Mary Breckinridge Meets Healthy People 2010: A Teaching Strategy for Visioning and Building Healthy Communities

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Abstract:

In both midwifery and nursing education, it is essential to include innovative teaching strategies that address the health of communities. This article presents a creative learning activity for midwifery and/or nursing education that integrates Mary Breckinridge's historical example with today's national goals for building communities. The establishment of the Frontier Nursing Service in 1925 is an excellent example of the Mobilize, Assess, Plan, Implement, and Track (MAP-IT) framework for building health communities. Advanced practice nursing and midwifery students can use this historical template to implement their ideas for building healthy communities today.

Keywords: Mary Breckinridge, Healthy People 2010, teaching strategy, nursing and midwifery students, public health

Article:

INTRODUCTION

In a health care era of budgetary constraints, advanced practice nurses and midwives must be prepared to expand from a primary or acute care focus to one that incorporates the United States Healthy People 2010's objectives of health promotion, disease/injury prevention, and health care policy. ^{1–7} Creative teaching strategies that integrate these topics in midwifery or advanced practice nursing curricula will provide a template for students to address these objectives now and in the future. The purpose of this article is to describe an innovative teaching strategy that can be easily replicated in nurse-midwifery and advance practice nursing curricula to emphasize Healthy People 2010 goals⁶ while reinforcing the midwifery tradition of improving the health of women and their families. This was accomplished by 1) instilling interest in nursing and midwifery history, ⁸ 2) laying the groundwork for students to learn how to build healthy communities, 3) applying policy recommendations from Healthy People 2010, 4) learning the MAP-IT techniques derived from Healthy People 2010, and 5) applying them in their own creative endeavors.

BACKGROUND

The aim of the Healthy People Curriculum Task Force, ⁹ a project sponsored jointly by the Association of Academic Health Centers (AAHC)¹⁰ and the Association of Teachers of Preventive Medicine (ATPM), ¹¹ is to increase the proportion of schools of medicine, schools of nursing, and health professional training schools that are teaching health promotion and disease prevention to accomplish the national Healthy People 2010's goals. ⁶ The task force ⁹ includes groups such as the American Association of Colleges of Nursing (AACN), ¹ the National Organization of Nurse Practitioner faculty (NONPF), ³ and the Pew Health Professions Commission. ¹² In 1999, as part of the study by Bellack et al., ¹³ a comprehensive survey was sent to academic deans, program directors, or curriculum directors of 11 survey groups, including nurse practitioner, nurse-midwifery, and physician assistant programs. These administrators evaluated how well their curricula met competencies recommended by groups in the task force. ¹³ The nurse-midwifery and nurse-practitioner programs surveyed ranked highest in having the following topics included in their curricula: primary care, health promotion and

disease prevention, health education, joining clients and communities as partners in health care, and effective patient/provider communication. However, it may be a challenge to address these topics in an already full curriculum. New graduates of nurse-midwifery education programs are expected to apply knowledge that includes, but is not limited to, "nationally defined goals and objectives for health promotion and disease prevention," as well as "management strategies and therapeutics to facilitate health and promote healthy behaviors" as defined in the American College of Nurse Midwives Core Competencies for Basic Midwifery Practice. ¹⁴

Mary Breckinridge meets MAP-IT is an example of a teaching strategy that addresses the objectives of this core competency and the expectations of the Healthy People Curriculum Task Force. It could be integrated easily into a Professional Roles for Nurse-Midwives course.

Table 1. M	AP-IT: Mobilize, Assess, Plan, Implement, and Track		
Mobilize	Mobilize individuals and organizations that care about the health of the community into a coalition that will act on the mutual vision.		
Assess	Assess the areas of greatest need in the community.		
Plan	Plan the approach of the service or project with the existing community.		
Implement	Implement the plan using concrete action steps that can be monitored and that will make a difference.		
Track	Track the progress.		

From USDHHS, Healthy People in Healthy Communities, 2001.6

MOBILIZING, ASSESSING, PLANNING, IMPLEMENTING, AND TRACKING (MAP-IT)

Mobilizing, Assessing, Planning, Implementing, and Tracking or MAP-IT⁷ is a national road map developed by the US Department of Health and Human Services and a coalition of 19 representatives from national agencies, such as the Centers for Disease Control (CDC), Office of National Drug Control Policy, and the Fordham Institute. MAP-IT was developed to provide a structure for integrating Healthy People 2010's objectives and as a support to stay committed to the long-term process of community change. The goals and process for implementing MAP-IT has been detailed in a publication entitled *Healthy People*, *Healthy Communities: A Community Planning Guide Using Healthy People 2010*7 (Table 1).

MAP-IT supports the overriding goals of Healthy People 2010, a national health promotion and disease prevention initiative. These goals are to 1) promote health and prevent disease, disability, and premature death; 2) reduce health disparities among all Americans; and 3) achieve access to preventative health services for all Americans. "Leading Health Indicators" are a subset of the health priorities from HP2010's 28 focus areas and 467 objectives that support these goals. Two examples of these focus areas include accessing quality health services and identifying risk criteria during pregnancy, so that interventions can be developed to reduce both health disparities and adverse birth outcomes. ⁷

MAP-IT is directed toward any individual who wants to make positive changes in one's community whether he or she is a professional, agency representative, community member, or sanitation worker. MAP-IT is a guide to make communities a better place for individuals to live by creating a vision, building community coalitions, creating partnerships, and measuring results to improve the health of the community. Norris et al. ^{15,16} and the MAP-IT Web site offer documents, links, and organizations for additional assistance in developing, implementing, and evaluating action plans to improve the health of communities. The Web site describes examples of successful models using the MAP-IT techniques; however, no formal evaluations of MAP-IT projects are provided. One example describes a public health nurse in a small New England suburban community who was increasingly concerned about the alarming increase in obesity in school-age children. By using the MAP-IT model as a guide, she was able to mobilize the community to act and to put together a healthy weight education program that could be used in the community and in the local public schools.

MARY BRECKINRIDGE: A HISTORICAL ROLE MODEL FOR THE MAP-IT TECHNIQUES

The first author developed the learning activity entitled "Mary Breckinridge meets MAP-IT," in the spring of 2003 for a course entitled "Concepts and Applications of Health Promotion for Advanced Practice Nursing" required of family nurse practitioners and clinical nurse specialists (CNS) students at Purdue University Calumet's School of Nursing. Because of the successful application, this activity is currently being replicated in a course entitled "Nurse-Midwifery Professional Roles and Issues" at East Carolina University. The idea was born after reading Johnson's article describing Breckinridge's work as a model for eliminating health disparities.

Mary Breckinridge's creation of the Frontier Nursing Service (FNS) in 1925 is an exemplar for application of the goals of Healthy People 2010 and MAP-IT. FNS is a health care delivery model in rural Kentucky. This service is a powerful example of a system change and an organization developed for the purpose of health promotion and disease prevention. Mary Breckinridge was born in 1881 into an old and revered Southern family in Memphis, Tennessee. Her family tradition was to serve the public; her father was a United States congressman and later served as a minister to Russia. As a child, she became familiar with the lives of people living in poverty and isolation, through her great aunt's stories about setting up schools for children in the rural Kentucky mountains. She witnessed the birth of her brother attended by a Russian midwife when she was 14 years old. Her first husband died after their first year of marriage. In 1907 as a young widow at the age of 26, she entered nursing school at St. Luke's Hospital in New York. In 1918, her second marriage ended in divorce after her infant daughter and 4-year-old son died from illness. The loss of her children was instrumental in motivating Breckinridge to devote her life to mothers and children. 1^{7,18}

Soon after these tragic losses, Mrs. Breckinridge left the United States to serve as a district nursing volunteer in France at the end of World War I. She worked with European midwives for 4 years. When Mrs. Breckinridge returned to the United States, she attended Teachers' College of Columbia University as a non-matriculated student and took courses in public health, statistics, nursing education, and social sciences. After a year at Teachers' College, she spent the summer exploring the Kentucky mountains on horseback to learn more of that communities' needs, before traveling to Europe and enrolling in mid-wifery training at the British Hospital for Mothers and Babies. Mrs. Breckinridge became an American certified English midwife in the spring of 1923. She spent the fall touring a district nursing service in the Outer Hebrides islands, a remote area of Scotland with geography similar to eastern rural Kentucky. This is when she asked the important research question that was a precursor to Frontier Nursing Service; could the nursing model of care in a remote area of Scotland meet the problem of medical care for mothers and children in rural Leslie County?

To the Frontier Nursing Service, in after years, all that I gathered from those islands ... was to mean more than I can put in words¹⁷ (145).

In 1925, Mary Breckinridge introduced professionally trained midwives to the United States and established a decentralized system of health care in Leslie County, Kentucky, an impoverished and rural section of Appalachia. FNS became one of the most successful rural health care delivery systems in the United States and an example of midwifery and nurse-managed care. Midwives, community health nurses, and advanced practice nurses made a profound impact on the health of the residents of Leslie County, Kentucky, then one of the poorest counties in the nation. ^{17,19,20}

FRONTIER NURSING SERVICE AS AN EXEMPLAR OF MAP-IT Start With a Vision

The steps that Mrs. Breckinridge took to establish FNS can be used as an exemplar for the steps of the MAP-IT technique. The first step is to start with a vision. The student's vision should originate from their community's most important needs, values, and goals, and it should be an idealized description of how the community could be. Their vision needs to reflect the goals of the members of the coalition that the student is planning to work with and should be consistent with their community's values. The vision for creating Frontier Nursing Service came to Mrs. Breckinridge after she rode through the mountains of eastern Kentucky on horseback with the

purpose of listening to the voices of the community women, witnessing their level of poverty, adverse living conditions, and poor infant outcomes. Her vision and the community's desire for services became one.

When they heard I was there ... they came crowding around me with their sickly babies—so many it fairly broke my heart—and begging for a nurse for their part of the county, and offering to house her, and I stayed over an hour holding a little clinic, washing out one very sick baby that had dysentery etc. The crowd of mothers and their little ones looked like a Biblical picture ¹⁷ (165).

Mrs. Breckinridge's goal was to 1) create Frontier Nursing Service, 2) reduce infant and maternal mortality, and 3) raise the level of health of the population in Leslie County, Kentucky—a population of 10,000.⁸ She describes her vision of Frontier Nursing Service in a letter that she wrote to her mother,

Well darling mother, a decision has come to me and not of myself. Call it what you will—I feel it definitely and will follow it with the assurance that I am doing what is right.... I am to work directly for little children now and always—because that is the work I can do best, in which my health and enthusiasm and happiness do not fail. ... Some very special thing is waiting for me on the other side of the ocean (although I don't know what it is). It is an inexpressible comfort and relief to know this—know it as I know that I know it¹⁷ (100).

Step 1: Mobilize

The vision provides the energy and direction for the first step of the MAP-IT technique: to mobilize individuals and organizations that care about the health of the community into a coalition that will act on their mutual vision. Mrs. Breckinridge's vision began as she discovered the community's needs. However, without her advantage of family resources, educational background in public health and midwifery, experiences with successful models of mid-wifery care in Scotland, and her ability to mobilize com-munity support, her vision may not have become a reality.

Mrs. Breckinridge described the premise of her mobilizing effort, as learning to begin small, take root, and then to let her and the organization's ideas grow. The mobilized by riding more than 650 miles on horseback and mule to visit more than 53 midwives and the mothers whom the local midwives served. She enlisted the cooperation of leading citizens to form the Kentucky Committee for Mothers and Babies in 1925. Breckinridge's family name was known in this area, which made it easier to enlist friends and professionals to support her dream and help fund her initial efforts. The committee of the

The final reason for locating the demonstration in Kentucky lay in the fact that I had hundreds of kindred and family friends in that state who were willing to back me up¹⁷ (158).

It would have been impossible to launch the Frontier Nursing Service, with its use for the first time in America of the nurse as a midwife, without the co-operation of many leaders in nursingfields¹⁷ (303).

Step 2: Assess the Greatest Need

The second step of the MAP-IT technique is to assess the areas of greatest need in the community, as well as the resources and other strengths that can be tapped to address those areas. Mrs. Breckinridge formed a habit of learning all that she could about the local customs so that new ideas could be grafted on the old. She and the other midwives and nurses interviewed families and local midwives and documented existing conditions. They found impoverished and isolated families crowded into one- or two-room cabins, a community with no roads, no electricity, no radios, no newspapers, and a dearth of medical care. There was only one physician to serve 10,000 residents in Leslie County. Mrs. Breckinridge established an area of greatest need for community-based nursing care in eastern Kentucky.

Not only was there no reason why the Kentucky Mountains should not be chosen, but we had the best of all reasons for choosing them, namely their inaccessibility. I felt that if the work I had in mind could be done there, it could be duplicated anywhere else in the United States with less effort¹⁷(157-8).

Step 3: Plan the Approach: Community Vision

The third step of the MAP-IT technique is to plan the approach of the service or project for the existing community congruent with the community's needs and wants; then strategies and action steps are taken to help the community achieve this mutual vision. Mrs. Breckinridge planned a course of action with other midwives and community leaders, to realize her dream of helping mothers and babies in Appalachia, one of which was the planning of six outpost-nursing centers.

The principle of organization in a remotely rural field of work is one of decentralization 17 (228).

After more than a century of experience, it is my conviction that bedside nursing and public health will always yield better results, each in its own field, when they are carried on together¹⁷ (242).

Step 4: Implement the Plan

The fourth step is to implement the plan by using concrete action steps that can be monitored. Mrs. Breckinridge organized committees and community volunteers and established FNS in 1925 (named Organization of the Kentucky Commit-tee for Mothers and Babies until 1928). She hired a staff including three midwives. Her small staff traveled on horse-back and registered 500 patients in 3 months. FNS provided prenatal care, attendance at births, vaccines, and counseled families on how to improve the sanitary conditions of their homes. In 1928, the service expanded when a 12-bed hospital was built in Leslie County, Kentucky.¹⁷

Step 5: Track the Progress

The final step is to track the progress of the project over time, again and again. For example, Mrs. Breckinridge tracked progress with her habitual recording of biostatistical data and descriptive results:

From the beginning I had the wish to do the work so well and to keep such accurate records of it, that others would study it, be trained in its techniques and then, in other remotely rural parts of our own and other countries, repeat the system we used 17 (158).

She kept statistical profiles of every 1,000 deliveries and published the statistics in the *Frontier Nursing Service Quarterly Bulletin*. The birth statistics revealed the success of FNS in meeting their goals. In 1960, the Metropolitan Life Insurance Company analyzed the outcomes of the first 10,000 births conducted by FNS staff between 1925 and 1954.21 There were a total of 12 maternal deaths during this time period. Nine of the deaths were related to obstetric causes, which were reflected in a maternal puerperal death rate of 9.1 per 10,000 births. The same maternal mortality rate among white women in the United States during that same period was 34 per 10,000. The neonatal mortality was similarly striking. A case review of the last 1,000 births from 1953 to 1954 revealed a neonatal death rate (first month of life) of 17.3 per 1,000 compared to the national rate that year of 20.5 per 1,000 live births.

If such services were available to the women of the country generally, there would be a saving of 10, 000 mothers' lives a year in the United States, there would be 30,000 less stillbirths and 30,000 more children alive at the end of the first month of life 17 (312).

FNS provided a successful community-supported family-centered nursing approach to primary health care delivery and became a demonstration model for health professionals from all over the world ^{17,22} and a historical model for working toward healthy communities today.

MARY BRECKINRIDGE MEETS MAP-IT

The story of FNS was used as an exemplar for students to use the MAP-IT steps to create and discuss a community-based health intervention project in an advanced nursing program; however, it could be easily replicated in a midwifery course. Several weeks before class, students were assigned selected articles on Frontier Nursing Service, Mary Breckinridge, Appalachian culture, rural health, MAP-IT, Healthy People in Healthy Communities Guide, and Healthy People 2010's leading health indicators. ^{6,7} The following message was posted on blackboard, a Web-supported course, several weeks before the class met:

Think of an example where you saw a person and/or community group, who started with a vision, assessed a need, took action, planned a way to track their progress, and determined if they met their goals. Share your ideas with others through our Web site blackboard discussion group before class. Bring your examples to class and plan to break into groups of two and apply the structure of our historical case study by incorporating Healthy People 2010's MAP-IT to achieve your goals. Finally, plan to share your creations in class.

Table 2. Example of Student Assignment in Mary Breckinridge Meets MAP-IT

Components of MAP-IT	Satellite Clinic for Adolescents	Comments
Mobilize	Local officials, community, state, and federal governmental agencies, third party payers, and philanthropic agents would be mobilized into a coalition that would act on the vision.	Interdisciplinary board was formed to establish the components of the adolescent clinic.
Assess	Clinic staff interviewed and statistical data collected to identify needs and issues of the adolescent community (i.e., sexually transmitted disease, HIV/ AIDS, pregnancy, substance use).	Visions and mobilization can change based on the assessment and the particular needs of different racial/ethnic groups. For example, in this situation, the plan might still target adolescents but specifically for risky behaviors and HIV positive pregnancies rather than for general health care.
Plan the Approach	Use the vision and statistics to gather support from the officials and representatives who were contacted during the mobilizing phase. The first issues addressed would include general health care and the top five issues as identified by the statistics, the interdisciplinary board, the free clinic, and the key community players and the community at large. Contact the media.	Additional programs would be identified by the group/community and added once the foundation and frame work of the adolescent clinic was set and functional.
Implement the Plan	Open the adolescent clinic.	Implementation will need to take into consideration the cultural/ethnic differences in the adolescent clients and include obtaining appropriate permits, establishing procedures with the funding agencies, finding the right physical environment, creating policy and procedures, and hiring the staff. The media would be contacted for coverage of the opening and to increase awareness of the new facility.
Track Progress	Systems would be established to track data within the clinic such as current type of visit, number of patients, and referrals to other agencies. Data will be gathered from the same sources that were identified in the needs assessment. Representatives from the community (see mobilizing phase) would be asked how the clinic has impacted their services (i.e., the number of absences from school, number of pregnancies).	Staff and board meetings would identify the strengths and weaknesses and other areas that needed to be expanded or eliminated. Congruency with Healthy People 2010 goals would be determined and addressed (i.e., health promotion, disease prevention, a reduction in health disparities, and achieving access to preventative health [i.e., different needs and approaches with Hispanic, African American, and Caucasian low-income adolescent needs]). Additional financial resources would be identified to assist with maintenance and growth of the program.

Adapted with permission from Donna Moore and Nancy Draw's MAP-IT class presentation in Nursing 511, 2003.

The MAP-IT process begins with the student's initial visions of their creative projects. First, the students were assigned to groups of two and asked to describe their ideas to mobilize individuals and organizations into a coalition that cared about the health of their community. Second, they discussed how to assess their community's needs, resources, and strengths. Third, they planned their program and described action steps to achieve their vision. Next, they described how to implement their plan by using concrete action steps that were

monitored and that would make a difference. Finally, they described how to track their progress over time. This model encouraged them to consider each step of the MAP-IT process, from assessment to evaluation. It also taught the history of midwifery through the Frontier Nursing Service example, the culture and health problems in rural Appalachia, problems in other rural areas, and finally, how the MAP-IT techniques met the Healthy People 2010's objectives. An example of two student's "vision' for an improved health care delivery model for adolescents in their community is described in Table 2.

STUDENTS MAP-IT

The students identified a need for a satellite clinic exclusively for adolescents (Table 2). They identified the adolescent population as a group that often is lost between the pediatric and adult health care focus in the community clinic and, therefore, their needs may be missed. The students identified the need for adolescents to have a safe place to receive care that addresses their physical, psycho-logical, and spiritual health. The approach would also be interdisciplinary and holistic. Healthy People 2010, MAP-IT, and the case study of Mrs. Breckinridge and Frontier Nursing Service were presented in a classroom setting with a Power Point presentation. However, this assignment could easily lend itself to distance education programs for midwifery and/or advanced practice nurses. After the presentation, the students worked in groups of two for 20 minutes to brainstorm their visions for building healthy communities and to implement their vision with the MAP-IT technique. They shared their MAP-IT models with their classmates. Each group received feedback, concerns, accolades, and questions about their examples from their classmates and professors. Their work was assessed by evaluations of their presentations and by the write-up of their examples due the following week. The students continued to talk about their visions for healthy community projects well after class had ended. They were very excited to share their creative strategies, and several wanted to implement their plans in the future. Students were especially interested to hear about one student's current efforts to build an education program for a growing number of grade school children who suffered from asthma and had recurrent crisis attacks during the school year. The feedback she received about her community/school appeared to be very helpful for her plans. For that day, the goals of Healthy People 2010 came alive.

CONCLUSION

Midwives and other advanced practice nurses can address the health of individuals and the health of communities by attending to health promotion, disease prevention, health education, and by joining with their clients and communities as partners in health care. The Frontier Nursing Service historical case study provides a unique and innovative teaching template to design, promote, and evaluate healthy com-munities. The students joined knowledge with imagination to create relevant examples of community programs that encompassed Healthy People 2010's agenda for our nation. ^{17,18}

REFERENCES

- 1. American Association of Colleges of Nursing (AACN). White paper: Hallmarks of the professional nursing practice environment, 2002 [cited December 4, 2003]. Available from: http://www.aacn.nche.edu/Publications/positions/hallmarks.htm.
- 2. Daniels D. The role of the CNS in primary prevention, research and health policy, conference abstract. In Dayhoff NE, Lyon K. 2003 NACNS National Conference, Clinical Nurse Specialist. J Advanc Nurs Pract 2003;17:145.
- 3. National Organization of Nurse Practitioner Faculties (NONPF). Washington (DC): National Organization of Nurse Practitioner Faculties (NONPF) Web site: http://www.nonpf.com.
- 4. Seed MS, Higgins S. Integrating mental illness prevention into community-based undergraduate education. J Nurs Educ 2003;42:8 –12.
- 5. Smith K, Baxini-Barakat N. A public health nursing practice model: Melding public health principles with the nursing process. Public Health Nurs 2003;20:42–8.
- 6. United States Department of Health and Human Services. Healthy people 2010, 2000 (conference edition in two volumes). Washington (DC): United States Department of Health and Human Services [cited December 7, 2003]. Available from: http://www.healthypeople.gov/.

- 7. United States Department of Health and Human Services. Healthy people in healthy communities, 2001. Washington (DC): United States Department of Health and Human Services [cited December 7, 2003]. Available from: http://www.health.gov/healthypeople/Publications/Healthy Communities.
- 8. Johnson E. Mary Breckinridge—A voice from the past. West J Nurs Res 2001;23:644–52.
- 9. Healthy People Curriculum Task Force. Healthy people curriculum task force [cited December 4, 2003]. Available from: http://www.atpm.org/about/HPC_Taskforce.html.
- 10. Association of Academic Health Centers (AAHC). Washington (DC): Association of Academic Health Centers (AAHC) [cited December 4, 2003]. Available from: http://www.ahcnet.org/.
- 11. Association of Teachers of Preventive Medicine (ATPM). Washington (DC): Association of Teachers of Preventive Medicine (ATPM) [cited December 4, 2003]. Available from: http://www.atpm.org.
- 12. Pew Health Professions Commission. San Francisco (CA): Center for the Health Professions [cited December 4, 2003]. Avail-able from: http://www.futurehealth.ucsf.edu/home.html.
- 13. Bellack JP, Graber DR, O'Neil EH, Musham C, Lancaster C. Curriculum trends in nurse practitioner programs. J Prof Nurs 1999; 15:15–27.
- 14. American College of Nurse-Midwives. The ACNM core competencies for basic midwifery practice. Washington (DC): American College of Nurse-Midwives 2002 [cited December 7, 2003]. Avail-able from: http://www.midwife.org/prof/archive-aboutcc.cfm.
- 15. Norris T, Atkisson A, Besleme K. Community indicators hand-book. Boulder (CO): Tyler Norris Associates, Inc. 1997. [cited December 7,2003]. Available from: http://www.communityinitiatives.com/indicats.html.
- 16. Norris T, Clough G, Ayre D. Facilitating community change: A handbook for sustaining positive change. Boulder (CO): Community Initiatives, Inc, 2000.
- 17. Breckinridge M. Wide neighborhoods: A story of the Frontier Nursing Service. New York (NY): Harper Brothers Publishers, 1952.
- 18. Raines KH, Wilson A. Frontier Nursing Service: A historical perspective on nurse-managed care. J Community Health Nurs 1996;13:123–7.
- 19. Nelson L. A nursing student's experience in rural Kentucky. Imprint 1994;41:50–1.
- 20. Ryan-Wenger NA, Lee JEM. The clinical reasoning case study: A powerful teaching tool. Nurse Pract 1997;22:66–67, 70, 76–79.
- 21. Metropolitan Life Insurance Company. Summary of the ten thousand confinement records of The Frontier Nursing Service. Frontier Nursing Service Quarterly Bulletin, 1958, 33. Reprinted in Bull Am Coll Nurse-Midwives 1960;5:1–9.
- 22. Frontier Nursing Service (FNS) [cited December 7, 2003]. Available from: http://www.frontiernursing.org.