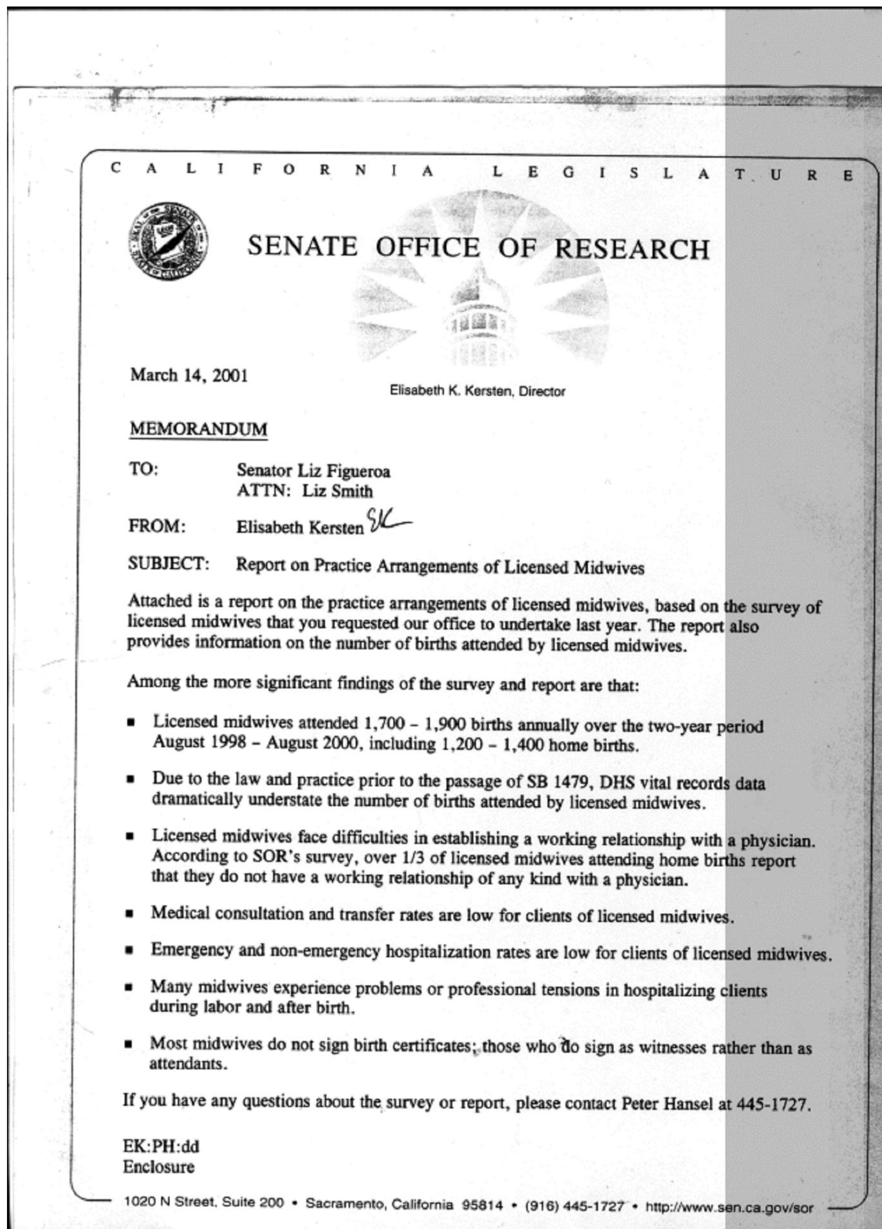
Report from the California Senate Office of Research on the 19 page Survey of Community-based Licensed Midwifery Practice ~ August 2000 ~

Conclusions:

The findings indicate that licensed midwives generally make appropriate arrangements for medical consultation, referral, transfer of care, and hospitalization of clients. Additional study of California birth records would help in affirmatively establishing the safety and efficacy of midwife-assisted births in California. SB 1479, with its requirement that licensed midwives register live births, should begin to produce the data needed to do that. In the meantime, the Legislature may wish to consider implementing a pilot project to test the idea of requiring physician consultation rather than supervision. The pilot would examine birth outcomes and changes in relationships between midwives and physicians associated with the revision of the supervision requirement. *Prepared by Peter Hansel*



C A L I F O R N I A L E G I S L A T U R E

SENATE OFFICE OF RESEARCH

March 14, 2001

Elisabeth K. Kersten, Director

MEMORANDUM

TO: Senator Liz Figueroa
ATTN: Liz Smith

FROM: Elisabeth Kersten

SUBJECT: Report on Practice Arrangements of Licensed Midwives

Attached is a report on the practice arrangements of licensed midwives, based on the survey of licensed midwives that you requested our office to undertake last year. The report also provides information on the number of births attended by licensed midwives.

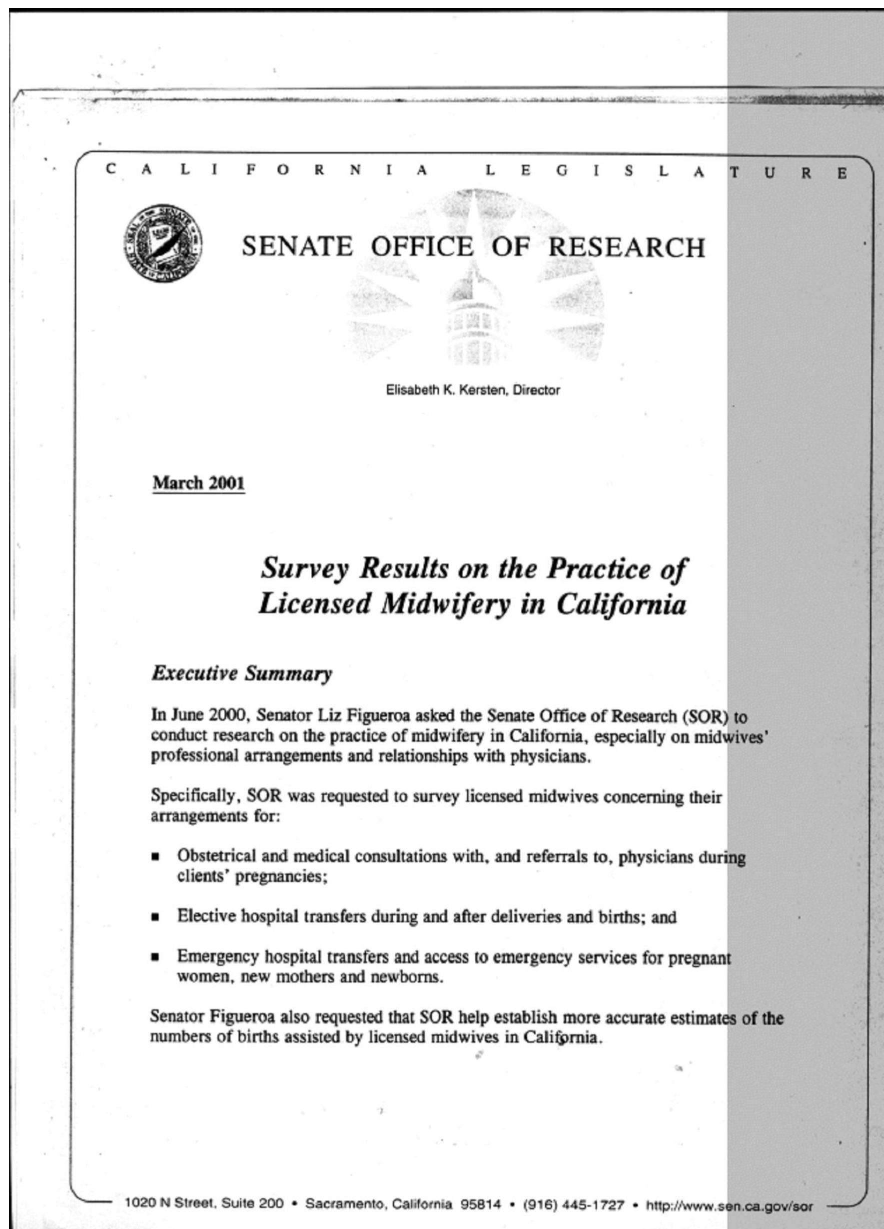
Among the more significant findings of the survey and report are that:

- Licensed midwives attended 1,700 – 1,900 births annually over the two-year period August 1998 – August 2000, including 1,200 – 1,400 home births.
- Due to the law and practice prior to the passage of SB 1479, DHS vital records data dramatically understate the number of births attended by licensed midwives.
- Licensed midwives face difficulties in establishing a working relationship with a physician. According to SOR's survey, over 1/3 of licensed midwives attending home births report that they do not have a working relationship of any kind with a physician.
- Medical consultation and transfer rates are low for clients of licensed midwives.
- Emergency and non-emergency hospitalization rates are low for clients of licensed midwives.
- Many midwives experience problems or professional tensions in hospitalizing clients during labor and after birth.
- Most midwives do not sign birth certificates; those who do sign as witnesses rather than as attendants.

If you have any questions about the survey or report, please contact Peter Hansel at 445-1727.

EK:PH:dd
Enclosure

1020 N Street, Suite 200 • Sacramento, California 95814 • (916) 445-1727 • http://www.sen.ca.gov/sor



C A L I F O R N I A L E G I S L A T U R E

SENATE OFFICE OF RESEARCH

Elisabeth K. Kersten, Director

March 2001

Survey Results on the Practice of Licensed Midwifery in California

Executive Summary

In June 2000, Senator Liz Figueroa asked the Senate Office of Research (SOR) to conduct research on the practice of midwifery in California, especially on midwives' professional arrangements and relationships with physicians.

Specifically, SOR was requested to survey licensed midwives concerning their arrangements for:

- Obstetrical and medical consultations with, and referrals to, physicians during clients' pregnancies;
- Elective hospital transfers during and after deliveries and births; and
- Emergency hospital transfers and access to emergency services for pregnant women, new mothers and newborns.

Senator Figueroa also requested that SOR help establish more accurate estimates of the numbers of births assisted by licensed midwives in California.

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(19 page Survey is available separately)

Based on its survey results and an analysis of data from birth records collected by the California Department of Health Services (DHS), SOR makes the following findings:

1. Licensed midwives attended between 1,700 and 1,900 births annually during a two year period from August 19 to August 2000. Of these, between 1,200 and 1,400 per year were home births.

2. DHS records dramatically understate the number of births attended by midwives. This is undoubtedly the result of then-current law and practices during that time period, which did not generally allow licensed midwives to certify or to be recorded as attendants for births occurring outside of hospitals. SB 1479 (Figueroa), Chapter 303, Statutes of 2000, should begin to rectify this problem in the department's Vital Records data. Many experts have asserted that more accurate reporting of licensed midwife-assisted births, as SB 1479 requires beginning January 1, 2001, will allow the state to evaluate the safety and efficacy of licensed midwife-assisted births and formulate appropriate public policy in this area.

3. Licensed midwives face difficulties in establishing working relationships with physicians. In SOR's survey, over one-third of licensed midwives who handle home births reported that they do not have a working relationship with a physician of any kind. Only 3 percent indicated that their relationship with a physician involves supervision by the physician, which is the legal requirement. Most (65 percent) reported that their relationship with a physician is consultative or collaborative.

4. Medical consultation and transfer rates are low for clients of licensed midwives. Relatively small percentages of midwives' clients are referred for medical consultation (6 percent) or transferred to a physician's care (4 percent) during pregnancy. It is impossible to determine from the survey data whether the low rates of consultation and transfer reflect the lack of working relationships many midwives have with physicians, or whether midwives and their clients encounter few problems that would necessitate a consultation or referral, or whether clients have a high degree of satisfaction with the care they receive from midwives,

or whether this finding can be explained by some combination of the above.

5. **Emergency and non-emergency hospitalization rates are low for clients of licensed midwives.** Midwives responding to the survey indicated that only 7 percent of their clients had been hospitalized on a non-emergency basis in the prior 24 months, and only 2 percent were hospitalized on an emergency basis. These numbers, particularly the rate of emergency hospitalization, are an indicator (though not a definitive indicator) that for most clients the degree of risk associated with a home birth attended by a licensed midwife would appear to be fairly small. It was beyond the scope of this study to compare birth outcomes for midwife-assisted births with those of hospital-based births; however, a number of studies have shown that among low-risk pregnant women, the outcomes of planned out-of-hospital births are comparable to, or better than, those associated with hospital births.

6. Many midwives experience problems or professional tensions in hospitalizing clients during labor and after birth. Over half of midwives indicate that they have experienced tension, major problems, or difficulties in arranging hospital care for their clients during labor or after birth, with 25 percent indicating that the problems threaten the quality of care their clients receive. Specifically, 25 percent of midwives report that there are major and ongoing problems with hospital staff or physicians that affect the quality of care, including prolonged delays and failure to use the midwife's records of labor for diagnosis or management. Another 8 percent say that hospitalization is very difficult to arrange and that they have to try several options, doctors or hospitals.

7. Most midwives have not signed birth certificates; those who have typically signed as witnesses rather than as attendants. Only 35 percent of midwives indicated in the survey that they had signed all or most birth certificates for the children they delivered in the past 24 months. Sixty-seven percent stated that when they did not sign a birth certificate, they verified the birth by other means, for example, by sending a letter to the county. In reviewing the wording of the questionnaire, as well as the law and practice at the time of the survey in 2000 that prohibited midwives from certifying births or being listed as attendants, it seems clear that when midwives did sign birth certificates they commonly did so as witnesses to the births rather than as attendants or certifiers of birth. Presumably SB 1479 will change that by requiring midwives, in the absence of physicians, to certify and register births that occur outside of hospitals and birthing centers.

Background

Legislative History on Licensure of Direct-Entry Midwives

In 1993, California passed the Licensed Midwifery Practice Act (LMPA), which required the California Medical Board to license and regulate the practice of directentry midwifery. The act authorized licensed midwives, under the supervision of a licensed physician, to attend cases of normal childbirth and to provide prenatal, intrapartum, and postpartum care, family planning services, and immediate care for newborns. The act also required licensed midwives without malpractice coverage to disclose that fact to clients. It required midwives to further disclose that a specific physician was being briefed regularly concerning the client's pregnancy and that the physician was prepared to assume responsibility for care if necessary. Finally, the act required applicants for licensure to have completed an accredited three-year postsecondary midwifery education program containing both academic and clinical training.

In 1997, the Medical Board began issuing licenses under the act. As of July 2000, 119 midwives were licensed in the state. It has been estimated that anywhere from 50 to 800 unlicensed midwives also are practicing in California.
From its inception, the act's provision that physicians supervise midwives' practices was seen by many as unworkable. Although the intent of the provision was to ensure physician oversight and to ensure a seamless transfer of care when birth complications or other health conditions arise, in practice it has been difficult for many midwives to find physicians who are willing and able to supervise their practices. Anecdotally, it appears that concerns about malpractice liability and conditions of malpractice coverage limit the willingness of most obstetricians to act in the capacity intended by the law.

To address concerns about the requirement for physician supervision, Senator Figueroa introduced SB 1479 in 1999. As introduced, the bill would have deleted the requirement that midwives practice under the supervision of a licensed physician. Instead, it would have provided that midwives have a duty to make specific arrangements for obstetrical consultation and transfer of care during the prenatal period, hospital transfer during and after the birth, and access to appropriate medical services for mother and baby. The bill required that those arrangements be disclosed by the midwife to clients.

As enacted, SB 1479 (Chapter 303, Statutes of 2000) imposes a number of new disclosure requirements on licensed midwives, but maintains the requirement that midwives practice under the supervision of a physician. In addition, the bill requires licensed midwives to register the births that they attend outside of hospitals or licensed birth centers.

Under SB 1479 as enacted, midwives must disclose:

· Provisions of Section 2507 of the Business and Professions Code that require them to have physician supervision,

· Whether they have malpractice liability coverage,

Arrangements for transfer of care during the prenatal period,

Arrangements for transfer to a hospital during or after the birth,

Arrangements for access to emergency medical services for the mother and baby, and

Procedures for reporting complaints to the California Medical Board.

Methodology for Study

SOR designed a survey questionnaire (see Attachment 1) and mailed it in late July 2000 to the 119 midwives who were licensed by the Medical Board as of that month. Both a stamped envelope and a fax number for returning surveys were provided. A second request to encourage completion of the surveys was mailed three weeks later.

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- Fourteen of **the 119** surveys were sent to invalid addresses and returned by the postal service. Seventy-two licensed midwives completed the surveys for a response rate of 69 percent. Of these, 61 midwives indicated they were currently practicing in California. Among those, 54 reported they had attended home births in the previous 24 months. Attachment 2 summarizes the response rate to the survey.

The survey results reported here reflect the responses of the 54 licensed midwives who had attended home births in the last 24 months, reflecting the focus of the request to SOR. (Most of the midwives who stated they had not attended home births indicated they instead had practiced in licensed clinics, birth centers, or hospital settings with physician supervision, or that they had provided prenatal care or consultation only.) The survey questionnaire, with the tabulated responses, is included as Attachment 1.

Survey respondents practiced in 42 of the 58 counties, generally the larger counties, and 43 percent practiced in more than one county (see Attachment 3). Although the SOR survey did not ask for it, a survey of licensed midwives in California in early 2000 by Michele Girard, as part of a master's thesis, found that 75 percent of respondents served geographical areas with radiuses of more than 42 miles.'

Results of the SOR Survey

General Practice Information

According to the survey responses, the average number of years of licensure for midwives is three and the number of years in practice is 14. Nearly 60 percent of licensed midwives had been in practice longer than 10 years.

According to the survey, most licensed midwives have degrees or licenses besides their midwives' license. Thirty percent of respondents had bachelor-of-arts degrees, 13 percent had bachelor-ofscience degrees, and 9 percent were registered nurses. Fiftyfour percent have one or more other licenses or degrees, often a certified professional midwife (CPM) degree or an additional master's degree. This is similar to the findings of the Girard survey, which found that 63 percent of licensed midwives in California hold degrees of associate or higher, including 40 percent who are CPMs, 9 percent RNs, and 9 percent physicians assistants.'

Virtually all midwives say they provide services such as instruction in bonding, breast feeding, child development, child safety, and nutrition. In addition, most provide one or more other services such as birth preparation, parenting instruction, or family planning.

Girard, Michele, A *Survey of Midwives in the State of California,* unpublished master's thesis, January 2000. 2 Ibid.
Over three-fourths of midwives said they do not **carry malpractice insurance.** The reasons most commonly cited were that it is too **expensive (59 percent),** not essential (15 percent), or not required (11 percent). Thirty percent indicated other reasons, including opposition to the concept on philosophical or personal grounds.

None of the midwives responding to the survey indicated that they have hospital privileges.

Number of Clients and Births Attended

Respondents said that, on average, they cared for 56 women over the previous 24 months (July 1998 to July 2000). The median number of clients was 30. In aggregate, midwives reported attending 1,822 births during the two-year period. Of these, 1,453 (80 percent) were home births, 184 (10 percent) were at hospitals, and 185 (10 percent) were at birthing centers. On average, respondents attended 34 births in the previous 24 months. The average number of home births reported was 27.

Professional Relationships with Physicians

Sixty-three percent of licensed midwives reported that they had a working relationship with a physician, versus 37 percent who said they did not. Of those who had a working relationship, 62 percent characterized it as consultative, 15 percent as collaborative and consultative, and only 3 percent characterized the physician's role as supervisorial. Fifteen percent indicated they had some other type of relationship, generally an on-call or back-up arrangement.

Twenty-eight percent of respondents reported that all or most of their clients in the past 24 months received care from a physician as well as a midwife. Fifty percent reported that few or none of their clients received care from a physician and 22 percent indicated that some of their clients received such care.

About three-fourths (75.5 %) of the midwives reported that when a client also received care from a physician, the physician was aware of both the client's relationship with a midwife and the client's plan to deliver at home. Conversely, 22 percent said physicians were generally unaware when their clients received dual care.

These findings are similar to those of the Girard survey, which found that 18 percent of licensed midwives had formal contracts with a supervising physician and 56 percent

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consulted with obstetricians as needed.

Consultation During Pregnancy

Midwives referred about 6 percent of their clients for medical consultation in the prior 24 months for issues outside their scope of practice, while they remained the primary caregiver to the client. This amounted to about four clients for each midwife who

3 Ibid.

responded. Ninety-six percent of midwives indicated that most or all of those referrals were at their recommendation. Over half (54 percent) indicated that all or most of the clients referred for a consultation saw a physician with whom the midwife had a working relationship.

Midwives reported that the types of physicians they most often referred clients to (on a scale of I to 5, with 1 being the most often and 5 the least often) were obstetricians (2.0), general practitioners (2.6), and perinatologists (3.2). Midwives also indicated that they referred clients to a variety of other health-care providers, including certified nurse-midwives, pediatricians, chiropractors, and pediatricians.

The most prevalent reasons reported by midwives for the consultations in the past 24 months (on a scale of 1 to 5, with 1 being the most often and 5 being the least often) were post-dates testing (2.16), ultrasound (2.4), other health concerns for the mother (2.7), and other health concerns for the baby (2.9).

Transfer of Care During Pregnancy

Midwives reported formally transferring the care of 4 percent of their clients to a physician over the past 24 months, a rate of about one or two clients per respondent. Seventy-one percent transferred the care of one or more clients to a physician during that period. Nearly 80 percent of midwives reported that all or most of those clients were transferred at their recommendation. Over half (53 percent) indicated that all or most of those clients were transferred to a doctor with whom they had a working relationship.

The types of physicians or entities that midwives most often transferred care to (on a scale of 1 to 5, with 1 being the most often and 5 being the least often) were obstetricians (1.6), Kaiser Permanente (2.6), general practitioners (2.9), and perinatologists (3).

The reasons midwives cited for the decision to transfer care (on a scale of 1 to 5, with one being the most often and 5 the least often) were the mother's health (2.33), breech position of the baby (2.45), fetal complications (2.7), and multiple complications (3.5).

Hospitalizations During Labor and After Birth

Fully 64 percent of midwives stated that they experienced tension, major problems, or difficulties in arranging hospital care for their clients during labor or after birth. Twenty-five percent indicated that these problems threaten the quality of care their clients receive. Thirty-two percent said there is usually significant tension between medical-care providers and the client family, but it ultimately does not affect the quality or nature of care. Twenty-five percent reported there are usually major and ongoing problems with hospital staff or physicians that appear to affect the quality of care, including prolonged delays and failure to use the midwife's records for diagnosis or management. Eight percent Said that hospitalization of their clients was very difficult to arrange and that they have to try several options, doctors, or hospitals.

Thirteen percent of midwives reported that some **hospitalized clients had been refused service** outright by hospital staff. This accounted for 3 percent of **the number of clients** who had been hospitalized.

Non-emergency Hospitalizations

Midwives reported that about 7 percent of their clients had been hospitalized on a nonemergency basis in the prior 24 months, or about three clients per respondent. Eightyfive percent said they had at least one client who was hospitalized on a non-emergency basis. Twenty-five percent of the nonemergency hospitalizations were done for the health of the baby.

Non-emergencies accounted for 77 percent of all reported hospitalizations; the other 23 percent were emergencies.

Ninety-three percent of respondents said all or most of their clients hospitalized for non-emergencies were transferred at their recommendation. The remaining 7 percent reported that all or some of the hospitalizations were requested by the clients themselves.

Forty-one percent indicated that all or most of their clients hospitalized on a nonemergency basis were referred to a doctor with whom they have a working relationship. Eleven percent said only some or few were referred to such a doctor, and 48 percent said none of their hospitalized clients were referred to a doctor with whom they have a working relationship.

Sixty-two percent reported that all or most of their clients hospitalized for nonemergencies were firsttime mothers, versus 29 percent who indicated that few or none were first-time mothers.

The most prevalent reasons for non-emergency hospitalizations (on a scale of 1 to 5, with 1 being most often and 5 being least often) were prolonged labor (1.35), medical condition of the baby (2.96), pain management (3.14), and medical condition of the mother (3.67).

Emergency Hospitalizations

Midwives reported that 2 percent of their clients had been hospitalized for emergencies in the past 24 months, or about I client per respondent. Fifty-four percent said, in fact, that at least one client had been hospitalized on an emergency basis. Of these emergencies, 55 percent concerned the health of the baby. Forty-seven percent of midwives reported that all or most of their clients hospitalized for emergencies were first-time mothers, versus 50 percent who indicated that few or none were firsttime mothers.

According to midwives, the most common reasons for emergency hospitalizations (on a scale of 1 to 5, with 1 being the most often and 5 being the least often) were retained

placenta (1.92); prolapsed cord/fetal distress (2.19), postpartum hemorrhage (2.36), and neonatal breathing problems (2.57).

Midwives said the most common modes of getting clients to hospitals in emergencies (on a scale of 1 to 5, with 1 being most often and 5 being least often) were driving to the hospital (1.47) and calling 911 (2.36) to summon an ambulance. In addition, a few midwives said they rely on private ambulances

Birth Certification and Re orting p

Virtually all (98 percent) of midwife respondents said they provide clients with information on how to obtain birth certificates for their newborns. However, only 35 percent said they had signed all or most birth certificates for children they delivered in the last 24 months, versus 54 percent who said they signed few or no birth certificates. Sixty-seven percent said that when they did not sign a birth certificate they verified the birth by other means, such as a letter to the county. Thirtyone percent said they rarely or never did that.

Midwives indicated that the most common reasons for not verifying births (on a scale of 1 to 5, with 1 being the most often and 5 being the least often) were logistical problems with the county (1.86), logistical problems with parents (2.0), and they didn't think they could (2.0).

Other Responses

SOR also asked midwives to comment on the most common problems they encounter with physicians and transfers of care. A significant percentage cited fear of litigation and malpracticeinsurance concerns as problems that impede their relationship with physicians. Others cited a lack of understanding or education on the part of physicians as to what midwives do. Others cited rude, disrespectful behavior from physicians and other hospital personnel, who, they said, can be unwilling to solicit midwives' opinions and records of care when seeing midwives' clients.

The survey also asked midwives to make suggestions to improve the interface between medical care providers and licensed midwives. Among the more common responses were suggestions to:

· Change the requirement that licensed midwives be supervised by physicians to a requirement that they consult with or collaborate with physicians,

· Limit the liability of physicians who act in a consultative or collaborative capacity with midwives,

· Require Medi-Cal and private health plans to reimburse the costs to clients of midwives' services,

· Allow midwives to sign and mail in birth certificates, and
n Require physicians to consult with midwives during transfers of care.

These responses are similar to those received in the Girard survey, which found that 78 percent of licensed midwives report the primary barrier to their practice is difficulty securing appropriate physician supervision. Other problems listed as obstacles in that survey were difficulty obtaining Medi-Cal reimbursement (64 percent), lack of hospital privileges (64 percent), and difficulty in obtaining third-party reimbursement (54 percent).'

Vital Records Information on Number of Births Attended by Midwives

As a supplement to its survey, SOR obtained birth-record data from 1996 through 1999 from the DHS Office of Vital Statistics, which maintains records of birth registrations and certificates. SOR obtained nonconfidential data for planned home births on the assumption that these likely represented women inclined to seek out midwifery services. SOR then obtained the actual place of birth, type of attendant, and outcomes data for these planned at-home births.

Of the 6,281 births planned at home in 1999, 652 were attended by "other" midwives, 512 by doctors, and 3,392 by "others." An attendant is not recorded in 95 births. According DHS reporting guidelines, "others" can represent a wide variety of persons, including family members and emergency-response personnel. Finally, 570 of the planned at-home births actually took place in a hospital or birthing center. These could have represented births with complications that were transferred to a hospital setting, or mothers who ultimately decided against a home birth, or some combination.

Findings

Based on SOR's survey and analysis of DHS vital records data, SOR makes the following findings:

1. Licensed midwives attended between 1,700 and 1,900 births annually over the twoyear period from August 1998 to August 2000, including between 1,200 and 1,400 home births. These estimates are generally consistent with other estimates that have been developed. For example, the Girard survey of licensed midwives in early 2000 found that the total number of births attended by midwives responding to the survey was 1,249 in 1998 and 737 in 1999. Seventy-nine percent of births attended were in client's homes, with the remainder in birth centers and hospitals. The median number of births attended in 1998 by midwives responding to the Girard survey was 26 and in 1999 was 17.'

Extrapolating those results to the universe of licensed midwives (and adjusting for the ratio of licensed midwives who are not practicing in the state as determined from SOR's survey results) the Girard survey implies that, collectively, licensed

Ibid. Ibid.

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midwives attended approximately 2, 100 total births in 1998 and 1,240 in 1999, or an average of about 1,670 for the two-year period, which is close to the 1,700-to1,900 range estimated by SOR.

2. DHS Vital Records data dramatically understate the number of births attended by midwives. According to this DHS data, licensed midwives attended only 652 births planned at home in 1999, far less than the estimates above. This is undoubtedly the result of then-current law and practice, which did not generally allow licensed midwives to certify or be recorded as attendants for births occurring outside of hospitals. Further, DHS data-coding instructions to county recorders do not even include licensed midwives among the categories of "other midwives" that are recognized as attendants or certifiers. SB 1479 of 2000, which took effect January 1, 2001, should begin to rectify these. As noted by many observers, more accurate reporting of licensed-midwife-assisted births could help the state evaluate the safety and efficacy of licensedmidwife-assisted births and formulate appropriate public policy in this area.

3. Licensed midwives face difficulties in establishing working relationships with physicians. According to SOR's survey, over one-third of licensed midwives assisting in home births report they do not have a working relationship with a physician of any kind. Only 3 percent indicate that the relationship is supervisorial in nature, the legal requirement, with most reporting that their relationship with a physician is consultative or collaborative. Survey results indicated that when midwives have established a consultative or collaborative relationship, it is the result of finding a "friendly" or "sympathetic" physician. Despite the challenges of creating such relationships, as documented in the survey, a significant percentage of licensed midwives (nearly one-third) said all or most of their clients were able to receive care from both a physician and a midwife during their pregnancies. In most of those cases, the physician was aware of the client's relationship with a midwife and of the client's plan to deliver at home.

4. Medical consultation and transfer rates are low for clients of licensed midwives. Relatively small percentages of clients end up being referred for medical consultation (6 percent) or transferred to a physician's care (4 percent) during pregnancy. It is impossible to determine fr ' om the survey data whether the low rates of consultation and transfer reflect the lack of working relationships many midwives have with physicians, whether midwives and their clients encounter few problems that would necessitate a consultation or referral, whether there is a high degree of client satisfaction with the care clients receive from midwives, or whether some combination of the above exists.

5. **Emergency and non-emergency hospitalization rates are low for clients of licensed midwives.** Midwives responding to the survey indicated that only 7 percent of their clients had been hospitalized on a non-emergency basis in the prior 24 months, and only 2 percent on an emergency basis. These numbers, particularly the rate of emergency hospitalization, are an indicator (though not a definitive
indicator) that for most clients the degree of risk associated with a home birth attended by a licensed midwife appears to be fairly small. It was beyond the scope of this study to compare birth outcomes for midwife-assisted births to those of hospital-based births; however, a number of studies have shown that for low-risk pregnant women, the outcomes of planned out-of-hospital births are comparable to, or better than, those associated with hospital births.'

6. Many midwives experience problems or professional tensions in hospitalizing clients during labor and after birth. Over half of midwives indicate that they experience tension, major problems, or difficulties in arranging hospital care for clients during labor or after birth, with 25 percent indicating that the problems threaten the quality of care their clients receive. Specifically, 25 percent of midwives report that there are major and ongoing problems with hospital staff or physicians that affect the quality of care, including prolonged delays and failure to use the midwife's records of labor for diagnosis or management. Another 8 percent say that hospitalization is very difficult to arrange and that they have to try several options, doctors or hospitals.

7. **Most surveyed midwives did not sign birth certificates; those who did typically signed as witnesses rather than as attendants.** According to SOR's survey, only 35 percent of midwives indicated that they signed all or most birth certificates for the children they had delivered in the past 24 months. Sixty-seven percent stated that when they didn't sign the birth certificate they verified the birth by other means, such as sending a letter to the county. In reviewing the wording of the questionnaire and the law and practice at the time, which prohibited midwives from certifying births or being listed as attendants, it seems clear that in the bulk of the cases where midwives signed birth certificates they did so as witnesses to the birth rather than attendants or certifiers. Presumably that will change with SB 1479's requirement that midwives certify and register births that occur outside of a hospital or birthing center in the absence of a physician.

6 See, for example:

Schlenzka, Peter F., *Safety, of Alternative Approaches to Childbirth,* Doctoral Dissertation, Stanford University, March 1999.

Anderson, Rondi E., and Anderson, David A., *The Cost-Effectiveness of Home Birth,* Journal of NurseMidwife , Vol. 44, No. 1, January/February 1999.

Janssen, Patricia A., et al. *Licensed Midwife-Attended, Out-of-Hospital Births in Washington State: Are They Safe?* BIRTH, 21:3. September 1994.

Midwifery in the 21" Century, a joint report of the Pew Health Professions Commission and UCSF Center for the Health Professions, April 1999.

Wagner, Marsden, *Midwifery in the Industrialized World,* Journal of the Society of Obstetricians and Gynaecologists of Canada. November 1998.

Conclusion

The findings indicate that licensed midwives generally make appropriate arrangements for medical consultation, referral, transfer of care, and hospitalization of clients. Additional study of California birth records would help in affirmatively establishing the safety and efficacy of midwife-assisted births in California. SB 1479, with its requirement that licensed midwives register live births, should begin to produce the data needed to do that. In the meantime, the Legislature may wish to consider implementing a pilot project to test the idea of requiring physician consultation rather than supervision. The pilot would examine birth outcomes and changes in relationships between midwives and physicians associated with the revision of the supervision requirement.

Prepared by Peter Hansel