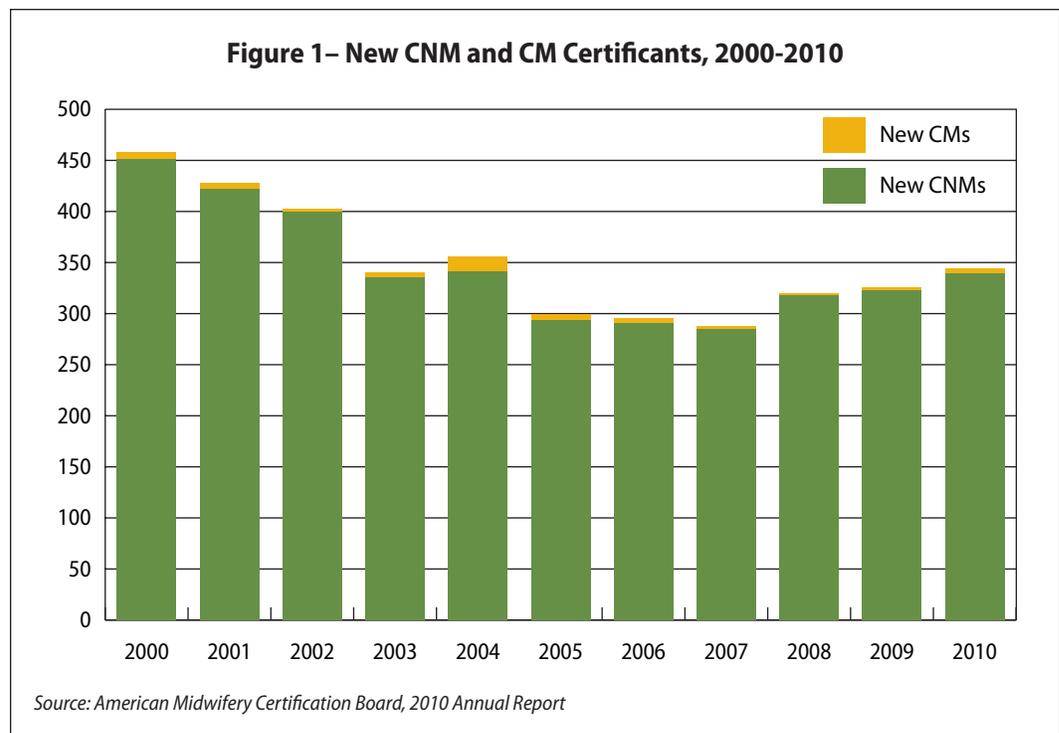


Midwifery Education Trends Report 2011

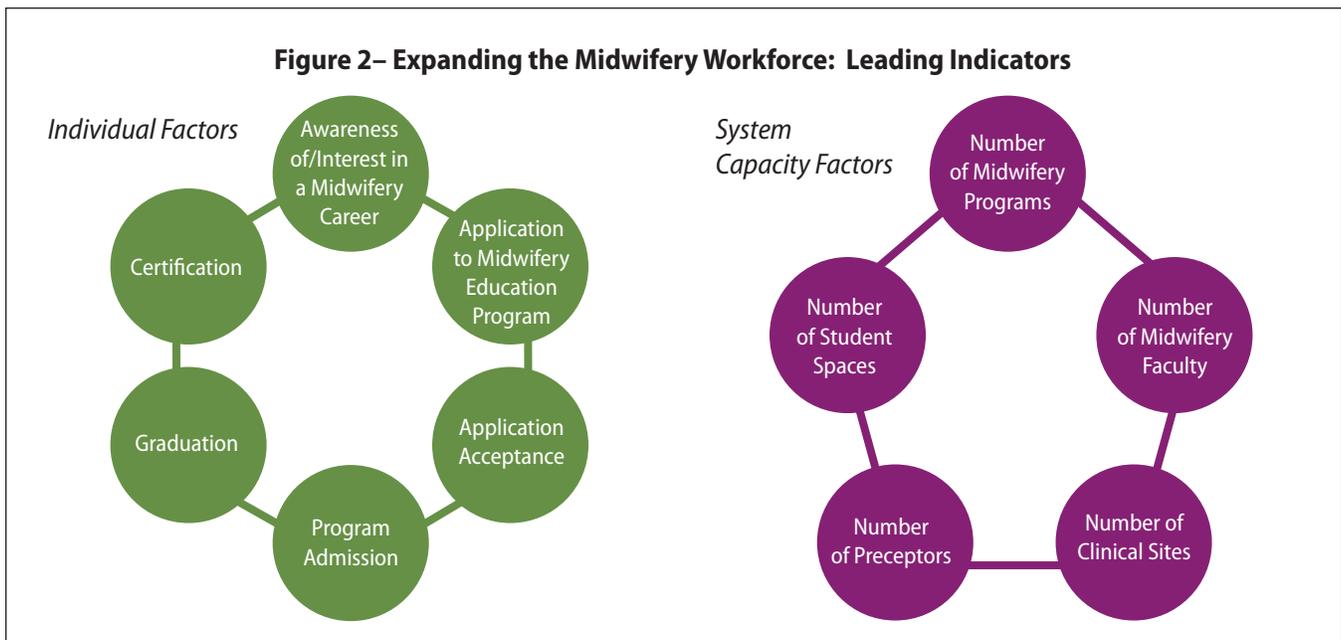
The vision of the American College of Nurse-Midwives (ACNM) is that certified nurse-midwives (CNMs) and certified midwives (CMs) will attend 20% of births in the United States by the year 2020. To attain this vision, we need more midwives. One of our strategic goals is that by 2015, 1000 midwives will be newly-certified per year by the American Midwifery Certification Board (AMCB).



Annual reporting by the AMCB demonstrates that the midwifery community is indeed progressing toward this goal, albeit slowly. The number of CNMs and CMs certified in a given year hit a low point in 2007 (285) but rebounded by 19% over the next three years to 339. However, we have reached only one-third of our goal. [Figure 1]

In order to reach 1000 AMCB-certified midwives per year by 2015, we'll need a 25% growth rate, on average, for the next five years. Is that an attainable goal? This question cannot be answered simply by monitoring the number of new certificants, which is an endpoint or trailing indicator that occurs two to three years after an individual enters the midwifery education system. Successful certification follows successful individual attainment of a series of intermediate milestones. In addition to these, there are system capacity factors that must

Figure 2– Expanding the Midwifery Workforce: Leading Indicators



be in place to support these students. All of these leading indicators must be monitored in order to understand the drivers of the midwifery workforce and what changes are needed to reach the overarching goal of 1000 new midwives annually. [Figure 2]

The *ACNM Midwifery Education Trends Report* assesses the midwifery community's progress towards expansion by monitoring and analyzing available leading indicators and highlighting significant trends and findings. The report is based on data provided by the Accreditation Commission for Midwifery Education (ACME) as well as through a recent survey of midwifery education program directors (2010). For some of the system indicators, we have precise data, for others we have only estimates or opinions of education program directors. Thus, this report will also identify indicators for which more data must be obtained.

We will spotlight the following trends in ACME-accredited programs:

- Number of ACME-accredited education programs
- Student capacity of these programs (available spaces)
- Number of qualified applications received by education programs
- Number of students admitted
- Number of graduates

Number of Midwifery Education Programs

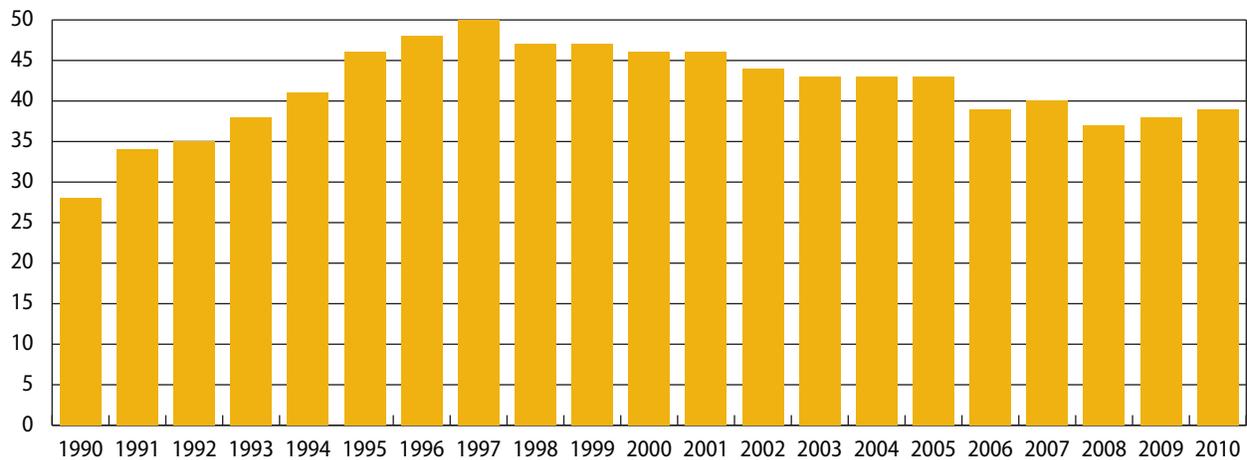
The number of midwifery education programs in the United States for the education of CNMs grew rapidly from 1990 to 1997—from 28 programs in 1990 to a high of 50 in 1997, only to recede to 39 over the next decade. While two new programs have opened since 2006, others have closed, with the net result that in 2010, the number of ACME-accredited programs is holding steady at 39. [Figure 3]

The first program for the preparation of CMs opened in 1996 and a second opened in 2010. Education programs for the preparation of CMs are accredited by ACME using the same criteria as programs preparing CNMs. CNMs and CMs sit for the same AMCB certification exam.

Student Capacity

Student capacity is not just measured by the number of programs but the number of student spaces available in these programs. Student capacity is directly affected by the number of faculty and the availability of clinical sites and clinical preceptors. We do not have precise numbers for faculty, clinical sites, or clinical preceptors. And, although the number of midwifery education programs has not substantially increased in the past five years, the number of spaces available for midwifery students

Figure 3– ACME-Accredited or Pre-Accredited Midwifery Education Programs and Institutions



Source: ACME Monitoring Report, aggregate data 2005–2009

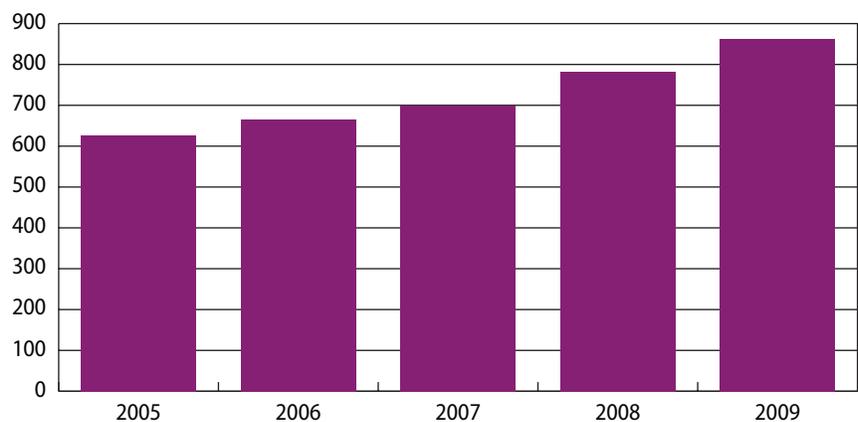
has grown steadily from 627 to 862—a 37% growth rate overall, driven largely by the expansion of distance-based programs. [Figure 4]

Although many midwifery education programs use distance learning to enhance the academic program, only five of the 39 programs provide *the majority* of the didactic material through online curricula. Clinical education is obtained in the student’s home community through placement with midwifery clinical preceptors. The growth of distance-based education has enhanced the capacity of these programs to accept more students but has increased competition among midwifery education programs for available clinical sites for their students.

Qualified Applications

Each midwifery education program annually reports the number of qualified individuals who apply and the aggregate data provides us with the annual number of qualified applications. However, currently we cannot estimate how many applicants these applications represent, since it is likely that many applicants apply to more than one program. We do not currently have data on the

Figure 4– Midwifery Education Capacity: Number of Spaces Available for Students at ACME-Accredited Programs

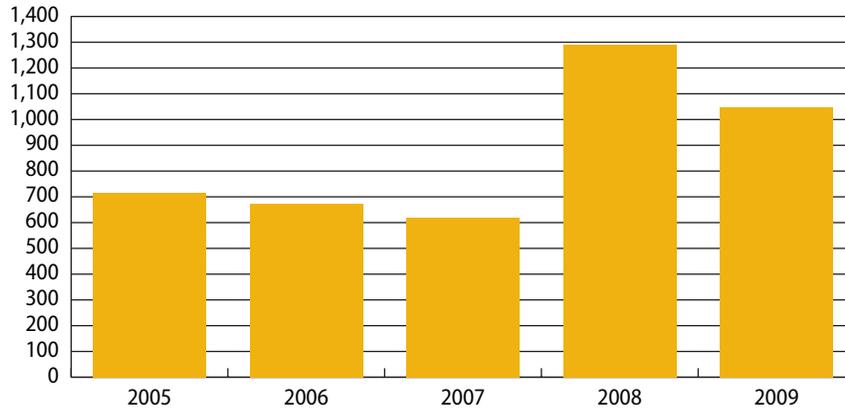


Source: ACME Monitoring Report, aggregate data 2005–2009

number of programs to which each individual applies.

What we can say is that during this five-year period from 2005 to 2009, the number of qualified applications received by ACME-accredited programs has increased by 47%. While we cannot directly translate this to the number of individual applicants, we have no reason to believe that the average number of programs to which each individual applies has changed during this five-year period. For the past two years, more than 1000 qualified applications have been received by ACME-accredited educational programs (1289 in 2008 and 1049 in 2009),

Figure 5– Qualified Applications to ACME-Accredited Midwifery Education Programs

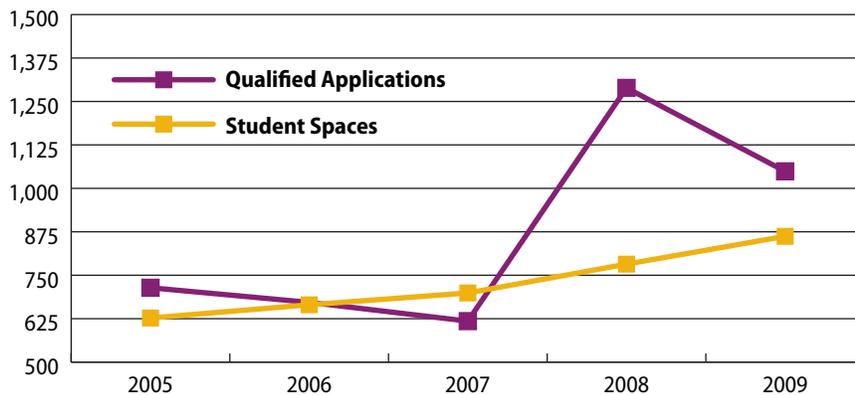


Source: ACME Monitoring Report, aggregate data 2005–2009

which suggests that the number of individuals interested in obtaining a midwifery education is increasing. [Figure 5]

The surge in demand for midwifery education that occurred in 2008 resulted in a significant imbalance between the demand for midwifery education and the capacity of midwifery education programs to accept these students. In 2008, there were 1289 qualified applications for 782 slots. This gap was tightened in 2009; there were 1049 qualified applications for 862 open positions. [Figure 6]

Figure 6 – ACME-Accredited Midwifery Education Programs: Supply vs. Demand

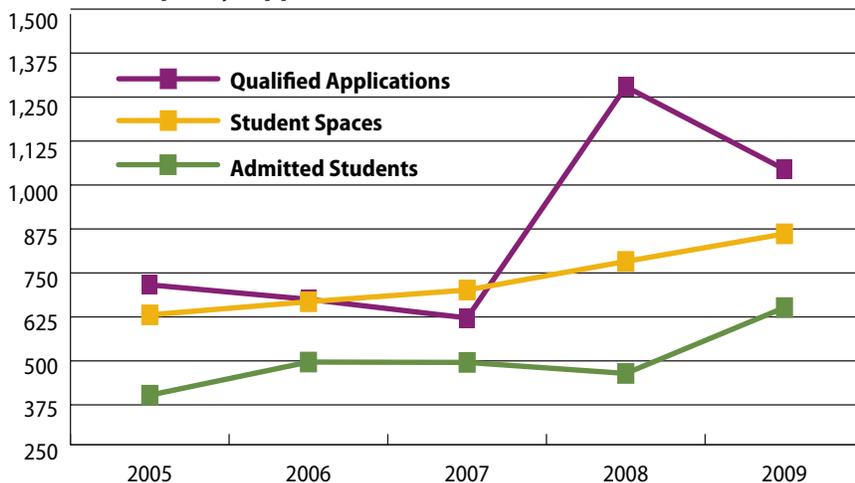


Source: ACME Monitoring Report, aggregate data 2005–2009

Admissions

Despite increases in both the number of student spaces and the number of qualified applications received, admissions have not kept pace. Each year, on average, over the past five years 230 student spaces have been left unfilled. [Figure 7]

Figure 7– ACME-Accredited Midwifery Education Programs: Capacity, Applications, and Admissions, 2005–2009



Source: ACME Monitoring Report, aggregate data 2005–2009

Why was the number of admitted students so much less than midwifery education programs' capacity to accept students? The results of ACNM's 2009–2010 Midwifery Education Program Director Survey provide some answers. Program Directors from 25 of the 39 nurse-midwifery programs participated in the survey (a 64% response rate).

At the time of the study, there was only one program for CMs. This program was not included in the survey because of the very small number of graduates.

Nurse-midwifery programs are not homogenous. All nurse-midwifery programs offer two-year graduate programs for individuals who are registered nurses (RNs). Several also offer programs for individuals who have a bachelor's degree but are not RNs; in these programs, often described as "accelerated" programs, full-time students complete their undergraduate nursing education as well as graduate education in midwifery in three years.

Some midwifery education programs are traditional on-campus programs; five are fully distance or online as described above; and many are partially distance, offering both web-based and campus-based courses. The largest fully online program was included in the survey.

The ACNM Program Director Survey evaluated the impact of 24 different program characteristics on enrollment. These characteristics included:

- Accelerated RN + graduate degree program vs. post-RN graduate program
- Distance-based vs. on-campus format
- Program length
- Tuition expense
- Geographic location
- Part-time option
- Payment of preceptors
- Health Resources and Services Administration (HRSA) Division of Nursing grant support
- School/program recruitment activities

The survey found that only one of these variables had a significant impact on enrollment trends: whether the program was an accelerated-RN + graduate-midwifery program (eight such programs were reflected in the survey) or a traditional post-RN program (25 such programs were reflected in the survey). Our primary finding was that 88% of accelerated RN + graduate degree programs received more applicants than spaces—3.2 times more applicants than spaces, on average. By contrast, only 48% of post-RN programs received more applicants than spaces—or 0.96 applicants for every space. [Table 1]

Table 1– Student Capacity vs. Qualified Applications Accelerated Three-year vs. Post-RN Programs, 2009-2010

	Accelerated 3-year <i>n=8 N(%)</i>	Post-RN <i>n=25 N(%)</i>	All <i>n=33 N(%)</i>
Total student capacity (% of overall capacity)	95 (14%)	570 (86%)	665
Total qualified applications received	303	548	851
Total admissions	75	347	422
Excess (deficit) of qualified applications compared to capacity	208	(22)	186
# of programs receiving more qualified applications than spaces (% of programs)	7 (88%)	12 (48%)	19 (58%)
# of program with more spaces than qualified applications (% of programs)	1 (13%)	13 (52%)	14 (42%)

Source: ACNM Program Director Survey, 2009–2010

In other words, in 2009–2010, Program Directors reported that more than 200 qualified applications from non-nurses were rejected because of insufficient capacity in the RN + graduate programs. At the same time, 218 spaces for RNs were reported to be unfilled.

Thus there is insufficient capacity in the ACME-accredited midwifery education system to meet the demand for programs designed to accommodate non-nurses, whereas there is excess capacity for programs designed to accommodate RNs.

Program directors were also asked their opinions regarding obstacles to attracting and accepting more students, but responses to this section of the survey were too few to obtain meaningful information. For example, based on the responses of nine program directors, geographic location was believed to be the primary obstacle to attracting more students, followed closely by expense of tuition and/or cost of living in the area. In response to the question regarding obstacles to accepting more students, 14 program directors ranked the lack of clinical sites as the primary barrier, followed by a lack of additional preceptors at existing sites. Acquiring

information regarding the number of available clinical sites and number of preceptors will be the focus of our next survey.

Certified Midwife (CM) Programs

The expansion of education programs designed for the preparation of certified midwives (CMs) would seem to offer potential relief from the capacity constraints inherent in linking midwifery education to nursing education. CMs are individuals who have or receive a background in a health-related field other than nursing and graduate from a midwifery education program accredited by ACME. Graduates of ACME-accredited midwifery education program take the same national certification examination as CNMs but receive the professional designation of certified midwife.

Growth of the CM credential has been constrained in part by the fact that currently only five states authorize CMs to practice (DE, MO, NY, NJ, and RI). ACNM encourages its state affiliates to support licensure of CMs in every state as a key factor in the success of the midwifery profession in the United States.

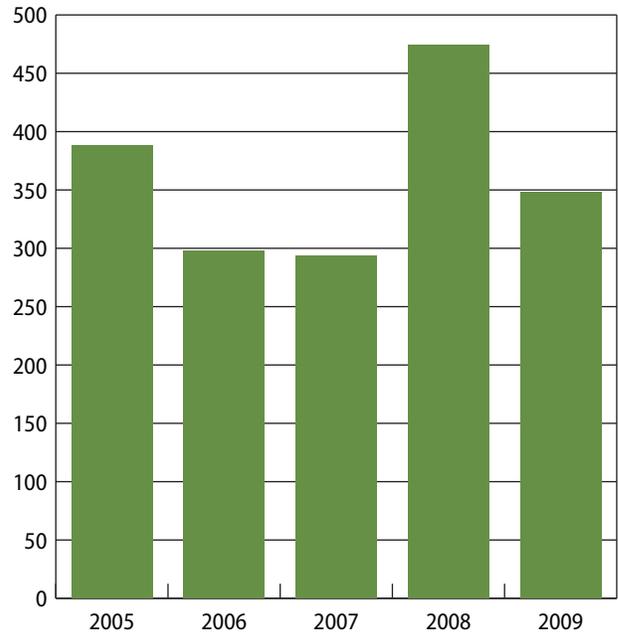
However, while increasing the number of CM programs might provide additional spaces for the non-nurse aspiring midwife, it is not clear if there will be sufficient clinical sites and preceptors for these additional students. Again, we must obtain additional data about these crucial system capacity factors.

Graduation

The trend for number of graduates over this five-year period is not clear. [Figure 8] Students entering in a given year currently cannot be tracked as cohorts through graduation and certification; students frequently proceed on various part-time schedules that can defer commencement for several years. While we know that 490 students entered programs in 2006 and that the average program requires two years of study, we cannot be certain how many of the 474 individuals graduating in 2008 represent those who entered in 2006.

Comparing the number of graduates in 2008 (474) to 2009 (348), given the fact that 490 students entered in 2006 and 489 entered in 2007, we might presume that

Figure 8 – Graduation from ACME-Accredited Midwifery Education Programs, 2005-2009



Source: ACME Monitoring Report, aggregate data 2005–2009

the effects of the greater economy had a serious impact on the ability of some students to remain in school or to maintain a full-time status. ACME data includes the number of individuals who withdraw each year, and again there are no clear correlates to be drawn. The percentage of students withdrawing from midwifery programs has continually decreased during this five year period, but we don't know why. [Table 2] Until we can accurately link entering students to graduating students, we cannot clearly identify reasons for student attrition.

Table 2 – Student Attrition

	2005	2006	2007	2008	2009
Total students withdrawn	174 (16%)	111 (10%)	108 (9%)	177 (8%)	105 (6%)
Total students enrolled	1,082	1,146	1,154	2,095	1,638

Source: ACME Monitoring Report, aggregate data 2005–2009

Conclusion and Recommendations

Based on the findings highlighted in this report, we believe that it will be possible to achieve ACNM's goal

of 1000 new CNMs and CMs by 2015. CNMs/CMs are currently attending 317,626 births per year, clearly an ample number for the education of 1000 graduates per year. The data in this report have shown us that midwifery education programs *do* have the capacity to immediately accept an additional 230 students per year *if* the program offerings were adjusted to the specific needs of the current applicant pool.

Specifically, recommendations for increasing the number of CNMs and CMs in the United States include:

- Increase the number of accelerated or second degree RN plus advanced practice graduate degree programs
- Increase the number of spaces for midwifery students in the RN plus graduate degree programs
- Develop new education programs for the preparation of CMs in schools of nursing and/or allied health
- Encourage ACNM affiliates to advocate for the recognition of CMs with parity to CNMs in every state, district, and territory of the United States.
- Increase recruitment efforts aimed at attracting nursing students to midwifery careers

However, if we are going to increase beyond the number of currently unfilled spaces, as is our goal, there are other system capacity factors which must be addressed. To do so, additional data is needed on the number of preceptors and clinical sites in use by midwifery education programs, as well as the barriers that clinical midwives face to precept students.

ACNM further recommends that additional strategies be undertaken in the midwifery community to:

- Overcome the perceived shortage of preceptors and clinical sites
- Support and train preceptors
- Support increased funding for basic and graduate nursing education

It is ACNM's hope that publication of the *ACNM Midwifery Education Trends Report* will serve as a focal point for addressing the challenges and opportunities of midwifery education in today's environment. ACNM looks forward to working with our midwifery education program directors and faculty, ACME, AMCB, our students, our membership and our colleagues in nursing and medicine to expand the midwifery workforce. We welcome your input!

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