightly faster pace. This difference may have occurred because of insufficient referral in The Netherlands of high-risk pregnancies and deliveries to the fully-equipped obstetric departments. The Dutch acceptance of a high proportion of home-confinements is unlikely to be the explanation. Author.

TORRES, A., REICH, M.R.

The shift from home to institutional childbirth: a comparative study of the United Kingdom and The Netherlands.

International Journal of Health Services; 19, 1989, no. 3, p. 405-14, 60 refs.

The British system of childbirth, with a very low rate of home childbirth is compared to that in The Netherlands, a country with a relatively high percentage of home deliveries. The analysis explores three possible explanations: the structure of the health professions in both countries, the structure of their individual health systems, and the use of scientific information in guiding policy decisions on birth place. Differences between the professional status and training programs of midwives in The Netherlands and the United Kingdom affected the distribution of home versus institutional deliveries in the two countries. Reimbursement schemes in The Netherlands have been important in maintaining a high percentage of births at home in this country. In the United Kingdom, centralized planning and the influence of medical thinking played major roles in accelerating the shift from home to hospital deliveries in the National Health Service. Author.

WAGNER, M.G.

Health services for pregnancy in Europe.

International Journal of Technology Assessment; 1, 1985, no. 4, p. 789-97, 8 refs.

The material presented and discussed in this paper is based on three surveys conducted by the Perinatal Study Group. The surveys are described in synopsis. The results show that all European countries have, as a part of their official system, a means for referring women found to have abnormal pregnancies, to more specialized care. This has been a keystone of the system. But there are variations among countries. This is because the risk system depends on the ability to *predict* abnormality. Another important characteristic of the systems of care during pregnancy is continuity, or lack of continuity. The great majority of the official systems in the European countries see pregnancy, birth and the period after birth, as three separate clinical situations requiring different clinical expertise, medical personnel, and clinical settings. Studies of the level of satisfaction of users with care during pregnancy find this lack of continuity as the most frequently dissatisfying aspect of care.

The role of health workers with respect to the care for pregnant women is changing over time. Based on what is known today about human resources used in pregnancy care, it appears that efforts should be made to have midwives play the central role in the overall care of women with uncomplicated pregnancies, with physicians assisting in the initial screening and in the management of pregnant women with abnormalities. With regard to health education, all 24 countries surveyed have classes offered to pregnant women. Fourteen of these countries have an official national policy mandating such classes as part of official care. The rate of attendance for these classes varies among the countries from 10% to 90% of all pregnant women.

It is clear that all present forms of care have great benefits. Unfortunately the hazards involved, particularly for iatrogenic conditions and with respect to negative social consequences, remain considerable.

2. Peri- and Postnatal Care by Midwives and General Practitioners

ADAMS, C.J.
Nurse-midwifery practice in the United States, 1982 and 1987.
American Journal of Public Health; 79, 1989, no. 8, p. 1038-39, 4 refs.

Surveys of certified nurse-midwives living in the United States were conducted in 1982 and 1987 on behalf of the American College of Nurse-Midwives. Most of the respondents were providing prenatal and family planning care. The 1982 respondents conducted 1.8% of the deliveries that took place in the United States during 1982 and 1988 respondents conducted 2.5% of all 1987 United States deliveries. Author.

ANDERSON, C.
Midwifery and the family physician.
Canadian Family Physician; 32, 1986, no. 1, p. 11-15, 13 refs.

Midwives have provided care for thousands of women who have given birth in their homes over the past 15 years in Canada. Their request for legalization of midwifery services is receiving serious consideration by the government of Ontario and Quebec. Fewer family physicians are practicing obstetrics, and those who are express concern for the safety of their patients who choose home births.

Consumers, however, argue that planned, midwife-attended birth at home is a safe option. Perinatal mortality rates are consistently low when the statistics on planned care are separated from those on unexpected home births. Midwifery services can complement the role of the family physician in providing continuity of care for the laboring woman. The Dutch domiciliary midwifery services demonstrate the possibility of this service being successful, but Canada must build a service designed for Canadian needs. Author.

BALABAN, D.J., ROSENTHAL, M.P., UNGEMACK, J.A., CARLSON, B.L., ZERVANOS, N.J.
Obstetric care among family physicians in Pennsylvania. Trends, association with residency training, and policy implications.
Journal of Family Practice; 31, 1990, no. 3, p.281-86, 17 refs.

A study was designed to investigate the status of obstetric practice by Pennsylvania family physicians and its relationship to family practice residency training. A 50% probability sample of all family physicians, and

of all graduates of Pennsylvania family practice residency programs was surveyed by mail. Ten per cent of Pennsylvania and general practitioners reported currently practicing obstetrics, 44% of whom said they planned to stop within 3 years. Telephone survey information from nonrespondents suggests that even fewer (5%) of the state's family physicians may actually be practicing obstetrics. Family practice residency training, postresidency obstetric training, and small community size were the best predictors of current obstetric practice. Family physicians in the smallest communities, however, were also those most likely planning to stop, and graduates of residency programs were increasingly choosing not to practice obstetrics. Cost of liability insurance and fear of lawsuits were primary reasons cited for stopping obstetrics. Family physicians have been major providers of obstetric care in the nation's rural areas. Now, increasingly firm evidence that fewer family physicians are practicing obstetrics signals increasing shortages in obstetric care for women in rural communities. Changes in the practice climate and obstetric training programs for family physicians seem essential to help reverse these trends. Author.

BENOIT, C.
The professional socialization of midwives: balancing art and science.
Sociology of Health and Illness; 11, 1989, no. 2, p. 160-80, refs.

Mastery of esoteric knowledge is one of the central qualifications assigned by sociologists to fully professionalized service occupations, together with an orientation towards public service. There are, nevertheless, different views about the best way in which this education and socialization can be provided for new recruits for practitioner roles. Some maintain that the university provides an ideal training ground. Critics of this view, however, call for a rejection of *university diploma mills* and a return to the type of apprenticeship socialization common during the premodern era. This paper tests the usefulness of these perspectives in understanding the occupational socialization of Newfoundland and Labrador midwives. Three major styles of training can be discerned: traditional apprenticeship, vocational schooling, and university education. In comparison to both apprenticeship and academic styles of occupational socialization, only vocational training satisfactory blended the art and science of midwifery in order to produce competent and committed professionals. Author.

BERGHS, G.A.H., SPANJAARDS, E.W.M.
De normale zwangerschap: bevalling en beleid. Een prospectief onderzoek naar de resultaten van 1034 normale zwangerschappen in de eerste- en tweedelijns verloskundige zorg, gemeten aan de neurologische conditie van de pasgeborene. Nijmegen: s.n., 1988. Ph.D.-thesis with a summary in English, refs., app.

In this study the course of labor and the neonatal outcome were prospectively investigated in 638 deliveries attended by midwives, 128 by general practitioners and 268 by obstetricians. All pregnancies were low risk and the neonates were neurologically investigated according a procedure protected against investigator bias. Deliveries attended by midwives and general practitioners were mainly home deliveries. The obstetricians had attended only deliveries in hospital, using continuous *Electronic Fetal Monitoring*. It showed that primiparous deliveries had been more laborious than multiparous deliveries and that the firstborns neurological condition was less optimal.

The deliveries attended by the obstetricians had the highest intervention rate. There were no differences in neonatal neurological outcome in babies born with a midwife, general practitioner or an obstetrician as attendant. Regression analysis showed that perinatal variables like, duration of second stage of labor, operative vaginal delivery, caesarean section, PH of umbilical artery blood, or Apgar-score affected the neonatal neurological outcome only slightly.

In addition the use of the intrapartal *Electronic Fetal Monitoring* in the hospital deliveries attended by the obstetricians was evaluated. With the registered values of inter- and intra-observer variability and validity to diagnose fetal distress, intrapartal *Electronic Fetal Monitoring* is not likely to improve obstetrical care in low risk pregnancies.

It was concluded that home obstetrics by midwives and general practitioners can be a safe alternative for hospital deliveries. Author.

BREDFELDT, R., COLLIVER, J.A., WESLEY, R.M.

Present status of obstetrics in family practice and the effects of malpractice issues.

Journal of Family Practice; 28, 1989, no. 3, p. 294-97, 9 refs.

A survey of 800 active members of the American Academy of Family Physicians 1985-1987 membership directory was conducted for the purpose of determining the impact, over time, of malpractice issues upon the practice of obstetrics by family physicians. The survey response rate was 60.4 per cent.

Almost 20 per cent of all respondents reported that they have never provided obstetric care of any type. Another 40 per cent have provided obstetric care previously, but have now discontinued the practice of obstetrics because of the increased risk of malpractice, litigation increased significantly over the years from 1947 to 1986 ($P=0.0084$). The proportion of respondents who discontinued obstetric practice because of increased malpractice insurance costs, also increased significantly from 1945 to 1986 ($P=0.0002$). The proportion of those entering practice during the past five

years who decided not to offer obstetric practice services because of malpractice risks was significantly greater than the proportion entering practice earlier (21.0 per cent vs 2.0 per cent, P=0.0090). Although the current patterns of obstetric practice showed regional variation, the accelerating impact of malpractice risk and insurance costs on these patterns was similar throughout the nation. Author.

BRYCE, R.
Social and midwifery support.
Baillière's Clinical Obstetrics and Gynaecology; 4, 1990, no. 1, p. 77-88, refs.

This article sums up the limitations of medical support during pregnancy and *'traditional'* antenatal care. The author highlights alternative sources of support, particularly the additional roles of family workers, such as the *travailleuse familiale* of France, and of lay midwives, who are in a good position to provide effective, expressive social support to pregnant women. Certified midwives or nurse-midwives generally work in hospital settings with varying degrees of medical supervision. In general, the more independent the practice, the lower-risk the clientele.

In a next section the author deals with the effects of antenatal education, of enhanced antenatal care, of care by midwives on physical outcome, and of the effects on psychological and behavioral outcome. The author states that retrospective and prospective studies of social support in pregnancy have generally found an association between poor social support and adverse pregnancy outcomes.

In the last section the author concludes that the preceding evidence supports antenatal care and delivery by a midwife, either acting under the supervision of a doctor or acting independently, as an option that should be available to pregnant women. The case for actually replacing the current system of antenatal care with a system provided by independent midwives would be strengthened by the inclusion of a cost-effectiveness analysis, in future trials, of care by midwives compared with medical care.

BRYCE, F.C., CLAYTON, J.K., RAND, R.J., BECK, I., FARQUHARSON, D.I.M., JONES, S.E.
General practitioner obstetrics in Bradford.
British Medical Journal; 300, 1990, no. 6726, p. 725-27, 11 refs.

The standard of obstetric care by general practitioners in Bradford was assessed by reviewing the case records of all women who were booked for delivery under their general practitioner in 1988 but subsequently required transfer to consultant care. A total of 5885 women were delivered in Bradford during 1988. Of 1289 booked under their general practitioner, 637 required transfer to consultant care. In 259 cases, transfer occurred,

during labor. Only 37 of these women were visited by their general practitioner. Many of the problems that precipitated transfer were predictable, and some were considered preventable. 263 Of the women transferred were considered unsuitable for booking by general practitioners.

The perinatal mortality among women booked under their general practitioner was 10.1/1000 and the stillbirth rate 7.8/1000. These figures are high and suggest a need for tighter controls over the qualifications and experience of doctors participating in a fully integrated system of obstetric care. Author.

BUHLER, L., GLICK, N., SHEPS, S.B.
Prenatal care: a comparative evaluation of nurse-midwives and family physicians.
Canadian Medical Association Journal; 139, 1988, no. 5, p. 397-403, refs.

We evaluated the prenatal care provided to 44 low-risk women by nurse-midwives (NMs) at a special clinic of a large obstetric referral hospital, and a sample of 88 low-risk women attended by family physicians (FPs) in their offices. The women were matched on the basis of date of delivery, age, parity, number of previous miscarriages, gravidity, socioeconomic status and delivery after 32 weeks of gestation. The Burlington Randomized Controlled Trial criteria, which reflect community standards of care, were updated and used to assess the information, which was provided on standard provincial prenatal care forms. Scoring was carried out blindly, and interrater reliability was high. A highly significant difference was found in the proportions of NM and FP charts that were rated adequate, superior or inadequate: 77% v. 24%, 7% v. 16% and 16% v. 60% respectively. The rate at which procedures were omitted (leading to an inadequate score) in the categories of initial assessment, monitoring and management, also varied between the two patient groups. These findings, even when considered in terms of several biases that may have resulted in the high proportion of NM charts rated at least adequate, suggest that NMs provide prenatal care to low-risk women that is comparable, if not superior, to the care provided by FPs. Author.

BUTTER, I.H., KAY, B.J.
State laws and the practice of lay midwifery.
American Journal of Public Health; 78, 1988, no. 9, p. 1161-69, 15 refs.

A national survey was conducted to assess the current status and characteristics of state legislation regulating the practice of lay midwives. As of July 1987, 10 states have prohibitory laws, five states have grandmother clauses authorizing practicing midwives under repealed statuses, five states have enabling laws which are not used, and 10 states

explicitly permit lay midwives to practice. In the 21 remaining states, the legal status of midwives is unclear. Much of the enabling legislation restricts midwifery practice, often resulting in situations similar to those in states with prohibitory laws. Given the growth of an extensive grassroots movement of lay midwives committed to quality of care, this outcome suggests that 21 states with no legislation may provide better opportunities for midwifery practice than states with enabling laws. Author.

BUTTER, I.H., KAY, B.J.

Self-certification in lay midwives' organizations: a vehicle for professional autonomy.

Social Science and Medicine; 30, 1990, no. 12, p. 1329-39, 10 refs.

The recent resurgence of lay midwifery in the United States has been closely connected to the establishment of grassroots organizations which address women's health issues and make the recent reappearance of the lay midwife a different kind of phenomenon than was the case earlier this century. This paper describes the organizational structure of 32 lay midwives' organizations and compares them to a model of alternative women's health groups, as well as more traditional health professional organizations. Are lay midwives' groups the beginnings of new professional organizations which eventually will become part of the dominant system, or do they model themselves more closely after alternative women's health groups? Voluntary self-certification in five lay midwives' groups is described in detail as a means of determining how a group handles the question of integration with, or separation from, the existing medical care system. Certification plays a critical role in promoting acceptance and credibility of midwifery practice and is seen increasingly as a mechanism to preempt regulation by another body. Author.

CROUSE, B.J.

Family physicians' involvement in obstetric care. Rural northeastern Minnesota and northwestern Wisconsin.

Journal of Family Practice; 28, 1989, no. 6, p. 724, 727, 8 refs.

Although providing obstetric care has been an integral part of family practice since its acceptance as a specialty, in a number of states more than 90% of the family physicians are dropping obstetrics from their practices. Regional differences in the numbers of family physicians doing obstetrics have been noted in the past. The North Central states are a region in which obstetrics has been a nearly universal component of the practice of family physicians. The study reported here examined an area of the North Central region of the United States in which the level of

family physicians' involvement in obstetrics, as well as their plans for continuing obstetrics, was measured. Author.

DEVRIES, R.G.
Regulating birth: midwives, medicine and the law.
Philadelphia: Temple University Press, 1985. A volume in Health, Society, and Policy-series, app., notes, refs., ind.

This book explores the laws which regulate midwives, including how such laws came into existence and the way they affect the care given to mothers and babies by midwives.

Inspired by a personal concern for quality maternity care, this book uncovers the subtle ways legislation alters the profession, demonstrating both beneficial and detrimental consequences.

Focusing on three states, Arizona, Texas, and California, that are currently struggling with the legal status of midwives, the author provides an ideal comparison of the various regulations, ranging from licensure in Arizona, through loose control in Texas, to outright prohibition in California. He combines interviews with midwives, their clients, legislators, lobbyists from medical professional groups, and medical professionals who work with midwives, with a review of the history of midwife regulation to illustrate the impact different regulatory measures have on the profession.

While licensure and regulation provide midwives with the immediate benefits of legitimacy, their profession is a changing one, standardized by set training programs and depersonalized by controls on the relationship between midwife and client. Ironically, most of these changes work to reduce the innovative and beneficial features to midwifery. The author contends that these lessons are also applicable to other medical professions. He concludes by detailing the ways in which health care delivery is influenced by the dynamic relationship between medicine, law, and society. Publisher.

GRAVA-GUBINS, I., BAIN, S.T., EDNEY, R.
The family doctor in obstetrics: who's looking after the shop?
Canadian Family Physician; 33, 1987, no. 12, p. 2693-701, 7 refs.

This article constitutes a report on a survey of 1338 family physicians/general practitioners in Ontario. The survey, which achieved a response rate of 74%, investigated respondents' patterns of obstetrical practice and attitudes towards practice. The detailed statistics that were collected show a decline in FP/GP involvement in obstetrical care.

Physicians who had never practiced obstetrics mentioned as their chief reasons, inadequate training and lack of interest. Physicians who had given up obstetrical practice most frequently mentioned its interference with

personal and family life, interruption of office schedule, rising CMPA fees, and low financial incentives as reasons for their decision. In the youngest group of respondents, no significant differences were found between males' and females' rates of choice to practice or not to practice obstetrics. Respondents who had never practiced obstetrics were likely to live in larger communities, and those practicing obstetrics to live in smaller communities. Various changes in patterns of practice were identified by some respondents subsequent to their giving up obstetrics. A large majority of this group expressed satisfaction with those changes. Over half the respondents stated that they would accept well-trained midwives practicing under supervision in a hospital setting. A strong majority of respondents favored the concept of family physicians with a special interest in obstetrics taking over, the obstetrical cases declined by their colleagues, either alone or in association with obstetricians and/or midwives. Author.

HÅKANSSON, A.

Antenatal care in general practice in Sweden (1): a descriptive study of problems, measures and outcome in a defined population.

Scandinavian Journal of Primary Health Care; 6, 1988, no. 3, p 137-42, 16 refs.

This study followed the progress of 143 expectant mothers from their registration at the antenatal clinic, through delivery, to postnatal check-up. The population was an all-inclusive material from a well-defined geographical area. All problems arising and their treatment or other measures, were recorded at the district antenatal clinic, at the district Health Centre, at the hospital antenatal clinic, and at the Department of Obstetrics and Gynaecology. Common problems were backache and abdominal pain, infections in the vagina or in the urinary tract, and threat of miscarriage or premature birth. About 40% of the women had received at least one medical prescription during pregnancy, and a similar proportion were put on the sicklist at some time. The outcome of delivery in the studied material was comparable with figures found in Sweden in general and in accordance with results reported from Great Britain. Author.

JACOBSEN, G.

Antenatal care in general practice, Trondheim, Norway.

Scandinavian Journal of Primary Health Care; 7, 1989, no. 1, p. 27-32, 24 refs.

In this study from the city of Trondheim during 1979-81 nulliparae were found to be younger, higher educated, and more active, namely more working outside the home than parous women did. Most women were examined by their GP during the first trimester, and were with an average of 10 times during pregnancy. Women who smoked tended to consult

their GP later in pregnancy than non-smokers. Drugs were prescribed for 33% of the women during pregnancy, 10% during the first trimester. Medication was most frequently prescribed for genitourinary disorders. Sick leave was often the result of low-back-pain and lasted on average 5 weeks longer in parous women. Hospitalization was most often due to hypertension and threatened premature labor and lasted, on average, longer among nulliparae. Controlled trials are needed to evaluate future antenatal care provision in the light of pregnancy outcome. Author.

KAY, B.J., BUTTER, I.H., CHANG, D., HOULIHAN, K.
Women's health and social change: the case of lay midwives.
International Journal of Health Services; 18, 1988, no. 2, p. 223-36, 13 refs.

One reaction to the medicalization of birth has been the comeback of lay midwives in the past 10 years. While many practice independently, as did midwives 80 years ago, nowadays midwives are networking and organizing in regional and statewide groups, an important new distinction in light of the increasing regulatory policy formation by many states. Are these groups the beginnings of traditional, bureaucratic health-professional organizations, or are they better described as alternative women's health groups that espouse non-hierarchical philosophies of women's health? In this article, the authors describe an empirical study of one such group, the Michigan Midwives' Association, and explore the philosophies and practices of individual members as well as the internal organization of the group and its influence on members. Data were collected by means of individual telephone interviews with 48 of 50 members, group newsletters and documents, and two spokespersons who had developed an oral history of the Association since its origin in 1978. Results suggest that the group plays an important role in reinforcing individually held philosophies about women-controlled birth in providing social support to health workers practicing outside the traditional system. Authors.

KRUSE, J., PHILLIPS, D., WESLEY, R.M.
Factors influencing changes in obstetric care provided by family physicians: a national study.
Journal of Family Practice; 28, 1989, no. 5, p. 597-602, 11 refs.

In an effort to determine the factors underlying changes in obstetric practice by family physicians, a random sample of 505 residency-trained family physicians was surveyed by mailed questionnaire. Of the 329 who responded, 65% had at some time practiced obstetrics, but only 45% were practicing obstetrics at the time of the survey. Rising malpractice insurance premiums and fear of lawsuits were factors most likely to influence a family physician's decision to cease obstetric practice. Lifestyle concerns

and the number of obstetricians practicing in the area were also important factors for the family physicians. Important differences were found between family physicians who never delivered babies and those who had, at some time, practiced obstetrics. Family physicians who had given up obstetric practice were found to feel well trained and competent in this practice. Since changes in obstetric practice patterns have had an adverse effect on the obstetric care of women in rural areas and for the medically indigent, these findings have important public health implications. Author.

KRUSE, J., PHILLIPS, D., WESLEY, R.M.
Withdrawal from maternity care. A comparison of family physicians in Ontario, Canada, and the United States.
Journal of Family Practice; 30, 1990, no 3, p. 336-41, refs.

To determine the relative importance of factors influencing the withdrawal of family physicians from maternity care, two studies, one performed in Ontario, Canada, and the other in the United States, were compared. The proportion of residency-trained family physicians who provide maternity care at the beginning of their careers and the proportion who have given up maternity care are nearly identical in the United States and Canada. Both studies found that about one half of the family physicians who currently provide maternity care were considering stopping. The reasons underlying this withdrawal were manifold. Malpractice issues were the predominant concern of United States family physicians, but the data from the studies indicate that other issues, such as interference with lifestyle and office practice and the effect of attitudes of obstetricians, should not be overlooked. Author.

LOUDON, I.
Obstetrics and the general practitioner.
British Medical Journal; 301, 1990, no. 6754, p. 703-07, 30 refs.

An historical overview is given of the relationship between obstetrical care and the general practitioner in several countries. Trends in maternal mortality rates and the percentage of home deliveries are presented. Attention is paid to developments in the area of the NHS and legislation.

MARSH, G.N., CHANNING, D.M.
Audit of 26 years of obstetrics in general practice.
British Medical Journal; 298, 1989, no. 6680, p. 1077-80, 6 refs.

To assess the feasibility and quality of general practitioner obstetrics, an audit of 1223 consecutive obstetric deliveries over 26 years was carried out with standard clinical records. The perinatal mortality of 9.0 per 1000 births was significantly better than the national average of about 19.0 per

1000 for the overall period. During the audit home deliveries virtually stopped. The proportion of consultant bookings and deliveries more than doubled because of more stringent booking arrangements, despite relocation of the previously isolated general practitioner unit to beneath the consultant unit. Abnormal deliveries also rose significantly. A '*steady state*' was achieved during the final 11 years in which 73% of women who were booked to be delivered by their general practitioner, 64% were admitted to the general practitioner unit, and 54% were delivered by their general practitioner. Though these numbers are enough to sustain obstetric experience, the proportion might safely be increased. Author.

PHILLIPS, W.R.
Obstetrics in family practice: competence, continuity, and caring.
Journal of Family Practice; 20, 1985, no. 6, p. 595-96, 6 refs.

This paper pleads for an extended role of the family physician in obstetric care. The author argues that family physicians can and should be trained to provide high-quality care to the majority of pregnant women. The current training standards provide the knowledge and skills that enable graduates to provide high-quality obstetric care. Studies prove this vision to be valid: delegation of obstetric care to obstetricians and gynecologists does not guarantee better management of emergency situations in the delivery room. The decision of practicing obstetrics is a highly personal professional decision for the family physician.

REYNOLDS, J.L., YUDKIN, P.L., BULL, M.J.V.
General practitioner obstetrics: does risk prediction work?
Journal of the Royal College of General Practitioners; 38, 1988, no. 312, p. 307-10, 17 refs.

The effectiveness of antenatal risk prediction based on maternal characteristics at booking was examined among 5730 pregnant women booked in an integrated general practitioner obstetric unit over a seven-year period. High rates of transfer to consultant care were found, especially for nulliparae. Apart from parity, maternal factors associated with transfer before labor were weight, smoking and social class. Factors associated with transfer in labor were maternal stature and marital status. Reasons for transfer were also identified. The validity of the present booking criteria, which were developed in the 1950s, is questioned. Author.

ROBINSON, S., THOMSON, A.M. (EDS.)
Midwives, research and childbirth.
London: Chapman and Hall, 1989/1991, Vol. I, Vol. II, refs.

Series which brings together studies of particular relevance to the care provided by midwives for childbearing women and their families. It is based on the premise that midwifes in Britain are qualified to provide care on their own responsibility throughout pregnancy, labor and the puerperium, to recognize those signs of abnormality that require referral to medical staff, and to provide advice, information and support from early pregnancy to the end of the postnatal period. Against this yardstick the topics of the papers included within the series has to be judged. In the broadest sense criteria for inclusion, is research that is of particular relevance to the care provided by midwives. This includes studies concerned with clinical procedures, with the provision of advice, information and support, with responsibility for decision-making about the management of care, and with women's views and experiences of the care that they receive. Examples of titles of papers are: *Continuity of care provided by a team of midwives*, *Perinatal care: a series of five randomized controlled trials* etcetera.

SAKALA, C.

Content of care by independent midwives: assistance with pain in labor and birth.

Social Science and Medicine; 26, 1988, no. 11, p. 1141-58, 102 refs., app.

The proliferation of alternative health care systems in the United States raises numerous policy issues involving (1) those providing and receiving alternative services and (2) the established medical care system. This paper identifies some of these issues by examining an alternative system of independent (lay) midwifery and, in particular, midwifery approaches to pain during uncomplicated labor and birth. The paper summarizes medical care system approaches to pain in labor and birth. Leading textbooks, prevailing topics in the journal literature, and empirical research reports are consistent in giving primary emphasis to analgesic and anesthetic drugs, accepting childbirth preparation, and questioning the efficacy of other approaches. The practices of independent midwives working in metropolitan areas of Utah are strikingly different. The midwives, who oppose any use of conventional obstetric pain medications, have a diverse repertoire of alternative approaches, including prenatal preparation, various physical manipulations, hydrotherapy, administration of herbs and nutritive substances, breathing and relaxation techniques, and psychological techniques. The midwives emphasize responsiveness to the needs of a particular woman at a particular time. They enhance and mobilize the resources of the mother and her support network for therapeutic ends. Their work emphasizes innovation and exploration. Relative to medical practices, midwifery practices seem to involve low

iatrogenic risks, to be cost-effective, and to be appreciated by those seeking empowerment and minimal intervention in childbirth. It is recommended that these practices be formally evaluated for safety, efficacy, consumer acceptability, cost-effectiveness, and their potential for a favorable impact on the practice of medical obstetrics. Author.

SAVAGE, W.
Changing attitudes to intervention. Midwives' Journal.
Nursing Times; 82, 1986, no. 22, p. 63-64, 9 refs.

Is it possible to reverse the rise in the number of caesarean sections? The author suggests that professionals must learn how to communicate more effectively, evaluate changes in practice more critically and relearn about normal labor. Author.

SMITH, M.A., GREEN, L.A., SCHWENK, T.L.
Family practice obstetrics in Michigan. Factors affecting physician participation.
Journal of Family Practice; 28, 1989, no. 4, p. 433-37, refs.

The purpose of this study was to describe the characteristics of family physicians in Michigan who practice obstetrics, and to identify important factors relating to decision, to discontinue obstetric practice. Questionnaires were mailed to all members of the Michigan Academy of Family Physicians (MAFP) who were listed as currently practicing obstetrics. Two hundred ninety-one questionnaires from the 357 mailed questionnaires were returned for a response rate of 81.5 per cent. Two hundred thirty-five of the 291 respondents (80.8 per cent) were practicing obstetrics in 1986. Twenty-two of the 235 physicians (9.4 per cent) planned on discontinuing obstetric practice by early 1987. Reasons for discontinuing obstetrics included malpractice liability risk and cost, and interference with lifestyle. Physicians who had recently discontinued, or were planning to discontinue obstetric practice, were significantly less likely to be affiliated with a residency program, than were physicians practicing obstetrics (33 per cent vs 58 per cent). While malpractice concerns were found to be an important factor in deciding to discontinue the practice of obstetrics, practice arrangements and educational affiliations were other important factors that may be more amenable to change through educational or administrative interventions. Author.

TEIJLINGEN, E. VAN, MCCAFFERY, P.
The profession of midwife in The Netherlands.
Midwifery; 3, 1987, no. 3, p. 167-86, refs.

Community midwives in The Netherlands have a greater degree of autonomy in relation to the medical profession than midwives in most

countries. They are independent practitioners who take full responsibility for providing continuous care for healthy women who are pregnant, and for conducting antenatal assessments to ensure that those women with pathology are referred to hospital specialists. The midwives attend over 40% of all deliveries, more than half of which take place in the mother's home (the remainder being short-stay hospital births). General practitioners (GPS) are precluded by health-insurance regulations from receiving payment for maternity care, except in rural areas where no community midwife is available. Midwives are assisted in home deliveries by maternity home helps, who also take on household tasks for mothers during the first few days. This service is used by more than two-thirds of all mothers, since it is also available after a hospital birth. Its availability helps to explain the continuing high percentage of home confinements in The Netherlands (36%). The Dutch system, giving midwives a high degree of responsibility and financial independence, can give rise to tensions between midwives and obstetricians, but it limits unnecessary medicalization of childbirth. Author.

THOMAS, H., DRAPER, J., FIELD, S., HARE, M.J.
Evaluation of an integrated community antenatal clinic.
Journal of the Royal College of General Practitioners; 37, 1987, no. 305, p. 544-47, 27 refs.

The obstetric outcome and experience of care of 96 pregnant women attending an integrated community antenatal clinic staffed by general practitioners, a community midwife and an obstetric accredited senior registrar were compared with those of 100 women receiving traditional shared antenatal care. The views of the women and their practitioners were sought; obstetric data were obtained from obstetric notes, hospital records and cooperation cards.

Fewer women attending the community clinic suffered from hypertension than women receiving shared care. The women attending the clinic reported that it had a friendly, relaxed and personal atmosphere. They also reported less inconvenience and shorter waiting time for the obstetrician than women receiving shared care. They received greater continuity of care from the obstetrician but less from the general practitioners and community midwives than the control women. There was greater satisfaction with communication with staff among women attending the clinic, with the exception of the midwife whose role was not sufficiently well delineated. Practitioners in the integrated scheme appreciated the close working arrangements but experienced an increase in administrative tasks. Author.

TOWLER, J., BRAMALL, J.
Midwives in history and society.
Londen: Croom Helm, 1986. app., ind.

The book starts with a brief outline of the time prior to any recorded mention of the midwife in Britain, and shows how her evolution has been influenced by cultural waves which started in the Near East and Egypt in pre-classical times and slowly spread northwards and eastwards over the whole of Europe. Through different ages the midwife and her role have been closely linked to the social and religious life of the time. Her status has fluctuated according to the changing status of women. and the value placed on life in different cultures at different times in history.

In Greece, during the Classical era, midwives were mostly educated women and enjoyed fairly high social standing. After that time their status fell and remained low for hundreds of years. In medieval Europe, because of her *'professional'* activities, she was vulnerable to accusations of involvement with witchcraft and magic. As the midwife was typical of the society in which she lived, she was the product of a culture where women were kept illiterate until the late 19th century. There were a few outstanding exceptions to this rule and their contributions to the art of midwifery are documented.

By the late 19th century, the growing involvement of male doctors in childbirth provoked a struggle for statutory recognition of the midwife, finally achieved in the first Midwives Act in 1902. The evolution of the educated qualified midwife of the 20th century is recorded, leading up to the current debates on high technology birth versus natural birth and home deliveries.

The authors have researched a large number of before unreported time archives and the book comes at an important time for the profession, with the recent re-organization of the administration of nursing and midwifery. Cover.

WEITZ, R.
Licensed lay midwifery and the medical model of childbirth.
Sociology of Health and Illness; 7, 1985, no. 1, p. 36-54, refs.

Previous research has tended to equate lay midwifery with demedicalized care. This paper analyzes how licensed lay midwives in Arizona have been pressured towards a more medical model of childbirth. Licensing has affected midwives' beliefs and practices by increasing their exposure to medical definitions of childbirth, and making them legally accountable to the medically dominated State Department of Health Services. The midwives' cumulative experience handling obstetrical problems has also affected their definitions of childbirth. The midwives have maintained a

commitment to holistic care, but have moved toward a more hierarchical style of practice due to changes in their clientele, the need for efficient bureaucratic arrangements, and the desire to earn a living at midwifery. Author.

3. Interaction between Primary and Secondary Obstetric Care

BRANDT GRAHAM, S., CATANZARITE, V., BERNSTEIN, J., VARELA-GITTINGS, F.
A comparison of attitudes and practices of episiotomy among obstetrical practitioners in New Mexico.
Social Science and Medicine; 31, 1990, no. 2, p. 191-201, 13 refs.

The routine use of episiotomy is a subject of considerable controversy. To delineate attitudes and practices, the authors surveyed various groups of obstetrical practitioners in New Mexico. Routine use was favored most by obstetricians, less by family practitioners, even less yet nurse midwives and least by lay midwives. Many of the reasons given both for and against routine use were the same, underscoring the lack of scientific data and prospective studies of episiotomy and its effects. Author.

BRITISH ASSOCIATION OF PERINATAL MEDICINE WORKING GROUPS
Referrals for neonatal medical care in the United Kingdom over one year.
British Medical Journal; 298, 1989, no. 6667, p. 169-72, 9 refs.

A survey of referrals for neonatal medical care was conducted by neonatal pediatricians in the United Kingdom from 1 August, 1986 to 31 July, 1987. It was intended to estimate the unfulfilled need for neonatal medical care and to find out what transpires when an attempt to transfer a pregnant woman or a baby has proved unsuccessful. A total of 3734 attempts has been made, of which 1646 were for in utero cases and 2088 for postnatal cases. Nationally, about 9% of the attempts to transfer (331) were unsuccessful. In most regions a high proportion of attempts that were eventually successful had taken a considerable amount of time to arrange. It was concluded that, despite a twofold increase since 1980 in the number of cots available for neonatal intensive care, arrangements for such a provision, in the UK are not adequate to meet every request for transfer. No health region in England, or country in the UK, was able to meet each and every request immediately, and some regions had great difficulties in arranging even those transfers that had been accepted. Such delays in transfer may lead to appreciable extra morbidity and considerably costs in future. Author.

CRAIG, A.S., BERG, A.O., KIRKWOOD, C.R.
Obstetric consultations during labor and delivery in a university-based family practice.
Journal of Family Practice; 20, 1985, no. 5, p. 481-85, 10 refs.

This study retrospectively examined the use of obstetrical consultants by family medicine residents and faculty at the University of Washington Hospital from the 1th of July, 1980 to the 30th of June, 1981. Of 125 deliveries, 104 (83 per cent) were vaginal deliveries, 99 per cent of which were performed by the family physician involved. There were 21 (17 per cent) caesarian sections.

Before the audit began, 13 complications of labor and delivery were established as criteria suggesting the need for consultation. Medical records were retrospectively examined for meeting these criteria. Formal consultations occurred in 32 per cent of all deliveries. Of the patients with at least one of the 13 complications, 75 per cent had obtained consultation. Patients with these complications had intrapartum risk scores that were significantly higher than patients without the listed complications. Apagar scores at 1 and 5 minutes were significantly lower in the group of patients who met the consultation criteria (7.0 vs 8.0 at 1 minute; 8.3 vs 9.0 at 5 minutes).

The criteria successfully identified a group of high-risk patients and could be an appropriate guide for decision making in the specific setting studied. Patients without one of the predetermined complications had a low rate of surgical intervention (cesarian section or midforceps deliveries); the negative predictive value was 98 percent. Author.

HÅKANSSON, A.

Antenatal care in general practice in Sweden (2): a study of work allocation between district physician and obstetrician.

Scandinavian Journal of Primary Health Care; 6, 1988, no. 3, p 143-48, 14 refs.

In this study, 143 women were carefully observed throughout their pregnancy. The population was an all-inclusive material form well-defined geographical area. Altogether 688 visits to the physician and 1504 visits to the midwife were registered. At the district antenatal clinic about 80% of the mothers could be helped by the district midwife and the district physician. About 10% required some specialist attention, while the remaining 10% required attention at the hospital antenatal clinic. The district physician dealt with 62% of the obstetric problems and 75% of the non-obstetric problems. The cases referred to the hospital antenatal clinic (20%) had a high proportion of complications, e.g. 54% of the caesarean sections and 43% of the babies sent to the neonatal clinic. Author.

HEMMINKI, E., MALIN, M., KOJO-AUSTIN, H.

Prenatal care in Finland: from primary to tertiary health care?

International Journal of Health Services; 20, 1990, no. 2, p. 221-32, refs.

Traditionally, the Finnish prenatal care system has been based on special maternity centers outside hospitals. In recent years, however, the use of hospital outpatient clinics has increased. The purpose of this study was to describe the use of the clinics and to see whether clinics serve as an addition to or as an alternative for maternity centers. The authors used several different data sources (statistics, documents, interviews, questionnaires). The main source consisted of data on visits for all women who gave birth in Helsinki in a five-week period in 1987. The content of care and means of care delivery differ between clinics and maternity centers. Clinics are technologically and provider-oriented and, without continuity of care. Clinics are not just referral centers for high-risk mothers; at least half of the pregnant women visit them. Ultrasound screening is an important reason for the use of clinic. Background characteristics, as well as the outcome of pregnancy, were similar among women visiting a hospital clinic with a maximum of one time (low users), two to three times, or four times or more (high users). When the data were standardized for the length of gestation, high users made fewer visits to maternity centers than did low users. Hospital clinic care now seems to replace care in maternity centers, and the authors found a weak trend toward a pluralistic prenatal care. Author.

HUBERT, B., BLONDEL, B., KAMINSKI, M.

Contribution of specialists to antenatal care in France: impact on level of care during pregnancy and delivery.

Journal of Epidemiology and Community Health; 41, 1987, no. 4, p. 321-28, refs.

This study was based on a survey of a national sample of births in France in 1981 which included 5508 women. Four pathways of antenatal care were defined according to the stage of pregnancy at first intervention of a specialist, as opposed to a general practitioner. Taking into account the socio-demographic and medical characteristics of the women in a logistic regression, a large number of antenatal visits, an ultrasound examination, and hospitalization during pregnancy were more frequent when the degree of specialization of the pathway increased. But the influence of pathways was less significant for deliveries. Caesarean section rates, for example, did not vary according to pathway. However, induction of labor and intrapartum *electronic fetal monitoring* were less frequent among women who were cared for solely by a general practitioner than among those who had consulted a specialist at least once during pregnancy. The increase in medical care and the role of the specialist in antenatal care are discussed. Author.

JAMES, M.L., HUDSON, C.N., GEBSKI, V.J., BROWNE, L.H., ANDREWS, G.R., CRISP, S.E., PALMER, D., BERESFORD, J.L.

An evaluation of planned early postnatal transfer home with nursing support.

Medical Journal of Australia; 147, 1987, no. 9, p. 434-35, 437-38, refs.

A community-based program of planned early postnatal transfer home with the continuity of hospital nursing care was instituted in a defined geographic area of the western suburbs of Sydney in 1983. Provided that certain medical and social criteria were met, mothers were offered the option of discharge in 24-48 hours after delivery, with home visits by a hospital midwife. An evaluation of the program with regard to morbidity, psychosocial impact on the family and costs was made. For evaluation, a quasi-experimental study of parallel groups was designed in preference to randomized selection, as it was believed that personal choice would be fundamental to the success of the scheme. A contemporary control group was achieved with volunteer mothers who opted for the traditional five- to seven-day hospital stay. Studies of maternal response and the partner's response and adjustment were undertaken, which included the administrative use of questionnaires that were designed to detect the presence of mild postnatal depression. No increased morbidity occurred in the early discharge group. The early discharge group performed more favorably on the questionnaire that was designed to measure their postpartum adjustment. Continued postnatal domiciliary surveillance reduces the risk that early neonatal pathological changes, especially jaundice, may be overlooked. Author.

KEIRSE, M.J.N.C.

Interaction between primary and secondary antenatal care, with particular reference to the Netherlands.

In: Effectiveness and satisfaction in antenatal care, Enkin, M., Calmers, I. (eds.), London: Heineman, 1982, p. 222-33, app., refs.

Antenatal care has evolved greatly over the past 25 years. Some changes i.e. have been investigated for obstetrical reasons, others have resulted from socio-economic, educational and political measures.

Despite the many differences thus introduced, there are at least three common trends to be discerned throughout Europe. First, antenatal care now reaches a larger proportion of pregnant women. Second, antenatal care relies increasingly on the use of modern technical advances. Third, childbirth itself has largely shifted from the domestic scene or the semi-domestic maternity unit to more technically equipped and specialist-staffed units. This tendency is eminently obvious in The Netherlands, which has long been the stronghold of home delivery in Western Europe.

In The Netherlands, the distinction between primary and secondary antenatal care is highly artificial and unrealistic for two reasons. First, as everywhere, true primary antenatal care is provided by the pregnant woman herself. Second, it ignores the fact that the antenatal care provided by a specialist, is not necessarily better than given by a first-line health worker. This position is elaborated in this chapter with respect to the organization, the general regulations, and the financial arrangements of the health-insurance system.

KELEHER, K.C, MANN, L.I.
Nurse-midwifery care in an academic health center.
Journal of Obstetrics, Gynecology and Neonatal Nursing; 15, 1986, no. 5, p. 369-72, refs.

A study was conducted under 1,966 women who registered in a certified nurse-midwife (CNM) program for pregnancy and delivery at an academic health center. Eleven per cent were either medically disqualified or voluntarily transferred out of the program. Of the 1,852 women who entered labor, 46.5% required MD consultation, most often for dysfunctional labor patterns. The primary caesarean section rate was 10.4%. The corrected perinatal mortality rate was 3.80/1,000 births. CNM care is a safe, cost-effective, and sought-after alternative to MD-only care for low-risk women within a tertiary care setting. Author.

KRUSE, J., PHILLIPS, D.M., WESLEY, R.
A comparison of the attitudes of obstetricians and family physicians toward obstetric practice, training, and hospital privileges of family physicians.
Family Medicine; 22, 1990, no. 3, p. 219-25, refs.

Responses of national samples of 329 residency-trained family physicians and 237 obstetricians were studied to determine the attitudes of family physicians and obstetricians toward the practice of obstetrics by family physicians. The attitudes of obstetricians and family physicians varied greatly, and the attitudes of obstetricians toward obstetric care provided by family physicians tended to become less supportive following the time of the obstetricians' training. In particular, obstetricians felt strongly that family physicians were inadequately trained to provide uncomplicated obstetric care. These negative attitudes were reflected in the opinions of the obstetricians regarding hospital obstetric privileges for family physicians. From a list of 11 obstetric privileges, obstetricians indicated that residency-trained family physicians should be granted a mean of 2.2 privileges, while family physicians who currently practice obstetrics indicated a mean of 6.6 privileges (P less than .001). Family physicians who felt, they were well supported by obstetricians during their obstetric

training, were more likely to develop positive attitudes toward obstetric practice than those who felt they were not well-supported. Both obstetricians and family physicians indicated that the adequacy of maternity care in rural areas would decline if family physicians should withdraw from maternity care. There was strong agreement that rising malpractice premiums may soon force family physicians to stop delivering babies. This study concludes that there are vast differences among obstetricians and family physicians in perceptions regarding obstetric practice by family physicians, which may adversely affect such practice. Author.

MUGFORD, M., SZCZEPURA, A., LODWICK, A., STILWELL, J.
Factors affecting the outcome of maternity care (2): neonatal outcomes and resources beyond the hospital of birth.
Journal of Epidemiology and Community Health; 42, 1988, no. 2, p. 170-76, 9 refs.

Analysis of data concerning perinatal mortality and indicators of resources at maternity hospitals in the West Midlands region between 1977 and 1983 showed that pediatric staff ratios were inversely related to in-house mortality rates. In this paper, the outcomes for and resources used by transferred babies are added to those of the hospital of birth for three of the study years: 1978, 1980, and 1982. Patterns of transfer differ between units and over time in the region, and a regional neonatal intensive care policy was introduced in 1980. Analysis of the new variables showed that in 1978 pediatric staffing was significantly inversely related to neonatal mortality. In later years, neonatal mortality of births at maternity units is explained entirely by the proportion of low or very low weight births. Author.

ROBSON, J., BOOMLA, K., SAVAGE, W.
Reducing delay in booking for antenatal care.
Journal of the Royal College of General Practitioners; 36, 1986, no. 287, p. 274-75, 21 refs.

The study compared two schemes of booking for antenatal care: booking at a health center by general practitioners in conjunction with a hospital consultant, or booking in a hospital clinic by hospital staff. The health centre scheme reduced the proportion of women booking late, at 16 or more weeks gestation, from 44% to 11% and at 20 weeks or more from 28 % to 6%. There was no improvement in delay in booking owing to late confirmation of pregnancy. The benefits of this scheme were due to improved attendance and reduced delays in booking among women who confirmed pregnancy before 16 weeks gestation. Author.

ROSENBERG, E.E., KLEIN, M.
Is maternity care different in family practice? A pilot matched pair study.
Journal of Family Practice; 25, 1987, no. 3, p. 237-40, 19 ref.

In this study, 81 patients booked for delivery by family physicians were matched to patients booked for delivery by obstetricians. Patients in both groups were at low obstetric risk. They were matched by age, parity, blood pressure, gestational age at delivery, and socioeconomic status. Patients booked with family physicians experienced fewer artificial rupture of membranes, inductions of labor, episiotomies, and forceps deliveries than those booked with obstetricians. These patients also spent a shorter time in hospital, in spite of longer second stages of labor. Infant outcomes were equivalent in the two groups.

A simple audit method of maternity care that permits comparisons of the care provided by family physicians and obstetricians for obstetrically similar patients is described. This methodology employs matching within a given institution, and facilitates the multi-centered studies required to obtain the large populations needed to compare the process and outcome of infant and maternal care provided by these two types of physicians. Author.

Commentary by Brody, H., Howe, K.R. with 7 references can be found on page 241-42 of the same periodical.

SCUPHOLME, A., ROBERTSON, E.G., MCLEOD, A.G.W.
A Birth Center Affiliated with the Tertiary Care Center: Comparison of Outcome.
Obstetrics and Gynecology; 67, 1986, no. 4, p. 598-603, 5 refs.

A matched pair study compares 250 low risk women who had delivered in a tertiary care center with a similar group cared for and delivered in an affiliated birth center. The patients could be matched in every respect, with the exception of educational background. Twenty-one per cent of the birth center patients required transfer to the hospital during the intrapartum period. Differences were found in cervical dilatation upon admission and length of labor. Intermittent fetal heart auscultation was used exclusively in birth center mothers, and oral fluids and light diet were allowed. The hospital group received intravenous fluids. Oxytocin augmentation was used twice as often, and the incidence of shoulder dystocia appeared significantly higher in the control group. The one neonatal death was due to persistent fetal circulation. Author.

STILWELL, J., SZCZEPURA, A.L.A., MUGFORD, M.
Factors affecting the outcome of maternity care (1): relationship between staffing and perinatal deaths at the hospital of birth.

Journal of Epidemiology and Community Health; 42, 1988, no. 2, p. 157-69, 32 refs, app.

This is the first of two papers describing a retrospective study of maternity hospitals in an English health region, using data from the years 1977-83. The research was designed to investigate the relationship between sources (such as staff and equipment) and the outcomes of births at maternity units. In this study considerable variation was observed in the medical and nursing staff levels in the units. Regression analysis suggests that after taking account of differences in very low weight births at each unit, the level of pediatric staffing at a maternity unit is a significant factor in explaining differences in "*in house*" mortality. There was no identifiable relationship between staff categories, other than pediatricians, and the rate of perinatal death at the hospital of delivery. As selective referral and transfers between hospitals may affect the interpretation of these findings, a second paper follows presenting the results of a further analysis that adjusts both resources and outcomes to account for neonatal transfers. Author.

TURNBULL, E., HODGES, S.

Continuity of care through improved documentation.

Journal of Obstetrics, Gynecology and Neonatal Nursing; 15, 1986, no. 1, p. 45-48, refs.

An 18-month nursing service-education project studied means to improve the quality of maternity services in satellite clinic settings. Tools, in service education meetings, and questionnaires were used to guide nurses, other team members, and students in patient education services. Progress in written and verbal communications was made. Ongoing collaboration between the nurse practitioner and nurse educator produced mutual benefits and unanticipated outcomes. Author.

4. Role and Wishes of the Pregnant Women

ANNANDALE, E.C.
Dimensions of patient control in a free-standing birth center.
Social Science and Medicine; 25, 1987, no. 11, p. 1235-48, refs.

This paper explores the phenomenon of patient control in a midwife-run free-standing birth center which emphasized natural, patient controlled childbirth. Specifically, it addresses the ability of patients to translate an initial desire for control into controlling behavior in the patient care context. It is argued that prior research has tended to conceptualize patient control in rather straightforward and simple terms and, as a consequence of focusing principally upon the formal process of information exchange in the client-provider consultative context, has glossed over the process by which patient control, and the different meanings, it carries, are influenced by the cultural and political contexts in which they are embedded. It was found that the meaning that patients attributed to their controlling role was structured by two major factors. The first of these was patient ambivalence about giving birth by means of an alternative and innovative practice form. This was overlaid with a second factor; political conflict between the birth center and its back-up hospital. The interaction of these two factors prompted women to construe their controlling role around dimensions of individual health maintenance and 'control of self', rather than control over decision making. This occurred despite the fact that the latter type of control was often emphasized by patients when elucidating their reasons for choosing the birth center. Some implications of casting control in terms of health maintenance and 'control of self' for patient experience are discussed. Author.

ARBORELIUS, E., LINDELL, D.
Psychological aspects of early and late discharge after hospital delivery. An interview study of 44 families.
Scandinavian Journal of Social Medicine; 17, 1989, no. 1, p. 103-07, refs.

Early discharge after hospital delivery is common in other countries outside Sweden. In Sweden it was not introduced until recent years. Previous investigations have focused mainly on medical risk factors. However, few investigations have been done regarding psychological factors. This study, comprising 44 families (7 primiparae and 37 multiparae) in an early discharge group (discharge 0-2 days after hospital birth) and in a late discharge group (discharge 5-6 days), indicates that parents in the early discharge group had more negative experiences during their

earlier postpartum stay. The mothers in the early discharge group experienced less sibling rivalry compared to the mothers in the control group. There were no other differences between the groups. The parents were equally satisfied with their choices in both groups. Early discharge, as a voluntary alternative, presents an increased service for parents, since they may choose the most suitable form of postpartum care. Author.

BEATON, J., GUPTON, A.
Childbirth expectations: a qualitative analysis.
Midwifery; 6, 1990, no. 3, p. 133-39, refs.

Maternal childbirth expectations play an important role in determining a woman's response to her childbirth experience. As part of the initial phase in the development of a research tool to investigate maternal childbirth expectations, in-depth interviews were conducted with a sample of eleven urban Canadian women in their third trimester of pregnancy. Content analysis of the interview data indicated that the women had developed detailed expectations of the childbirth experience as well as of the roles of support persons and health care personnel. Exploration of women's childbirth expectations is discussed as an important component of childbirth education. Author.

BLONDEL, B., ZUBER, M.C.
Marital status and cohabitation during pregnancy: relationship with social conditions, antenatal care and pregnancy outcome in France.
Paediatric and Perinatal Epidemiology; 2, 1988, no. 2, p. 125-37, refs.

A survey of a representative sample of 5508 births in France in 1981 permitted the study of social characteristics of pregnant women, the medical care they received during their pregnancy and their pregnancy outcome, as a function of their marital status and, whether or not they lived with the father of the child. Unmarried women living with the father (n=412) like unmarried women living alone (n=171), were more often younger, when they had their first baby and had a lower educational level than did married women living with the father (n=4590). However, among the unmarried women, those living alone were in a more unfavorable position than those living with the father: in particular, they were more often less than 20 years old, had the minimum required educational level and were unemployed. Both groups of unmarried women had a higher preterm delivery rate than did married women, even after taking other risk factors into account in a logistic regression. The odds ratio (95% confidence interval) for pre-term delivery among unmarried mothers living without the father was 1.9 (1.0-3.4), and that for the unmarried cohabiting with the father was 1.6 (1.0-2.4). Thus, to fully appreciate the perinatal

risks and medical needs during pregnancy, both the marital and cohabitational status of the women should be considered. Author.

BREZINKA, C., HUTER, O., BUSCH, G., UNUS, S.
Kommunikation, Compliance und perinatale Risiken bei türkischen Frauen in Tirol.
Geburtshilfe und Frauenheilkunde; 49, 1989, no. 5, p. 472-76, refs.

Migrant workers from Turkey and their families make up 1% of the population of the province of Tyrol West Austria. They are the largest group of aliens. 152 Turkish women who were seen at our obstetrics department were investigated. Records of 121 women who had given birth to infants in the years 1984-86 were compared. 31 Pregnant women were interviewed in their native language. More than 80% of all women studied went for routine check-ups four times or more during pregnancy. A number of conditions that would otherwise remain undetected were diagnosed at routine pregnancy checks: tuberculosis, diabetes, genetic disease. Although patient compliance was good in this group, communication problems often put a successful outcome of the pregnancy at risk. Many women, who have lived in Austria for many years, are still unable to speak and understand German. Unqualified interpreters, such as husbands, children, relatives, hospital cleaning staff which is largely composed of Turks, often create problems inventing things the doctor would like to hear. The rate of caesarean sections is 11% in this group. Perinatal infant mortality rate is much higher than in the native Austrian population. The strict hygienic rules of Islam, the support and nurturing supplied by the tightly-knit family structure of Turkish emigrants and a basically confident and trusting attitude towards doctors and nurses, if these can be communicated, should be recognized as positive factors and should be used to reduce perinatal risks in pregnant Turkish women. Author.

BRONSTEIN, J.M., MORRISEY, M.A.
Determinants of rural travel distance for obstetrics care.
Medical Care; 28, 1990, no. 9, p. 853-66, app., 36 refs.

This study examines the distances that had to be traveled for inpatient obstetrics care by women residing in rural Alabama in 1983 and 1988, when they wanted to obtain obstetric care. During that time 23 rural hospitals in that state stopped providing obstetric services, and mean travel distances increased by 6.8 miles. However, in 1988, 50% of all rural pregnant women bypassed the nearest rural hospital still providing obstetrics services. Multivariate techniques are used to examine the effects of distance and the services offered by rural hospitals and their substitutes, on the actual distance traveled for care. Patient characteristics are also

considered. The most important finding is that a 5% increase in per capita income in the woman's home county is associated with a 20% increase in actual travel distance, other things being equal. Implications of rural health policy are discussed. Author.

BUTTERS, L., HOWIE, C.A.
Awareness among pregnant women of the effect on the fetus of commonly used drugs.
Midwifery; 6, 1990, no. 3, p. 146-54, refs.

Epidemiological studies have shown that pregnant women continue to take substantial quantities of drugs, particularly those readily available to them without prescription. Little is known of the attitudes and knowledge among pregnant women of the effects of these substances on the fetus.

Awareness of the effects on the fetus of commonly used drugs, cigarettes and alcohol among 514 women in the postnatal wards of two maternity units in Glasgow was assessed, between October 1987 and April 1988, using a self-completion questionnaire.

Most of the women recognized that the fetus is most at risk of being harmed by drugs during the first 3 months of pregnancy. The majority felt is was safest not to smoke cigarettes and were aware of the adverse effects of smoking on fetal growth. Over half thought smoking was harmful while breast-feeding. Over half thought that alcohol should be avoided altogether in pregnancy and that drinking could harm the fetus. Most women considered alcohol harmful to the baby, that is still breast-fed. The majority of the women would opt for paracetamol containing analgetics only, and just a small proportion said they would take one containing aspirin. Only half the study population would take a prescribed antibiotic. A generally high level of awareness of commonly used drugs was demonstrated, although there are areas where further health education could be directed. The study has highlighted areas worth of further research. Author.

CABRAL, H., FRIED, L.E., LEVENSON, S., AMARO, H., ZUCKERMAN, B.
Foreign-born and US-born black women: differences in health behaviors and birth outcomes.
American Journal of Public Health; 80, 1990, no. 1, p. 70-72, 13 refs.

The authors studied the health behaviors and birth outcomes among 201 foreign-born and 616 US-born Black women receiving prenatal care at 'Boston City Hospital'. Foreign-born women had better pre-pregnancy nutritional status and prenatal health behaviors, and their infants had greater intrauterine growth. Black women are not a homogeneous group;

culture and ethnicity, in addition to other variables, must be considered in the study of their birth outcomes. Author.

CAHILL, J.M., MATHIS, D.M.
Pretesting a childbirth handbook.
Birth; 17, 1990, no. 1, p. 39-42; discussion 42-43, refs.

The development of health education materials for pregnant women involves the work of knowledgeable and experienced health professionals, writers, editors and artists. Frequently, these materials are also extensively reviewed by various experts and organizations prior to publication. Even with all this expert input and review, however, the developers can miss the mark if the material are not deemed appropriate and acceptable by the audience for whom they were created. In developing a new booklet on childbirth, the New York State Department of Health wanted to ensure that the material would be read and used by pregnant women from various income and educational levels as well as the different racial and ethnic groups. Research was conducted by the department to pretest the booklet for its appropriateness for, and acceptance, by the target audience. Based on the reactions and suggestions from 89 women in eight focus groups, the booklet was revised extensively before it was made available to the general public. Author.

CLAIR, P.A.ST., SMERIGLIO, V.L., ALEXANDER, C.S., CELENTANO, D.D.
Social network structure and prenatal care utilization.
Medical Care; 27, 1989, no. 8, p. 823-31, 52 refs.

The associations between social network structural characteristics, socio-demographic factors, and prenatal care utilization were examined in a sample of 185 low-income, inner-city maternity patients. It was predicted that the networks of women who under-utilized care would be larger and show of a higher density than those of women who utilized care appropriately. They were also expected to be less dispersed, with members living near one another, and drawn mainly from the immediate family and extended kin. Relational ties between members. Findings were expected to be strong. Findings indicated that women were more likely to under-utilize care if they were embedded in strong-tie, non-dispersed networks where most members were immediate family or relatives. Of the sociodemographic variables, only parity was associated with prenatal care utilization. The findings support the underlying assumption that social networks have significant influence on individuals' utilization of prenatal services. This suggests that providers of services to pregnant women may need to revise their current strategies for bringing women into care as well

as their methods of delivering educational services to women already in care. Author.

DEL-MAR, C., O'CONNOR, V.
Consumer obstetrics.
Australian Clinical Review; 7, 1987, no. 25, p. 60-68, refs.

Objective: to investigate patients' perceptions about delivery of their babies. Method: one hundred and forty four out of 200 surveyed women answered consumer orientated questions before and after delivery. Results: they were, on the whole, satisfied with antenatal classes (there seemed to be a need for more information in the form of an on-the-ward postnatal class), disliked the practice of perineal shaves (but did not object to enemas or rupture of membranes) and felt they had adequate analgesia (although not for after-pains or the discomfort of hemorrhoids in the puerperium). Women who intend to deliver in the more conventional (western) positions are less likely to be disappointed. Women expressed the desire to be more actively involved in some aspects of delivery such as cutting the cord, putting the baby to the breast and being alone with partner and baby immediately after delivery. Cardiotocography (CTG) is more reassuring than frightening. A "Birthing Room" is seen as a satisfactory alternative to home delivery. Author.

DREW, N.C., SALMON, P., WEBB, L.
Mothers', midwives' and obstetricians' views on the features of obstetric care which influence satisfaction with childbirth.
British Journal of Obstetrics and Gynaecology; 96, 1989, no. 9, p. 1084-88, refs.

A sample of 15 women was interviewed postnatally to identify objective features of labor and postnatal care for which they expressed preferences. The importance of each item to the mother's satisfaction was then rated by a sample of 224 similar women. The same questionnaire was also completed by 28 midwives and 52 obstetricians. The items rated most important concerned the explanation of procedures and the involvement of mothers in administering or choosing them. Support from the presence of a partner and qualified hospital staff was second, in the third place the physical comfort of the postnatal ward were mentioned. The avoidance of obstetric interventions, such as episiotomy or use of forceps, was rated less important than the presence of these other features. The mean ranking given to each of these items by the midwives and obstetricians correlated very highly with that given by the mothers; those caring for obstetric patients are much more sensitive to their preferences than is popularly believed. There was no evidence that midwives perceived patients' needs more accurately than did the obstetricians. Discrepancies

between the three groups' ranking of specific items may reflect the defence of their respective roles by each profession. Author.

FLEMING, A.S., RUBLE, D.N., ANDERSON, V., FLETT, G.L.
Place of childbirth influences feelings of satisfaction and control in first-time mothers.
Journal of Psychosomatic Obstetrics and Gynaecology; 8, 1988, no. 1, p. 1-17, 49 refs.

Differences in birth satisfaction and mother-infant interaction were examined in relation to having a baby at home or in the hospital. A total sample of 17 home and 44 hospital birth mothers completed a series of questionnaires, interviews, and behavioral observations, at several different times in relation to the birth: 9th month of pregnancy; 3rd post-partum day; 1 and 3 months post partum. The data indicated that birth satisfaction was higher in home than in hospital birth women. Moreover, differences associated with place of birth: feelings of control, amount of mediate contact with the baby, and, in some analyses, intervention (e.g., anesthetics), were the major predictors of satisfaction. Additional analyses suggested that the women who expressed negative feelings about intervention procedures prior to the birth, and who actually experienced these procedures, contributed to the reduced feelings of control and satisfaction found in the hospital group. Finally, birthing variables were also related to the women's affectionate behavior toward their babies at 3 months. The results are discussed in relation to literature on feelings of control and maternal bonding. Author.

FLYNN, S.P.
Continuity of care during pregnancy: the effect of provider continuity on outcome.
Journal of Family Practice; 21, 1985, no. 5, p. 375-80, 19 refs.

Continuity of care during pregnancy was examined in a family practice residency setting. The effect of provider continuity on the rate of pregnancy complications and patient satisfaction was studied prospectively in a sample of 61 patients. Patients in this study put a relatively low value on continuity of care. Pregnancy complications were predicted by traditional prenatal risk factors. Perceived waiting time in the office had the greatest effect on patient satisfaction. Provider continuity had no significant effect on either outcome. Author.

GAREL, M., LELONG, N., KAMINSKI, M.
Follow-up study of psychological consequences of caesarean childbirth.
Early Human Development; 16, 1988, no. 2-3, p. 271-82, refs.

This study was the follow-up to a survey of the psychosocial consequences of caesarean delivery. Two groups of primiparous mothers were compared; one group of 103 mothers delivered by caesarean section and one control group of 103 mothers delivered vaginally. Semi-structured questionnaires were mailed 2 months and 1 year after birth to explore the mothers' physiological and psychological condition and mother-infant adaptation. After 2 months, 92 mothers in the caesarean section group and 84 mothers in the control group returned a completed questionnaire. After one year there were, respectively, 79 and 71 in each group. The data indicated that the most obvious long-term psychological ill-effects of caesarean delivery appeared to be on the mothers. They more often reported psychosomatic symptoms during the first year than the members of the control group. After 2 months the concerns of caesarean mothers seemed more self-oriented than those of the control group. They also felt less confident about their abilities to care for their babies. After 1 year these differences disappeared. Signs of disturbance in mother-infant interaction were not linked to the mode of delivery either, after 2 months or after 1 year. The influence of the mode of anaesthesia for surgical delivery was also examined. The positive consequences of epidural analgesia, which were observed, are discussed taking into account the role of confounding variables. Author.

GAREL, M., LELONG, N., MARCHAND, A., KAMINSKI, M.
Psychosocial consequences of caesarean childbirth: a four-year follow-up study.
Early Human Development; 21, 1990, no. 2, p. 105-14, refs.

This paper describes the last part of a study on the long-term psychosocial consequences of caesarean delivery. One group of 103 primiparous caesarean delivered women and one control group of 103 women, who delivered vaginally, were followed from delivery to the children's fourth birthday. Previous assessments were made at birth, two months and one year later (Garel, M., Lelong, N. and Kaminski, M. (1987) J. Psychosom. Obstet. Gynecol., 6, 197-209 and (1988) Early Hum. Dev., 16, 271-282). Four years after delivery, 58 mothers of the caesarean group and 50 mothers of the control group returned a completed questionnaire. The questionnaire included questions about subsequent pregnancies and mother's and child's general state of health. The comparisons between respondents and non-respondents showed no significant difference with regard to social and medical factors. As far as possible, factors which might have interfered with the mothers' and children's conditions were controlled in the analysis. There was no association between the method of delivery and the mother's overall state of health. However, after a caesarean section, mothers tended to have more difficulty in conceiving

and fewer children. Four years after delivery, mothers in the caesarean group reported fatigue more frequently than control mothers. Five mothers (9%) consulted a psychiatrist, none in the control group (P less than 0.09). Between one and four years, caesarean born children had more hospital admissions, but their overall behavior and development, as reported by the mothers, was not different from those of children in the control group. Author.

GREEN, J.M., KITZINGER, J.V., COUPLAND, V.A.
Stereotypes of childbearing women: a look at some evidence.
Midwifery; 6, 1990, no. 3, p. 125-32, refs.

The authors use stereotypes to help us to behave in, what the authors hope will be, appropriate ways towards people that we have not met before. On the labor ward midwives are likely to use such stereotypes to make assumptions about what a particular woman is likely to want during labor and delivery. Two commonly encountered stereotypes are those of the *'well educated, middle class NCT type'* and the *'uneducated working class woman'*. This paper explores evidence for these two stereotypes, drawing on data from a large scale prospective survey of women's expectations of childbirth. The stereotypes were not supported in a number of important respects. In particular, women of different levels of education were equally likely to subscribe to the ideal of avoiding drugs during labor, the less educated women did not want to hand over all control to the staff. Moreover it was less educated women who had the highest expectations that birth would be a fulfilling experience. Author.

HALL, E.V. VAN, EVERAERD, W. (EDS.)
The free woman: Women's health in the 1990s. Invited papers of the 9th International Congress of Psychosomatic Obstetrics and Gynaecology Amsterdam, The Netherlands, 28-31 May, 1989.
Carnforth, Parthenon Publishing Group, 1989.

This volume contains invited papers of the main speakers at the Ninth International Congress of Psychosomatic Obstetrics and Gynaecology which was held in Amsterdam, 28-31 May, 1989.

The main theme of this congress was *Women's Health in the 1990s*, with special emphasis on the relationship between women's health and her position within society. Special attention was also given to the impact of women's emancipation on the health situation of women in different cultures.

The scientific program of the congress was constructed around three major topics: the social and cultural aspects of obstetrical care, women and her body, and the backgrounds and consequences of medicalization.

In order to attain a comprehensive overview of the gender-specific health problems a woman and her medical assistants can be confronted with during the different phases of her life, we have divided the 119 invited papers into 24 chapters. Nearly half of these papers deal with pregnancy and childbirth, which is not astonishing in view of the fact that the congress was organized in a country where one third of the deliveries still takes place at home. The papers published in this volume are of great diversity, including clinical investigations, empirical and descriptive studies, and the expression of personal opinions. The sections B *Home and Hospital Delivery*, C *Psychosocial Aspects of High Risk Pregnancies*, D *Multiple Pregnancy* and E *Emotional Aspects of Prenatal Diagnosis* are of special interest within the context of this bibliography.

HASTE, F.M., BROOKE, O.G., ANDERSON, H.R., BLAND, J.M., PEACOCK, J.L. Social determinants of nutrient intake in smokers and non-smokers during pregnancy.
Journal of Epidemiology and Community Health; 44, 1990, no. 3, p. 205-09, 32 refs.

STUDY OBJECTIVE: the aim was to investigate the effects of social factors (education, income, marital status, partners' employment status, housing tenure, social class), smoking, and maternal height on the dietary intake of pregnant women. DESIGN: the study was a prospective investigation on a two phase sample. SETTING: the study involved women attending the antenatal clinic at a district general hospital. PATIENTS: a group of pregnant Caucasian women, selected because they were heavy smokers (15+ cigarettes/day)(n=94) and a randomly selected sample of never smokers (n=112) were studied. MEASUREMENTS AND MAIN RESULTS: data on social factors were collected by an interviewer-administered questionnaire. A 7 day, weighed intake method was used to determine dietary intake at 28 weeks gestation. In univariate analysis, income, housing tenure and social class had significant effects on intakes of both macro- and micronutrients, and maternal education and smoking had significant effects on intakes of micronutrients. Using a stepwise multivariate analysis with income, smoking and maternal education, income was a significant factor in the intake of most nutrients but this effect disappeared when social class and housing tenure factors were entered into the model. Only social class and housing tenure had any significant effect on intakes of macronutrients (energy, protein and fat). Smoking and maternal education were the most important determinants of quality of diet (nutrient density). Other factors had only negligible effects. Income was the only significant factor in alcohol intake. It is suggested that the effects of social class and income are overlapping. CONCLUSIONS: smoking,

being renters of accommodation, and being of minimum education and low social class are risk factors for poor dietary intake. It is recommended that such higher risk groups be specifically targeted for nutritional advice in pregnancy. Author.

JACOBY, A.
Mothers' views about information and advice in pregnancy and childbirth: findings from a national study.
Midwifery; 4, 1988, no. 3, p. 103-10, refs.

A random sample of women who had recently given birth were asked about the main sources of information and advice throughout their pregnancy; labor and delivery, and how helpful such information had been. While, on the whole, women were satisfied with the information during pregnancy they were given at various stages, around a fifth would have liked more information during pregnancy, felt unable to discuss things fully with the doctors and midwives looking after them, and would have liked more explanation during labor. It was the women who were socially disadvantaged in some way who seemed to experience most difficulty in finding out what they wanted to know. Author

KLEE, L.
Home away from home: the alternative birth center.
Social Science and Medicine; 23, 1986, no. 1, p. 9-16, refs.

Hospital alternative birth centers (ABCs) were established in response to consumer demands for 'family-centered maternity care'. This paper considers the controversy among advocates of different childbirth alternatives, including ABCs, home birth and conventional hospital birth. The expectations and evaluations of a sample of women who chose ABC births are compared to attitudes towards the ABC of women who selected home births or conventional hospital births. Women who choose the ABC and those who select home birth share some critical views of conventional labor and delivery, but not the same overall ideology of childbirth. Women who choose the ABC and women who choose conventional labor and delivery, share beliefs in the authority of hospital obstetrics and the expertise of physicians. Author.

KLEIVERDA, G., STEEN, A.M., ANDERSEN, I., TREFFERS, P.E., EVERAERD, W.
Place of delivery in The Netherlands: maternal motives and background variables related to preferences for home or hospital confinement.
European Journal of Obstetrics, Gynecology and Reproductive Biology; 36, 1990, no. 1-2, p. 1-9, refs.

The decision-making process regarding the preferred site for confinement was investigated in a total of 170 nulliparous women with initially uncomplicated pregnancies. Of these women, 100 had a preference for delivery at home and 45 for hospital confinement. The remaining 25 women were in doubt about the preferred location. Interviews were held in the 18th week of pregnancy. Motives for choosing either a home or a hospital confinement were analyzed. Preferences for either home or hospital confinement were predicted by a stepwise discriminant analysis. Educational level, psychological well-being, anxiety concerning complications at birth, and attitudes towards female social roles accounted for 78.6% of the variance. The combination of fear that something might go wrong during labor and an older age predicted for 62% the group of women doubtful about the place of confinement. Author.

KRUSE, J., LEFEVRE, M., ZWEIG, S.
Patient satisfaction with obstetric care.
Journal of Family Practice; 23, 1986, no. 2, p. 131-36, 18 refs.

Patient satisfaction with obstetric care was studied in a cohort of postpartum women from a rural midwestern county. Birth certificate data defined the population, and data on the level of satisfaction were acquired by means of a mailed questionnaire. An indirect measure (satisfaction scale) was derived with acceptable construct validity and internal consistency. A direct measure (open-ended questions) elicited specific comments about each woman's recent experiences with obstetric care. Satisfied women, as described by the scale, were more likely to have had good physician continuity and to have attended childbirth classes. The open-ended responses most frequently described problems associated with physician-patient relationships. In comparing the indirect and direct measures, women with high satisfaction scores were more likely to make no critical comments about their obstetric care ($chi^2 = 9.16$, $P < 0.003$) The patient's perception of the physician's attitude of concern emerged as an important issue in both measures. The data demonstrate that perceived physician concern is an important component of patient satisfaction with regard to obstetric care. Author.

LARSSON, G., SPANGBERG, L., THEORELL, T., WAGER, J.
Maternal opinion of psychosocial support: evaluation of an antenatal programme.
Journal of Advanced Nursing; 12, 1987, no. 4, p. 441-49, refs.

The aim of this study was to investigate the significance of psychosocial screening and psychosocial support in antenatal care. Different methods were used. Three hundred and sixty-four pregnant women participated. There was no increase in obstetrical complications, premature births or

growth retardation among the infants born to mothers with a high life stress score. A correlation between smoking and reduced birth weight was noted. Most women claimed that they had reduced their alcohol intake already before their first visit to the antenatal clinic. Those women who attended the most extensive psychosocial care had the most favorable attitudes towards the antenatal care. There was a positive correlation between intensive psychosocial support and allowance for sick-leave. The question is raised as to whether all pregnant women should have the right to be out of work during the last 2 months of pregnancy without the reduction of the parent's allowance benefit. Author.

LEATHERMAN, J., BLACKBURN, D., DAVIDHIZAR, R.
How postpartum women explain their lack of obtaining adequate prenatal care.
Journal of Advanced Nursing; 15, 1990, no. 3, p. 256-67, refs.

The quality of life for infants and children is often dependent upon the adequacy of the prenatal care pregnant women receive. From July through to December 1985, 15% of pregnant women in one Midwestern county were identified as having inadequate prenatal care. The purpose of the study was to identify and analyze the reasons women in that county gave for not obtaining adequate prenatal care. In addition, chi-square was used to determine the relationship between the reasons given and the three variables: age; time between knowledge of pregnancy and making an appointment for care; and source of payment. A convenience sample (n = 44) was used in a study over a 5-month period at three locations. The Health Belief Model was the conceptual framework for this study. Insufficient money to pay for care was the primary reason given for not obtaining adequate prenatal care (81%). Other reasons included motivational issues (45%) and access, or lack of transportation (19%). There was a significant relationship (P = 0.05) with four reasons to the variable of age and with three reasons to both the variables of time and source of payment. The following recommendations were identified as a result of this research: the need for subsidized prenatal care and the need for a community-wide education campaign regarding the need for adequate prenatal care and the consequences of inadequate care. Prenatal care is sometimes not available to all in the United States in spite of the relationship of infant mortality and the quality of life for infants and children to adequate prenatal care. Author.

LEFEVRE, M., ZWEIG, S., KRUSE, J.
Selection of a physician for prenatal care.
Journal of Family Practice; 24, 1987, no. 3, p. 275-79, 8 refs.

The selection of a physician for prenatal care was studied as a model of the generic process of choosing a physician. The results suggest that factors important in this process are similar to those relating to satisfaction with care: physician competence, cost and convenience, and personal qualities. Women selecting obstetricians for prenatal care placed a higher emphasis on physician competence, whereas those selecting family physicians placed a greater emphasis on cost and convenience. Author.

LITTLEFIELD, V.M., ADAMS, B.N.
Patient participation in alternative perinatal care: impact on satisfaction and health locus of control.
Research in Nursing and Health; 10, 1987, no. 3, p. 139-48, refs.

Women's degree of participation, satisfaction, and change in health locus of control, after giving birth in an alternative birthing unit, was examined. A quasi-experimental two-group design of convenience samples (N = 99) was used to compare differences and evaluate the care given. An alternative birthing experience increased the women's sense of participation and related to women's satisfaction, but did not change internal scores on the Multidimensional Health Locus of Control Scales. Women's reliance on powerful others increased post delivery. Complications were negatively related to selected aspects of women's satisfaction in labor and delivery, but positively related to satisfaction with antenatal care. Author.

MACKEY, M.C.
Women's choice of childbirth setting.
Health Care for Women International; 11, 1990, no. 2, p. 175-89, refs.

As part of a larger study on women's views of the childbirth experience, this study was focused on women's choice of childbirth setting. Sixty-one Lamaze-prepared, married multigravidae between the ages of 21 and 37 and experiencing a normal pregnancy, were interviewed twice. After 36-38 weeks gestation in their homes, and during their postpartum stay in the hospital. Data were collected using: (a) two semi-structured interview guides consisting of open-ended questions about choosing a caregiver and the place of birth and about describing the actual childbirth experience; (b) a self-administered sociodemographic questionnaire, and; (c) an obstetrical and infant data form. The tape-recorded interviews were transcribed verbatim. Qualitative data analysis was focused on reasons for choosing a hospital and a physician, reasons for choosing or not choosing a birthing room, and the outcomes of the decisions. An understanding of women's childbirth needs as reflected in their choices

can suggest areas where flexibility might be built into maternity care programs. Author.

MOORE, T.R., ORIGEL, W., KEY, T.C., RESNIK, R.
The perinatal and economic impact of prenatal care in a low-socioeconomic population.
American Journal of Obstetrics and Gynecology; 154, 1986, no. 1, p. 29-33, 15 refs.

Reductions in publicly funded prenatal care programs in 1981 to 1984 resulted in an increase in unregistered patient deliveries from 7.8% to 14.9% of births, at University of California San Diego Medical Center. To assess the economic and perinatal impact of the increasing number of deliveries of women who have not received prenatal care, 100 consecutive patients with fewer than three prenatal visits were studied. Each *'no care'* patient was matched by age, parity, and week of delivery, with a control patient who received care in a state-funded perinatal project (Comprehensive Perinatal Program). Maternal antenatal risk factors were equally distributed between the two groups when maternal age, parity, history of substance abuse, prior preterm delivery, hypertension, and abortion were compared. Maternal obstetric outcomes were similar, including caesarean section rate and incidence of postpartum fever and hemorrhage. However, neonates delivered of women receiving no care, experienced significantly greater morbidity than the neonates of women in the Comprehensive Perinatal Program, including an increased incidence of premature rupture of the membranes and preterm delivery (13% versus 2%, $p<0.05$), low birth weight (21% versus 6% < 2500 gm. $p < 0.002$), and intensive care unit admissions (24% versus 10%, $p < 0.005$).
When the total inpatient hospital charges were tabulated for each mother-baby pair, the cost of perinatal care for the group receiving no care ($ 5168 per pair) was significantly higher than the cost for patients in the Comprehensive Perinatal Program ($ 2974 per pair, $p < 0.001$), including an antenatal charge of $ 600 in the Comprehensive Perinatal Program. The excess cost of delivery for 400 women receiving no care per year in the study hospital, was $ 877,600. These results suggest that extension of prenatal care programs to medically indigent women is likely to result in a net reduction in perinatal morbidity and health care expenditures. Author.

MORCOS, F.H., SNART, F.D., HARLEY, D.D.
Comparison of parents' expectations and importance ratings for specific aspects of childbirth.
Canadian Medical Association Journal; 141, 1989, no. 9, p. 909-14, refs.

The authors examined parents' expectations in relation to many aspects of the birth experience and compared them with the importance they attached to these aspects. Expectation was defined as a respondent's rating that a given practice would be reality, and importance was defined as a respondent's rating of the personal importance of a practice were all options possible. Subjects in the last 6 to 8 weeks of pregnancy were asked by their obstetricians to complete a questionnaire; 231 mothers and 227 fathers responded, for a response rate of 95%. In each of six subcategories parents' importance ratings significantly exceeded their expectation ratings. Certain items were rated as relatively less important postnatally than prenatally and by multigravid women than by primigravid women. Parents' perceptions of available options consistent reflect discrepancy with what they wish were possible. However, increased efforts to inform parents of existing options, and to provide the rationale for specific practices, may reduce the discrepancy between importance and expectations. This would in turn heighten the likelihood of a psychologically positive birth experience for parents. Author.

NELSON, L.J., MILLIKEN, N.

Compelled Medical Treatment of Pregnant Women. Life, Liberty and Law in Conflict.

Journal of the American Medical Association; 259, 1988, no. 7, p. 1060-66, 68 refs.

In this article, the authors first discuss the ethical basis of the physician-patient relationship during pregnancy and present their perspective on ethical reconciliation of maternal-fetal conflict. Next, the authors analyze the legal aspects of the physician management of pregnant women who refuse medically indicated treatment. Finally, the authors present their reasons, why according to policy neither the medical profession nor society should support judicially compelled treatment of pregnant women. The authors conclude that the pregnant woman's ethical obligation to care for her fetus should not be legally enforced.

OAKLEY, A.

Social support and perinatal outcome.

International Journal of Technology Assessment; 1, 1985, no. 4, p. 843-54, 25 refs.

Western medicine is concerned primarily with the promotion of medical care and only secondarily with the promotion of health care. Medical care and health care are not necessarily the same thing. There are ways of caring for people's health which do not involve medical examinations,

procedures, or drugs. They involve such activities as health education, preventive health care, self-help, and community support.
Therefore, when one considers what factors influence perinatal outcome in any country or region, there is a fairly large body of data relating to medical care factors. There are very little data, by comparison, on the impact on perinatal outcome of these other "*hidden*" forms of health care. Research results show a relation between perinatal outcome and social inequalities. The author is in search of the nature of this relationship. As a possible solution, the "*social support*" hypothesis is launched. Research material is presented to support this hypothesis. One section presents those studies in which some nonclinical intervention in pregnancy such as health care, advice, or social support is employed with the aim of improving outcome. In the last section of the article, social and medical models of pregnancy are confronted on the basis of the five intervention studies.

PAGEL, M.D., SMILKSTEIN, G., REGEN, H., MONTANO, D.
Psychosocial influences on new born outcomes: a controlled prospective study.
Social Science and Medicine; 30, 1990, no. 5, p. 597-604, 46 refs.

This paper reports the results of a prospective investigation of 100 women during their pregnancies, to test the hypothesis that social and psychological factors influence pregnancy outcome after controlling for demographic, biomedical, and lifestyle variables. Subjects completed questionnaires that assessed family social supports, life events, and anxiety. In addition, data were collected on general biomedical and pregnancy risk, lifestyle practices, including smoking and drinking, as well as demographic information. Four infant outcomes, birthweight, gestational age, and 1 and 5 min. Apgar scores, were studied via hierarchical multiple regression analyses, for their relationship to the social and psychological variables, after controlling for all others sets of variables. The results of these analyses showed that life events stress accounted for significant variation in birthweight, and social supports and anxiety were associated with the two pediatric Apgar scores. Gestational age bore a simple relationship to anxiety, with higher anxiety predictive of lower gestational age. Further analysis revealed that women with either low social supports or high anxiety were, on the average, younger, more often single, of lower education level, had less income, smoked more, and had higher general biometric risk than women with adequate social supports or lower anxiety. This suggests the multiple ways in which social and psychological risk factors may be related to pregnancy outcome and emphasizes the need for well controlled studies in this area. Author.

PATERSON, C.M., RODERICK, P.
Obstetric outcome in homeless.
British Medical Journal; 301, 1990, no. 6746, p. 263-66, 15 refs.

OBJECTIVE: To characterize the pregnant homeless population booking and delivering at St Mary's Hospital, London, and ascertain whether their obstetric outcome was adversely affected by their homeless condition. DESIGN: Retrospective comparison of demographics characteristics of 185 homeless women booking for delivery with those of housed women booking in the same period and with the population of North West Thames region; comparison of obstetric performance of homeless women with subgroup of the housed population (group matched for age, parity, and ethnic origin). SETTING: Consultant obstetric unit, St Mary's Hospital, London. SUBJECTS: All women booking between April 1987 and March 1988 who subsequently had a registrable birth. MAIN RESULTS: 185 (8%) Of the 2308 women studied were homeless. Compared with the housed population, they had a larger proportion of young women, women of high parity, and Indo-Pakistani women, and a smaller proportion of primiparas. Homeless women booked later and had more previous obstetric problems than housed women. Pregnancy outcome (assessed by birth weight and prematurity rates) was worse than that of both women housed locally and the regional population. Antenatal attendance, complications, intrapartum performance, and perinatal outcome of homeless women did not differ from those in the control group. CONCLUSIONS: This study has been unable to show any significant differences in the outcome of pregnancy in homeless women that can be directly attributed to living in bed and breakfast accommodation, but these women have sociodemographic characteristics and obstetric risk factors that contribute to a poorer outcome in pregnancy than that for the general population. Author.

RAUTAVA, P.
The Finnish family competence study: characteristics of pregnant women with low childbirth knowledge.
Social Science and Medicine; 29, 1989, no. 9, p. 1105-09, 20 refs.

The present paper characterizes the socio-demographic background, health behavior and attitudes of 1443 nulliparous women in relation to their level of childbirth knowledge. The response rate was 92%. Those women who refused to participate were not significantly, occupationally different from the study subjects. Practically all pregnant women in Finland use maternity health care services. However, those with a low childbirth knowledge needed more health counselling and were largely characterized by the same factors that identify mothers in other countries who do not use such services.

Mothers undereducated on childbirth were more often unemployed, somewhat younger, living near or with their parents, and less well educated in general than those with high knowledge,. These woman felt that they had no education in child rearing, but they also felt no need for such guidance. They smoked more than mothers with high knowledge, both before and during pregnancy. They had less physical exercise, ate more fatty foods and less vegetables. They also used more drugs during the first trimester of pregnancy, had fewer leisure time activities, read fewer books and took less advantage of cultural services. They assessed themselves as emotionally closer to their own mothers than did those with high childbirth knowledge.

A low level of childbirth knowledge seems to be associated with risks in health-connected behavior, which has important implications for prenatal health education. Author.

REID, M.

Consumer-oriented studies in relation to prenatal screening tests.

European Journal of Obstetrics, Gynecology and Reproductive Biology; 28, 1988, supp., p. 79-92, refs.

Prenatal screening test are on the increase. In the future, tests will be available to screen an impressive number of problems; they will also be more widely available and widely used.

It is important when studying the acceptability of a prenatal screening test to establish the actual availability of the test to women. This has been shown to vary according to geographical and social factors.

High on the list of anxieties of any pregnant woman is concern about the baby. Research has shown that for the majority of women, information lessens their anxiety. Yet it is also the case that women remain fairly ignorant about many of the prenatal tests which they undergo throughout pregnancy.

Women may find the actual test procedure either exhilarating, frightening or unpleasant, depending upon the procedure itself, the woman's prior knowledge of the test, and the manner of those present during the test. The manner in which the results are given to parents is important, direct telling being more satisfactory than indirect means. For the majority of parents, such results, will be reassuring. For others, however, the results may simply be the beginning of further anxiety, either if the results are (false) positive, or when they give a clear indication of fetal deformity. A few studies have indicated that families facing further decisions about the future of the pregnancy may also be more likely to face marital problems and disruption. Whatever the results, prenatal screening tests involve the woman, and her family, in certain social costs which need to be estimated.

Overall, women are given too little information about the tests, even with regard to routine or minor screening tests; too little attention is paid to the results of the test. Author.

RUTTER, D.R., QUINE, L.

Inequalities in pregnancy outcome: a review of psychosocial and behavioral mediators.

Social Science and Medicine; 30, 1990, no. 5, p. 553-68, 171 refs.

The purpose of this paper is to review the literature on psychosocial factors in pregnancy outcome and to the present a model which attempts to integrate the findings theoretically. There are four sections. The first presents published data on the incidence of early childhood mortality and low birth weight. Changes over time and differences between countries are noted and attention is drawn to the marked inequalities between occupational groups in the British data. The second section reviews the evidence that a variety of psychological risk factors influence pregnancy outcome, notably social, emotional, cognitive and behavioral factors. The third section develops the theme of inequalities and examines theories which have been advanced to account for the differences in adult mortality. The authors argue that *material deprivation* goes some way towards explaining inequalities in pregnancy outcome. The processes and mechanisms by which material deprivation is translated into observable mortality and morbidity are studied. In the concluding section, the authors argue that some of the principal links are the psychological risk factors described in the second section, and they present a model which traces the pathways of mediation. Author.

SAUREL-CUBIZOLLES, M.J., KAMINSKI, M.

Work in pregnancy: its evolving relationship with perinatal outcome (a review).

Social Science and Medicine; 22, 1986, no. 4, p. 431-42, 81 refs.

Several recent publications reveal a new interest in the impact of pregnant women's employment on perinatal outcome. A review of the epidemiological studies which have been published since the beginning of this century shows for how long the medical profession has been concerned with the adverse effects of tiredness and overwork on perinatal outcome. Epidemiological studies have shown varying results according to the different time periods. After commenting on this, the authors try to explain how significant changes in women's occupational activities may account for it, remembering that different, imprecise methods of data collection and analysis may lead to different findings. Several recent studies have drawn attention to various biases which may affect such studies.

The authors deliberately excluded the numerous studies on exposure to chemical or physical factors and their teratogenic and abortive effects. Recent publications have reviewed the particular professional risks in reproduction resulting from specific biochemical processes. They concern only a limited number among the female working force. This review is limited, on the one hand, to studies that have considered occupational activity as a whole, and on the other hand, to those considering the fatigue caused by such activity described in terms of the working conditions. The studies refer to developed countries. Only one survey from Ethiopia has been found revealing an insufficient calory intake among pregnant women working in agriculture and its prejudicial effect on birthweight. Author.

SAUREL-CUBIZOLLES, M.J., KAMINSKI, M.
Pregnant women's working conditions and their changes during pregnancy: a national study in France.
British Journal Industrial Medicine; 44, 1987, no. 4, p. 236-43, refs.

In a study of 2387 employed women who had worked for more than three months of their pregnancy the data were extracted from a survey carried out on a national sample of births in France in 1981. Manual, service and shop workers had a higher preterm delivery rate than professional, administrative, or clerical workers. Assembly line work was associated with a higher preterm delivery rate even when only production workers were considered. Cumulated physically tiring working conditions such as standing work, carrying of heavy loads, assembly line work, and considerable physical effort, were related to higher preterm delivery and low birthweight rate. During pregnancy, absences due to sickness were more common when the working conditions were arduous. Changes in the working conditions were less clearly related to arduous work than sick leaves; they were not significantly more frequent for standing work or for assembly line work. Employers' refusals to grant favorable arrangements were more frequent when the working conditions were tiring, and sick leaves were more common among women whose requests had been refused. Author.

SEGUIN, L., THERRIEN, R., CHAMPAGNE, F., LAROUCHE, D.
The components of women's satisfaction with maternity care.
Birth; 16, 1989, no. 3, p. 109-13, refs.

For a better understanding of how women's satisfaction with maternity care is affected, a representative sample of 1790 women from the Montreal area who had delivered four to seven months earlier, were mailed a postal questionnaire; 938 (52.4%) completed and returned it. With factor analysis,

we determined five dimensions to women's satisfaction: (a) the delivery itself, (b) medical care, (c) nursing care, (d) information received and participation in the decision-making process, and (e) physical aspects of the labor and delivery rooms. Multiple regression analysis was used to determine explicative factors for each of these dimensions of satisfaction. Items relative to the delivery process such as pain intensity, complications, and length of labor were the most important factors determining level of satisfaction for the delivery experience itself. Participation in the decision-making process was the first component of satisfaction with medical care. Information received appeared to be the major component of their satisfaction with nursing care. The physical environment did not affect women's satisfaction with obstetric care. Author.

STENGEL, B., SAUREL-CUBIZOLLES, M.J., KAMINSKI, M.
Pregnant immigrant women: occupational activity, antenatal care and outcome.
International Journal of Epidemiology; 15, 1986, no. 4, p. 533-39, refs.

Data from a national sample of births in France in 1981 were used to analyze the relationship between occupational activity, antenatal care and pregnancy outcome among immigrant women. On the whole, occupational activity was less common among immigrant than among French women, although the occupational activity rate varied according to the country of origin. Among French women, employment during pregnancy was related to better antenatal care and more favorable outcome. The same tendency was observed among immigrant women, whatever their origin, though they had less qualified occupations and harder working conditions than those of French women. Occupational activity of immigrant women was more frequent among women with a higher educational level, better knowledge of the French language, and who had resided in France for a longer time. These characteristics were also associated with better antenatal care, but the relationship between work and antenatal care remained significant after taking them into account. Author.

STENGEL, B., SAUREL-CUBIZOLLES, M.J., KAMINSKI, M.
Healthy worker effect and pregnancy: role of adverse obstetric history and social characteristics.
Journal of Epidemiology and Community Health; 41, 1987, no. 4, p. 312-20, refs.

Data from a survey conducted in 1981 on a national sample of 5508 births in France were used to analyze the role of a history of previous adverse pregnancy outcome (spontaneous abortion, perinatal death or adverse fetal condition) in the selection mechanisms of women with regard to occupational activity, and the impact on the relationship between working during pregnancy and preterm delivery. The study, carried out separately

in each parity group, showed that occupational activity was associated with a more favorable outcome for women with one parity: the preterm delivery rate was significantly higher among women who had never worked than among those who continued working during pregnancy. However, the hypothesis of a "healthy worker effect", linked to a history of adverse obstetric outcome, was not confirmed in this study. A selection effect of women with a history of spontaneous abortions was observed, but these were not linked to preterm delivery. Among multiparous women, a history of perinatal death or adverse fetal condition did not seem to modify women's behavior towards their work. Selection mechanisms of women towards occupational activity, according to sociodemographic factors, were also analyzed, and showed that the higher percentage of younger women among those who had never worked explained the higher rate of preterm delivery in that group. Author.

SUREAU, C.
Patient's demands, society's pressure and the obstetricians/gynaecologists.
European Journal of Obstetrics, Gynecology and Reproductive Biology; 36, 1990, no. 3, p. 265-66, Plenary Session V: The ethics in gynaecology and obstetrics, refs.

Three groups of people are involved in the process of decision making in reproductive medicine as in medicine in general: namely, the *individual* who seeks help, care, cure, but also, and this quite specific, sometimes only the satisfaction of a need or desire, possibly in conflict with interests of others, the *society* which is responsible for establishing laws, rules and restraints and directly or indirectly assumes to some extent the expenses of the health needs, and between the various *medical professions*. This model is elaborated for pregnancies.

TAYLOR, A.
Maternity services: the consumer's view.
Journal of the Royal College of General Practitioners; 36, 1986, no. 285, p. 157-60, 19 refs.

Findings are reported from a study designed to compare consumers perceptions of a range of maternity provision. Detailed, exploratory work was followed by a pilot study and a postal survey to which 562 mothers responded. An analysis of the data indicated a strong preference for the antenatal and postnatal services provided by general practitioners or neighborhood hospitals. Although the ratings given to all hospitals for care during labor and delivery were broadly similar, the majority of mothers would prefer a delivery under general practitioner care when considerations of safety permit. Important characteristics of the preferred

services are accessibility, continuity, personalized and small-scale care, and recognition of childbirth as a life event. The desirability of retaining a range of services is discussed. Author.

ZWEIG, S., KRUSE, J., LEFEVRE, M.
Patient satisfaction with obstetric care.
Journal of Family Practice; 23, 1986, no. 2, p. 131-36, refs.

Patient satisfaction with obstetric care was studied in a cohort of postpartum women from a rural midwestern county. Birth certificate data defined the population, and data on the level of satisfaction were acquired through a mailed questionnaire. An indirect measure (satisfaction scale) was derived with acceptable construct validity and internal consistency. A direct measure (open-ended questions) elicited specific comments about each woman's recent experience with obstetric care. Satisfied women, as described by the scale, were more likely to have had good physician continuity and to have attended childbirth classes. The open-ended responses most frequently described problems associated with the physician-patient relationships. In comparing the indirect and direct measures, women with high satisfaction scores were lees likely to make critical comments about their obstetric care ($chi^2 = 9.16$, P less than .003). The patient's perception of the physician's attitude of concern emerged as an important issue in both measures. The data demonstrate that perceived physician concern is an important component of patient satisfaction with regard to obstetric care. Author.

5. Quality Assessment in Primary Care Obstetrics and Perinatal Health

ACHESON, L.S., HARRIS, S.E., ZYZANSKI, S.J.
Patient selection and outcomes for out-of-hospital births in one family practice.
Journal of Family Practice; 31, 1990, no. 2, p. 128-36, 38 refs.

This paper reports a study of the pregnancies followed to delivery in one family medicine group practice that offered a choice of childbirth settings. Those choosing out-of-hospital birth (OHB) were a self-selected group of highly motivated couples interested in natural childbirth or desiring to minimize the costs of pregnancy care. Of 790 singleton pregnancies followed to term, 71 couples (9.0%) planned home births, 510 (64.6%) planned clinic births, and 209 (26.5%) planned hospital births. Of those couples planning clinic or home birth, 73% gave birth outside the hospital as planned (44 at home and 379 in the clinic), 81 (14%) changed plans prenatally and gave birth in a local hospital, 46 (8%) were transferred to the local hospital intrapartum, and 29 (5%) were referred to tertiary care. Primiparas who initially chose OHB were more likely than multiparas to give birth in a hospital (46% vs 16%).

Controlling retrospectively for obstetric risk and parity, there were few differences in the outcome between local hospital and out-of-hospital births. The observed rates of serious complications for OHB were low, but, overall, 27% of those initially considered candidates for birth outside the hospital required a change to a higher level of care. For primiparas initially planning either clinic or home birth, discriminant analysis revealed five variables that together might have improved the prediction of the eventual decision for hospital delivery in 46%. Clinical pelvimetry was the most powerful variable, in keeping with the finding that most intrapartum transfers were arrests of labour. The results also suggest that financial factors and other features of the physician-patient relationship influenced clinical decision making. Author.

ALTEN, D. VAN, ESKES, M., TREFFERS, P.E.
Midwifery in The Netherlands. The Wormerveer study; selection, mode of delivery, perinatal mortality and infant morbidity.
British Journal of Obstetrics and Gynaecology; 96, 1989, no. 6, p. 656-62, refs.

Between 1969 and 1983, a group of 7980 pregnant women, was studied, who booked consecutively at a practice of freestanding midwives in Wormerveer, The Netherlands. They gave birth to 8055 children. Perinatal

mortality in the total group was low (11.1 per 1000) compared with national figures of 14.5 per 1000 between 1969 and 1983. The highest mortality (51.7 per 1000) was found in a group of 1430 infants born after maternal, referral during pregnancy, to a specializing obstetrician. Perinatal mortality in the group during pregnancy determined as low-risk cases was very low (2.3 per 1000). The caesarean section rate in the total group was 1.4% and 0.4% in the selected low-risk group. Of the 5985 infants born alive under sole care of a midwife, 3.8% were admitted to hospital. Emergency admission due to birth asphyxia occurred in 0.4%. Convulsions within 48 h of birth at term occurred in seven (0.9 per 1000) in the total group and in five infants born in the selected group (0.8 per 1000). Assignment of pregnant women into groups of high and of low risk is possible with the relatively modest means available to the midwife. Author.

BACKE, B.
Quality assurance in perinatal and obstetrical care: the Norwegian approach.
Australian Clinical Review; 8, 1988, no. 28, p. 13-18, refs.

Objective: to review the structure of all obstetrical units in Norway and to monitor the performance of care in terms of perinatal mortality, ultrasound examination and selected clinical events in routine obstetrical care. Methods: I. Audit of all perinatal deaths (270) in five Norwegian counties during one year. II. Consensus conference to review the practice and distribution of all antenatal diagnostic ultrasounds performed throughout the country over a period of one week. III. Statistical review of quality indicators or flag events in routine obstetrical care. Results: I. Identification of a significant percentage of "avoidable" perinatal deaths, most frequently related to antenatal and neonatal care rather than to obstetrical care. This resulted in official guidelines for antenatal care and the routine audit of perinatal deaths. II. 96% of the women surveyed had ultrasonography, on an average of 2.5 examinations each. An investigational procedure already established in practice, recommended that one ultrasound, performed in week 17-20, being offered to each pregnant woman. III. Clinical obstetrical practice varied significantly and it was noted that junior obstetricians had not adhered to established routines. Short and long term monitoring of clinical trends is considered. Author.

BLONDEL, B., KAMINSKI, M., SAUREL-CUBIZOLLES, M.J., BREART, G.
Pregnancy outcome and social conditions of women under 20: evolution in France from 1972 to 1981.
International Journal of Epidemiology; 16, 1987, no. 3, p. 425-30, refs.

Two studies based on national samples of births in France in 1972 and 1981 have enabled a comparison of the changes in perinatal risk and

social situation of women under 20 years of age with those of women 20 and over. Preterm delivery among women under 20 remained stable during the 10-year period, while it declined significantly among older women. Also, the social situation of teenagers deteriorated in terms of occupational activity, educational level, presence of the child's father in the home, and the occupation of the father. The changes in these social characteristics do not adequately explain the increased relative risk of preterm delivery among women under 20. Author.

CHALMERS, I., ENKIN, M., KEIRSE, M.J.N.C. (EDS.)
Effective care in pregnancy and childbirth. Volume I: Pregnancy Parts I-IV. Volume II: Childbirth Parts VI-X and Index.
Oxford: Oxford University Press, 1989, refs., figs., foreword by A. Cochrane

The series contains a unique collection of 89 published and unpublished controlled trials within the field of pregnancy and childbirth. A fairly good impression of the content can be given by summing up the titles if the chapters. This procedure is followed here. For illustrative reasons a typical subtitle is mentioned directly after the title of the chapter.

The first part is named *Evaluation of care during pregnancy and childbirth.* A subtitle is *The role of the social sciences in evaluating perinatal care.* Chapter two is named *The social context of care during pregnancy and childbirth*. Examples of titles of papers are *The role of the midwives: opportunities and constraints* and *The role of the family practitioner in maternity care*. Chapter three is called *General care during pregnancy* with subtitles like *The needs of childbearing families: social policies and the organization of health care*. The name of part four is *Screening and diagnosis during pregnancy*. A title is *Assessment of fetal size and fetal growth*. Chapter five deals with *Specific elements of care during pregnancy* and is less relevant within the scope of this specific piece of work. Part six, the first chapter in volume 2 is named *Care during labour*. A relevant title is *Monitoring the process of labour*. Chapter seven deals with *Initiating labor* with titles like *Methods for inducing labour*. Part eight is called *Care during delivery*. A title is *Preterm delivery*. Chapter nine is titled *Care of the mother and the newborn infant*, with papers like *Care of the new mother and baby*. The last part is called *Promoting effective care during pregnancy and childbirth* and contains three papers. An example is the title *National strategies for promoting effective care*.

CLARKE, M., CLAYTON, D.
Quality of obstetric care provided for Asian immigrants in Leicestershire.
British Medical Journal; 286, 1988, no. 6365, p. 621-23, 8 refs.

Between 1976 and 1981 some 939 perinatal deaths occurred in women living in Leicestershire, of which 128 (14%) were Asian. The qualifications of the general practitioners, the exact moment during gestation at which women start antenatal care, and perinatal death were used as structural, process, and outcome measures for evaluating the services provided to Asian immigrants within this population. Perinatal deaths were divided into four groups: congenital malformation, macerated stillbirth, asphyxia in labor and immaturity. Asian mothers had one and a half times the risk of perinatal mortality when social class, parity, height, legitimacy and the general practioners' qualifications were taken into account. Asian and non-Asian mothers with general practitioners who were not on the obstetric list had more than twice the risk of a perinatal death when a similar adjustment was made.

Recommendations include priority allocation of community midwives to practitioners not on the obstetric list, the establishment of postgraduate courses for such doctors, and the continued evaluation of the effect of such proposals on perinatal mortality. Author.

DERHAM, R.J., CLARKE, T.A., MATTHEWS, T.G.

Early seizures indicate quality of perinatal care.

Archives of Disease in Childhood, 60, 1985, p. 809-13, 13 refs.

An analysis of antepartum, intrapartum, and postpartum variables was performed in a retrospective controlled study of 34 normally formed term infants who had perinatal asphyxia and subsequently displayed generalized seizures within 48 hours of birth. The aim was to identify any association, between these variables and seizures, and these variables and subsequent morbidity and mortality among the seizure group.

Maternal age of 36 years and more, duration of labour, meconium stained liquor, abnormal intrapartum fetal heart rate trace and operative delivery were associated with seizures. A low Apgar score at five minutes, and intermittent positive pressure ventilation at birth of longer than 10 minutes, were associated with subsequent morbidity and mortality. A striking relation between poor intrauterine growth and either death or handicap in the asphyxia group emphasized the value of growth measurements as a predictor of outcome. The overall incidence of seizures was 1.6 per 1000 term deliveries. There was a significant correlation between the seizure incidence and the intrapartum mortality rate. The incidence of seizures secondary to asphyxia, in term infants, occurring less than 48 after delivery, may be a valuable index of the quality of perinatal care. Author.

DOWDING, V.M., BARRY, C.
Cerebral palsy: social class differences in prevalence in relation to birthweight and severity of disability.
Journal of Epidemiology and Community Health; 44, 1990, no. 3, p. 191-95, 14 refs.

STUDY OBJECTIVE: the aim of the study was to examine the possible influence of social class on the prevalence of cerebral palsy. DESIGN: the study was a retrospective, population-based survey of all cases of cerebral palsy. SETTING: the study involved all cases of cerebral palsy born to infants of residents in the Eastern Health Board area of the Republic of Ireland between 1976 and 1981 inclusively. PATIENTS: there were 289 cases of cerebral palsy during the study period. Thirty-one were excluded because they were attributable to post-neonatal brain damage, leaving 258 children for analysis. Cases with uncertain diagnoses were excluded. MAIN RESULTS: there was a clear social class gradient in the overall prevalence of cerebral palsy, also evident in the individual syndromes of hemiplegia and diplegia. No such gradient was detected in other syndromes, either single or in combination. Among cases of low birthweight (≤ 2500 g), the prevalence was the same across the range of social classes after allowing for the increased low birthweight rate in the lower social class categories. Among normal birthweight cases there was a strong positive association with decreasing social class. Intrauterine growth retardation seemed to be a factor in cerebral palsy severe enough to prevent walking by fourth birthday, but not of cases ambulant by this age, increased with socioeconomic disadvantage. CONCLUSION: Social class gradients in hemiplegia and diplegia suggest clearly that environmental factors play an important role in the aetiology of these syndromes, but there was no evidence of a contribution from this type of factor in the remaining types of cerebral palsy. Author.

ENKIN, M., KEIRSE, M.J.N.C., CHALMERS, I., ENKIN, E. (EDS.)
A guide to effective care in pregnancy and childbirth.
Oxford: Oxford University Press, 1990. app., ind.

This book is about the effects of care, given and received, during pregnancy and childbirth. Ten years ago the authors began a systematic review of the evidence. They analyzed more than 3000 of the best clinical research studies, and classified the elements of care as effective, promising, not proven either way, or not worth using. This has resulted in a continuously updated electronic database, *The Oxford database of perinatal trials*, and in a 1500-page book, *Effectiveness Care in Pregnancy and Childbirth*. All the main findings and conclusions of these recent publications are available here in an easily readable form. Covertext.

ENNIS, M., VINCENT, C.A.
Obstetric accidents: a review of 64 cases.
British Medical Journal; 1990 May 26, VOL: 300, 1990, no. 6736, p. 1365-67, refs.

Objective: to identify the causes of obstetric accidents. Design and setting: analysis of case records covering the five years 1982-6 at the Medical Protection Society's London office. Subjects: cases that had come to litigation which had resulted in stillbirth, perinatal or neonatal death, central nervous system damage to the baby, or maternal death and in which there was an opinion from a senior obstetrician consulted by the society. Of 147 cases reviewed, 64 met the criteria for the study. Main outcome measures: the principal findings of the expert reviewers. Results: three major topics of concern emerged common to most of the 64 cases. These were in adequate fetal heart monitoring, mismanagement of forceps, and inadequate supervision by senior staff. In 11 of the 64 cases cardiotocography was omitted, in 19 cases the trace was missing, in six cases the trace was unreadable, and in 14 of the remaining 28 cases the signs of fetal distress went unnoticed or were ignored. In 31 cases forceps were used to aid delivery or were tried and abandoned in favor of caesarean section. In 16 cases two or more attempts to use forceps were made. Five infant deaths were directly attributed to mismanaged forceps. In 20 cases senior staff members were criticized by the expert reviewer for not coming to the labor ward. In many of these cases they may have given advice over the telephone, but the inadequacy of records made it impossible to tell. In these cases both labor and birth were managed by junior staff, usually a senior house officer. In six cases, when senior staff did come, they suggested that no action was needed. Conclusion: these few cases should not be dismissed as isolated incidents in obstetric practice in Britain. They reflect more general problems, namely, the ability of junior doctors to interpret fetal heart traces accurately, their ability to use forceps and the participation of senior staff in running a labor ward and delivery suite. Author.

ERKKOLA, R., RAURAMO, L., SEPPALA, A., GRONROOS, M., KERO, P.
Monitoring perinatal mortality by birth weight specific mortality rates.
International Journal of Gynaecology and Obstetrics, 20, 1982, p. 231-35, 6 refs.

Perinatal mortality at the University Central Hospital of Turku, Finland, decreased significantly. From 15.7 per 1000 in the years 1970-75 to 8.9 per 1000 in the years 1976-78. The main decrease has occurred in weight groups of a 1000 g and more. In the years 1976-78, the perinatal mortality of non-malformed babies in the weight group 1500-1999 g was 93 per 1000, in the group 2000-2499 g 21 per 1000, and in the group of 2500 g it was over 1.7 per 1000. Early neonatal mortality of non-malformed

infants has decreased significantly only in the weight group of 1500-1999 g. The one-week survival rate has been 48% in the weight group 500-999 g, but 77% in the weight group 1000-1499 g. The birth weight specific mortality rates are very important factors in assessing the quality of obstetrical care. Birth weight specific neonatal mortality rates are essential when designing guidelines for elective termination of third trimester pregnancy. Author.

ESKES, M., KNUIST, M., ALTEN, D. VAN
Neurologisch onderzoek bij pasgeborenen in een verloskundigenpraktijk.
Nederlands Tijdschrift voor Geneeskunde; 131, 1987, no. 24, p. 1040-43, 14 refs.

Neonatal neurological examination was performed in 89 firstborn and 87 second or later born children of women who had subscribed for antenatal care in a practice of midwives. The neonatal neurological optimality scores obtained by children born under the sole care of a midwife were significantly higher than the scores obtained by the children born under the care of the gynecologist after referral during pregnancy. No difference was found between the first group and the children born under the care of a gynecologist after referral during pregnancy.

No relationship was found between the neonatal neurological optimality score and the arterial umbical pH. There is no need for concern about the Dutch obstetrical system, in which midwives take care of pregnancies and deliveries, as the results of this study show. Author.

GARRET, T., HOUSE, W., LOWE, S.W.
Comparison of outcome of low-risk labor in an isolated general practice maternity unit and a specialist maternity hospital.
Journal of the Royal College of General Practitioners; 37, 1987, no. 304, p. 484-87, 10 refs.

The outcome of pregnancy of 1303 women admitted for delivery (including those transferred after admission) at an isolated general practitioner maternity unit over the period 1978-85 was studied. The outcome following change of booking before admission was also assessed for the years 1982-85. The crude perinatal mortality rate was 1.5 per 1000 for all admissions between 1978 and 1985. Of the women admitted in 1978-85, 7.4% were transferred after admission while for those booked at the unit in 1982-85, 11.3% had their place of booking changed. A higher proportion of nulliparous women than multiparous women were transferred or had their place of booking changed. The main reasons for transfer after admission were delay in the first stage of labor (21.9%), spontaneous rupture of membranes not during labor (16.7%) and hypertension (15.6%), and for change of booking postmaturity (26.9%) and hypertension (16.4%).

Sufficient information concerning risk of transfer and change of booking may now be available, in order to make an informed choice of place for delivery, from studies of isolated general practice maternity units for pregnant women at low risk. Author.

GREEN, A., BERAL, V., MOSER, K.
Mortality in women in relation to their childbearing history.
British Medical Journal; 297, 1988, no. 6645, p. 391-95, 24 refs.

With data from the Office of Population Censuses and Surveys' longitudinal study, the mortality of currently married women aged under 60 in 1971 was investigated in relation to the number of live-born children reported in the 1971 census, adjusting for the subjects' husbands' social class. Women who had never had children showed higher mortality from many causes of death than did the parous women, and this was probably due, at least in part, to selective factors. When the analysis was confined to parous women mortality from diabetes mellitus and cervical cancer increased significantly and mortality from oesophageal cancer decreased significantly while at the same the number of live born children increased. Mortality from all circulatory diseases and from hypertensive disease, ischaemic heart disease, and subarachnoid haemorrhage tended to rise with parity, though the trends were not statistically significant. Mortality from breast cancer decreased significantly with the number of live born children, but only when nullipara were included in the analysis. These data suggest that there may be residual and cumulative effects of childbearing which influence patterns of disease in the long term. Author.

HÅKANSSON, A.
Comparison between the outcome of antenatal care led primarily by district physician or by obstetrician. A study on a defined population based on the Medical Birth Registry.
Acta Obstetrica Gynaecologica Scandinavica; 67, 1988, no. 7, p. 639-44, refs.

A study was made of the data from the Medical Birth Registry of the National Board of Health and Welfare for the years 1979-83. Comparison was made between women from one area, where the district midwife and the district physician were in charge of the antenatal care, and another area, where it was the district midwife and the obstetrician who were primarily responsible for antenatal care. All births included in the analysis took place in the same maternity department, the numbers of which births in the two areas being 3,861 and 3,041, respectively. The study was unable to reveal any difference in the outcome of pregnancy between the two areas. Thus, antenatal care supervised primarily by the district physician (referring complicated pregnancies to the obstetrician) seemed

to be just as satisfactory as that care supervised primarily by the obstetrician. A greater proportion of women in the latter group had 'abnormal' deliveries for which there was no apparent cause. Author.

KLEIN, M., REYNOLDS, J.L.
Influence of perinatal asphyxia on neurologic outcome: consequences for family practice accoucheurs.
Canadian Family Physician; 36, 1990, no. 10, p. 1735-40, 45 refs.

Inappropriate concern with perinatal asphyxia, based on false notions about causes, may be behind the decision of some family physicians to avoid obstetrics. Asphyxia can cause motor or mental deficits, but only if the insult was severe and prolonged (when there will be evidence of hypoxia in systems other than the CNS). Even abnormal CNS signs do not necessarily reflect clinically important neurologic damage. Intrapartum case has much less impact on neonatal outcome than previously believed, and most bad outcomes have their origins in events occurring long before the onset of labor and outside the detection capabilities if current technology. Nevertheless, family physicians require resuscitation skills because vigorous, effective management of even very hypoxic neonates can improve and normalize outcome. Author.

ORLEANS, M., HAVERKAMP, A.D.
Are there health risks in using risking systems? The case of perinatal risk-assessment.
Health Policy; 7, 1987, no. 3, p. 297-308, 28 refs.

Health risk assessment is receiving widespread public and professional attention. Relationships between risk and health effects are often assumed to be real and taken for granted. While health risk assessments are increasingly conducted, they are sometimes not well grounded and frequently poorly studied. Knowledge of the sensitivity, specificity and predictive value risk factors in clearly identified target populations is required if appropriate interventions are to be designed. '*Risking systems*' are often comprised of risk factors which have little predictive usefulness. In the field of perinatal medicine, the identification of risk factors has a long history. The changing risk status of pregnant women during the prenatal period, in labor, and at the time of delivery poses problems for the researcher and clinician who rely on risking systems to characterize the likelihood of adverse events. Currently used risking systems, antepartum and intrapartum, are not sufficiently robust for this task. The assignment of a high risk status often results in overcalling a problem and a cascade of technological interventions may follow. In the current climate

of '*managing*' pregnancies, a thoughtful review of the quality of risking systems is required. Are we being over-risked and over-served? Author.

HOLST, K., ANDERSEN, E., PHILIP, J., HENNINGSEN, I.
Antenatal and perinatal conditions correlated to handicap among 4-year-old children.
American Journal of Perinatology; 6, 1989, no. 2, p. 258-67, refs.

The purpose of this study was to investigate the impact of maternal prepregnancy and pregnancy-related risk factors such as complicated delivery and perinatal morbidity on subsequent handicaps in children. The authors surveyed a birth cohort of 4102 mothers and 4138 children in Frederiksborg County, Denmark. Maternal risk factors were defined according to guidelines published by the Danish National Board of Health, and perinatal morbidity and handicap risk factors according to World Health Organization guidelines. The incidence of handicaps: (cerebral palsy, mental retardation (mild and severe), epilepsy, severe defects of vision and hearing), was 44 of 4038 children (twins and neonatal deaths were excluded). A combination of three or more maternal risk factors was found to be a predictor of risk for children with later handicaps; the incidence of handicaps was 11 times higher than in mothers with no risk factors. Eleven per cent of all mothers had three or more risk factors and they had 43% of the handicapped children. Multiparity increased the risk in all risk categories. Of all complications during delivery, intrapartum asphyxia, as evident from Apgar scores of less than 7 at 1 minute and less than 10 at 10 minutes in particular, was a strong predictor of a later handicap. Premature rupture of membranes for more than 24 hours was also significantly associated with later handicaps. Perinatal morbidity was correlated with a later handicap. The perinatal complication most strongly associated with later handicaps was low birthweight. Forty-eight per cent of the affected children had a birthweight of less than 2500 g and were small for their gestational age. The authors conclude that the incidence of handicaps could possibly be reduced if the causes of the following maternal risk factors were identified and, if possible, eliminated: previous delivery of a child with a birthweight less than 2500 gm, previous delivery of a stillborn child, repeated abortions, severe infection during pregnancy, intrauterine growth retardation, and preterm delivery. Improved intrapartum diagnosis and prevention of asphyxia and treatment of children born with low Apgar scores would reduce the incidence of handicaps, as would intervention to prevent premature rupture of the membranes which lasted more than 24 hours. Author.

HUGHES, D.J., GOLDSTONE, L.A.
Frameworks for midwifery care in Great Britain: an exploration of quality assurance.
Midwifery; 5, 1989, no. 4, p. 163-71, refs.

In order to design a quality assurance tool for midwifery, it was necessary to assess current frameworks and standards for practice. With that aim, a questionnaire was sent to all midwifery managers in the UK. The findings showed that 'Planned Individualized Care' is the favored framework for midwifery practice and that the use of nursing models (or adapted versions of these), and midwifery models is widespread but not prevalent. Documentation for midwifery care is not always in accordance with the favored framework for care as reported. The standards articulated in the three 'Maternity Care in Action' reports are those aspired to by most maternity units. Methods of assessing the quality of maternity care are many and varied but show a clear trend towards giving precedence to gauging client satisfaction with the service. Author.

IFFY, L., BILENKI, I., APUZZIO, J.J., GANESH, V., SUN, S.C., THOMAS, H., ERIAN, M., KAMINETZKY, H.A.
The role of obstetric factors in perinatal mortality trends.
International Journal of Gynaecology and Obstetrics; 24, 1986, no. 2, p. 85-95, refs.

In the Perinatal Unit of the New Jersey Medical School, Newark, the combined neonatal mortality and still birth rates declined from more than 51 per 1000 to less than 17 per 1000 between 1971 and 1983. This change is comparable to the reduction of perinatal mortality rates nationwide since the Second World War. Because the improvement in the fetal and neonatal survival rates occurred in a static population and against well identifiable changes in the structure, equipment, policies and management patterns of the obstetric unit, it was possible to assess the impact of various factors upon perinatal outcome. In the environment of this institution adherence to conservative concepts of obstetric management, avoidance of manipulative and extraction procedures, an increase of the rate of caesarean sections from about 7 to 15% and emphasis upon infection control appeared to be the crucially important factors. Antepartum sonography and fetal stress and non-stress testing had significant impact upon the results. The role of intrapartum electronic monitoring was less clearly definable and seemed to be effective only in the hands of experienced physicians. The results did not seem to be adversely affected by the fact that the program de-emphasized invasive procedures, including fetal scalp pH sampling. Author.

KLEBANOFF, M.A., SHIONO, P.H., RHOADS, G.G.

Outcomes of pregnancy in a national sample of resident physicians.

New England Journal of Medicine; 323, 1990, no. 15, p. 1040-45, 19 refs.

BACKGROUND: Physically demanding, highly stressful work during pregnancy has been reported to cause a variety of adverse outcomes. It has been difficult, however, to separate the effects of work from those of socioeconomic status.

METHODS: By means of a national questionnaire-based survey, the authors studied the outcomes of pregnancy during residency for 4412 women who graduated from medical school in 1985 and for the wives of 4236 of their male classmates, who served as controls.

RESULTS: The rate of response to the survey was 87 per cent (4412 of 5079) for the women residents and 85 per cent (4236 of 4968) for the wives of male residents. There were no significant differences in the proportion of pregnancies ending in miscarriage (13.8 per cent for residents vs 11.8 per cent for their classmates' wives, $P=0.12$), ectopic gestations (0.5 per cent vs 0.8 per cent, $P=0.69$), and stillbirths (0.2 per cent vs 0.5 per cent, $P=0.20$). There were 989 women residents and 1238 residents' wives whose first pregnancy during residency resulted in live birth of a singleton infant. Although during each trimester the women residents worked many more hours than the wives of the male residents, the frequency of preterm births (<37 weeks' gestation) was similar: 6.5 per cent for residents and 6.0 per cent for residents' wives (odds ratio=1.1; 95 confidence interval, 0.7 to 1.5). Infants who were small for gestational age (with birth weights less than 10th percentile for gestational age) were born to 5.3 percents of the residents and 5.8 per cent of the residents' wives (odds ratio=0.9; 95 per cent confidence interval, 0.8 to 1.7) for preterm delivery and 0.9 (95 per cent confidence interval, 0.6 to 1.3) for the delivery of an infant who was small for gestational age. However, the women residents more frequently reported having had a preterm delivery (6.5 per cent vs 6.0 per cent); preeclampsia was also more common among the women residents (8.8 per cent vs 3.5 per cent).

CONCLUSIONS: These results suggest that working long hours in a stressful occupation has little effect on the outcome of pregnancy in an otherwise healthy population of high socioeconomic status. Author.

KNUIST, M., ESKES, M., ALTEN, D. VAN

De pH van het arteriele navelstrengbloed van pasgeborenen bij door vroedvrouwen geleide bevallingen.

Nederlands Tijdschrift voor Geneeskunde; 131, 1987, no. 9, p. 362-65, 12 refs.

The umbilical artery pH, as a parameter of neonatal morbidity, has been investigated in 91 primiparous and 69 multiparous women, who booked

for antenatal care in a practice of midwives. The pH values of the neonates of primiparous women attended by midwives (mean 7.27) were significantly higher than those of the primiparous women who were referred to an obstetrician during pregnancy (mean 7.23). No difference was found between the first group and the primiparous women referred to the obstetrician during labor and delivery (mean 7.26). The arterial cord pH values of the neonates of multiparous women did not show a significant difference in the various groups (mean values 7.30, 7.33 and 7.31 respectively). With respect to umbilical pH values, this study shows that there is no cause for concern about the Dutch obstetrics system in which midwives take care of pregnant women and deliveries. Author.

KNUIST, M., ESKES, M., ALTEN, D. VAN
Uitdrijvingsduur en de toestand van de pasgeborene bij door vroedvrouwen geleide bevallingen.
Nederlands Tijdschrift voor Geneeskunde; 133, 1989, no. 18, p. 932-36, refs.

The correlation between the duration of the second stage, and arterial cord blood pH/neurological score was calculated for 71 primi- and 77 multiparae. During pregnancy the women were judged to be low risk cases and put under care of midwives at the beginning of labour. The deliveries were attended by a midwife or, after referral during labour/delivery, by an obstetrician. It could not be established that a relatively long second stage substantial deterioration caused the condition of the neonate. From the findings obtained of it does not appear necessary to change the rules regarding maximum duration of second stage (currently two hours for primi- and one hour for multiparae). Author.

KRIEBEL, S.H., PITTS, J.D.
Obstetric outcomes in a rural family practice: an eight-year experience.
Journal of Family Practice; 27, 1988, no. 4, p. 377-81, 18 refs.

In some circles there has been debate of whether family physicians should practice obstetrics and should rural hospitals provide obstetric services. Forks, Washington, is a remote logging town where family physicians and midlevel practitioners have been the sole providers of labor and delivery services. Forks offers an opportunity to evaluate the quality of an isolated rural family practice obstetric service.

A retrospective audit of all labor and delivery patient charts at Forks Community Hospital from 1975 to 1983 was undertaken; 1,052 charts were abstracted with 36 factors of morbidity, mortality, and intervention examined. The results, when compared with similar studies in the literature, provide evidence of good performance. In addition, a relatively high-risk obstetric population was served with favorable outcomes. Family

physicians and rural hospitals can provide high-quality obstetrical services. Author.

A commentary with 19 references by M.A. Smith can be found on pages 381-84 of the same periodical.

MACMILLAN RODNEY, W.M., PRISLIN, M.D., ORIENTALE, E., MCCONNELL, M., HAHN, R.G.

Family practice obstetric ultrasound in an urban community health center: birth outcomes and examination accuracy or the initial 227 cases.

Journal of Family Practice; 30, 1990, no. 2, p. 163-68, 18 refs.

The initial 227 consecutive prenatal ultrasound examinations by two family physicians in an urban community health center were compared with actual birth outcomes. Of 186 examinations for which follow-up information was available, 162 infants were represented. The sampling rate was 81%. No serious anomalies were noted by ultrasound. One placenta previa, one fetal death, and two unexpected cases of twins were detected by ultrasound.

These data represent one of the first detailed reports of outcomes reflecting the family physicians' psychomotor cognitive skills in the use of obstetric ultrasound. The high accuracy (92% to 96%) of correct ultrasound dating suggests that a short, post-graduate continuing medical education course was effective for these two family physicians. The accuracy rate compares favorably to more rigorous training. This structured format which utilizes the average of four direct measurements for assessing proper imaging relationships or growth symmetry, may be useful as other family physicians develop educational methods and quality-assurance protocols in this area. Author.

MENGEL, M.B, PHILLIPS, W.R.

The quality of obstetric care in family practice: are family physicians as safe as obstetricians?

Journal of Family Practice; 24, 1987, no. 2, p. 159-64, 38 refs.

Relevant literature on the quality of obstetric care in family practice was reviewed to determine whether family physicians are as competent in providing obstetric care as obstetricians. Three types of studies were reviewed: case series, historical cohorts, and population-based studies. No conclusion on the quality of obstetric care in family practice can be drawn from the available studies because of research design limitations. Available evidence suggests, however, that family physicians are as safe as obstetricians when delivering babies, particularly when they concentrate their efforts on providing personal prenatal care, refer high-risk pregnant women appropriately, and practice less technologically-oriented care on

women who deliver normal-weight babies. In addition, no evidence emerged that family physicians provided significantly poorer obstetric care than obstetricians. In fact, the results from population-based studies suggest that family physicians may be a safer option than obstetricians in delivering normal-weight infants because of the fact that they are believed to make less use of technological interventions in that low-risk group of patients. Further studies, especially prospective randomized trials in which the outcomes are assessed in a blinded fashion and case mix is rigorously controlled, are needed to provide a definitive answer. As practical, ethical, and economic constraints are likely to preclude such studies, the case-control design may provide a reasonable alternative. Author.

NESBITT, T.S., CONNELL, F.A., HART, L.G., ROSENBLATT, R.A.
Access to obstetric care in rural areas: effect on birth outcomes.
American Journal of Public Health; 80, 1990, no. 7, p. 814-18, 17 refs., app.

Hospital discharge data from 33 rural hospital service areas in Washington State were categorized by the extent to which patients left their local communities for obstetrical services. Women from communities with relatively few obstetrical providers in proportion to the number of births, were less likely to deliver in their local community hospital than women in rural communities with greater numbers of physicians who practice obstetrics in proportion to number of births. Women from these high-outflow communities had a greater proportion of complicated deliveries, higher rates of prematurity and higher costs of neonatal care than women from communities where most patients delivered in the local hospital. Author.

PACCAUD, F., MARTIN-BERAN, B., GUTZWILLER, F.
Hour of birth as a prognostic factor for perinatal death.
Lancet; 1, 1988, no. 8581, p. 340-43, refs.

The analysis of the 220,540 births and 2152 perinatal deaths recorded in Switzerland between 1979 and 1981 showed a variation of perinatal mortality rates (PMR) according to the hour of birth. The PMR for babies born between 4 pm and 2 am was 12 per 1000, contrasting with a figure of 8.4 per 1000 for babies born between 2 am and 4 pm. This pattern, which was fairly constant throughout the week, was characterized by a slow and steady increase in the PMR from the very early morning, reaching a maximum in the PMR in the late evening. There was also an hour-to-hour variation in the proportion of babies who were born weighing less than 2500 g, with a maximum in the evening and a less pronounced peak in the morning. The mortality rates related to birthweight were raised

only in the evening. Since the availability of hospital staff and equipment also follows a circadian rhythm, the variation in PMR may be related to a circadian rhythm of quality of care or may possibly be related to chrono-biological or selection factors. Author.

POISSON-SALOMON, A.S., BREART, G., MAILLARD, F., RABARISON, Y., CHAVIGNY, C., SUREAU, C., RUMEAU ROUQUETTE, C.
Can the number of caesarean sections be reduced without risk? An analysis of rates and indications in a university clinic.
European Journal of Obstetrics, Gynecology and Reproductive Biology; 22, 1986, no. 5-6, p. 297-307, refs.

This study concerns women followed from the first trimester of pregnancy, in a university clinic in Paris in 1977, 1979 and 1981. The caesarean section rates were separately analyzed for primiparas, and multiparas with and without previous caesarean section. The overall rates of caesarean section were 11.4% in 1977, 17.2% in 1979 and 21.1% in 1981. The 9.6% increase observed between 1977 and 1981 is attributable mainly to an increase in primary caesarean section, particularly among primiparas, between 1977 and 1979. This does not seem to have resulted from sample variations. There is a change in obstetrical attitude, and more caesarean sections are performed in cases of hypertension, breech presentation or intrauterine growth retardation. The greater number of previously sectioned women explains the increase in the rates between 1979 and 1981. The main finding among primiparas is the 18.8% increase in diagnosis of dynamic dystocia between 1979 and 1981. Three key areas allow us to envisage a reduction in caesarean section rates: obstetrical attitude towards previous caesarean section, breech presentation and management of labor, whose perturbations lead to diagnosis of dynamic dystocia. Author.

POLAND, M.L., AGER, J.W., OLSON, K.L., SOKOL, R.J.
Quality of prenatal care; selected social, behavioral, and biomedical factors; and birth weight.
Obstetrics and Gynecology; 75, 1990, no. 4, p. 607-12, refs.

Two hundred and two poor, mainly black women, were studied to assess the effects of selected social, behavioral, and biological factors on birth weight. A path analysis was used to model hypotheses about the interrelationships among these variables. Six sociocultural factors had direct paths to quality of prenatal care: amount of insurance, delay in telling others about the pregnancy, attitudes toward health professionals, month of gestation in which the pregnancy was suspected, perception of the importance of prenatal care, and initial attitude toward the pregnancy.

Together, these factors accounted for 64% of the variance in the quality of prenatal care received. Four variables had direct paths to birth weight: month in which the pregnancy was suspected, quality of prenatal care, hypertension, and substance abuse, which together accounted for 13% of the variance in birth weight. The key findings were: the relative impact that the quality of prenatal care, especially the source of care, had on birth weight; and the potential for improving birth outcomes by addressing the negative effects of underlying social factors. Author.

PRENTICE, A., WALTON, S.M.
Outcome of pregnancies referred to a general practitioner maternity unit in a district hospital.
British Medical Journal; 299, 1989, no. 6707, p. 1090-92, 11 refs.

OBJECTIVE: To audit the outcome of pregnancies booked for confinement in general practitioner maternity unit in a district general hospital. DESIGN: Retrospective review of case records. SETTING: General practitioner maternity unit in a district general hospital. PATIENTS: 685 Women referred to a general practitioner unit in 1987. RESULTS: 315 Nulliparous women and 330 multiparous women were booked for confinement; 202 women transferred to consultant care before delivery; and a further 104 during labor or after delivery. Recognized risk factors, other than nulliparity, rarely predicted the need for transfer. Confinement in the general practitioner unit was associated with low intervention and good fetal outcomes. CONCLUSIONS: The general practitioner maternity unit provides a safe alternative for confinement in low risk pregnancies. High rates of transfer deny this facility to many women who desire confinement in a low technology environment. Author.

ROOKS, J.P., WEATHERBY, N.L., ERNST, E.K.M., STAPLETON, S., ROSEN, D., ROSENFIELD, A.
Outcomes of care in birth centers: the national birth center study.
New England Journal of Medicine; 321, 1989, no. 26, p. 1804-11, 68 refs.

The authors studied 11,814 women who were admitted, for labor and delivery, to 84 free-outstanding birth centers in the United States. The authors followed the mothers' course and that of their infants through delivery or transfer to a hospital and for at least four weeks thereafter. The women were at *lower-than-average* risk of a poor outcome of pregnancy, according to many but not all of the recognized demographic and behavioral risk factors.

Among the women, 70.7 per cent had only minor complications or none; 7.9 per cent had serious emergency complications during labor and delivery or soon thereafter, such as thick meconium or severe shoulder

dystocia. One women in six (15.8 per cent) was transferred to a hospital; 2.4 per cent had emergency transfers. Twenty-nine per cent of nulliparous women and only 7 per cent of parous women were transferred, but the frequency of emergency transfers was the same. The rate of caesarean sections was 4.4 per cent. There were no maternal deaths.

The overall intrapartum and neonatal mortality rates were 1.3 per 1000 births. The rates of infant mortality and low Apgar scores were similar to those reported in large studies of low-risk hospital births.

The authors conclude that birth centers offer a safe and acceptable alternative to hospital confinement for selected pregnant women, particularly those who have previously had children, and that such care leads to relatively few caesarean sections. Author.

SANGALA, V., DUNSTER, G., BOHIN, S., OSBORNE, J.P.
Perinatal mortality rates in isolated general practitioner maternity units.
British Medical Journal; 301, 1990, no. 6749, p. 418-20, 10 refs.

OBJECTIVE: To determine perinatal mortality rates among normally formed, singleton babies with birth weights ≥2500 g in Bath health district based on the intended place of delivery at the time when labor started or at the time of the diagnosis of intrauterine death. DESIGN: The numbers of live births and stillbirths were collected by means of monthly returns from the maternity units concerned. Deaths of infants aged ≤1 week were collected in the same returns. The intended place of delivery was confirmed at the monthly perinatal mortality meeting, during which maternal and fetal factors were discussed. SETTING: A rural health district population of 400,000 where one third of all deliveries occurred in seven isolated general practitioner maternity units, 8% in the integrated general practitioner unit, and the remainder in the consultant unit. SUBJECTS: All babies of women whose deliveries were booked in the district before labor began or the diagnosis of intrauterine death, excluding twins, babies with lethal congenital malformations, and those <2500g. MAIN OUTCOME MEASURES: Outcome of all deliveries and parity of mothers. RESULTS: 14,415 Deliveries were analyzed. The perinatal mortality rates were 2.8/1000 births in the consultant unit (7950 deliveries), 4.8 in the isolated general practitioner units (5237 deliveries), and zero in the integrated general practitioner unit (1228 deliveries). Perinatal deaths attributable to asphyxia were more common in the isolated general practitioner units (1.5 per 1000) than the consultant unit (0.6 per 1000). Perinatal mortality rates among babies born to nulliparous women were 3.2/1000 births in the consultant unit and 5.7 in the isolated general practitioner unit; for those born to multigravid women they were 2.4 and 4.2 respectively. CONCLUSIONS: The outcome of delivery was not influenced by parity.

Both antenatal and intrapartum care were responsible for higher perinatal mortality rates in the isolated general practitioner units. The integrated unit, which shared midwifery staff with the consultant unit, seemed to work well. Analysis by intended place of delivery at the time labor began or diagnosis of intrauterine death, suggested that the care given in isolated units needs to be improved, perhaps by better training of general practitioners and consultant supervision of antenatal care. Author.

STROBINO, D.M., BARUFFI, G., DELLINGER, W.S., ROSS, A.
Variations in pregnancy outcomes and use of obstetric procedures in two institutions with divergent philosophies of maternity care.
Medical Care; 26, 1988, no. 4, p. 333-47, 31 refs.

Pregnancy outcomes were compared between a stratified random sample of 796 women delivering live babies at a maternity center (BMC) and a frequency matched sample of 804 women delivering live babies at a tertiary hospital (TJUH) in 1977-1978. The relationship between the use of obstetric procedures with pregnancy outcomes was investigated within and between the two samples. Neonatal morbidity rates, as measured by Hoble's neonatal risk score, were significantly higher and mean birth weights lower at TJUH than at BMC, when adjusted for institutional differences in the use of obstetric procedures, medical-obstetric risk, and demographic characteristics. Conversely, the proportion of newborns with low 1-minute Apgar scores (fewer than seven) was significantly greater at BMC. The relationship between the use of some procedures and each outcome may be explained in part by use the procedure because of a suspected poor outcome of pregnancy, rather than an elevated risk of poor outcomes resulting from the procedure itself. Self-selection of some patients to BMC cannot be ruled out as a possible explanation for institutional differences. Author.

TEW, M.
Place of birth and perinatal mortality.
Journal of the Royal College of General Practitioners; 35, 1985, no. 277, p. 390-94, 20 refs.

Analysis of the published results of national surveys and specific studies, as well as of the official stillbirth statistics, consistently point to the conclusion that perinatal mortality is significantly higher in consultant obstetric hospitals than in general practitioner maternity units or at home, even after allowance has been made for the greater proportion of births in hospital at high pre-delivery risk. Unpublished results of the *British birth 1970 survey*, which have now become available, make possible a direct and authoritative analysis of data on the safest place of birth. Not only

does this make the earlier conclusion more certain, but it confounds the doctrine that obstetric intranatal care is particularly beneficial for high pre-delivery risk births. There is no evidence from recent years that the findings of the 1970, are equally valid in the 1980s. Author.

TREFFERS, P.E., LAAN, R.

Regional perinatal mortality and regional hospitalization at delivery in The Netherlands.

British Journal of Obstetrics and Gynaecology; 93, 1986, no. 7, p. 690-93, refs.

In The Netherlands 34-35% of all deliveries still take place at home, but with considerable regional differences. A study was made of the relationship between perinatal mortality rates and the percentage of hospital deliveries in the 11 provinces of The Netherlands, in municipalities divided into groups according to the number of inhabitants, and in the 17 cities with more than 100,000 inhabitants. No relationship could be demonstrated between the regional percentage of hospital deliveries and regional perinatal mortality rates. The proportion of hospital delivery appears not to be a major factor determining the regional perinatal mortality rate in the current system of obstetric care in The Netherlands. Author.

WILDSCHUT, H.I., WIEDIJK, V., OOSTING, J., VOORN, W., HUBER, J., TREFFERS, P.E.

Predictors of foetal and neonatal mortality in Curaçao, Netherlands Antilles: a multivariate analysis.

Social Science and Medicine; 28, 1989, no. 8, p. 837-42, refs.

In Curaçao a systematic and comprehensive investigation of numerous factors, potentially associated with an increased risk of foetal and neonatal mortality, was carried out in a 2-year period (1984-85). The inquiry was restricted to singleton births. Data on 205 women who experienced pregnancy loss were compared with those on 913 women who did not sustain foetal or neonatal loss. Data comprised information on maternal characteristics, clinical course of pregnancy and delivery, and neonatal characteristics. Of 130 factors measured, 14 were entered into a multivariate analysis. From the analysis 5 risk factors emerged as significant predictors of mortality: gestational age, birth weight, sex, foetal presentation and congenital anomalies. Factors such as social class, marital status, maternal age and parity were not associated with an increased risk of foetal and neonatal mortality in Curaçao. Author.

YOUNG, G.

Are isolated maternity units run by general practitioners dangerous?

British Medical Journal; 294, 1987, no. 6574, p. 744-46, 9 refs.

A retrospective survey was carried out of women who were admitted during labor to an isolated maternity unit run by general practitioners in Penrith. In the five years 1980-84, 1267 women began labor in Penrith, of whom 1152 (91%) never required help from any consultant unit. Ninety required transfer during labor. Ten mothers and four neonates required transfer during the early puerperium, all of whom were transferred to one receiving unit in Carlisle. There were six perinatal deaths during these five years; five occurred in babies delivered after transfer. Perinatal mortality was 4.7/1000. The low mortality, the low level of intervention, and the preference of women all support the retention of isolated units. Author.

BUEKENS, P., KAMINSKI, M.
Epidemiological evaluation of prenatal screening procedures: chapter 2.
European Journal of Obstetrics, Gynaecology and Reproductive Biology; 28, 1988, supp., p. 53-67, app., refs.

This chapter reviews all the epidemiological points which have to be discussed in order to decide whether a prenatal screening procedure should or should not be used routinely. The methods required at each step of the evaluation are described. The first paragraph elaborates the prerequisites of the evaluation. It deals with the definition of the health problem to be screened, with the prevalence, with the intervention., and with the secondary effects of the screening procedure and intervention. Paragraph 2 concerns the validity of the screening test. Topics are the sensitivity and specificity, the predictive value. The last paragraph discusses the efficacy in particular randomized controlled trials, other types of experiments, and the decision analysis.

CHASSIN, M.R., MCCUE, S.M.
A randomized trial of medical quality assurance: improving physicians' use of pelvimetry.
Journal of the American Medical Association; 256, 1986, no. 8, p. 1012-16, refs.

The capacity of educational programs to improve physician performance remains doubtful despite many evaluative efforts. This is especially true for programs sponsored by the federal government. We tested the efficacy of an educational program conducted by Professional Standards Review Organizations in reducing the inappropriate use of x-ray pelvimetry. This procedure may cause harm to the fetus, and there is little evidence that it is efficacious. We randomly assigned 120 hospitals in six Professional Standards Review Organizations to study and control groups. Physicians with delivery privileges at each study hospital participated in an educational program which discussed acceptable indications for x-ray pelvimetry. Pelvimetry use was similar in study and control hospitals before the program. However, after the program, pelvimetry was performed by physicians at study hospitals less than one third as often as by physicians at control hospitals. We conclude that educational programs can improve physician performance substantially and that such programs can be effectively conducted by federally sponsored physician organizations. Author.

COLE, S.K., HEY, E.N., THOMSON, A.M.
Classifying perinatal death: an obstetric approach.
British Journal of Obstetrics and Gynaecology; 93, 1986, no. 12, p. 1204-12, refs., app.

Consultation between clinicians and epidemiologists responsible for the Perinatal Mortality Surveys in Scotland and in the Northern Regional Health Authority in England showed that the classification of perinatal death introduced more than 30 years ago by Sir Dugald Baird still retained its utility, but that unintentional differences in the way cases were being classified had threatened the validity of temporal or geographical comparisons. To overcome this problem an effort has now been made to define the main terms used in this classification more precisely. To preserve continuity, the main structure of the original groupings was retained; but the opportunity was taken to make adjustments to certain minor groups in conformity to recent ideas, and also to modify definitions to take into account the greatly improved prognosis for babies of very low birthweight. Furthermore, it is thought that subclassification of the main groups offers a better method of exploring new hypotheses than any radical alteration of the main groups themselves. Author.

DOORNBOS, J.P., NORDBECK, H.J., TREFFERS, P.E.
The reliability of perinatal mortality statistics in The Netherlands.
American Journal of Obstetrics and Gynecology; 156, 1987, no. 5, p. 1183-87, refs.

All 13 hospitals in the municipality of Amsterdam cooperated in this study. Labor ward records for the years 1981 and 1982 were personally searched for cases of perinatal death that corresponded with the World Health Organization definitions of perinatal mortality presently applied in The Netherlands. The 360 cases that had apparently occurred in the Amsterdam hospitals were individually linked to the cases that had been entered into the national records at the Central Bureau of Statistics. The study established that the magnitude of underregistration of perinatal mortality is considerable(14.3%). At national level underregistration is due to underreporting by physicians and not due to errors in statistical bookkeeping. Underreporting is related to birth weight, that is, viability of the infant, and immigrant status of the mother. Recommendations are made to improve uniformity of notification criteria and reliability of perinatal mortality statistics. Author.

FIELD, D.J., SMITH, H., MASON, E., MILNER, A.D.
Is perinatal mortality still a good indicator of perinatal care?
Paediatric and Perinatal Epidemiology, 2, 1988, p. 213-19, 12 refs.

The increasing influence of extreme infant immaturity on perinatal mortality rates (PMR) led the authors to question the usefulness of this parameter in assessing perinatal care. To examine this further, the authors have, compared the incidence of perinatal asphyxia among babies (aged 35 weeks of gestation or greater) for two geographically-defined populations of over 500,000 persons. Both areas have a teaching hospital-based maternity service and comparable perinatal mortality rates. The incidence of severe post-asphyxial encephalopathy showed a marked excess in one population (1.93 vs 0.61 per 1000 births) which was not obviously explicable. Taken in conjunction with the figures for stillbirth in labor, this represented a 2.8 times greater risk for either fetal death in labor or severe asphyxial insult. It would appear that perinatal mortality rates do not accurately reflect important differences in those perinatal outcomes most likely to be affected by perinatal care. Author.

GREB, A.E., PAULI, R.M., KIRBY, R.S.

Accuracy of fetal death reports: comparison with data from an independent stillbirth assessment program.

American Journal of Public Health; 77, 1987, no. 9, p. 1202-06, 27 refs., app.

The authors evaluated the completeness and accuracy of reporting on Wisconsin fetal death reportforms (FDF) through case-by-case comparison with data from the Wisconsin Stillbirth Service Project (WISSP), which uses extensive protocols for etiologic investigation of stillborns. Fetal deaths are underreported; no FDF was submitted for 17.8 per cent of fetal deaths evaluated through the WiSSP. In those cases where FDF were submitted, fetal anomalies were often unrecognized or unreported: only 60 per cent of stillborns identified by the WiSSP as having fetal anomalies had indications of the presence of such anomalies on FDF. When causes of death were classified into fetal, placental/cord, maternal/environmental, and unknown, comparison of reported underlying cause of death revealed marked inaccuracies on FDF. Placental/cord causes reported on FDF often could not be subsequently documented while, in contrast, fetal causes of death were underreported. Few accurate fetal diagnoses were present on FDF. Even among common lethal malformations misdiagnosis occurred frequently. Author.

HENRY, O.A., SHEEDY, M.T., BEISCHER, N.A.

When is a maternal death a maternal death? A review of maternal deaths at the Mercy Maternity Hospital, Melbourne.

Medical Journal of Australia; 151, 1989, no. 11-12, p. 628-31, refs.

The limiting of the reporting of maternal deaths to those that are included in the criteria of the World Health Organization excludes deaths which

yield useful information for further improvements in clinical performance. In this series of 22 maternal deaths, six deaths would have been excluded from reporting: one "direct" obstetric death of pre-eclampsia; one "indirect" death as a result of renal and cardiac failure; two deaths as a result of postnatal depression which led to suicide three and four months postpartum, respectively; and two deaths from cancer, where diagnostic delay may have been a result of the coexistent pregnancy. The importance of primary pulmonary hypertension, cardiomyopathy and psychiatric illness is emphasized. The authors endorse the recent recommendation of the International Federation of Gynaecology and Obstetrics (FIGO) that all maternal deaths which occur more than 42 days after the end of a pregnancy should be assessed for possible relationships with childbirth, and suggest that a time limit of one year would include all deaths that are worthy of scrutiny. Author.

KEIRSE, M.J.N.C.
Perinatal mortality rates do not contain what they purport to contain.
The Lancet; 1, 1984, no. 8387, p. 1166-68.

Three cases of perinatal death, of which two needed to be included in and one excluded from national perinatal mortality statistics, were presented to 1004 specialist and trainee obstetricians in northern Belgium (i.e., Flanders) and The Netherlands. Of the respondents (52%), 69% admitted that they would report none of the cases and 13% would report all of them. Overreporting occurred twice as often and underreporting ten times as often as correct reporting. Only 6% would apply the current regulations for registration of perinatal mortality correctly in all three cases. Although the statutory regulations with regard to the cases were similar in the two countries, there were differences between Belgian and Dutch doctors in the reporting of these three cases. This indicates that Belgian and Dutch perinatal mortality statistics do not measure the same thing and that neither contains what it purports to contain. The findings cast doubts on the validity of using national perinatal mortality figures as indicators of perinatal health or perinatal care in and between European countries. Author.

LEFEVRE, M., WILLIAMSON, H.A., HECTOR, M.
Obstetric risk assessment in rural practice.
Journal of Family Practice; 28, 1989, no. 6, p. 691-95, 23 refs.

A study was undertaken to evaluate Coopland's obstetric risk index in a rural primary care setting. Information on 635 pregnant women cared for in a rural practice was collected prospectively. Adverse outcome was defined as perinatal death, birthweight less than 2500 g, Apgar score less

than 7, or newborn transferred to a level 2 or level 3 nursery.
Forty-seven pregnancies (8.3%) had an adverse outcome. There was a clear relationship between risk score and probability of adverse outcome. Good sensitivity could be achieved only at the expense of a very high false-positive rate, however. The index can be used to identify a subgroup of women at relatively high risk for adverse outcome, but the majority of adverse outcomes will occur in women identified as being low risk cases. The risk-scoring system in this population was no more effective than would be a policy that refers all women with standard obstetric risk factors. Author.
A commentary with 16 references by T.S. Nesbitt can be found on the pages 695-96 of the same periodical.

LOVELL, A., ZANDER, L.I., JAMES, C.E., FOOT, S., SWAN, A.V., REYNOLDS, A.
The St. Thomas's Hospital maternity case notes study: a randomized controlled trial to assess the effects of giving expectant mothers their own maternity case notes.
Paediatric and Perinatal Epidemiology; 1, 1987, no. 1, p. 57-66, refs.
At an antenatal clinic in St. Thomas's Hospital, London, 246 expectant mothers were randomly either assigned to keep their own maternity case notes or were given the standard co-operation card. Information on attitudes and health behavior was collected on three occasions during their care. Clinical outcomes were recorded and the effects of the two systems on clinic administration were observed. More members of the 'notes' group expressed satisfaction with most aspects of their care and delivery. Significantly more members of the 'notes' group felt well informed and satisfied with their companion during labor. There were no differences in clinical outcomes between the two groups except that, for no identifiable systematic reason, there were more assisted deliveries among the 'notes' group. A number of administrative advantages resulted from mothers keeping their own notes and, although initial reservations were found amongst the professional staff interviewed at the start of the study, the results proved persuasive and the practice of having mothers keep their own notes is now to be extended throughout the department. Author.

MCDONALD, T.P., COBURN, A.F.
Predictors of prenatal care utilization.
Social Science and Medicine; 27, 1988, no. 2, p. 167-72, 26 refs., app.
Despite substantial evidence linking improved pregnancy outcomes with the receipt of prenatal care and, recent improvements in prenatal care

utilization, specific subpopulations continue to receive inadequate or less than adequate care. The study reported here examined the predictive power of a set of variables, describing the type of financial coverage available to the mother, attributes of the mother, father and family and characteristics of the health care system. A stratified random sample of mothers was generated from state birth certificate files and surveyed by means of a mailed questionnaire. Stratification was designed to assure adequate representation of subgroups expected to receive less adequate prenatal care.

The study findings indicate that there were deficiencies in prenatal care utilization and that these deficiencies were concentrated in specific areas and subpopulations within the state. While the majority of women in the study started prenatal care in the recommended first trimester, most of them did not maintain the recommended schedule of visits with their care provider. The following conditions were found to reduce the likelihood of receiving adequate care after controlling for service need: younger women (particularly adolescents); less educated (particularly those without a high school education); low income; long travel time; Medicaid recipient; and rural resident. In addition, it was found that place of residence is a significant predictor of the adequacy of prenatal care even after controlling for all of the above variables.

The authors conclude that it is important, in assessing potential policy and program options for reducing differentials in prenatal care use, to distinguish between economic and non-economic barriers to utilization. Receipt of Medicaid does not assure adequate prenatal care use. Assuring continuity in care may be more difficult to achieve than initiating care in the first trimester. The fact that dramatic variations exists in prenatal care utilization raises additional concerns that the content and quality of this kind of care may also be a problem for some groups. Author.

NISWANDER, K.R.

Quality of obstetric care and occurrence of fetal asphyxia and cerebral palsy: is there a relationship?

Postgraduate Medicine; 78, 1985, no. 8, p. 57-64, 20 refs.

Whether a relationship exists between the quality of obstetric care and poor fetal outcome, notably cerebral palsy, remains uncertain. The authors herein report a study which suggests that substandard obstetric care bears little relationship to the etiology of cerebral palsy. In none of the 34 cases of cerebral palsy studied, there was any recognized delay on the physician's part in reacting to evidence of fatal asphyxia. Author.

SILBERMAN, L.

Quality assurance in obstetrics: a model.

Obstetrics and Gynecology; 76, 1990, no. 3, part 1, p. 466-70, refs.

Since 1985, a computerized data base has been used for the entry of information relevant to each of the 2500 deliveries performed at Danbury Hospital each year. This data base consists of 73 fields and codes for approximately 490 potential diagnoses and pieces of information spanning the patient's medical, surgical, and obstetric history; current antepartum, labor, delivery, and postpartum course; and neonatal course and outcome. With the publication of the Joint Commission on Accreditation of Healthcare Organizations Potential Obstetrical Care Clinical Indicators and, more recently, The American College of Obstetricians and Gynecologists (ACOG) Obstetric Clinical Indicators, information has been extracted from this data base and is being used as part of the quality assurance program of the department. The consequent report, generated from this extracted data base, provides information regarding 22 of the 24 relevant ACOG indicators. The records thus identified are then subjected to an initial screening. Those records that do not pass the initial screening are reviewed by the departmental Patient Care Review Committee, which examines each record for suitability of management and has the ability to request clarification of that management from the responsible attending physician and/or to refer the record to the departmental chairman for further discussion with the attending physician. Topics for departmental educational programs can be based on deficiencies highlighted by the quality assurance program. Author.

WHITFIELD, C.R., SMITH, N.C., COCKBURN, F., GIBSON, A.A.M.

Perinatally related wastage: a proposed classification of primary obstetrics factors.

British Journal of Obstetrics and Gynaecology; 93, 1986, no. 7, p. 694-703, refs.

Adapting Sir Dugald Baird's concept of primary obstetric causes of perinatal mortality, a revised clinico-pathological classification has been evolved to take into account new knowledge and developments, and to direct attention to potentially avoidable deaths and to determine where intensified efforts and investigations are needed. Categories highlighting the importance of intrauterine growth retardation, unexplained intrauterine death and spontaneous premature labor have been introduced. Intrapartum hypoxia is separated from birth trauma, and infection again has a category of its own. Regular perinatal audit, since 1979, at one obstetric hospital, has shown that the new system provides a workable and useful means for classifying not only perinatal deaths, but also late abortions, late

neonatal deaths and perinatally related infant deaths. The rate of total perinatally related wastage, thus defined, was almost twice that for perinatal mortality (22.8 compared with 11.9 per 1000 births). The former is advocated as a more realistic index for the audit of perinatal care. The revised and extended system is put forward as a contribution to the current debate on classifying and reporting such wastage, in the hope that it may be tested as a model for regional as well as hospital surveys. Author.

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