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3924 E. 8th Ave #2  
Anchorage, Alaska 99504  
March 7, 1982

Senate and House Health, Education, and Social Services Committee  
Pouch V  
Juneau, Alaska 99811

Dear Sir:

I would like you to vote in favor of Senate bill #747, regarding the legalization of midwives and the establishment of a midwifery board. Homebirths and having midwives present at births is a part of our heritage. Although this practice had diminished in the recent past, it is on the rise again. I feel it is a beautiful way to bring a child into this world as opposed to being plugged into a machine and being injected with drugs at birth in a hospital.

The federal government recognizes midwives and uses them in Alaska at Elmendorf AFB, the Alaska Native Hospital, and throughout the State. With proper management midwifery can be a useful and rewarding program for our state, as it is for the federal government.

I realize that persons in the medical profession will lobby against this bill but their's are selfish -monetary- interests. Please vote as the common people in Alaska would have you represent them, in favor of midwifery in Alaska.

Sincerely,

*Thomas Malone*  
Thomas Malone

*Karen Malone*  
Karen Malone

cc: Charles Parr  
Terry Stimson  
Mike Coletta  
Vic Fisher  
Tim Kelly

*Original by  
Diane E-16-82  
N.O.*




# Alaska State Legislature

Senator Vic Fischer • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

February 16, 1982

To: Members of the Senate and  
interested parties

From: Senator Vic Fischer 

Re: Senate Bill 747 - relating to midwifery.

SB 747 creates a mechanism for voluntary licensing of "lay midwives through a board of midwifery under the Department of Commerce and Economic Development, Division of Occupational Licensing.

Introduced by request of individual midwives, childbirth educators, and health care providers, this bill is primarily concerned with providing a degree of consumer protection and information not available under current practice.

The traditional and cultural use of midwives and the demand for midwifery service, particularly for out of hospital births, is increasing in Alaska without adequate regulation and licensing. This bill provides a method of regulating midwifery in the public interest to assure that users of midwifery services are aware of the competency levels of their health care providers.

A key element in this bill is the concept of voluntary licensing. Regulatory boards are often accused of creating a "limited entry" in their field by refusing to grant licenses. This legislation creates a board of midwifery to test, regulate and license qualified midwives and makes it unlawful for a person to represent oneself as a licensed midwife or use any designation that implies that a person is licensed or certified by the state to act as a midwife. The bill does not, however, prohibit the practice of midwifery in the state without a license.

The concept is simple: the state has a legitimate interest in assuring that consumers of midwife services have the information available to make an informed choice of health care providers but should not hinder, prevent or interfere with consumers exercise of free choice in childbirth services.

SB 747 establishes experience and education levels for licensing, permits use of certain procedures and drugs by licensed midwives, requires ongoing education and experience, provides for apprenticeship training, and it requires midwives to keep statistical records available to the public. The bill establishes standards of practice and professional conduct and subjects licensed midwives to criminal penalties or suspension for violations of the provisions for licensure.

Committees: State Affairs, Chairman; Resources, Vice-Chairman; Health, Education & Social Services

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ORIGINAL.

# American College of Surgeons

FOUNDED BY SURGEONS OF THE UNITED STATES AND CANADA, 1918

## COMMITTEE ON TRAUMA

GEORGE M. LORGENBAUGH, M.D., F.A.C.S.  
Chairman, Alaska State Committee  
Box 377  
Sitka, Alaska 99815

March 25, 1982

The Honorable Charles Parr, Chairman  
Health, Education and Social Services Committee  
State Capitol  
Pouch V  
Juneau, Ak. 99811

Dear Senator Parr,

I would like to address the Committee regarding Senate Bill 437, an act relating to midwifery.

First of all, I am a graduate of the University of Colorado School of Medicine, with surgical residency in Baltimore. I came to Alaska in 1962 and was Chief of Surgery at Public Health Service Hospital, Mt. Edgecumbe, Alaska. I have been in private practice in Sitka since 1967, as well as consultant Chief of Surgery at the Mt. Edgecumbe Public Health Service Hospital since 1971. I am currently Chief of Staff at the Sitka Community Hospital and Chief of Surgery at Sitka Community Hospital.

During my years in Alaska, although I have not practiced obstetrics, I have, as surgeon in this small community, served as consultant and as the primary physician for most Caesarian sections performed during those years. I have also been active in Emergency Medical Services and served as medical advisor for the Southwest Regional Medical Services during the last several years and currently director of American College of Surgeons, Committee on Trauma, for the State of Alaska.

I believe that Senate Bill 437 is seriously flawed and its basic concept, that of licensing midwives who have not had medical training, uncovers a pattern of obstetrical care which is certainly not in the best interest of survival for mother or infant. Delivery of children is certainly a natural process, and we realize that in the vast majority of instances it is readily accomplished without a great deal of medical intervention. However, there is a significant percentage of mothers-to-be who at some point in their pregnancy have problems either immediately with their delivery or earlier. It is to this group of obstetrical patients that the encouragement of untrained attendants would do the greatest disservice. It seems to me that there are two factors involved in the management of the obstetrical patient that are often critical to the outcome of both mother and child.

1. The experience and training of the attendant.
2. The equipment and facility available to that attendant in the event there may be an unforeseen event.

The Honorable Charles Parr, Chairman

In my role as consultant to various people practicing obstetrics over the years, it has certainly been apparent to me that the degree of training and experience is directly related to the complications encountered in the course of the delivery. I cannot believe that the attendance by an essentially untrained and minimally experienced person would have a significant influence on the presence of complications.

We here in the Sitka community have had some experience with home delivery, as at one time there was a physician here who promoted home delivery; however, the only neonatal death of a full term infant to occur in this community over the span of many years happened in association with a home delivery performed by a physician.

Again, I think that there is no question that the experience of the operator, including the facility and equipment available to him are factors in preventing various complications and death in the obstetrical practice. I believe that the licensing of minimally or untrained individuals to do deliveries would be a distinct disservice to the patients, as well as the society, as a whole.

I appreciate this opportunity to submit this testimony for the consideration of your committee.

Sincerely,

*George H. Ingwersen, M.D.*  
George H. Ingwersen, M.D., F.A.C.S.

GIL:pb

My name is Beth Cox and how lived is Sitka for 15 years.  
I am also President of our local NARPSAC organization and a  
member of IONA.

I urge the passage of SB 747 for one main reason.  
I believe childbirth is a natural physiological event and  
should be treated as such. This not always available in  
days highly technological medical society.

I believe people should be allowed to have and choose safe  
alternatives in childbirth.

Midwifery is here to stay. You can outlaw midwifery but, you  
can't make it disappear.

I know parents don't care if a midwife is a nurse or not.  
They don't care if she is trained formally or informally. They  
just want her to be appropriately skilled, experienced and  
available by whatever means accomplished.

Pass this bill so that quality care will be available no  
matter where you choose to give birth.

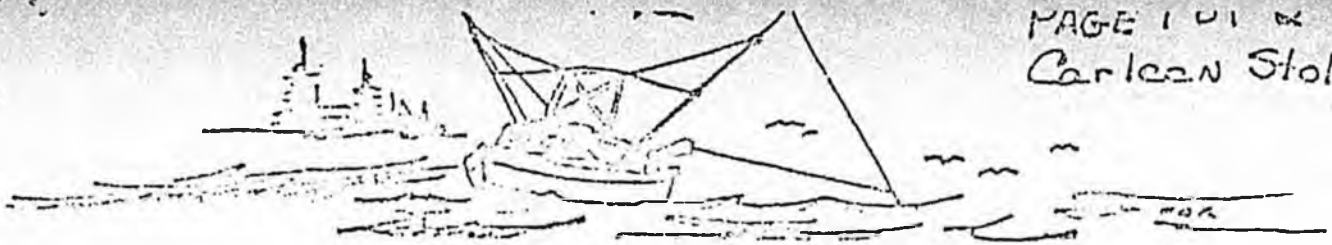
From:

Beth Cox

Box 875

Sitka, AK.

(PAGE 1 of 1)



Senator Charlie Farr

Health Committee

Fouch V

Juneau, Alaska 99811

Senator Charlie Farr and all other legislators

Sir:

I am a mother, a mother-to-be and a childbirth educator in the Sitka area. I am in support of SB 767 "An Act Related to Midwifery". I know people in this area would like an alternative to the hospital births available. Many are forced to labor in crowded labor rooms, transferred to the one delivery room and on occasion returned to a room with a mother still in labor. How can one hope to have a good birthing and bonding experience under these conditions?

The medical community should be here to help everyone. When they refuse their services because a couple wants a home birth, they are not fulfilling their obligations.

Right now in Alaska, there is no way for the consumer to judge a midwife's ability. This bill would help do this and the way it does seems fair. Attending 20 births in Sitka would be very hard and considering most of Alaska has a population less than this area, it is very limiting. However, if a person meets the standards expected by the licensing committee, then I would feel they are able to handle births.

A college education does not improve your value as a midwife. It is the experience and knowledge gained through actual birthing that makes a good midwife. Some people are born with a natural ability and desire to attend births. They may

140-C & OT of  
Carlleen Stokes

spend their lives gaining knowledge and skill in this area alone. They would  
be able to meet the needs of the birthing community along with nurses, CNM  
and doctors.

I urge you to support SB 747.

Sincerely,

*Carlleen Stokes*  
*Barbara*  
*Stokes*

Senator Charlie Ferr  
HESS Committee  
Fouch V  
Juneau, Alaska  
99811

Senator Charlie Ferr and all other Legislators

air:

I am in support of SB 747 "An Act Related to Midwifery".  
I feel that pregnancy and childbirth is a natural physiological  
process and, in as much, a state of wellness rather than disease.  
For that reason, I feel that safe birthing alternatives such as  
midwifery within birthing center and home deliveries be offered  
as options as well as the hospital settings.

I urge you and other legislators to support passage of this bill,  
so families might exercise their freedom of choice in matters  
relating to safe, healthy childbirth.

Sincerely,

From:  
Bill Stokes  
Box 1141  
SITKA, AK.

For Senate HESS  
PAGE 1 of 1

March 25, 1932

Legislative Information Office  
2100 Alaska Street  
Sitka, AK 99835

Re: Senate Bill 797

Dear Sir:

I am for Senate Bill 797 and would like to see it go through.  
I am for safe alternatives in child birth and the licensing of  
midwives would all this because the people coming into Alaska  
would have a way of judging the performance of our midwives.

Sincerely,

Brusilla Kennedy Palmer  
Box 1090  
Sitka, AK 99835

# SITKA COMMUNITY HOSPITAL

P. O. Box 500 • SITKA, ALASKA 99835 • (907) 747-3241

March 25, 1987

We, the undersigned, are unalterably opposed to SB 747. We strongly endorse the position of the Alaska Nurses' Association and urge you to vote NO on the licensure of lay midwives.

If this bill passes, the state is endorsing and encouraging lay midwifery, and in effect, telling the people of the state of Alaska that the licensed individual is well qualified. Without extensive education and experience requirements and defined standards of practice this piece of legislation only creates a false sense of security for the consumer.

*Sheryl Johnson RN, Director of Nursing - Sheryl Johnson*  
*Patricia Young RN, Head Nurse - Patricia Young*  
*Beverly Feltner RN, Staff Nurse - Beverly Feltner*  
*Bill [unclear] RN - Richard Stalinski*  
*Roy Keegan, Comstock RN - Roy Keegan*  
*Dan [unclear] RN, [unclear] - Dan [unclear]*  
*Linda K. Cook RN, CR Supervisor - Linda K. Cook*  
*James M. Young RN - James M. Young*  
*Donna [unclear] RN - Donna [unclear]*  
*Doris Hebbeler FAIP - Doris A. Hebbeler*

on next page

- cc: Senator Charles Parr, Chairman, Health, Education and Social Services
- Senator Terry Stinson
- Senator Mike Callahan
- Senator Vic Fischer
- Senator Tim Kelly
- Senator Dick Ellison
- Rep. Ben Grussendorf

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PAGE 0001

THE TELECOPIED MATERIAL ON "SITKA COMMUNITY HOSPITAL" LETTERHEAD IS SIGNED BY

SHERYL JOHNSON, RN, DIRECTOR OF NURSING  
PATRICIA GOMEZ, RN, HEAD NURSE  
SUSANNE FILTEAU, RN, STAFF NURSE  
RICHARD STAKLISTER (?), RN  
PEGGY KEEGAN CAMPBELL, RN  
JOANNE CLYDE, RN, INSERVICE C.S.C.H.  
LINDA K. COOK, RN, O.R. SUPERVISOR  
JEAN M. YOUNG, RN  
DOROTHY A. DREIER, RN.  
DONNA HEBBELER, FNF

I WILL XEROX THE MESSAGE AND MAIL TO EACH LEGISLATOR COPIED; HOWEVER, PLEASE  
GO AHEAD TO DISTRIBUTE TODAY PER REQUEST OF PEOPLE WHO BROUGHT IN THE MATERIAL  
THANKS.

# Childbirth experiment goes well

by Peter Eisner  
Associated Press

Fortaleza, Brazil — A pilot project that teaches basic health care to women in Brazil's poorest region may provide a Third World cure for the disease and death that threaten childbirth among the world's impoverished millions.

"The only pediatrician a new baby usually needs is its own mother," says Dr. Galba Araujo.

The Brazilian obstetrician has organized a network of traditional rural midwives who are taught methods that blend with traditional health care. They also learn to recognize warning signals in the few births which require a doctor's attendance.

"We've never had a woman die in childbirth," Araujo said in an interview. "The statistics show that 94 percent of the births were without complications."

With more than 8,000 births in five years, the project, supported by U.S. private money and Brazilian government funding, has also slashed the rate of infant death in one of the world's highest population growth areas.

"Underdeveloped countries have been imitating the developed countries in providing health care," Araujo said in an interview. "They have been adopting technology at high cost. But nobody can afford to pay."

The pilot project here stresses inexpensive methods which require minimal training, and also provides local training in family planning and birth control — a sensitive subject in this predominantly Roman Catholic country.

U.S. population specialists, based in Brazil, praise Araujo's work. With two-third of the world's people living without adequate medical care, these specialists say, the project may have major implications in the coming decades.

Araujo cited U.N. statistics which show that, if present trends continue, there will be three billion births worldwide between now and the year 2000. The statistics also indicate that one billion of those infants will die, an additional 400 million will not reach a year of age and 100 million women will die in the birth cycle.

Araujo, medical director of the Maternity Hospital in Fortaleza — an Atlantic coast city of 1.3 million 180 miles north of Rio de Janeiro — says the data he is gathering show at least 55 percent of pregnant women

...more a matter of surgery than a physiological act," said Araujo, who has sponsored international forums on health care and has lectured in the United States and elsewhere.

Araujo's project, which receives grant money from the Ceara State government, federal health officials and the Kellogg Foundation of the United States, has established a series of regional and local health clinics. He and other physicians enlist the help of traditional midwives and offer them group training.

The project advocates the use of "birthing stools," either at home or in a clinic, instead of giving birth lying down. The birthing stools — which can be as simple as a wooden chair with part of the seat removed — place the mother in a squatting position so that gravity aids the birth process.

Three hundred midwives have been trained in Ceara state, learning about problems of infection and about modern preventive care. They also are taught warning signals of birth problems and can refer mothers to local "satellite clinics" for better care. The satellite clinics, in turn, can refer patients to "base hospitals" for more sophisticated help.

There are now eight satellite centers and three base hospitals. Araujo says he and the state health department plan to double the number by 1983, with eventual plans to cover the entire state.

Ceara, with a population of more than five million, is in Brazil's drought-stricken northeast poverty belt. The birth rate here is higher than the national rate of 36 per 1,000 and the infant mortality rate higher than the national rate of 109 per 1,000.

The statistics at the satellite center at Aquiras, 25 miles from Fortaleza, are markedly better. Since the clinic opened on May 1, 1977, there have been 2,359 admissions and 1,005 births. An additional 329 cases were referred to the Fortaleza center and other women received pre- and post-natal care. There were 26 infant deaths among the 1,836 births, a death rate of 12 per 1,000 — one-eighth of the national average and lower than the U.S. infant mortality rate of 15 per 1,000. The overall statistics in the Ceara project are similar, Araujo said.

The coordinator of the Aquiras Center, Dona Teresinha Pereira Lins, herself a traditional midwife, said the clinic has been able to convince reluctant local residents that the free health service works.

"I began learning (to be a midwife) from my grandmother when I was 21," she said. "When I got here, everything was different. But now, everyone is used to it and we deliver 50 to 60 babies a month."

Araujo said the northeastern project has important lessons for more developed areas of Brazil, as well as for countries like the United States.

*I believe you would find these statistics to be much better than are in Alaska, even in Anchorage! Our vital statistics recording method in Alaska are known for their inaccuracy and lack of completeness.*

# HOME BIRTH—HOW SAFE IS IT?

by Robert E. Brooks, PhD., former professor of Quantitative Analysis, University of Southern California

One of the most common assumptions which doctors make when criticizing home birth is that they are much more dangerous than births in the hospital. Note that we say "assumptions" because, in fact, there is no proof at all to support such assertions.

According to Wegman (1975) the United States ranked 15th in infant mortality rates for 1973. (See Table 1)

The differences between the top six countries and the U.S. is quite substantial: the U.S. infant mortality rate is more than 50% higher than the sixth placed country, Norway. Yet this can hardly be blamed on home birth since only about 3% of births in the U.S. occur at home.

In fact in nearly all of the top twenty countries most births take place in some type of hospital or maternity home. The one exception to this fact is Holland where fully 53% of births took place at home. Huygen (1976) in his classic paper on home deliveries in Holland cited statistics showing the perinatal mortality rate for home births in 1970 to be only 6.9 per 1000 live births compared to 33.8 per 1000 for hospital deliveries. Since high-risk mothers are usually referred to hospitals for their births in Holland, one cannot conclude from these statistics that home birth is five times safer than hospital birth. On the other hand one can certainly conclude that it is possible to have a system

wherein a low risk mother can have her baby at home with an extremely high chance for a safe birth.

In addition Huygen states that he has "serious doubts about the desirability and safety of hospital for normal deliveries. Home births offer important advantages from an emotional and psychological point of view. Research has made it clear that many women prefer to have their babies at home." And regarding the technology available in the hospital, "I feel that these advantages in technology at the same time carry with them the risk of unnecessary intervention."

Even though the percentage of home births in the U.S. has been small, it has experienced a rapid growth in the past few years. Statistics on the entire population of home births are not available. Some studies have been done, however, which can be used to indicate what kind of safety one can expect from home births.

Dr. Lewis Mehl's analysis of 1147 elective home births in northern California revealed the following outcomes (see Table 2).

In this study the incidence of infant mortality is less than half as much for home birth as it is for all births in California in 1973. While the total number of home births represented in this study is not large enough to statistically conclude that home birth is twice as safe as hospital birth, it is certainly indicative that the physicians' assumption that home birth is much more dangerous must be seriously questioned.

## TABLE 1 - INFANT MORTALITY RATES (1973)

Country	Deaths per 1000 Live Births	% Hospital	Attendee
Sweden	9.6	100	Midwife
Finland	10.0	99.9	Doctor or Midwife
Iceland	11.3	89.9	Doctor
Netherlands	11.5	47	Doctor or Midwife
Denmark	11.5	85	Midwife & Doctor
Norway	11.8*	99.4	Midwife
Switzerland	13.2*	99	Midwife
France	15.5*	97	Doctor
Canada	15.6	97	Doctor
German Democratic Repub.	16.0	98	Doctor
New Zealand	16.2*	100	Doctor
Australia	16.5*	most	Doctor
Hong Kong	16.8*	76	Midwife
England & Wales	16.9	96	Midwife
Belgium	17.0	98	Midwife & Doctor
United States	17.7	97	Doctor
Ireland	19.0	85	Midwife
Czechoslovakia	21.2	99	Nurse-midwife
German Federal Repub.	22.7	97	Midwife
Israel	22.8	100	Midwife

Sources: Wegman, M. "Annual Survey of Vital Statistics-1974 Pediatrics, 56: 960-966, December, 1975

IFGO and JCM, Maternity Care in the World, 2nd Edition, 1975

## TABLE 2

	Number	Rate	All California Birth rate-1973
Total Births	1152		
Live Births	1147		
Fetal Deaths	5	4.3	10.2
Neonatal Deaths	6	5.2	10.3
Total Perinatal Deaths	11	9.5	20.3
Low Birth Weight (2501g)	15	1.3%	6.4%

Source: L. Mehl "Outcome of Elective Home Birth: A Series of 1147 Cases", Infant Health Unit, California State Department of Health, Berkeley, CA Birth Notes, Vol. 2, No. 2, page 6

The study of home births was completed in August '81. Dr Ender was our professor for a research methods class that we took at Univ. of Alaska, Anch.

Participants were Anchorage residents and had a home birth within the last three years. Most of the respondents had a lay midwife attendant. Due to our sources we leads, most of these participants had birth attendants. It would be very difficult to determine the number of unattended home births.

We wanted to determine why people chose home births we gave respondents 3 selections. In descending order:

1 more control over birth	78.8
2 relaxed home setting	62.6
3 less medical intervention	51.5
4 participation of family, friends	46.5
5 economic considerations	21.2
6 antehospital philosophy	18.2
7 difficulty finding OB care	3.0

It would appear that hospitals are not effectively meeting these people's needs.

HOMEBIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR20 RATE HOSP BIRTH

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
POOR	1.	18	18.2	32.7	32.7
UNSATISFACTORY	2.	18	18.2	32.7	65.5
UNDECIDED	3.	1	1.0	1.8	67.3
SATISFACTORY	4.	16	16.2	29.1	96.4
GREAT	5.	2	2.0	3.6	100.0
NOT APPLICABLE	8.	44	44.4	MISSING	100.0
TOTAL		99	100.0	100.0	

MEAN	2.382	STD ERR	0.177	MEDIAN	2.028
MODE	1.000	STD DEV	1.312	VARIANCE	1.722
KURTOSIS	-1.291	SKEWNESS	0.471	RANGE	4.000
MINIMUM	1.000	MAXIMUM	5.000		

VALID CASES 55 MISSING CASES 44

*Majority have had previous hospital birth, less than 1/3 were satisfied with hospital birth experience.*

HOMEBIRTH  
FILE BABE (CREATION DATE = 08-13-81)

*Should hospitals be given a monopoly on births?*

VAR24 RATE HOME BIRTH

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
SATISFACTORY	4.	8	8.1	8.1	8.1
GREAT	5.	91	91.9	91.9	100.0
TOTAL		99	100.0	100.0	

MEAN	4.919	STD ERR	0.028	MEDIAN	4.956
MODE	5.000	STD DEV	0.274	VARIANCE	0.075
KURTOSIS	7.917	SKEWNESS	-2.124	RANGE	1.000
MINIMUM	4.000	MAXIMUM	5.000		

VALID CASES 99 MISSING CASES 0

*100% satisfied with home birth experience!*

HOMEBIRTH  
FILE BABE (CREATION DATE = 08-13-81)

VAR25 WHO CAUGHT BABY

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NATURO DR	2.	32	32.3	32.3	32.3
FATHER	3.	19	19.2	19.2	51.5
LAY MIDWIFE	4.	42	42.4	42.4	93.9
FRIEND	5.	2	2.0	2.0	96.0
SELF	6.	3	3.0	3.0	99.0
	9.	1	1.0	1.0	100.0
TOTAL		99	100.0	100.0	

MEAN	3.293	STD ERR	0.119	MEDIAN	3.421
MODE	4.000	STD DEV	1.180	VARIANCE	1.393
KURTOSIS	4.393	SKEWNESS	1.271	RANGE	7.000
MINIMUM	2.000	MAXIMUM	9.000		

VALID CASES 99 MISSING CASES 0

HOME BIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR29 MEDICAL INSURANCE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
YES	1.	47	47.5		47.5
NO	2.	52	52.5	52.5	100.0
TOTAL		99	100.0	100.0	
MEAN	1.525	STD ERR	0.050	MEDIAN	1.548
MODE	2.000	STD DEV	0.502	VARIANCE	0.252
KURTOSIS	-2.031	SKEWNESS	-0.103	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		
VALID CASES	99	MISSING CASES	0		

HOME BIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR30 MEDICAID INSURANCE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
YES	1.	13	13.1		13.8
NO	2.	81	81.8	86.2	100.0
MISSING	9.	5	5.1	MISSING	100.0
TOTAL		99	100.0	100.0	
MEAN	1.862	STD ERR	0.036	MEDIAN	1.920
MODE	2.000	STD DEV	0.347	VARIANCE	0.120
KURTOSIS	2.590	SKEWNESS	-2.130	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		
VALID CASES	94	MISSING CASES	5		

HOME BIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR31 INCOME AFFECTS HB

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
YES	1.	1	1.0	1.0	1.0
	2.	98	99.0		100.0
TOTAL		99	100.0	100.0	
MEAN	1.990	STD ERR	0.010	MEDIAN	1.995
MODE	2.000	STD DEV	0.101	VARIANCE	0.010
KURTOSIS	99.000	SKEWNESS	-9.950	RANGE	1.000
MINIMUM	1.000	MAXIMUM	2.000		
VALID CASES	99	MISSING CASES	0		

101.3% had medical coverage which would have paid for a hospital birth - instead they chose to have a home birth and paid out of pocket.

Normal vaginal hospital birth costs ≈ \$2,500 - 3,000  
 Caesarian section 4,500 - 5,000 + ↑  
 Home birth 250 - 750

HOMEBIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR26 INCOME 1980

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
LESS THAN 10,000	1.	14	14.1	14.1	14.1
10,000 TO 20,000	2.	19	19.2	19.2	33.3
20,000 TO 30,000	3.	27	27.3	27.3	60.6
30,000 TO 40,000	4.	17	17.2	17.2	77.8
40,000 TO 50,000	5.	16	16.2	16.2	93.9
GREATER THAN 50,000	6.	2	2.0	2.0	96.0
	8.	2	2.0	2.0	98.0
	9.	2	2.0	2.0	100.0
TOTAL		99	100.0	100.0	

MEAN	3.303	STD ERR	0.172	MEDIAN	3.111
MODE	3.000	STD DEV	1.711	VARIANCE	2.928
KURTOSIS	1.679	SKEWNESS	1.011	RANGE	8.000
MINIMUM	1.000	MAXIMUM	9.000		
VALID CASES	99	MISSING CASES	0		

HOMEBIRTH

FILE BABE (CREATION DATE = 08-13-81)

VAR27 COUPLE OR SINGLE INCOME

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
SINGLE INCOME	1.	5	5.1	5.1	5.1
COUPLE INCOME	2.	92	92.9	92.9	98.0
	9.	2	2.0	2.0	100.0
TOTAL		99	100.0	100.0	

MEAN	2.091	STD ERR	0.103	MEDIAN	1.984
MODE	2.000	STD DEV	1.021	VARIANCE	1.043
KURTOSIS	42.453	SKEWNESS	6.388	RANGE	8.000
MINIMUM	1.000	MAXIMUM	9.000		
VALID CASES	99	MISSING CASES	0		

THE FOLLOWING DOCUMENT(S) MAY NOT FILM  
LEGIBLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

of women compared by 77 people that had a birth in  
the Anchorage Borough within the last three (3) years.

Study completed 8-81 by Chris & AL RUSHING

### Age of woman

		age
1.	21.2	(15-20)
2.	42.4	(21-30)
3.	28.3	(31-40)
4.	6.1	(41-50)
5.	2.0	(51-60)

ALL PERCENTAGES ARE

ADJUSTED FREQUENCIES

### number of children

1.	35.4
2.	27.3
3.	21.2
4.	8.1
5.	6.1
6.	1.0

### number of children born at home

1.	75.8
2.	17.2
3.	6.1
4.	1.0

### Employment

49.5 not employed during pregnancy

33.3 employed to or thru 3<sup>rd</sup> trimester

months of prenatal care

0	3.0
1	3.0
2	1.0
3	4.0
4	6.1
5	12.1
6	17.2
7	23.2
8	14.1
9	16.2

prenatal care by

medical dr.	9.1
naturb. dr.	28.3
CNM	2.0
lay midwife	26.3
med dr & nat dr.	8.1
med dr & mid.	13.1
naturb. dr & mid.	13.1

previous hosp. birth

yes	54.5
no	45.5

rate hosp birth

poor	32.7
unsat	32.7
undecided	1.8
satis	29.1
great	3.6
not applic.	MISS.

rate from birth

poor	0
unsat	0
undecided	0
satis	8.1
great	91.9

w ho "caught" baby

med. dr.	0
nat. dr.	32.3
father	19.2
lay mid wife	42.4
friend	2.0
self	3.0

had medical insurance

yes	47.5
no	52.5

income affect choice of home birth

yes 1.0  
no 99.0

registered birth with state

yes 74.7  
no 25.3

reasons for choice of home birth (given three choices of seven)

less medical intervention 51.5 3

more control over birth 78.8 1

difficulty finding OB care 3.0

anti-hospital philosophy 18.2

relaxed home setting 62.6 2

economic considerations 21.2

participation of family, friends 46.5 4

THE PRECEDING DOCUMENT(S) MAY NOT FILM  
LEGIBLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

Table  
Neonatal and Infant Deaths of  
Anchorage Residents, 1970-1979

	Neonatal Deaths/Rate		Infant Deaths/Rate		Number Live Res. Births
1970	55	17.2	74	22.5	3285
1971	36	11.6	52	16.3	3192
1972	36	11.6	51	16.4	3119
1973	39	13.5	51	17.5	2917
1974	36	11.6	46	14.8	3132
1975	13	4.0	36	11.3	3260
1976	25	6.4	47	12.0	3968*
1977	22	5.9	43	11.6	3720
1978	39	10.3	58	15.3	3825
1979	39	10.3	56	14.7	3823

\* estimated

Resident neonatal and infant death rates dropped dramatically from 1970 to 1975, but have started climbing slowly gain. Because numbers are small the effect of each change may be misleading. Until 1978 local rates were below those of the nation. Since 1979 local rates (14.7) have exceeded national rates (13.6). The State Health Systems Plan recommends maintaining a neonatal mortality rate of no more than 9.0 per 1,000 live births, and an infant rate of no more than 15.0 per 1,000 live births. Further and careful review of Anchorage rates is necessary.

*State Health  
... to have this  
Data does not  
agree with data  
from ...*

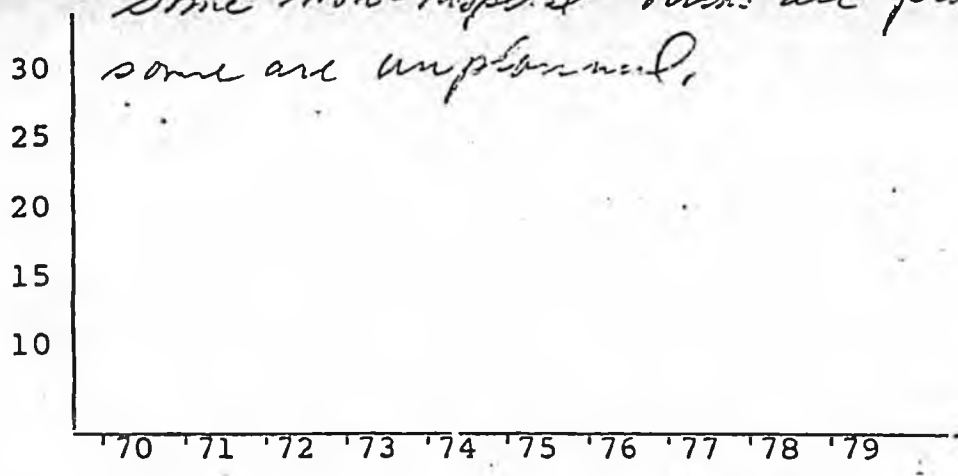
*yes!  
yes!  
why??*

Table  
Neonatal and Infant Mortality for Anchorage, Southcentral  
and Alaska, 1970-1979

Year	Infant Mortality Rates			Neonatal Mortality Rates		
	Anchorage	Southcentral	Alaska	Anchorage	Southcentral	Alaska
1970	22.5	17.2	23.4	17.2		
1971	16.3	20.7	18.3	11.6		12.6
1972	16.4	16.7	17.0	11.6		11.1
1973	17.5	21.8	19.9	13.5		13.0
1974	14.8	19.2	18.0	11.6		12.6
1975	11.3	13.7	14.3	4.0		9.4
1976	12.6 *	15.3	16.1	6.4		9.2
1977	11.6	13.9	14.8	5.9		8.2
1978	15.3		14.6	10.3		9.6
1979	14.7		147 6.1	10.3		9.1

\*estimated

some "non-hospital" births are planned  
 some are unplanned.



- ° Anchorage
- Southcentral
- Alaska

Home Births and Perinatal Mortality. Growing numbers of Alaskan women are choosing to have their babies at home or at least outside of an acute setting. Table 7 shows the number of Alaskan and Anchorage births which occurred in a setting "other" than a hospital or clinic.

Table \_\_\_\_\_

Number and Percent of Births Occuring Outside a Medical Facility  
 Anchorage and Alaska 19\_\_ - 1979

	1976		1977		1978		1979	
	#	%	#	%	#	%	#	%
Anchorage					32	1.2	75	1.8
Alaska	N/A		N/A				302	3.3

It is not clear at this time exactly how many women who intended a home birth, developed complications and actually delivered in a hospital. "Indicators of the incidences of problem deliveries are minimal. However, Annual Surveys of Anchorage hospitals indicate that from 15 to 30 percent of all hospital deliveries are classified (ICD-9-CM) as "Complications of Pregnancy, Childbirth and Puerperium." While that classification code may include relatively minor complications, it does indicate need for medical attention beyond that which occurs during a normal delivery. In addition, some physicians estimate that about one of every four women identified as low risk throughout pregnancy, experience (maternal or fetal) complications during delivery. The inference from these data is that there is sufficient risk to mother and infant during the perinatal period to question the advisability of home births. Features such as alternative birthing rooms and centers,

What physicians?  
 The text on OB refers to 5% or less?  
 No data offered

Indigenous to what regions!!  
 It is not clear  
 important  
 off to see  
 intervention  
 who?  
 how many  
 specialty?  
 practice?  
 what are you

**WHAT DATA ?**

liberal policies regarding attendance during birth and post-partum care, 24 hour rooming-in, and shorter lengths-of-stay are now available. Such services are offered to create a more personal, family-centered experience for all involved, while assuring sound medical monitoring and treatment when needed.

Estimates of Service Requirement and Needs

Assumptions and Methodologies. Estimates are based upon the bed need projection formula as described below. Estimates assume that the use rate is appropriate for this service and that population estimates are valid. Anchorage NSCN units serve native and non-Natives, from Anchorage, Southcentral and the rest of Alaska. Better patient origin data is needed to more realistically determine future bed needs. For now the formula used will be:

$$\text{NSCN Use Rate (1979)} = \frac{\text{NSCN Pat. Days, 1979}}{\text{Health Service Area Births (State)}}$$

$$\frac{\text{Use Rate} \times \text{No. State Births in 198x (1000)}}{365 \text{ days}} = \text{Projected Average Daily Census}$$

ADC

50% occupancy = Future NSCN Bed Need

Estimates of Service Needs. Calculation of projected need for NSCN beds required estimating future numbers of live births in the State. Table shows projected state births and beds needed applying a 1979-base use rate of 283. Since 1973 there has been an average annual increase of 5.7 percent in the number of Alaskan births. That same growth rate has been applied to projections from 1981 to 1990, although future developments in the state may render these projections conservative.

Table  
Projected Alaskan Births and Need for  
NSCN Beds 1981 - 1990

	<u>Alaska Births</u>	<u>NSCN Beds Needed</u>	<u>Current NSCN Beds Available</u>
1981	10,198	16	20
1983	11,393	18	
1985	12,728	20	
1990	16,790	26	

Current total supply of NSCN beds would appear to meet demands generated by the service area. However, closer look at utilization of the two existing units shows that the 14

bed Providence unit is operating close to the 50 percent minimum occupancy standard recommended; whereas the 6 bed Alaska Hospital unit is operating below 20 percent occupancy. National guidelines recommend that for maximum efficiency and effectiveness minimum size for an NSCN unit is 15 beds. Recommendations regarding the appropriate distribution and supply of NSCN beds, as well as other Level I, II and III resources, are due by fall 1981 from the Perinatal Services Technical Advisory Group. Those recommendations will be proposed for public review, followed by amendment to this HSP.

Goals

*AK 1750 1100*

Goal 1.0: Implement a regionalized system for perinatal care.

Objective 1.1: By 1983, establish a regional system for perinatal services with appropriate linkages at each level (I, II and III), that are responsive to consumer needs and meet the following criteria:

- ° Average annual occupancy of at least 75% in Level II/III units;
- ° at least 1500 annual live births in each Level II/III unit;
- ° no more than 4 intensive and intermediate care beds per 1000 live births in the service area;
- ° no fewer than 15 beds per unit;
- ° ongoing outreach and continuing education for providers in the service area regarding appropriate referral procedures.

Goal 2.0: Improve prognosis and survival rates for high risk mothers and babies.

Objective 2.1: By 1983, increase by 10% the number of in-utero transports to Anchorage Level II/III Perinatal Center.

\* Objective 2.2: By 1983, reduce the number of home births to less than 1% of the total Anchorage occurring births.

Objective 2.3: By 1982, to improve personnel skills with and effective use of electronic fetal monitoring in all labor and delivery settings.

*effective use of ... ??  
why all ?*

*I did not see the correlation between Goal 2.0 and Objective 2.2 and still don't. They have no data to substantiate this arbitrary move! Was told otherwise more to placate Dr. W. H. B. ...*

SA A BOX 2/13 copies memo  
Anc 1. 99507

March 22, 1982

To Senator Charles Parr,

I am writing to you with great concern over senate bill 747 concerning the legalizing of midwives to perform homebirths in Alaska.

My son was born at home. I am talking about homebirth with good prenatal care and no foreseen complications. I am talking about with good medical back-up. I must say, that is not simple in the case of unsupported midwifery by the medical community. This is the issue, Senator. I am so concerned about having the freedom to choose where to have our children, be it in the hospital or at our own homes with an attending midwife. In the case of homebirth it is vital to receive support from the medical profession in our community. It is for the safety of our children and ourselves. I could never believe anyone would intentionally ignore medical assistance for homebirth. There was so very much deep thought and caring over our birth choice. I received good prenatal care, but by no means dived in this with the medical community aware of my homebirth choice.

I am not some kind of an anti-hospital rebellion. I would be the first to commend our hospitals for all their help with births of our newborn and their efforts toward increasing natural childbirth in hospitals to higher risk mothers or simply mothers who choose to give birth in a hospital.

Please understand, Senator. Listen to my most sincere plea for legalizing midwifery. I believe it is very important to have medical support for this. I can see no way this would be possible with illegal midwifery existing in our community. I respect my freedom to speak up on something I feel so strongly about. Would it be fair to deny us safe alternative birth choices? Would it be fair to jeopardize the health of our unborn? I fear there would be increasing risks of pregnant mothers and unborn children.

Sincerely,  
Mrs. Karen Casassa  
Anchorage Resident

- PLEASE FORWARD TO ALL SENATORS INVOLVED WITH SENATE BILL 747 -

747

March 22 - 1982

Dear Senator Charles Parr,  
and all other Legislators,

I support Senate Bill 747  
which provides for voluntary licensure  
of lay individuals.

I believe that the choice of  
birth attendant belongs to parents.  
This bill will provide parents  
the opportunity to avail themselves  
of the services of a licensed midwife.

I believe it will protect both  
the parent and the midwife.

Sincerely,  
Gail A. Dykes  
1433 I Street  
Anchorage, Alaska 99501

741

Dear Senator Pass.

Please support senate bill 747  
an act relating to midwifery.

it should be within the parents  
constitutional rights to be able to have  
birthing with whome and where they want.

USA is a free country.

We are going to have a baby this  
fall and will not have it in the  
hospital with sick people.

Professionals are not interested  
to come and birth at our home,

and we are comfortable with an  
certain lay midwife and are going to  
have birthing with her.

Do not make us criminals because  
of that. it is our right as a parents  
to have our children with whome we  
are comfortable and we wish you would  
vote yes on bill 747 for our sake and for  
the sake of so many others.

Thank you for your support.

Mrs J. This. 976. Home ak  
99603

3/19/82

This is to notify the appropriate parties  
that I am in favor of Senate Bill No. 747,  
after all, there must be some sort of regulation  
and protection in this area.

Sincerely:

Victor Sam R.N. S.M.

2936 Kimberlie Ct  
Anchorage AK 99504

3/19/82

Dear Sen Parr,  
'and all other legislators'

As a father of two, one  
a very unpleasant hospital  
birth and the other a very  
rewarding and natural home  
birth, I strongly support SB 747.

I firmly believe in the freedom  
to choose the setting for birth.

I want to encourage all of  
you to pass SB 747 and get home  
birth above ground where we can  
all have the opportunity to seek  
competent licenced care and  
alternatives. Thank you

Sincerely

David R. Henderson

Box 573

Sitka, AK 99835

Mar. 18, 1982

Dear Sen Parr,  
and all other Legislators,

As a mother of two, one  
hosp. born, one home born,  
I strongly support SB 747.  
I cherish my freedom to  
choose the setting in which  
I shall give birth.

I wish to encourage you  
all to pass this Bill and  
get home birth above ground  
where we can all have the  
opportunity to seek competent  
licenced care.

Sincerely,

Cathie D. Henderson  
Box 573  
Sitka, AK.

99835

Al Rushing  
1403 E. 27th  
Anchorage, Alaska 9950  
1-5-82

Carolyn Aoyama  
Dept. of HSS MCH-1 PO  
Room 222 Mackay Bldg  
338 Denali St.

Dear Carolyn Aoyama:

I have requested information from you previously on several matters relating to perinatal health care and homebirths in Alaska. I have an interest in this information on an individual, personal basis as well as being a representative of Better Alaska Birth Experiences. B.A.B.E. is an organization dedicated to providing information regarding perinatal health care to the consumer and improving perinatal care.

You have failed to provide this information or to contact me, and I would like to be informed of the reason for this refusal on your part. As an Alaskan resident this information should be available to me, and as a representative of HSS it would seem you should be able to provide the information and cooperation.

I want to obtain accurate, honest and unbiased statistical information and hope that you find this matter of sufficient merit to respond to now:

- 1) In late August and early September I made numerous attempts to contact you regarding the Improved Perinatal Outcome and the Perinatal Advisory Committee investigation and eventual report on homebirths in late October. You contacted me two weeks after I began leaving phone messages for you and after I'd contacted Mr. Dwayne Peoples.
- 2) When I requested information from you regarding the above via phone you informed me that the PAC meeting was private, not open to the public or anyone not a member, that transcripts of the meetings were not available to the public and that any information regarding homebirths must be submitted through you.
- 3) When I pressed the issue you said that you were initially mistaken, that I could attend the meeting but you were not certain of the agenda, time or place of the meeting. I informed you of a research study that Chris Rushing and I completed in August. The study was of homebirth couples in the Anchorage Municipality. You responded that the information would have to be presented by you. I also reported that the project was completed under the auspices of our research methods class at UAA and with the cooperation of BABE. You also told me that I need only list some of the demographic and simple statistical information to provide to you which I did.
- 4) Unable to attend the Perinatal Advisory Committee meeting my wife Chris attended but was informed that she would not be able to speak at the meeting because she was not a member of the Committee.

During the same meeting Liz Collogly of Fairbanks was allowed to speak as an "invited guest". Paula Korn was not an invited guest but was allowed to speak because she is a nurse-midwife. I would like to obtain additional information of this "policy". Chris was told the "public" could speak at 4:30 but 5:00 came around and the "public" did not have an opportunity to speak. Do the speakers have to be married to physicians as both of these people are ?

5) At the meeting you down played the homebirth study saying that it of course was "biased". If you had knowledge of the research process you would realize that doing a study in a special sub-group like this is not necessarily biased. We conducted a random survey done with the proper technique under the guidance of Dr. Ender from the University who is well known for his research programs. This was not some survey thrown together; it is the only statistical information gathered on the homebirth group that has ever been done in Alaska. I had offered to go over the original data with you at your convenience anytime prior to the meeting. This offer was also made more than a month and a half prior to the date of the meeting. You apparently had no inclination to present an unbiased presentation of the homebirth picture in Alaska.

6) You personally promised me, prior to the meeting, any information you obtained regarding homebirths and perinatal statistics. You have failed to provide me the results of your "investigation."

7) You also apparently promised an objective presentation of information regarding homebirths and lay midwives in the Kenia Peninsula. I was informed that you promised information to them which they have not received either. You presented a brief profile of midwives in Alaska at the PAC meeting. I find it quite odd that you did not contact the midwives in Alaska that have the most experience and do the most births. Dr. Pettijohn has done hundreds of homebirths here in Anchorage, as have other lay midwives in the state. You contacted only the midwives that have the least amount of experience and background.

8) You made comments at the PAC meeting that my wife and I feel are mainly conjecture or personal opinion. I would like to know of resources that state that Birthing Centers will remove the demand or lessen it for homebirth. You also presented the number of birthing center births at Alaska Hospital as about 25% of the total births. You were using the total number of births since the opening of the ABC rather than a number per year which you quoted. The actual births are less than 10% most months but I'm sure your statistics made more of an impression!!

9) I have repeatedly requested information regarding the LPO and the PAC and its composition etc. I have also requested notification of meetings and transcripts of PAC meetings. You have not provided these, nor contacted me.

10) I also requested detailed statistical information regarding perinatal outcome in Anchorage area hospitals but have not received the information.

I hope that you will find it of sufficient importance to reply to this letter and the questions I've raised, at your earliest convenience. I promise that I will seek out this information through what ever means are available, with or without your assistance.

Sincerely,

*A. Rushing*

279 0181

P.S. When speaking with you by phone several months ago I'd inquired as to your knowledge and thoughts regarding "Home Delivery and Neonatal Mortality in North Carolina" - (It appeared in JAMA Dec 19, 80 pgs 2741-2745). You denied knowledge of the study. - I believe I mailed one to you, but you failed to reply. With minimal state outlay the lay midwives realized a markedly lower neonatal mortality rate than did the physicians delivering infants in the hospitals. Even the hospital mortality rates are significantly better than those we heard for Alaska. My honest feeling is that there is no interest in improving "infant perinatal outcome" in Alaska, or we would be much more aware of the state watching and questioning the mortality rates, as well as hospital and physician policies and practices in the perinatal field. We are all well aware of the fact that most neonatal births and deaths occur in the hospital. I would assume it a simpler and easier political maneuver to go after lay midwives though, as they have not the backing of hospitals and physicians, nor the influence.

Al Rusting

1403 E. 27<sup>th</sup>

Anch, Ak 99504

1-9-82

Mrs Charlie Parr, Chairman  
Senate - Health, Education and Social Serv.  
Pouch V, Juneau, Ak 99811

Dear Ma Parr,

My wife Chris Rusting, and I obtained some very interesting information as a result of a research project this last year. We compiled information on couples that had a homebirth in the Anchorage Municipality within the last three years. Approximately 115 people participated, although we had 99 when we first put the information into the computer.

We find it rather perplexing that within Anchorage we Alaska have apparently completed any such study in the past. While at the same time many allegations and winds are batted about regarding the increasing homebirth "problem". The apparent rationale of this type of talk being that if you connect "problem" with any given subject often enough people will soon begin to assume the two are synonymous!

I have heard from several sources that Anchorage and Alaska are both "concerned" about the apparently increasing rate of homebirths. With no objective statistical data it seems premature to be instituting policies and practices that "discourage" or inhibit

Alaskans from freely choosing their birth setting and birth attendant. - Parts of the original SB 237 are case in point. The draft proposal of health and social services plan for Anchorage is another example! (Their objective to "reduce the number of home births to less than 1% of the total Anchorage occurring births" is purported to enable them to achieve the goal to "improve prognosis and survival rates for high risk mothers and babies."

When I questioned the data to substantiate their rationale or line of reasoning, I was told that they had no such data! I asked how they arrived at these proposals and was informed that a physician on the committee or board insisted upon this, and in fact this was a compromise. The physician wanted home births eliminated. This strikes me as a rather ass backwards way of establishing policy!!

The physicians here in Anchorage often refuse prenatal monitoring of women planning or even considering to have a home birth. I have even heard physicians refuse newborn checks on infants born at home. Co. choosing a home birth often suffer harassment and intimidation from physicians when they do seek assistance during the prenatal period.

When medical research states that the majority of all complications or problems of the prenatal period are detected during prenatal monitoring. How can anyone really believe that physicians refusing care to mothers and infants are truly concerned merely

3  
for their health and safety?? This denial of basic health care does not seem congruent with concern for people's safety - but rather seems to be an open threat: Do as I say or do without.

I have also heard physicians claim that if they do prenatal monitoring of "homebirth" mothers - the physician becomes liable etc should the woman or infant suffer difficulties, complications or death during a homebirth. This did not sound rational to me so I questioned several lawyers (and a judge in Calif.) and was assured that this is bogus malpractice. The physician is liable only for wrongs either in care given or which should have been given. If the physician is opposed to homebirths he or she can state this to the woman and tell her that the physician will not attend the homebirth - This releases the physician of responsibility for the individual's decision etc. It would seem that physicians would not be misinformed on this subject - but perhaps attempting to mislead the public instead.

There have been a number of occasions reported to me that pregnant women have been refused lab work at the public clinics here in Anchorage. They were told that they must go to a physician instead for this basic blood work. Other people not planning homebirths are able to get the same blood work without encountering difficulties. When I have gone through "official" channels on this I have been told

4  
there is no such "official" policy. On an "off the record" basis I have been informed through unofficial sources that when local physicians become aware that the clinics are doing lab work etc on pregnant women the physicians put pressure on the clinics and threaten to create political pressure to make procurement of funding difficult.

I have been told that neither Anchorage nor Alaska are trying to in anyway hamper home birth couples or their attendants - This is not born out in fact however. We continue to get "stonewalled" when attempting to obtain information, there is no interest in our research study, and we continue to be harassed by a number of physicians and associates of the established hospital birth system.

An Anchorage homebirths presently account for 4-5% of all births according to our best estimates. This is a sizeable minority. Perhaps if the private sector remains too prejudicial to assist them as needed, the State should consider seriously, directing a reasonable amount of funding to groups or agencies that are responsive and willing to meet the homebirth peoples needs.

Please bear in mind that it is difficult to obtain an accurate count of home births - Not all are recorded, in fact here in Anchorage we know that more than 25% go unrecorded. Many other areas of the State would record still smaller proportions. (See a Calif study

recently - only 25% were recorded!) I know that we suffered difficulty recording my son's birth here in Anchorage 3 years ago. I had to call someone a work my way up the bureaucratic chain-of-command in order to record his birth! I am sure experiences such as this tend to discourage birth registration. Also Alaskans are noted individualists and many refuse to register their births because of personal philosophies.

It seems at least, to be unethical for physicians to attempt to equate home births with infant and maternal mortality. We all know that during the perinatal period infants and mothers are at increased risk - this is a natural fact. There has been though but one study I have seen that differentiated between home birth planning status and stated whether assisted by experienced attendants or not (Home Delivery and Neonatal Mortality in North Carolina - JAMA 12-19-80) In this study lay midwives maintained enviable low mortality rates - much better than with physician attended hospital births! I thought it ironic, but at the same time <sup>so</sup> appropo when I received word that in August of 81 (8 months after the report was published) that the State of N.C. stopped licensing lay midwives due to concerted pressure from physicians. The State is supposedly conducting their own research of home births but it will take several years they say.

6

When studies use the total of all "out-of-hospital" births as homebirths, many of the births are actually births planned hospital births. Because of this these people are unassisted, unprepared and often unknowledgeable of normal birth process. Due to these reasons and the fact that many are premature births - the infant mortality rates are quite high. It doesn't take many such cases to really affect the "homebirth" mortality rates negatively due to the proportionately smaller number of "out-of-hospital" and "homebirths".

I would welcome good legislation for lay midwives and homebirth couples. Alaska has so much potential, I hope this potential is realized and utilized in progressive homebirth legislation.

If I can help in anyway in clarifying or assisting regarding homebirths and a lay midwifery, please contact me - I would be glad to assist.

Sincerely,  
Al Ruckling

1-11-82

P.S. I was just contacted today by the Open Door Clinic here in Anchorage and informed that they would no longer provide lab work for "homebirth" pregnant women. Out of curiosity I telephoned the Anchorage Neighborhood Health Clinic and was told they would not do any blood work for pregnant women, (Although they do blood typing for other people. The CDC said they could do the entire blood work for anyone NOT pregnant!



DEPARTMENT OF JUSTICE

100 State Office Building  
Salem, Oregon 97310  
Telephone: (503) 378-6368

June 17, 1977

No. 7468

This opinion is issued in reponse to questions presented by Arleen Sergeant, R.N., M.S., Assistant Executive Director, State Board of Nursing.

FIRST QUESTION PRESENTED

Can a person be a midwife and assist in the normal delivery of children without being first licensed as a registered nurse and certified as a nurse practitioner midwife?

ANSWER GIVEN

Yes.

SECOND QUESTION PRESENTED

Assuming the answer to the first question is yes, can a lay midwife administer medications or perform an episiotomy?

ANSWER GIVEN

No.

DISCUSSION

A review of available nursing, medical and legal literature indicates that "midwives" and "midwifery" may be

the world's "second oldest profession." A midwife is a person who assists in childbirth and midwifery is the art or practice of assisting women in childbirth. (Webster's New 20th Century Dictionary, 2nd Edition.)

Since, according to Webster's, a further definition of midwifery is "obstetrics" and obstetrics is recognized as a branch of medicine pertaining to the care of women during pregnancy, parturition and puerperium<sup>1</sup>, a basic question is whether the practice of midwifery is limited to persons licensed to practice medicine.

In Massachusetts, midwifery is considered within the practice of medicine, and its practice is limited to persons licensed as physicians. Commonwealth v. Porn, 196 Mass 326, 82 NE 31 (1907). The defendant in the Porn case was a licensed nurse. However, in some states the practice of midwifery is recognized as a licensed occupation separate and apart from both nursing and medicine. Bowland v. Mun. Ct. of Santa Cruz, 125 Cal Rptr 858, 556 P2d 108, (1976); Rock v. State, 6 Md App 618, 253 A2d 401 (1969). Yet other states have recognized midwifery as an occupation separate and distinct from medicine and nursing without requiring a license for its practice. People v. Hildy, 289 Mich 536, 286 NW 819, (1969); Banti v. Texas, 163 Cr 89, 289 SW2 244 (1956).

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Stedman's Medical Dictionary, p. 1105 (2nd ed. 1966). However, Websters points out "obstetrics" is derived from the Latin "obstetrix," which merely means midwife.

Some courts have also concluded that pregnancy is a natural condition and childbirth is a normal function of womanhood and thus assisting in childbirth is not necessarily within the practice of medicine. Bowland v. Mun. Ct. of Santa Cruz, supra and Rock v. State, supra. This rationale was also recognized in 35 Op Atty Gen 1267 (1970).

Decisions referred to above concerning the practice of midwifery in other states were based upon the particular language of the state statutes involved. None of these decisions are directly on point, with the exception of the Banti case and possibly the Hildy case. Banti is particularly on point because it is based on law which parallels Oregon statutes.

Banti considered a Texas law which authorized "midwives," not licensed as either nurses or physicians, to sign birth certificates and put drops in the eyes of newborn infants. The court concluded that this constituted legislative recognition that a person could be a midwife without being licensed as a physician (or a nurse).

Oregon has similar statutes. ORS 432.205 and 432.210 state, respectively:

432.205. "(1) A certificate of every birth shall be filed with the local registrar or the registration district in which the birth occurred, within the time prescribed by the division, by either the physician or midwife in attendance at the birth or, if not so attended, by one of the parents; provided, that any birth certificate not containing

the name of the father or on which the surname of the father is at variance with that of the child shall be filed with the division and not with the registrar of the district in which the birth occurred.

"(2) If the mother is unmarried, the certificate of birth shall not show the name of the alleged father unless both the father and mother have filed an affidavit of paternity with the registrar." (Emphasis added)

432.210. "If neither of the parents of the newborn child, unattended by either physician or midwife, is able to prepare a birth certificate, the local registrar shall secure the necessary information for the preparation of a birth certificate from any person having knowledge of the birth." (Emphasis added)

The Oregon legislature has a long history of treating midwifery as an occupation distinct from the practice of medicine or nursing. In 1905 the legislature adopted the predecessor to ORS 432.205 and 432.210, providing that:

"It shall be the duty of all physicians, accouchers<sup>2</sup> or midwives in the State to report. . . all births . . . which may occur under their supervision. . . ." 1905 c. 179 §3 (Emphasis added)

This act, with its reference to registration of births occurring under the supervision of midwives, indicates legislative recognition of a major role for midwives distinct from that of other medical practitioners.

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"Accoucher" is defined as "one who assists women in childbirth; an obstetrician." by Websters New International Dictionary, Second edition, unabridged (1959). By 1915 this term had been deleted from laws governing registration of births, leaving only references to "midwives" and "physicians."

This act was in effect in 1911 when the legislature created the State Board of Examination and Registration of Graduate Nurses and made it unlawful to practice as a registered nurse without a certificate from that board. 1911 c. 32 §6. While the legislature has continued to tighten standards for licensing nurses, today requiring a license for all persons engaged in the practice of nursing (ORS 678.021), it has also retained statutes assigning duties to midwives "in attendance at birth". ORS 432.205, 432.210. Oregon has never required a license for midwives. From these facts we conclude that the legislature continues to view midwifery as an occupation distinct from nursing, and that a person engaged in this occupation need not be licensed as a registered nurse or certified as a nurse practitioner midwife. 3

In reaching this conclusion we are not suggesting that a "lay midwife's" services are as skilled as those of a certified nurse midwife, or that a "lay midwife" has the education or training of a Board of Nursing licensee. We hold only that the legislature recognizes the practice of midwifery, that under present law midwives may assist during childbirth, and that such persons need not be licensed as nurses. For reasons

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The Board of Nursing has by administrative rule provided for licensing registered nurses as Nurse Midwife Practitioners. OAR 681-30-001 to 851.30-003. However, we are not asked for any opinion concerning the proper scope of practice of such a Nurse Midwife Practitioner. A definition of such scope by the board based upon appropriate factual determinations would be prima facie valid.

set forth below, we interpret this assistance to be limited to so-called natural childbirth, without the use of drugs or surgical procedures.

In addition to the general question posed regarding midwifery, we are also asked whether a lay midwife can administer medications or perform an episiotomy. Although we conclude that the practice of midwifery is recognized by the legislature, it is restricted by statutes governing practice of medicine and nursing.

In 1895 the legislature first provided that "any person practicing medicine or surgery within the state. . . without first having obtained the (medical) license herein provided for. . . shall be guilty of a misdemeanor. . . ." L. 1895, p. 66 §8. This law was in effect in 1905 when the act referring to registration of births occurring under the supervision of a doctor or midwife was enacted. As noted above, Oregon has never required licensing of "midwives." The co-existence of these factors strongly suggests that the legislature did not consider assisting with childbirth (at least normal child-birth) to be "practicing medicine or surgery."

Since 1895 the legislature has further defined "practice of medicine" and has added a definition of "practice of nursing". ORS 677.085, 678.410. A lay midwife, not being licensed as either a nurse or physician, is prohibited from performing tasks included within either of these definitions. ORS 677.085(4), 678.021. We have held in previous opinions

that administration of medication constitutes practice of nursing. 34 Op Atty Gen 900 (1969); 37 Op Atty Gen 478 (1976). We thus conclude that a lay midwife, not being licensed as a nurse or physician, is prohibited from administering medications to another person.<sup>4</sup>

Our opinion is not changed by Health Division OAR 333-21-078 and OAR 333-23-134(1)(F), requiring the attending physician, nurse or other person acting under the direction of a physician attending birth to immediately instill silver nitrate into the eyes of newborn infants. Such action, no matter how simple the procedure or laudable its purpose, constitutes administration of medication and cannot be performed by a lay midwife. However, these rules apply only to physicians, nurses or other persons acting under the direction of a physician attending the birth.

We assume that a doctor is usually not present at births supervised by midwives, and in such situations these rules, as written, would not apply.

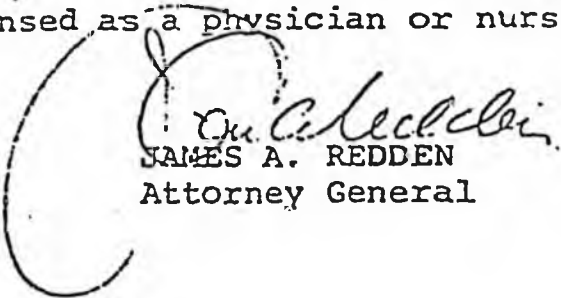
We also have no hesitation in concluding that a lay midwife cannot perform an episiotomy. ORS 677.080, with limited exceptions, prohibits a person from practicing medicine without a license issued by the Board of Medical Examiners. A person practices medicine if he or she offers or undertakes

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ORS 678.035 authorizes a nonlicensed person, until July 1, 1977, to administer noninjectable medications under the direction of various state licensed personnel. ORS 678.150 (7)(J) requires the Board of Nursing, after July 1, 1977, to adopt rules for the delegation of certain nursing tasks to nursing assistants. While these tasks may include administration of medications, they must be supervised by a licensed nurse.

to perform any surgical operation upon any person. ORS 677.085(3).  
An episiotomy is a surgical incision of vaginal tissues performed  
to prevent the harder to repair natural tearing which often  
occurs during childbirth. In an earlier opinion we concluded  
that an episiotomy was a surgical incision of human tissue  
falling within the definition of "surgical operation" for  
purposes of the Medical Practices Act. 35 Op Atty Gen 1267  
(1972). Consequently, such an operation cannot be performed  
by a lay midwife not licensed as a physician or nurse.

  
JAMES A. REDDEN  
Attorney General

JAR:ABS:DCA:am

# Home Delivery and Neonatal Mortality in North Carolina

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• Neonatal mortality is examined by place and circumstances of delivery in North Carolina during 1974 through 1976 with attention given to home delivery. Planned home deliveries by lay-midwives resulted in three neonatal deaths per 1,000 live births; planned home deliveries without a lay-midwife, 30 neonatal deaths per 1,000 live births; and unplanned home deliveries, 120 neonatal deaths per 1,000 live births. The women whose babies were delivered by lay-midwives were screened in county health departments and found to be medically at low risk of complication, despite having demographic characteristics associated with high-risk of neonatal mortality. Conversely, the women delivered at home without known prenatal screening or a trained attendant had low-risk demographic characteristics but experienced a high rate of neonatal mortality. Planning, prenatal screening, and attendant-training were important in differentiating the risk of neonatal mortality in this uncontrolled, observational study.

(JAMA 1980;244:2741-2745)

SUMMARY reports of state vital statistics have traditionally classified births as occurring in hospital and out-of-hospital. Fetal and infant mortality has also been reported using this differentiation. Being the best that is generally available, such information has been quoted in defending the argument that in-hospital delivery is safer than out-of-hospital delivery. However, with increasing

interest in home delivery, the places and circumstances of delivery should be more precisely classified before attributing mortality risks to them. This article provides an analysis of neonatal mortality in North Carolina during 1974 through 1976, with attention given to the places and circumstances that characterized out-of-hospital deliveries.

In North Carolina, the proportion of infants born at home has declined from 76% in 1940, to less than 1% in 1975 (Figure). With this shift to hospital delivery, maternal mortality fell from 50/10,000 live births in 1940 to 3/10,000 live births in 1975, a decline of 94%. Neonatal mortality also declined 61%, from 33/1,000 live births in 1940 to 13/1,000 live births in 1975. Neonatal mortality remained more than 40 times that of maternal mortality in 1975, despite nearly universal hospitalization for childbirth.

Most of the medical profession

advocates hospital delivery and views home delivery as a regressive step that would reverse the historical improvement in the safety of childbirth. Most women choose to deliver in a hospital where physicians are able to intervene effectively in emergencies, many of which cannot be anticipated with even the best prenatal care. However, an increasing number of women prefer delivery at home in order to be among familiar people and surroundings, to avoid the perceived risks of highly technical medical care, and to reduce cost.

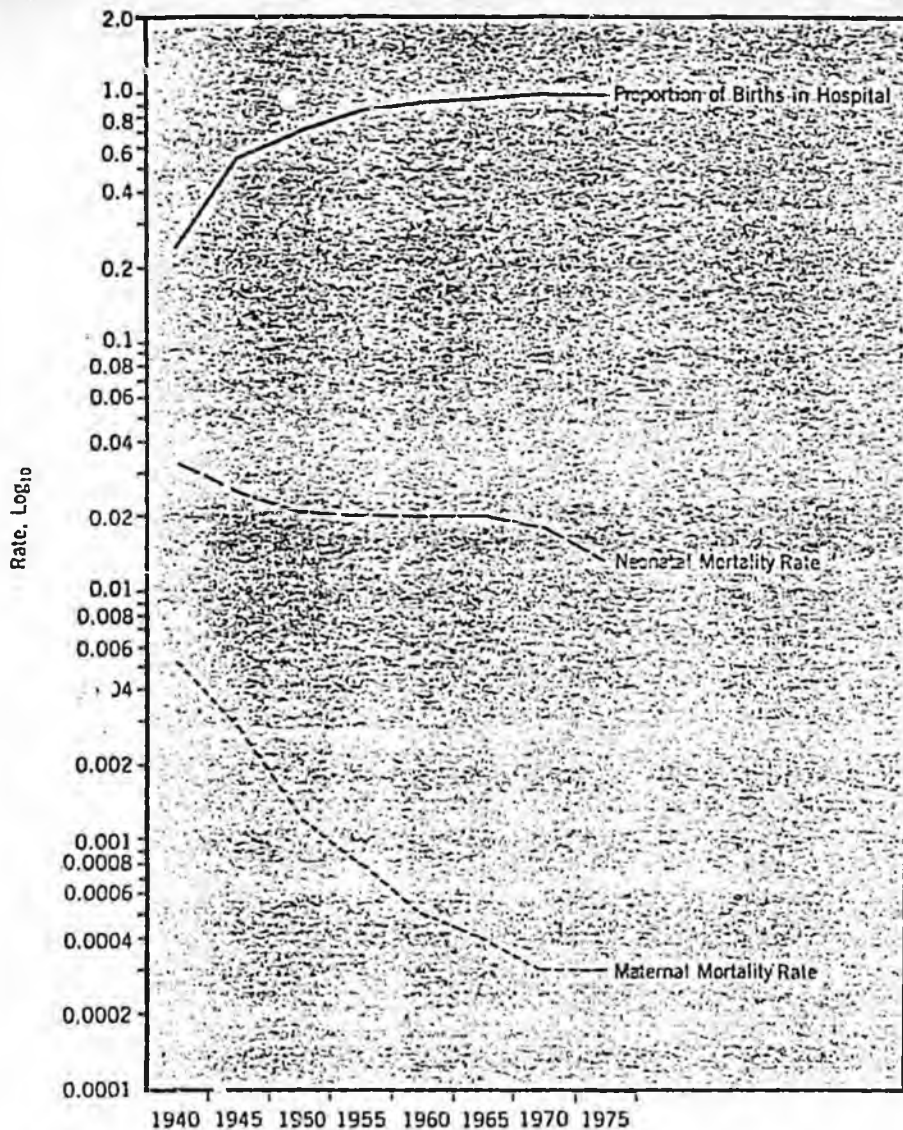
Lay-midwives legally attend home deliveries in some counties of North Carolina. The practice of these lay-midwives is regulated by county health departments. Prenatal care involving physician-supervised screening for risk factors must be provided by the health department for each patient, and every home delivery by a lay-midwife must be approved in advance as low risk. Since 1964, no lay-midwife has been initially certified to practice in any North Carolina county. Those lay-midwives still practicing are gradually being phased out; 25 were issued a required yearly permit in 1974, eighteen in 1975, and fifteen in 1976.

## MATERIALS AND METHODS

This study used neonatal death rates as a measure of the risk associated with the place and circumstances of birth. Vital records of live births and neonatal deaths registered in North Carolina for 1974 through 1976 constituted the initial source

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Proportion of births in hospital, neonatal mortality rate, and maternal mortality rate, North Carolina, 1940 to 1975.

of information. Birth records were coded as occurring in a hospital, in a clinic or office, enroute to a hospital, or at home. Infant death records are routinely linked with their corresponding birth records in North Carolina, making it possible to determine mortality by birth characteristics.

To estimate the risk of neonatal mortality associated with the circumstances of home delivery, the 1,296 home deliveries occurring in North Carolina during 1974 through 1976 were classified by both their planning status and the attendant present. If a home delivery was chosen and a healthy infant anticipated, it was classified as planned.

Emphasis was placed on determining the planning status of those home deliveries that resulted in neonatal death. Misclassification of a small number of these deaths would have had a notable effect on reported neonatal mortality rates. Therefore, these deaths were indi-

vidually reviewed by examination of the birth and death certificates as well as by discussion with county health department staff and, when necessary, the attendant at the home delivery.

Two simplifying assumptions were made in classifying all home deliveries by planning status. We assumed that all home deliveries attended by a lay-midwife were planned. This assumption was justified for two reasons. First, for a lay-midwife to receive a permit to attend a home delivery, a pregnant woman had to be approved by a health department as being at low risk of complications. This was considered evidence of careful planning. Second, a lay-midwife would probably not attend an unplanned home delivery and report it on the birth certificate because of the risk of permit revocation.

Our second assumption was that home deliveries of infants weighing 2,000 g or less at birth and not attended by a lay-midwife were precipitate and unplanned.

There were 51 such deliveries. These may have been planned but were classified as unplanned. However, no such assumption was made in the classification of the neonatal deaths that followed home delivery. Therefore, any classification error introduced by the second assumption would have increased the apparent neonatal mortality rate of home deliveries classified as planned and not attended by a lay-midwife, and decreased the apparent neonatal mortality rate of home deliveries classified as unplanned.

In June 1978, birth certificate copies of the remaining unclassified home deliveries were sent to the health department of the county of residence of the mother. A brief questionnaire accompanied each certificate requesting that health department staff determine the reason for home delivery and identify the attendant present. Four reasons for home delivery were provided: precipitate, intended, failure to plan for health care, and unknown. Field work by county health department staff was necessary when no detailed record described the circumstances of the birth.

## RESULTS

**Births Associated With Home Delivery.**—Table 1 shows a classification of all 1,296 home deliveries for 1974 through 1976. Seventy-two percent of home deliveries were classified as planned. Of these, 768 were attended by lay-midwives and were assumed to be planned; 166 were classified by questionnaire as "intended" and were therefore considered planned. Of the 166 home deliveries classified as "intended," 57% occurred by preference, 26% were for economic reasons, 8% were for religious reasons, and 9% were for other or unknown reasons.

Nineteen percent of home deliveries were classified as unplanned. The 51 infants born at home, attended by other than a lay-midwife, and weighing 2,000 g or less were assumed to be precipitate, unplanned home deliveries. An additional 199 were classified by questionnaire as either "precipitate" or "failure to plan for health care" and were also considered unplanned.

**Neonatal Deaths Associated With Home Delivery.**—The planning status of the home deliveries that resulted in neonatal death is shown in Table 2. Of the 36 neonatal deaths associated with home delivery during the three years, six (17%) followed planned home delivery, and 30 (83%) followed unplanned home delivery.

	No.	%
Planned	934	72
Lay-midwife (assumed planned)	768	
Classified by questionnaire	166	
Unplanned	250	19
Birth weight $\leq 2,000$ g (assumed unplanned)	51	
Classified by questionnaire	199	
Unknown	112	9
Total	1,296	100

\*North Carolina, 1974 through 1976.

Six neonatal deaths occurred following planned home delivery. In three instances, a trained attendant was not present; in three others, delivered by lay-midwives, death was attributed to congenital anomalies.

Two of the 30 unplanned home deliveries resulting in death were classified as "unplanned—no alternative." Allegedly, one mother, who delivered a 2,800-g infant at eight months, went to a hospital but was turned away for lack of funds. The other, who delivered a 1,400-g infant at seven months, reportedly had been told not to go to the hospital without payment in hand. We concluded that these home deliveries were not intended.

Five of the 30 unplanned home deliveries resulting in death were classified as "unplanned—suspected homicide or neglect." Three involved unwed teenaged mothers charged with homicide. Of the two remaining deaths, one infant was found drowned in a canal and the other was grossly neglected. These home deliveries were judged to be either precipitate or intended without preparation for a healthy infant.

**Neonatal Mortality Rates Associated With Home Delivery.**—Home deliveries, without regard to their planning status, were associated with a neonatal mortality rate of 30 per 1,000 live births. However, when subdivided by their planning status (Table 2), a different picture emerged. The neonatal mortality of planned home deliveries was 6/1,000, while that of unplanned home deliveries was 120/1,000. The relative risk of unplanned home deliveries was 20 times that of planned home deliveries.

The planning status of 112 home

	Deaths, No. (%)	Births	Rate†
Planned	6 (17)	934	6
Infant normal	3 (8)		
Congenital anomaly	3 (8)		
Unplanned	30 (83)	250	120
Precipitate	23 (64)		
No alternative	2 (6)		
Suspected homicide or neglect	5 (14)		
Total	36 (100)	1,184	30

\*North Carolina, 1974 through 1976.

†Neonatal deaths per 1,000 live births.

	Deaths	Births	Rate†
Home—planned, attendant physician	0	55‡	0
Home—planned, attendant lay-midwife	3	768	4
Hospital	2,805	242,245	12
Clinic or office	15	949	16
Home—planned, attendant not physician or lay-midwife	3	100‡	30
Enroute	12	177	68
Home—unplanned	30	250‡	120
Total	2,868	244,544	12

\*North Carolina, 1974 through 1976.

†Neonatal deaths per 1,000 live births.

‡Excludes 112 home deliveries with unknown planning status and 11 planned home deliveries with unknown attendant.

deliveries remained unknown following the questionnaire survey. If these had been planned, the neonatal mortality rate of planned home deliveries would still have been 6/1,000. If all of these home deliveries had been unplanned, the neonatal mortality rate of unplanned home deliveries would have been 83 rather than 120 per 1,000.

The effect of possible classification error introduced by the assumption that the home deliveries of 51 infants weighing 2,000 g or less and not attended by a lay-midwife were precipitate and unplanned can be similarly examined. If all 51 home deliveries had been planned, the neonatal mortality rate of planned home deliveries would still have been 6/1,000; the neonatal mortality rate of unplanned home deliveries would have been 151/1,000.

Table 3 shows all neonatal deaths for the three-year period by place and circumstances of delivery, in rank order from the lowest to the highest neonatal mortality rate. The 112 home deliveries with unknown planning status and 11 planned home deliveries with an unknown attendant are not included in the births column or in the denominators of the neonatal mortality rates. The rates ranged

from zero neonatal deaths for planned home deliveries attended by a physician, to 120 neonatal deaths per 1,000 unplanned home deliveries. Planned home deliveries, prenatally screened as low risk and attended by lay-midwives, were associated with a neonatal mortality rate of 4/1,000 live births. However, all three deaths following delivery by lay-midwives were associated with congenital anomalies and may not have been preventable.

Hospital deliveries, including high-risk pregnancies and low-birth-weight infants, were associated with a neonatal mortality rate of 12/1,000 live births. After excluding infants weighing 2,000 g or less at birth, the neonatal mortality rate for hospital deliveries was 7/1,000, while that for lay-midwife home deliveries remained 4/1,000. This difference was not statistically significant.

Three groups of home deliveries can be distinguished from Table 3: (1) unplanned; (2) planned without known medical screening and without a trained attendant; and (3) planned, selected based on medical screening, and with at least a minimally experienced attendant (grouping home deliveries by physicians and lay-midwives together). Group 1 had 4 times (95% confidence limits 1.4 to 11.4) the

	Home Lay-Midwife, %	All Deliveries, %	Neonatal Mortality Rate† -All Deliveries
Age, yr			
<20	40	24	14
20-24	34	35	11
25+	26	41	10
Race			
White	4	69	10
Nonwhite	96	31	15
Marital status			
Married	58	84	10
Unmarried	44	16	16
Education, yr			
<12	69	36	14
12	29	42	10
>12	2	22	8
Prenatal visits			
0-2	5	3	65
3-7	68	19	28
8+	27	78	6
Birth weight, g			
≤2,000	0	3	288
2,001-2,500	6	5	24
2,501-3,000	20	18	6
>3,000	74	74	2
N	467	159,333	...

\*Home deliveries by lay-midwives vs all deliveries, and neonatal mortality rate for all deliveries North Carolina, 1975 through 1976.

†Neonatal deaths per 1,000 live births.

neonatal mortality rate of group 2. Group 2 had 8 times (95% confidence limits, 2.2 to 31.3) the neonatal mortality rate of group 3.

**Lay-Midwife Deliveries.**—Table 4 compares the maternal characteristics of the 467 women delivered by lay-midwives with all 159,333 deliveries occurring in North Carolina during 1975 and 1976. The table also shows the neonatal mortality rate for all deliveries relative to maternal characteristics. The distributions for the demographic variables of age, race, marital status, and education reveal a preponderance of mothers in high-risk categories among lay-midwife home deliveries compared with all deliveries. The women attended by lay-midwives were more likely to be young, black, unmarried, and less educated than the average woman who delivered in the state. Despite their high-risk demographic profile, these women had a relatively low-risk medical profile. None of their infants weighed 2,000 g or less, and their neonatal mortality rate was one third that for all deliveries.

**Planned Home Deliveries Without a Trained Attendant.**—Contrasted with women delivered by lay-midwives, women who delivered without a trained attendant had a low-risk

demographic profile: 5% were younger than 20 years, 78% were white, 90% were married, and 48% were educated beyond high school. While they were at high risk with respect to prenatal care (38% with two or less prenatal visits), their deliveries were at low risk with respect to infant birth weight (only 2% of the infants weighing 2,000 g or less). Even with these favorable characteristics, their neonatal mortality rate was eight times that of lay-midwife home deliveries.

#### COMMENT

This study showed that the outcome of delivery varied importantly by both the place and circumstances of delivery. In-hospital vs out-of-hospital classification does not adequately group births by risk of neonatal mortality. Even more specific designation of the place of birth does not suffice to describe risk. Deliveries occurring at home ranged from lowest to highest risk of neonatal mortality depending on planning and the attendant present.

Medically selected women delivered at home by lay-midwives were at high demographic but low medical risk. The screening process carried out through physician-supervised prena-

tal care at local health department was apparently effective.

In contrast, planned home deliveries without known medical screening and without a trained attendant resulted in high neonatal mortality despite their low-risk demographic profile. Having less prenatal care and not having a trained attendant at delivery appears to have lessened the demographic advantage for this group and predisposed their infant to higher mortality.

Unplanned home deliveries were associated with neonatal mortality even higher than deliveries en route to the hospital, although the difference was not statistically significant. After analyzing 100 consecutive cases of unattended home deliveries in England, Fraser<sup>1</sup> concluded that "while precipitate labour is an important factor, inadequate preparation and instruction of the patient are the commonest causes" of unattended home delivery.

Adequate prenatal care and provision of care appropriate to medical risk has been repeatedly associated with lower neonatal mortality. Montgomery<sup>2</sup> and later Levy et al<sup>3</sup> showed that a nurse-midwife program, which emphasized prenatal care for a medically underserved population, was associated with a notable decline in neonatal mortality followed by a sharp rise after discontinuation of the program. Zackler et al<sup>4</sup> have reported that a maternal and infant care project, which provided prenatal care to girls who conceived when they were younger than 15 years, was associated with lower neonatal mortality compared with a population that did not receive project services. In large-scale studies of vital statistics data, Kessner et al<sup>5</sup> in New York and Dott and Fort<sup>6</sup> in Louisiana found that adequate prenatal care was associated with less risk of low birth weight and neonatal mortality.

Several limitations of this study suggest cautious interpretation of its findings. Inferences regarding the safety of home births should await prospective controlled studies. Potential deficiencies of this study include the following: home delivery practices in North Carolina were not necessarily representative of practices in other states; there was a small number of neonatal deaths in the study; there

were possible errors in classifying the true place and circumstances of birth; underreporting of home births and neonatal deaths may have occurred.

Two factors restricted the scope of this study. First, home deliveries and hospital deliveries attended by nurse-midwives were not represented, but are an increasing proportion of deliveries in other states.<sup>1</sup> Second, lay-midwives practicing in North Carolina during the study were initially certified in 1964 or before and had at least ten years' experience with home deliveries.

Despite including all births in a three-year period, the number of home deliveries in this study remained small. There were so few neonatal deaths that the neonatal mortality rates of subgroups of home deliveries could be substantially altered by the addition or reclassification of several neonatal deaths. The findings need testing where home delivery is more common.

Retrospective classification of birth regarding intent to deliver in the place and circumstances in which delivery actually occurred is difficult at best. Intended home deliveries followed by neonatal death may have

been misclassified as precipitate and unplanned. Women who chose home delivery but developed a problem during labor may have gone to the hospital to deliver. Hospitals are appropriately the intended place for most high-risk deliveries. This fact confounds comparison of the neonatal mortality of hospital and home deliveries.

Some home births may not have been reported to state registrars, especially if the infant died. Possibly such underreporting was more frequent in planned home deliveries when a preventable death caused guilt feelings. However, because lay-midwives need a permit for each home delivery and have a reputation to maintain, such underreporting is probably less likely than for home deliveries that did not come to the attention of the health department before delivery.

In conclusion, there has been a dramatic shift from home to hospital delivery in the last 40 years in North Carolina. The potential risk of delivery at home may be unacceptable to most women. However, some women still prefer or economically need an alternative to a high cost physician-

hospital delivery. Indeed, cost and preference accounted for more than three fourths of the reasons for the dangerous planned home deliveries not attended by a physician or lay-midwife.

Poor women in some rural areas are still experiencing high levels of preventable neonatal mortality because of lack of medical attention. To extend adequate prenatal and delivery services to these women, economically realistic alternatives should be developed before existing traditional services are phased out. For prenatally screened low-risk women, delivery by a trained nurse-midwife under physician supervision, perhaps in a birthing center with hospital backup, may have a cost advantage over physician-hospital delivery without unacceptable risk of maternal or neonatal mortality. Whatever program a community develops, monitoring the quality of prenatal care, adequately identifying high-risk pregnancies, and training competent birth attendants all require the knowledge, expertise, and support of the medical community.

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## Preparing for the Birth

### YOUR BIRTH ATTENDANT

#### THE IMPORTANCE OF A SKILLED BIRTH ATTENDANT

Although 95 percent of low-risk births proceed completely normally without intervention, for the other 5 percent a skilled birth attendant is invaluable. She can help recognize the early signs of danger, offer advice about going to the hospital, and help with an emergency in the small percentage of cases when one arises. For even though prepared couples understand more about birth than couples previously have, it is still difficult, without extensive theoretical and practical skills and experience, to tell which situations are within the broad range of "normal" and which require medical attention.

Thus in a normal birth an attendant can help keep a homebirth at home through reassurance that everything is all right and by handling some situations which require attention without the need to go to a hospital. She can also help with coaching, especially when the father needs to eat or rest. And she can share her skills and compassion gained from attending many births and having had children herself (if your attendant is a man, it is still beneficial to have such a woman present as trusted friend, labor coach, etc.).

And having a skilled attendant can be especially important if something does go wrong; you have another opinion based on greater experience with birth and you can often save valuable time by early detection and action. In the event of a real emergency, your birth attendant should be skilled in emergency first-aid measures and may bring emergency equipment. In such a situation, having someone present who is skilled and experienced in birth and at the same time attuned with the current situation can be an invaluable and life-sav-

ing combination. I strongly urge that you find and use a skilled birth attendant, without giving up your responsibility to her, to help reduce the risks of homebirth to the inevitable minimum of nature.

#### DIFFERENT KINDS OF ATTENDANTS

Depending on where you live, you may have many kinds of birth attendants to choose from. If there is a doctor in your area who has a homebirth practice, make an appointment to talk with him, find out who he is and what his practice involves. The advantages of a doctor are continuity of care (in case of emergency he should have hospital privileges), greater familiarity with emergency equipment and procedures, and the ability to handle certain complications at home (suturing, etc). The disadvantages can be less familiarity with normal birth and more tendency to intervene or to want standard procedures such as prepping, enema, etc. And few doctors are willing to become involved in your labor as a midwife does.

In some states chiropractors are licensed to do deliveries, and osteopaths are able to do births in many states and may be more open to homebirth than M.D.s.

Many states license certified nurse-midwives to do deliveries as part of an obstetrical team. You may find them doing homebirths under a doctor's auspices or working in a birth center. Midwives have the orientation of helping a woman throughout pregnancy, labor and delivery, and if they are doing homebirths they probably haven't lost their orientation to normal birth during their training. They are able to administer drugs for hemorrhage; they can do episiotomies, suturing, etc., and they are trained in other emergencies, such as infant resuscitation. Because they are usually doing

homebirths under a doctor's guidance, they have emergency backup and could remain with you if the hospital should any complications arise.

Lay or empirical midwives are women who are skilled in birth without first becoming a nurse. Although training programs are beginning to develop in several states, most empirical midwives have gained their training through self-study, apprenticing with another midwife, and through experience (hence the designation *empirical*). Laws in individual states may determine whether a lay midwife is able to practice openly, has doctor backup, carries emergency equipment, charges for her services, etc. Advantages tend to be an orientation toward normal birth, involvement in the entire labor and delivery, respect for the parents' decisions and experience; disadvantages can be lack of experience with complications, lack of good backup, and needing to go to the hospital for situations such as suturing.

Lay midwives are allowed to practice openly in twenty states: Alabama, Alaska, Arkansas, Arizona, Delaware, Florida, Hawaii, Louisiana, Maryland, Minnesota, Mississippi, New Jersey, New Mexico, North Carolina, Oklahoma, Rhode Island, Tennessee, Texas, Washington and Wyoming. Some of these states have requirements for certification; others make no mention of midwifery. To find out the status of nurse and lay midwives in your state, you can contact your local health department.

If no one is openly doing homebirths in your area, you will have to do some searching to find your birth attendant. But with a bit of effort, it's surprising what resources you can discover.

## HOW TO FIND A SKILLED ATTENDANT

Your first lead might be to talk with childbirth educators and La Leche League leaders and asking who is doing homebirths, which doctors are sympathetic for prenatal care, and so forth. (La Leche League has the official policy of never endorsing or recommending anything, but leaders tend to know everything that's happening in a community). Get their numbers from doctor's offices, hospitals, or the Red Cross.

In my opinion, it is good to talk to doctors about homebirth—it lets them know what consumers want. But remember that you are doing it as a service to them and don't be discouraged by the lectures you may receive. And who knows, you may be the one to radicalize a doctor, especially if he comes to know you through prenatal care first.

Next, talk to everyone you meet who looks like they might be involved with homebirth. Maybe they'll know someone. You can write up index cards stating something like, "I'm having my baby at home and would appreciate information from women who have had

homebirths, or from anyone who has experience with births." Put these up in health food stores, free clinics, bookstores or wherever there are appropriate bulletin boards.

You may feel as if you're the only person in your area who cares about homebirth, but it isn't true. I am convinced that if you have strong intention and put out the energy, you will be given exactly the help you need. For example, when I first came to Boulder, Colorado, no one knew of anyone except one osteopath who was openly doing some deliveries. Within a few months of teaching classes, I had discovered two foreign-trained midwives who had each delivered 5,000 babies, and other people who would help at home deliveries including three obstetrical nurses, two physician's assistants, three lay midwives, and one M.D. who would occasionally do homebirths.

What if you don't find any help? You might be satisfied with delivering at a birth center or doing a hospital delivery with a sympathetic doctor and then going home a few hours after the birth (signing yourself out "against medical advice" if necessary). Although I can't recommend homebirth without a skilled attendant, I recognize that some couples will be determined to do it even though they haven't found help. (Most unattended homebirths are not due to the couple's negligence, but result from the fact that doctors and legislators in many states refuse to recognize the rights of couples to give birth in their own homes with competent medical aid and emergency backup.) My advice in this case is that you *please* don't attempt it with just the two of you. There's too much to know and do, even in a normal birth, for the husband to be able to handle everything comfortably. And if complications occur, you can be in real trouble. At the very least involve friends, including women who have given birth, so that there will be help with coaching, cooking, looking after children, and so there will be help in an emergency situation (like taking the mother to the hospital in the knee-chest position, watching the baby if the mother has third-stage complications, etc.). And as a group, meet together often, study and prepare yourselves as much as possible. Be as responsible as you can, and don't stop looking for the help and information you need!

## SKILLS OF A BIRTH ATTENDANT

With diligence and clear intention, most couples are able to find several sources of possible help. Having an experienced birth attendant is important, but it's equally important that you have a realistic appraisal of your attendant's skills and orientation toward birth. Our cultural conditioning is to accept unthinkingly the superiority of the expert and to discount our own knowledge and intuition. Doing this at a birth, whether the "ex-

part" is an obstetrician or your next-door neighbor, will very likely lead to disappointment or disaster.

At a minimum, your birth attendant should be able to:

1. Recognize which prenatal factors place a woman or baby at risk and may contra-indicate a home delivery.

2. Know how to monitor labor, including checking dilation, the position of the baby, fetal heart tones and maternal blood pressure.

3. Recognize variations from a normal labor and know whether they can be managed at home or require hospitalization. (She also needs to participate in formulating your emergency backup plan.)

4. Know how to help the head to be born without tearing the perineum or vagina. She should know how to recognize degrees of tearing, should they occur, and be able to get them handled.

5. Check the placenta, umbilical cord and membranes.

6. Check the uterus for contraction after the birth and be able to recognize and handle hemorrhage.

7. Know how to check the newborn and recognize health problems.

8. Know how to handle critical emergencies such as shock, hemorrhage, shoulder dystocia, and how to give cardio-pulmonary resuscitation to the baby.

Ideally, there should be an almost telepathic sense of unity with your birth attendant. After all, you are going to be sharing one of the most intimate experiences of your life with this person.

### SELECTING A SKILLED ATTENDANT

Once you have found someone who is helping with home deliveries (or who has the necessary skills and might be persuaded to help you), it is a good idea for you and your partner to meet with her or to invite her to your house for dinner. Find out who she is—what her experience is, what her attitude is, what her procedures are—and let her find out who you are. If it is a doctor who has a homebirth practice, you may have to make an appointment for an interview first. Get to know each other so you can both decide if it is appropriate for you to be working together.

Of course, your prospective birth attendant will also be getting to know you, too. And she may even decide, for whatever reason, that she doesn't want to be working with you. It can be quite discouraging, after finally locating a potential source of aid, to have her not come through or refuse you. But in fact, if a birth attendant does not want to work with you, you are better off not working with her.

The following points certainly can't all be covered in a single meeting (don't give her the third degree!), but

prior to your delivery you should know the following about your attendant.

#### 1. Training and Experience.

What training has she had? How much home and hospital experience? What is her orientation toward birth? (Has she ever apprenticed with a midwife? Why does she do home deliveries?)? How many births has she attended, and at how many was she the primary attendant? There are differences between a friend with some birth experience, someone who has caught ten babies, and someone who has caught 100, 350 or 3000. Some sources say that your birth attendant should have had experience at some minimum number of births, but I feel that, rather than relying solely on numbers, you should gain a realistic appraisal of this person's level of experience (as well as an intuitive estimation of her ability to act with calm and clarity in any situation) and evaluate her skills against what you feel are the risks and what you feel you need from a birth attendant.

#### 2. Complications and Emergencies.

Find out what complications and emergencies she has seen, and how they were dealt with. Find out what she can handle at home. She should be able to recognize danger signs and know what is beyond her ability. What would she do if you were bleeding and went into shock? What would she do if the baby was born white and limp and didn't start to breathe? Can she do suturing? Get a realistic idea of her areas of competency and inexperience.

#### 3. Medical Backup.

If your birth attendant is an M.D. or osteopath, does he have hospital privileges? If a midwife, does she have a doctor whom she can call with questions or who will meet you at the hospital? If not, you should have your own backup (through prenatal care) and/or be familiar with the emergency room procedures of your hospital (see *Emergency Backup*, p. 50). Will she be able to accompany you and serve as consumer advocate at the hospital, or does she need to leave you once you are on your way to the doctor's or hospital? Does she have a pediatrician for backup (or do you)?

#### 4. Equipment.

What equipment does she bring? She should have a fetoscope, bulb syringe for suctioning the baby, cord clamps or ties (or hemostats for emergencies), a disinfecting agent for scrubbing up, and sterile gloves. What does she expect you to have on hand? What emergency equipment does she bring: Oxygen? Ergotrate tablets or

methergin to handle postpartum hemorrhage? Any other herbs or medications? Does she bring a scale for weighing the baby? Does she have silver nitrate or Ilyotycin for the baby's eyes?

### 5. Procedures.

Does she bring an assistant? Some doctors and midwives have a very medical view of birth and bring lots of equipment (see Seth's birth account). When does she cut the cord? Will she let your husband assume an active role in the delivery if that's what you want? In what capacity are you having her be present: To advise you if anything is wrong? To actually deliver the baby? If you want to use LeBoyer's or other special means of welcoming your baby, does she understand and is she in agreement? What percentage of the women she works with tear and require stitching?

### 6. Fees.

Does she charge a fee? Do you think it is reasonable? When does she want payment, and is it to be in cash or supplies or some kind of trade? What if she doesn't make it to the birth? What if you end up having to go to the hospital? If the fee includes prenatal care, delivery and six-week checkup, it should be quality prenatal care as described in Chapter Two. If she does not provide her own prenatal care, she should be involved with your records and lab results and should meet with you several times prior to the birth. When does she want to be notified and when does she come during labor? Does she visit you in the days following the birth? How much is she willing to invest in you and your well-being?

### 7. Communication.

Communicate with her about who you are and what you expect from a birth attendant. Some birth attendants are encouraged by the fact that you are taking responsibility and wouldn't agree to be there under any other conditions; others who are used to being in charge may want a more "professional" relationship.

Also try to feel how open and willing she is to communicate with you, now and during labor and delivery. How involved will she be in your labor, or will she be primarily focusing on the birth? See how willing she is to explain things to you, to help you see the consequences of your choices, but to let you make your own decisions. Does she teach childbirth preparation classes or recommend someone with whom you can work?

If she is bringing an assistant, can you get to know her as well? It's also important that all of the people who will be present meet with your attendant(s) and with each other to get to know one another and so you can discuss what is important to you. Share this book

with your attendant so she understands part of your preparation.

### 8. Attitude.

What is her attitude toward birth? Does her attitude mesh with yours? Is she warm, confident and caring? Does her spiritual orientation mesh with yours? Do you like her and feel good about her participating in your birth?

You won't be able to find the *ideal* birth attendant (the one of your best imaginings). Instead you will find real men and women who are concerned with the quality of birth and are, either tentatively or boldly helping with homebirths. The more you can communicate with your attendant, the better friends you will become, and the fewer surprises you are likely to have at the birth itself.

### NO PRAISE AND NO BLAME

Many times throughout this book I stress the importance of parents maintaining responsibility for their own birth, and of not entering into a dependent relationship with their birth attendant, their pediatrician, or whomever. More than this, I advocate a sense of friendship, trust and unity among all the people present at a birth. If this is maintained, there will be the sense of a group of people united in a common effort, each contributing what he or she has to offer, all participating in a group process which is unique to that moment.

This shared sense of everyone doing his or her best, combined with the recognition of the uniqueness and non-repeatability of each situation, could, I am convinced, go a long way towards eliminating the aura of fear, blame and guilt which is unfortunately so prevalent in our health-care system today. It might reduce the fear of lawsuits, censure, and astronomical malpractice insurance which keeps many doctors from being involved in homebirth and leads to such a high cesarean rate in our hospitals.

Likewise, the recognition of the uniqueness of each situation should help to keep us from comparing, from saying, "If only I'd had my baby in the hospital" or "If only I'd had my baby at home." The woman who says, "I hemorrhaged after the birth in the hospital. If I'd been at home, I would have died" doesn't realize that had she been doing a homebirth, the situation would have been completely different (e.g., she wouldn't have had any drugs, her birth attendant would have been different, delivery of the placenta would have been managed differently, etc.). The same is true when some difficulty arises at home. It's impossible to say whether it or some other situation would have arisen in a hospital delivery; everything would have been different.

In making the decision to be alive and have a baby, you are admitting that there are no guarantees, either at home or in the hospital. Life is an inherently risky venture into the unknown. You can reduce risks as much as possible by being as responsible as you can. And whom ever you ask to help you, whether an obstetrician, a midwife or a group of friends, you must know that all the people present are sharing and doing their best, based on their experience and their ability to be aware (and to keep each other aware), and that the "results" are dependent on something higher than ourselves, and hence go beyond praise or blame for the individuals involved.

## PLANNING YOUR EMERGENCY BACKUP

Unless you can find someone who is able to give you continuity of care (prenatal, home delivery, and hospi-

tal privileges), you will also need to think about what you will do in case your delivery is among the small percentage requiring hospital care. It's important to think about these things now, so in case of an emergency you will have worked out all of the details and can quickly get the help you need.

It is helpful if your birth attendant has hospital privileges, or is a midwife with her own doctor, but you should still go through the following two pages so you will have all the information you need should your birth attendant not make it to the birth on time. Most homebirths proceed without incident, but being responsible means having considered all of the possibilities.

To help you with your emergency backup plan, fill in the following worksheet, and then fill in the numbers you will want to have posted by your telephone, and tape them to the wall *a month before your due date*.

HOUSE RESEARCH AGENCY  
Pouch Y - State Capitol  
Juneau, Alaska 99811  
465-3991

TO: Representative Joe McKinnon January 14, 1980

FROM: Christine Johnson, Research Analyst CEJ  
House Research Agency

THROUGH: Duncan L. Read, Director  
House Research Agency

SUBJECT: Comparative Analysis of Midwife Statutes  
Research Request No. 10

Enclosed please find statutes from twenty-one states pertaining to the licensing of midwives. We have included several pages of charts which indicate by state the types of midwives (ie., lay, professional or nurse-midwife) who are licensed to practice, the range of their responsibilities, and any special provisions the statutes contain. The chart can be used as an index reference for the statutes, all of which are attached in full.

If you need further information on this or any other matter, please do not hesitate to contact us.

CJ/bf  
Encl.s

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

ALABAMA

(Professions and Businesses 4.34-19-1-.34-19-10)

<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Licensed registered nurse; certificate from school for nurse-midwives.
	Limitations on Practice	Cases of normal childbirth; physician's supervision necessary.
	Special Statutory Provisions	All deliveries must be planned to take place in hospital.
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	Lay midwives holding health department permits may continue to practice until permits are revoked by Board of Health.
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

CALIFORNIA

(Business and Professional Codes 2.5.2746 - 2.5.2746.0; 12.5.2350-12.5.2359)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		CALIFORNIA (Business and Professional Codes 2.5.2746 - 2.5.2746.0; 12.5.2350-12.5.2359)
<p><b><u>NURSE-MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	Practice supervised by physician or surgeon (physician's presence not required); cases of normal childbirth. Authorized to provide family-planning care. Shall not use instruments, or artificial, forcible, or mechanical means to assist childbirth, nor perform version; shall refer complicated cases to physician. Shall not perform abortions.
	Special Statutory Provisions	Requirements for censure are left up to appropriate boards and committees. In general, California's statutes establish the confines of the practice.
<p><b><u>PROFESSIONAL MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><b><u>LAY MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

CONNECTICUT

(377.20-75)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		CONNECTICUT (377.20-75)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	Graduate of school of midwifery.
	Limitations on Practice	Cases of normal labor (uncomplicated vertex or head presentation). Shall not use drugs, instruments, nor perform version or attempt to remove adherent placenta. Shall not attend woman in labor until after seventh month of gestation.
	Special Statutory Provisions	Examination required for licensing.
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

FLORIDA

(30.485.011 - 30.485.091)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		FLORIDA (30.485.011 - 30.485.091)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	Diploma from school for midwives; sponsorship by two practicing physicians; ability to read manual intelligently and write legibly (this may be waived).
	Limitations on Practice	Cases of normal labor; shall not use drugs, instruments, nor assist labor in any artificial, forcible, or mechanical manner, nor attempt to remove adherent placenta. Shall not use poisonous drug or herb medicine, nor attempt treatment of disease when attendance of physician cannot be secured.
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	Attendance, under the supervision of a physician, at not less than fifteen cases of labor and the care of fifteen or more mothers and newborns for periods of at least ten days each; sponsorship by two physicians; ability to read manual intelligently and write legibly (this may be waived).
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

INDIANA

(25-22-1-5, 22-22-1-6; Admin. Rules (25-22.5-5-5)-1, (25-22.5-5-5)-2)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		INDIANA (25-22-1-5, 22-22-1-6; Admin. Rules (25-22.5-5-5)-1, (25-22.5-5-5)-2)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	Diploma from school of midwifery which has proper equipment to teach anatomy, physiology, hygiene, anticepsis, neurology, toxicology, and the proper management of labor; high school education; ability to read and write the English language* *There are few schools in this country which train midwives who are not nurses. Since many professional midwives were educated at foreign institutions, some states feel it
	Limitations on Practice	necessary to require proficiency in English.
	Special Statutory Provisions	(Statutes pertaining to midwifery in Indiana date to the late 1800's. Midwifery in the state is presently controlled by administrative code. Both the statutes and codes have been included.) Examination required for licensing. Gratuitous services in an emergency not prohibited by act, nor does it restrict licensed physicians.
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

MARYLAND  
(Art. 43.82-94)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		MARYLAND (Art. 43.82-94)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Certified by American College of Nurse-Midwives as a nurse-midwife.
	Limitations on Practice	Normal cases of pregnancy; cannot practice medicine or prescribe drugs. Shall not induce labor or produce abortion.
	Special Statutory Provisions	Person who is not licensed midwife may practice under the personal and direct supervision of a physician. Subtitle does not restrict physician or person volunteering service in an emergency.
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	Maryland midwifery laws updated 1970. Previous laws licensed midwives determined qualified by two practicing physicians. (These statutes have been included).

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

MINNESOTA

(148.30 - 148.32)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		MINNESOTA (148.30 - 148.32)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	Diploma from a school of midwifery.
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	Consent of seven members of the State Board of Medical Examiners given after examination of candidate.
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

MONTANA

(66-1246)

<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Certificate in nurse-midwifery from the American College of Nurse-Midwives.
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

NEW JERSEY

(45:10)

<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	<p>Certificate from school of midwifery, or maternity hospital granted after 1800 hours of instruction in not less than nine months.</p> <p>Certificate from foreign school of midwifery of equal requirements.</p> <p>Endorsement by physician.</p>
	Limitations on Practice	<p>Shall not perform criminal abortion. Normal labor cases, only.</p>
	Special Statutory Provisions	<p>Examination required. Topics covered by examination specifically laid out by statute.</p> <p>Chapter does not restrict physician nor gratuitous service in an emergency.</p> <p>New Jersey midwifery laws similar to Washington's.</p>
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

OHIO

(4731.30-4731.34)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		OHIO (4731.30-4731.34)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Diploma from college for nurse-midwives
	Limitations on Practice	Practice under direction and supervision of physician. Shall not perform version, treat breech or face presentation, use instruments or treat abnormal condition, except in emergencies.
	Special Statutory Provisions	Examination may be required.
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

UTAH

(58-44-1 - 58-44-11)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		UTAH (58-44-1 - 58-44-11)
<p><b><u>NURSE-MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Completed approved certified nurse-midwifery education program.
	Limitations on Practice	Under this act, may also provide normal gynecological services.
	Special Statutory Provisions	Establishes committee to supervise practice of nurse-midwifery. Examination required. Act does not affect rights of parents to deliver their baby, where, when, how and with who they choose regardless of certification.
<p><b><u>PROFESSIONAL MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><b><u>LAY MIDWIFE</u></b></p> <p><b>Definition:</b></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

WASHINGTON

(10.50.090 - 10.50.110)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		WASHINGTON (10.50.090 - 10.50.110)
<p><u>NURSE-MIDWIFE</u></p> <p><b>Definition:</b></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><b>Definition:</b></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	Diploma from legally incorporated school on midwifery in good standing, granted after at least 2 courses of instruction of at least seven months each in different calendar years. Diploma from foreign institution on midwifery of equal requirements.
	Limitations on Practice	Shall not prescribe any drugs or medicine except home household remedy.
	Special Statutory Provisions	Examination required. Topics covered by examination specifically laid out by statute. Gratuitous service not prohibited by chapter. Washington's midwifery laws similar to New Jersey's.
<p><u>LAY MIDWIFE</u></p> <p><b>Definition:</b></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES

WEST VIRGINIA  
(30-15-1 -30-15-8)

STATUTORY PROVISIONS PERTAINING TO LICENSING OF MIDWIVES		WEST VIRGINIA (30-15-1 -30-15-8)
<p><u>NURSE-MIDWIFE</u></p> <p><u>Definition:</u></p> <p>Registered nurse who has expanded his/her practice to the care of mothers and babies through the maternity cycle.</p>	Requirements	Graduate of school of midwifery; certified by American College of Nurse-Midwives.
	Limitations on Practice	Practice under the supervision of or in association with physician engaged in family practice or specialized field of gynecology or obstetrics.
	Special Statutory Provisions	Persons holding licenses issued before current laws enacted may continue to practice until expiration of licenses without privilege of renewal.
<p><u>PROFESSIONAL MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who has received formal professional training as a midwife.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	
<p><u>LAY MIDWIFE</u></p> <p><u>Definition:</u></p> <p>An individual who practices as a midwife but has not received formal professional training.</p>	Requirements	
	Limitations on Practice	
	Special Statutory Provisions	

Original sponsors: Rogers and Vaska

Offered: 5/22/81  
Referred: Finance

1 IN THE HOUSE

BY THE HEALTH, EDUCATION AND  
SOCIAL SERVICES COMMITTEE

2 CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 11 (HESS)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 TWELFTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to midwifery."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 \* Section 1. FINDINGS AND INTENT. The legislature recognizes the unique  
9 physical and emotional aspects of childbirth, and the need to protect and  
10 enhance the religious, cultural, and individual freedoms in the manner,  
11 setting, and cost of childbirth. The legislature finds that the traditional  
12 and cultural use of midwives continues and that the demand for midwifery  
13 service is increasing in Alaska (without adequate regulation and licensure)  
14 Therefore, the legislature intends that midwifery be regulated in the public  
15 interest to assure that users of midwifery services are aware of the com-  
16 petency levels of their health care providers, and that licensing of mid-  
17 wives does not remove from the parents the responsibility for choosing  
18 where, when, how, and with whom to deliver their babies.

19 \* Sec. 2. AS 08 is amended by adding a new chapter to read:

20 CHAPTER 69. MIDWIFERY.

21 Sec. 08.69.010. LICENSED MIDWIFE PRACTICE. A person who practices  
22 as a licensed midwife shall obtain a license granted by the Department  
23 of Commerce and Economic Development as provided in this chapter and  
24 shall practice midwifery in accordance with this chapter.

25 Sec. 08.69.020. UNLAWFUL REPRESENTATION. It is unlawful for a  
26 person to represent oneself as a licensed midwife or use any designation  
27 that implies that the person is licensed or certified by the state to  
28 act as a midwife unless the person is currently licensed under this  
29 chapter. A violation of the provisions of this section is a violation

1 as described in AS 11.81.250(a)(6).

2 Sec. 08.69.030. DUTIES OF THE DEPARTMENT. The department<sup>?</sup> shall

3 (1) license persons to practice midwifery;<sup>?</sup>

4 (2) prepare and administer examinations which test compe-  
5 tence in midwifery;<sup>?</sup>

6 (3) prescribe a <sup>5 yr</sup> ~~biennial~~ license fee for licensed midwives  
7 not to exceed \$25;

8 (4) develop, publish, and make available to interested  
9 parties at a reasonable cost, a bibliography and guide to the examina-  
10 tion administered to applicants;

11 ~~(5) require the compliance of licensed midwives with vital~~  
12 ~~statistic recording requirements;~~

13 ~~(6) require licensed midwives to maintain statistics relating~~  
14 ~~to births they attend;~~

15 Sec. 08.69.040. LICENSURE AS A MIDWIFE. A person is eligible for  
16 licensure as a midwife if that person

17 (1) is at least 18 years of age;

18 (2) furnishes proof of having attended at least <sup>20</sup> ~~30~~ births as  
19 a (midwife in) the ~~two-year period immediately~~ preceding the date of  
20 application or has completed a midwife apprenticeship under AS 08.69.-  
21 150; proof is by affidavit of the applicant for births ~~which occurred~~  
22 ~~before January 1, 1982;~~

23 (3) passes an examination administered by the department<sup>?</sup>  
24 meeting the requirements of AS 08.69.060;

25 (4) pays the license fee prescribed in this chapter.

26 Sec. 08.69.050. LICENSURE BY ENDORSEMENT. A person who is li-  
27 censed as a midwife by another state <sup>country</sup> may be licensed as a midwife if  
28 the requirements for that license are essentially the same as the  
29 requirements for licensure under AS 08.69.040.

1           Sec. 08.69.060. EXAMINATION OF APPLICANTS. (a) The examination  
2 for licensure as a midwife shall be administered at times and locations  
3 selected by the department?

4           (b) Subjects examined by the examination shall include, and are  
5 limited to, *Newborn examination*

- 6           (1) anatomy of the pelvis and female genital organs;
- 7           (2) physiology of the female genital organs;
- 8           (3) recognition and management of pregnancy;
- 9           (4) understanding fetal presentations and positions;
- 10          (5) mechanisms and management of normal labor;
- 11          (6) management of puerperium;
- 12          (7) injuries to the genital organs following labor;
- 13          (8) sepsis and antisepsis in relation to labor;
- 14          (9) preparation and management of the delivery site and  
15 lying-in area;
- 16          (10) hygiene of mother and infant;
- 17          (11) asphyxiation, convulsions, malformation, and infectious  
18 diseases of the newborn;
- 19          (12) causes, effects, and prevention of ophthalmia neonatorum;
- 20          (13) emergency occurrences requiring the attention of a  
21 physician; ^
- 22          (14) requirements of vital statistics law relating to report-  
23 ing of births and infectious diseases of the newborn;
- 24          (15) the pharmacology of drugs used in emergency maternity  
25 care for both mother and infant following childbirth;
- 26          (16) nutrition as it relates to the prenatal, partal and  
27 postpartum period;
- 28          (17) management of breast feeding;
- 29          (18) knowledge of the bonding process and family interrela-

1 tionships;

2 (19) knowledge of conscious control techniques for labor  
3 management.

4 Sec. 08.69.070. RENEWAL OF LICENSES. (a) A midwife's license is  
5 renewable <sup>5 yrs</sup> ~~biennially~~ on June 30.

6 (b) Notice of renewal will be mailed to every currently licensed  
7 midwife on or before May 1 of each even-numbered year.

8 (c) A license not renewed by June 30 will lapse on July 1 or be  
9 placed on the inactive list at the request of the licensee.

10 (d) A lapsed license will be reinstated within 90 days of lapse  
11 upon receipt of payment of the license renewal fee and satisfaction of  
12 other renewal requirements.

13 (e) The department shall establish requirements which must be met  
14 before a license may be renewed, which must include a requirement that  
15 an applicant for renewal has attended ~~20~~ births in the previous ~~two~~  
16 ~~years~~ and has completed <sup>50</sup> ~~20~~ hours of continuing education. Continuing  
17 education shall include childbirth-related postsecondary coursework,  
18 workshops, or any combination of training and experience or a combina-  
19 tion of experience and continuing education. *A correspondence course*

20 Sec. 08.69.080. DISCIPLINE, DENIAL, SUSPENSION, OR REVOCATION OF  
21 A LICENSE. (a) The department shall revoke or suspend the license of  
22 a midwife, or the licensee may be reprimanded, censured, or disciplined  
23 if the department finds after a hearing that

24 (1) the midwife has obtained or attempted to obtain a license  
25 under this chapter by fraud or deceit;

26 (2) the licensed midwife has wilfully violated a provision  
27 of this chapter;

28 (3) ( the licensed midwife has engaged in unprofessional  
29 conduct; or ?)

1 (4) (the licensed midwife has engaged in intentional or  
2 negligent conduct that results in a significant risk to the health or  
3 safety of a client or that results in injury to a client.?)

4 (b) The department? shall afford a midwife whose license has been  
5 denied or revoked the opportunity to have the license reinstated by  
6 demonstrating ability to resume the competent practice of midwifery  
7 with reasonable skill and safety.

8 Sec. 08.69.090. SCOPE OF PRACTICE. (a) A midwife licensed under  
9 this chapter may perform functions within the scope of practice. The  
10 scope of practice for licensed midwives includes

- 11 (1) *Newborn examination*  
recognition of pregnancy and management of prenatal  
12 care;
- 13 (2) preparation and management of the delivery site and  
14 lying-in area;
- 15 (3) management of the birth process and delivery of the  
16 infant;
- 17 (4) clamping and severing the umbilical cord;
- 18 (5) delivery of the placenta, with anti-hemorrhage tech-  
19 niques;
- 20 (6) recognition of an emergency labor or delivery situation  
21 involving the mother or infant;
- 22 (7) emergency procedures for asphyxiation, convulsions,  
23 malformation, and infectious diseases of the newborn;
- 24 (8) administration of preventive prophylaxis for ophthalmia  
25 neonatorum;
- 26 (9) postnatal care of mother and infant;
- 27 (10) suturing;
- 28 (11) routine laboratory investigation for normal prenatal  
29 care.

1 (b) In a medical emergency the scope of practice, to the extent  
2 needed for the emergency includes

- 3 (1) intramuscular injections for maternal hemorrhage;  
4 (2) penetration of human tissue for emergency episiotomy,  
5 repair, and severing the umbilical cord;  
6 (3) oxygen use.

7 (c) (The department? shall designate the medications, therapeutic  
8 agents, and techniques which a licensed midwife is authorized to admin-  
9 ister and the circumstances under which those medications, therapeutic  
10 agents, and techniques may be administered.?) ^

11 Sec. 08.69.100. INFORMED CONSENT FORM. (a) The department? shall  
12 develop an informed consent form which the licensed midwife shall  
13 provide for clients at their initial meeting. The form will describe  
14 the licensed midwife's ^

- 15 (1) philosophy of practice;  
16 (2) education and training;  
17 (3) experience;  
18 (4) services and fees;  
19 (5) procedures for meeting medical emergencies.

20 (b) The licensed midwife shall inform the client that the statis-  
21 tical information required by AS 08.69.110 is maintained by the licensed  
22 midwife and is available for inspection.

23 Sec. 08.69.110. STATISTICS. (a) The department? shall determine  
24 the information concerning the practice of midwifery which must be  
25 collected and retained. This information is subject to audit by the  
26 department. The information is required to be retained in statistical  
27 form and shall include

- 28 (1) infections;  
29 (2) hemorrhage;

- 1 (3) hospital transfers;  
2 (4) malpresentations;  
3 (5) normal deliveries;  
4 (6) (absence of physical examinations performed by a physi-  
5 cian and the reason examinations were not performed.?)

6 (b) The statistical information required shall be filed with the  
7 department? every (~~six~~<sup>12</sup>) months on a form prescribed by the department.

8 (Sec. 08.69.120. MEDICAL HISTORIES. (a) The department? shall  
9 require licensed midwives to maintain a comprehensive medical and  
10 obstetrical history of each client. The history shall include

- 11 (1) the mother's name and address;  
12 (2) the mother's date of birth;  
13 (3) the mother's gravidity and parity;  
14 (4) progress in pregnancy, including routine laboratory  
15 investigation;  
16 (5) progress of mother and infant in labor and delivery;  
17 (6) characteristics of placental delivery and cessation of  
18 bleeding of mother;  
19 (7) APGAR administered to infant;  
20 (8) immediate postpartum progress of mother and infant;  
21 (9) general health of mother and infant at the time the  
22 midwife services terminate;?)

23 ~~(10) other information required by the department.~~

24 Sec. 08.69.130. PRACTICE OF A LICENSED MIDWIFE. A person licensed  
25 as a midwife under this chapter must

26 ((1) ensure that if reasonably possible before the onset of  
27 labor the mother has received a general physical examination by a  
28 physician or a nurse midwife;?)

29 (2) recommend that the mother be transferred to the care of

1 a physician if a medical emergency is indicated; and

2 (3) have transportation reasonably available during labor  
3 and delivery to transfer the mother to a hospital or physician if a  
4 medical emergency requires it.

5 Sec. 08.69.140. POSSESSION OF DRUGS. A licensed midwife may  
6 possess and administer in accordance with a prescription from a consult-  
7 ing <sup>(pharmacist)</sup> ~~physician~~ agents used to stop maternal hemorrhage, oxygen, and  
8 antibiotic eye drops.

9 Sec. 08.69.150. MIDWIFE APPRENTICESHIP. (a) A person may com-  
10 plete a midwifery apprenticeship by observing and assisting in the  
11 management and care of the mother and infant in at least <sup>(20)</sup> ~~(30)~~ births. In  
12 the course of <sup>(10)</sup> ~~(20)~~ of those births, the apprentice must assume primary  
13 responsibility, under the supervision and observation of the sponsor,  
14 for the prenatal, intrapartal, and postpartal management and care of  
15 the mother and child. (A person undertaking a midwifery apprenticeship  
16 shall register with the department? at the beginning of the apprentice-  
17 ship. ?)

18 (b) A midwife apprenticeship must be under the immediate super-  
19 vision of a sponsor. A sponsor may not supervise more than three  
20 apprentice midwives simultaneously. The sponsor shall secure the  
21 compliance of the apprentice midwife with this chapter.

22 Sec. 08.69.160. DEFINITIONS. In this chapter

23 (1) "department"? means the Department of Commerce and Eco-  
24 nomic Development;

25 (2) "medical emergency" means a situation of a serious  
26 nature which develops suddenly and unexpectedly and demands immediate  
27 action during pregnancy, labor or delivery;

28 (3) "normal childbirth" means a normal physiological state  
29 of health in which the expectant mother is in a stable condition with-

# Suggested Revisions for House Bill No. 11

by Kathleen Stier

Box 1136

Homer, AK 99603

KEY    pg    ...    page  
      (# )    ...    line number orig pg    235-7654  
      —    ...    eliminate  
      (    )    ...    change  
      ?    ...    question  
      ^    ...    addition

Sec. 1

pg 1 (13) this is demeaning to the present practitioner, those who may choose not to be licenced and anyone not qualified due to low birth attendance.

Sec. 08.69.010

(22-23) who will make up the board in the Dept of Commerce and Economic Development. All other health care occupations are self-regulatory. The board should be made up mainly of licenced lay midwives; parents and an unlicenced lay midwife should also be included. Physicians, nurse midwives etc should only serve as advisor to the board.

Sec. 08.69.030

pg. 2 (2) refer to pg 1 (22-23) 08.69.010

(3-5) this needs to be clarified to ensure these test will indeed be given and how often.

(6) 5 year period would cut red tape and costs. Also many practitioners are having babies themselves. What about illnesses, accidents and schooling? 5 years would give time off plus time to qualify.

pg 2 (11-14) Include this in informed consent because this should be parents option as to whether or not they choose to be statistics, citizens privacy must be protected! refer to pg 6 Sec. 08.69.100 (11-14)

(18-22) Time limits and 30 births is a lot for those practicing in sparsely populated areas. This could mean many if not several years to qualify for licence. or limits licence midwives to more populated areas, thus neglecting areas that would most benefit from them.

"as a midwife," should read "in a responsible capacity" this would be more applicable as not everyone active in birthing is called a midwife.

Sec. 08.69.050

(27) or country would include individuals that may have the needed skills.

Sec. 08.69.060

pg 3 (3) refer Sec 08.69.010 pg.1 (22-23)

A New born exam needs to be added, without this knowledge the skills of a midwife are incomplete

(20-21) need to include knowledge to handle emergencies if physician isn't available due to distance and weather.

Sec. 08.69.070

pg. 4 (5) 5yrs refer to pg 2 (6)

(13) refer to Sec. 08.69.010 pg.1 (22-23)

(15) other health care occupations are not required to meet a minimum or quota of cases in a set amount of time.

This places emphasis on quantity, not quality, which is not a measure of competency.

- pg 4 (16) 50 hours in 5 years or 10 hours per year minimum. Its important in any occupation to have continual education. This will encourage keeping up on new information, learning new skills, encourage enthusiasm, discourage stagnation and ultimately raise competency.
- (19) Continuing education should also include correspondence courses in our spacious state.

Sec 08.64.086 (21) refer to pg 1 (22-23)

- (28) do other health related occupations have this type of clause? If not, why not and why is this bill an exception?

pg 5 (1-3) This clause can be a catchall and leaves us on an undefined tightrope. What is intentional or negligent conduct?

- (4) refer to Sec 08.64.010 pg 1 (22-23)

Sec 08.64.090

- (8) This section again need to include the newborn examination

pg 6 (710) This clause is another catchall. There is a need for guidelines but this assumes that the midwife does not have the knowledge or the ability to determine which techniques are needed in particular situations. Other practices experience controversy when determining which medications, agents and techniques to use and this clause would eliminate personal choice. There needs to be more clarity, also allowances for alternative health care techniques (such as herbs, acupuncture, etc.)

Sec 08.69.100

pg 6 (11-14) Needs to include lines from pg 2 (11-14) Sec 08.69.030

and pg 7 (26-28) Sec 08.69.130  
(11) & (23) refer to Sec 08.69.010 pg 1 (22-23)

Sec. 08.69.110

pg 7 (4-5) This clause and attitude indicates that midwives must justify curability. It also means dependency on an available and/or supportive physician which could be a hardship on the mother and midwife.

(7) 12 months is more reasonable and saves paperwork for all. This is also a petty point to disqualify one's license.

Sec 08.69.120

(8) refer to Sec 08.69.010 pg 1 (22-23)

(8-22) What if our practice and philosophy is for the parents to keep their records, (can this be included as an exception. refer to 08.69.030 pg 2 (11-14)

(19) or other approved infant evaluation

(23) must be defined! It can be a catchall.

Sec 08.69.130

(26-28) (again indicates incompetency in midwifery skills and ability. This should be a parental choice and be included under informed consent form 08.69.100 pg 6 (7-10) This can be an unnecessary burden on the mother and her family due to finances, travel, time, etc.

Sec 08.69.140

pg. 8 (7) pharmacist should be substituted. Medications is their specialty and they know & understand their administration even more thoroughly than a physician. If a physician is not available or supportive in obtaining these

drugs, then we go without.

Sec 08.69.150

(11) 20 births refer to 08.69.030 pg 2 (18-22)

(12) 10 births " " " " " "

(16) refer to pg 1 (22-23) 08.69.010

(15-16) A person could have begun their apprenticeship elsewhere or gotten involved in birthing without the intention of becoming a licensed midwife, therefore would not be able to register with the dept prior to apprenticeship. Does this mean when they do register that they are starting from scratch?

Sec 08.69.160

(23) refer to 08.69.010 pg 1 (22-23)

pg 9 (4-7) refer to 08.69.080 pg 4 (28)

Nancy -



February 1982

Dear people,

I am writing in concern of HB11 "An Act Relating to Midwifery" I have been active in homebirths in Alaska for 4 years. Through my experience I have gained a knowledge and understanding of what it means to be a lay midwife, what the needs of homebirth parents are, why they choose a lay midwife and what practicing in rural Alaska is like.

In a time of concern over the strength of the American family, I've seen that birth is an issue that effects society fundamentally. The past few years have seen many positive changes in the obstetrics in the direction of family-bonding-oriented childbirth and a relatively non-interfering approach. While I applaud the responsiveness of the medical establishment, I would like to point out that the "new childbirth" and resultant benefits to babies and mothers has its roots in the homebirth movement. It has been through the courage and action of parents who chose to bring birth back home to the center of the family that medicine has realized the inadequacy of the highly technological births that the last generation endured.

Assisting these parents at home, where most physicians refused to attend or even support, are a growing number of lay midwives, trained empirically, self taught or privately schooled. The spirit and function of midwives is to ensure that parents have the forethought and knowledge to make good decisions concerning their births. The role of the midwife in pregnancy and birth is that of a teacher,

counselor, nurturer, advisor with heart and hands, she guides and guards the family through the passage of birth.

A midwife is a lover of life. She understands ebb and flow. She has real reverence for the totality of experience. Ultimately, responsibility for birth rest with the parents. Its up to them to be well informed and choose assistants with energy and competence to suit them. Once done, parents take the liability, both physical and emotional, what ever the outcome. They also open doors to unpredecended joy and ecstasy. And by claiming the right to experience the intimate event of birth as they choose, they begin to become strong and sensitive mothers and fathers.

The attitude of the medical establishment is continuing wanting lay midwives to justify themselves. Birth is a physiological function (a non medical event) of women. In a small 5 percent of births, a need for medical techniques and medicine may arise. When this is recognized by medicine, midwifery, parents and babies will greatly benefit. Until then, it will continue to be a struggle instead of a cooperate goal to improve the outcome of birth. Both lay practice and medicine have alot to learn from each other.

One problem with traditional medicine schooling is the pathology oriented approach, so that ones learns not only to recognize but also to expect complications. This often results in general disregard for the power of life force, plus infatuation, with drugs and instruments.

The question of safety in childbirth is closely related to the mothers comfort and ease with her enviroment and attendants. Granlly Dick-Read, one of the first medical ~~proponents~~ proponents of natural childbirth, discovered that fear (or psychological discomfort) during labor creates pathology. Fear activates the sympathetic nervous system, which stimulates the release of adrenalin and cause blood to flow to the extrem-

ities and away from the uterus. This results in the dangerous condition of "white uterus" which means a reduced supply of blood and oxygen to the baby. Recent research has revealed that fear causes certain hormones to be released which directly inhibit dilation by causing uterine muscular constriction. Women who choose homebirth may not be aware intellectually of this physiology, but they intuit their needs for comfort through simple nesting instinct. Even if the nest ~~is~~ is nearly isolated from medical facilities.

I do not support this bill as it stands now. The majority of lay midwives would not be able to qualify for license because of numbers and not to competency. This wouldn't stop homebirths. It will discourage homebirth being attended by anyone with midwifery skills and direct connections with any medical system or back up. Therefore jeopardize homebirth as a highly potential poor outcome instead of improving it.

Please seriously consider my suggested revisions of HB 11 that I have enclosed.

Most sincerely concerned,

Kathleen Stier

Box 1136

Homer, Alaska 99603



# Alaska State Legislature

## Senate Committee on State Affairs

Vic Fischer, Chairman • Pouch V • Juneau, Alaska 99811 • (907) 465-4954

Official Business

March 3, 1982

Kathleen Stier  
Box 1136  
Homer, Alaska 99603

Dear Kathleen:

Thank you for your eloquent and compassionate letter regarding midwifery in general and House Bill 11 in particular.

I am enclosing a copy of Senate Bill 747. House Bill 11 has been replaced with a Sponsor Substitute identical to SB 747. I believe this legislation addresses the concerns expressed in your letter.

The complexity and awkwardness of the bill you sent resulted from attempts to assure midwives were not regulated by the medical or nursing board and to avoid establishing a costly new regulatory body.

I was asked to introduce SB 747 by midwives and consumers after HB 11 sponsors became convinced a self-regulating board of midwifery was the only reasonable way to go under current practice and law.

HB 11 will be heard before the House Finance Committee tomorrow. When it passes it goes to the floor of the House for a full vote. SB 747 will be scheduled before the Senate HESS Committee, chaired by Senator Charlie Parr, within the month.

The money needed to establish and operate the board will be a major stumbling block for this legislation. The first controversy will be over dollars. The next will be, of course, hostility of other health care providers towards lay or empirical midwives.

I would appreciate it greatly if you would send your comments on this legislation and solicit input from your acquaintances and clients. I am working closely with Representatives Vaska and Rogers and will share any information or correspondence with them.

Thanks again and please keep in touch.

Best regards,

Senator Vic Fischer

cc: Representative Vaska  
Representative Rogers  
Senator Parr

Enclosure

March 12, 1982

747

Dear Mr. Parr,

I am in favor of Senate Bill 747 as it is written now. I had my baby delivered at home with the help of a midwife. I knew her background and felt very good about her qualifications. But I am concerned that there are no regulations to guide the practice of midwifery. I know that at this time there aren't any guidelines in the State of Alaska for midwives. At the same time I feel that midwives should have control over their profession, as doctors have control over their profession, and as nurses have control of theirs.

It's time that the state of Alaska listens to the voices of people who want a choice in how and where they deliver their babies.

Sincerely,  
Ann Rushing RN

276-8926

2936 Kimberlie Ct., Anch 99504

CC: Nancy

PAUL L. ENEBOE, M.D.  
A PROFESSIONAL CORPORATION  
P.O. BOX 194  
HOMER, ALASKA 99603  
TELEPHONE 235-8586

March 12, 1982

Senator Vic Fischer, Chairman  
Senate Committee on State Affairs  
Pouch V  
Juneau, AK 99811

Dear Senator Fischer:

Thank you for your letter of March 3, concerning lay midwives. I appreciate the time you have taken, and the thought provoking questions and points you have raised.

Regarding the question of the infant death in our community. It is my contention that in all probability this death would not have occurred had the birth and infant care been attended by a physician or Certified Nurse-Midwife rather than a relatively untrained and unskilled "lay" person. It is my point that this death was preventable. The Coroner's Jury has ruled that the death was natural causes, and assigned no blame. I understand, at this time, that the issue is under consideration by the District Attorney's Office. Whether they will choose to pursue it further, I do not know.

Regarding your question as to "If the infant had died in the hospital under the care of a physician would criminal charges have been filed?". This is a very interesting point. It is rare, indeed, that criminal law reaches into the hospital, usually only after repeated, rather gross violations. However, it is highly likely that had such a death occurred at the hands of a physician and in the hospital, individual litigation would occur. Also, in such an instance, a physician usually receives reprimand or disciplinary action by the hospital medical staff; particularly if he were to have handled an obstetrical case as this one appears to have been.

As you point out, the crux of the lay midwife issue is really home births. You have rightly observed that there is a significant demand for home births, and that for the most part this demand has not been met by the medical profession. You may be interested to know that I have been rather quietly doing home births for most of my medical career, not always by choice. First, as a Public Health Service Physician in Bethel during the mid 1960's, I was frequently on field trips to isolated villages on the Bering Sea and the Yukon-Kuskokwim delta. Many times during these trips I did deliveries, often under quite primitive conditions.

When I opened my practice in Homer, in 1968, I occasionally would be called to a cabin or an isolated fishing site to do, or help with, a delivery. Over the years I have had occasion to do deliveries in cabins, a fishing boat, an airplane, a winnebago, and a pick-up truck.

Initially my home delivery experience was attending emergency births in unexpected situations. However, the last few years I have done between one and four planned home births a year on carefully selected low-risk patients. I have never lost an infant in home delivery, nor have I had an untold event or seriously distressed infant. I attribute this somewhat to good luck, but mostly to careful preparation and unrepentant cowardice on my part. I insist that any home birth I attend immediately move to the hospital with the slightest sign of complication; and that I will only do a home birth when there are no known risk factors. For every home birth I do, I decline at least two others because I feel the risk is too great.

I feel that home deliveries can be safe. I can attest that a home birth is one of the most enchanting and rewarding of medical and human experiences. They also tend to be quite fattening, in that it is a rare home birth, indeed, that is not accompanied by an inordinate amount of goodies to sustain the physician and his accomplices along the way. I like home births, and hope to keep on doing them.

Although I have been willing to do home births on selected people, I by no means do the majority of home births in our area. Most are done by a variety of lay midwives of different skills. Some of whom I respect more than others, and none of whom I feel are really safe.

In 1975, after a series of home birth tragedies at the hands of lay attendants, I surveyed the obstetrical experience in the Homer Recording District with the help of our local recorder. At that time we found there had been 77 home deliveries in the previous 5 years, and 11 infant deaths were recorded from among those 77 home deliveries. This is an infant mortality rate of 15%, more than 10 times that of the hospital delivery experience.

While I feel that home births can be a very wonderful experience, and that safe home births can be done in Alaska, I feel very strongly that there is no place for lay midwives in a home birth program. I feel they are dangerous dilettantes, who cause great harm. Lay midwives are filling a need in this state; but they are doing so at great risk to the mother, and an even greater risk to her child.

People have the right to seek health care as they would, free from interference from any person or agency. It is one thing when a consenting adult decides on a course of action which may be hazardous to his health and well-being. It is another matter when an infant, who has no say and no defense, is placed in

jeopardy. No legislation should ever be enacted to force someone to seek medical attention, or to force a person into a situation against their will. Yet, I am bothered by the infant. Who speaks for him, or should anyone? Where do the rights of an infant lie? Do parents have the right to hazard their unborn child's life and well-being? Where is the line between emotional needs of the parents and the physical needs of the child?

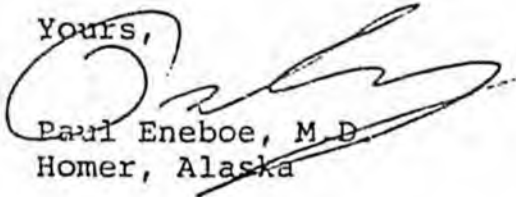
Someone has to speak to the protection of the infant and its well-being. It would seem to me that that someone has to be the state. That being the case, I do not think that the state should sanction well-meaning, but unskilled amateurs in the practice of obstetrics. If there is such a demand for home deliveries that the legislature feels called upon to address this, the need should be met by encouraging home delivery services under the auspices of physicians and Certified Nurse-Midwives.

It is unfortunate that the medical profession has not responded to the legitimate and clearly spoken desires of parents wishing home deliveries. Physicians respond slowly to consumer demand, and for the most part have turned a deaf ear to these young families. Why this is so, is easy to understand. Home deliveries are time consuming. They take a busy, and often over committed physician away from his practice, and from the hospital. To be done safely home deliveries require a tremendous commitment, careful planning and preparation, and a rather extensive amount of equipment. Also there is fear of chastisement and criticism by colleagues, loss of insurance, the threat of malpractice, and reprimand by the state. These are potent weapons, indeed, and enforce conformity very effectively. Physicians in private practice are not great innovators, particularly so in this day and age. I have been able to do home deliveries, and to step a bit out of the norm, because I have practiced in a rural community; and was fortunate enough to have some excellent teachers. Namely, a few patients who were tough enough, and mean enough; and who wouldn't let me say no.

In summary, I urge the defeat of Senate Bill 747 establishing the licensing and recognition of lay midwives. Do not dignify well-meaning amateurs who hazard mother and infant into a profession. I encourage you to support some type of exploration regarding the legitimate needs of those who wish a home delivery, and urge you to encourage and endorse the establishing of home delivery services under the auspices of interested, skilled, physicians and Certified Nurse-Midwives.

Thank you very much for your time and efforts.

Yours,



Paul Eneboe, M.D.  
Homer, Alaska

PLE:vls

David and Penelope Schneider  
Box 424  
Homer, Alaska 99603

March 17, 1982

Dear *Senator Vic Fisher,*

In reference to Senate Bill 747 "An Act Relating to Midwifery" we, David and Penelope Schneider, would like to encourage you to support its passage. We feel this proposal is a progressive step in giving parents responsibility of their health care in the natural birth process. We also feel our supportive position of this act reflects the wants and needs of our peers in Homer and in many communities around Alaska and the United States as well.

Our personal experience as parents of two children born in Alaska, one child in the hospital with a medical doctor and the second in our home with a lay midwife, has made us see the need for having midwives available in all communities for those of us who choose to care for ourselves with the assistance of these fine ladies. The quality of care in terms of education, intimacy and the allowance of the natural birth process is uncomparable for we who relate to life in this gentle way.

The provisions in the bill for the "Board of Midwifery" for maintaining competent midwives is adequate and receives our support for any tax dollars needed.

The issue is essentially this: we people who want home births will have them; we want to be legal and have our lay midwives in attendance. It is our right. It is fact that the "professionals" have the money and power to lobby against this bill, it is in their financial interest.

Please accept our most sincere support in Senate Bill 747 and allow our lives to be enriched in its beginnings.

Sincerely,

*David M. Schneider*  
*Penelope Schneider*

American  
Academy of  
Pediatrics



Alaska  
Chapter

Chairman  
Marian T. Witt, M.D.  
3300 Providence Drive  
Anchorage, 99504  
907/279-6461

March 10, 1982

Health, Education & Social Services Committee  
State Legislature

Dear Sirs:

The Alaska Chapter of the Academy of Pediatrics feels obligated to comment on Senate Bill #747, an Act entitled, " An Act Relating to Midwifery". In this Act, there is an apparent attempt to license midwives, however, in reading the Act, it becomes clear that it is also the attempt to license "lay" midwives. That is, this Act would legitimize the attendance of birth by people who have had no formal medical training, which is quite clear when the requirements which this Act would establish for licensure are reviewed.

The Health, Education & Social Services Committee should be aware of several factors which are important considering a bill such as this. The impetus for such licensure seems clearly related to the increasing popularity of home births. Although, programs for home birth have been established in other areas of the country and also in the world, these programs are always coordinated with the established medical services in the area. First of all, well trained, licensed medical professionals (either physicians or certified midwives) are in attendance at these births and secondly, there is a good cooperative system established with the hospitals and ambulance services in the area to insure that unexpected complications can be quickly and adequately handled. In Alaska, neither of these conditions exist. This is not to say that sometime in the future, a more favorable environment for considering home births might not exist, but this is certainly not the case today.

The Alaska Chapter of the Academy of Pediatrics strongly urges you to reject further consideration of this Act which we feel would be contrary to the interests of newborn infants and children in Alaska.

Sincerely,

A handwritten signature in cursive script that reads "Marian Witt, M.D.".

Marian Witt, M.D.

MW/sgw

PAUL L. ENEBOE, M.D.  
A PROFESSIONAL CORPORATION  
P.O. BOX 194  
HOMER, ALASKA 99603  
TELEPHONE 235-8586

March 2, 1982

Senator Vic Fischer  
Alaska State Senate  
Juneau, Alaska 99811

Dear Senator Fischer:

Greetings from Homer!

It has recently come to my attention that you are sponsoring Senate Bill 747 to regulate and license lay midwives. I am a Certified Nurse-Midwife, licensed in Alaska to provide midwifery care. I am opposed to a bill which creates and regulates a new level of health care provider when there already exists an avenue for licensure as a professional Midwife in this state.

Nurse-Midwives have been working in the U.S. since 1925, and are presently active in hospital, birth center and home deliveries throughout the country. The American College of Nurse-Midwives, our professional organization, has carefully developed core competencies in education, safe standards of maternal and newborn care, and guidelines for practice.

I realize it is frustrating for consumers (families) to locate birth attendants who support alternatives in birth settings. I do support and offer my clients home birth as a reasonable alternative, but cannot support unqualified and unsupervised attendants. As an advanced Nurse practitioner functioning as a Nurse-Midwife, I must provide evidence of: 1. Licensure as an R.N. in Alaska, 2. Graduation from an accredited 1 - 2 year advanced clinical and academic program, 3. Statement of a collaborative relationship with a physician and outline of scope of practice, approved by the Board of Nursing. These are stringent requirements for licensure, as they should be to assure the public of minimal standards of education of and care by Midwives.

In summary, it would be redundant to regulate different levels of Midwives; and I suggest that aspiring Midwives seek training in Nurse-Midwifery. I look forward to working with professional Midwives to offer safe alternatives in childbirth in a responsible manner. Our mothers and babies deserve the best. Let us not legislate less than that.

Yours,

*Mary Lou Kelsey, CNM*  
Mary Lou Kelsey, Certified Nurse-Midwife

MLK:vs

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Table Two  
SUMMARY OF RESULTS OF MATCHED POPULATION STUDY  
CONTRASTING HOSPITAL BIRTH WITH HOME BIRTH<sup>1</sup>

#### Matching Criteria:

- From a large pool of thousands of hospital and home births, 1046 hospital births were matched with 1046 home births for maternal age, parity, socioeconomic status, education, and risk factors.
- The home birth data are for all couples planning a home birth, including those who eventually transferred to a hospital because of complications in labor.
- Most couples in both groups had taken childbirth classes.

#### Birth Attendants:

- In the hospital group, 75% were attended by obstetricians, 25% by family physicians. There were no midwife-attended births.
- In the home group, 67% were attended by family physicians, 31% by lay midwives, and 2% by nurse midwives. There were no births at home attended by board certified obstetricians.

#### Length of Labor:

- Overall length of labor at home was longer.
- First stages of labor (first para 0-1) were 1.5 times longer (12 hours compared to 8 for hospital).
- Second stages were 1.7 times longer (72 minutes vs. an average of 42 for hospital).
- Third stage, removal of placenta, averaged 1.2 times faster in hospital (21 minutes for home, 5 minutes for hospital).
- These differences are explained in terms of the customary hospital procedures that hasten labor (oxytocin, amniotomy, forceps, fundal pressure, and traction in 3rd stage, etc.) whereas at home, labor was customarily allowed to progress at its own natural pace without such interventions. The superior outcomes of the home birth group would suggest that the philosophy of hospital obstetrics to rush and shorten labor is not in the best interest of safety.

#### Neonatal Outcomes:

- In the hospital, 3.7 times as many babies required resuscitation.
- Infection rates of newborns were 4 times higher in the hospital.
- There was 2.5 times as many cases of meconium aspiration pneumonia in the hospital group.
- There were 6 cases of neonatal lungwater syndrome in the hospital and none at home.
- There were 30 birth injuries (mostly due to forceps) in the hospital group, and none at home.
- The incidence of respiratory distress among newborns was 17 times greater in the hospital than at the home.
- While neonatal and perinatal death rates were statistically the same for both groups, Apgar scores (a measure of physical well-being of the newborn) were significantly worse in the hospital.

Table Two (Cont'd)

#### Complications of Labor:

- In the hospital there was 6 times more fetal distress.
- 5 times more instances of maternal high blood pressure.
- 3.5 times more meconium staining.
- 8 times more shoulder dystocia.
- 3 times more postpartum maternal hemorrhages.

#### Procedures Utilized:

- The cesarean rate of the hospital group was triple that of the home group, (2.7% for the couples planning a home birth; 8.2% for those who planned a hospital birth.)
- There were 22 elective inductions of labor in the hospital group none among the homebirth group.
- In the hospital, there was 2.5 times as much use of oxytocic stimulants during labor while in the third stage, 95% of hospital mothers received such drugs compared to 24% at home.
- Amniotomy (artificially breaking the bag of waters) was much more prevalent in the hospital. In the hospital, there were 50 cases of ruptured membranes without labor and only 6 at home.
- Regarding episiotomies, the rate was 9 times higher in the hospital (37.4% in the hospital compared with 9.8% at home.) This surgical procedure is supposed to reduce the incidence of severe tearing and yet, the hospital rate of 3rd degree tearing was 5.5 times greater, their rate of 4th degree tearing (into the rectum) was 14.6 times higher, and their rate of cervical tearing was 10.7 times higher.
- Less than 5% of the home birth group needed or received analgesia or anesthesia, while such drugs were administered to over 75% of the hospital group. The home group receiving such drugs were those transferred to the hospital during labor.
- Forceps were used only 17 times (1.6%) in the home while the hospital application of these instruments was 21.4 times greater (363 times, or 35% of the deliveries).
- Oxygen was administered to the baby in only 11 cases at home (1.2%) while it was given to the hospital born babies in 93 instances (8.9% of the time). This is over 7 times the use of oxygen for newborns in the hospital as compared to the home.

• The data given in the above table is taken from Mehl, L.E., *Scientific Research on Childbirth Alternatives: What it Tells Us About Hospital Practice*, in Stewart & Stewart, eds., *21st Century Obstetrics Now!*, 2nd edition, Vol. 1, pp. 171-206, NAPSAC International, Marile Hill, 1978.

† The hospital cesarean rate given in this study (8.2%), even though 3 times higher than the rate for home births, is quite low by today's standards. The data for the table above was gathered over the years, 1975-77. In 1998 the U.S. national cesarean rate was 5%. In 1977 it was 12.9%. In 1980 it was 18%-20% and still rising. The rate of 8.2% given above was close to the national average of the time.

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# Statistics For 1200 Births Managed By The Farm Midwives

October 8, 1970 to July 20, 1980



Total Births	1200		Suspected twins	2	
Single Mothers	175	14.6%	Suspected premature	9	
Non-Farm Residents	551	46%	Mild pre-eclampsia (induced)	1	
First-Time Mothers	520	43%	Uterine infection	2	
Doctor present at home birth with midwife delivering	48	4%	Premature separation of placenta	1	
Doctor deliveries at home, hospital, or Farm Maternity Clinic (FMC)	70	5.8%	Flu	1	
Delivered at home	1096	91.3%	Mother's choice	4	
Delivered at FMC	49	4.1%	Fetal stress	7	
Delivered at hospital, by doctor or midwife	55	4.6%	Video	1	
Vertex presentation	1108	92.3%	Mother anemic	1	
Face up presentation	16	1.3%	Mother thin	1	
Brow presentation	3		Mother handicapped	1	
Breech Presentation	42	3.5%	Prolonged first stage	1	
Footling Presentation	9		<b>Reasons for transfer to hospital</b>	<b>54</b>	<b>4.5%</b>
Tranverse lie presentation	2		Breech	13	
C-Sections	22	1.8%	Pre-eclampsia	2	
Forcep deliveries	5		Abruptio placenta previa	3	
Birth with anesthesia	24	1.9%	Marginal placenta previa	2	
<b>Induced Deliveries</b>	<b>21</b>	<b>1.7%</b>	Cephalo pelvic disproportion	4	
Death in utero (Pitocin IV)	4		Prolapsed cord	1	
Mild pre-eclampsia (snorted pitocin at FMC)	1		Mother had infection	1	
Early rupture of membranes (used pitocin)	4		Mother had previous uterine surgery	1	
Castor oil	12		Mother had previous C-Section	3	
<b>Breeches</b>	<b>42</b>	<b>3.5%</b>	Mother had previous C-Section baby delivered naturally	2	
Home	10		Fetal distress	1	
FMC	17		Prolonged second stage	4	
Hospital	15		Suspected multiple gestation	1	
By C-Section	2		Mother had fever in labor	2	
With anesthesia	3		Premature	2	
Without anesthesia	39		Death in utero	4	
Frank breeches	30		Anencephalic baby	1	
Footling breeches	9		Failure to progress, with meconium staining	1	
Complete breeches	3		Failure to progress, with premature rupture of membranes	1	
With episiotomy	20		Other <sup>2</sup>	1	
With tear	6		<b>Complications of Pregnancy</b>	<b>37</b>	
Without episiotomy or tear	14		Polyhydramnios	4	
First-time mothers	24		High-blood pressure	1	
Mothers over 30	9		Pre-eclampsia	3	
Average weight breech baby	6 lbs. 9 oz.		Endometriosis	1	
Largest breech baby	8 lbs. 6 oz.		Bleeding during pregnancy	2	
Premature and breech	6		Glucose in urine	1	
External versions breech to vertex	4		Anemic, iron therapy did not work	4	
<b>Premature (at least 4 weeks)</b>	<b>36</b>	<b>3%</b>	Severe edema	3	
Home	21		Toxemia	1	
Hospital	9		Severe varicose veins	3	
FMC	6		Kidney infection	2	
Doctor deliveries at home	15	1.3%	Incompetent cervix	3	
Breech	6		Uterine infection	1	
Prolonged second stage	2		Previous uterine surgery	1	
Twins	2		Infection	1	
Pudental block	1		Placental insufficiency	1	
Pre-eclampsia, induced	1		Hernia	1	
Other <sup>1</sup>	3		Malnutrition	2	
<b>Reasons for transfer to FMC</b>	<b>49</b>	<b>4.1%</b>	Parasites in mother, treatment postponed because of pregnancy	2	
Breech	14		<b>Other Maternal Conditions of Pregnancy</b>	<b>23</b>	
Suspected breech	1		Congenital epidermolysis bullosa	2	
Twins	8		Congenital epidermolysis bullosa and handicapped	1	

Emotional Instability	3	
Sixteen years or under	3	
Herpes II	10	
Paralytic polio in childhood	1	
Retro-bulbar optic neuritis (blindness during pregnancy)	1	
Double uterus	2	
<b>Maternal Complications of Labor</b> (12 ladies had 2 complications)	66	5.5%
Post-partum infection	39	3.3%
Hemorrhage requiring transfusion	8	
Retained placenta	8	
Subcutaneous pneumothorax	1	
Inverted uterus	1	
Prolapsed uterus	1	
Prolapsed cervix	3	
Severe tear	5	
Torn cervix	1	
Torn artery	2	
Premature separation of placenta	2	
Marginal placenta previa	5	
Abruptio placenta previa	2	
Treated at home	49	
Treated at FMC	4	
Treated at hospital	13	
<b>Injuries to birth canal</b>	0	
Cystoceles	0	
Rectoceles	0	
<b>Maternal Mortality</b>	0	
<b>Meconium Staining</b>	82	
with complications	26	
without complications	56	
<b>Total Perinatal Deaths<sup>3</sup></b>	16	1.3% <sup>4</sup>
<b>Fetal Deaths</b>	9	.75%
Deaths in utero		
Toxemia	1	
Placental infarction	1	
Cord accident	2	
Cause unknown	1	
Deaths during labor		
Anencephalic	1	
Prolapsed cord	1	
Premature separation of placenta	1	
Hydrocephalic	1	
<b>Neonatal Deaths</b>	7	.58%
Premature	1	
RDS (premature)	2	
Lethal congenital defects (2 unknown, but probable)	2	
Respiratory failure	1	
Crib death, possible suffocation	1	
<b>Neonatal complications in living babies</b>	27	2.3%
Septicemia	1	
RDS	7	
Hemolytic anemia (ABO incompatibility requiring transfusion)	1	
<b>Congenital Abnormalities</b>		
supernumery digits	1	
spina bifida	1	
polycystic kidneys	2	
harelip	2	
one outer ear missing	1	
congenital heart abnormality	1	

congenital disease	1	
closed fontenals and sutures	1	
hypoplastic femur	1	
phocomelia	1	
Down's Syndrome	1	
<b>Birth Injuries</b>	2	
broken arm	2	
cephalohematoma	2	
pneumomediosternum	1	
<b>Prolonged Second Stage (3+ hours)</b>	23	
delivered at home	19	
delivered at hospital	4	
<b>Shoulder Dystocia</b>	11	
Biggest baby	11 lbs. 8 oz.	
Smallest living baby	2 lbs. 10½ oz.	
Oldest mother	42	
Youngest mother	16	
<b>Average weight</b>		
boys	7 lbs. 8 oz.	
girls	7 lbs. 4 oz.	
Mother's average weight gain	25.6 lbs.	
<b>Average age of mothers</b>	25	
<b>Average length of labor</b>		
First-time mothers (for 398)	11 hrs. 6 min.	
1st stage (for 193)	10 hrs. 24 min.	
2nd Stage	56 min.	
3rd Stage	13 min.	
Longest labor	72 hrs.	
Shortest labor	1½ min.	
No tear or episiotomy	597	49.8%
Tear	334	27.8%
1st degree	219	
2nd degree	111	
3rd degree	4	
Episiotomy	337	28%
1st degree	235	
2nd degree	91	
3rd degree	11	
<b>Apgar (recorded for 696 births)</b>		
Apgar of 10-10	322	14%
Apgar of 10 after 5 minutes	538	77%
Apgar of more than 6 at 1 min.	614	88%
<b>Nursing mothers</b>		99%
<b>Ladies who had babies on The Farm and left them</b>	11	
<b>Babies returned by The Farm to parents or relatives</b>	5	
Post partum depression	17	
Births with anesthesia	25	
Births without anesthesia	1175	
Births without continuous fetal monitoring		99.9%
Cerebral Palsy	0	

#### Footnotes

1. One was our midwife at our Wisconsin Farm. There was no other midwife available. Two Mennonite ladies from our area were delivered by our doctor. Now they are delivered by our midwives.
2. Normal term delivery by midwife. The doctor wanted it done in a hospital because of drugs he had given earlier to stop premature labor.
3. Many hospitals and clinics would not include in their statistics those cases which were transferred to another institution. Of the 1145 babies delivered at home or in the FMC, there were 9 perinatal deaths, a rate of .79% (3 fetal deaths and 6 neonatal deaths, 2 of which were lethal congenital defects.)
4. Perinatal Mortality was calculated as the sum of neonatal deaths (those babies living up to 7 days greater or equal to 500 grams) and the number of fetal deaths (greater than or equal to 500 grams) divided by the sum of live born and fetal deaths.

#### Ladies of other countries or cultures delivered by Farm Midwives

England	1	Nicaragua	1	Canada	11	Germany	2	Puerto Rico	4	Holland	2	Penabscot Nation	1
Wales	1	Guatemala	1	New Zealand	1	Australia	2	Italy	1	Mozambique	1	Mennonite	8

REVISED POSITION PAPER  
SENATE BILL NO. 747

"An Act relating to midwifery."

## WHAT THE BILL DOES

This bill creates an examining and licensing Board of Midwifery and establishes criteria to be used in issuing such licenses. However, since a license would not be required to practice midwifery, it would create three levels of midwifery care: (a) certified nurse (under 12 AAC 44.400), (b) licensed midwife, and (c) unlicensed midwife.

## DISCUSSION

Historical Background - Alaska, like many states, had existing policies and procedures concerning lay-midwifery practice in the early part of this century. Before widespread availability of medical facilities, adequate transportation and professional providers, this Department promoted training for birth attendants in remote village areas through maternal and child health nurse consultants. In 1968, specific training was discontinued because of the establishment of the Community Health Aide training program by the Alaska Native Health Service. This program emphasizes the Community Health Aide's collaborative relationship with the Alaska Native Health physicians, which has resulted in moving the vast majority of village home births to the protected environment of hospitals.

Current Situation - While it is difficult to summarize the states' laws in this area, it can be stated that 13 states have licensure statutes for lay midwives. Some of these, while remaining on the books, are not operational in terms of issuance of new licenses. Of the remaining 37 states, approximately 8 have statutes which prohibit practice of lay midwifery. This information is summarized from a survey of states' laws printed in Mothering, Fall 1981, p. 63. There are three states (Washington, South Carolina, and New Hampshire) that have passed legislation within the last year dealing with this issue. These states have established midwifery regulatory boards which have the authority to establish licensure criteria and procedures. Typically, these boards include physician(s), certified nurse midwives and consumers in addition to lay midwives.

Problem areas of this bill - Assisting with childbirth is both an art and a science. In most instances the process proceeds to a normal outcome with nothing more than artful support and non-intervention. In some instances, however, the process requires utmost scientific knowledge and skill. Since it is not possible to know in advance which cases will require this higher level of care, it is in the best interest of Alaska's citizens to require quality care in as many births as possible. The licensure criteria in this bill are simply not adequate to assure that the licensee would have the judgment needed to recognize and refer the problem cases.

These deficiencies are in both formal education and in practical supervised training and experience. A required period of 9 months of formal training and participation in at least 50 births have been suggested by the National Midwives Association. The Washington law calls for 3 years of training and 100 births.

This Department has recently been appraised of the problem that lay midwives are having in getting prenatal blood tests performed. AS 18.15.150 currently addresses the legal issues in this matter. This bill (p. 5, line 28) will solve this problem only for the licensed midwife. This illustrates a much larger problem - that of the collaborative relationship between a lay midwife and a physician to whom any problems would be referred. This relationship is required for physician's assistants and for certified nurse midwives. Once a woman in labor develops a problem requiring referral there is not sufficient time to start searching for a physician with whom to consult. One of the basic tenets of midwifery practice is to handle only normal or low risk clients. This risk assessment can best be approached through a collaborative relationship with a physician. The collaborating physician should be protected by statute from liability related to the care of a client not directly under his supervision.

POSITION

This Department is opposed to passage of this bill as written. Inclusion of requirements for formal as well as practical training and a requirement for a collaborative relationship with a licensed physician are essential features. In addition to the Board members stated in Sec. 08.69.030(a), there should be a licensed physician who is a practicing obstetrician and a certified nurse midwife. Any contemplated legislation should include requirements for these practitioners to comply with AS 18.15.150 and AS 18.15.200 regarding prenatal blood work and newborn metabolic testing respectively.

Recommended by: E. S. Rabeau  
E. S. Rabeau, M.D., Director  
Division of Public Health

Date: March 24, 1982

Approved by: Helen D. Beirne  
Helen D. Beirne, Commissioner  
Department of Health and  
Social Services

Date: 3-24-82

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST

Bill/Resolution No. Senate Bill No. 747 (Revised)  
 Title "An Act relating to midwifery."  
 Requested by Commissioner's Office Date 3/17/82

II. FISCAL DETAIL

Agency Affected Department of Health and Social Services  
 Program Category Affected Health/Public Health  
 BRU, Program, Or Subprogram(s) Affected \_\_\_\_\_  
 (Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES	0	0	0	0	0	0
200 TRAVEL	0	0	0	0	0	0
300 CONTRACTUAL	0	0	0	0	0	0
400 COMMODITIES	0	0	0	0	0	0
500 EQUIPMENT	0	0	0	0	0	0
600 LAND & STRUCTURES	0	0	0	0	0	0
700 GRANTS, CLAIMS, ETC.	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

FUNDING (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Source)	0	0	0	0	0	0

POSITIONS

FULL TIME	0	0	0	0	0	0
PART TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

IV. DATE 3/24/82 PREPARED BY David Spence, M.D. 4cc  
 AGENCY Health & Social Services  
 Original: Legislative Finance PHONE 465-3100  
 cc: Budget and Management  
 Prime Sponsor (First Legislator Named)  
 33-001 (Rev. 12/81)

*11 changes*

Original sponsor: Fischer

BY THE HEALTH, EDUCATION AND  
SOCIAL SERVICES COMMITTEE

1 IN THE SENATE

2 CS FOR SENATE BILL NO. 747 (HESS)  
3 IN THE LEGISLATURE OF THE STATE OF ALASKA  
4 TWELFTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to midwifery."

7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

8 \* Section 1. FINDINGS AND INTENT. The legislature recognizes the unique  
9 physical and emotional aspects of childbirth, and the need to protect and  
10 enhance the religious, cultural, and individual freedoms in the manner,  
11 setting, and cost of childbirth. The legislature finds that the traditional  
12 and cultural use of midwives continues and that the demand for midwifery  
13 service is increasing in Alaska without adequate regulation and licensure.  
14 Therefore, the legislature intends that midwifery be regulated in the public  
15 interest to assure that users of midwifery services are aware of the com-  
16 petency levels of their health care providers, and that licensing of midwives  
17 does not remove from the parents the responsibility for choosing where, when,  
18 how, and with whom to deliver their babies.

19 Sec. 2. AS 08.01.010 is amended by adding a new paragraph to read:

20 (24) Board of Midwifery.

21 \* Sec. 3. AS 08.03.010(c) is amended by adding a new paragraph to read:

22 (21) Board of Midwifery (AS 08.69.030) -- June 30, 1987.

23 \* Sec. 4. AS 08 is amended by adding a new chapter to read:

24 CHAPTER 69. MIDWIFERY.

25 Sec. 08.69.010. MIDWIFE PRACTICE. (a) A person who practices as  
26 a licensed midwife shall obtain a license as provided in this chapter  
27 and shall practice midwifery in accordance with this chapter.

28 (b) Nothing in this section prohibits the practice of midwifery in  
29 the state without a license.

1           Sec. 08.69.020. UNLAWFUL REPRESENTATION. It is unlawful for a  
2 person to represent oneself as a licensed midwife or use any designation  
3 that implies that the person is licensed or certified by the state to  
4 act as a midwife unless the person is currently licensed under this  
5 chapter.

6           Sec. 08.69.030. MEMBERSHIP AND TERM OF OFFICE OF THE BOARD OF  
7 MIDWIFERY. (a) There is established the Board of Midwifery consisting  
8 of five members. One member shall be a physician licensed to practice  
9 medicine in the state. Two members shall be licensed under this chapter  
10 or eligible to receive licenses under AS 08.69.050(1) - (3). One member  
11 shall be a person who has received or paid for the services of a midwife  
12 licensed under this chapter or who has received or paid for the services  
13 of a midwife eligible to receive a license under AS 08.69.050(1) - (3).  
14 One member shall be a person with no financial interest in a health care  
15 facility or an occupation that provides services to pregnant women or  
16 services related to childbirth.

17           (b) Members of the board are appointed by the governor after  
18 consideration of recommendations submitted by childbirth consumer educa-  
19 tion groups, persons who provide health care, or persons who have re-  
20 ceived or paid for the services of a midwife. Each board member serves  
21 for a term of five years and until his successor is appointed and quali-  
22 fied. An appointment to a vacancy is for the unexpired term.

23           Sec. 08.69.040. DUTIES OF THE BOARD. The Board of Midwifery shall

- 24           (1) approve the licensure of persons to practice midwifery;  
25           (2) prepare and administer a comprehensive examination that  
26 tests competence in all aspects of the practice of midwifery;  
27           (3) prescribe a biennial license fee for licensed midwives  
28 not to exceed \$25;  
29           (4) develop a bibliography and guide to the examination

1 administered to applicants and make it available at a reasonable cost;

2 (5) require the compliance of licensed midwives with vital  
3 statistic recording requirements;

4 (6) require licensed midwives to maintain statistics relating  
5 to births they attend;

6 (7) hold hearings and order disciplinary sanctions under  
7 AS 08.69.100;

8 (8) adopt regulations necessary to carry out the purposes of  
9 this chapter.

10 Sec. 08.69.050. LICENSURE AS A MIDWIFE. A person is eligible for  
11 licensure as a midwife if that person

12 (1) furnishes proof of having received a high school degree  
13 or its equivalent and of having completed two years of nursing training  
14 or its equivalent;

15 (2) furnishes proof of having attended at least 20 births as  
16 a midwife in the two-year period immediately preceding the date of  
17 application or has completed a midwife apprenticeship under AS 08.69.-  
18 170; proof is by affidavit of the applicant for births that occurred  
19 before January 1, 1982;

20 (3) passes a comprehensive examination administered by the  
21 board that tests competence in all aspects of midwifery;

22 (4) pays the license fee prescribed in this chapter.

23 Sec. 08.69.060. LICENSURE BY ENDORSEMENT. A person who is li-  
24 censed as a midwife by another state or country may be licensed as a  
25 midwife in this state without taking an examination if the requirements  
26 for the out-of-state license are determined by the board to be at least  
27 equivalent to the requirements for licensure under AS 08.69.050.

28 Sec. 08.69.070. REEXAMINATION. A person who fails an examination  
29 offered under AS 08.69.050(4) may take the examination again if

1 (1) the applicant presents proof satisfactory to the board of  
2 having served as a midwife for at least 10 births while under the super-  
3 vision of a sponsor during the year preceding application; and

4 (2) at least one year has passed following the date the  
5 person last failed the examination.

6 Sec. 08.69.080. RENEWAL OF LICENSES. (a) A midwife's license is  
7 renewable biennially on June 30. Notice of renewal shall be mailed to  
8 every licensed midwife on or before May 1 of each even-numbered year.

9 (b) A license not renewed by June 30 lapses on July 1 unless the  
10 licensee is granted inactive status under AS 08.69.090.

11 (c) A lapsed license shall be reinstated if the licensee complies  
12 with renewal requirements within 90 days after the license lapses.

13 (d) The board shall establish requirements that must be met before  
14 a license may be renewed, including a requirement that an applicant for  
15 renewal has attended as sponsor or midwife during 10 births in the  
16 previous two years and has completed 20 hours of continuing education.  
17 Continuing education may include childbirth-related postsecondary course-  
18 work, workshops, practice in association with another midwife, a combi-  
19 nation of training and experience, or a combination of experience and  
20 continuing education.

21 Sec. 08.69.090. INACTIVE STATUS. A midwife licensed under this  
22 chapter may apply to the board for inactive status for a period not to  
23 exceed two years. A midwife licensed under this chapter who is granted  
24 inactive status is not required to comply with AS 08.69.080 until the  
25 inactive status is terminated.

26 Sec. 08.69.100. DISCIPLINE, DENIAL, SUSPENSION, OR REVOCATION OF A  
27 LICENSE. (a) The board may revoke or suspend the license of a midwife,  
28 or the licensee may be reprimanded, censured, or disciplined if the  
29 board finds after a hearing that the licensee has

1 (1) obtained or attempted to obtain a license under this  
2 chapter by fraud or deceit;

3 (2) wilfully violated a provision of this chapter;

4 (3) engaged in unprofessional conduct; or

5 (4) engaged in intentional or negligent conduct that results  
6 in injury to a client or significant risk to the health or safety of a  
7 client.

8 (b) The board shall afford a midwife whose license has been denied  
9 or revoked the opportunity to have the license reinstated by demonstrat-  
10 ing ability to resume the competent practice of midwifery with reasonable  
11 skill and safety.

12 Sec. 08.69.110. SCOPE OF PRACTICE. (a) A midwife licensed under  
13 this chapter may perform functions within the scope of practice. The  
14 scope of practice for licensed midwives includes

15 (1) recognition of pregnancy and management of prenatal care;

16 (2) preparation and management of the delivery site and  
17 lying-in area;

18 (3) management of the birth process and delivery of the  
19 infant;

20 (4) clamping and severing the umbilical cord;

21 (5) delivery of the placenta, with anti-hemorrhage tech-  
22 niques;

23 (6) recognition of an emergency labor or delivery situation  
24 involving the mother or infant;

25 (7) emergency procedures for asphyxiation, convulsions,  
26 malformation, and infectious diseases of the newborn;

27 (8) administration of preventive prophylaxis for ophthalmia  
28 neonatorum;

29 (9) postnatal care of mother and infant;

1 (10) suturing;

2 (11) routine laboratory investigation for normal prenatal  
3 care.

4 (b) In a medical emergency the scope of practice, to the extent  
5 needed for the emergency includes

- 6 (1) intramuscular injections for maternal hemorrhage;
- 7 (2) penetration of human tissue for emergency episiotomy;
- 8 (3) oxygen use.

9 (c) The board shall by regulation designate the medications,  
10 therapeutic agents, and techniques that a licensed midwife is authorized  
11 to administer and the circumstances under which those medications,  
12 therapeutic agents, and techniques may be administered.

13 Sec. 08.69.120. INFORMED CONSENT FORM. (a) The board shall  
14 develop an informed consent form that a licensed midwife shall provide  
15 for clients at the initial meeting. The form shall recommend a physical  
16 examination of the pregnant woman by a physician and inform clients of  
17 vital statistic reporting requirements. The form shall also describe  
18 the licensed midwife's

- 19 (1) philosophy of practice;
- 20 (2) education and training;
- 21 (3) experience;
- 22 (4) services and fees;
- 23 (5) procedures for meeting medical emergencies.

24 (b) The licensed midwife shall inform the client that the statis-  
25 tical information required by AS 08.69.130 is maintained by the licensed  
26 midwife and is available for public inspection.

27 Sec. 08.69.130. STATISTICS. (a) The board shall determine the  
28 information concerning the practice of midwifery that must be collected  
29 by a licensed midwife. The information is required to be retained in

1 statistical form and shall include information on

2 (1) infections;

3 (2) hemorrhage;

4 (3) hospital transfers;

5 (4) malpresentations;

6 (5) normal deliveries;

7 (6) absence of physical examinations performed by a physician  
8 and the reason examinations were not performed.

9 (b) The statistical information required under (a) of this section  
10 shall be filed with the Department of Commerce and Economic Development  
11 every six months on a form prescribed by the department and made avail-  
12 able for public inspection.

13 Sec. 08.69.140. MEDICAL HISTORIES. (a) The board shall require  
14 licensed midwives to maintain a comprehensive medical and obstetrical  
15 history of each client. The history shall include the following infor-  
16 mation:

17 (1) the mother's name and address;

18 (2) the mother's date of birth;

19 (3) the mother's gravidity and parity;

20 (4) a description of the mother's progress in pregnancy,  
21 including routine laboratory investigation;

22 (5) a description of the progress of mother and infant in  
23 labor and delivery;

24 (6) a report of the characteristics of placental delivery and  
25 cessation of bleeding of mother;

26 (7) a report of the immediate postpartum progress of mother  
27 and infant;

28 (8) a statement of the general health of mother and infant at  
29 the time the midwife services terminate;

1 (9) other information required by the board.

2 Sec. 08.69.150. PRACTICE OF A LICENSED MIDWIFE. A person licensed  
3 as a midwife under this chapter must

4 (1) ensure that if reasonably possible before the onset of  
5 labor the mother has received a general physical examination by a physi-  
6 cian;

7 (2) recommend that the mother be transferred to the care of a  
8 physician if a medical emergency is indicated;

9 (3) ensure that a physician licensed in the state agrees to  
10 be available for consultation regarding the practice of midwifery and  
11 agrees to be available to render medical treatment during emergencies on  
12 a standby basis unless, due to extraordinary conditions, the board  
13 exempts the midwife from the requirements of this paragraph.

14 Sec. 08.69.160. USE OF DRUGS. A licensed midwife may, in accor-  
15 dance with regulations of the board, possess and administer oxygen,  
16 antibiotic eye drops, and drugs used to stop maternal hemorrhage. The  
17 board shall designate by regulation drugs that may be administered under  
18 this section. The administration of oxygen or drugs by a licensed  
19 midwife under this section is not the practice of medicine under  
20 AS 08.64.

21 Sec. 08.69.170. MIDWIFE APPRENTICESHIP. (a) A person may com-  
22 plete a midwifery apprenticeship by observing and assisting in the  
23 management and care of the mother and infant in at least 20 births under  
24 the supervision of a sponsor. In the course of 10 of those births the  
25 apprentice must assume responsibility for the prenatal, intrapartal, and  
26 postpartal management and care of the mother and child. A person under-  
27 taking a midwifery apprenticeship shall register with the board at the  
28 beginning of the apprenticeship.

29 (b) A sponsor may not supervise more than three apprentice mid-

1 wives simultaneously.

2 Sec. 08.69.180. DEFINITIONS. In this chapter

3 (1) "board" means the Board of Midwifery;

4 (2) "medical emergency" means a situation of a serious nature  
5 which develops suddenly and unexpectedly and demands immediate action  
6 during pregnancy, labor or delivery;

7 (3) "sponsor" means a physician or a midwife licensed to  
8 practice in this state and authorized to act as a sponsor by the board;

9 (4) "unprofessional conduct" includes the habitual overuse of  
10 alcoholic beverages or depressant, hallucinogenic or stimulant drugs, as  
11 defined in AS 17.12.150(3), or addiction to the use of narcotic drugs as  
12 defined in AS 17.12.230(13).

13 \* Sec. 5. AS 17.15.030 is amended by adding a new subsection to read:

14 (b) AS 17.15.010 and 17.15.020 do not apply to the sale at retail  
15 by pharmacies to midwives licensed in the state to possess and admin-  
16 ister drugs designated by the Board of Midwifery under AS 08.69.160.

17 \* Sec. 6. AS 44.62.330(a) is amended by adding a new paragraph to read:

18 (52) Board of Midwifery (AS 08.69.030)

Box 1  
Sutton AK 99674

March 16, 1982

To: Charlie Parr  
Chairman of HESS Committee  
and all other legislatures

I am writing concerning Bill 747 dealing with legalization and certification of midwifery in Alaska.

I feel that it is the parent's right to choose if they want a home birth or a hospital birth. I am currently three months pregnant and have chosen to have a home birth, if there are no complications. I have had a very difficult time finding a doctor to give me a prenatal blood test. I have been forced to go to one of the rural communities to obtain this. I feel that this rejection from the Open Door Clinic and some of the doctors in Anchorage could be detrimental to my health, my unborn baby's health and the health and well being of other pregnant women who choose to have home births.

I am expressing my concern about this issue and want to make it known that I feel midwifery in Alaska should be legalized.

Sincerely,  
Aleta P. Stebbins

note: please distribute copies to Helen Beirne and Mike Beirne

DEPT. MR. PARR,  
& LEGISLATIVE MEMBERS OF THE SENATE —

3-14-82  
11

I AM WRITING IN SUPPORT OF BILL # 747 CONCERNING THE REGULATION OF MIDWIVES HERE IN ALASKA. I AM VERY STRONGLY IN FAVOR OF THE BILL BECAUSE I BELIEVE IN THE OPTION TO CHOOSE A HOMEBIRTH & THUS RECOGNIZE THE NEED TO INSURE COMPETENCY IN THE UNIQUE INSTITUTION OF MIDWIFERY. I BELIEVE THIS CAN BE BEST ACHIEVED THROUGH THIS BILL. I BELIEVE THAT IF THE MIDWIVES HERE IN ANCHORAGE WERE SET UP TO REGULATE THEMSELVES, AS OTHER HEALTH PROFESSIONALS DO, THEY WILL BE ABLE TO SECURE A GREATER SUPPORT FROM THE MEDICAL FIELD, & THUS A GREATER INSURANCE OF SAFETY FOR THE MOTHER & CHILD. MY OPINIONS ARE BASED ON PERSONAL BELIEFS, A POSSIBLE FUTURE PERSONAL INTEREST, & ALSO A SEPARATE LOGICAL CONCLUSION. WHETHER HOMEBIRTHS/MIDWIFERY ARE LEGAL/NOT, REGULATED/NOT, RECEIVE A PHYSICIAN'S ACTIVE SUPPORT/NOT, THEY WILL CONTINUE TO EXIST. I BELIEVE THAT IS A FACT & THUS, SEPARATELY FROM MY OWN INTERESTS, BELIEVE THAT HOMEBIRTHING SHOULD BE MADE AS SAFE AS POSSIBLE. THE ONLY WAY TO DO THIS IS THROUGH REGULATION & THE BACKING OF THE MEDICAL FIELD, AND THE PASSING OF THIS BILL WOULD UNLOCK THE DOOR, SO TO SPEAK.

THANK-YOU,  
ALLISON JAY

ALLISON JAY  
2936 KIMBERLIE CT.  
ANCH., AK.  
99504

PH: 276-8926

1811 Southern Ave  
Fairbanks, Alaska 99701  
March 17, 1982

Mr. Charles Parr, Chair - Senate  
Pouch V  
Juneau, Alaska 99811

Dear Sir:

I would like to write to let you know that I support S. Bill 747: An Act relating to "Midwifery" introduced by Senator Vic Fischer.

I believe in freedom of choice in how we are to ~~bear~~ our children. And more people are turning to a more natural, home setting - why should this be refused them? And yet if this bill, which would make sure midwives are licensed before attending births, is not passed it will surely restrict our freedom in this matter.

Please, don't be swayed by hospital lobbyists - many are money hungry, because home births are a threat to them, but doesn't freedom of choice - something our country is built on - mean more?

Thank-you for your consideration.

Sincerely,  
Mrs. Wendy J. Hogan

1660 Garden  
Anchorage, AK 99501  
March 20, 1982

Charles Parr  
HESS Chairman  
Alaska State Legislature  
Pouch V  
Juneau, AK 99811

RE: Senate Bill 747

Dear Mr. Parr:

I am writing to encourage the senate to pass Bill 747 which concerns the practice of midwifery in Alaska. After reading it carefully, I believe the bill is a good one. It has the potential of becoming a model for other states, on this extremely personal issue of being able to choose one's own birth attendant and to be able to check their qualifications if one chooses a

licensed midwife. It also does not prohibit a woman from choosing someone other than a licensed midwife, i.e., her husband, to attend her labor and delivery.

I thank you for your influence on this matter.

Sincerely,  
Jane Lupo

P.O. Box 2792  
Dillingham, Alaska 99576  
March 18, 1982

Dear Senator Parr,

I am writing you to voice my support of S.B. No. 747 entitled "An Act Relating to Midwifery". This bill is more definitive towards the needs of both the consumer and the Lay Midwives than H.B. 11 and should replace it. I have been involved in home birth as an apprentice Lay Midwife and have a first hand knowledge of the specific needs of people who want to have their children in a natural environment.

Presently due to existing pressures of the Allopathic medical community, there is a real danger for women who want to deliver at home. This danger lies in the denial of lab work for pregnant women, and the denial of back up support systems at local hospitals for the Lay Midwives who attend these mothers wanting home births. This is happening now in Alaska. There have been many cases, where in emergency situations, both the mother, the father, and the Midwife have met with uncalled for and unnecessary sub-professional treatment by un-ethical medical staffs in hospital emergency rooms. This is due to arrogant egotism based on ignorance.

Statistical studies within the last 10 years of the resurgence of home birth in America have proven that not only are home births safe when attended by a trained Lay Midwife, but preferred in comparison with hospital births. Prior to 40 years ago, most women delivered at home attended by Lay Midwives or

Family Practitioners. Why then is there this sudden shift in thought to make people believe that it is dangerous? Human birth is a natural process, not an illness, and should be centered in the home, and not in the hospital where there are sick people. Today the majority of people in the world are still being born at home.

Since a positive experience of natural home birth has been proven to be of supreme benefit to the whole family, and since the family is the nucleus of a good and healthy society, it is necessary that support of home birth be made available and encouraged in Alaska. Couples who want this experience in life should have the choice made available to them, and have compassionate, supportive and trained attendants. The manner in which a woman chooses to deliver her child must not be dictated by an economically motivated group of practitioners.

Taking into consideration the recent budget cuts involving hospitals (therefore affecting the quality of care provided) and the soaring costs of medical care, it is unjust for pregnant couples to be forced to accept a hospital birth as the only choice. Here in Alaska, geographically it is unfeasible to assume that the existing medical community can attend pregnant women in remote areas. Various countries in the world in developed nations such as Holland and Denmark, and undeveloped nations such as Latin America have encouraged the training of Lay Midwives for the benefit of pregnant women. Lay Midwifery is encouraged and endorsed by the World Health Organization.

The key is good health care for mother and child. It is my sincere wish that you give S.B. No. 747 your full support for Lay Midwives, birthing couples, and a healthier Alaska.

Sincerely,

*Camille Martinez*

Camille Martinez

19 Mar. 82  
PO Box 10183  
Anch, Ak 99511

Senator Charlie Parr and  
all legislators  
Pouch V  
Juneau, Ak 99811

Dear Sir:

I am a Registered Nurse & have worked in a variety of health care areas professionally. One of the problems I have noticed in the health care field is that of people from within the system assuming that they know what is best for individual seeking health related services.

Specifically - I am in support of S.B. 747 People's rights to choose birth attendants & birth sites should be protected.

There is a growing number of people choosing home births & other health care options. I feel they should be assured access to whichever service & attendant they choose regardless of their reasons.

Sincerely  
Dodie Matthews

POUCH V  
JUNEAU, ALASKA 99811

MARCH 17, 1982

DEAR CHARLES PARR,

PLEASE SUPPORT SENATE BILL NO.  
747 - "AN ACT RELATING TO MIDWIFERY."  
MY WIFE AND I ARE HAVING OUR 2ND  
MIDWIFE ASSISTED HOME BIRTH AND  
ENJOY HAVING THE CHOICE OF BIRTHING  
PROCEDURES. WE NEED YOUR SUPPORT.  
THANK YOU FOR YOUR TIME + HELP.

SINCERELY,  
MARK LANE  
Mark Lane  
STAR RT, BOX 520  
SEWARD, AK 99664

747

Gary & Carol Galbraith  
P.O. Box 827  
Cooper Landing, Alaska 99572  
907 - 595-1226

3/8/82

Dear Charles Parr,

I am writing to let you know that I am in full support of the Senate Bill # 747 — An Act Relating to Midwifery.

I believe in the freedom of choice in deciding whether to have a hospital or homebirth, and the licensing of midwives is a crucial step toward providing the best and safest conditions for many women throughout Alaska.

It is very important that this bill passes, as more and more women, especially in Alaska, are choosing homebirth (which allows a more personal and fulfilling experience) over a hospital birth involving the use of sometimes needless medication, strict regulations and surgery.

I am speaking from experience, and can only hope that you, as a man, will try to understand my feelings and desires.

The only unsafe factor in the practice of midwifery (which is as old as the human race itself) is when laws prohibit them, and professional people do not support them in their endeavor to make a woman's birthing experience a more positive, family-oriented and meaningful experience.

We need midwives as well as doctors, and the two working together can bring about a more complementary and efficient service for the welfare of all concerned. (An excellent example of this is in the Netherlands and other European countries as well, who have a much lower infant mortality rate compared with the U.S.)

I hope you will "hear" what I'm saying and give the Senate Bill #747 your full support.

Sincerely yours,  
Carol J. Galbraith

Senator Charlie Parr  
HESS Committee  
Pouch V  
Juneau, Alaska  
99811

Senator Charlie Parr and all other Legislators

Sir:

I am in support of SB 747 "An Act Related to Midwifery".  
I feel that pregnancy and childbirth is a natural physiological  
process and, in as much, a state of wellness rather than disease.  
For that reason, I feel that safe birthing alternatives such as  
midwifery within birthing center and home deliveries be offered  
as options as well as the hospital settings.

I urge you and other legislators to support passage of this bill,  
so families might exercise their freedom of choice in matters  
relating to safe, healthy childbirth.

Sincerely,

Donald Rameay  
Shirley Ramsay

Star Rt. HPR  
Sitka #99835

March 21, 1982

Senator Charlie Parr  
HESS Committee  
Pouch V  
Juneau, Alaska  
99811

Senator Charlie Parr and all other Legislators

Sir:

I am in support of SB 747 "An Act Related to Midwifery".  
I feel that pregnancy and childbirth is a natural physiological process and, in as much, a state of wellness rather than disease. For that reason, I feel that safe birthing alternatives such as midwifery within birthing center and home deliveries be offered as options as well as the hospital settings.

I urge you and other legislators to support passage of this bill, so families might exercise their freedom of choice in matters relating to safe, healthy childbirth.

Sincerely,

Jeth Cox (Pres. SAFE-moms)

local napsac  
group

Box 878

Sitka, AK

99855

747

CHARLIE PARR & ALL OTHER LEGISLATORS:

My name is CHRIS RUSKING and I PRACTICE AS A LAY MIDWIFE IN ANCHORAGE ALASKA. I AM STRONGLY IN FAVOR OF 747. (SENATE BILL) THESE ARE JUST SOME OF MY REASONS:

1) IN THE NORTH CAROLINA STUDY OF 1981 THE RESULTS SHOWED THAT UNATTENDED HOMEBIRTHS HAD A HIGHER INFANT MORTALITY RATE THAN BIRTHS ATTENDED BY THE LAY MIDWIVES. BY MAKING IT DIFFICULT FOR FOLKS TO ATTAIN A SELECTION OF LAY MIDWIVES I BELIEVE MORE FOLKS HAVE THEIR BIRTH UNATTENDED BY A SKILLED ATTENDANT. PEOPLE ARE GOING TO CHOOSE HOMEBIRTH EVEN IF THEY ARE FORCED TO DO IT THEMSELVES. BY LICENSING LAY MIDWIVES IT IS NOT ENCOURAGING OUT OF HOSPITAL BIRTHING - THE NEED FOR LAY MIDWIVES IS ALREADY THERE - IT HAS EXISTED AND PERSISTED FOR CENTURIES IN SPITE OF SCORN AND RIDICULE.

2) THE definition OF the word "MIDWIFE" IS SOMEONE THAT IS "WITH A WOMAN." DOCTORS AND NURSES CONTINUOUSLY TRY TO ANALYZE THE LAY MIDWIFE'S ROLE FROM A MEDICAL PERSPECTIVE. CAN THEY HANDLE THIS EMERGENCY - CAN THEY RECOGNIZE THE PROBLEM? ETC. THE LAY MIDWIFE ATTENDS ONLY NORMAL BIRTHS TO GIVE THE COUPLE MORAL SUPPORT, COMPANIONSHIP AND TO SUPERVISE THE LABOR IN SUCH A WAY THAT ALL MINOR AND MAJOR ABNORMALITIES ARE RECOGNIZED OR AT LEAST SUSPECTED AS EARLY AS POSSIBLE. THIS DOES NOT REQUIRE A MEDICAL BACKGROUND IN MY OPINION. AS A FORMER REGISTERED NURSE I CAN TESTIFY TO THE FACT THAT A MEDICAL BACKGROUND WHERE ONE CONCENTRATES ON WHAT CAN GO WRONG IS DETRIMENTAL WHEN APPROACHING NORMAL CHILDBIRTH AT HOME.

UNDER THE GOVERNING BOARD OF LICENSED MIDWIVES, EXAMS CAN BE GIVEN TO ASCERTAIN THE KNOWLEDGE OF CANDIDATES IN THE AREA OF NORMAL CHILDBIRTH.

(3)

Licensing will not guarantee competency of lay midwives; the burden of responsibility will still be on the couple to determine the suitability of the individual. THE PRACTICE OF MIDWIFERY is not meant to challenge the advances in MATERNAL CHILD HEALTH nor intend to eliminate the vital role of the obstetrical specialist. Midwifery is the ART of supporting AND guiding A FAMILY through normal CHILD-BIRTH.

I want to see peoples free choice upheld in CHILDBIRTH - please support SENATE BILL 747

Sincerely

CHRIS RUSTING  
1403 E 27th Ave  
ANCH, AK  
99504

SRA BOX 1245  
Anchorage AK 99507

Dear Senator Parr,

I hope you will do your best to see that Senate Bill 747 passes.

Midwives who work independently of medical doctors provide valuable and needed services to a growing number of Alaskans. Lay midwives are the only choice at the moment for Alaskans wanting to give birth at home. We need to protect their right to assist at childbirth and help mother and child to be in the best of health. The art of midwifery is regaining popularity after having been displaced by the medical technological management of childbirth. Each may have a very different approach and techniques, but both are needed.

Unfortunately an atmosphere of mutual distrust and lack of cooperation is developing between the medical community and lay midwives. It would be to everyone's benefit if we could reverse this polarizing trend and foster attitudes of respect and willingness to work together in the best interests of the client. Recognizing and regulating independent midwives by means of the licensing system proposed in Senate Bill 747 is admirably suited to promoting this needed cooperation.

We know Alaskans especially value their independence,

⇒ their self reliance, and freedom to choose. We are also in recent years experiencing a growing awareness of the need to assume greater individual responsibility for such things as health, and thus to relate to health professionals as resource people rather than authority figures.

We should encourage this consumer responsibility. An official licensing system to assist the midwife's prospective clients in judging their competence, coupled with independent consumer education and referral programs, makes more sense today than restricting options and allowing the more powerful medical establishment to develop a monopoly of childbirth services, driving the lay midwife underground.

The usual argument of medical doctors against permitting lay midwives to assist at childbirth concerns their competency and the safety of their independent practice. That midwives have an excellent safety record, with or without the supervision of a physician, will be apparent to anyone who studies all the statistical evidence. It is very important, if one values truth and honesty, to be aware of how easily statistics can be manipulated to fit a particular bias, by omission and regrouping of certain measurements. We have some information focussed on Alaska, but plenty more from other states and especially foreign countries demonstrating the superior results of midwifery care for normal childbirth.

Essentially the difference between the midwives and the physician's methods of assistance at childbirth is a matter of attitude. The midwife sees her role as a support person, the M.D. tends to function as manager. Obstetricians can work wonders when health and life threatening situations develop, and midwives work best with healthy mothers. Both can learn from each other. Service improves with cooperation. Medical backup and good professional relations with hospital staff and M.D.'s are important for midwives. Obstetricians would be more efficient when not so overburdened with uncomplicated cases better handled by the midwives.

The issue of safety in childbirth can provoke some heated emotional arguments. All childbirth assistants who have their clients interests at heart are concerned with safety. Is the average obstetrician's view of the dangers of childbirth exaggerated? Medically trained professionals tend to favor strict control (doctors in charge of course) over who may assist at childbirth. How can such an obviously normal function of the human female come to be regarded as a process so fraught with danger that medical management is imperative in all cases? Medicine is a profession intended to help sick people. Medical training focusses on preparation for what might go wrong. Emphasis on control and intervention is a response to the expectation that the birth process is likely

I in manipulation at any times. This attitude may be quite appropriate to abnormal cases, however, normal childbirth is not necessarily made any safer by this approach. In an atmosphere dominated by fear of what might go wrong, expectations of malfunctioning can become self fulfilling prophecies. Rather than stand by feeling helpless, waiting for the process to break down the temptation is to intervene. "Just in case" and "what if" influence decisions. Then the premature or unnecessary attempts to control the birth create their own problems. On the other hand, although confidence and faith support and enhance the birth process, it would be foolish to ignore danger signals. That is why cooperation, respect and good communication are so important between midwives and the medical professions. It certainly does NOT promote the safety of mother and child if physicians and midwives are afraid or unwilling to work together. Especially when one side or both sides are actively campaigning against the other. When motivated by competitive economic considerations none are likely to have their clients best interests at heart. We have to keep in mind that these are service professions.

Let us work to pass S.B. 747, and hope we are successful in establishing this needed cooperation.

Thank you  
Sincerely,

Beryl J. Wardlaw

March 12, 1982

747

Dear Mr. Parr,

I am in favor of Senate Bill 747 as it is written now. I had my baby delivered at home with the help of a midwife. I knew her background and felt very good about her qualifications. But I am concerned that there are no regulations to guide the practice of midwifery. I know that at this time there aren't any guidelines in the State of Alaska for midwives. At the same time I feel that midwives should have control over their profession, as doctors have control over their profession, and as nurses have control of theirs.

It's time that the State of Alaska listens to the voices of people who want a choice in how and where they deliver their babies.

Sincerely,  
Ann Rushing RN

276-8926 J

2936 Kimberlie Ct., Anch 99504

707

Dear Charles Parr & all other legislators Mar. 10, 82

This letter is to express my support for SB # 747 & HB # 11

I think certification of midwives in this state is a very necessary move. It will benefit everyone involved... the parent will know who they are getting to help them with their birth because ~~of how~~ they will be able to check on their attendant's credentials. The midwife would have credentials, she could get insurance, she could be paid thru client's insurance, she could give better prenatal care with the cooperation of the medical field.

Plus the doctors could stand to learn a few things like compassion & certain techniques that midwives use, that make them so special to so many expectant couples. Please pass these ~~bill's~~ bills!

I would really like to see a teleconference happen ~~or~~ for this bill, it would be very beneficial for everyone. Please let me know if & when this is planned.

I thank you for your time

Sincerely,

Cathleen B. Horwitz  
2601 Kona Lane  
Anchorage,  
Ak.

99503

Dear Senator Fisher,

As a mother of three small children; who were all born at home; and as an apprenticing midwife, I ask you to support Senate Bill 747 "an Act Relating to lay midwifery". I feel it adequately regulates midwives with a certain standard of care, while providing for freedom of choice, which is the ultimate issue at stake. The only point I wish would be changed is that there has to be a quota of births done to maintain licensure. Of my knowledge, there is no other health care professional who has to keep doing a certain number of procedures to be able to be licensed. Also the way Alaskan communities are so small and spread out the chances of that many births going on all the time is slim. Another point is that the records to be kept by the midwife should be confidential and not open for whoever to see. Other than these points I feel the bill should be passed and I will give it my full support and urge you to give it yours.

Thank-you,

Cristine Lorange

Box 2671  
Homer, Alaska  
99603  
March 8, 1982

Dear Mr. Fischer -

As one of your female constituents I am well aware that Senate Bill 747 "An Act Relating to Lay Midwifery" may directly affect me. Should I become pregnant this bill will either limit my options for the birthing process, if defeated; or allow me the freedom of choice, if passed. In the event that I am able to deliver a child I would want to be able to do whatever I think best for my child and myself. Therefore I urge you to vote yes on Senate Bill 747. I consider it a lamentable fact that women today do not have the option of giving birth in a manner that our ancestors have done for most of our history. The importance of this bill is to give women a choice in how they want to manage their delivery and in what kind of environment they wish to welcome their child. I cannot stress enough the importance of women

maintaining their power of  
choice over such an important  
and personal matter.

Thank you for your sincere  
consideration of this matter.

Sincerely,  
Joyce Day

P.O. Box 2792  
Dillingham, Alaska 99576  
March 18, 1982

Dear Senator Fischer,

I am writing you to voice my support of S.B. No. 747 entitled "An Act Relating to Midwifery". This bill is more definitive towards the needs of both the consumer and the Lay Midwives than H.B. 11 and should replace it. I have been involved in home birth as an apprentice Lay Midwife and have a first hand knowledge of the specific needs of people who want to have their children in a natural environment.

Presently due to existing pressures of the Allopathic medical community, there is a real danger for women who want to deliver at home. This danger lies in the denial of lab work for pregnant women, and the denial of back up support systems at local hospitals for the Lay Midwives who attend these mothers wanting home births. This is happening now in Alaska. There have been many cases, where in emergency situations, both the mother, the father, and the Midwife have met with uncalled for and unnecessary sub-professional treatment by un-ethical medical staffs in hospital emergency rooms. This is due to arrogant egotism based on ignorance.

Statistical studies within the last 10 years of the resurgence of home birth in America have proven that not only are home births safe when attended by a trained Lay Midwife, but preferred in comparison with hospital births. Prior to 40 years ago, most women delivered at home attended by Lay Midwives or

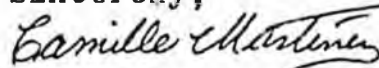
Family Practitioners. Why then is there this sudden shift in thought to make people believe that it is dangerous? Human birth is a natural process, not an illness, and should be centered in the home, and not in the hospital where there are sick people. Today the majority of people in the world are still being born at home.

Since a positive experience of natural home birth has been proven to be of supreme benefit to the whole family, and since the family is the nucleus of a good and healthy society, it is necessary that support of home birth be made available and encouraged in Alaska. Couples who want this experience in life should have the choice made available to them, and have compassionate, supportive and trained attendants. The manner in which a woman chooses to deliver her child must not be dictated by an economically motivated group of practitioners.

Taking into consideration the recent budget cuts involving hospitals (therefore affecting the quality of care provided) and the soaring costs of medical care, it is unjust for pregnant couples to be forced to accept a hospital birth as the only choice. Here in Alaska, geographically it is unfeasible to assume that the existing medical community can attend pregnant women in remote areas. Various countries in the world in developed nations such as Holland and Denmark, and undeveloped nations such as Latin America have encouraged the training of Lay Midwives for the benefit of pregnant women. Lay Midwifery is encouraged and endorsed by the World Health Organization.

The key is good health care for mother and child. It is my sincere wish that you give S.B. No. 747 your full support for Lay Midwives, birthing couples, and a healthier Alaska.

Sincerely,



Camille Martinez



Alaska  
Nurses  
Association

~~529 G Street Room 201~~ 237 E. Third Avenue  
~~Juneau Alaska 99801~~ Anchorage, AK 99501

... a constituent of American Nurses' Association

March 18, 1982

The Honorable Vic Fischer, Senator  
Member, Committee on Health, Education  
and Social Services  
Pouch V, MS 3100  
Juneau, AK 99811

Dear Senator Fischer:

On behalf of the Alaska Nurses Association I would like to thank you for your support of SB 660 which will fund the Family Centered Birth, Inc. of Juneau. The Alaska Nurses Association heartily endorses this bill.

I hope that you will continue to support this bill when it comes to the floor. I look forward to working with you on health care issues in the future.

Sincerely,

ALASKA NURSES ASSOCIATION

Melinda Law, RN  
President

ML:m

cc: Margaret Crawford

1811 Southern Ave.  
Fairbanks, Alaska 99701  
March 17, 1982

Mr. Vic Fischer  
Pouch V  
Juneau, Alaska 99811

Dear Sir:

I would like to write in support of your bill introduced to the Senate S. Bill 747: "An Act relating to Midwifery."

This bill's passing is very important to me not only because of the licensing of midwives but because it is a freedom of choice issue. If we choose to sit idly by the bill wouldn't pass and all women would be forced to have their babies in hospitals. Childbirth is an emotional happening and often spiritual as well - hospitals seem to lack compassion at times in how you or I would prefer a child's birth in these aspects. After all, at Christmas we celebrate a Man's birth whose was the lowliest birth of all (- and certainly not the most sanitary!) and He survived it just fine.

I'm just one among many who support this bill. We can't hardly wait for its passage. Thank-you for your work.

Sincerely,  
Mrs. Wendy Hogan

Box 2906  
Homer, Alaska 99603  
March 17, 1982

Senator Vic Fischer  
Pouch V  
Juneau, Alaska 99811

Dear Sen. Fischer:

I am writing concerning the proposed legislation on midwifery. Specifically, I urge your support of Senate Bill 747.

As a concerned citizen & parent, I believe consumer demand for the service of midwives will continue. To best serve the public, it is essential to establish licensing procedures & standards within which midwives would function.

I believe Senate Bill 747 provides the most appropriate legislation. If passed, prospective parents would be in a better position to make a wise choice among midwives & other caregivers. Furthermore, it is my opinion that funding should be provided for a peer regulating board to govern the work of midwives.

Thank you for your consideration.

cc: Charle Parr  
Brian Rogers  
Albert Adams  
Hugh Malone

Sincerely,  
Carol build

P.O. Box 2792  
Dillingham, Alaska 99576  
March 18, 1982

Dear Ms. Baim,

I am writing you to voice my support of S.B. No. 747 entitled "An Act Relating to Midwifery". This bill is more definitive towards the needs of both the consumer and the Lay Midwives than H.B. 11 and should replace it. I have been involved in home birth as an apprentice Lay Midwife and have a first hand knowledge of the specific needs of people who want to have their children in a natural environment.

Presently due to existing pressures of the Allopathic medical community, there is a real danger for women who want to deliver at home. This danger lies in the denial of lab work for pregnant women, and the denial of back up support systems at local hospitals for the Lay Midwives who attend these mothers wanting home births. This is happening now in Alaska. There have been many cases, where in emergency situations, both the mother, the father, and the Midwife have met with uncalled for and unnecessary sub-professional treatment by un-ethical medical staffs in hospital emergency rooms. This is due to arrogant egotism based on ignorance.

Statistical studies within the last 10 years of the resurgence of home birth in America have proven that not only are home births safe when attended by a trained Lay Midwife, but preferred in comparison with hospital births. Prior to 40 years ago, most women delivered at home attended by Lay Midwives or

Family Practitioners. Why then is there this sudden shift in thought to make people believe that it is dangerous? Human birth is a natural process, not an illness, and should be centered in the home, and not in the hospital where there are sick people. Today the majority of people in the world are still being born at home.

Since a positive experience of natural home birth has been proven to be of supreme benefit to the whole family, and since the family is the nucleus of a good and healthy society, it is necessary that support of home birth be made available and encouraged in Alaska. Couples who want this experience in life should have the choice made available to them, and have compassionate, supportive and trained attendants. The manner in which a woman chooses to deliver her child must not be dictated by an economically motivated group of practitioners.

Taking into consideration the recent budget cuts involving hospitals (therefore affecting the quality of care provided) and the soaring costs of medical care, it is unjust for pregnant couples to be forced to accept a hospital birth as the only choice. Here in Alaska, geographically it is unfeasible to assume that the existing medical community can attend pregnant women in remote areas. Various countries in the world in developed nations such as Holland and Denmark, and undeveloped nations such as Latin America have encouraged the training of Lay Midwives for the benefit of pregnant women. Lay Midwifery is encouraged and endorsed by the World Health Organization.

The key is good health care for mother and child. It is my sincere wish that you give S.B. No. 747 your full support for Lay Midwives, birthing couples, and a healthier Alaska.

Sincerely,  
*Camille Martinez*  
Camille Martinez

3-14-82

To Senator's Vic Fisher, Charlie  
Parr, and anyone else in-  
volved in the Senate Bill  
747 "an act relating to  
laymidwifery".

We are in favor of having  
lay midwifery because  
we feel that expectant parents  
should have a wide area of  
sources to choose from  
when considering how they  
want to have their children.  
(Sources ranging from  
doctors and hospitals, to  
nurse-midwives and  
clinics, to lay midwives  
and home births, ect.)

Lay midwives have been  
delivering babies success-  
fully for many generations  
and we feel they have a

right to continue doing so  
as long as people like us  
want and need them to  
deliver our children in  
the place we feel most  
comfortable, our homes.

We have had two child-  
ren. One with doctors,  
nurses and the hospital;  
the other at home with the  
help of a lay midwife.  
The hospital birth went  
very well as far as a  
successful delivery, but  
there were interruptions  
from nurses and doctors,  
other women in labor,  
some screaming, everyone  
in a hurry. All this  
was very disturbing to  
us and made us feel  
that the birth of our child

was an impersonal experience for everyone but us. After the delivery our son was taken away from us for a couple of hours so he could be cleaned up, etc.

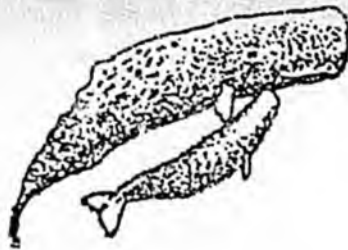
Our home birth was also a successful delivery but with the help of a understanding lay midwife and a well read husband involved. The experience was much more enjoyable. The lights were dim, low playing music, comfortable bed that I was used to, good friends to help and to take pictures, and just an all round relaxed atmosphere.

We were involved in all aspects of the birth and post natal care from cutting the cord to checking apgar score, to cleaning baby up, to nursing our little girl right after birth. It was wonderful.

We realize that not all deliveries are without complication, but most potential problems can be detected before the actual birth which would put those people in a high risk category for home births, and lay midwives that we know will not deliver for anyone who is a high risk. They want what is best for our children too.

We are now expecting  
our third child and are  
definitely considering  
another home birth. We  
hope that lay-midwifery  
will still be an option  
available to us so that  
we will have that choice  
if we so choose.  
Thank you for listening  
to our opinions.

Susan L. Connor  
+ Charles B. Connor



March 15, 1982

Dear legislature,

I am responding to Senate Bill 747 "An Act Relating to midwifery." I've in the past have send in my suggested revisions for HB11 and see the changes reflected in SB 747. Although there are points I'm not comfortable with and am unclear about, I feel it's a bill that midwives and families can benefit from.

As a laymidwife, I have met much resistance and little support from the established medical system. I've been criticized for not having costly medical tools (I do not charge), lack of knowledge surrounding medical procedures and the skills to use them (which if I did perform such a medical procedure I face practicing medicine without license). Yet, it is these very people who aren't open enough to share and teach these skills and knowledge but make the charges if performed. I've been personally been pressured, blacklisted and verbally threatened to discontinue working with folks who seek me out. These folks do not want to birth with the medical system due to many reasons. Some reasons being cost, frontier spirit, non intervention, control and responsibility in decisions, comfortableness of their home environment, dislike of doctors and/or hospitals, feeling pregnancy and birth is a normal physiological process and not a medical procedure or just their philosophy. By trying to eliminate laymidwives

will not stop home births. But enlarges the all ready existing gap for communication, screening for problems and medical availability when needed between care givers and families.

This gap could be lessened with this bill and all efforts should at least be made to not enlarge the gap. The established medical system is valuable and has its place, but need it control other forms of workable health care systems and philosophies? Isn't our constitution designed to protect its citizens from such an anarchy?

Because of the choices available for the birth of my next child, we are having to seriously consider leaving our home and state. We are not comfortable with asking a midwife to place herself in a legal vulnerable position, doing the birth by ourselves nor going to the practitioners that have been out right hostile to me.

I plea as a mother who has birthed at home, a worker who has worked labor/birth in hospitals, a woman who has been called on to stand by birthing families and a person who sincerely wants to be a credible helping citizen, for you to listen and provide for your people. I urge you to support and pass SB117.

Most Caringly,

Kathleen Stier

Box 1136

Homer, Alaska 99603

March 16, 1982

Dear Vic

Thank you for your letter, it was informative and appreciated. I have been encouraging my friends and clients to voice themselves about SB 747. I will be at the March 25 tele conference. I have some questions about the apprenticeship I hope to have explained then. Enclosed are some copies of studies I thought you might find helpful. I would appreciate if you would be sure that copies of them get sent to supportive and key persons. Also I enclosed a booklet that I thought you may find interesting, if not, amusing.

I understand the Alaska Hospital Ass. has a lobbyist. How much pull and effect does this have? Do we (who have had to function underground with little or no pay) realistically have a chance for the bill to pass against a established organization with \$ behind them?

Thanks again, I would appreciate ~~it~~ being kept posted. I seem to be the contact for this area and do share the news.

Warmly,

Kathleen Stier

# Families

- Parentline
- Single Parent
- Meet the Principal

## Midwifery laws remain in limbo

by Carol Murkowski  
Times Writer

**T**he ancient art of midwifery — assisting women in prenatal care and delivery — lives in a strange state of limbo in

Alaska.

The state has no law against midwifery, but no requirements for licensing or regulation. Neither is there a law against home births, but those who want their child delivered at home may be tripped up by the refusal of some medical professionals to work with lay midwives.

But a bill introduced to the state Senate Feb. 11 would provide a licensing and examination structure for midwives and, its supporters hope, allow midwives to work side by side with obstetricians, laboratory technicians, and other medical professionals.

Senate Bill 747, introduced by Sen. Vic Fischer is a less stringent version of one introduced to the state House last year by Reps. Brian Rogers (D-Fairbanks) and Tony Vaska (D-Bethel).

It does not require all midwives to be licensed, but sets up a Board of Midwifery to license, test, and discipline midwives; sets standards for apprenticeships, testing and disciplinary action; outlines the scope of practice for midwives, including prenatal care and emergency situations; requires midwives to keep statistics, medical histories, have clients sign an "informed consent form," and administer a limited number of drugs for childbirth.

"It's not forbidding midwifery and it's not encouraging it," said a member of Fischer's staff. "It's simply providing a method for licensing to practice as a midwife."

The most vocal supporters of the bill are members of Better Alaskan Birth Experiences (BABE), a group which supports birthing alternatives ranging from hospital birthing centers to home delivery.

"I don't advocate home birth for everyone, or even for every normal birth, but there should be alternatives," one member said.

BABE members hope that by licensing midwifery, consumers who want their children born at home will be able to select the person best qualified to do so, and can receive lab work and prenatal care presently being denied by many physicians.

Rick Urion, lobbyist for the Alaska State Medical Association, said his group will meet March 13 to discuss their stance on the proposed

bill, but "they're not wild about midwifery." The Times was not able to reach medical association officials by press time.

Al and Chris Rushing, a husband and wife who are both registered nurses, say their studies of home deliveries in Anchorage show many doctors and laboratories will not do prenatal testing for parents who do not want a hospital birth.

"I've talked to lab people who said that if they know a patient is planning a home birth, they'll refuse care," said Rushing, president of BABE. "We've been checking with physicians, and are unaware of any who give prenatal care and/or lab work to anybody planning a home birth."

Mrs. Rushing, who was a labor and delivery nurse for nearly four years and is now a lay midwife, says she set up a lab account recently for her patients' tests, but was forced to close it when "a person from the lab got pressure from a physician not to give it to me." The lab was told that the physician would pull his account if Mrs. Rushing was given an account, she said.

She also said municipal clinics are refusing to do lab work for patients planning a home birth.

The Rushings agree with doctors who argue that home births can be dangerous for high-risk mothers and their infants. Many doctors argue that complications arising during home births can be dangerous for both mother and child, and believe that home births contribute to the neonatal death rate.

But the Rushings argue that doctors who then refuse to test prospective home birth mothers for danger signals are part of the problem.

"By not doing the lab work, you're really putting people in danger, because they're going to (go to a midwife) anyway if they really want to," Mrs. Rushing said.

Ginger Balm, a member of Fischer's staff who has worked on SB 747, seconds those statements.

"Most doctors have denied prenatal care to any couple planning a home birth," she said. "Other doctors believe their positions as physicians require them to give health care services to people who need them."

Many licensed health care providers hesitate to assist in a home birth for fear of having their license revoked, Balm continued. Malpractice and health insurance don't cover home births, and although home births are not illegal, a physician or



The state has no laws, pro or con concerning midwifery, but a new

nurse doesn't have to break the law to be disciplined by their licensing boards.

"Doctors and nurses in the state who do perform home births know they're putting their entire career on the line if anything goes wrong," Balm said.

Fischer's office reported that although they have a running correspondence with a few physicians who oppose the bill, public support is nearly 100 percent.

"The only opposition appears to be from some physicians," Balm said.

Doctors question why they should give emergency care to a patient whom they have never seen before; "they say they're going into a blind alley, and I agree," Mrs. Rushing said.

"If I were a physician and someone I didn't know walked in with a problem, I'd feel ill at ease — but not if I had refused them care to begin with," Rushing added.

While BABE members support SB 747, they are against HB 11, the bill introduced by Rogers and Vaska last year. Rogers plans to amend the bill to conform to SB 747. As it now exists, BABE members say, only one person in Alaska, who happens to be a naturopathic physician, would be qualified as a midwife, because of the stringent apprenticeship requirements.

BABE members are also against SB 237, introduced last year by the Senate Rules Committee at the request of the governor, which would

make it a misdemeanor for a physician or his assistant to attend a birth.

The Rushings fear that if midwifery is outlawed or tight restrictions are placed on it, midwives will go "underground" and there will be no reliable way for those who want home births to check on their practices. Some midwives are "underground" now, fearing their participation in home births will endanger their regular jobs with the medical profession.

The couple knows of six registered working lay midwives in Anchorage and about 12 more in other parts of the state, not including people in the State vital statistics show that five percent of Alaskans choose to have their children at home. However, a study the Rushings did in August, 1981 showed that 25.3 percent of home births went unreported. They believe that the statistics are much higher.

The Rushing's study, a project of a University of Alaska research methods class, studied Anchorage-area families who have home births.

They found that most families listed "more control over the birthing process" and "relaxed home setting" as their reasons for choosing home delivery. Of those who had had children born in the hospital, 18.2 percent had a "satisfactory" experience, "great," while home birth was judged "satisfactory" or "great" 67 percent of the time.

- Parentline
- Single Parent
- Meet the Principal

- Weddings/Engagements
- About Marriage
- Dear Abby



state has no laws, pro or con concerning midwifery, but a new bill in the state Senate would provide for licensing and examining of midwives

...e doesn't have to break the law  
...e disciplined by their licensing  
...ds.

Doctors and nurses in the state  
do perform home births know  
're putting their entire career on  
line if anything goes wrong,"  
...n said.

...ischer's office reported that  
...gh they have a running corres-  
...ance with a few physicians who  
...se the bill, public support is  
...ly 100 percent.

The only opposition appears to  
...rom some physicians," Baim

...ctors question why they should  
...emergency care to a patient  
...n they have never seen before;  
...y say they're going into a blind  
... and I agree," Mrs. Rushing

...f I were a physician and some-  
...I didn't know walked in with a  
...tem, I'd feel ill at ease — but not  
...ad refused them care to begin  
... Rushing added.

...hile BABE members support  
...47, they are against HB 11, the  
...ntroduced by Rogers and Vaska  
...ear. Rogers plans to amend the  
...o conform to SB 747. As it now  
...s, BABE members say, only one  
...on in Alaska, who happens to be  
...uropathic physician, would be  
...fied as a midwife, because of  
...tringent apprenticeship require-  
...s.

...BABE members are also against  
...37, introduced last year by the  
...te Rules Committee at the re-  
... of the governor, which would

make it a misdemeanor for anyone  
but a physician or his assistant to at-  
tend a birth.

The Rushings fear that if midwif-  
ery is outlawed or tight restrictions  
are placed on it, midwives will go  
"underground" and there will be no  
reliable way for those who want  
home births to check on their refer-  
ences. Some midwives are "under-  
ground" now, fearing their part-time  
participation in home births will en-  
danger their regular jobs with the  
medical profession.

The couple knows of six regularly  
working lay midwives in Anchorage,  
and about 12 more in other parts of  
the state, not including people in  
State vital statistics show that about  
five percent of Alaskans choose to  
have their children at home. How-  
ever, a study the Rushings did in Au-  
gust, 1981 showed that 25.3 percent  
of home births went unreported, and  
they believe that the statistics may  
be much higher.

The Rushing's study, a project for  
a University of Alaska research  
methods class, studied 89  
Anchorage-area families who had  
home births.

They found that most families  
listed "more control over birth,"  
"relaxed home setting," and "less  
medical intervention" as their top  
three reasons for choosing home de-  
livery. Of those who had had children  
born in the hospital, 18.2 judged the  
experience "satisfactory" or  
"great," while home birth was  
judged "satisfactory" or "great" 100  
percent of the time.



Some parents prefer to have their babies at home rather than in a hospital



# UNIVERSITY OF ALASKA. ANCHORAGE

3221 PROVIDENCE DRIVE  
ANCHORAGE, ALASKA 99504

747 file  
SCHOOL OF BUSINESS  
AND PUBLIC ADMINISTRATION

March 18, 1982

Senator Charlie Parr  
Chairman, Senate H.E.S.S.  
Pouch V  
Juneau, Alaska 99811

Dear Senator Parr:

Chris and Al Rushing completed my UAA class BA 432, Research Methods, in the Summer of 1981. This class completed their degree requirements.

They undertook the research project "Some Factors in Choosing Homebirth" in fulfilling the Research Methods class requirements. Their research was initiated and completed under my supervision. They compiled a list of all persons who met the eligibility requirements for this Homebirth Study and provided them an opportunity to participate. Participants were provided confidentiality and a self-addressed stamped envelope was supplied for return of the questionnaires.

I reviewed the research methodology and results and feel that they meet reasonable scientific research principles and standards. If you have any questions or concerns regarding this study and results, please feel free to contact me.

Sincerely,

Dr. Richard Ender  
Associate Professor of  
Public Administration

Director, Anchorage  
Urban Observatory

RE:sf

THE FOLLOWING DOCUMENT(S) MAY NOT FILM  
LEGIBLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

Testimony presented at a State-wide teleconference relating to Senate Bill 747

My name is Liz Collogly. I am a lay midwife who has practised in Fairbanks for over 2 years. Previously I practised in Louisiana, where I am currently licensed by the State Medical Board. I come from the British Isles, & have lived & worked in many parts of the world. I have 4 children who were all born in different countries, so I have had the opportunity to see & experience at first hand different midwifery & obstetric practises around the world.

I am in favour of reasonable & appropriate regulation of the practise of lay midwifery, but I am not in favour of this bill, S.B. 747.

I believe that a lay midwife's practise should be confined to the care of women who are evaluated as "low-risk" during pregnancy, & that any time during pregnancy that a woman moves out of this category, she should be referred to a more appropriate source of care. I feel that a pregnant woman should receive an adequate evaluation by a physician before a lay midwife agrees to assume her care. I personally am aware of a number of instances in this state, where lay midwives attended women in labor, who would have been classified as "high risk" if they had been evaluated by a physician. For example, a woman who was severely hypertensive, a woman who had had a previous Caesarian section, & a woman whose baby was 6 weeks premature when she went into labor. There are many situations that can arise during pregnancy, labor, birth & post-partum, where a cautious midwife would best protect the health & safety of the women & babies she is assisting, by consulting with &/or referring to, a physician.

Some of my objections to the bill are as follows:

1. Midwife Practice (On page 1)

If licensing is instituted it should be for all lay midwives. To allow for the practise of midwifery without a license suggests that a licensed midwife who is found to be incompetent may then continue to practise without a license. This appears to be protecting the interests of the midwives but not those of the consumer.

2. Membership of the Board (On page 2)

The proposed composition of the board does not represent a very broad viewpoint. Instead of 2 lay midwives, I would suggest 1 lay midwife & a nurse midwife, also a physician involved in perinatal care, as well as a public health nurse & one consumer.

3. Licensure (On page 3)

The requirements for education, training & experience are inadequate. The bill stipulated that a person may be eligible for licensure by presenting proof by affidavit of attendance at 20 births. A person who says that she has attended 20 births may not be a competent midwife, may not have received any training & may not have observed or had to deal with any serious complications. Yet according to this bill, as long as she passes an examination & is granted a license to practise, may then serve as a sponsor to train other midwives. This lays a very weak foundation for the training of future midwives.

4. Scope of Practise (On page 4)

This is inadequately defined. There is no attempt to limit the scope of practise to the care of "low-risk" women. There is no overall concept of the lay midwife's place in the spectrum of maternity care providers. Nor is there any suggestion of a collaborative relationship between lay midwives & physicians.

The general conclusion after a close reading is that this bill is aimed more at maintaining & legalising the status quo of lay midwives currently practising in Alaska, than at protecting the interests of pregnant women & their babies.

In a country as sophisticated in its health care system as the United States, I believe that the consumer who is looking for safe alternatives in maternity care deserves far better quality control than this bill could provide.

March 25, 1982.

Liz Collogly  
411 Fourth Avenue  
Fairbanks, AK 99701

4-11-82  
278 3076

THE PRECEDING DOCUMENT(S) MAY NOT FILM  
LEGIBLY BECAUSE OF POOR QUALITY OF THE  
ORIGINAL.

Senator Charlie Parr  
HESS Committee  
Pouch V  
Juneau, Alaska

99811

Senator Charlie Parr and all other Legislators

Sir:

I am in support of SB 747 "An Act Related to Midwifery".  
I feel that pregnancy and childbirth is a natural physiological  
process and, in as much, a state of wellness rather than disease.  
For that reason, I feel that safe birthing alternatives such as  
midwifery within birthing center and home deliveries be offered  
as options as well as the hospital settings.

I urge you and other legislators to support passage of this bill,  
so families might exercise their freedom of choice in matters  
relating to safe, healthy childbirth.

Sincerely,

*Rebbie Guady*

*Moore*

747

Dear Senator Pass.

Please support senate Bill 747  
an act relating to midwifery.

it should be within the parents  
constitutional rights to be able to have  
birthing with whome and where they want.

USA is a free country.

We are going to have a baby this  
fall and will not have it in the  
hospital with sick people.

Professionals are not interested  
to come and birth at our home,

and we are comfortable with an  
certain lay midwife and are going to  
have birthing with her.

Do not make us criminals because  
of this. it is our right as a parents  
to have our children with whome we  
are comfortable and we wish you would  
vote yes on Bill 747 for our sake and for  
the sake of so many others.

Thank you for your support.

Mrs J. This. 976. Home ak  
99603

THE LEGISLATURE OF THE STATE OF ALASKA  
TWELFTH LEGISLATURE

FISCAL NOTE - UPDATE

I. REQUEST

Bill/Resolution No. SB 747  
Title An Act relating to midwifery.  
Requested by Senator Fischer Date 2-11-82

II. FISCAL DETAIL

Agency Affected Department of Commerce & Economic Development  
Program Category Affected Public Protection  
BRU, Program, Or Subprogram(s) Affected Regulation & licensing of professions.  
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES		27.9	27.9	27.9	27.9	27.9
200 TRAVEL		9.4	10.3	11.4	12.5	13.7
300 CONTRACTUAL		16.0	17.4	18.9	20.6	22.4
400 COMMODITIES		5	5	5	5	5
500 EQUIPMENT		2.8				
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL		56.6	56.1	58.7	61.5	64.5

FUNDING (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
GENERAL FUND		56.6	56.1	58.7	61.5	64.5
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
FULL TIME		1	1	1	1	1
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

PERSONAL SERVICES - FY'82 salary schedule and benefits.

1 Licensing Examiner I, range 12, gen.govt., 12 mos. 27.9

TRAVEL - 10% inflation factor projected.

Board of Midwifery, 5 members (anticipate 1-Anch, 1-Fbks, 1-Southeast, 1-Kenai area, and 1-Nome area); 3 meetings per year (1 ea. in Anch, Fbks, & S.E), travel costs plus 3 days per diem @\$80/day \$6,000.00

Department staff: 1-licensing examiner to attend meetings of the Board of Midwifery, travel costs plus per diem 1,200.00  
1-regulations specialist to hold hearings and assist board in promulgation of regulations, travel and per diem 1,200.00  
1-investigator, travel and per diem costs to investigate complaints concerning lay midwifery; average 1 trip every 4 months @\$200/trip plus per diem @ \$80/day 1,000.00

IV. DATE March 25, 1982

PREPARED BY Marjorie Odland

AGENCY Division of Occupational Licensing

Original: Legislative Finance

PHONE 465-2535

cc: Budget and Management

Prime Sponsor (First Legislator Named)

33-001 (Rev. 12/81)

CONTRACTUAL - 9% inflation factor projected.

Printing of new statute booklets, applications and licenses for midwives desiring to become licensed.	\$ 2,000.00
Meeting notices, regulation publications, mailing costs of application packets and statute booklets	800.00
General operating costs including phones, computer time (projected by board), and similar daily costs.	1,000.00
Development of examination, professional services contract basis, including updates, pool of questions for use by state board, storage in in-house computer system	5,000.00

Licensing/Disciplinary Hearings - Anticipate three hearings per year. In estimating one day hearings, the following costs are considered:

## Average 6 hour days:

Hearing Officer, @\$75/hr	450.00
Court Reporter, @\$25/hr	150.00
10 exhibits, \$.45 ea.	4.50
3 witnesses, 1/2 day ea. @ \$12.50	37.50
1 expert witness, 2 hrs. @ \$150./hr.	300.00
Transcript, avg. 210 pages @ \$4.50/page	945.00
	<hr/> 1,887.00
	X 3
	<hr/> \$ 5,661.00

Room Rental for examinations: 2 exams per year., 1 day each.	200.00
Proctors for examinations:	
Head Proctor - \$50/day	100.00
Monitor - \$35/day	70.00

Rental Space - 1 licensing examiner position: 60 sq.ft X \$1.70 X 12 mos. = 1.2

COMMODITIES

General supplies needed by licensing examiner such as tapes for meetings, file folders, paper etc.	.5
--	----

EQUIPMENT - one time cost in FY'83.

1 desk, double pedestal 60" x 30"	426.92
1 chair, posture without arms (contour)	170.57
1 typewriter, correcting selectric, dual pitch	1,028.81
1 typewriter table	101.92
1 credenza, 90" x 62"	470.90
1 side chair	95.15
2 file cabinets, 4 drawer legal	505.20
	<hr/> \$2,799.48

28

Evaluation of Outcomes of Non-Nurse Midwives:  
Matched Comparisons with Physicians<sup>1, 2</sup>

Lewis E. Mehl, MD

Jean-Richard Ramiel, BA

Brenda Leininger, RN

Barbara Hoff, RN

Kathy Kronenthal, BS

Gail H. Peterson, MSSW

Don C. Creevy, MD, FACOG

Institute for Childbirth and Family Research

and

Institute for the Study of Human Development

Berkeley, California

Address communication to:

CENTER FOR RESEARCH ON  
BIRTH and HUMAN DEVELOPMENT  
2340 Ward Street, Room 105  
Berkeley Calif. 94705  
Phone (415) 849-3667

1. Presented at the annual meeting of the American Public Health Association, Washington, D.C., November 2, 1977.
2. Supported in part by a grant from the American Foundation for Maternal and Child Health, New York, N.Y.

## Introduction

The practice of midwifery and the attendance of home births by midwives are much discussed issues today. Equally discussed is the distinction between lay midwife and certified-nurse midwife. In this paper we shall attempt to evaluate the results of out-of-hospital practice by experienced non-nurse midwives.<sup>1</sup>

Opponents of possible licensing of non-nurse midwives center on several specific concerns:

1. Midwives may provide inferior care to that currently available.
2. Lower socioeconomic status women may be shunted to midwives in an effort to save funds.
3. Licensing midwives will be *de facto* approval of out-of-hospital delivery, which is not safe.

Proponents of legislation to license midwives argue that:

1. Trained, experienced midwives provide as high (if not higher) standard of care than that which is generally available, calling upon physicians for consultation and intervention in situations exceeding the depth of their skills. (Two concomitant issues arise here: first the level of judgment

necessary to accomplish such a task and, second, the feasibility of creating risk groupings by screening.

2. The demand for midwives comes largely from middle-to upper-class women.
3. Midwives may be the best primary care provider for rural areas, provided expert obstetrical consultation is available.
4. Home birth and out-of-hospital birth can be safe alternatives for screened, selected women attended by trained, competent practitioners.

Summaries of the arguments of those opposed to the licensing of midwives can be found in Pearse (1976), Aubry (1976, 1977), Hibbard (1977), and International Medical News Service articles (1977a, 1977b). These arguments center on contentions that studies exist proving that home birth and midwives are unsafe (the two issues are usually considered concurrently). Aubry (1977a) presents birth certificate data from Oregon showing higher neonatal mortality rates among out-of-hospital deliveries from 1970 to 1975. Similar data are now available for Hawaii (Pearse, 1977) and California (Emrey, 1977). Without desiring to advocate for home delivery and midwives, we must point out that from a research methodology perspective these data merely obscure the basic issue. Two questions are not properly differentiated. The first is the more important: can screened,

selective women deliver at home with trained midwives without significant increases in risk? The second is less so: what are the overall incidences of complications for reported out-of-hospital deliveries? Currently, birth certificates do not differentiate between types of out-of-hospital delivery--home, taxicab, car, birth center, planned or unplanned. In addition, from the standpoint of cultural anthropology, home birth is a complex phenomenon. In conducting our initial study on home birth with midwives in Santa Cruz County, California (Mehl, Peterson, Shaw, & Creevy, 1975), we learned that only 25% of deliveries were reported to the State Health Department. Since then, we have found ranges of percentage reported from 20% to 100%, the least with unattended deliveries, the most with physician-attended deliveries. In one of our prospective experiences in Madison, Wisconsin, even with strong encouragement on the part of the birth attendants, only 60% of deliveries were reported within 6 months of delivery. The other sample-biasing effect is that abnormal deliveries or newborns needing medical attention or dying are all reported at the moment of contact with an established medical or legal institution. Emrey's (1977) contention that home-birth parents "bury their babies in the woods" is a non-scientific statement with no valid basis. It would be extremely difficult to conceal the outcome of a pregnancy in modern society. Thus, birth certificate data is not a

valid source of data on intentional home birth. In this regard, it is important to note that of Emrey's California out-of-hospital deaths, 65% were among infants weighing less than 2,500 grams. The planned home-delivery-population prematurity rate has been reported as 3.0% among several northern California home-birth services (Mehl, Peterson, Whitt, & Hawes, 1977). There were no neonatal deaths among these premature infants. Established home-birth services consistently report low neonatal mortality rates (Taylor, 1976; Epstein et al., 1977; Berman, 1977; Carson, Felton, Gloyd, Luehis, Mansfield, Mertz, Myers, & Rivard, 1977; White, 1976; Mehl et al., 1977; Estes, 1977).

While established services do report good outcomes, real problems exist in the practice of midwifery, which cannot be currently regulated. The California Department of Consumer Affairs estimates that 300 to 500 nonlicensed midwives are practicing in California (Krisman, 1977). Nancy Mills, a well-known lay midwife in Sonoma County, California, receives an average of 40 telephone calls weekly from women who want to be midwives. There are ample numbers of anecdotes about women who have seen one or two births and then called themselves midwives, only to encounter complications they were not prepared to handle or could have avoided through adequate screening. The important question seems to be how to provide legislation which would permit the rise of competent midwives while prohibiting the practice of

inadequately trained midwives. Current prosecution has by nature centered on the most competent midwives (Mills, personal communication, 1976; Bowland vs. Municipal Court of Santa Cruz, 1975; Davis, personal communication, 1977; Richwald, personal communication, 1977; Carson et al., 1977). Responsible midwives become visible and vulnerable to prosecution by the act of being responsible. In accompanying their problem patients to the hospital during labor, in consulting with physicians regarding problem cases, and in arranging hospital and physician back-up, they improve the care of their clients and become known. To be known is to be vulnerable to prosecution. The dilemma is obvious.

In previous studies, we have compared two groups of women--a planned home group and a planned hospital group--matching them for many of the relevant factors which would be expected to affect delivery outcome (Mehl, 1977). We found significantly better outcomes in several parameters of maternal and infant outcome among the planned home group. Canonical correlation analysis strongly suggested that these differences were the result of obstetrical intervention in a low-risk population (Mehl et al., 1977). In this study, we approach the question of the outcomes of midwife-attended deliveries in a similar case-control fashion. The question we are interested in is the relative safety of midwife-attended delivery compared to a standard of physician-attended delivery.

## Methods

### Data Collection

Our institute has been studying delivery alternatives since 1973. Because of the difficulties with birth certificates as a source of subjects, our strategy has been to identify responsible, competent midwives, utilizing them as "index practitioners." To select an index practitioner, we assess the practitioner's knowledge and skills in obstetrics and pediatrics. We determine their practice philosophy by discussing with them their management of several different obstetrical situations. Finally we review their records for completeness and accuracy. If the criteria are met, then we collect data on every woman contacting the midwife between a beginning and an ending time point.

Data for midwives were collected from Nancy Mills, a previously mentioned midwife from Sonoma County, California, who has attended over 650 deliveries, and from midwives from the Santa Cruz Birth Center, a group of midwives whose activities and outcomes have been described elsewhere (Mehi et al., 1975; Ehrlich, 1976; Lang, 1972).<sup>2</sup> The data were collected for the time periods 1972 to 1975 and were obtained by retrospective chart review. For this reason it was essential that our index practitioners were capable of identifying complications and recording them. To test this hypothesis we compared their outcomes to the outcomes of

physicians attending home deliveries and found no significant differences (Mehl, 1976).

Matching

The initial study design involved matching the data obtained from these midwives to a hospital sample consisting of planned hospital deliveries from one family practice group in western Marin County also attending home deliveries and from two private community hospitals in Madison, Wisconsin, that were also university-affiliated. While not optimal (an optimal sample would have been drawn from San Francisco Bay Area hospitals), it was felt that since the perinatal mortality of these two hospitals was lower than the Bay Area and the median income and education higher, any sampling biases would probably favor the hospital. Since the population was to be matched for socioeconomic status and since we were most concerned with the most basic indicators of perinatal outcome--mortality and morbidity indicators--subtle population effects would be small. We are currently in the process of repeating the study with a California hospital sample.

Matching was done for mother's age, parity, length of gestation, individual major risk factors, total risk factor score, education (our choice for a predictor of socioeconomic status), and presentation. The pertinent characteristics were listed on a face sheet without the

delivery details and, for each home delivery record, a match was searched for in the hospital group. If no match was found the unmatched case from the home group was eliminated and the search was resumed for the next home case. All women planning home deliveries at the time of onset of labor, experiencing the occurrence of a complication necessitating hospitalization and/or delivery, or needing the hospital after birth were included in the planned home group. There was a total of 600 planned home births and 8,000 planned hospital births for matching; 502 of the home births had matches in the hospital sample.

For the second phase of the study, computer capabilities became available, and we received data from 15% of the hospital practitioners who were rated the "least interventionist," that is, the most likely to allow labor to progress without interference and who had the most conservative criteria for intervention. Matching was done by means of a program written in PASCAL on the University of California, Berkeley, CDC6400 computer. Matches were obtained for 421 midwife-physician pairs.

#### Data Analysis

Statistical analysis on the files obtained were conducted with the SPSS series of statistical programs (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975), Version 6.5, as adapted by the Vogelback Computing Center, Northwestern

University, for the CDC6000 series. The frequencies and T-test procedures were used.

Results

The initial analysis showed the same proportion of results between midwives and physicians that we found previously between planned home delivery and planned hospital delivery (Mehl, 1977). The midwife sample (which included all births transported to the hospital and cared for by physicians) had significantly less fetal distress, meconium staining, postpartum hemorrhage, birth injuries, and infants requiring resuscitation. The midwife sample also had higher mean Apgar scores. This led us to conclude that the comparison between midwives and hospital-based obstetricians was the same comparison which had been made between planned home and hospital delivery. The reasons for these differences have been indicated in other research to be related to the much greater use and indications for the use of oxytocin, forceps, analgesia, and obstetrical procedures (Mehl et al., 1977).

For the subsequent analysis we used the midwife sample and the "low-interventionist" physician sample. Table 1 shows that there were no significant differences between the groups besides the higher incidence of planned home births among the midwife group. Table 2 shows that the only significant differences among delivery complications

were more fetal distress among the physician group and more problems with the delivery of the placenta. They also (Table 3) experienced more analgesia, first- and second-stage oxytocin, anesthesia, and obstetrical procedures. Table 4 shows that there were no significant differences in neonatal complications or maternal postpartum complications. Lastly, Table 5 shows that the only significant differences in neonatal outcomes were borderline significantly more Apgar scores at 1 minute less than 7 and 5-minute Apgar scores less than 7.

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Insert Tables 1-5 about here

---

### Discussion

From these results and from other studies (Mehl et al., 1977) it seems reasonable to suggest that the improved outcomes reported among a large group of planned home births (attended by competent practitioners) over planned hospital births relate to lesser amounts of obstetrical intervention in the planned home group. Attempted comparisons of midwives with obstetricians were confounded by this relationship.

For the second analysis presented, it would seem reasonable to suggest that the slight differences in outcome favoring the midwife group could be due to even yet

increased interventions (oxytocin, procedures, etc.) among the hospital group.

It can be concluded that, at least among a limited sample size of 421 cases, midwives did as well as physicians for low-risk cases. Larger numbers of cases are required to address questions regarding the performance of midwives in emergency situations requiring immediate intervention or rapid

Also, it must be emphasized that, while the midwives studied here were not licensed or formally trained midwives, they were, nevertheless, very knowledgeable about obstetrics and pediatrics and had acquired considerable skill and competence. Such performance attests to the ability of these women to learn outside of institutional settings. Were formal training made available, it would seem that all would stand to benefit.

From the results of this study it would seem reasonable and prudent to develop and test alternative training programs for such midwives and to establish clinical demonstration/research programs to allow for the further study of the outcomes of such midwives with reference to their possibility for legitimizing their utilization in maternal and child health care delivery. It must also be remembered that this current study is by no means definitive. Current work is underway to develop an entirely California-based hospital sample and to increase the number of midwife deliveries available for study.

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## Footnotes

<sup>1</sup>In the remainder of this paper we will include non-certified nurse-midwives and lay midwives under the simplified heading of midwives.

<sup>2</sup>It should be remembered that there are many midwives from the Santa Cruz area who call themselves Santa Cruz midwives but who are not associated with the Santa Cruz Birth Center.

Table 1  
Population Characteristics

	Midwife Sample N = 421	Physician Sample N = 421	Signif- icance
Maternal education (mean)	13.4	13.4	NS
Mo. prenatal care began (mean)	3.6	3.5	NS
Primigravidae	243	243	NS
Para 1	128	128	NS
Para 2	40	40	NS
Para 3	6	6	NS
Para 4-6	3	3	NS
Mean months of follow-up	4.1	5.4	
Vertex presentations	421	421	NS
Length of gestation (mean)	39.9	39.9	NS
Prenatal risk factor score (mean)			
Maternal age	24.4	24.4	NS
Prolonged rupture of membranes	18	18	NS
Number of female infants	223	224	NS
Number of male infants	198	197	NS
Birthweight (grams)	3,412	3,350	NS
Twins	1	1	NS

Table 2  
 Complications, of Labor and Delivery  
 and Procedures Used

	Midwife Sample N = 421	Physician Sample N = 421	Signif- icance
Fetal distress	8	25	p < 0.001
Placenta problems	6	11	p < 0.05
Labor dysfunctions	18	25	NS
Hospital transfers	32	15	p < 0.01
Meconium staining	18	16	NS
Posterior deliveries	28	19	NS
Shoulder dystocia	2	2	NS
Partial abruptions	1	3	NS
<u>Procedures</u>			
Caesarean sections	2	3	NS
Mid forceps deliveries	1	5	NS
Analgesia	6	24	p < 0.01
Oxytocin, 1st stage	22	40	p < 0.01
Oxytocin, 2nd stage	38	53	p < 0.01
Oxytocin, 3rd stage	45	298	p < 0.001
Low forceps	3	10	p < 0.01
Number of anesthetics	4	66	p < 0.0001
Obstetrical procedures	16	75	p < 0.001

Table 3  
Infant Complications

	Midwife Sample <u>N = 421</u>	Physician Sample <u>N = 421</u>	Signif- icance
Neonatal hyperbilirubinemia	8	7	NS
Neonatal cyanosis	1	0	NS
Infection	2	2	NS
Congenital abnormalities	0	3	NS
Newborn metabolic problems	1	0	NS

Table 4  
Postpartum Complications

	Midwife Sample N = 421	Physician Sample N = 421	Signif- icance
Breast infections	3	2	NS
Postpartum D & C.	1	0	NS
Maternal infection	0	2	NS
Postpartum depression	1	1	NS
Uterine atony	1	4	NS

Table 5  
Neonatal Outcomes

	Midwife Sample N = 421	Physician Sample N = 421	Signif- icance
Fetal deaths	0	0	NS
Neonatal deaths	0	0	
Perinatal deaths			
Motor cerebral palsy	1	0	NS
1-minute Apgar < 4	4	7	NS
1-minute Apgar < 7	9	21	$p < 0.05$
5-minute Apgar < 4	1	2	NS
5-minute Apgar < 7	1	7	$p < 0.05$
Infant resuscitations	4	7	NS
Respiratory distress > 12 hrs.	3	3	NS
Failure to thrive	0	1	NS
Birth injury	1	0	NS

747

Box 2671  
Homer, Alaska 99603  
March 13, 1982

Dear Mr. Farr,

As one of your female constituents I am well aware that Senate Bill 747 "An Act Relating to Lay Midwifery" may directly affect me. Should I become pregnant this bill will either limit my options for the birthing process, if defeated, or allow me the freedom of choice, if passed. Of course there is always the option of going outside the law, but in the case of complications that would be much too risky for me. In the event that I should be able to deliver a child I would want to be able to do whatever I think best for my child and for myself. Therefore I urge you to vote "yes" on Senate Bill 747. I consider it a lamentable fact that women today do not have the option of giving birth in a manner that our ancestors have used, and still remain within the law. The importance of this bill is to give women a choice in how they want to

Worrest their delivery and  
in what kind of environment  
they wish to be. I welcome their  
choice, wish cannot stress  
enough the importance of  
women maintaining their  
power of choice over (what is an)  
important and personal matter.

Thank you for your sincere  
consideration of this matter,

Sincerely,  
Joyce Day

Dear Senator Charlie Parr, Legislator  
Brian Rogers and all other Legislators,  
I am writing this letter in support  
of Senate Bill 747. Having the choice  
of where I have my children is very  
important to me. Actually, two of the  
most important decisions of my  
life came down to the fact I didn't  
want to give birth in a hospital.  
Both of my babies were born at  
home. My first was born at the  
midwives home, and my second was  
born in my own bed. Both times I  
felt very secure and safe. It is  
also very important who women  
give birth with and deserve the  
choice. Women needs lots of love,  
encouragement and understanding  
during birth. Lay midwives have  
the time to be continuously with  
the woman doing her job.

Please don't misunderstand me  
I am not against doctors and  
hospitals we all know we have to  
have them but birth is not a  
sickness and need not be done  
in the hospital every time. Statistics  
show that there is less mortality  
and morbidity with home births  
than with hospital births.

Please support this Bill as  
it is a very good one and I  
would like to see the day when  
midwives will be accepted as  
true and gifted people dedicated  
to their work.

Thank you very much,

Nanette Woodman

S R BOX 5053

FBX AK99D



HOUSE OF REPRESENTATIVES  
RESEARCH AGENCY

Pouch Y, State Capitol  
Juneau, Alaska 99811  
(907) 465-3991

MEMORANDUM

May 21, 1980

TO: Representative Brian Rogers

FROM: Betty Barton, Issues Analyst

RE: The Effects of Regulation on Lay Midwifery  
Research Request No. 120

This memorandum is in response to your request for information regarding the effects of State regulation on lay midwifery. At the time of your request, you asked that we research changes in the midwife population of various states, which may have occurred as a result of regulatory control. We have determined the existing data to be insufficient for responsible analysis of midwifery trends. Because there is no hard data available, we have compiled opinions concerning the effects of regulation through telephone interviews with staff from alternative birth associations, State public health programs, and conversations with lay and nurse-midwives in Alaska and other states. Our interview list is attached for your review. Alaskan lay midwives did not grant us permission to use their names and so, are identified in neither the text nor the attachments of this memorandum.

We have gathered what we consider to be a representative sampling of current attitudes and experiences regarding the effects of State regulatory control. However, our perspective in presenting this is that of the midwives. We have not attempted to draw any information from medical associations and obstetricians; and, consequently, should this memorandum reflect any biases, they should be construed solely as the opinions of the persons interviewed.

Proponents of lay midwifery are not necessarily proponents of one another's politics and philosophies. Consequently, our findings regarding the current practice of lay midwifery are varied to some extent. Lay midwifery is a small, albeit developing, movement in the U.S. with much internal diffusion. Nonetheless, midwives appear united in an overriding belief that distinct advantages and disadvantages are to be realized from regulation. When regulations embody fairly derived standards and an adequate mechanism for attaining those standards, it is safe to say that most contemporary lay midwives view State regulation to be worthwhile.

However, most lay midwifery advocates feel that equitable standards have rarely been established at the state level and thus, exercise caution in recommending regulatory measures. Conditions vary from state to state; and whether the general findings reported in this memorandum might apply in Alaska could bear further investigation. Alaska has a very small lay midwife population as evidenced by the fact that there are only two known lay midwives practicing in Anchorage. Because of this, it might not be in the State's interest to pursue steps toward regulation at this time. The subject of regulation of these practitioners can evoke heated and emotional debate by lay midwives, medical professionals, and public health administrators. On occasion, it appears that more conflict has emerged from the process of legislative action than existed prior to the public's attention to the matter. Part of the problem is surely due to the new definitions that lay midwifery has assumed combined with a lack of model legislation at the State level. Consequently, it may be wise for Alaska to sit back and watch the effects of other states' regulatory provisions prior to adopting legislation of its own.

#### Background Information

The definition of midwifery has expanded since its inception in the U.S. but basically still refers to the management and attendance of childbirth. In today's society, there are three types of midwife: 1) the traditional midwife, known as the "granny," who has obtained her training in labor and delivery solely through apprenticeship and experience; 2) the nurse-midwife, who generally has obstetric nursing experience and graduate coursework in midwifery; and 3) the modern lay midwife, who generally has been trained through a combination of coursework and apprenticeship. There are more lay midwives, including both the "granny" and her contemporary counterpart, than practitioners of nurse-midwifery. There are about 1800 nurse-midwives in the U.S. In Texas alone a state which exemplifies the proclivity of lay midwifery in the South, there are an estimated 1500 lay midwives. The predominance of the lay midwifery population may be due to the rigorous training required for nurse-midwifery certification. Conversely, state laws that in the past have made it relatively easy to be certified as a lay midwife have been a factor in the maintenance of lay midwives populations.

Most laws governing the practice of lay midwifery were adopted by states in the first quarter of this century. These laws were aimed at the "granny" midwife and, for the most part, set very basic standards of control, generally only requiring a certificate of practice dispensed by the authorized licensing board or agency. As the availability of medicine

Representative Brian Rogers

May 21, 1980

Page No. 3

and professional health care expanded, the use of midwifery declined from about 50 per cent of all births in 1900 to only 12 per cent by 1935. But many states left their lay midwifery laws unaltered, presumably in deference to the few remaining "granny" midwives. The rate of decline continued until the 1960's when a resurgent interest in lay midwifery occurred. At this point, a number of states found themselves with laws considered by many medical associations and health departments to be outmoded by current health standards. As a result, movements were made in some states to amend existing legislation, thus marking the beginnings of a conflict between the medical and lay midwifery communities regarding a mutually satisfactory interpretation of their respective roles.

At basic issue is the question of home delivery versus hospital delivery. Births attended by lay midwives generally take place in the home or in some instances at special maternity centers. The American Medical Association contends that non-hospital based deliveries place undue risk upon the safety of the infant, presumably because of the mother's distance from emergency medical equipment and professional medical staff. Conversely, lay midwives argue that the nation's obstetricians have poorer maternal and child morbidity and mortality rates than do lay midwives who often are attending impoverished, high-risk patients. As an added point, lay midwife associations offer World Health Organization data that indicate better morbidity and mortality rates in developed countries, such as Sweden and Great Britain, where midwives are used more extensively than is the case in the United States.

Midwives maintain that as doctors of medicine, obstetricians have been taught to treat pregnancy from a pathological perspective rather than as a natural condition, and consequently have developed the same reliance upon anaesthetics and surgery as is prevalent in the medical diagnosis of morbidity. Lay midwives further contend that such procedures as episiotomy, a surgical incision of the perineal tissue to enlarge the vaginal opening, have become routine obstetrical practices because they shorten the delivery time rather than for any health function. The medical profession, in turn, regards lay midwifery and home-births as unnecessary regressions to a lost era, which ignore the capabilities of modern medicine.

In comparison to other developed nations, the U.S. utilizes midwives to a very limited degree. In Sweden, every pregnant woman, including those who are to deliver by Caesarean section, has a midwife. In the

Netherlands, midwives have responsibility for all normal births as is evidenced by the Dutch government's refusal to pay for a doctor's services if a midwife is available. According to an article by Christopher Norwood in a May 1978 issue of Ms., approximately 80 per cent of the world's babies are delivered by midwives. In the U.S., according to the National Center for Health Statistics, only approximately 1.5 per cent of the nation's births occur out-of-hospitals. Of these, 92% are attended by lay midwives and others, e.g. relatives, taxi cab drivers.\*

#### DETERMINING THE ROLE OF REGULATION IN LAY MIDWIFERY

The need for regulation of health care personnel has long been regarded as essential by state governing entities. Occupational licensing, as with other professionals, is the basic component of the regulatory process. The fundamental purposes of licensure are to control entry into a profession and to establish and enforce minimum standards of practice. Persons found to be deficient in, or in violation of, these basic standards may be denied licensure; or, if already licensed, may have their licenses revoked or suspended. It is generally regarded that this process protects the public from the purchase of incompetent or unsafe health care services.

The degree to which regulatory controls should be employed proffers controversy. In this matter, development of regulatory provisions for midwifery can be especially complex because of the conflicting opinions regarding its function. The resultant effects of the regulatory process, according to lay midwifery advocates, have been varied.

#### Potential Benefits of Regulation

Most midwifery advocates interviewed concurred that licensure may be necessary to establish minimum standards of practice, an assurance that is apparently becoming more essential as the interest in home birth continues to grow. For example, Shari Daniels, President of the National Midwives Association and Director of the El Paso Birth Center, stated that under current Texas law, the only requirement to practice midwifery is registration at the local courthouse. Under this relatively loose Texas law, the resurging interest in home births has prompted a number

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\* The percentage of hospital-based births attended by certified nurse-midwives is not available. However, as there are only about 1800 certified nurse-midwives in the United States, the percentage of births attended by these practitioners is projected to be equally low.

Representative Brian Rogers

May 21, 1980

Page No. 5

of untrained, unskilled people to register as midwives. The danger in this, of course, is the assumption by a consumer seeking midwifery services that she is obtaining the care of an adequately experienced individual. As a result, amendments to the Texas law are currently being proposed that will establish much stricter standards and guidelines for the practice of lay midwifery, e.g. the successful completion of State-approved training and a State-administered examination prior to licensure.

Arizona has pursued similar measures by strengthening a lenient law with precise regulations. In effect since 1957, Arizona's law on lay midwifery merely requires submittal of application to practice, establishes conditions under which a license is revoked or suspended, and authorizes its Department of Health Services to draft rules and regulations, which until several years ago, had few restrictions. The Department of Health Services now requires lay midwives to have completed an approved course of study and to pass a State-administered examination comprised of written, oral, and practical sections. The Department also requires every client of a lay midwife to retain a back-up support physician. Ruth Beeman, the State's administering officer for the lay midwifery program, considers these measures to have been worthwhile in providing better assurances for the health and protection of the public.

An anticipated secondary result of state regulation is improved quality of training in lay midwifery programs. Because a purpose of licensure is the establishment of quality standards, a certain degree of service deficiency in lay midwifery programs can exist in those states, such as Alaska, that do not legally address alternative childbirth practice.

Although not prohibited by law to practice, neither are midwives actually recognized by states such as ours. The result is legal ambiguity clouding the scope and, in turn, the quality of service provided by lay midwives. An example of paramount significance concerns the relationship between lay midwives and physicians. Because Alaskan law does not identify the function of lay midwifery, a number of physicians will not admit as a client any pregnant woman intending to have a lay midwife-attended birth. Consider Juneau: of three clinics available for prenatal care, one clinic refuses the admission of home-delivery patients; a second admits alternative-birth clients but charges them a \$400 set fee rather than billing on a per visit basis (thereby automatically committing a client to \$400 worth of visits); leaving the third, a public clinic operated through the State, as the only clinic admitting home-birth

clients without restriction. Lay midwives maintain that situations such as these would be alleviated to some extent by regulation.

One local lay midwife compares Alaska to Washington where lay midwifery is regulated. She maintains that regulation can assist to strengthen the relationship between lay midwives and physicians, noting that most lay midwives in Washington perform their deliveries with emergency transport vans and adequate back-up support of physicians. By contrast, in Juneau, she maintains, a number of women have been forced to misrepresent their intentions to their physicians in order to obtain prenatal examinations. She added that because there is no licensure she is denied the use of certain health care tools and equipment, contrasting the local situation with those of Washington and Colorado where she would be entitled to access to labs. Although not a proponent of licensure of lay midwifery in Alaska at this time, she feels that regulation should be considered for the state in the future.

Another Alaskan midwife, who asked that her identity not be disclosed, feels that practitioners would be better protected under licensing. Licensed to practice nursing, she feels she has had problems maintaining her license because of obstetrical opposition to her practice of lay midwifery. She feels her past problems could have been eased had Alaska promulgated clear regulations regarding the role of lay midwifery. Nonetheless, she views the degree of current bias by the medical community to be so strong that an objective consideration of regulation is not currently possible.

#### Potentially Negative Effects of Regulation

Lay midwifery advocates seem to agree that the primary disadvantage of regulatory control lies not in the concept of licensure but rather in the potential for abuse of its purpose. In other words, lay midwives believe that state regulatory laws can be merely a thinly disguised means for the elimination of midwifery practice. Upon examination of developments subsequent to licensure in states such as Alabama, it is difficult to allay lay midwives' fears. Alabama's law exempts lay midwives from the licensing requirements of nurse-midwifery, stating that these requirements shall not "prevent lay midwives holding valid health department permits from engaging in the practice of lay midwifery as heretofore provided until such time as said permit may be revoked by the county board of health." In 1979, the Alabama State Department of Health issued an order to suspend approval of any new licenses and suggested that old licenses be proscribed from renewal. Other states, through the process of regulation, have established standards so high that the purpose

Representative Brian Rogers  
May 21, 1980  
Page No. 7

of lay midwifery appears violated with only "professional" practitioners able to meet requirements. Arizona, with its oral, written, and practical exams has been criticized by the National Midwives Association for its overly competitive admissions criteria; the Association cites the state's total population of only 2½ licensed midwives as evidence.

Along similar lines, lay midwives also express apprehension regarding the basis for the minimum standards of eligibility set by states. In this area, there appear to be two issues of concern: 1) should physicians have a role in developing standards for lay midwifery? and 2) can a consensus be reached concerning minimum standards? Regarding the former issue, the InterNational Association of Parents and Professionals for Safe Alternatives in Childbirth (NAPSAC) assume unequivocally that medical doctors cannot give valid consideration to lay midwifery regulation because of their philosophical opposition to the practice. David Stewart, Executive Director of NAPSAC, views the Association's attitude to be justified because midwifery is a profession distinct from that of a physician. Juneau's lay midwife views NAPSAC's philosophy to be biased. She believes that physicians can serve a valuable function in lay midwifery, noting the support she received from medical doctors in Washington as an example. However, she, too, expressed concern that the objectivity of an occupational licensing board may be susceptible to biased philosophies of any physicians on the board.

Similar in nature to this issue, is the general area of concern regarding minimum standards for lay midwifery. Lay midwives differ from one another concerning what constitutes minimally acceptable experience. Unlike certified nurse-midwives, governed by uniform standards defined by the American College of Nurse Midwives, lay midwives operate from no agreed upon standards. For example, David Stewart feels it is important that lay midwifery remain distinct from nurse-midwifery. As spokesperson for NAPSAC, he asserts that lay midwives want concentrated training for all aspects of childbirth and care rather than courses of study required in nursing programs which may be largely irrelevant to childbirth.

Shari Daniels believes in stressing practical experience in training lay midwives, nurse-midwives, and family-practice physicians alike. In terms of lay midwifery, she maintains that lay practitioners must have intensive experience in all aspects of normal and abnormal childbirth in order "to expect the unexpected" in delivery conditions anticipated to be routine. Unlike most lay midwifery birth clinics, her El Paso Maternity Center handles twin and breech deliveries as well as other abnormal births. Five per cent of the Center's patients are classified as high-

Representative Brian Rogers

May 21, 1980

Page No. 8

risk, requiring emergency transport and hospitalization. According to Ms. Daniels, some states do not want to license lay midwives trained at her center because of the extent of their experience. Because most regulations limit lay midwives to the attendance of normal deliveries, there apparently is some apprehension that lay midwives experienced with abnormal births will not provide for emergency transport when there is cause.

#### Regulatory Control; Is it Necessary?

In analyzing the effects of regulation, some consideration should be given to the validity of licensure in general as it is currently conceived. At the national level, recent research has questioned the appropriateness and effectiveness of regulations. For example, there appears to be a growing thought that occupational licensing places unequitable and unnecessary restrictions on the mobility of licensed professionals that are no longer in accord with today's transient society. The effectiveness of licensure as a consumer protection tool has been examined in other research. Dr. Patrick O'Donoghue (a medical doctor), in a publication entitled Evidence About the Effects of Health Care Regulation, as prepared for the National Science Foundation, states the following:

Licensure stops at least one step short of actually assuring on a continuing basis the quality of health care delivered by a paractitioner. In other words, the real concern of a governmental licensing agency should be the protection of the public over the professional lifetime of the practicing health care professional. Up to the present, however, measures of the quality of care have not permitted direct regulation of professional activity. Therefore, the states through their laws have attempted to assure the quality of health care by establishing and certifying the entering qualifications of professionals. They do go slightly beyond this initial assurance in that if a practitioner has been licensed as qualified and shows himself to be unqualified, the law puts the police power of the state into action in removing the dangerous practitioner from his profession. On the other hand, . . . the grounds on which a practitioner may disqualify himself are relatively narrow.

Research performed under Dr. O'Donoghue's direction leads him to a tentative conclusion that licensure may not be valid unless it employs continuing education opportunities and routine reviews of a professional's practices

Representative Brian Rogers  
May 21, 1980  
Page No. 9

throughout the duration of his or her career. Dr. O'Donoghue notes that the rate of disciplinary actions by state medical licensure boards is quite low, averaging less than 200 actions per year nationally between 1963-1967.

Commensurate with these findings, lay midwifery proponents question apparent disparities between physicians and lay midwives in the matter of license revocation. As one lay midwife in Alaska articulated, "A single error in judgment by a licensed midwife in California can cause her to be unqualified for practice, while such is rarely the case with a physician." Advocates feel that should licensure be employed, it must be devoid of professional bias. Current practices weigh the responsibility for protection of the mother and infant over the individual rights of the mother to exercise her own decision concerning the type of care to be received. NAPSAC argues that this practice violates the freedom of choice and feels that current practice must be amended to embody this freedom in public health law. As the concept of health care expands from traditional interpretations to new philosophies as imbued in naturapathic medicine and alternative birth, NAPSAC maintains that a State's regulatory function also will require expansion and a more adaptable structure so that freedom of individual choice in the treatment of morbidity and health conditions may be respected.

NAPSAC recommends voluntary compliance with licensure standards combined with a strong consumer education program. Voluntary compliance permits the State to establish minimum standards of practice for licensure and to penalize practitioners who falsely represent themselves as having attained state licensure. However, voluntary compliance does not force practitioners to seek licensure if this means acceptance of standards that they regard as foreign to their philosophies of health care. With non-mandatory licensure, the health care consumer, it is argued, has greater freedom concerning the type of services to be purchased.

#### MODEL REGULATORY PROVISIONS REGARDING LAY MIDWIFERY

Although not requested by your office, in the course of our research, we became curious about the nature of regulatory legislation in certain states having recently addressed the lay midwifery issue. and felt this information might be useful for your purposes. We also became interested in learning what alternative birth associations view to be model legislation regarding lay midwifery. Only two states, Arizona and Florida, were commended to us. Arizona's legislation has met with mixed reaction, but

Representative Brian Rogers

May 21, 1980

Page No. 10

appears to be generally regarded by midwives as representing a positive approach to regulation. Copies of Arizona's rules and regulations have not as of yet been received by this office; we will transmit them to your office upon arrival.

In Florida, a comprehensive legislative proposal regarding lay midwifery was developed over the past few years. However, the bill, recently died in committee in a 9-affirmed, 10-opposed vote. It is attached for your review. Probably the bill's greatest significance is the standards for licensure eligibility it contains. The bill grants authority to the Department of Professional Regulation to promulgate standards for the development of a midwife apprentice program; proscribes apprentice lay midwives from the receipt of compensation for the provision of services except under the supervision of the sponsoring licensed midwife or physician; and requires the apprentice midwife to participate in a minimum of 50 births, 25 of which have included the "primary responsibility for the prenatal, intrapartal and postpartal management and care, under the observation and supervision of the sponsor."

Although successful completion of a state-administered examination is required, the standards permit the option for a lay midwife seeking a license to include as evidence of experience either a certificate from a midwifery school, a certificate of completion from a training program approved by the administering department, or "evidence of completion of a midwife apprenticeship program."

Training and experience appear to be regarded as essential components of regulatory legislation. This is of special significance in Alaska as no formal training programs are available in the state. Consideration should be extended to the minimum standards of eligibility, especially in light of the varying opinions on this matter. Shari Daniels of the National Midwives Association recommends a program of lay midwifery training that entails a minimum of 50 births with a practicing midwife. Although no states currently offer training for beginning lay midwifery, she regards the following to be a model training course:

- 3 months prenatal care in a hospital
- 3 months labor and delivery, "on-floor" in a hospital
- 3 months neo-natal intensive care and postpartal care

Representative Brian Rogers  
May 21, 1980  
Page No. 11

50 births minimum with practicing lay midwife

6 months in-class training with lay midwife, e.g., childcare education and postpartum education

3-12 months probationary status with normal deliveries (with lay midwife on call)

She added that lay midwifery training programs in Europe generally place far greater emphasis on "on-floor," practical training than do programs offered in the United States. Arizona's standards place more emphasis on the amount of theoretical or academic training received, requiring only an attendance at 15 births. Ms. Daniels regards their standards to be highly deficient.

Arizona is the only state, however, to offer a state-administered program in continuing education for lay midwives. Offering workshops in subject areas needing special concentration, such as treatment for excessive bleeding during intrapartum and postpartum stages, the program has been well received by NAPSAC. A strong program in continuing education could possibly counteract the deficiencies perceived by Dr. O'Donoghue in occupational licensure of health care professionals as a public protection mechanism.

We hope this memorandum has met your purposes. It is important to note that David Stewart, of NAPSAC, and Sheryl Daniels, of the National Midwives Association, were pleased to learn that we were conducting preliminary research regarding regulation of lay midwifery whether or not legislation is proposed based on our findings. In the event that legislation is drafted, Ms. Daniels has offered her assistance in reviewing any drafts.

BB/bf  
Attachment





ALASKA STATE LEGISLATURE  
HOUSE OF REPRESENTATIVES  
RESEARCH AGENCY

Pouch Y. State Capitol  
Juneau, Alaska 99811  
(907) 465-3991

April 21, 1981

MEMORANDUM

TO: Representative Tony N. Vaska

FROM: Peter B. Froehlich *PF*  
Issues Analyst

RE: Oregon Attorney General Opinion on Lay Midwives  
Research Request 81-98

Your staff has asked us to analyze a June 17, 1977 Oregon Attorney General's opinion concerning the practice of lay midwifery. This opinion was discussed in two memoranda to you, dated March 27 and March 31, 1981, from Leslie Longenbaugh of this office. The opinion itself was forwarded to you several days later.

In summary, our analysis of the opinion indicates that it is based on Oregon statutory language which is similar to Alaska statutory and regulatory language. A strong argument can be made, therefore, that an Alaska Attorney General opinion would be likely to reach the same conclusion as does the Oregon opinion.

The Oregon opinion addresses two questions: 1) whether a person in Oregon, other than a licensed physician or nurse, can legally be a midwife and assist at a normal childbirth; and 2) if so, whether the person (lay midwife) can legally administer medicine or perform an episiotomy. The first question was answered affirmatively and the second negatively by the Oregon Attorney General's office.

Permissibility of Lay Midwifery

The basis for the first answer that one could legally serve as a midwife without licensure as a physician or nurse hinges upon the explicit use of the word "midwife" in the Oregon statutes requiring the filing of birth certificates.

The Oregon statutes provide in pertinent part:

432.205 (1) a certificate of birth shall be filed with the local registrar or the registration district in which the birth occurred within the time prescribed by the division, by either the physician or midwife in attendance at the birth, or if not so attended, by one of the parents;.... (Emphasis added)

432.210 If neither of the parents of the newborn child, unattended by either physician or midwife, is able to prepare a birth certificate, the local registrar shall secure the necessary information for the preparation of a birth certificate from any person having knowledge of the birth. (Emphasis added)

A predecessor Oregon statute, adopted in 1905, also referred specifically to "midwives." The Oregon Board of Examination and Registration of Graduate Nurses was established six years later, in 1911, to license people who engage in the practice of nursing, without any mention of midwives or the functions they performed.

However, like the Alaska legislature, the Oregon legislature never defined the practice of nursing to specifically include midwifery and never required licensure of midwives. Thus, the Oregon opinion concludes that the Oregon legislature has recognized "midwifery as an occupation distinct from nursing" for which there has never been a licensing requirement imposed.

The Alaska statutes concerning birth certificates provide in part:

Section 18.50.160 Birth Registration...

(c) When a birth occurs outside an institution, the certificate shall be prepared and filed by one of the following in the indicated order of priority:

- (1) the physician in attendance at or immediately after the birth; or in his absence;
- (2) a person in attendance at or immediately after the birth;  
or in his absence;....

Section 18.50.240 Fetal Death Registration...

(b) The funeral director or person acting as the funeral director who first assumes custody of a fetus shall file the fetal death certificate. In his absence, the physician or other person in attendance at or after the delivery shall file the certificate of fetal death....

Although the word "midwife" is not currently used in either of these sections, nor indeed, in any other Alaska statute, the word is used in a 1960 regulation, 7AAC 05.370, adopted under AS 18.50.150.

7AAC 05.370 PERSON RESPONSIBLE FOR FILING... When a birth occurs outside an institution, the following shall be the order of responsibility for preparing and filing the certificate:

- (1) physician in attendance;
- (2) nurse in attendance;
- (3) sub-registrar of village, if any;
- (4) midwife or any other person in attendance (Emphasis added)

The broad language of the statutes (i.e., "person in attendance at the birth,") and the specific use of the word "midwife" in the regulations indicate that the practice of midwifery is recognized and permitted in Alaska, as in Oregon, as an occupation distinct from nursing. Likewise, just as in Oregon, there is no Alaska requirement that midwives be licensed. Furthermore, the word "midwife" was used in the Alaska statute requiring birth certificates from its first enactment in 1917 (§2 ch 35 SLA 1913) until it was rewritten more broadly in 1960 (§13 ch 18 SLA 1960) to include anyone attending a birth, and not only midwives. The Alaska Nurses Examining Board was not established until 1941 (ch 46 SLA 1941), and the practice of nursing was not defined until 1949 (§1 ch 28 SLA 1941). Neither enactment and none of the several subsequent amendments to the nurse licensing statutes has prohibited or mentioned midwifery directly or indirectly.

#### Scope of Lay Midwifery

The second part of the Oregon opinion concluded that lay midwives could not legally administer medication or perform episiotomies. This result was based on Oregon statutes and Attorney Generals' opinions which define the practice of medicine and of nursing to include performing surgery and administering medication respectively.

Alaska statutes clearly also include performing surgery such as episiotomies within the definition of the practice of medicine (AS 8.64.3802(e)) and therefore, a license to practice medicine is required by AS 08.64.170(a). Performing surgery has been included in the statutory definition of the "practice of medicine" since the first Alaska Medical board was created in 1917 (§14 ch 8 SLA 1917).

The Alaska definition of the "practice of professional nursing" includes:

...the administration of medications and treatments prescribed by a licensed physician or dentist which require substantial specialized judgment and skill based on knowledge and application of the principles of biological, physical and social science....  
(Emphasis added) AS 8.68.410(5)

Thus, some medications can be legally administered only by licensed nurses, while other medications can be administered by anyone, including a lay midwife. Under the Alaska Administrative code, the

Representative Vaska  
April 21, 1981  
Page 4

prescription eyedrops which prevent infant blindness due to maternal gonorrhea, must be placed in the eyes of newborn infants by a "physician, nurse, or certified (nurse) midwife." (7AAC 27.111) It is not perfectly clear that the eyedrops are medication that requires the type of "substantial specialized judgment" which, under AS 8.68.410(5) would mean they must be administered by a licensed nurse (or physician). Nonetheless, the Department of Health and Social Services eliminated in 1980 any remnant of doubt by adopting 7AAC 27.111 which requires in no uncertain terms that the drops be administered by a doctor or nurse. Therefore, anyone other than a physician or dentist who administers these eyedrops or any other prescribed medication which requires "substantial specialized judgment and skill" must be licensed as a nurse under AS 8.68.160.

In conclusion, Alaska law is very similar to Oregon law on this subject, and we believe that an Alaska Attorney General opinion would probably reach a result very similar to that of the Oregon opinion. Informal discussion with an Assistant Alaska Attorney General further confirms this supposition.

Please contact us if we can provide any further information or assistance. You may also wish to contact the Legal Services Division of the Legislative Affairs Agency concerning this subject.

PF/bf

March 16, 1982

747

Charles Parr  
H ESS  
and all State Legislators  
Juneau, Alaska.

Dear Sir,

I am writing you concerning Senate Bill 747, concerning Home Birth. I have had a home birth myself and support Sen Trachers Bill. Homebirth needs control but also, it needs to be a viable alternative for those parents that want it. We need to make Home Birth safer not stop it. In reality, Parents will choose home birth whether this bill is passed or not, but this bill does attempt

to make this alternative poster for everyone.

Thank you for your time, and  
hopefully your support.

Sincerely,

Maryanne C. Maryama  
SRA Box 2396D  
Anchorage, Alaska 99507.

Senator Charlie Parr  
HESS Committee  
Pouch V  
Juneau, Alaska  
99811

March 27, 1982

Senator Charlie Parr and all other Legislators

Sir:

I am in support of SB 747 "An Act Related to Midwifery".  
I feel that pregnancy and childbirth is a natural physiological process and, in as much, a state of wellness rather than disease. For that reason, I feel that safe birthing alternatives such as midwifery within birthing center and home deliveries be offered as options as well as the hospital settings.

I urge you and other legislators to support passage of this bill, so families might exercise their freedom of choice in matters relating to safe, healthy childbirth.

Sincerely,

Leo & Carolyn Evans

Note:

Gentlemen:

I, Carolyn Evans, am a  
Childbirth Educator in Sitka & feel  
very strongly that HB 747 must  
& should be passed legalizing  
midwives in Alaska. We are  
rural & isolated area, & we need  
choices & alternatives for our  
(over)

mothers & couples when it comes  
to their childbirth!

Please vote in favor of this  
bill !!

Thank you,

CF Evans

Box 902

Sitka, AK

99835

72

73

## STATISTICAL OUTCOMES OF HOME BIRTHS IN THE U.S.: CURRENT STATUS

Lewis E. Mehl, MD\*

We began our studies on the statistical outcomes of home deliveries because of the tremendous rise in the number of home deliveries occurring across the country and the lack of any available data on their outcomes. We had hoped to provide data which parents and professionals could use on their individual scales of relative value along with the experiential data on emotional outcomes as they weighed the risks and benefits to determine what kind of delivery they would choose.

First, I will report the statistical outcomes of 1146 planned homebirths in the San Francisco Bay Area and then I will compare this to 180 similarly selected hospital deliveries performed by one of the same groups of physicians. This is part of some ongoing work in which we are attempting to accumulate a matched hospital series with which to compare the home delivery statistics.

Our sources of data (Mehl, et al., 1976)<sup>11</sup> were the medical charts from five home delivery services in northern California. The five services included 3 physician groups and 2 lay midwife groups as follows:

- (1) A rural-based family practice in Western Marin County (Point Reyes) composed of 3 family physicians and 3 registered nurses, performing both home and hospital deliveries since 1970 as part of a comprehensive family practice.
- (2) An urban-based family practice in Mill Valley composed of 2 physicians and 2 registered nurses--one a maternity nurse practitioner--in practice since 1973.
- (3) An urban-based group in Berkeley consisting of 1 physician (whose training had been in pediatrics/neonatology) and 2 registered nurses, affiliated with a women's health cooperative in Berkeley. This group did not have hospital privileges and performed only home deliveries, referring women requiring hospital care to local obstetricians. They had been functioning since early 1974.
- (4) 10 lay midwives from Santa Cruz County, functioning in both urban and rural settings without immediate medical supervision, and with limited medical backup, performing births since 1971.
- (5) A rural lay midwife (Nancy Mills) from Sonoma County with good physician backup, performing births since 1970.

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\* LEWIS E. MEHL is on the faculty of the University of Wisconsin, Center for Health Sciences, Department of Family Practice and Psychiatry, and is Coauthor of "The Homebirth Trend," "Management of Complications of Home Delivery," and other works.

In the latter service, records had been kept only for the last 171 of her estimated 500 deliveries during a five year time span. All records until April 1975 were reviewed by one of us (LEM). They were adequately detailed regarding prenatal care, intrapartum and post partum events, and infant and maternal follow-up. The groups represented the following percentages of the total sample:

(1) The Point Reyes physician group:	40.4%
(2) The Mill Valley physician group:	11.2%
(3) The Berkeley physician group:	7.6%
(4) The Santa Cruz County midwives group:	30.8%
(5) The Sonoma County midwives:	10.0%

The lay midwife from Sonoma County (Nancy Mills) began her midwifery activities accidentally, visiting a friend in labor. Others learned she had attended a birth and asked her to their deliveries, until she eventually developed a reputation as a midwife (See the Chapter by Nancy Mills later in this book for more details on her midwifery experience). Her training was self-acquired through reading and experience. The Santa Cruz midwives began functioning in much the same fashion, becoming midwives to meet an experienced need in the community, and educating themselves through discussion groups, experience, and reading. Their average fee per birth was \$35.00, so that their motivation was clearly not monetary. Typically, they were women who had had an unattended homebirth and had decided to help other women avoid their predicament. The Sonoma County midwife had good medical backup through physicians (mainly family practice residents) at the Community Hospital of Santa Rosa, who, while unwilling to attend home deliveries, were willing to discuss problems over the telephone and handle complicated deliveries in the hospital. The Santa Cruz group had poor medical backup, and were not able to obtain telephone consultation. They were often heavily criticized and condemned when bringing women to the hospital who needed hospital care, and had few supportive physicians to whom they could refer women with complications. Labors in the Sonoma area were occasionally as far as one hour from a hospital, although the usual distance was approximately 15 minutes. Labors in the Santa Cruz area were occasionally as far as 45 minutes from a hospital, but usually ranged from 5 to 15 minutes. Transport facilities for both lay midwife groups consisted of the midwife's car without any specialized support equipment. Equipment present at deliveries with the lay midwives was also minimal and typically consisted of a bulb syringe, sterile gauze, sterile gloves, a fetoscope, blood pressure cuff, urine dipsticks for testing acetones, glucose, and protein, a portable scale, and little else. Their mode of operation has been described by Lang.<sup>10</sup>

The physician services brought a home delivery kit with them to births. Typically the nurse would attend the labor from its inception and the physician would arrive during the second stage for primigravidae and late first stage for multigravidae. The physician kit included IV equipment, oxytocin and methergine for use after delivery, other emergency drugs, forceps to use if necessary, as well as suture supplies. (However, there was no intravenous oxytocin or forceps used at home in this series.) The only equipment or drugs not present in the kit, and usually present in the hospital, was whole blood. A

complete list of supplies is available on request (see addresses of authors tabulated at end of book). The transport vehicle for the physician groups was also the car belonging to the birth attendant. For the Point Reyes group, the closest hospital was 20 miles, for the Berkeley and Mill Valley groups the distance from a hospital was usually 5-10 minutes.

Prenatal care was essentially the same for all groups and did not deviate from the standards recommended by the American College of Obstetrics and Gynecology with regard to visit frequency, laboratory tests, and clinical assessment. The lay midwife groups required a minimum of two visits to a physician at which time clinical pelvimetry, Rh status, blood type, rubella titre, hemoglobin, hematocrit, VORL and gonorrhea culture were determined. Nutrition, the avoidance of prenatal medication, and the psycho-social aspects of pregnancy were stressed more than is typically done in prenatal care, and visits usually lasted 20-30 minutes for the physician groups involving discussions with the nurse and then the doctor. For the lay midwife group, the visits were typically 30-60 minutes. Three women had no prenatal care, and first presented themselves in labor.

There was no limiting of weight gain. It was felt that every woman should gain at least 20-30 lbs. during pregnancy and the average weight gain was in the 30-35 lb range. Women with chronic medical disease were encouraged to seek a hospital, as were women who remained anemic. The threat of a hospital birth usually increased patient compliance with iron-containing preparations and, as a result, the number of women delivering at home with hemoglobins of less than 11.0 gm% was minimal (less than 1%).

Intrapartum care was essentially similar among the groups as well. The lay midwife groups did not perform breech or twin deliveries at home. The physician groups did, on occasion, although only after explaining the problems inherent in such deliveries. After 1975 the usual policy was to recommend Cesarean section to women with low breech scores (Zatuchni-Andres breech score) and to attend women with breech scores indicating safe vaginal delivery at home if the woman so desired and requested. (Since the completion of this study, the lay midwives have begun attending some breech deliveries at home because of parents' dissatisfaction with the rising incidence of Cesarean section in the breech presentation.)

Labor prolongation, of itself, was not treated as a complication requiring hospitalization. Uterine inertia was initially often treated with buccal oxytocin by the physician group at home, and if results were not forthcoming, the woman was transported to the hospital for IV oxytocin. Prolongation of the second stage of labor was also not treated as a complication; indeed, most of the practitioners felt that a slower second stage with little pushing by the mother (often 2-3 hours) was preferable to a shorter second stage (less than 2 hours) characterized by an intense pushing effort by the mother. Cases of second stage arrest, however, if not responsive to buccal oxytocin over a 1-2 hour period, were transported to the hospital for forceps delivery. The midwives were unable to administer oxytocin and, consequently, sent more of their patients to the hospital for oxytocin.

**LAY MIDWIVES HAVE BEGUN ATTENDING SOME BREECH DELIVERIES AT HOME BECAUSE OF PARENTS' DISSATISFACTION WITH THE RISING INCIDENCE OF CESAREAN SECTION IN THE BREECH PRESENTATION.**

Both groups monitored the fetal heart rate closely throughout the first and second stage, using a fetal stethoscope or Doppler ultrasound fetoscope, and felt that any significant drop in heart rate requiring intervention would be noticed. Blood pressures were checked approximately every 1-2 hours during labor; fetal heart tones were checked as often as after every contraction during second stage if some variability had been noted or if the mother were pushing particularly hard, but usually were taken every 15 minutes during second stage and every 25-40 minutes during first stage, depending on the character of the labor and the fetal heart rate pattern. The fetal heart was occasionally listened to through a contraction and for some time afterwards to determine the presence of any abnormal patterns.

Meconium staining without fetal heart rate irregularities was not treated. (Meconium staining with fetal heart rate irregularities was cause for hospitalization, and the infants, with one exception, were treated with intubation and lavage.) Prolonged rupture of membranes in a term sized infant was followed, but not treated unless necessary. It was felt that if the mother did not show signs of amnionitis and had a good socioeconomic/nutrition background, that intervention was not necessary within 24 hours. If labor had not begun by 24 hours, induction in the hospital was usually undertaken.

The midwives practiced perineal massage to prevent tearing, while the physicians typically did not. This was optimally done by the mother and father for the month prior to delivery and was done by the midwife during the last half of the second stage. This was not done consistently by all parents or all midwives, but it was felt by the midwives that it helped prevent lacerations during delivery.

Forceps deliveries were not conducted at home, and no analgesia or anesthesia was administered at home. If the latter was desired, hospital transport was necessary for the woman to receive it.

The room in which the delivery occurred was kept warm and the baby was given to the mother immediately after delivery to hold and nurse, with blankets being placed around the infant to prevent heat loss. The umbilical cord was not clamped until it ceased pulsating except in Rh negative mothers, in whom it was clamped immediately after delivery. RhoGam was given to the Rh negative mothers within 48 hours. Silver nitrate was not applied routinely to the infants' eyes unless there had been a past history of gonorrhea, or one or both parents were unsure of the other. Most of the infants were fed only by breast without glucose or formula supplementation, and were fed ad lib.

Home visits were usually made each day for the first three postpartum days, and telephone contact was maintained with the couple. The infants were seen by the physicians at one week in their offices and again at four weeks. After that point, the recommendations for well

child care of the American Academy of Pediatrics were observed. Midwives referred infants for newborn care after the first week to pediatricians or family physicians, and continued to follow the infants themselves for varying periods of time. All mothers had a postpartum examination from 4-6 weeks by a physician, and for the lay midwives, results of this examination were recorded in their records.

**STUDY POPULATION**

Hazell<sup>8</sup> has described the demographic characteristics of the homebirth population in the San Francisco Bay Area in a study of 300 home deliveries from the socioanthropological standpoint. Her subjects overlapped to some extent with our sample and were derived from the same subject pool--San Francisco Bay Area couples planning homebirth.

**TABLE 1  
HOME DELIVERY STUDY POPULATION**

Contacted Home Delivery Services	1,348	100.0%
Screened Out, Medical Dx	55	4.1%
Decided Against	147	10.9%
Attempted Home Delivery	1,146	85.0%
Physicians	685	59.8%
Midwives	461	40.2%
Taken to Hospitals	136	11.9%
Physicians	58*	5.1%
Midwives	78*	6.8%
Completed Home Delivery	1,010	74.9%

\* Patients hospitalized represented 8.5% of physicians' cases, 16.9% of midwives' cases.

In Hazell's study, 90% lived in typical American fashion, with the father gainfully employed, in a single family dwelling with one or two cars, were not members of an ethnic minority, not on welfare, and without household servants. A general characteristic of the group was described as a self awareness shown in a concern for nutrition, health foods, ecology, humanistic psychology, and a strong feeling for a natural birth process. Typically, the mother and father had both attended college, but neither had graduated. The fathers' occupations were noted to vary through the range of occupations present in the Bay Area, from auto mechanic to physician to homesteader. Only one tenth were classified as "hip," in rebellion to "normal American Values," living in a variety of alternative styles.

In our study, patients of the lay midwives tended to belong more to the counter-culture than Hazell's population. In the physician groups, more professional couples were included. A detailed socioeconomic study on one of the lay midwife groups (the Sonoma County sample) is currently being coordinated by one of us (VEM), and a psychological/developmental outcome study on a subsample of the Santa Cruz group is being analyzed by two of us (LEM and CHP).

Table 1 (p. 77) presents statistics on the selection of the study population. Only 4% of those women who requested a home delivery were screened out for medical reasons (including premature labor, toxemia, and underlying systemic disease). This low percentage would seem to indicate that women seeking home deliveries are a self-selected healthy group, probably knowledgeable about childbirth, and the importance of nutrition in pregnancy. Nine women with previous fetal deaths were included in the homebirth sample. Previous obstetrical complications (with the exception of Cesarean section) were not used as screening criteria, since it was felt that these were, to some extent, iatrogenic.

11% of the women who considered home delivery decided against it for non-medical reasons. This was highest in the lay midwife groups and may have been related to a hesitation to deliver without physician backup. In the physician-directed services, a common reason cited for switching to a hospital birth was that Medicaid would cover only hospital deliveries.

TABLE 2  
CHARACTERISTICS OF MOTHERS

	Number	Percent	Calif 1973
Mother's Age:	1,146	100.0%	100.0%
< 20	60	5.2	17.3
20-34	1,068	93.2	77.6
≥ 35	18	1.6	5.1
Parity:	1,146	100.0%	100.0%
para 0	729	63.6	43.3
para 1	237	20.7	31.0
para 2	126	11.2	13.3
para 3	34	3.0	6.0
para ≥ 4	10	1.6	6.3
Prenatal Care Begon:	1,146	100.0%	100.0%
1st trimester	707	61.7	72.8
2nd trimester	362	31.6	20.2
3rd trimester	74	6.5	4.5
none	3	0.3	2.4*

\*Includes prenatal care unknown

Of the 1,146 women beginning labor at home with the intention of delivering there, 136 (11.9%) were sent to the hospital to complete their delivery for treatment of intrapartum (11%) or postpartum (0.9%) problems. 88% of the deliveries begun at home were completed there. Thus, of the initial set of women contacting the home delivery services, 75% successfully delivered at home.

Four surviving infants required hospitalization for other than phototherapy within 3 days of delivery; a fifth was born very prematurely in the hospital, and remained there for one month.

Table 2 (p. 78) presents characteristics of the mothers and compares them to California statistics for 1973. Over 90% were in the optimal childbearing age of 20-34 years, the average being 24.9 years. There was a high number (642) of primigravidae in this series, and a incidence of grand multiparity of less than 1%. Virtually all of the women were trained in childbirth classes such as Bradley or Lamaze. 1145 women attempted breastfeeding (i.e., all but 1 of the series of 1146 total) and at 6 months of age 1138 were successful (i.e., 99.5%). These women tended to begin prenatal care later than the California 1973 sample, perhaps because they felt more knowledgeable and therefore, less of a need.

TABLE 3  
CHARACTERISTICS OF PRESENTATION & DELIVERY

Presentations:	1,146	100.0%
Vertex	1,125	99.2%
Brow	(3)	(0.3%)
Shoulder	(3)	(0.3%)
Breech	21	1.8%
Deliveries:	1,146	100.0%
Cesarean	28	2.4%
Vaginal	1,118	97.6%
Analgesia only	(14)	(1.2%)
Anesthesia only	(3)	(0.3%)
Both	(6)	(0.5%)
None	(1,095)	(95.5%)
Oxytocin:		
1st & 2nd Stage Labor	85	7.4%
3rd Stage Labor	235	20.5%
Forceps:		
Low Forceps	11	1.0%
Mild Forceps	6	0.5%
Perineal lesions:		
Lacerations Requiring Repair	148	12.9%
Episiotomies	89	7.8%

Table 3 (above) presents statistics on the presentations and deliveries. Most of the deliveries were vertex presentations (98%). Of the 21 breech presentations (1.8%) 10 delivered successfully, by choice, at home, while 11 were taken to the hospital. The latter were all unexpected and with lay midwives.

1% of the women studied had low forceps deliveries, 0.5% had mild forceps deliveries, and 2.4% were delivered by primary Cesarean section. The California Cesarean section rate was 9.9% in 1973. If, as the Mayo Clinic found, half of the Cesarean sections are repeat, then California's primary section rate would approximate 50% (or double) the rate of this study.

Of the 1,146 homebirths of this study, only 8% had episiotomies and only another 13% had tears in need of repair; the lowest incidence of tearing was among lay midwives, only 5%, while it was 40% among the homebirths attended by physicians.

Lacerations requiring repair were lowest (4.4% and 5.7%) in the lay midwife groups and highest (40.2%) in the physician group with the shortest experience in performing hema deliveries without episiotomies. Similarly, episiotomies were much lower for the lay midwife groups than for the physician group.

TABLE 4  
INDICATIONS FOR THE 45 C-SECTIONS & FORCEPS DELIVERIES  
IN THE 1,146 WOMEN BEGINNING LABOR AT HOME

LOW FORCEPS DELIVERY	
Protracted descent	6
Arrest of descent	2
Dysfunctional labor	1
Brow presentation with arrest of descent	1
Fetal heart drop	1
<hr/>	
MID FORCEPS DELIVERY	
Protracted descent	3
Arrest of descent	1
Dysfunctional labor	1
Fetal heart drop, occiput posterior (OP) presentation	1
<hr/>	
6	
C-SECTIONS	
Cephalopelvic disproportion (CPD)	16
Failure to descend, OP presentation, relative CPD.	6
Arrest of active dilation, fetal heart drop, cord 4x neck	1
Prolapsed cord	1
Breech with amnionitis	1
Psychotic reaction to labor	1
Acutely dropping fetal heart tones	1
Toxemia	1
<hr/>	
28	

Analgesia and/or anesthesia were used in only 2% of the vaginal deliveries. During the first and second stage of labor, 38 women (or 3.3%) received buccal oxytocin at home, while 47 women (or 4.1%) received IV oxytocin in the hospital. Following completion of the third stage of labor, 146 mothers received oxytocics at home (given entirely by the physician group), 89 in the hospital. The mean length of first stage was 10.2 hours for primigravidae and 4.6 hours for multigravidae; second stage means were 118 and 45 minutes respectively. Table 4 (above) presents the indications for forceps deliveries and Cesarean sections in the women beginning labor at home. There were 23 C-sections for cephalopelvic disproportion, 1 for fetal distress, 1 for toxemia, 1 for amnionitis, and 1 for psychotic reaction to labor.

TABLE 5  
COMPLICATIONS OF LABOR & DELIVERY  
(INDIVIDUAL WOMEN MAY BE LISTED UNDER MORE THAN 1 COMPLICATION)

Complication	PRIMIGRAVIDAE (N=135/779-19.5%)		MULTIGRAVIDAE (N=72/417-18.7%)	
	Home	Hosp Total	Home	Hosp Total
<b>Intrapartum</b>				
Dystocia <sup>1</sup> 1st stage	27	34	12	14
Dystocia <sup>2</sup> 2nd stage	10	14	4	13
CPD	0	23	11	12
Mecconium stain, only	24	3	3	6
FHTs (C, S meconium)	6	13	7	7
Hypertension	3	6	0	7
Brow presentation	1	2	1	2
Shoulder dystocia	1	1	1	1
Polyhydramnios	0	2	0	2
Other <sup>3</sup>	1	10	1	3
<b>TOTALS</b>	<b>73</b>	<b>185</b>	<b>28</b>	<b>56</b>
<b>Postpartum</b>				
Hemorrhage <sup>4</sup>	1	3	1	5
Excessive PP Bleeding <sup>5</sup>	11	7	9	13
Retained Placenta	10	4	4	8
Endometritis	5	2	3	4
PP Depression	0	4	0	1
<b>TOTALS</b>	<b>31</b>	<b>23</b>	<b>11</b>	<b>31</b>

<sup>1</sup> Single cases of cephalopelvic disproportion (CPD).  
<sup>2</sup> Shoulder dystocia, oligohydramnios.

<sup>3</sup> Single cases of oligohydramnios, amnionitis, toxemia, prolapsed cord, thrombophlebitis, placenta previa, placenta abruptio, dehydration, urinary tract infection, 2nd trimester bleeding, and arrested labor.  
<sup>4</sup> Percent complications per 723 primigravidae, 417 multigravidae.  
<sup>5</sup> Dystocia is defined here as: prolonged or arrested 1st stage, failure to dilate, arrested 2nd stage, failure to dilate, arrested 3rd stage.

TABLE 7

REASONS FOR TRANSPORTATION TO THE HOSPITAL & THERAPY APPLIED

COMPLICATION & THERAPY	M.D.'s N=58 <sup>a</sup>	Midwives N=78 <sup>a</sup>	Stat. Sign.t
<u>1st Stage Complications</u>			
No prenatal care	1	0	NS
Dehydration-IV Hydration	0	1	NS
Severe Toxemia-Cesarean	0	1	NS
Prolonged rupture of membranes-Induction	0	4	p 0.01
Dystocia 1st stage (excluding CPD)			
Uterine inertia Oxytocin	7	19	p 0.001
Labor prolongation with FHT-			
Internal monitor & Oxytocin	1	0	NS
Arrest of Dilation			
Involving FHT & uterine inertia-			
Internal monitor & oxytocin	1	0	NS
Brow presentation-Oxytocin & low forceps	1	0	NS
Arrest & Uterine Inertia-Oxytocin & low forceps	0	2	NS
Arrest-CPD, Cesarean	10	7	NS
Arrest-FHT, nuchal cord x4, C-sec	1	0	NS
Hypertension-			
Ax'ed with magnesium sulfate	1	0	NS
Untreated	5	0	NS
Bleeding during labor-No treatment	1	0	NS
Ambionits-Antibiotics	1	0	NS
Fear, Desire for hospital	2	6	p 0.05
Desire for anesthesia-			
Anesthesia given	3	0	NS
Analgesia only	1	0	NS
Hypertension-IV's and compazine	1	0	NS
Dropping FHT's			
No therapy, monitor applied	0	4	p 0.001
Cesarean section	0	1	NS
Cord prolapse-Cesarean	0	1	NS
With meconium-Intubation	0	3	p 0.025
Psychotic reaction to labor-Cesarean	0	1	NS

<sup>a</sup> sums of complications

<sup>t</sup> based on total N's (605 & 461 respectively)

TABLE 7 CONT'D

REASONS FOR TRANSPORTATION TO THE HOSPITAL & THERAPY APPLIED

COMPLICATION & THERAPY	M.D.'s N=58 <sup>a</sup>	Midwives N=78 <sup>a</sup>	Stat. Sign.t
<u>2nd Stage Complications</u>			
Protracted descent-			
Ax'ed with low forceps (1 FHT)	4	2	NS
Ax'ed with mid forceps with FHT†	2	1	NS
Ax'ed with oxytocin	5	9	NS
Arrest			
CPD-Cesarean section	4	2	NS
Abnormal presentation-Mid forceps	1	1	NS
Brow presentation-Low forceps	0	1	NS
Dropping FHT's			
Low forceps	1	0	NS
With meconium-Oxytocin, intubation	0	2	NS
Mid forceps	1	0	NS
Bleeding-Oxytocin	0	1	NS
<u>3rd Stage Complications</u>			
Retained placenta-Manual removal	2	5	p<0.05
Hemorrhage-Oxytocin, methergine, blood	1	4	p<0.025
Cervical laceration-Suturing	0	1	NS

<sup>a</sup> sums of complications

<sup>t</sup> based on total N's (685 & 461 respectively)

PERINATAL OUTCOME

Six sets of twins were successfully delivered at home, bringing the total number of births to 1,152. There was no maternal mortality or residual morbidity. Infant morbidity is summarized in Table 8 (p. 85).

Fifteen infants, including two sets of twins, weighed less than 2501 grams at birth. Eleven of these were over 2350 grams. Fourteen of the low birthweight infants were born at home.

One 1332 gram infant was born in the hospital following second trimester bleeding and remained there for a month. Two of the smaller babies weighing 1700 and 2200 grams were admitted to the hospital with mild respiratory distress syndrome. All the low birth weight babies survived without other postnatal complications (the those mentioned above).

Three cases of failure-to-thrive were switched from breast to bottle feeding with successful results. The average length of infant follow-up was 11.5 months. Some children are still being followed now at 3 to 5 years of age. Over 80% were followed at least 6 months.

The 9 women with previous fetal deaths had no complications.

Finally, the causes of fetal and infant death are given in Table 10 (p 89). The perinatal mortality rate in this study is significantly over (than the 20%) factor for the State of California in 1973. California's fetal death rate in 1973 for white women, age 20-29, was .2 per 1000 total births compared to .5 in home birth series. Unfortunately there are no comparable neonatal rate available for this specific group.

There was no association in this series between length of first or second stage labor with the incidence of low Apgar 1 scores at birth or other complications. A great deal was wrongly associated with some lower Apgar scores, but this was also strongly associated with the use of forceps, and the total number of cases were too small to draw meaningful conclusions. There were 24 cases of prolonged rupture of membranes, but no resultant infections in the infants.

The average cost for home deliveries in this study exceeded services for other areas by for the home study. This was an all inclusive rate, covering prenatal care, home visits, postpartum and all necessary supplies. The average cost for total care in hospital delivery and 3 days hospitalization was \$1450. This latter figure does not include the additional fee for cesarean section.

PLANNED HOSPITAL COMPARISON GROUP

The planned hospital comparison was drawn from the records of the Point Reyes family practice and consisted of 180 deliveries. These women are from the same population pool and had many of the same attitudes as the women planning home delivery and would have been attended at home had they chosen this alternative. Women with complications of prenatal care obviating a home delivery who were delivered in the hospital were excluded from this sample.

For the hospital comparison group, 81,27 were followed at least six months. 127 of the infants and mothers were discharged at the end of two hours post-delivery. The hospital comparison group tended to be less from the counter-culture and were characterized by a more uniform middle class socioeconomic background, usually one or both parents a college graduate.

Table 1 (p 95) compared the statistics on the selection of the study population. The women in the primigravidae in the hospital group and fewer secondaries. The other differences are more significant. The external cause was not statistically different between groups.

As noted earlier, some mothers were medically screened in the home delivery group because of premature labor. There were such cases in this study. The total premature rate becomes 3.0% California the premature rate in 1973 for white women, age 20 was 5.3%.

The average Apgar scores were 8.9 at 1 and 7.7 at 5 minutes and were usually assessed by a nurse or lay midwife who did not see the infant. Fully infants (or 3.5%) born both at home and hospital had 1 minute Apgar scores of 4-6 and 7 infants (0.6%) minute Apgars of 3 or less and required resuscitation. (Drage et al. 1972) have found a 2% incidence of 1 minute Apgar scores below 7. Lack of drugs, such as prenatally and labor pain, may be also factors in these relatively high scores.

Two other surviving infants were admitted to the hospital during the first 3 days for repair of an omphalocele, and one of these the only unattended delivery with gross meconium staining and fetal distress, who was taken to the hospital within ten minutes of delivery, where intubation and surgery were not performed. The mother was part of the lay midwife staff. Table 9 (below) compares the perinatal outcomes.

TABLE 10 CAUSES OF PERINATAL DEATH

Age	Survival	Delivery	Complications	Pos. sur. rate	Stud. Rate	California Rate - 1973
1-3	1	None	None	None	None	None
4-6	1	None	None	None	None	None
7-10	1	None	None	None	None	None
11-15	1	None	None	None	None	None
16-20	1	None	None	None	None	None
21-25	1	None	None	None	None	None
26-30	1	None	None	None	None	None
31-35	1	None	None	None	None	None
36-40	1	None	None	None	None	None
41-45	1	None	None	None	None	None
46-50	1	None	None	None	None	None
51-55	1	None	None	None	None	None
56-60	1	None	None	None	None	None
61-65	1	None	None	None	None	None
66-70	1	None	None	None	None	None
71-75	1	None	None	None	None	None
76-80	1	None	None	None	None	None
81-85	1	None	None	None	None	None
86-90	1	None	None	None	None	None
91-95	1	None	None	None	None	None
96-100	1	None	None	None	None	None
Total	1147	5	6	11	1.32	6.45
<p>* Includes 6 sets of twins</p> <p>† Fetal or perinatal death rate based on 1000 total births</p> <p>‡ Neonatal death rate based on 1000 live births.</p> <p>Four infants (or 0.3%) were neurologically abnormal, at least 2 with cerebral palsy and 2 mentally retarded. This compares to the 1.7% incidence of neurologically abnormal infants found by the National Institute of Neurological Diseases. A fifth infant was slow, albeit consistent, in development and did not walk until 18 months.</p> <p>In addition to those listed in Table 9, there were 21 cases of jaundice requiring phototherapy. Only 1 was not already hospitalized when admitted, as parents were able to pick up their babies or preferably, grow lighter over babies at home.</p>						

TABLE 11  
CHARACTERISTICS OF MOTHERS

	Home		Hosp		Callif. 1973	Stat. Sign.
	Number	Percent	Number	Percent		
Mother's Age	1146	100.0%	180	100.0%	100.0%	NS
<20	60	5.2	12	6.7	17.3	NS
20-34	1642	93.2	160	89.9	72.6	NS
>35	18	1.6	6	3.4	5.1	NS
Parity	1146	100.0%	180	100.0%	100.0%	
para 0	777	63.6	133	73.9	43.3	p<.005
para 1	237	20.7	33	18.3	31.0	NS
para 2	129	11.2	9	5.0	13.3	p<.025
para 3	34	3.0	2	1.1	6.0	NS
para 4	18	1.6	1	0.6	6.3	NS
Prenatal Care Began	1146	100.0%	180	100.0%	100.0%	
1st Trimester	707	61.7	114	64.0	72.8	NS
2nd Trimester	362	31.6	63	35.4	20.2	NS
3rd Trimester	74	6.5	1	0.6	4.5	NS
None	3	0.3	0	0.0	2.4	NS

\* For home group: Mean age=24.9, Range=16-44, Variance=16.8, SD=4.1  
† Includes prenatal care unknown

Virtually all of the women in the planned hospital group were trained in childbirth classes (as were the home group) such as Bradley or Lamaze. A high incidence of breastfeeding also characterized the planned hospital group. All women in the planned hospital group attempted breastfeeding except for one. For a variety of reasons, two of these women were not successful.

## RESULTS

Statistics on the presentations and deliveries are compared in Table 12 (p. 91). The planned hospital group contained more breech infants, had more Cesarean deliveries, had more analgesia, received more oxytocin during first, second, and after third stage labor, and had more low and mid forceps deliveries and episiotomies. It is important to note that their attendants had the same philosophies as the home delivery attendants, so that these differences come as a result of being in the hospital and may relate to a lower motivation for the women to have natural childbirth or to a more readily available analgesia or to a feeling of pressure transmitted to the birth attendants to intervene sooner and more aggressively in the hospital than in the home. These may all be related to the subtle effects of "atmosphere" which are, as yet, difficult to measure. The indications given for forceps and Cesarean deliveries are compared in Table 13 (p. 92). The planned hospital group had more Cesarean sections, primarily related to CPD and have more low forceps deliveries, significantly more because of a falling fetal heart rate.

TABLE 12  
CHARACTERISTICS OF PRESENTATION & DELIVERY

	Home		Hosp		Stats. Signif.
	Number	Percent	Number	Percent	
Presentation	1146	100.0%	178	100.0%	
Vertex	1125	98.2	167	93.8	p<0.005
Brow	3	(0.3)	0	0.0	NS
Shoulder	3	(0.3)	1	0.6	NS
Breech	21	1.8	9	5.1	p<0.010
Delivery	1146	100.0%	178	100.0%	
Cesarean	28	2.4	10	5.6	p<0.025
Vaginal	1118	97.6	168	94.4	p<0.025
Analgesia only	14	(1.2)	9	(5.0)	p<0.025
Anesthesia only	3	(0.3)	3	(1.7)	NS
Both	6	(0.5)	1	(0.6)	NS
None	1095	(95.5)	154	(86.5)	p<0.001
Oxytocin					
1st & 2nd stage	85	7.4	29	15.3	p<0.001
3rd stage labor	235	20.5	54	30.3	p<0.005
Forceps					
Low forceps	11	1.0	7	3.9	p<0.001
Mid forceps	6	0.5	2	1.1	p<0.001
Perineal Lesions					
Lacerations req. repair	148	12.9	26	15.6	NS
Episiotomies	89	7.8	42	25.1	p<0.001

Table 14 (p. 93) presents the comparison complication figures for the planned hospital population, and compares these results with those obtained by the population delivering at home. The planned hospital group showed significantly more second stage labor dystocia (p<0.025), more drops of the fetal heart rate (p<0.005), more postpartum hemorrhage (p<0.001) and less "excessive bleeding" (defined as less than 650 cc's but more than the attendant is comfortable with) postpartum (p<0.001). The planned hospital population had significantly more forceps deliveries (p<0.001), episiotomies (p<0.001), Cesarean sections (p<0.025), and analgesia (p<0.001), and significantly less total unmedicated deliveries (p<0.001).

## RELATIVE PERINATAL OUTCOME

Table 15 (p. 94) compares the perinatal outcome data. The neonatal mortality and perinatal mortality results were not significantly different between the planned hospital group and the home delivery group, nor was the rate of low birthweight infants, or the mean length of infant follow-up. The hospital neonatal death rate was 5.5 per 1000 with 11.1 perinatal deaths per 1000.

TABLE 13  
INDICATIONS FOR C-SECTIONS AMONG JACOPEL DELIVERIES  
IN WOMEN BEGINNING LABOR AT HOME

	Home Number	Hosp Number
<b>Low Forceps Delivery</b>		
Protracted descent	6	0
Arrest of descent	2	3
Dysfunctional labor	1	0
Brow presentation with arrest of descent	1	0
Fetal heart drop	1	3
Bleeding during 2nd stage	0	1
	<u>11</u>	<u>7</u>
<b>Mid Forceps Delivery</b>		
Protracted descent	3	0
Arrest of descent	1	1
Dysfunctional labor	1	0
Fetal heart drop, occiput posterior (OP) pres.	1	0
FHT, amnionitis, maternal hypertension	0	1
	<u>6</u>	<u>2</u>
<b>C-Sections</b>		
Cephalopelvic disproportion (CPD)	16	7
Failure to descent, OP presentation, rel. PD	6	0
Arrest of active dilation, FHT, cord in neck	1	0
Prolapsed cord	1	(1)
Breech with amnionitis	1	0
Psychotic reaction to labor	1	0
Acutely dropping fetal heart tones	1	0
Toxemia	1	0
Breech with low breech score, poor labor progress	0	1
Transverse lie with one prolapsed cord	(1)	2
	<u>28</u>	<u>10</u>

TABLE 14  
COMPLICATIONS OF LABOR & DELIVERY (HOSPITAL GROUP)  
(INDIVIDUAL WOMEN MAY BE LISTED UNDER MORE THAN 1 COMPLICATION)

Complication	PRIMIGRAVIDAE (N=52/111-19, 12)		MULTIGRAVIDAE (N=10/45-22, 22)	
	Hosp	Percent	Hosp	Percent
<b>Intrapartum</b>				
Dystocia 1st stage	15	11.3	2	4.4
Dystocia 2nd stage	10	7.5	1	2.2
CPD	7	5.3	1	2.2
Macronium stain only	4	3.0	1	2.2
FHT (C.S. recurrent)	10	7.5	2	4.4
Hypertension	2	1.5	1	2.2
Precipitous labor	2	1.5	1	2.2
Others	6	4.5	1	2.2
<b>TOTAL</b>	<u>56</u>		<u>13</u>	
<b>Postpartum</b>				
Hemorrhage	5	3.8	0	0
Excessive PP bleeding	2	1.5	1	2.2
Retained placenta	2	1.5	1	2.2
Endometritis	3	2.3	1	2.2
PP Depression	1	0.8	1	2.2
<b>TOTAL</b>	<u>13</u>		<u>3</u>	
<b>Complication</b>		<b>Stats. Sign.</b>		<b>Stats. Sign.</b>
Intrapartum				
Dystocia 1st stage		MS		MS
Dystocia 2nd stage		p<0.025		MS
CPD		MS		MS
Macronium stain only		MS		MS
FHT (C.S. recurrent)		p<0.005		MS
Hypertension		MS		MS
Precipitous labor		MS		MS
Others		MS		MS
Postpartum				
Hemorrhage		p<0.001		MS
Excessive PP bleeding		p<0.001		MS
Retained placenta		MS		MS
Endometritis		MS		MS
PP Depression		MS		MS

1 single cases of amnionitis, amniotic presentation, cord prolapse, cord knif, recurrent pyelonephritis.  
 2 transverse lie.  
 3 compared with Table 5 on page 81.  
 4 Percent complications per 100 primigravidae, 15 nulligravidae.  
 5 Dystocia as used in this table is defined as:

TABLE 15  
COMPARATIVE PERINATAL OUTCOME

	Home		Hosp		Calif. 1973	Stat. Sign.
	Number	Rate	Number	Rate		
Total Births	1152 <sup>a</sup>		180 <sup>†</sup>			
Live Births	1147 <sup>a</sup>		180 <sup>†</sup>			
Fetal Deaths	5	4.30	1	5.5 <sup>b</sup>	2.23 <sup>Y</sup>	NS
Neonatal Deaths	6	5.28	1	5.5 <sup>b</sup>	10.33	NS
Total Perinatal Deaths	11	9.57	2	11.1 <sup>b</sup>	20.33	NS
Low Birthweight (<2501 g)	15	1.3 <sup>b</sup>	3	1.7 <sup>b</sup>	5.35 <sup>Y</sup>	NS
Mean Length of Infant Follow-up	11.5 mos.		11.6 mos.			NS
S.D. Length of Follow-up	10.3 mos.		10.4 mos.			NS
% Infants Followed to 6 mos.	83.4%		81.2%			NS

<sup>a</sup> Includes 6 sets of twins.  
<sup>†</sup> Includes 2 sets of twins.  
<sup>b</sup> 1 per 1000 total births  
<sup>c</sup> 1 per 1000 live births  
<sup>Y</sup> for white, non-Spanish surname, age 20-29

Table 16 (p. 95) presents infant morbidity for the hospital group. Table 17 (pp. 96-97) compares neonatal complications. The planned hospital group had significantly more fetal hypoxia ( $p < 0.025$ ) and significantly more 1 minute Apgar scores less than 4 ( $p < 0.025$ ). Among the homebirth series, the midwives had more infants who received phototherapy for jaundice than did the physicians ( $p < 0.025$ ). Causes of fetal deaths are compared in Table 18 (p. 98).

The prematurity rate for the population initially seeking assistance from one of the services studied was 3.0%. For the planned hospital population it was 2.8%. There was no significant differences between 1 minute Apgar scores ranging from 4-6 between the homebirth group and the planned hospital group with 40 & 7 such ratings, respectively. Average Apgar scores for the planned hospital group were 8.5 at 1 minute and 9.7 which were not significantly different from the homebirth group.

There was no association among the hospital group either between length of labor and length of second stage of incidence of low Apgar scores at birth or other complications.

TABLE 16  
INFANT MORBIDITY OF PLANNED HOSPITAL GROUP<sup>a</sup>

Complication	Number	Rate per 1,000 LS	Delivery	Complications	Outcome
Low Birthweight	3	16.6	Hosp		
Case one	1		Hosp	MI <sup>b</sup> prior to del.	neonatal sepsis and arnionitis
Case two	1		Hosp	None	mild RDS
Case three	1		Hosp	None	mild RDS
Hyperviscosity syndrome	1	5.5	Hosp	None	resolved

<sup>a</sup> To compare these data with the homebirth group, see Table 8, p. 26.

The mean length of 1st stage labor among the group planning hospital birth was 12.5 hrs for primigravidae and 5.4 hrs for multigravidae. For the home group it was 10.3 hrs and 4.6 hrs respectively. Standard deviations were 2.1 and 1.3 hrs, respectively, for planned hospital group and 1.9 and 1.2 hrs, respectively, for planned home group. This difference was significant at  $p < 0.05$ .

The mean length of 2nd stage labor for the planned hospital primigravidae was 106.8 min  $\pm$  31.0 min and for multigravidae was 50.1 min  $\pm$  28.3 min. For the home series, the mean length of 2nd stage was 118.2 min  $\pm$  40.5 min for primigravidae and 44.6 min  $\pm$  23.7 min for multigravidae. The primigravidae differences were significant at  $p < 0.05$ . Multigravidae were not comparable for parity and could not be compared.

There were 14 cases of prolonged rupture of membranes in the homebirth series and 11 in the planned hospital series (p 0.01). There were no infections of the infants except for one low birthweight infant whose mother developed amionitis. She was in the planned hospital series.

TABLE 17  
COMPARATIVE NEONATAL OUTCOMES

COMPLICATIONS	HOME PRIMI GRAVIDAE N=229				STATIS. SIGNIF. 1
	M.D.'s N=94		Midwives N=265		
	Home	To Hosp	Home	To Hosp	
Jaundice Req. Ax	1	5	2	9	p<0.025
Fetal Hypoxia	2	0	0	0	NS
Neurological Abnormalities <sup>2,3</sup>	2	1	0	1	NS
Cerebral Palsy	1	0	0	1	NS
Neonatal FTT	1	1	0	1	NS
Apgar (1 min.) Score < 4	3	0	1	1	NS
Score = 4-6	12	7	5	3	NS

COMPLICATIONS	HOME MULTI GRAVIDAE N=417				STATIS. SIGNIF. 1
	M.D.'s N=221		Midwives N=195		
	Home	To Hosp	Home	To Hosp	
Jaundice Req. Ax	2	1	0	1	NS
Fetal Hypoxia	0	1	0	0	NS
Neurological Abnormalities <sup>2,3</sup>	0	0	0	1	NS
Cerebral Palsy	0	0	0	0	NS
Neonatal FTT	0	0	0	0	NS
Apgar (1 min.) Score < 4	0	1	0	1	NS
Score = 4-6	2	4	2	5	NS

COMPLICATIONS	HOME TOTAL N=1146				STATIS. SIGNIF. 1
	M.D.'s N=221		Midwives N=461		
	Home	To Hosp	Home	To Hosp	
Jaundice Req. Ax	3	6	2	10	p<0.025
Fetal Hypoxia	2	1	0	0	NS
Neurological Abnormalities <sup>2,3</sup>	2	1	0	2	NS
Cerebral Palsy	1	0	0	1	NS
Neonatal FTT	1	1	0	1	NS
Apgar (1 min.) Score < 4	3	1	1	2	NS
Score = 4-6	14	11	7	8	NS

Cont'd on next page

TABLE 17 CONT'D  
COMPARATIVE NEONATAL OUTCOMES

COMPLICATIONS	PLANNED	STATIS. SIGNIF. 1
Jaundice Req. Ax	3	NS
Fetal Hypoxia	3	p<0.025
Neurological Abnormalities <sup>2,3</sup>	0	NS
Cerebral Palsy	0	NS
Neonatal FTT	1	NS
Apgar (1 min.) Score < 4	6	p<0.025
Score = 4-6	7	NS

1 Calculated on the basis of home & hospital  
2 Includes cerebral palsied infants  
3 Development at 1 year follow-up

CONCLUSION

In conclusion, the home delivery group of women were a self-selected group screened for obvious problems and complications occurring during pregnancy, while the hospital group is a similarly selected group who would have been eligible for a home delivery had they decided to have one. While the home delivery outcomes are not directly comparable to State statistics, their outcomes are better than average and lower than might have been expected. Behrman et al.<sup>2</sup> have studied 39,000 white middle-class women in Oregon receiving prenatal care from private physicians and found a neonatal mortality rate of 12 per 1000 live births and a perinatal mortality rate of 17 per 1000 total births. Interestingly enough, if one eliminates premature infants from Behrman's series, the neonatal death rate was 5.5 per 1000 and the perinatal death rate was 7.5 per 1000 which is not statistically significantly different from the home delivery series of this report (cf. Table 15, p. 94).

Another often asked question is that of the need for routine fetal monitoring. Chan et al.<sup>6</sup> have studied the role of fetal monitoring in reducing intrapartum deaths and in a study in which patients were randomly assigned to fetal monitoring, there was no statistically significant difference between the monitored group and the non-monitored group. Also important is that Chan's study revealed an intrapartum death rate of 1.7 per 1000 in his 1162 monitored patients. This is not statistically significantly different from the intrapartum death rate of 0.95 per 1000 in our series of 1146 home deliveries. In another study, Shenker et al.<sup>13</sup> reported a 0.5 per 1000 intrapartum death rate in monitored patients. This is not statistically significantly different from our series either.

TABLE 10  
CAUSES OF PERINATAL DEATH IN PLANNED HOSPITAL GROUP\*

Age At Death	Number	Delivery	Complications	Cause of Death
During labor	1	Hosp	Rapidly + FHT	Meningoencephalitis, etiology unknown
8 days	1	Hosp	None	Aplastic left ventricle

\* To compare these data with the homebirth group, see Table 10, p. 89

Shenker et al,<sup>13</sup> did, however, show a significant decrease in intrapartum deaths in the monitored series versus the unmonitored series in Bellevue Hospital in New York City. Clearly, the nursing care in Bellevue Hospital is not adequate, which brings us to recent studies from the West Coast showing an equivalent success rate of nurses versus fetal monitor, but with less infections reported with the nurses. It is not hard to imagine which was the more supportive personal care.

Other important points can be made. The perineal massage technique used by the midwives to aid in preventing vaginal lacerations during delivery was effective, and, as the physicians adopted this technique, their laceration rate decreased. The higher utilization of oxytocin after delivery by the physicians may have reflected its availability to them and their training to use it frequently. The equivalence of hemorrhage and blood loss results between the physician and midwife group suggests that it was not needed as frequently assumed. The lay midwives took women to the hospital more frequently than the physicians, presumably reflecting their decreased capabilities to handle specific complications at home and their lower threshold level for going to the hospital possibly related to a lower level of knowledge. The physicians were able to treat some of their cases of uterine inertia with buccal oxytocin at home, and removed several retained placenta at home, as well as carrying oxytocin and methergine to treat third stage bleeding at home. The greater number of FHT problems brought to the hospital by the midwives may reflect their greater level of anxiety in dealing with and desire for transporting abnormal situations to the hospital early.

Comparisons with the planned hospital group suggests that for women delivering at home with the philosophies and practices of this particular group of practitioners, there was no significant increase in risk with a home delivery versus a hospital delivery. In fact, by avoidance of obstetrical medication, such as was used more frequently in the hospital by equivalently prepared women (presumably because of the effect of the hospital atmosphere on the encouragement for obstetrical medication); the incidence of low Apgar scores was less at home as was the incidence of fetal hypoxia.

The greater use of analgesia in labor by the planned hospital group may have also contributed to their greater incidence of second stage dystocia and greater incidence of fetal heart-rate drops. The breech infants did not contribute to these problems. The incidence of postpartum hemorrhage was greater in the planned hospital group and may represent the greater tendency to pull on the umbilical cord to aid in the delivery of the placenta. At home, the umbilical cord was rarely pulled to aid placental delivery, but rather, the natural expulsive forces of the uterus were relied upon. This is substantiated by the longer third stages seen in the home group. The contribution of other factors such as lower stress in the home environment, alternative delivery positions, and the like cannot be assessed in a study such as this, but may be significant.

Of note, as well, are the close similarity of these findings to the home delivery statistics in the Netherlands (personal communication, Jan Kloosterman, MD, University of Amsterdam) and to home delivery statistics compiled by Gregory White, MD,<sup>12</sup> in Chicago, and by Victor Berman, MD,<sup>3</sup> in Los Angeles.

Generally, the response of physicians to home delivery has been negative. Many view homebirth as an irresponsible risk to mother and child. They do not encourage or attend home deliveries, and many have refused to give prenatal care, advice, or instruction to couples planning homebirth. A dichotomy exists in obstetrics today between the technological trend represented by high risk obstetric units with fetal monitoring and readily available medical and surgical intervention, and the family-centered, natural childbirth trend represented in its extreme by couples planning home delivery without medical support. We feel that reducing the antagonism between these divergent poles would enhance care for women choosing hospital as well as home deliveries.

More studies of this kind are needed before any conclusions can be drawn. We are currently engaged in a study in which we are attempting to match a comparison hospital group. However, evidence from this study population already strongly suggests that home delivery is a safe alternative for medically screened healthy women; they deserve adequate care for the delivery of their choice. This would include prenatal care by a physician, childbirth education, and only necessary intervention by attendants. Hospitals should be encouraged to adopt those techniques of homebirth that improve pregnancy outcome, which might include perineal massage and gentle head delivery to avoid episiotomies and lacerations, choice of the use of analgesia and anesthesia, and generally provide a supportive, friendly, and comfortable environment for labor and delivery.

Finally, what these statistics have missed is the importance of the spiritual and the emotional aspects of birth. Someday, perhaps, we will be able to empirically validate what our feelings tell us is true.

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child care of the American Academy of Pediatrics were observed. Midwives referred infants for newborn care after the first week to pediatricians or family physicians, and continued to follow the infants themselves for varying periods of time. All mothers had a postpartum examination from 4-6 weeks by a physician, and for the lay midwives, results of this examination were recorded in their records.

## STUDY POPULATION

Hazell<sup>8</sup> has described the demographic characteristics of the homebirth population in the San Francisco Bay Area in a study of 300 home deliveries from the socioanthropological standpoint. Her subjects overlapped to some extent with our sample and were derived from the same subject pool--San Francisco Bay Area couples planning homebirth.

TABLE 1  
HOME DELIVERY STUDY POPULATION

Contacted Home Delivery Service:	1,349	100.0%
Screened Out, Medical Dx	55	4.1%
Decided Against	147	10.9%
Attempted Home Delivery:	1,146	85.2%
Physicians	625	59.2%
Midwives	451	40.2%
Taken to Hospital:	136	11.9%
Physicians	58	5.1%
Midwives	75	6.5%
Completed Home Delivery	1,010	74.9%

\* Patients hospitalized represented 8.5% of physicians' cases, 16.9% of midwives' cases.

In Hazell's study, 90% lived in typical American fashion, with the father gainfully employed, in a single family dwelling with one or two cars, were not members of an ethnic minority, not on welfare, and without household servants. A general characteristic of the group was described as a self awareness shown in a concern for nutrition, health foods, ecology, humanistic psychology, and a strong feeling for a natural birth process. Typically, the mother and father had both attended college, but neither had graduated. The fathers' occupations were noted to vary through the range of occupations present in the Bay Area, from auto mechanic to physician to homesteader. Only one tenth were classified as "hip," in rebellion to "normal American values," living in a variety of alternative styles.

In our study, patients of the lay midwives tended to belong more to the counter-culture than Hazell's population. In the physician groups, more professional couples were included. A detailed socioeconomic study on one of the lay midwife groups (the Sonoma County sample) is currently being coordinated by one of us (LHM), and a psychological/developmental outcome study on a sub-sample of the Santa Cruz group is being analyzed by two of us (LEM and GHP).

747 file

Re: Midwifery

Supports bill -  
will send written testimony -

Patrick Durkin  
SRA BOX 8705  
Indian AK.  
99540

cannot attend  
Friday's meeting -

For Charles  

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HOME BIRTH VERSUS HOSPITAL BIRTH:  
COMPARISONS OF OUTCOMES OF MATCHED POPULATIONS<sup>1</sup>

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1. Presented at the annual meeting of the American Public Health Association, Miami, Florida, Oct. 20, 1976.

## Abstract

1046 matched home and hospital deliveries are compared with regard to the frequency of obstetrical procedures utilized, incidence of maternal and neonatal complications, and morbidity and mortality. Each home delivery is matched with a hospital delivery with respect to age, parity, length of gestation, major risk factors, and total risk factor score on the Nova Scotia risk factor screening criteria. Educational and socioeconomic factors are matched so that the hospital population is equally or better educated than the home birth population and of equal or higher socioeconomic class. Home deliveries were collected from six home delivery services in northern California. Hospital deliveries were collected from two community hospitals in Madison, Wisconsin. Results show no significant differences in neonatal and perinatal mortality, number of neurologically abnormal infants, incidence of low birth weight infants, and cases of neonatal infection. There were more neonatal infections and more infants requiring resuscitation in the hospital group. The general equivalence of results are discussed as indicating that pre-selected women may labor and deliver at home in the United States without significant additional risk, and at a lower cost than hospital delivery.

## Key Words

Home Birth

Midwife

Obstetric anesthesia

Birth injury

Neonatal infection

Neonatal resuscitation

A continuing trend toward home delivery has been noted recently across many segments of the American population (Hazell, 1975; Ward and Ward, 1976; <sup>Arms</sup> ~~Arms~~, 1975). Much of the impetus for home delivery has been derived from consumer rather than professional initiative. Medical reaction to this trend has been largely negative and based on the contention that home deliveries present unacceptable medical risk to mothers and infants. It has been contended that the technological advances of recent years make hospital delivery mandatory (Cox, 1976). Yet, in the Netherlands, a medically sophisticated technologically advanced country, more than two thirds of all deliveries occur at home with morbidity and mortality statistics that may be favorably compared with those of any nation in the world (Klosterman, 1968, 1975). In Cardiff, Wales, recent data suggests that a change in the past decade from largely home to largely hospital delivered babies has had essentially no effect on maternal or neonatal outcome (Chalmers, 1976a, b). Given the psycho-social advantages proposed by advocates of home delivery (Ward and Ward, 1976) and the data from the Netherlands in home delivery outcome, is it possible that under some conditions home delivery may be a reasonable alternative in the United States? Several recent reports have indicated low levels of complications associated with home delivery in the United States (Mehl, et. al., 1975; Brew, 1976). These reports, however, have not included comparison populations who are delivered in hospitals. In order to more appropriately assess the relative safety of home deliveries when compared to hospital deliveries it is necessary to compare the home delivered

population to a hospital delivered population of equivalent age, parity, socioeconomic status, and prenatal medical condition.

In this study, we present a comparison study of 1046 home deliveries with 1046 hospital deliveries, matched for age, risk factors, gestational length, parity, education, and socioeconomic status. This data provides needed information for the assessment of the safety and appropriateness of home delivery for selected patients.

Methods

The methods of data collection for the home birth series have been described elsewhere (Mehl, 1976) and consisted of chart reviews of 6 home delivery services in northern California and one in Madison, Wisconsin. We found all of the medical charts - both home and hospital - to be complete and of a similar quality of observation. Diagnostic criteria used were ours and were based on those defined by Friedman and Greenhill (1974). From reviewing the records and discussing them with all the practitioners concerned, it was our impression that practices in observing, diagnosing and recording clinical findings were not different among all the groups studied. This does not, of course, obviate the problem of retrospective chart review and the disadvantage of this technique, but indicates that the disadvantages were uniformly distributed. Statistics regarding the hospital deliveries were collected by chart review at two hospitals in Madison, Wisconsin, a largely upper middle class community with a median income of \$16,000 per annum and from one of the home birth practices in northern California. Both were private

community hospitals, both University affiliated, both performing approximately 2000 deliveries yearly, one with a regional neonatal intensive care unit and the other with a regional maternal intensive care unit and a developing regional neonatal intensive care unit. Both were staffed by neonatologists and University pediatric and obstetrical faculty and residents as well as private physicians. One hospital's obstetrical services were also staffed by University family practice residents. 90% of the hospital deliveries were from Wisconsin; 10% from northern California.

Risk factors were grouped according to the Nova Scotia Risk Factor Screening Criteria, and for each home delivered patient, a hospital delivered patient was matched for age, length of gestation, parity, risk factor score, education and socioeconomic status, race, presentation, and individual major risk factors (including 1st, 2nd, and 3rd trimester bleeding, rupture of membranes exceeding 24 hours without labor, multiple gestation, hypertension, signs of pre-eclampsia, pre-existing maternal disease, abnormal glucose tolerance tests, and the like. The risk score for each home and hospital delivered pair were equated for the time of onset of labor.

The home delivery sample included all those women planning to deliver at home immediately prior to the initiation of labor, rupture of membranes, or emergence of a complication necessitating immediate hospitalization and delivery. All cases transferred to the hospital during or after labor or meeting the above criteria are included. For the home birth group, of all the women contacting the home delivery services, 4% were screened out for medical reasons. More

may have been screened out through telephone conversations which would not have appeared in the medical records.

The characteristics, philosophies, and methods of practice of the home delivery attendants are summarized elsewhere (Mehl, 1975, 1976; Eisenstein, 1976; Ettner, 1976; Epstein, et. al., 1976; Mills, 1976; Lang, 1972). Review of these sources will reveal that an inextricable complicating variable in this study is the mode and philosophy of practice of the attendants. The home birth practitioners were predominantly non-interventionist and had a high threshold for intervention than did the hospital practitioners.

Educational attainment and socio-economic status were matched so that the hospital group had the same educational and/or socio-economic level as the home birth group or higher. Mean maternal age was 25.2 years. 96% of the women were between the ages of 20 and 35. 22% were less than 20 and 1.8% were older than 35. 57.7% were primigravida, 24.3% were para 1, 10.4% were para 2, 2.2% were para 3, 0.9% were para 4, 0.4% were para 5, and 0.1% were para 6. The mean years of education for the home birth group was 13.5 years compared to 14.6 years for the hospital group. All were Caucasian women. Data for each group are presented up to 4 days of age, the time of hospital discharge. Follow-up data on home birth up to a mean of 11.5 months was available on all the home cases but not the hospital births. This is presented in Mehl (1976). 97.7% of the deliveries were vertex with 2.3% breech and other presentations. There were five sets of twins. 74.9% of the hospital deliveries were obstetrician attended; 25.1% were family physician attended.

<sup>1</sup> They were matched so that each woman in the hospital group was as educated or more so than her counterpart in the

For the home deliveries, 66.5% were family physician attended; 30.8% lay midwife attended; and 2.7% nurse-midwife attended. The average risk factor score was 1.6% and 9.2% of each group was high risk by the Nova Scotia criteria (We felt this was artificially high.).

### Results

Table 1 presents a summary of the procedure utilized during the deliveries of each of the two groups. The hospital practitioners used significantly more oxytocin, both before and after delivery. In home births buccal oxytocin was <sup>occasionally</sup> administered ~~if no results were forthcoming~~ <sup>for uterine inertia,</sup> whereas in the hospital, women were given intravenous oxytocin. Many more forceps deliveries were performed by the hospital practitioners, as well as more Cesarean sections. Despite a nine-fold greater incidence of episiotomies, hospital delivered women sustained significantly more third and fourth degree and cervical lacerations, Analgesia and anesthesia were also used much more frequently in hospitals (with the exception of caudal anesthesia (Analgesia, anesthesia, and forceps deliveries were only given or performed after transport to the hospital for the home birth group.) The incidence of manual removal of the placenta was the same in both groups. Indications for procedures were derived from review of charts.

Table 2 presents the indications for oxytocin for the two groups. The differences were seen to emerge from greater use of oxytocin in the hospital group for rupture of membranes without labor, first stage uterine inertia, and for elective induction. More oxytocin was used in the home group for second stage uterine

2. All of the women had had childbearing prior to this.

inertia than in the hospital group. Typically, the home birth group waited longer, occasionally longer than 24 hours, before the initiation of oxytocin therapy.

Table 3 presents the indications for forceps deliveries for the two groups. The majority of the hospital practitioners used the criterion of a second stage of labor longer than one hour as an indication for forceps delivery. The home practitioners typically accepted any length of second stage as long as some progress was evident and there were no signs of fetal distress. This difference in approach is reflected in the greater number of forceps deliveries in the hospital for "prolonged second stage." The hospital practitioners used occiput posterior as an indication for forceps rotation and did not permit any patient to deliver OP, whereas the home birth practitioners did not intervene in the OP labor and deliveries unless signs of labor arrest or fetal distress were present. This is reflected in the higher number of mid forceps rotations in the hospital group. The two groups of practitioners also defined the same type of forceps delivery by different terms. For the home group, a low forceps delivery was equivalent to a hospital practitioners outlet forceps delivery and a mid forceps delivery was equivalent to a low forceps delivery. The home birth practitioners definitions for forceps deliveries were the same as Friedman and Greenhill (1974). There were also significantly more forceps deliveries in the hospital group for fetal distress.

Table 4 presents the indications given for Cesarean sections for both groups. The hospital group did many more Cesarean sections

for 1st stage arrest, cephalopelvic disproportion, and/or non-progressive labor than did the home birth practitioners, and did more Cesarean sections for primi-gravida breech presentations and for fetal distress. The home birth practitioners delivered breech infants in the home if the parents continued to request home delivery after risks had been explained and if the Zatuchni-Andros score indicated vaginal delivery. From the table, it is also evident that the indications for Cesarean section were more liberal for the hospital group than for the home group.

Some significant differences in labor length emerged in that for para 0 and 1, length of first and second stages were significantly longer for women delivering at home (See Table 5).

Figure 1 presents significant differences in complications of labor and delivery for the two groups. The hospital group had significantly more intra-uterine fetal distress, elevated blood pressure during labor (from a non-elevated pre-labor baseline), meconium staining, and reported shoulder dystocia. The home group had more bleeding during labor and posterior deliveries. The hospital group had significantly more postpartum hemorrhage. There were no statistically significant differences in the incidence of face deliveries, first or second stage dystocia (excluding CPD), occult cord prolapse, placenta previa, abruptio placenta, cord prolapse, posterior labor, retained placental fragments, late Dilation and Curettage after one week, hemorrhage from day 1 to day 3, hemorrhage after day 3, endometritis, vilamentous insertion of the cord, and postpartum thrombophlebitis.

Figure 2 presents statistically significant differences in the incidence of neonatal complications. The hospital group experienced significantly more birth injuries, received significantly more oxygen at 2, 3, 4, and 5 or more minutes, more respiratory distress lasting 12 hours or more among full term infants, and more total non-congenital neonatal complications. There were no significant differences in the incidence of total number of congenital anomalies, congenital heart disease, Down's syndrome, fetal wasting, hypoglycemia, metabolic acidosis, neonatal hypotension, neonatal hypovolemic shock, individual neonatal infections, meconium aspiration, pneumonitis, amniotic fluid aspiration pneumonitis, pyloric stenosis, polycythemia, lung water syndrome, ITP, and <sup>Cyc</sup> cystic fibrosis with meconium ileus. From Table 5, it is evident that the hospital group neonates were given more resuscitation, and had lower one minute and five minute Apgar scores than the home group. There was no significant difference in the incidence of fetal, intrapartum, or neonatal deaths, or in the incidence of neurologically abnormal infants. Birth injuries included cephalhematomas resulting in severe anemia requiring transfusion or hyperbilirubinemia requiring exchange transfusion, fractured clavicle, brachial plexus injuries, facial nerve paralyzes, skull fractures, and hemopneumothorax.

#### Discussion

Given two puerpally matched populations, outcome differences should accrue from the events occurring during labor and delivery. The data presented here indicate that for the home delivery population described, a group selected for low medical risk and attended

by midwife or physician, one may expect an outcome for baby and mother essentially as good as the resulting from a medically matched population delivery in community hospitals delivering high standards of medical care. The significant differences noted in the management of the women indicate that those hospital delivered are more likely to encounter oxytocin augmentation of labor, forceps delivery, analgesia, anesthesia, and Cesarean section. Recall that both groups of women were matched for identical medical risk factors prior to labor. In addition, incidence of neonatal infection was higher for hospital deliveries. The incidence of maternal infection was not significantly different for the two groups.

In this group of more than 1000 cases, it is not clear that the additional medical and obstetrical procedures rendered in hospital resulted in improved group outcome over the home delivered group. It therefore seems appropriate to conclude that for low medical risk women, home delivery is an alternative that cannot be dismissed as contraindicated because of unacceptable high risk to maternal and infant health. This data, of course, does not apply to home deliveries in a medically unselected population, nor to home deliveries unattended by midwife or physician.

The results are, of course, limited by the limitations of the case-control method and the method of retrospective chart review. More definitive studies are needed, such as prospective studies by non-clinically involved individuals including practitioners doing both home and hospital deliveries and with controls for obstetrical practice philosophy, nutrition, and others, with all of the deliver

occurring in the same geographical area. Such a study should also include uniform examination and evaluation of the neonate by an independent examiner blind to the place of delivery.

From these results, it would seem reasonable and prudent to plan pilot projects in out-of-hospital deliveries or in changing hospital policy to create a more home-like environment and in evaluating them as discussed above. It would also seem of importance to identify the specific aspects of the hospital environment which increase risk to mothers and infants and eliminate these aspects of hospital deliveries.

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TABLE 1

## Procedures Utilized

	<u>Home</u>		<u>Hospital</u>		<u>Stat. s</u>
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	
1st stage oxytocin	69	6.6	159	15.2	<0.000
2nd stage oxytocin	38	3.6	159	15.2	<0.000
Total prepartum cases	76	7.3	173	16.5	<0.000
3rd stage oxytocin	251	24.0	993	95.0	<0.000
Mid (low) forceps	10	0.9	205	19.6	<0.000
Low (outlet) forceps	3	0.3	115	11.0	<0.000
Mid forceps rotations	3	0.3	40	3.8	<0.001
Manual rotations	0	0.0	5	0.5	NS
Cesarean Sections	28	2.7	86	8.2	<0.05
Episiotomy	103	9.8	914	87.4	<0.000
1st degree lacerations	13	1.7	18	1.7	NS
2nd degree lacerations	136	13.0	56	5.4	<0.000
3rd degree lacerations	8	0.7	44	4.3	<0.001
4th degree lacerations	5	0.5	73	7.0	<0.000
Cervical lacerations	3	0.3	32	3.2	<0.000
Pudendal anesthesia	0	0.0	655	62.6	<0.000
General anesthesia	2	0.2	96	9.2	<0.000
Paracervical block	1	0.1	52	5.0	<0.000
Manual removal of placenta	15	1.4	15	1.4	NS
Analgesia	14	1.3	555	53.1	<0.000
Caudal anesthesia	32	3.0	0	0.0	<0.000

TABLE 2

## Indications for Oxytocin

<u>Indication</u>	<u>Home</u> <u>Number</u>	<u>Hospital</u> <u>Number</u>	<u>Stat. Sig.</u>
Rupture of membranes without labor	6	56	p < 0.0001
1st stage uterine inertia	44	79	p < 0.025
Protracted descent, OP pres.	0	4	NS
Elective induction	0	22	p < 0.005
2nd stage uterine inertia	19	8	p < 0.05
Partial abortion	0	1	NS
Elevation blood pressure	0	1	NS
Baby died in early labor	0	1	NS

TABLE 3

## Indications for Forceps

<u>Indication</u>	<u>Home</u> <u>Number</u>	<u>Hospital</u> <u>Number</u>	<u>Stat. Sig.</u>
<b>Low Forceps</b>			
Arrest of descent	2	0	NS
Elective		42	p < 0.0001
Prolonged 2nd stage and/or protracted descent	1	54	p < 0.0001
Fetal distress	0	18	p < 0.005
Piper forceps to ACH	0	1	NS
<b>Mid Forceps</b>			
Elective	0	63	p < 0.0001
Prolonged 2nd stage and/or protracted descent	4	86	p < 0.0001
Fetal distress	4	53	p < 0.0001
2nd stage arrest	2	0	NS
Bleeding	0	1	NS
Meconium staining	0	1	NS
Perineal dystocia	0	1	NS
<b>Mid Forceps Rotation</b>			
Elective, OP	0	30	p < 0.0001
Elective, OT	0	3	NS
2nd stage arrest	0	1	NS
Prolonged 2nd stage and/or protracted descent	2	2	NS
Fetal distress	1	4	NS
<b>Manual Rotation</b>			
Elective	0	1	NS
Fetal distress	1	2	NS

TABLE 4

## Indications for Cesarean Sections

<u>Indication</u>	<u>Home</u> <u>Number</u>	<u>Hospital</u> <u>Number</u>	<u>Stat. Sig</u>
Hypertonic labor (after oxytocin)	0	3	NS
Hypotonic labor, no response to oxytocin	0	1	NS
Vaginal obstruction by paraovarian cyst	0	1	NS
History of previous difficult forceps	0	1	NS
2nd stage arrest, CPD	6	4	NS
Rupture of membranes, no response to oxytocin	1	1	NS
Labor longer than 24 hours total	0	1	NS
Placenta previa	0	1	NS
Fetal distress	5	8	NS
Repeat Cesarean	0	1	NS
1st stage arrest, CPD	12	45	p < 0.005
Multigravida breech (with or w/o CPD)	1	2	NS
Primigravida breech (as above)	0	7	p < 0.05
Severe toxemia	1	0	NS
Meconium at 42 weeks	0	1	NS
Face presentation	0	2	NS
Transverse lie	0	2	NS
Suspected postmaturity	0	1	NS
Positive stress test	0	1	NS
Prolapsed cord	1	0	NS
Fetal arrhythmia on monitor	0	1	NS
Amnionitis, no labor, no rupture of membranes	1	0	NS

TABLE 5

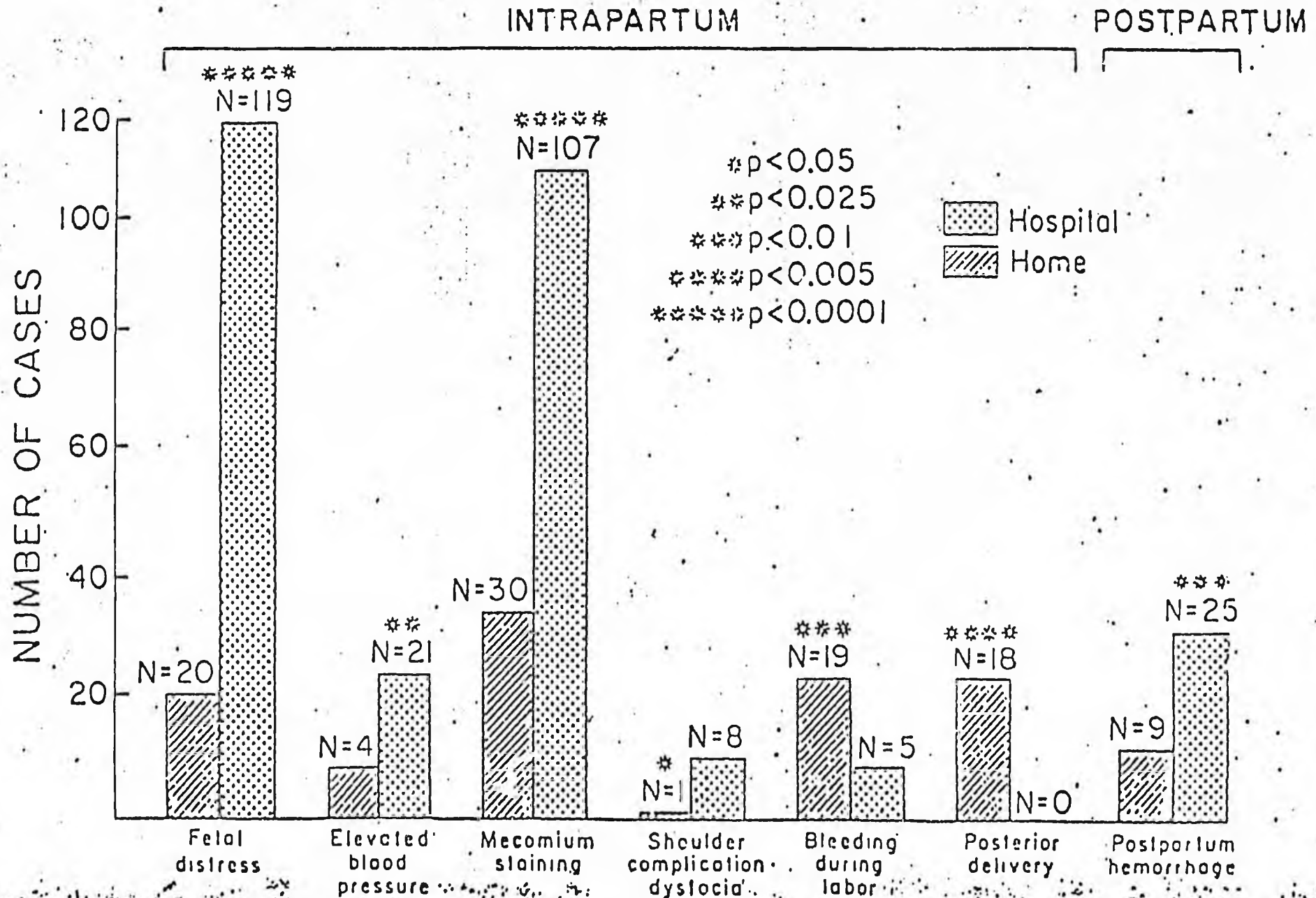
	<u>Home</u>	<u>Hospital</u>	<u>Stat. Sig.</u>
Birthweight, mean	3518	3439	NS
Labor length			
para 0, 1st stage	14.5 hrs	10.4 hrs	<0.01
para 0, 2nd stage	94.7 min	63.9 min	<0.05
para 1, 1st stage	8.5 hrs	5.9 hrs	<0.01
para 1, 2nd stage	48.7 min	19.0 min	<0.005
para 2, 1st stage	7.7 hrs	6.6 hrs	NS
para 2, 2nd stage	21.7 min	15.9 min	NS
3rd stage	21.0 min	4.6 min	<0.005

TABLE 6

## Neonatal Outcomes

	<u>Home</u>	<u>Hospital</u>	<u>Stat. Sig</u>
Intrapartum death	1	1	NS
Fetal death	2	0	NS
Neonatal death	0	1	NS
Perinatal mortality/1000	2.9	1.9	NS
Neonatal mortality/1000	0	0.9	NS
Neonatal asphyxia	3	7	NS
Neonatal resuscitations required	14	52	p < 0.0001
Birth injuries	0	30	p < 0.0001
Neurological abnormal infants	1	6	NS
1 min Apgar score 4	20	36	p < 0.05
1 min Apgar score 7	56	116	p < 0.0005
5 min Apgar score 4	3	8	NS
5 min Apgar score 7	11	23	p < 0.05

Figure 1  
 STATISTICALLY SIGNIFICANT DIFFERENCES IN  
 COMPLICATIONS OF LABOR AND DELIVERY



2.

# Outcomes of Elective Home Births: A Series of 1,146 Cases\*

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Medical records of 1,146 elective home births from five home delivery services in northern California were reviewed. Three of the services consisted of family physicians and nurses, whereas two consisted of lay midwives without immediate physician supervision. Rates of medical complications in both groups were low. Perinatal morbidity and mortality were lower than California averages. Fifteen premature infants (1.3%) were delivered successfully. Apgar scores were high. Four infants (0.3%) were neurologically abnormal at follow-up. The perinatal mortality rate was 9.5 per 1,000 total births. There were no maternal deaths.

These figures demonstrate that in a self-selected, medically screened, low-risk population, home delivery with medical facility back-up can be a reasonable alternative to hospital delivery. Possible reasons for the good results obtained are cited.

*Key words:* Home birth, midwife, family physicians, perinatal mortality, infant morbidity.

## INTRODUCTION

A steady increase has been noted in recent years in the incidence of home delivery in certain California counties and presumably in other areas of the country as well. For the past five years, registered out-of-hospital births in California have increased steadily, at the rate of 0.1% a year.<sup>11</sup> This rise has been decried by some members of the medical community

while supported by others. Many highly emotional statements have been made by both sides without data to support either position. This study is an attempt to provide such data on 1,146 planned home deliveries conducted by five home delivery services in northern California. One similar study has been published to date—that of Hazell,<sup>6</sup> which was a sociodemographic study and did not emphasize medical outcomes.

## METHODS

### *Sources of Data*

Medical charts from five home delivery services in northern California were reviewed. The five services included three physician groups: (1) a rural-based family practice in western Marin County (Point Reyes Station) composed of three family physicians and three registered nurses, performing both home and hospital deliveries since 1970 as part of a comprehensive family practice; (2) an urban-based (Mill Valley) family practice of two physicians and two registered nurses—one a maternity nurse practitioner—in practice since 1973; and (3) an urban-based (Berkeley) group consisting of one physician (whose training had been in pediatrics/neonatology) and two registered nurses, affiliated with a woman's health cooperative in Berkeley. This last group did not have hospital privileges and performed only home deliveries, referring women requiring hospital care to local obstetricians; they had been functioning since early 1974. The lay midwife groups consisted of (1) 10 lay midwives from Santa Cruz County, functioning in both urban and rural settings without immediate medical supervision and with limited medical backup, performing births since 1971, and (2) a rural lay midwife from Sonoma County, California, with good physician back-up, performing

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births since 1970. (In the latter service, records had been kept only for the last 171 of her estimated 500 deliveries during a five-year time span.)

All records until April 1975 were reviewed by one of us (L.E.M.). They were adequately detailed regarding prenatal care, intrapartum and postpartum events and infant and maternal follow-up. The groups represented the following percentages of the total sample: (1) the Point Reyes physician group, 40.4%; (2) the Mill Valley physician group, 11.2%; (3) the Berkeley physician group, 7.6%; (4) the Santa Cruz County midwives group, 30.8%; (5) the Sonoma County midwife, 10.0%.

The lay midwife from Sonoma County began her midwifery activities accidentally, while visiting a friend in labor. Others learned she had attended a birth and asked her to be at their deliveries until she eventually developed a reputation as a midwife. Her training was self acquired through reading and experience. The Santa Cruz midwives began functioning in much the same fashion, becoming midwives to meet an experienced need in the community and educating themselves through discussion groups, experience and reading. Their average fee per birth was \$35.00, so their motivation was clearly not monetary. Typically, they were women who had had an unattended home delivery and had decided to help other women avoid this predicament.

The Sonoma County midwife had good medical back-up through physicians (mainly family practice residents) at the Community Hospital of Santa Rosa, who, although unwilling to attend home deliveries, were willing to discuss problems over the telephone and handle complicated deliveries in the hospital. The Santa Cruz group had poor medical back-up and was not able to obtain telephone consultation. They were often criticized heavily and condemned when bringing women who needed hospital care to the hospital and few supportive physicians to whom they could refer women with complications. Laboring women in the Sonoma area were occasionally as far as one hour from a hospital, although the usual distance was approximately 15 minutes. Laboring women in the Santa Cruz area were occasionally as far as 45 minutes from a hospital but usually ranged from 5 to 15 minutes.

Transport facilities for both lay midwife groups consisted of the midwife's car without any specialized support equipment. Equipment present at deliveries with the lay midwives was also minimal and typically

consisted of a bulb syringe, sterile gauze, sterile gloves, a fetoscope, blood pressure cuff, urine dipsticks for testing for acetones, glucose and protein, a portable scale and little else. Their mode of operation has been described by Lang.<sup>9</sup>

The physician services brought a home delivery kit with them to births. Typically the nurse would attend the labor from its inception, and the physician would arrive during the second stage for primigravidae and first stage for multigravidae. The physician kit included IV equipment, oxytocin and methergine for use after delivery, other emergency drugs and forceps to use if necessary as well as suture supplies. (However, there was no intravenous oxytocin or forceps used at home in this series.) The only equipment or drugs not present in their kit and usually present in the hospital was whole blood. (A complete list of supplies is available on request.) The transport vehicle for the physician groups was also the car belonging to the birth attendant. For the Point Reyes group, the closest hospital was 20 miles. For the Berkeley and Mill Valley groups, the distance from a hospital was usually 5 to 10 minutes.

Prenatal care was essentially the same for all groups and did not deviate from the standards recommended by the American College of Obstetricians and Gynecologists with regard to frequency of visits, laboratory tests and clinical assessment. The lay midwife groups required a minimum of two visits to a physician, at which times clinical pelvimetry, Rh status, blood type, rubella titer, hemoglobin, hematocrit, VDRL and gonorrhea culture were determined. Nutrition, the avoidance of prenatal medication and the psychosocial aspects of pregnancy were stressed more than is typically done in prenatal care, and visits usually lasted 20 to 30 minutes for the physician groups, involving discussions with the nurse and then the doctor. For the lay midwife group, the visits were typically 30 to 60 minutes. Three women had no prenatal care and first presented themselves in labor.

There was no limiting of weight gain. It was felt that every woman should gain at least 20 to 30 pounds during pregnancy, and the average weight gain was in the 30 to 35-pound range. Women with chronic medical disease were encouraged to seek a hospital birth, as were women who remained anemic. The threat of a hospital birth usually increased patients' willingness to use iron-containing preparations, and, as a result, the number of women with hemoglobins

of less than 11.0 gm% giving birth at home was minimal (less than 1%).

Intrapartum care was essentially similar among the groups. The lay midwife groups did not perform breech or twin deliveries at home. The physician groups did so on occasion, but only after explaining the problems inherent in such deliveries. After 1973, the usual policy was to recommend cesarean section to women with low breech scores (Zatuchni-Andros breech score) and to attend women with breech scores indicating safe vaginal delivery at home if the women so desired and requested. (Since the completion of this study, the lay midwives have begun attending some breech deliveries at home because of parents' dissatisfaction with the rising incidence of cesarean sections in breech presentation.)

Labor prolongation, of itself, was not treated as a complication requiring hospitalization. Uterine inertia was often treated initially with buccal oxytocin by the physician group at home, and if results were not forthcoming, the woman was transported to the hospital for IV oxytocin. Prolongation of the second stage of labor also was not treated as a complication; indeed, most of the practitioners felt that a slower second stage with little pushing by the mother (often extending two to three hours) was preferable to a shorter second stage (less than two hours) characterized by an intense pushing effort by the mother. Patients with second stage arrest, however, if not responsive to buccal oxytocin over a one- to two-hour period, were transported to the hospital for forceps delivery. The midwives were unable to administer oxytocin and consequently sent more of their patients to the hospital for dystocia.

Both groups monitored the fetal heart rate closely throughout the first and second stage, using a fetal stethoscope or Doppler ultrasound fetoscope, and felt that any significant drop in heart rate requiring intervention would be noticed. Blood pressures were checked approximately every one to two hours during labor. Fetal heart tones were checked as often as after every contraction during second stage if some variability had been noted or if the mother was pushing particularly hard but usually were checked every 15 minutes during second stage and every 25 to 40 minutes during first stage, depending on the character of the labor and the fetal heart rate pattern. The fetal heart was occasionally listened to through a contraction and for some time afterwards to determine the presence of any abnormal patterns.

Meconium staining without fetal heart rate irregularities was not treated. (Meconium staining with fetal heart rate irregularities was cause for hospitalization, and the infants, with one exception, were treated with intubation and lavage.) Prolonged rupture of membranes in a term-sized infant was followed but not treated unless necessary. It was felt that if the mother did not show signs of amnionitis and had a good socioeconomic and nutritional background, intervention was not necessary within 24 hours. If labor had not begun by 24 hours, induction was usually undertaken in the hospital.

The midwives practiced perineal massage to prevent tearing, but the physicians typically did not. This was optimally done by the mother and father for the month prior to delivery and was done by the midwife during the last half of the second stage. It was not done consistently by all parents and midwives, but the midwives felt it helped prevent lacerations during delivery.

Forceps deliveries were not conducted at home, and no analgesia or anesthesia was administered at home. If the latter was desired, hospital transport was necessary for the woman to receive it.

The room in which the delivery occurred was kept warm, and the baby was given to the mother immediately after delivery to hold and nurse, with blankets placed around the infant to prevent heat loss. The umbilical cord was not clamped until it ceased pulsating except in Rh negative mothers, in whom it was clamped immediately after delivery. RhoGam was given to the Rh negative mothers within 48 hours. Silver nitrate was not applied routinely to the infants' eyes unless there had been a history of gonorrhea or one or both parents were unsure about the other. Most of the infants were fed only by the breast, without glucose or formula supplementation, and were fed ad lib.

Home visits were usually made each day for the first three postpartum days, and telephone contact was maintained with the couple. The infants were seen by the physicians at one week in their offices and again at four weeks. After that point, the recommendations for well child care of the American Academy of Pediatrics were observed. Midwives referred infants for newborn care to pediatricians or family physicians after the first week and continued to follow the infants themselves for various periods of time. All mothers had an examination from four to six weeks postpartum by a physician; results of

the examination were entered in the lay midwives' records.

### Study Population

Hazell<sup>6,7</sup> has described the demographic characteristics of the home birth population in the San Francisco Bay Area in a study of 300 home deliveries from the socioanthropological standpoint. Her subjects overlapped to some extent with our sample and were derived from the same subject pool—San Francisco Bay Area couples planning home delivery. According to her study, 90% lived in typical American fashion, with the father gainfully employed and in a single family dwelling with one or two cars; they were not members of an ethnic minority, not on welfare and had no household servants. A general characteristic of the group was described as self-awareness, shown in a concern for nutrition, health food, ecology, humanistic psychology and a strong feeling for a natural birth process. Typically, the mother and father had both attended college, but neither had graduated. The fathers' occupations were noted to vary through the range of occupations present in the Bay Area—from auto mechanic to physician to homesteader. Only one-tenth were classified as "hip," in rebellion to "normal American values" and living in a variety of alternative styles.

In our study, patients of the lay midwives tended to belong more to the counter culture than did Hazell's population. In the physician groups, more professional couples were included. A detailed socio-economic study on one of the lay midwife groups (the Sonoma County sample) is currently being coordinated by one of us (W.E.H.), and a psychological/developmental outcome study on a subsample of the Santa Cruz group is being analyzed by two of us (L.E.M. and G.H.P.).

Table I presents statistics on the selection of the study population: Only 4% of those women who requested a home delivery were screened out for medical reasons (including premature labor, (on some services) toxemia and underlying systemic disease). This low percentage would seem to indicate that women seeking home deliveries are a self-selected healthy group, probably knowledgeable about childbirth and the importance of nutrition in pregnancy. Nine women with previous fetal deaths were included in the home birth sample. Previous obstetric complications (with the exception of cesarean section) were not used as screening criteria because it was felt that they were iatrogenic to some extent.

TABLE I  
HOME DELIVERY STUDY POPULATION

	Number	Percent
Contacted home delivery service .....	1,348	100.0
Screened out, medical dx .....	55	4.1
Decided against .....	147	10.9
Attempted home delivery .....	1,146	85.0
Taken to hospital .....	136	10.1
Completed home delivery .....	1,010	74.9
Attempted home delivery .....	1,146	100.0
Physicians .....	685	59.8
Midwives .....	461	40.2
Taken to hospital .....	136	11.9
Physicians .....	58*	5.1
Midwives .....	78*	6.8

\*Patients hospitalized represented 8.5% of physicians' cases, 16.9% of midwives' cases.

Eleven percent of the women who considered home delivery decided against it for nonmedical reasons. This number was highest in the lay midwife groups and may have been related to a hesitation about giving birth without physician back-up. In the physician-directed services, a common reason cited for switching to a hospital birth was that Medicaid would cover only hospital deliveries.

TABLE II  
CHARACTERISTICS OF MOTHERS

	Number	Percent	California 1973
Mother's age .....	1,146	100.0	100.0
<20 .....	60	5.2	17.3
20-34 .....	1,068	93.2	77.6
>35 .....	18	1.6	5.1
Parity .....	1,146	100.0	100.0
0 .....	729	63.6	43.3
1 .....	237	20.7	31.0
2 .....	128	11.2	13.3
3 .....	34	3.0	6.0
>4 .....	18	1.6	6.3
Prenatal care began .....	1,146	100.0	100.0
1st trimester .....	707	61.7	72.8
2nd trimester .....	362	31.6	20.2
3rd trimester .....	74	6.5	4.5
None .....	3	0.3	2.4*

\*Includes prenatal care unknown.

TABLE III

## CHARACTERISTICS OF PRESENTATION AND DELIVERY

	Number	Percent
Presentation .....	1,146	100.0
Vertex .....	1,125	98.2
Brow .....	(3)	(0.3)
Shoulder .....	(3)	(0.3)
Breech .....	21	1.8
Delivery .....	1,146	100.0
Cesarean: .....	28	2.4
Vaginal .....	1,118	97.6
Analgesia, only .....	(14)	(1.2)
Anesthesia, only .....	(3)	(0.3)
Both .....	(6)	(0.5)
None .....	(1,095)	(95.5)
Oxidation .....		
1st and 2nd stage labor .....	85	7.4
3rd stage labor .....	235	20.5
Low forceps .....	11	1.0
Mid forceps .....	6	0.5
Lacerations requiring repair .....	48	12.9
Episiotomies .....	89	7.8

Of the 1,146 women beginning labor at home with the intention of delivering there, 136 (11.9%) were sent to the hospital to complete their delivery for treatment of intrapartum (11%) or postpartum (0.9%) problems. Eighty-eight percent of the deliveries begun at home were completed there. Thus, of the initial set of women contacting the home delivery services, 75% successfully gave birth at home.

Four surviving infants required hospitalization for other than phototherapy within three days of delivery; a fifth was born very prematurely in the hospital and remained there for one month.

Table II presents characteristics of the mothers and compares them to California statistics for 1973.<sup>11</sup> Over 90% were in the optimal childbearing age of 20 to 23 years, and the average was 21.9 years. There was a high number (61%) of primigravidae in this series and an incidence of grand multiparity of less than 1%. Virtually all the women were trained in childbirth classes such as Bradley or Lamaze. All women except one attempted breast feeding; for a variety of reasons, eight women were not successful.

## RESULTS

*Delivery: Home Sample*

Statistics on the presentations and deliveries are given in Table III. Most of the deliveries were normal vertex presentations. Of the 21 women with breech presentations, 10 were delivered successfully by choice at home, and 11 were taken to the hospital. The last were all unexpected and with lay midwives.

One percent of the women studied had low forceps deliveries, 0.5% had midforceps deliveries and 2.4% were delivered by primary cesarean section. (The California cesarean section rate was 9.9% in 1973.<sup>11</sup> If, as the Mayo Clinic<sup>1</sup> found, half of the cesarean sections are repeats, then California's primary section rate would approximate 5%, or double the rate in this study.) The indications given for forceps and cesarean deliveries are listed in Table IV.

TABLE IV

## INDICATIONS FOR C-SECTIONS AND FORCEPS DELIVERIES IN WOMEN BEGINNING LABOR AT HOME

	Number
Low forceps delivery	
Prolonged descent .....	6
Arrest of descent .....	2
Dysfunctional labor .....	1
Brow presentation with arrest of descent .....	1
Fetal heart drop .....	1
	<hr/>
	11
Mid forceps delivery	
Prolonged descent .....	3
Arrest of descent .....	1
Dysfunctional labor .....	1
Fetal heart drop, occiput posterior presentation .....	1
	<hr/>
C-sections	
Cephalopelvic disproportion .....	16
Failure to descend, occiput posterior presentation, relative CPD .....	6
Arrest of active phase dilation, fetal heart drop, cord 4X neck .....	1
Prolapsed cord .....	1
Breech with amnionitis .....	1
Psychotic reaction to labor .....	1
Acutely dropping fetal heart tones .....	1
Toxemia .....	1
	<hr/>
	28

Lacerations requiring repair were lowest (4.4% and 5.7%) in the lay midwife groups and highest (40.2%) in the physician group with the shortest experience in performing home deliveries without episiotomies. Similarly, episiotomies were lower for the lay midwife groups than for the physician groups.

Analgesia and or anesthesia were used in only 2% of the vaginal deliveries. During the first and second stages of labor, 38 women (3.3%) received buccal oxytocin at home, whereas 47 women (4.1%) received IV oxytocin in the hospital. During the third stage of labor, 146 mothers had oxytocin at home and 89 in the hospital. Mean length of first stage was 10.2 hours for primigravidae and 4.6 hours for multigravidae; second stage means were 118 and 45 minutes, respectively.

Complications of labor and delivery of the home birth group are shown in Table V (individual women may be listed under more than one complication). Interestingly, the total percentages of complications were comparable for primigravidae and multigravidae (18%). The majority of the intrapartum problems involved first stage dystocia. However, the total incidence of protracted labor in this series is noticeably low when compared to that in the literature,<sup>6</sup> as are meconium staining and fetal heart irregularities.<sup>7,8</sup> There was no maternal hypotension prior to or during delivery.

The lay midwives took significantly more of their patients (16.9%) to the hospital than did the physician groups (8.5%). The former took more women to the hospital for induction for prolonged rupture of membranes, uterine inertia during the first stage of

TABLE V  
COMPLICATIONS OF LABOR AND DELIVERY  
(Individual women may be listed under more than one complication)

Primigravidae (N = 136/727 = 18.6%)					Multigravidae (N = 78/417 = 18.7%)				
Complication	Home	Hospital	Total	Percent*	Complication	Home	Hospital	Total	Percent*
<b>Intrapartum</b>					<b>Intrapartum</b>				
Dystocia† 1st stage	27	34	61	8.4	Dystocia 1st stage	2	12	14	3.4
Dystocia 2nd stage	10	14	24	3.3	Dystocia 2nd stage	4	9	13	3.1
CPD	0	23	23	3.2	Meconium stain, only	11	1	12	2.9
Meconium stain, only	24	3	27	3.7	FHT ↓ (c, s meconium)	3	4	7	1.7
FHT ↓ (c, s meconium)	6	13	19	2.6	Precipitous labor	7	0	7	1.7
Hypertension	3	6	9	1.2	Other*	1	2	3	0.7
Hypertension	3	6	9	1.2					
Blow presentation	1	2	3	0.4	<b>Total</b>	<b>28</b>	<b>28</b>	<b>56</b>	
Shoulder dystocia	1	1	2	0.3					
Polyhydramnios	0	2	2	0.3					
Other*	1	10	11	1.5					
<b>Total</b>	<b>73</b>	<b>108</b>	<b>181</b>						
<b>Postpartum</b>					<b>Postpartum</b>				
Hemorrhage †	1	3	4	0.5	Hemorrhage	4	1	5	1.2
Excessive PP bleed ‡	11	7	18	2.5	Excessive PP bleed	9	4	13	3.1
Retained placenta	10	4	14	1.9	Retained placenta	4	4	8	1.9
Endometritis	9	2	11	1.5	Endometritis	3	1	4	1.0
PP depression	0	4	4	0.5	PP depression	0	1	1	0.2
<b>Total</b>	<b>31</b>	<b>20</b>	<b>51</b>		<b>Total</b>	<b>20</b>	<b>11</b>	<b>31</b>	

\*Single cases of oligohydramnios, amnionitis, isoemia, prolapsed cord, thrombophlebitis, placenta previa, abruptio placentae, dehydration, urinary tract infection, 2nd trimester bleed, precipitous labor.

\*Single cases of CPD, shoulder dystocia, oligohydramnios.

\*Percent complications per 729 primigravidae, 417 multigravidae.

†Dystocia as used in this table is defined as: prolonged or arrested 1st stage, failure to dilate; prolonged or arrested 2nd stage, failure to descend (as per Greenhill and Friedman<sup>9</sup>).

‡Hemorrhage is defined as more than 650 ml; excessive bleeding as "more than normal," including third-day postpartum bleeding.

TABLE VI

## COMPLICATIONS OF LABOR AND DELIVERY

(Individual women may be listed under more than one complication)

Physicians (N = 134/68 = 19.6%)			Midwives (N = 80/461 = 17.4%)		
Complication	Number	Percent*	Complication	Number	Percent*
<b>Intrapartum</b>			<b>Intrapartum</b>		
Dystocia† 1st stage	47	6.9	Dystocia 1st stage	28	6.1
Dystocia 2nd stage	24	3.5	Dystocia 2nd stage	13	2.8
DPD	14	2.0	CPD	10	2.2
Meconium stain, only	28	4.1	Meconium stain, only	11	2.4
FHT ↓ (c, s meconium)	16	2.3	FHT ↓ (c, s meconium)	10	2.2
Hypertension	7	1.0	Hypertension	2	0.4
Brow presentation	2	0.3	Brow presentation	1	0.2
Shoulder dystocia	1	0.1	Shoulder dystocia	2	0.4
Polyhydramnios	1	0.1	Polyhydramnios	1	0.2
Oligohydramnios	1	0.1	Oligohydramnios	1	0.2
Precipitous labor	8	1.2	Precipitous labor	0	0.0
Other*	6	0.9	Other*	0	—
<b>Total</b>	<b>155</b>		<b>Total</b>	<b>82</b>	
<b>Postpartum</b>			<b>Postpartum</b>		
Hemorrhage†	5	0.7	Hemorrhage	4	0.9
Excessive bleeding†	19	2.8	Excessive bleeding	12	2.6
Retained placenta	15	2.2	Retained placenta	7	1.5
Endometritis	10	1.5	Endometritis	5	1.1
Depression	3	0.4	Depression	2	0.4
<b>Total</b>	<b>52</b>		<b>Total</b>	<b>30</b>	

\*Single cases of amnionitis, placenta previa, abruptio placenta, dehydration, urinary tract infection, 2nd trimester bleeding.

†Percent complication for 685 MDs' patients, 465 midwife patients. See Table V.

\*Single cases of toxemia, prolapsed cord, thrombophlebitis.

labor, fear of completing the delivery at home, falling fetal heart rate, manual removal of placenta and treatment of postpartum hemorrhage. The physician groups used significantly more oxytocin after delivery of the placenta than did the midwives and reported more precipitous deliveries. Complications by midwives' and physicians' groups are shown in Table VI.

There were no maternal deaths.

#### Perinatal Outcome

Six sets of twins were delivered successfully at home, bringing the total number of births to 1,152.

Fifteen infants, including two sets of twins, weighed less than 2,501 grams at birth (1.3%). Most of them (11) were 2,250 grams and over. Fourteen of the low birthweight infants were born

at home. One (1,332 grams) was born in the hospital after second trimester bleeding and remained there for a month. Two of the smaller babies (1,729 and 2,154 grams) were admitted to the hospital with mild respiratory distress syndrome.

As noted earlier, some mothers were medically screened out of the home delivery group because of premature labor. There were 20 such patients. If they are included, the total premature rate becomes 3.0%. (California's premature rate in 1973 for white women 20 to 29 was 5.3%.) All the low birthweight babies survived without other postnatal complications other than those mentioned above.

The average Apgar scores were high—8.9 and 9.7 at one and five minutes—and were usually assessed by a nurse or lay midwife who did not deliver the infant. Though the scores may be in-

TABLE VII

## INFANT MORBIDITY

Condition	Number	Rate per 1,000 lb	Delivery	Complications	Outcome
Congenital defects	6	5.2			
PDA			Home	None	Repaired surgically at one year
Coarctation of aorta			Home	None	Repaired surgically at two years
Omphalocele			Home	None	Repaired surgically at 15 hours
Myelomeningocele, thoracic			Home	None	Mental and motor retardation at 18 months
Multiple minor anomalies			Hospital	HHT ↓, c-#	No mental or motor retardation at one year
Down's syndrome			Home	Meconium	Mental retardation
Cerebral palsy	2	1.7	Home	Meconium+++ FHT ↓	Motor retardation
			Home	None	Mild spastic with slow verbal development
Surgical conditions	2	1.7	Home	None	Pyloric stenosis repaired at five and eight days
Low birthweight	15	13.1	Hospital	2nd Tri Bleed	1,332 g, in hospital one month, no problem
			Home	None	1,729 g, in hospital two weeks, mild RDS
			Home	Breech	2,154 g, in hospital 12 days, mild RDS
		Others:	Home	None	No problems

flated, they probably are no more so than in the hospital, where the physician delivering the infant assesses the Apgar. Forty infants (3.5%) born both at home and in the hospital had one-minute Apgar scores of 4 to 6, and seven infants (0.6%) had one-minute Apgars of 3 or less and required resuscitation. (Drage and Berendes<sup>2</sup> found a 21% incidence of one-minute Apgar scores below 7.) Lack of drugs, both prenatally and intrapartum, may be associated with these relatively high scores.

Two other surviving infants were admitted to the hospital during the first three days—one for repair of an omphalocele and one who was the result of an unattended (the only one) delivery with gross meconium staining and fetal distress and who was taken to the hospital within 10 minutes after delivery, where intubation and lavage were not performed. This delivery was part of the lay midwife sample. Table VII describes the cases of infant morbidity and their outcome.

Four infants (0.3%) were neurologically abnormal at follow-up: two had cerebral palsy and two were mentally retarded. This finding compares favorably with the 1.7% incidence of neurologically abnormal infants at one year found by the National Institute of Neurological Diseases and Stroke.<sup>10</sup> A fifth was slow, albeit consistent, in developing and did not walk until 18 months.

In addition to those listed in Table VII, there were 21 cases (1.8%) of jaundice requiring phototherapy. Only a few not already in the hospital were admitted, for parents were able to rig up fluorescent lights over bassinets at home. Three babies with failure to thrive were switched from breast to bottle feeding, with successful results. The average length of infant follow-up was 11.5 months. Some children are still being followed now at three to five years of age. Over 80% were followed at least six months.

The nine women with previous fetal deaths had no complications.

TABLE VIII

## PERINATAL OUTCOME

	Number	Study rate	California rate — 1973
Total births*	1,152		
Live births*	1,147		
Fetal deaths	5	4.3	10.2
Neonatal deaths	6	5.2	10.3
Total perinatal deaths	11	9.5	20.3
Low birthweight (<2,501 g)	15	1.3%	6.4%

\*Includes six sets of twins.

Fetal and perinatal death rates are based on 1,000 total births; neonatal death rates, on 1,000 live births.

TABLE IX  
CAUSES OF PERINATAL DEATH

Age at death	Number	Delivery	Complications	Cause of death
5 months est. gest. age	1	Home	None	Rh incompatibility, insisted on home delivery
35 weeks est. gest. age	2	Home	None	Intrauterine death, unknown cause
During labor	1	Hospital	Amnionitis, IUD in place	Overwhelming intrauterine sepsis
During labor	1	Home	None	Unknown cause
2 days	1	Hospital	None	Macrosomia, single umbilical artery, bilateral adrenal hemorrhage, numerous congenital anomalies
7 days	1	Home	None	Cystic fibrosis, meconium ileus, postoperative peritonitis and sepsis
7 days	1	Home	None	Coarctation of aorta
10 days	1	Home	None	Cor biloculare
2 weeks	1	Home	None	Sudden infant death syndrome
3 weeks	1	Home	None	After surgery for tetralogy of Fallot

Perinatal outcome rates and the causes of fetal and infant deaths are given in Tables VIII and IX. The perinatal mortality rate in this study is significantly lower (95% confidence interval) than the 20.3% rate for the state of California in 1973. The state's fetal death rate in that year for white women 20 to 29 was 8.2 per 1,000 total births as compared to 4.3 in the home birth series. Unfortunately, there is no comparable neonatal death rate available for this specific group.

There was no association in this series between length of first or second stage labor and the incidence of low Apgar scores at birth or other complications. Arrest of descent was weakly associated with somewhat lower Apgar scores, but this was also strongly associated with the use of forceps, and the total number of cases was too small to draw meaningful conclusions. There were 14 cases of prolonged rupture of membranes but no resultant infections in the infants.

The average cost of home deliveries in the physician-directed services was \$325 for mother and baby; for the entire study population, \$277. This was an all-inclusive rate, covering prenatal care, home visits postpartum and all necessary supplies. The average cost for total care with hospital delivery and three days' hospitalization was \$1,450. This latter figure is low, for it does not include the additional fee for

cesarean section. (Estimated figures for a normal vertex delivery in California hospitals in 1975 were \$1,150 to 1,550.)

#### DISCUSSION

This is a self-selected healthy group of women, screened for obvious problems and complications occurring during pregnancy, so the data presented here are not directly comparable to state statistics. Still, their outcomes are better than average and the complication rates lower than expected.

Generally, the response of physicians to home delivery has been negative. Many view home birth as an irresponsible risk to mother and child. They do not encourage or attend home deliveries, and many have refused to give prenatal care, advice or instruction to couples planning home birth.

There is a dichotomy in obstetric thinking today. There is the technological trend represented by high-risk obstetric units with fetal monitoring and readily available medical and surgical intervention, and there is the family-centered, natural childbirth trend represented in its extreme by couples planning home delivery without any medical support. Reducing the antagonism between these divergent poles would enhance care for women choosing hospital deliveries as well as for those choosing home deliveries.

More studies of this kind are needed before any conclusions can be drawn. However, evidence from this study population strongly suggests that home delivery is a safe alternative for medically screened, healthy women; they deserve adequate care for the delivery of their choice. This care would include prenatal care by a physician, child birth education and only necessary intervention by attendants. Hospitals should be encouraged to adopt those techniques of home birth that improve pregnancy outcome. These techniques would include perineal massage and gentle head delivery to avoid episiotomies and lacerations, choice of the use of analgesia and anesthesia and provision of a supportive, friendly and comfortable environment for labor and delivery.

#### ACKNOWLEDGMENT

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# RISK FACTORS IN LOW RISK CHILDBIRTH<sup>1,2</sup>

## I. Differences between home and hospital births

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### Summary

Previous studies with matched low-risk populations indicated that a planned home delivery group did better on some indicators of perinatal outcome than a planned hospital group. Matching was done with a case-control format so that each of the 1046 women planning a home birth were matched with a counterpart planning a hospital birth who was the same age, had the same length of gestation, education, presentation, individual risk factors, and total risk factor scale. The planned hospital group had significantly more fetal distress, meconium staining, birth injuries, post partum hemorrhages, and lower Apgar scores at one and five minutes. The planned hospital group also experienced more forceps deliveries, oxytocin, and analgesia compared to the planned home group, along with exposure to more obstetrical procedures.

Canonical correlation analysis indicated that probable reasons for these differences did relate to the differences found between the two groups in the use of analgesia, forceps for delivery, and oxytocin. The combination of forceps, obstetrical procedures, and an aggressive management philosophy were associated with more birth injuries, fetal distress, lower Apgar scores, resuscitation, and 3<sup>rd</sup> and 4<sup>th</sup> degree lacerations. The combination of analgesia and an aggressive management philosophy was associated with more fetal distress, resuscitation, and low Apgar scores. Finally, the combination of oxytocin for labor and obstetrical procedures was associated with more fetal distress, infant

resuscitation, and postpartum uterine atony, psychiatric depression, and postpartum placenta problems.

The results of this study suggested that an aggressive management philosophy for the low risk patient may not be congruent with the needs of such patients. It was also suggested that forceps, analgesia, and oxytocin have intrinsic risks above those associated with the reasons for their use. The use of aggressive or active management of labor with many interventions for the low-risk patient is suggested to increase risk for some patients, although more study is needed to understand how this effect is mediated.

Key words: obstetrical procedures      perinatal outcome  
Oxytocin      fetal distress      obstetrical intervention

## Introduction

In previous research we matched 1,046 women planning home deliveries with 1,046 women planning hospital deliveries and found interesting differences in obstetrical outcome (Mehl, 1977). Matching was done on a case by case basis for such parameters as maternal age, length of gestation, maternal education, presentation, prenatal risk factors and total risk factor score. Both home and hospital populations were low risk and received childbirth preparation. The planned hospital group was found to have significantly more fetal distress, meconium staining, birth trauma, postpartum hemorrhages, and the like. Apgar scores at one and five minutes were also significantly lower. Possible reasons for this were discussed, including greater use of forceps, oxytocin, and analgesia in the planned hospital group as well as a more aggressive interventionist attitude on the part of hospital practitioners. This was characterized by a more frequent use of obstetrical procedures.

Our interest was in further investigating these differences. To do this we choose to subject a portion of the sample to statistical analysis in order to increase our understanding of what factors might be contributing to the differences found.

## Methods

### Sample Selection

Since 1973 we have been collecting data on both planned home and hospital deliveries. For home deliveries, we have identified reliable practitioners (obstetricians, midwives, family practitioners, etc.), with adequate record-keeping. We have spoken with them to understand their definition of terms, their mode of practice, and their training and knowledge of obstetrics and pediatrics. We then collect data on every consecutive birth they attend, using them as "index practitioners." This solves one of the sampling problems involved in studying a phenomenon such as home birth. Birth certificate reporting in the United States is grossly underrepresented for home births, with a bias toward complicated deliveries that come in contact with health facilities being uniformly reported (as required by law) and uncomplicated, successful home births not being reported. Reasons related to us by parents for this under-reporting include fear of harassment by public health authorities, fear of eliciting prosecution for unlicensed birth attendants, desire for noninvolvement with the established health-governmental system, lack of initiative, and, prior to the cessation of selective service induction, a desire to not provide a means for the Selective Service System to locate their male child. We have found that birth certificate reporting ranges from 25 percent to 100 percent, with low reporting occurring more with unlicensed attendants and high reporting occurring when births are attended by licensed physicians or midwives (Mehl et al., 1975; Mehl and Stewart, 1977). Because of this, birth

certificates cannot be used to randomly select a home birth sample. Neither do birth certificates differentiate between planned and unplanned out-of-hospital delivery, type and training of attendant, and sociodemographic characteristics of the mother. Without this information, data would be meaningless.

Our question of interest is if selected women can deliver at home attended by competent, trained practitioners without unreasonably increasing risk.

For purposes of this study we included only data from physicians, and not from midwives working independently of physicians (Mehl, 1976).

Home delivery data was taken from four practices:

- 1) a general family practice in western Marin County, California, composed of three family physicians and three midwives;
- 2) a general family practice in Mill Valley, California, composed of two family physicians and two midwives;
- 3) a birth service in Berkeley, California, consisting of one neonatologist and two midwives; and
- 4) a birth service in southern Wisconsin, consisting of two family physicians and two midwives.

The time from which these deliveries occurred ranged from 1970 to 1976. Data collection was retrospective (except in the fourth practice, which was prospective) and suffered from the limitations of all retrospective chart review studies.

Hospital deliveries were collected from two hospitals in Madison, Wisconsin for the years 1974-1975, and from the planned

hospital deliveries (not screened-out home deliveries) of the first home birth practice. A total of 8,000 deliveries were available for analysis. Both Wisconsin hospitals were private community hospitals affiliated with university teaching programs. Details of their function are available in Mehl et al. (1977).

Birth attendants were categorized as either having an aggressive management philosophy or a conservative management philosophy.

Data Analysis

Matching was carried out as described in Mehl et al. (1977), but with the elimination of cases of midwives. Matching criteria were maternal age, risk factor score, individual major risk factors, parity, length of gestation, presentation, and maternal education. Missing data was replaced by the sample mean for age, education, and length of gestation. The incidence of this was small.

Matching was done by means of a face sheet as described in Mehl et al. (1977) and was done so that the delivery characteristics would not be known to the matcher. Matching was random. Cases were selected in chronological order from the hospital group. A match was searched for in the home group. If no match was found, the hospital case was put aside, and the search was repeated for the next card.

Matched cases were keypunched and entered onto magnetic tape. A canonical correlation analysis was then performed for the

entire sample (Anderson, 1958) using the CANCELL procedure of the SPSS series of statistical programs (Nie et al., 1975) as adapted for the CDC 6000 computer series (Version 6.5, Vogelback Computing Center, Northwestern University). Analysis was performed at the University of California, Berkeley Computing Center on the CDC 6400 system.

A total of 94 variables were used in the analysis representing prenatal characteristics and complications, and neonatal and maternal outcome measures. Variables used in canonical correlation analysis are already partialled out from each other, so that variable overlap is eliminated to the extent that is possible.

Results

Results of the analysis are shown in Table 1. The variables loading most highly on the first canonical variable were the linear combination of forceps, obstetrical procedures, and aggressive management. This group was associated with birth injuries, fetal distress, low Apgar scores at 1 minute and 5 minutes, need for resuscitation, and third and fourth degree lacerations. Only the hospital practitioners did elective forceps and the planned hospital group had 30% forceps deliveries compared to 1.2% for the planned home group. (Forceps for this group were used only after transport to the hospital). The inclusion of planned hospital in the first set may reflect a philosophical difference of the hospital practitioners in defining the need for forceps.

The second canonical variable consisted of the linear combination of analgesia and planned hospital delivery in association with the combination of fetal distress, low Apgar scores at 1 and 5 minutes and need for neonatal resuscitation.

The third canonical variable consisted of the linear combination of first stage oxytocin, second stage oxytocin, and obstetrical procedures in association with a linear combination of newborn metabolic problems, poor infant condition, maternal infection, infant resuscitation, fetal distress, and transport to neonatal intensive care. The canonical correlation coefficients were 0.68, 0.54, and 0.32, respectively. All were significant.

As a check on the loadings of variables on the canonical variables, the sample was split into two random parts. This was done by adding the subject number and the attendant number and then creating two groups based upon whether the last digit was even or odd. The variability of the loading was not more than 10 percent.

### Discussion

Our interest is in understanding what factors contribute to differences in obstetrical outcome among a series of populations. Canonical correlation analysis is one way of sorting out a series of significant relationships from among a large number of variables. Since many of the variables involved were effect coded with 1's and 0's, the difficulty of fitting these values into a

linear equation increases. Thus, smaller canonical correlations may be more significant with the use of effect coding than with the use of continuous variables. Because of the non-normality of effect coded variables, discussion continues regarding the best method for significance testing. One commonly accepted method for verification of important relationships found is to repeat the analysis on randomly chosen subsamples. (D. Brillinger, personal communication, 1977). This procedure in the current sample suggested that, at least for this sample, the relationships found were valid ones.

The predominant loading of outcome measures onto the second set of the first canonical variable (cf. Table I) related to difficulties with the infant. These included intrapartum fetal distress, low Apgar scores, a need for resuscitation, and poor infant condition. (Poor infant condition was a six-point rating scale developed from considering all factors operative during the first hours of life.<sup>1</sup>) These were associated with the linear combination of planned hospital delivery and analgesia. The planned hospital variable could also reflect population differences. Women planning out-of-hospital birth may be more attentive to

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<sup>1</sup> Poor infant condition was derived according to the following scheme:

- 0 - no problems
- 1 - one minor problem, e.g., mild hypothermia or acrocyanosis
- 2 - several minor problems
- 3 - one or more major problems
- 4 - severe distress, need for intensive care, resuscitation
- 5 - death

having a good diet, to avoiding chemical or drug exposure during pregnancy, to not smoking, and the like. Another component of this variable may be related to an environmental stress factor operative in the hospital setting. All of the speculations require further investigation.

For the third canonical variables deleterious effects of oxytocin administration begin to become apparent along with obstetrical procedures. Such procedures included amniotomy, fetal monitoring, etc. More cases are needed to separate out exactly which obstetrical procedures affected the loading, or whether the effects of procedures are additive. The possible similarities of these results with the findings of Caldeyro-Barcia's group deserve comment. In several studies from Dr. Caldeyro-Barcia's research group in Montevideo, Uruguay, deleterious effects of artificial rupture of membranes and use of oxytocin have been demonstrated (Schwarcz et al., 1973, 1974a, b, 1975; Caldeyro-Barcia et al., 1972, 1974). It will be most interesting to see what factors separate out as the important one(s) as we continue the analysis.

The use of oxytocin and obstetrical procedures was associated with newborn metabolic problems (acidosis, hypoglycemia, etc.), maternal infections, infant resuscitation, poor infant condition, fetal distress, and transport to neonatal intensive care.

In conclusion, there seem to be reasons for the outcome differences previously found between the planned home delivery patients and the planned hospital delivery patients. It is important to stress that the reasons for obstetrical procedures, oxytocin, and the like have been partialled out, to the extent pos-

sible when the variables enter the analysis. Thus, in this analysis, we are seeing, to the extent the partialing was successful, the effect of procedural variables, per se. Further research is needed to better understand the relations that are beginning to be elucidated. Also from our analysis of the initial hospital-home comparison sample (see Table 1) it would appear that analgesia, forceps and oxytocin are associated with increased infant problems and that their elective use should be discouraged. Further work is needed to understand the relationship between benefits of these procedures for certain kinds of problems and the risks which the use of these procedures entail.

Table 1. Results of Canonical Correlation Analysis of Mehl (1977)

Matched Sample

	1st Canonical Variable	2nd Canonical Variable	3rd Canonical Variable
1st Set	Forceps (0.92) Obstetrical procedure (0.34) Aggressive management philosophy (0.58)	Analgesia (0.72) Aggressive management philosophy (0.28)	Oxytocin 1st stage (0.82) Oxytocin 2nd stage (0.71) Obstetrical procedure (0.63)
2nd Set	Birth injuries (0.82) Fetal distress (0.50) Low Apgar at 1 min. (0.46) Low Apgar at 5 min. (0.39) Resuscitation (0.37) 3rd degree lacerations (0.71) 4th degree lacerations (0.82)	Fetal distress (0.44) Low Apgar at 1 min. (0.49) Low Apgar at 5 min. (0.36) Poor infant condition (0.34) Resuscitation (0.32)	Newborn metabolic problem (0.44) Poor infant condition (0.35) Maternal infection (0.26) Infant resuscitation (0.30) Fetal distress (0.64) Transport to neonatal intensive care (0.28)

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Statistical Outcomes of Home Delivery  
I. Comparison to similarly selected  
Hospital Deliveries<sup>1,2</sup>

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## ABSTRACT

Medical records of 1,146 elective home births from 5 home delivery services in northern California were compared with medical records of 180 planned hospital deliveries conducted by one of the same services, and consisting of women who met their criteria for home delivery. Three of the services consisted of family physicians and nurse-midwives, while two consisted of lay midwives without immediate physician supervision. Rates of medical complications in both groups were low. Significantly more analgesia and anesthesia (although low) was used in the planned hospital group; the incidence of low Apgar scores in this group was higher than for the planned home group. Results of both groups were better than those of the general population. Possible reasons for this are discussed. Most other measures of perinatal outcome and complications were not significantly different between the two groups or between physicians and midwives. The neonatal mortality rate was 5.0/1000; the perinatal mortality rate was 9.5/1000. There were no maternal deaths. These figures support the conclusion that in a self-selected, medically screened population, home delivery can be a safe alternative. Possible reasons for this are cited.

### Key Words

Home Birth      Midwife      Perinatal  
Neonatal Mortality      Infant Morbidity

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## Introduction

We began our studies on the statistical outcomes of home deliveries because of the tremendous rise in the number of home deliveries across the country and the lack of available data on their outcomes. We had hoped to provide data which parents and professionals could use on their individual scales of relative value along with the already available experiential data on emotional outcomes as they weighed risks and benefits to determine what kind of delivery they would choose to have or to attend. The purpose of this study was to compare the outcomes of 1146 elective home deliveries with 180 similarly selected hospital deliveries performed by one of the same groups of physicians involved in the home deliveries.

## Methods

Our sources of data for the 1146 elective home deliveries and our methods of analysis have been described elsewhere (Mehl, et al., 1976). In summary these deliveries were collected from the medical charts of five San Francisco Bay Area services consisting of three physician-midwife groups: a rural-based family practice in Western Marin County, an urban-based family practice in Mill Valley, and an urban-based group consisting of one physician (trained in pediatrics/neonatology) and two midwives; and two midwife groups consisting of 10 lay midwives in Santa Cruz County and 1 lay midwife in Sonoma County. 59.2% of the deliveries were performed by physicians and 40.8% by lay midwives. The methods of operation of these services, their screening procedures, obstetrical philosophies and practices, and the sociodemographic characteristics of their population have all been described elsewhere (Mehl, et al., 1976).

The planned hospital comparison group was drawn from the records of the Point Reyes family practice and consisted of 180 deliveries. These women came from the same population pool as those women planning home deliveries and had many of the same attitudinal sets. They would have been attended at home had they chosen to deliver there. Women with complications of prenatal care obviating a home delivery were excluded from this sample. For the hospital comparison group 81.2% were followed at least six months. 110 of the infants and mothers were discharged at the end of two hours post-delivery. The hospital comparison group tended to be less from the counter-culture and were characterized by a more uniform middle-class socioeconomic background with usually one or both parents a college graduate.

## DISCUSSION

Each group was a self-selected health group of women screened for complicating medical problems. Comparisons between the home birth group and the planned hospital group suggests that for women delivering in the home with the particular philosophies and practices of this particular group of practitioners, there was no significant increase in risk with a home delivery versus a hospital delivery.

Several points may be made -- that the perineal massage technique  
(next page)

There was no association among either group between length of labor and length of second stage with the incidence of low Apgar scores at birth or with other complications. The mean length of first stage labor among the planned hospital group was 17.5 hours for primigravidae and 5.4 hours for multigravidae. For the home group it was 10.2 hours and 4.6 hours, respectively. This difference was significant at  $p < 0.05$ . The mean length of second stage labor for the planned hospital primigravidae was  $106.8 \text{ min} \pm 31.0 \text{ min}$  and for multigravidae was  $50.1 \text{ min} \pm 28.3 \text{ min}$ . For the home series the mean length of second stage was  $118.2 \text{ min} \pm 40.5 \text{ min}$  for primigravidae and  $44.6 \text{ min} \pm 23.7 \text{ min}$  for multigravidae. The primigravidae differences were significant at  $p < 0.05$ .

There were 14 cases of prolonged rupture of membranes in the home birth series and 11 in the planned hospital series ( $p < 0.01$ ). There were no infections in the infants except for one low birth weight infant whose mother developed signs of amnionitis prior to delivery and had had multiple vaginal exams. She was in the planned hospital series. Table 9 presents some additional data on the reasons for which home deliveries were transported to the hospital for the home birth series.

utilized by the midwives in preventing vaginal lacerations during delivery did indeed function and that as the physicians adopted this technique, their laceration rate decreased. The higher utilization of oxytocin after delivery by the physicians may have reflected its availability to them and their training to use it frequently. The equivalence of hemorrhage and blood loss results between the physician and midwife group suggests that it was not needed as frequently as used. The lay midwives took women to the hospital more frequently than the physicians, presumably reflecting their decreased capabilities to handle specific complications at home and their lower threshold level for going to the hospital possibly related to a lower level of knowledge. The reasons for transport which were most significantly different between the groups were for prolonged rupture of membranes, uterine inertia, decreasing fetal heart rate, manual removal of a retained placenta, and treatment of postpartum hemorrhage. The physicians were able to treat some of their cases of uterine inertia with buccal oxytocin at home, and removed several retained placenta at home, as well as carrying oxytocin and methergine to treat third stage bleeding at home. The greater number of FHT problems brought to the hospital by the midwives may reflect their greater level of anxiety in dealing with and desire for transporting abnormal situations to the hospital early.

The planned hospital population, while having equivalent training for childbirth, used more analgesia during labor than the home birth series, and this may have contributed to their higher incidence of low one minute Apgar scores, second stage dystocia, and greater incidence of fetal heart rate drops. The much lower incidence of "excessive bleeding" in the planned hospital group may be indicative of the attendants lesser anxiety for equivalent blood loss in the hospital than in the home. The

incidence of postpartum hemorrhage was greater in the planned hospital group and may represent the greater tendency to pull on the umbilical cord to aid in the delivery of the placenta. At home, the umbilical cord was rarely pulled to aid placental delivery, but rather, the natural expulsive forces of the uterus were relied on. This is substantiated by the longer third stages seen in the home group.

The failure of prolonged second stage to be associated with infant problems in this series may relate to the slower descent with less intense pushing placing less of a stress on the infant, or may relate to other factors. This has been found to hold, as well, in the British Perinatal Study (1973) and by Friedman (1974). Clearly many of these findings may need to be substantiated by further study in such populations as these. It may be that much current obstetrical thinking is influenced by many of the studies having been completed on welfare populations, while different results may hold in different populations. More work needs to be done in this area.

The 0.3% incidence of neurologically abnormal infants at one year follow-up contrasts favorably with the 1.7% incidence of neurologically abnormal infants at 1 year of age found by the National Institute of Neurological Diseases and Stroke (1972). The Apgar scores in this series were scored by an attendant not involved in the actual delivery, and may be inflated here, as in the hospital, where often the physician delivering the infant assesses the Apgar score. They are useful however in assessing the accoucheur's perception of the infant's immediate difficulties, which in this series, seem minimal. The total percent of 1 minute Apgar scores less than 7 was 4.1% compared to a 21% incidence of such scores in a non-welfare population in the hospital found by Drage and Berendes (1965). The contribution of other factors such as lower stress in the home en-

in a study such as this. Incidences of meconium staining in this group was less than that of the general population (Klaus and Farnaroff, 1973). This was true as well for labor dystocia (Friedman, 1974) and (Eastman and Hellman, 1968), as well as for other complications (Eastman and Hellman, 1968).

Neonatal mortality rate for the home delivery population was 5.2 per 1000, and perinatal mortality was 9.5 per 1000. Intrapartum asphyxia deaths occurred at a rate of 0.95 per 1000. Unfortunately few studies are available for comparison. Behrman, et al<sup>9</sup> report a neonatal mortality rate of 5.0 per 1000 in 39,896 non-premature, white middle-class pregnancies receiving private prenatal care. The non-premature perinatal rate for this group was 7.6 per 1000, and the overall neonatal and perinatal mortality rates were 13.8 and 17.6 per 1000, respectively. Chan, et al<sup>10</sup> report an intrapartum stillbirth rate due to asphyxia of 1.7 per 1000 in 1162 patients receiving random assignment fetal monitoring at Loma Linda University Hospital, and Shenker, et al<sup>11</sup> report a 0.5 per 1000 intrapartum asphyxial death rate in fetal monitored patients. The prematurity rate of the Behrman, et al study was 4.8%; in the home delivery series it was 3.0%. The planned hospital population had a neonatal mortality rate of 5.5 per 1000 and a perinatal mortality rate 11.0 per 1000.

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This compares favorably to the work of Halverkamp (1976) showing superior results of nurse monitoring labors compared to fetal monitor machines. Table 10 is included to show the equivalence of physician midwife observations for the home delivery series. Since these same physicians were making observations in the hospital, this suggests that the quality of observations between the two populations was equivalent.

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portion and had more low forceps deliveries, significantly more because of a drop in fetal heart rate.

Table 4 presents the comparison complication figures for the home delivery population (4A) and the planned hospital group (4B). The planned hospital group showed significantly more second stage labor dystocia ( $p < 0.025$ ), more drops of the fetal heart rate ( $p < 0.005$ ), more postpartum hemorrhage ( $p < 0.001$ ), more forceps deliveries ( $p < 0.001$ ), episiotomies ( $p < 0.001$ ), Cesarean sections ( $p < 0.025$ ), analgesia ( $p < 0.001$ ), and significantly less total unmedicated deliveries ( $p < 0.001$ ).

Table 5 compares the perinatal outcome data. The neonatal and perinatal mortality results were not significantly different between the planned hospital group and the home delivery group, nor was the rate of low birthweight infants, or the mean length of infant follow-up. The hospital neonatal death rate was 5.5 per 1000 live births with 11.1 perinatal deaths per 1000 total births.

Table 6 compares infant morbidity obtained and outcome, and Table 7 compares neonatal complications. The planned hospital group had significantly more fetal hypoxia ( $p < 0.025$ ) and significantly more 1 minute Apgar scores less than 4 ( $p < 0.025$ ). Among the home birth series, the midwives had more infants who received phototherapy for jaundice than did the physicians ( $p < 0.025$ ).

Causes of fetal deaths are compared in Table 8.

The prematurity rate for the population initially seeking assistance from one of the services studied was 3.0%. For the planned hospital group it was 2.8%. There was no significant difference between one minute Apgar scores ranging from 4-6 between the home birth group and the planned hospital group with 10 and 7 such ratings, respectively. Average Apgar scores for the planned hospital group were 8.6 at one minute and 9.7 at five minutes, and were not statistically significantly different from the home birth group.

## Results

Table I compares the statistics on the selection of the planned hospital group with the elected home delivery group. There were more primigravidae in the hospital group and fewer secundipara. The other differences were not significant. The maternal age was not statistically different between groups. Virtually all the women in the planned hospital group were trained in childbirth classes (as were the home group) such as Bradley or Lamaze. A high incidence of breast feeding also characterized the planned hospital group. All women in the planned hospital group attempted breast feeding except one, and, for a variety of reasons, two of these were not successful.

Statistics on the presentations and deliveries are compared in Table 2. The planned hospital group contained more breech infants, had more Cesarean sections, had more analgesia, received more oxytocin during first stage, second stage, and after third stage labor, had more low and mid forceps deliveries, and more episiotomies. The breech infants did not contribute to these differences with the exception of one Cesarean section. It is important to note that the labor attendants for these planned hospital deliveries had the same philosophies as the home birth attendants so that these differences presumably come as a result of the effect of being in the hospital and may relate to a lower motivation for the women to carry through with an unmedicated delivery or to more readily available analgesia or an atmosphere more encouraging of analgesia, or to a feeling of pressure transmitted to the birth attendants to intervene sooner or more aggressively in the hospital than at home. These may be related to the subtle effects of atmosphere which are as yet difficult to measure. The indications given for forceps and Cesarean deliveries are compared in Table 3. The planned hospital group had more Cesarean sections, primarily related to cephalopelvic dispro-

Perinatal Outcome

	Home Number	Rate	California St. 1973	Sign.	Hospital Number	Rate
Total Births	1152*				180**	
Live Births	1147*				180**	
Fetal Deaths	5	4.3 <sup>1</sup>	8.2 <sup>1,3</sup>	NS	1	5.5 <sup>1</sup>
Neonatal Deaths	6	5.2 <sup>2</sup>	10.3 <sup>2</sup>	NS	1	5.5 <sup>2</sup>
Total Perinatal Deaths	11	9.5 <sup>1</sup>	20.3 <sup>1</sup>	NS	2	11.1 <sup>1</sup>
Low Birthweight ( < 2501g)	15	1.3 <sup>2</sup>	5.3 <sup>2,3</sup>	NS	3	1.7 <sup>2</sup>
Mean Length of Infant Follow-Up		11.5 mos.		NS		11.6 mos.
S.D. Length of Follow-Up		+10.3 mos.		NS		+10.4 mos.
% Infants Followed to 6 mos.		83.4%		NS		81.2%

\*includes 6 sets of twins

\*\* includes 2 sets of twins

1-per 1000 total births

2 per 1000 live births

3 for white, non-Spanish surname, age 20-29

Complications	Primigravidae N=729			Multigravidae N=417			Total N=685					
	M.D.'s N=464		Midwives N=265	M.D.'s N=221		Midwives N=196	M.D.'s N=685					
	Home	To Hosp	Home	To Hosp	SS <sup>1</sup>	Home	To Hosp	Home	To Hosp	SS <sup>1</sup>	Home	To Hosp
Jaundice, reg. Rx	1	5	2	9	p<0.025	2	1	0	1	NS	3	6
Fetal hypoxia	2	0	0	0	NS	0	1	0	0	NS	2	1
Neurological Abnormalities <sup>2,4</sup>	2	1	0	1	NS	0	0	0	1	NS	2	1
Cerebral palsy	1	0	0	1	NS	0	0	0	0	NS	1	0
Neonatal FTI	1	1	0	1	NS	0	0	0	0	NS	1	1
Apgar (1 min.) score												
score less than 4	3	0	1	1	NS	0	1	0	1	NS	3	1
score 4 - 6	12	7	5	3	NS	2	4	2	5	NS	14	11

1 calculated on the basis of home & hospital

2 include cerebral palsied infants

4 development at 1 year follow-up

C-sections and Forceps Deliveries  
in Women Beginning Labor at Home

	<u>Home Number</u>	<u>Hospital Number</u>
<u>Low Forceps Delivery</u>		
Protracted descent	6	0
Arrest of descent	2	3
Dysfunctional labor	1	0
Brow presentation with arrest of descent	1	0
Fetal heart drop	1	3
Bleeding during 2nd stage	0	1
	<u>11</u>	<u>7</u>
<u>Mid Forceps Delivery</u>		
Protracted descent	3	0
Arrest of descent	1	1
Dysfunctional labor	1	0
Fetal heart drop, occiput posterior presentation	1	0
Fetal heart rate drop, amnionitis, maternal hypertension	0	1
	<u>6</u>	<u>2</u>
<u>C-Sections</u>		
Cephalopelvic disproportion	16	7
Failure to descend, occiput posterior presentation, relative CPD	6	
Arrest of active phase dilation, fetal heart drop, cord 4x neck	1	
Prolapsed cord	1	(1)
Breech with amnionitis	1	
Psychotic reaction to labor	1	
Acutely dropping fetal heart tones	1	
Toxemia	1	
Breech with low breech score, poor labor progression	0	1
Transverse lie with one prolapsed cord	(1)	2
	<u>28</u>	<u>10</u>

	Home		Hospital		California 1973	Stat. Sign.
	Number	Percent	Number	Percent		
Mother's Age	1146	100.0	180	100.0	100.0	
< 20	60	5.2	12	6.7	17.3	NS
20-34	1068	93.2	160	89.9	77.6	NS
≥ 35	18	1.6	6	3.4	5.1	NS
Mean Age	24.9				4	
Range	16-44					
Variance	16.8					
S.D.	4.1					
Parity	1146	100.0	180	100.0	100.0	
para 0	729	63.6	133	73.9	43.3	p<.005
para 1	237	20.7	33	18.3	31.0	NS
para 2	128	11.2	9	5.0	13.3	p<.025
para 3	34	3.0	2	1.1	6.0	NS
para 4	18	1.6	1	0.6	6.3	NS
Prenatal Care Began	1146	100.0	180	100.0	100.0	
1st Trimester	707	61.7	114	64.0	72.8	NS
2nd Trimester	362	31.6	63	35.4	20.2	NS
3rd Trimester	74	6.5	1	0.6	4.5	**
None	3	0.3	0	-	2.4	NS

\*includes prenatal care unknown

Condition	Number	Rate per 1000 LB	Delivery	Complications	Outcome
<b>Congenital Defects</b>	<b>6</b>	<b>5.2</b>			
PDA			Home	None	repaired surgically at 1 year
Coarctation of aorta			Home	None	repaired surgically at 2 years
Omphalocele			Home	None	repaired surgically at 15 hours
Myelomeningocele, thoracic			Home	None	mental & motor retardation at 18 months
Multiple minor anomalies			Hosp	FHT↓, C-S	no mental or motor retardation at 1 year
Down's syndrome			Home	Meconium	mental retardation
<b>Cerebral palsy</b>	<b>2</b>	<b>1.7</b>	Home	FHT↓, precip. del.	motor retardation
			Home	None	mild spastic with slow verbal development
<b>Surgical Conditions</b>	<b>2</b>	<b>1.7</b>	Home	None	pyloric stenosis repaired at 5 and 8 days
<b>Low Birthweight</b>	<b>15</b>	<b>13.1</b>	Hosp	2nd Tri Bleed	1332 grams, in hospital 1 month, severe
			Home	None	1729 grams, in hospital 2 weeks, mild
			Home	Breech	2154 grams, in hospital 12 days, mild
			Others: Home	None	No problems
<b>Low Birthweight</b>	<b>3</b>	<b>16.6</b>	Hosp	FHT prior to del.	neonatal sepsis and amnionitis
			Hosp		2 cases mild RDS
<b>Hyperviscosity syndrome</b>	<b>1</b>	<b>5.5</b>	Hosp	None	resolved

Age at Death	Number	Delivery	Complications	Cause of Death
5 months est. gest. age	1	Home	None	Rh incompatibility, insisted on home delivery
35 weeks est. gest. age	2	Home	None	Intrauterine death, unknown cause
During labor	1	Hosp	Amnionitis IUD in place	Overwhelming intrauterine sepsis
During labor	1	Home	None	Unknown cause
2 days	1	Home	None	Macrosomia, single umbilical artery, bilateral adrenal hemorrhage, numerous congenital anomalies
7 days	1	Home	None	Cystic fibrosis, meconium ileus, postoperative peritonitis and sepsis
7 days	1	Home	None	Coarctation of aorta
10 days	1	Home	None	Cor biloculare
2 weeks	1	Home	None	Sudden infant death syndrome
3 weeks	1	Home	None	Post surgery for tetralogy of Fallot
During labor	1	Hosp	Rapidly ↓ FHT	Meningoencephalitis, etiology unknown
8 days	1	Hosp	None	Aplastic left ventricle

Primigravidae  
(N=52/133-39.1%)

Stat.  
Sign.\*\*1

Complication	Hospital	Percent	Stat. Sign.**1
<b>Intrapartum</b>			
Dystocia 1st Stage <sup>2</sup>	15	11.3	NS
Dystocia 2nd Stage	10	7.5	p 0.025
CPD	7	5.3	NS
Meconium stain only	4	3.0	NS
FHT↓ (c, s meconium)	10	7.5	p 0.005
Hypertension	2	1.5	NS
Precipitous labor	2	1.5	NS
Other*	6	4.5	
<b>TOTAL</b>	<b>56</b>		

**Postpartum**

Hemorrhage <sup>3</sup>	5	3.8	p 0.001
Excessive PP bleed <sup>3</sup>	2	1.5	p 0.001
Retained placenta	2	1.5	NS
Endometritis	3	2.3	NS
PP Depression	1	0.8	NS
<b>TOTAL</b>	<b>13</b>		

Multigravidae  
(N=10/45-22.2%)

Stat.  
Sign.\*\*1

Complication	Hospital	Percent	Stat. Sign.**1
<b>Intrapartum</b>			
Dystocia 1st Stage	2	4.4	NS
Dystocia 2nd Stage	1	2.2	NS
CPD with breech	1	2.2	--
Precipitous labor	2	4.4	NS
FHT↓	1	2.2	NS
Hypertension	1	2.2	--
Transverse lie	1	2.2	--
<b>TOTAL</b>	<b>9</b>		

**Postpartum**

Hemorrhage	0	--	NS
Excessive PP bleed	1	2.2	NS
Retained placenta	1	2.2	NS
Endometritis	1	2.2	NS
<b>TOTAL</b>	<b>3</b>		

\*single cases of amnionitis, shoulder presentation, cord prolapse, cord knot, recurrent pyelonephritis, transverse lie. \*\*compared with Table 5A

<sup>1</sup>Percent complications per 133 primigravidae, 45 multigravidae.

<sup>2</sup>Dystocia as used in this table is defined as: prolonged or arrested first stage, failure to dilate; prolonged or arrested 2nd stage, failure to descend, according to Friedman and Greenbill (1974).

<sup>3</sup>Hemorrhage is defined as more than 650 ml; excessive bleeding as "more than normal", and includes late bleeding after the third postpartum day.

Neonatal Outcomes

Is To Hosp	Primigravidae N=729 Midwives N=265			SS <sup>1</sup>	Multigravidae N=417 M.D.'s N=221			SS <sup>1</sup>	Total M.D.'s N=685			N=1146 Midwives N=461			SS <sup>1</sup>	Planned N=176
	Home	To Hosp			Home	To Hosp			Home	To Hosp		Home	To Hosp			
5	2	9	p<0.025	2	1	0	1	NS	3	6	2	10	p<0.025	3		
0	0	0	NS	0	1	0	0	NS	2	1	0	0	NS	3		
1	0	1	NS	0	0	0	1	NS	2	1	0	2	NS	0		
0	0	1	NS	0	0	0	0	NS	1	0	0	1	NS	0		
1	0	1	NS	0	0	0	0	NS	1	1	0	1	NS	1		
0	1	1	NS	0	1	0	1	NS	3	1	7	8	NS	7		
7	5	3	NS	2	4	2	5	NS	14	11						

home & hospital  
-fants  
w-up

Complication	M.D.'s N=58	Midwives N=76	Stat. Sign.
<u>1st Stage Complications</u>			
No prenatal care			
Dehydration → IV Hydration	1	0	NS
severe toxemia → Cesarean	0	1	NS
Prolonged rupture of membranes → induction	0	4	p 0.01
Dystocia 1st stage (excluding CPD)			
Uterine Inertia → Oxytocin	7	19	p 0.001
Labor Prolongation with ↓ FHT → internal monitor & oxytocin	1	0	NS
Arrest of Dilation			
Involving ↓ FHT and uterine inertia → int. monitor & oxytocin	1	0	NS
Brow presentation → oxytocin & low forceps	1	0	NS
Arrest & Uterine Inertia → oxytocin, low forceps	0	2	NS
Arrest → CPD, Cesarean	10	7	NS
Arrest → FHT nuchal cord x4 Cesarean	1	0	NS
Hypertension, Rx'd with mag. sulfate	1	0	NS
untreated	5	0	NS
Bleeding during labor → no treatment	1	0	NS
Amnionitis → antibiotics	1	0	NS
Fear, desire for hospital	2	6	p 0.05
Desire for anesthesia			
Anesthesia given	3	0	NS
Analgesia only	1	0	NS
Hyperemesis → IV's and compazine	1	0	NS
Dropping FHT's			
No therapy, monitor applied	0	4	p 0.001
Cesarean section	0	1	NS
Cord prolapse → Cesarean	0	1	NS
with meconium → intubation	0	3	p 0.025
Psychotic Reaction to Labor Cesarean	0	1	NS

Neonatal Outcomes

No	Primigravidae N=729			SS <sup>1</sup>	Multigravidae N=417			SS <sup>1</sup>	Total M.D.'s N=685			N=1146 Midwives N=461			Planned N=171
	Midwives	Home	To Hosp		M.D.'s	Home	To Hosp		M.D.'s	Home	To Hosp	Home	To Hosp	SS <sup>1</sup>	
5	2	9	p<0.025	2	1	0	1	NS	3	6	2	10	p<0.025	3	
0	0	0	NS	0	1	0	0	NS	2	1	0	0	NS	3	
1	0	1	NS	0	0	0	1	NS	2	1	0	2	NS	0	
0	0	1	NS	0	0	0	0	NS	1	0	0	1	NS	0	
1	0	1	NS	0	0	0	0	NS	1	1	0	1	NS	1	
0	1	1	NS	0	1	0	1	NS	3	1	7	8	NS	7	
7	5	3	NS	2	4	2	5	NS	14	11					

home & hospital  
 fans  
 w-up

2nd Stage Complications

## Protracted descent

Rx'ed with low forceps (1 FHT↓) 4 2 NS

Rx'ed with mid forceps with FHT↓ 2 1 NS

Rx'ed with oxytocin 5 9 NS

## Arrest

CPD, Cesarean Section 4 2 NS

Abnormal Presentation, mid forceps 1 1 NS

Brow presentation, low forceps 0 1 NS

## Dropping FHT's

Low forceps 1 0 NS

With meconium → oxytocin, intubation 0 2 NS

mid forceps 1 0 NS

## Bleeding → oxytocin 0 1 NS

3rd Stage Complications

Retained placenta → manual removal 2 5 p &lt; 0.05

Hemorrhage → oxytocin, meth., blood 1 4 p &lt; 0.025

Cervical laceration → suturing 0 1 NS

a sums of complications

b based on total N's (685 and 461, respectively)





ALASKA STATE LEGISLATURE  
HOUSE OF REPRESENTATIVES  
RESEARCH AGENCY

Pouch 1, State Capitol  
Juneau, Alaska 99811  
(907) 465-3991

March 27, 1981

MEMORANDUM

TO: Representative Tony Vaska

FROM: Leslie Longenbaugh *LL*  
Research Staff

RE: Lay Midwifery in Oregon  
Research Request Number 81-89

You have asked that we investigate the history and consequences of the Oregon Attorney General's opinion of June 17, 1977 regarding lay midwifery. Specifically, you asked about 1) the legal rationale used by the Attorney General in his opinion; 2) how the legislators who oppose lay midwifery happened to forego the opportunity to legislate against the practice; 3) whether Oregon has been held liable for health problems or deaths resulting from lay midwifery; and 4) whether Oregon keeps a register or other list of lay midwives.

Linda Vaska asked that we relay the information to your office in installments, if necessary. This memorandum presents the preliminary results of our research.

We spoke with Marianne Remy, of the Oregon Department of Health<sup>1</sup>, who was able to answer your questions as follows.

1. What was the legal rationale used by the Attorney General's office in his opinion?

Oregon law apparently provides that only those medical procedures defined as involving a "disease state" require the presence of a physician or registered nurse. Childbirth is not defined by the Attorney General as a "disease state," or as an intrusive and surgical procedure, and therefore is not a procedure that requires the attendance of a licensed medical practitioner. The Attorney General's opinion prohibits lay midwives from administering medication and from performing episiotomies.<sup>2</sup> In the case of an emergency during a delivery, a lay midwife either calls

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<sup>1</sup>Marianne Remy, Oregon State Department of Health, Portland, Oregon; phone: (503) 229-5806.

<sup>2</sup>According to Ms. Remy, lay midwives rarely violate these prohibitions, in large part because of the "nonintrusive" philosophy that informs their work.

a local physician or transports the mother and child to the emergency room of a local hospital. The question of whether lay midwives may cut the cord of an infant has not been addressed, either in the opinion or in the enforcement of the opinion's prohibition against surgical procedures.

2. Why have Oregon legislators who oppose lay midwifery not attempted to pass legislation to restrict or limit the practice?

Ms. Remy reports that the members of the medical community and legislators who oppose lay midwifery and home childbirth were not aware of the extent of lay midwifery that was practiced in Oregon at the time of the Attorney General's opinion. Now that lay midwives have formed associations and have become quite visible in the state, such organizations as the Oregon Medical Association have begun to press for legislation to restrict attendance at a childbirth to licensed physicians and nurses. In fact, such a bill apparently has been introduced during the current session of the Oregon Legislature.

3. Has Oregon been held liable for illness or death attributable to the practice of lay midwifery?

Ms. Remy is not aware of any suits charging that the state is liable in cases of complications resulting from childbirth through lay midwifery. She indicated that this question could be better answered by the Attorney General's office.

4. Does Oregon keep a register of lay midwives?

There is no list of midwives compiled by the state.

The member of the Oregon Attorney General's staff who wrote the 1977 opinion will not be in the office until Monday, March 30; we will call him then, and send you additional information based on this conversation. Ms. Remy is sending us a copy of the Attorney General's opinion.

The Oregon Public Health Association has recently formed a resource committee to study the issue of alternative childbirth; Ms. Remy is a member of this new committee. The committee plans to study the outcomes of several types of childbirth, among them lay midwifery.

<sup>3</sup>David Spence, Director, Family Health Section, Division of Public Health, Department of Health and Social Services; phone: 465-3100.

Representative Vaska  
March 27, 1981  
Page 3

In Alaska, David Spence is the Director of the Family Health Section of the Division of Public Health in the Department of Health and Social Services.<sup>3</sup> He might be able to give more information on lay midwifery, not only in Alaska and Oregon but for other states as well.

If you would like us to analyse the opinion in light of Oregon and Alaska law, please call on us.

LL/dp



ALASKA STATE LEGISLATURE  
HOUSE OF REPRESENTATIVES  
RESEARCH AGENCY

Pouch Y, State Capitol  
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March 31, 1981

MEMORANDUM

TO: Representative Tony Vaska

FROM: Leslie Longenbaugh *L*  
Research Staff

RE: Lay Midwifery in Oregon, Additional Information  
Research Request Number 81-89

In our memorandum to you of March 27, we mentioned that we would be contacting the author of the Oregon Attorney General's opinion on lay midwifery. We spoke this morning with Arnie Silver<sup>1</sup> of the Oregon Attorney General's office, who offered a somewhat different perspective on lay midwifery in that state.

Mr. Silver described his legal approach in writing the opinion as one which employed not only the "disease state" criterion alluded to by Ms. Remy (see our March 27 memorandum), but also an old Oregon statute that allows a midwife to sign a birth certificate. He interpreted this law to mean that the Oregon Legislature had intended to allow lay midwives to deliver babies.<sup>2</sup>

Mr. Silver is of the opinion that strong opposition to lay midwifery does not exist in Oregon, except among members of the medical community. He feels that, owing to Oregon's strong "naturalistic" movement, many people support the notion of "natural" childbirth performed at home under the guidance of a lay midwife.

In answer to your question concerning the state's legal liability, Mr. Silver believes that his state has no legal responsibility whatsoever in the practices of lay midwives, as Oregon does not participate in any licensing or training.

The copy of the Oregon opinion sent to us by Ms. Remy has not yet arrived; as soon as it does, we will forward a copy to your office.

If we can be of further assistance, please call on us.

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<sup>1</sup>Arnie Silver, Assistant Attorney General, Portland Division; phone: (503) 229-5725.

<sup>2</sup>Mr. Silver mentioned that the opinion was requested by the Oregon Board of Nursing, which wanted to know whether lay midwives were practicing nursing, and therefore would come within the purview of Oregon laws governing nursing.

Flora

Gollogly - restrict to those who are low-risk -

all licensed - Bd (lay, MD, nurse midwif) scope too broad

Wilbur - doesn't favor home birth, wants licensure, bc needs MD,  
20 births inadequate, cont ed dets, history inadequate.

Leason - need requirement for back-up - Bd of M - not support

M<sup>c</sup>Kenzie - need reg midwif. New Mexico better framework. Main  
problem is scope.

Montano - don't license - say "caveat emptor"

Gettenger - bill step in right direction

Sitka

Spencer - drs won't cooperate

Frank - define midwife, midwifery

Pearce - no easy answer

Arch

Witt - no mechanism for improvement. No back-up system

Korn - experience (20 births) no criterion, who sponsor? Support  
birthing centers

Soldotna

WTNA

2/5% home  
in Kenia

Debbie Millington

Judy Harvey - 5 kids (2 home) 3 home

Diane Thurn - study - midwife

midwives Assn of AK

**SITKA**

~~XXXXXXXXXXXX~~

~~SUSAN CARLSON~~

MAT-SU 2 children (home) - favor

1 Bridgette J. Preston

\*2 Thomas R. Preston - arrangements of dr - c-sections

3 Karen Saari Boyer - par. 20 births expect.

4 VIVIANNE Hall - 4 children - nurse - 400 attend at home

5. Kathy DUNBAR

Bridgette will read husband's written testimony. He was unable to attend

6. Jennie Schrage RN - against



honor.

Dillingham - 4 people

Camila Martinez - med anthropologist, apprentice midwife

? Robert CLARK - area health corp - need options

Fbks

Kay Kent - against - not against midwifery - bill really describes nurse-midwife

Home -

Mary Lou Kelley - against - is nurse-midwife. Malpractice

+ 3d party prae inhibits home birth. Kathleen Steier - home born child, favors 747. Key is knowledge, not how obtained.

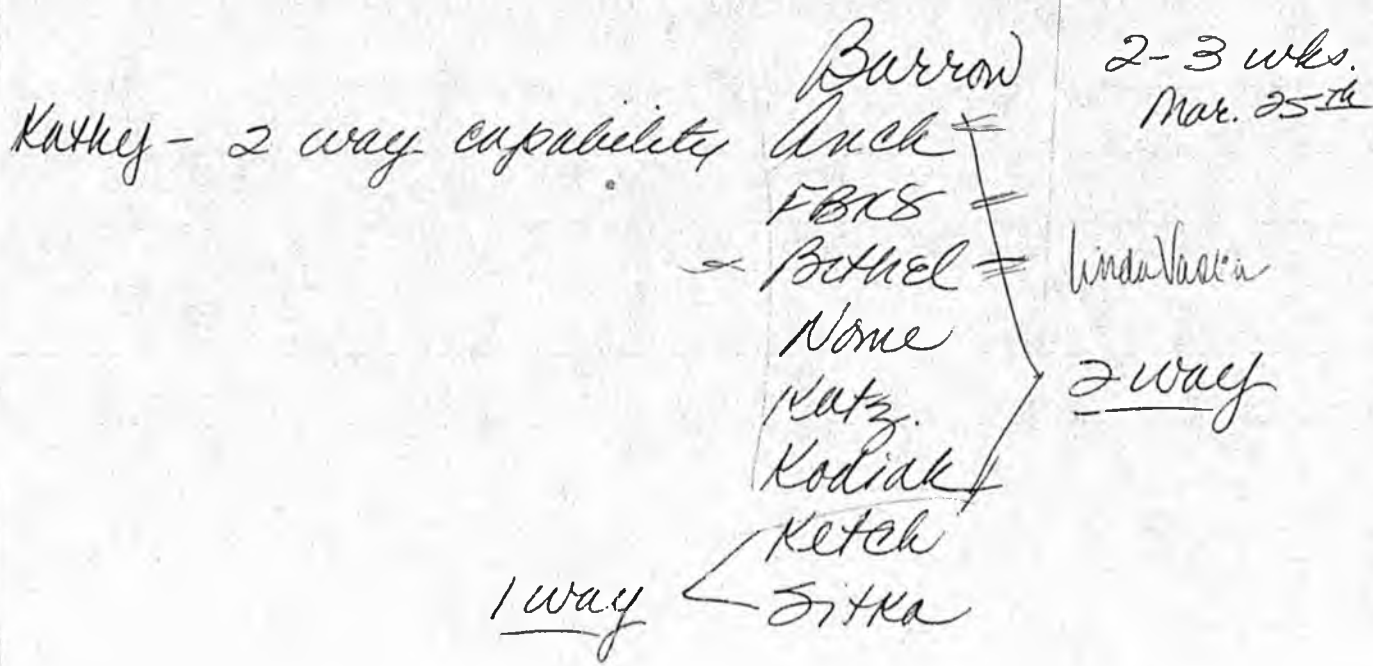
Cambria Child - freedom of choice!

William Bell - MD - against - Oregon experience - bill does not provide nec tng - 25/30 cases - several crises -

Paul Enebean MD - doing few home births every year 18 yrs 1975 - 77 home births - 11 dead -

John Child - 9 children (2 home) hosp birth problem.

\*



Thurs. afternoon 3-5

- well planned - so much time allotted per place -
  - even if the video includes - all sites can be seen.
- 

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Judie Hodge

Ray Alanson for satellite time  
- no production capability in June  
- H.A.A. - thinks because Rankin  
was legislative equipment there  
should be no charges. Alanson  
thought she had made an  
agreement with Rankin  
production.

## Washington State

1. 21 yrs of age
2. certificate or diploma (from accredited <sup>by</sup> <sub>state</sub>) midwifery program or foreign Equivalant.
3. minimum 3 yrs. training. May get 1 yr credit for nursing or experience.
4. lists minimum ed. requirements.
5. observing 50 women in intrapartum period.
6. training emphasis on distinguishing high risk women.

pg. 1 line 28-29 Delete (b)

pg 8 line 14 insert

(4) ensure that each infant is screened in accordance with AS 18.15.200

pg 9 line 7

(3) "Sponsor" means ~~a physician licensed to practice in this state~~ licensed means a physician or midwife licensed to practice.

pg 2 line 9

~~AS 08~~

Three members shall be licensed under this Chapter or eligible to receive licensure under AS 08.69.050 (1)-(3) one of which will be a Certified Nurse Midwife, pg. 2

Delete line 10-13 "one member... AS 08 69.050 (1)-(3)

Delete pg 2 line 15-16

"... or an occupation ... childbirth.

pg 2 line 21 Change "his" to their.

Mon. 1:00 Beltz Rm. SB 710

Page 2, Line 13 - one of the two members appointed by the Governor shall be a medical doctor.

Page 2, Line ~~13~~ - prepare and administer a comprehensive examination that tests competence  
IN <sup>ALL ASPECTS</sup> MIDWIFERY;

Page 3, Line 10 - furnishes proof of having received a high school degree or its equivalent AND TRAINING, AND ~~EDUCATION~~ AT LEAST 2 YEARS  
OF NURSING TRAINING OR ITS EQUIVALENT;

Page 8, ADD section (3) UNDER 08.69.150.  
"SHALL <sup>TRY TO</sup> ESTABLISH AND MAINTAIN A COLLABORATIVE  
RELATIONSHIP WITH A PHYSICIAN UNDER CONDITIONS  
SET FORTH BY THE BOARD;"

Page ~~8~~, Line 29 - practice in this state; AND AUTHORIZED FOR SPONSORSHIP BY THE  
BOARD."

SB 747  
file

OB 64N

26 in Private Pract.

4 PHS

6 military

Jerry Owen Anch  
 David Erkvall Anch  
 William Crompton Anch.  
 Richard Curtis Anch  
 Lyda Eastburn Anch  
 John Erkman anch  
 Leonard Ferrucci Anch  
 Sam Gibson Anch  
 Ray Gills Anch  
 Nedric Hanson Anch  
 Bill Jvey Anch  
 Burritt Newton Anch  
 Richards Nist Anch  
 Jay Rauch Anch  
 Claire Rena Anch  
 George Stransky Anch

James Bertelson FBKS  
 Barbara Clutter FBKS  
 Clarice Duke-minier FBKS  
 Lawrence Dunlap FBKS  
 Davis Heilman FBKS  
 Richard Hess FBKS.  
 Ralph Wells FBKS  
 Joseph Worrall FBKS  
 Richard Babcock Kitch.  
 Carolyn Brown Palmer

ANMC Anch

John Knight  
 Alan Wayman  
 Dennis Zilary  
 Karen Zvonik

Eielson

Bernard Winer

Elmendorf

Rita Biesen  
 Karl Metz

Kodiak

mil Cheung-Ki Kim

Bassett

Richard Sedwick  
 Nigel Wappett