

Exploration of the Use of the Midwives Alliance of North America Statistics Project for California Licensed Midwife Data Reporting

This report, written by Bruce Ackerman and Jen Brown of the MANA Division of Research (DOR) and Carrie Sparrevohn, Chair of the Midwifery Advisory Council (MAC), continues a discussion of the need for more accurate, transparent, and accountable data collection between California licensed midwives and the Medical Board of California (MBC) via the Office of Statewide Health Planning and Development (OSHPD) and ultimately the State of California via an annual report delivered to the legislature by the MBC. The MAC has been exploring alternatives to the current data collection system, mandated by B&P section 2516, (Appendix E), for some time and has become aware of the Midwives Alliance of North America Statistics Project (hereafter cited as MANA Stats). The MANA Stats project will be described in detail below but constitutes a recommended approach, using nationally accepted best practices, to improving the collection of data related to out of hospital births attended by California licensed midwives (LMs) and the reporting of that data, annually, to the Medical Board of California.

Background

Current California LM reporting process as dictated by Business and Professions code Section 2516

California's licensed midwives are currently required to report annually, to OSHPD, aspects of their practice and client load related to out of hospital births that are prescribed by B&P section 2516 (a). (See Appendix E for current language). The form currently used for this process was developed by the MAC in conjunction with OSHPD and has been in use since the 2008 reporting year. (For a copy of the current form see Appendix F)

There have been several issues/concerns associated with the current process. First, data is submitted for each of the midwife's clients *after* the end of the reporting year, in a *retrospective* manner. This begs the question of both transparency and possible accuracy as there is no way to confirm complete data. When using data to create statistics (as this data is intended to be used) data collected in a *prospective* manner is deemed, by the scientific community, to be superior. Currently the state does not have this ability, although the MANA Stats Project does. Secondly, the current data collection tool is difficult for midwives to use correctly which has led to the reporting of inaccurate data. There is no mechanism (or funding) to evaluate suspected errors or even identify inconsistencies that may be reporting errors. As a result, the aggregate reports forwarded to the Medical Board and made public are allowed to stand without correction as submitted and therefore may be an inaccurate or mis-representation of actual data.

A national standard of data collection exists in the MANA Stats Project. In order for California statistics to be compared with like data, on a national level, California must collect LM data in a similar manner to what is now being collected nationally. The unique method, currently used in California, was developed before the MANA Stats Project was the viable option it now is. Currently, the Legislature, OSHPD, the MBC, or any other entity or researcher would be unable to compare and contrast the practices of California LMs with other similar practitioners nationwide, making it more difficult to address issues of best practices on a regulatory or legislative level to ensure the safety of California's birthing families.

Introduction to the Midwives Alliance of North America Statistics Project (MANA Stats)

MANA Statistics Project (MANA Stats) is a research registry of birth information operated by the Midwives Alliance of North America since 2004. At present approximately 123 California midwives voluntarily participate in MANA Stats. Nationwide, midwives or midwifery practices from 43 states actively participate. There have also been a number of scientific, peer reviewed, papers published using the data from the MANA stats project over the last five or so years. (Johnson K, Daviss BA. Outcomes of planned home birth with certified professional midwives: large prospective study in North America. BMJ 2005;330;1416; <http://www.bmj.com/content/330/7505/1416>)

Midwives voluntarily enrolled in MANA Stats enter each individual client into a database as the client enters care, continuing to submit data as it becomes available over the course of the client's care, completing it when care is complete. All data is entered on-line, through a sophisticated web-based data collection tool. This type of data collection is generally termed *prospective data collection*, and is a much more respected form of data collection in the scientific community than *retrospective data collection* which is what California is currently using. With prospective data collection the client is entered into the database at the beginning of care, when the outcome is unknown. There is no ability to then leave that client out of the data set regardless of the birth outcome. If California began participating in a nationally recognized process of data collection, such as the MANA stats, we would ensure California data was collected in the most respected, professional and responsible, scientific way.

The MANA data collection form itself has received a great deal of improvement and validation. The form currently in use is version 4.0, and has been re-designed twice by an interdisciplinary team experienced in the field of maternal-child health research, acquainted with the way midwives practice, and experienced in information systems design and maintenance. Each data form revision has built upon measurement of the prior versions' performance, producing a well-refined, sophisticated yet simple design.

Software aids the midwife in completing the form appropriately without any information either left out or incomplete, thus avoiding many of the inaccuracies seen with the current California reporting instrument. As the midwives submit these completed forms to MANA stats, some will be sent to the Data Review Team, which would review and contact, if necessary, the reporting midwife. This ensures not only accuracy but transparency. (This review process is described in greater detail in Appendix B)

Each contributing midwife is able to view her own personal statistics for a given year via her Annual Summary Report (ASR) on the secure website. The ASR details her caseload for that year and the outcomes of clients in her care for labor and birth. The ASR is designed to report standard statistics used in maternal-child health. (See the Appendices for an overview of the MANA Stats data collection tool, the process for using it and a sample ASR)

MANA Statistics in other States

Oregon, as described below, requires licensed midwives to contribute to the MANA Stats Project. Vermont has similar legislation in effect. Washington is currently in the process of drafting a similar requirement, and Arizona, Colorado, New Hampshire, Texas and New Mexico are considering such rules.

Oregon reporting process:

An example of how this is being used in other states

Oregon licensed midwives (as stated above) are required by statute to participate in the MANA Stats Project, ensuring accurate data for their annual reports. The Oregon Health Licensing Agency (OHLA) looked to the MANA stats project, proactively, as the means to accomplish this for their licensees. The reporting midwife now prints a copy of her ASR, which is sent with her license renewal application, to the OHLA. This process is in its first year and all parties are working through the start-up kinks, but it shows promise for several reasons:

- Due to the well-developed processes by which the MANA Stats Project ensures accurate and consistent data collection, the reports submitted are as complete as possible and categorize outcomes in ways accepted within the research community, making them comparable with existing benchmarking.
- As Oregon midwives all participate in MANA Stats, a research cohort is created which could allow further study of licensed midwifery practice in the state, and which contributes to the national MANA Stats database.
- The Oregon process requires no state-specific software, but leverages the existing MANA Stats web system maintained by the Midwives Alliance.

What would be required for California Licensed Midwives to utilize the MANA Stats reporting tool to collect state data?

The intent of this report is to explore the implications of changing from the current reporting methodology in California to leveraging the strengths of the MANA Stats Project. First and foremost, the existing statute would need to be amended to require California LMs to participate in and meet the requirements of the MANA Stats Project as their sole reporting requirement. LMs would be required to submit a copy of the Annual Summary Report (ASR) from their MANA Stats account to OSHPD each year. OSHPD would then submit the aggregate data to the MBC, just as they currently do.

The present California statute is quite detailed as to the specific data that must be reported by CA LMs. Such detail has constrained the MAC, OSHPD and the Medical Board, resulting in the present difficult reporting instrument. For the new process to ensure best practices are enabled regarding an ability to gather information that is both relevant and a tool to better refine the practice of midwifery in California, as envisioned here, the statute would have to describe the data in broad terms, or not at all, leaving it up to the MAC and the MBC to, through regulations, bring it in-line with what is currently on the MANA Stats data collection tool. This would allow for incremental changes without returning to the legislature. (See the Appendix D for a complete list of changes to captured data). By changing the statute so that the existing MANA Stats Annual Summary Report would satisfy its requirement and subsequently leaving it to the MBC to keep current with what MANA Stats is collecting, California could adopt the approach of requiring MANA Stats of licensed midwives without requiring custom software design, custom form design, or the maintenance of custom software.

If this approach were taken, the reporting deadline for CA LMs would need to align with the MANA Stats timeline to allow completion of midwives' individual birth forms and completion of MANA's review process. If midwives were to continue to report their outcomes on a calendar year basis (January through December), the deadline for midwives to send their ASR to OSHPD would need to be no earlier than July 15. Alternatively, the existing March reporting deadline could be retained, but with the reporting period being from November through October of the previous year, or some other variation

that would allow adequate time for the complete submission of data by midwives, review by MANA and aggregation by OSHPD. Either of the afore mentioned approaches would be equally workable, but a report of births through December that would be completed by March is not feasible since the MANA stats project is set up to work on a national level and its timeline for data submission and data review is already set for all participating midwives across the country. Adherence to the March deadline for a calendar year report would not allow enough time for completion of the process on MANA's end.

The present California reporting process can be compared with the MANA Stats process as follows.

Present Reporting Process	Process using MANA Stats
Midwife provides care for clients	Midwife enters clients in database at onset of care and provides on-going care for those clients
Throughout the year, some but not all midwives voluntarily participate in the MANA Stats project (pre-logging each client and completing the data form on each)	Throughout the year, all California LMs would participate in the MANA Stats project (pre-logging each client and completing the data form on each)
After the reporting year, midwife reviews her charts, tallies the numbers, and completes the on-line reporting form	After the reporting year, when all entries have been reviewed by the MANA Stats project team, the midwife sends her ASR to OSHPD by a method to be determined (mail or electronic)
Deadline for midwives' reporting to OSHPD is March 30 of the following year	Deadline for midwives' sending their complete ASR should be no earlier than July 15 of the following year if reporting for Jan-Dec, OR deadline could remain March 30 for reporting of data on a different timeline, as described above.
OSHPD tallies the reporting forms, and produces an aggregate report for the Medical Board	OSHPD tallies the reporting forms, and produces an aggregate report for the Medical Board
Research data for California Licensed Midwives is not available	Research data for California Licensed Midwives is available through the MANA Division of Research, as a complete cohort.

Details and Caveats

Need for support of new MANA Stats contributors

As Oregon has discovered, if it were decided to require all California LMs to participate in the MANA Stats Project, it is imperative that they be notified of the change early and more than once so that full compliance is reached. Participation in the MANA Stats project requires that the midwife make log entries for all her births as she takes on the clients, completing the data forms in a timely manner. Midwives who are not familiar with the process might assume that they can wait until their California reporting is due to “catch up” with this, but they will not be able to do so. This is a further safeguard to ensure accuracy as well as transparency. The Support team at the MANA Stats Project would be the point group for the data collection, not OSHPD. The MANA stats support team, working through the MAC with the MBC and/or with the California Association of Midwives (CAM) would do outreach and continue, on an on-going basis, to educate LMs on the process, thus ensuring a more total capture of the required data.

When these changes are adopted there would be an expected influx of new enrollees into the MANA Stats Project. It would be essential for the success of this process for there to be funding made available to allow the MANA support team to increase its level of attention to California enrollees, especially in the first year, as they would all benefit from personal contact to assure the data was collected efficiently and accurately. The fiscal portion of this proposal would need to be worked out and decided upon as the process moves forward through the legislature.

Non-Consented births

The MANA Stats process requires that each of the midwife’s clients sign a Consent Form (See Appendix H), agreeing to allow their data to be included in the research registry. This is a standard requirement of all research data collection: the subject needs to consent to having their data used in this way. It is rare for a client to decline consent, but it does happen occasionally (less than 1% nationwide). The Oregon Health Licensing Agency created a form for midwives to use for those clients who declined consent during a reporting year. This form could be a basis for creating a similar form for California.

(to see a copy of this consent form: https://www.manastats.org/docs/ConsentForm_Color.pdf AND to look at the Oregon form for non-consenting clients: http://www.oregon.gov/OHLA/DEM/docs/form/DEM_MANA_Declined_Reporting_Form_OHLA.pdf)

Limiting the report to California births

It should be mentioned that some California licensed midwives attend births outside California. It would need to be decided if the current system, of California LMs only reporting on births attended within California, would be continued. If it was decided to limit the ASR for California midwives, to births that occurred in California, this could be done, but would require an addition to the MANA Stats software. That software change would require advance notice, and funding would be needed to pay for programming time. If it were decided to collect data on all of the births attended by a California LM then no change to software would be required.

Allowing for an exception for midwives who do not attend out-of-hospital births

For California LMs who attend no out-of-hospital births within the state in a reporting year, the current system of allowing those LMs to report just that, rather than participate in the MANA stats project, should be continued.

In Conclusion

California should utilize the midwives' Annual Summary Report (ASR) from the MANA Statistics Project for reporting practice data by licensed midwives through OSHPD to the Medical Board. Doing so would leverage an existing and mature process that would result in the most accurate aggregate data being reported to the Medical Board. The use of this process by California, would allow California's data on out of hospital births attended by licensed midwives to be incorporated, in total, in a national data base. The underlying data (that not included in the summary but used to create it) would reside in the MANA Stats research registry, where it could be the basis of research to further understand and improve midwifery practice and outcomes in California. Several other states, as referenced herein, are currently passing or have passed legislation requiring Licensed Midwives to participate in the MANA stats project for data collection in their respective states. This makes it apparent that the use of the same process for all states is the most sustainable path forward.

Appendix A: MANA Stats data collection process

This is a very brief “tour” of the MANA Statistics Project web system, to show how the midwife enters her birth data. For more detail or to ask questions, please contact the MANA Division of research, or take a look at the demonstration site, at <http://demo.manastats.org> where you can make a sample log entry and explore the data form completely.

The midwife begins by making a log entry for each of her clients as they enter her care. By pre-registering her planned births, it is assured that a data form is completed for every one of them.

The screenshot displays the MANA Statistics Project web interface. On the left is a navigation menu with links: Your Workspace, Client Log, Data Forms, Statistics, Preferences, Contact Us, and Sign Out. The main content area is titled 'MANA Statistics Project' and 'Client Log and Data Forms'. It includes a paragraph explaining that the Client Log lists prospective births and can be sorted by birth code, initial visit date, age, EDD, or consent status. Below this is a link to 'Add a new client to the log' and a note about updating log information. A table titled 'Items in your log: 9' lists client entries with columns for Log Entry, Birth Code, Initial Visit Date, Age, Due Date, Client Consent, Consent Form, and Data Form. The table contains 9 rows of data. At the bottom, it says 'Web site and data forms ©2004-2011 Midwives Alliance' and 'Signed in as: Anne Midwife'.

MANA Statistics Project

Client Log and Data Forms

The Client Log lists all the prospective births logged to date by you or the other midwives in your practice. Clients for which data forms have not yet been submitted are shown below. You can sort the log by birth code, initial visit date, age, EDD, or consent status: just click on the heading by which you want to sort.

To update log information for a client--if you've sent off a consent form or if the EDD is revised--click on the "Update" link to the left of the appropriate entry.

[Add a new client to the log](#)

Items in your log: 9

Log Entry	Birth Code	Initial Visit Date	Age	Due Date	Client Consent	Consent Form	Data Form
Update	AN-02	6/17/11	34	9/3/11	Yes	received	Add to data form
Update	AN-08	4/11/11	30	9/7/11	Yes	received	Add to data form
Update	AN-05	7/7/11	26	9/18/11	Yes	received	Add to data form
Update	AN-49	2/4/11	21	9/18/11	Yes	received	Start data form
Update	AN-22	5/9/11	36	9/19/11	Yes	received	Add to data form
Update	AN-48	4/8/11		9/23/11	Yes	received	Start data form
Update	AN-43	7/17/11	27	9/29/11	Yes	received	Start data form
Update	AN-51	4/4/11	40	10/2/11	Yes	received	Keep checking
Update	AN-47	8/1/11	32	2/1/12	Yes	received	Add to data form

Web site and data forms ©2004-2011 Midwives Alliance

Signed in as: Anne Midwife

A Consent Form is collected, on paper, from each client, which assures that the client agrees to allow her data to be included in the MANA Stats registry, informing her of the purpose of the registry and of its operation including safeguards taken to protect and de-identify her data. In order for research to be done on human subjects' data, Institutional Review Boards will require that this informed consent process was followed. The great majority of women agree, but occasionally a client will decline consent, and her data form will not be able to be entered by the midwife; in these cases that client's log entry is recorded as non-consenting and the midwife is not able to complete the on-line data form. The Annual Summary Report would include a warning if there were any log entries during the reporting year for which client consent was not obtained.

The midwife completes the MANA Stats data form for those clients who gave consent. This is the third generation of data form since the inception of the web-based data collection system in 2004, and it is considerably refined, streamlined and simplified based on study of the performance of prior versions. The present "Minimal Form" does an excellent job of collecting consistent data to allow the key Maternal/Child Health outcomes to be accurately derived from it, while minimizing the burden on practicing midwives so they can keep current with the data collection process.

Shown below is a portion of the data form within the Labor & Birth page.

Start Demographic History Pregnancy Labor & Birth Postpartum Newborn Finish
<p>Birth Summary</p> <p>Was a pharmacological induction of labor attempted?¹: <input type="radio"/> - <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Was induction by herbs/castor oil, homeopathy, nipple stimulation, AROM, or membrane-stripping attempted? <input type="radio"/> - <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>Mode of birth: <input type="radio"/> - <input checked="" type="radio"/> spontaneous vaginal <input type="radio"/> forceps <input type="radio"/> vacuum <input type="radio"/> cesarean</p> <p>State or province where the birth occurred: CA</p> <p>Place of birth:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> - <input checked="" type="radio"/> home <input type="radio"/> birth center¹ <input type="radio"/> hospital </div> <div> <input type="radio"/> higher-level hospital after transport from planned hospital <input type="radio"/> en route <input type="radio"/> other </div> </div> <p>Number of babies: 1</p> <p>Estimated blood loss (until point at which uterine tone was established)¹: 0.5 cups or 118 cc (milliliters)</p> <p>Was the baby born before 37 completed weeks? <input type="radio"/> - <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown</p>
<p>Stages of Labor (You can use 12- or 24-hour time; you must fill out all boxes of the time and date.)</p> <p>Time and date active labor began¹: 12 : 24 AM 1 / 5 / 2012 (MM/DD/YYYY)</p> <p>Time and date continuous pushing began: 4 : 17 AM 1 / 5 / 2012 (MM/DD/YYYY)</p> <p>Time and date of birth: 4 : 42 AM 1 / 5 / 2012 (MM/DD/YYYY)</p> <p>Time and date third stage ended¹: 5 : 18 AM 1 / 5 / 2012 (MM/DD/YYYY)</p> <p>Rupture of membranes¹: 4 : 13 PM 1 / 4 / 2012 (MM/DD/YYYY)</p>

After completing the data form, the software checks the form for completeness and consistency, and might display flags on questions that were not answered, or for which the answer given could be erroneous or inconsistent. The midwife may correct the form to clear these flags, or if she cannot she may enter an explanation into the flag itself. Thus the software always allows the form to be submitted (even if it lists a 66-pound baby!) but the data is far more complete and accurate for analysis due to this checking process.

Sex: <input type="radio"/> female <input checked="" type="radio"/> male <input type="radio"/> ambiguous
Birth weight: <input type="text" value="66"/> lb <input type="text" value="4"/> oz or <input type="text" value="30050"/> g
Please double-check this value. If it is mistyped, please correct it. If not, please confirm that it is correct here: <input type="text"/>

Appendix B: MANA Stats Review Process

After the midwife submits her data forms, some of them will be queued for review by the Data Review Team. The review process accomplishes three goals: it produces data that is transparent and accurate, ready for analysis by researchers; it educates the midwives (who might receive a call from the reviewer to resolve questions about her use of the form); and it allows the DOR to continually monitor where the data form might be improved. Data reviewers follow a detailed protocol, assisted by sophisticated software, to focus their review on exactly the issue(s) that caused the form to be sent to review. All changes made to a data form, throughout its history even before the midwife submits it, are recorded by the software for audit purposes.

Forms are sent to review for many reasons which fall into four basic categories- notes, unanswered questions, possible errors or logical inconsistencies, and deaths.

- **Notes:** On the form there are two large text boxes where a midwife may write notes. The temporary box is used for the midwife's notes to herself or to the MANA stats team, and are deleted after review. The other note box stays with the form and allows the midwife to provide additional narrative information to researchers. Forms with notes in these boxes are reviewed because midwives may write a note asking the reviewer to add another midwife to the form, change a birth code, or some other administrative chore. The other purpose of reviewing these forms is to de-identify any information (i.e. remove names) in the notes that will be seen by researchers.
- **Unanswered questions:** Forms on which the midwife has left a question unanswered and entered an explanation into the error flag are sent to review. The vast majority of these explanations are some version of "unknown" where the midwife does not have the information, generally after cases of transfer of care. In these cases the reviewer approves the explanations and submits the form as is.
- **Possible errors or logical inconsistencies:** Besides explanations for unanswered questions there are also many scenarios which are flagged to prevent errors from typos. For example if the date of birth is more than 28 days before or after the due date, the form is flagged. If it is correct the midwife simply enters something like "correct, preterm" in the explanation and the reviewer would approve the form as is. Forms where the midwife enters a low birth weight, under 2500 grams, are also flagged and reviewed in this manner. The software also follows a sophisticated set of validation protocols to flag a midwife when she has entered data into a form that is inconsistent and therefore a possible error. If the midwife does not correct the form to clear the flag, she must enter an explanation which is then reviewed. Examples of this kind of review are forms where the midwife marks that the planned place of birth at the start of labor was home but the birth took place in the hospital but there is no transport shown in the form, or where there is both a transfer of care in pregnancy and a transport in labor. The reviewer would follow the specific review protocol and most likely contact the midwife to verify the scenario and get the error corrected. For example if a midwife has entered a transfer of care in pregnancy for a breech and also a transport in labor for a breech, the reviewer must contact her to determine when the transfer actually took place. The reviewer would then correct the form according to the midwife's instructions.
- **Deaths:** All forms with a death reported will be reviewed using a FIMR-type (Fetal and Infant Mortality Review) interview with the midwife to ensure accurate classification of the death

according to accepted research standards. Death reviewers are experienced reviewers who have undergone additional training. The goals of death review are to ensure accurate classification of each death, provide additional information regarding cause of death, and to allow the midwife to provide a narrative explanation of the situation. Deaths are classified as miscarriages (pregnancy loss before 20 weeks), intrauterine fetal demise (pregnancy loss after 20 weeks but before birth), neonatal death (after birth until 28 days) and infant deaths (after 28 days). An example of a misclassified death would be one where the midwife reports that the baby died during labor but the APGAR was listed as 3 at 5 minutes which indicates the baby was alive at birth. During the death interview the reviewer would determine exactly when the baby died and change the form to reflect the correct type of death. In the above case the correct classification would be a neonatal death. Maternal deaths are also reviewed in this manner and are classified as before, during or after the birth and whether or not they were pregnancy-related.

Appendix C: Sample Annual Summary Report (ASR)

The following two pages show the complete Annual Summary Report as viewed by a typical midwife through her account on the MANA Stats web system.

This report covers all entries to care and all births that took place in the report year. It covers all clients who enter care in the report year and subsequently miscarry or transfer out of care (even if the miscarriage or transfer occurred in the following year).

Clients who enter care in this report year but are still pregnant on 12/31 will not have their birth outcomes represented in this year's report.

The first two statistics in the Caseload section are based on data forms either in progress or submitted. All other statistics are based on completed and submitted data forms only. Fetal losses and deaths are reported as "not yet reviewed" if the Midwives Alliance Data Review Team has not yet completed review of those data forms; they are reported as "confirmed" if the review has been completed.

MANA Stats Annual Summary Report (2010)	
MIDWIFE CASELOAD	
Clients who entered care with midwife in report year	24
Clients who entered care in report year and transferred out in pregnancy (in report year or after)	2
Clients who entered care in report year and died AP (in report year or after)	0 confirmed, pregnancy-related 0 confirmed, not pregnancy-related 0 confirmed, unknown whether pregnancy-related 0 not yet reviewed
Clients who entered care in report year and were in midwife's care for labor/birth in report year	12
Clients who entered care in previous year and were in midwife's care for labor/birth in report year	3
Total number of clients who were in midwife's care for labor/birth in report year	15
Total number of labors/births attended in report year as Midwife 2 or Midwife 3	9
OUTCOMES OF LABOR/BIRTHS AS PRIMARY MIDWIFE	
Clients who went into labor intending to give birth at home/birth center	15
Home/birth-center births as planned	13
Intrapartum transports	2 (0 urgent)
Postpartum maternal transports	0 (0 urgent)
Neonatal transports	1 (0 urgent)
Babies admitted to hospital in first 6 weeks of life (including neonatal transports)	1
NICU admissions in first 6 weeks of life	1

Antepartum fetal demises ¹⁰	0 confirmed, due to congenital anomalies 0 confirmed, not due to congenital anomalies 0 not yet reviewed
Intrapartum fetal demises	0 confirmed, due to congenital anomalies 0 confirmed, not due to congenital anomalies 0 not yet reviewed
Fetal demises at unknown point	0 confirmed, due to congenital anomalies 0 confirmed, not due to congenital anomalies
Neonatal deaths (first 28 days of life)	0 confirmed, due to congenital anomalies 0 confirmed, not due to congenital anomalies 0 not yet reviewed
Infant deaths, post-neonatal, in first 6 weeks of life (between 29 and 42 days of life)	0 confirmed, due to congenital anomalies 0 confirmed, not due to congenital anomalies 0 not yet reviewed
Maternal deaths in labor or first 6 weeks postpartum	0 confirmed, pregnancy-related 0 confirmed, not pregnancy-related 0 confirmed, unknown whether pregnancy-related 0 not yet reviewed
Cesarean sections	1
Vacuum or forceps deliveries	0
3rd or 4th degree lacerations	0
Estimated blood loss of 500 ml or more	1
Meconium (thick/particulate)	0
Babies with 5-minute Apgar under 7	0
VBACs attempted in home/birth center (whether outcome was vaginal or surgical birth)	1
VBACs completed in home/birth center (successful VBACs)	1
VBACs attempted in home/birth center and completed in hospital (successful VBACs)	0
Vaginal breech births completed in home/birth center/hospital	0
Frank	0
Complete	0
Footling	0
Other/unknown	0
Multiple births	0
Births after 42 weeks	0
Births with active labor over 24 hours	0
Births with 2nd stage over 4 hours	1
Births with 3rd stage over 1 hour	1
Breastfeeding as of last postpartum visit	12

Appendix D: List of items currently required by B&P Section 2516 which will not be captured on the ASR

- Births with collaborative care or under physician supervision.
- Outcomes are not listed by county, though the larger data base does include mother's county and zip code of residence and also the state where the birth occurred.
- Breeches are not listed by where the birth is completed. (ASR lists vaginal breeches, but does not specify location as home, birth center or hospital)
- Transfers by antepartum, intrapartum, postpartum and neonatal are captured though not the reason's for such transfers or their outcomes. This information resides in the full data base.
- All multiple births are listed together, twins are not separated out
- Reasons for deaths are not captured on the summary, however the ASR separates out fetal deaths as due to anomalies or not and maternal deaths as pregnancy-related or not and reasons for deaths are maintained in the larger data base.
- Either California could change the deadline for LM reporting from March 30 to July 15, or alternatively the report could be due in March but be for a reporting period other than the calendar year, e.g. for October through September.

Appendix E: B&P Section 2516

2516. (a) Each licensed midwife who assists, or supervises a student midwife in assisting, in childbirth that occurs in an out-of-hospital setting shall annually report to the Office of Statewide Health Planning and Development. The report shall be submitted no later than March 30, with the first report due in March 2008, for the prior calendar year, in a form specified by the board and shall contain all of the following:

- (1) The midwife's name and license number.
- (2) The calendar year being reported.
- (3) The following information with regard to cases in California in which the midwife, or the student midwife supervised by the midwife, assisted during the previous year when the intended place of birth at the onset of care was an out-of-hospital setting:
 - (A) The total number of clients served as primary caregiver at the onset of care.
 - (B) The total number of clients served with collaborative care available through, or given by, a licensed physician and surgeon.
 - (C) The total number of clients served under the supervision of a licensed physician and surgeon.
 - (D) The number by county of live births attended as primary caregiver.
 - (E) The number, by county, of cases of fetal demise, infant deaths, and maternal deaths attended as primary caregiver at the discovery of the demise or death.
 - (F) The number of women whose primary care was transferred to another health care practitioner during the antepartum period, and the reason for each transfer
 - (G) The number, reason, and outcome for each elective hospital transfer during the intrapartum or postpartum period.
 - (H) The number, reason, and outcome for each urgent or emergency transport of an expectant mother in the antepartum period.
 - (I) The number, reason, and outcome for each urgent or emergency transport of an infant or mother during the intrapartum or immediate postpartum period.
 - (J) The number of planned out-of-hospital births at the onset of labor and the number of births completed in an out-of-hospital setting.
 - (K) The number of planned out-of-hospital births completed in an out-of-hospital setting that were any of the following:
 - (i) Twin births.
 - (ii) Multiple births other than twin births.
 - (iii) Breech births.
 - (iv) Vaginal births after the performance of a cesarean section.
 - (L) A brief description of any complications resulting in the morbidity or mortality of a mother or an infant.
 - (M) Any other information prescribed by the board in regulations.
- (b) The Office of Statewide Health Planning and Development shall maintain the confidentiality of the information submitted pursuant to this section, and shall not permit any law enforcement or regulatory agency to inspect or have copies made of the contents of any reports submitted pursuant to subdivision (a) for any purpose, including, but not limited to, investigations for licensing, certification, or regulatory purposes.
- (c) The office shall report to the board, by April 30, those licensees who have met the requirements of subdivision (a) for that year.

(d) The board shall send a written notice of noncompliance to each licensee who fails to meet the reporting requirement of subdivision (a). Failure to comply with subdivision (a) will result in the midwife being unable to renew his or her license without first submitting the requisite data to the Office of Statewide Health Planning and Development for the year for which that data was missing or incomplete. The board shall not take any other action against the licensee for failure to comply with subdivision (a).

(e) The board, in consultation with the office and the Midwifery Advisory Council, shall devise a coding system related to data elements that require coding in order to assist in both effective reporting and the aggregation of data pursuant to subdivision (f). The office shall utilize this coding system in its processing of information collected for purposed of subdivision (f).

(f) The office shall report the aggregate information collected pursuant to this section to the board by July 30 of each year. The board shall include this information in its annual report to the Legislature.

(g) Notwithstanding any other provision of law, a violation of this section shall not be a crime.

Appendix F: Current Licensed Midwife Reporting Form

<https://lmar.oshpd.ca.gov/>