Prepared by the North Dakota Legislative Council staff for the Health Services Committee
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# STUDY OF THE FUTURE OF HEALTH CARE DELIVERY IN THE STATE AND THE ABILITY OF THE UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE AND HEALTH SCIENCES TO MEET THE HEALTH CARE NEEDS OF THE STATE - BACKGROUND MEMORANDUM

The Legislative Assembly approved 2011 House Bill No. 1152. Section 3 of the bill (Appendix A) provides that, during the 2011-12 interim, the Legislative Management study the future of health care delivery in the state. The study must focus on the delivery of health care in rural areas of the state and include input from the University of North Dakota (UND) School of Medicine and Health Sciences Center for Rural Health, hospitals, and the medical community.

The Legislative Assembly also approved 2011 House Bill No. 1003. Section 23 of the bill (Appendix B) provides the chairman of the Legislative Management consider appointing a separate committee to study the ability of the School of Medicine to meet the health care needs of the state. The study must include a review of the health care needs of the state, options to address the health care needs of the state, and the feasibility and desirability of expanding the School of Medicine to meet the health care needs of the state.

## PREVIOUS STUDIES

The 1999-2000 Budget Committee on Health Care studied the various challenges facing the delivery of health care in the state, including changes in hospital reimbursements, technological innovations, and the regionalization of services. The committee also studied health care access, quality, and cost to determine essential health care services, critical providers, and access sites and to identify geographic, demographic, and economic issues relating to health care. The committee also received a report from the Health Council on public input regarding health care needs and services. The committee received information regarding provider reimbursements, home health care, nurse practitioners, critical access hospitals, access and utilization of preventative care services, health insurance, and other health care issues.

The committee asked the chairman of the Legislative Council to request that the Department of Human Services discontinue the development of a prospective payment system for outpatient Medicaid services using ambulatory patient groups, that all changes to the current payment system for outpatient Medicaid services be delayed to allow the development and testing of ambulatory payment classifications by the Health Care Financing Administration, and that the department consider using ambulatory payment classifications in the development of a prospective payment system for outpatient Medicaid services in North Dakota. The chairman of the Legislative Council sent a letter to the Department of Human Services regarding the committee's request and the department implemented the committee's recommendation.

The 2005-06 Budget Committee on Health Care studied the need for a comprehensive long-range study of the state's current and future health care needs in order to address issues, such as the aging population of the state, the phenomenon of health care cost-shifting to the private sector, the trend of uncompensated health care services, shortages in the number of health care professionals, duplication of technology and facilities, and any other factors that might affect the health care system in North Dakota in the year 2020.

The committee learned that it is expected that the state's current population over age 65 will increase from 97,800 to approximately 149,600 by 2020. The state's population over age 85 is expected to increase from 15,300 to approximately 24,300 by 2020. The committee learned approximately 58 percent of North Dakotans travel 5 miles or less to receive health care services, approximately 9 percent travel 21 miles to 50 miles, and approximately 20 percent travel more than 50 miles. The committee learned studies have shown that greater distances people must travel to receive health care services result in underutilization of health care services.

The committee received information regarding a Health Resources and Services Administration federal grant program to study health insurance coverage in North Dakota. Research related to the study, which was completed in August 2006, was conducted by the UND Center for Rural Health.

The committee received information regarding the status of the School of Medicine. The committee learned approximately 68 percent of the state's practicing family medicine physicians graduated from UND with a medical degree, residency training, or both. Family medicine physicians provide the majority of patient care in rural areas. However, in North Dakota and throughout the country, the number of medical student graduates choosing a residency in family medicine is decreasing. The committee learned the decrease in the number of family medicine physicians is primarily due to lower salaries and more "on call" hours as compared to specialty practice physicians. The committee learned, for the period 1990 through 2000, approximately 37 percent of the medical school graduates remain in North Dakota, while 39 percent of those completing their residency

training in the state remain in North Dakota, and 38 percent of those receiving combined medical school and residency training in North Dakota remain in the state. In comparison, approximately 25 percent of all UND graduates (all majors) continue to reside in the state after graduation.

The committee learned that students at the School of Medicine generally receive their medical degree after four years of successful study. The students generally complete the first two years at the Grand Forks campus. The School of Medicine has developed a curriculum that focuses on patient-centered learning. Patient-centered learning curriculum allows first-year and second-year medical students to interact with actual patients, allowing them to learn the dynamics of doctor/patient relationships, how to interview patients, and how to conduct physical examinations. For the third year, the majority of the students are assigned to do clerkship rotations within clinical settings. Approximately six to eight third-year students are chosen to participate in the rural opportunities in medical education (ROME) program. The ROME program allows third-year medical students to live and train in a nonmetropolitan community under the supervision of physician preceptors. A goal of the ROME program is to expose students to practicing medicine in rural areas throughout North Dakota. In the fourth year, students complete internships designed to teach students how to function in a hospital setting. The committee reviewed information regarding the physician loan repayment program. The physician loan repayment program provides funding for educational loan repayments incurred while recipients were attending an accredited four-year medical program in exchange for a commitment to serve a community.

The committee recommended that the 60th Legislative Assembly consider providing for a comprehensive Legislative Council study of health care and health insurance during the 2007-08 interim and that a consultant be hired, as necessary, to assist with the study. The committee did not propose legislation to provide for the study, and the Legislative Assembly in 2007 did not approve a study.

The 2009-10 Health and Human Services Committee studied unmet health care needs in the state. The study included an assessment of the needs of underinsured and uninsured individuals and families, considered federal health care initiatives, and included consultation with the State Department of Health, the Insurance Commissioner, and the Department of Human Services.

The committee received information regarding the availability and affordability of health care services in the state. The committee learned the state has:

- Six tertiary hospitals in the four major cities of Bismarck, Fargo, Grand Forks, and Minot.
- Thirty-six critical access hospitals in rural communities.
- Seven specialty hospitals, including two long-term care acute hospitals, the State Hospital in Jamestown, a psychiatric care hospital in Fargo, and a Department of Veterans' Affairs hospital in Fargo.
- Two Indian Health Service hospitals.

The committee learned there is concern regarding the future viability of a number of hospitals in the state. Low profits and operating deficits make it difficult for North Dakota health care providers to offer competitive salaries and maintain current technology. The committee learned Medicare and Medicaid are the major payers of health care in North Dakota, especially in the rural areas of the state. Medicare payments generate approximately 50 percent of hospital revenue and Medicaid payments generate from 12 percent to 20 percent.

The committee learned the Dakota Medical Foundation and the UND Center for Rural Health conducted an assessment of health and health care in North Dakota. The study was conducted from December 2008 to February 2009. Issued in May 2009, the report entitled *An Environmental Scan of Health and Health Care in North Dakota*: *Establishing the Baselines for Positive Health Transformation* provides an overview of selected health and health care issues in North Dakota. A copy of the executive summary of the report is attached as Appendix C. The report addressed environment, health-related behaviors, and chronic diseases. In addition, the report provided information regarding health care infrastructure, quality, access, and financing of health services. The committee learned North Dakota's health and health care are affected by demographic, social, and economic factors. Population characteristics, including age composition, income levels, educational achievement, and changes in the number and distribution of people, affect health status. The committee learned as rural populations age and as the number of residents declines, the ability of providers to maintain and sustain local health systems is challenged. Rural populations also tend to have lower incomes, higher poverty rates, and lower rates of insurance coverage. The committee learned availability and access to care are influenced by a number of factors, including financial constraints; the availability of health care systems; number of providers; and geographic considerations, such as distance, terrain, weather, and transportation resources. The committee learned low-income, aged, or disabled individuals living in rural communities often have limited transportation options.

The committee received information regarding the number of uninsured individuals in the state, including the types of individuals likely to be uninsured and reasons for not being insured. The committee learned a 2004 United States Health Resources and Services Administration survey found that approximately 52,000 people or 8.2 percent of North Dakota's

population were uninsured. The committee reviewed other forms of health care coverage available to individuals who cannot afford or who cannot purchase health insurance, including Medicaid, Healthy Steps, Caring for Children, Health Tracks, and the Comprehensive Health Association of North Dakota (CHAND) program.

The committee received information regarding other services available to uninsured and underinsured individuals in the state. The committee learned the State Department of Health provides services to the uninsured and underinsured through programs relating to colorectal cancer; cancer prevention and control; breast and cervical cancer; oral health; maternal and child health; family planning; child passenger safety; special supplemental nutrition for women, infants, and children; Tobacco Quitline; specialty care diagnostic and treatment; Russell-Silver Syndrome; metabolic food; immunizations; human immunodeficiency virus (HIV); and primary care.

The committee learned health information technology and telemedicine are efforts to not only improve access to care, but also to improve the quality of care through the collection and sharing of clinical information, the reduction of errors, computer-aided decisionmaking systems, and enhanced patient and clinician communication. Health information technology includes practice management systems, disease registries, clinical messaging, personal health records, electronic prescribing, electronic medical records, and health information exchanges.

The committee learned telemedicine services have been reimbursable by Blue Cross Blue Shield of North Dakota since 1998, but the number of claims has been minimal. The committee learned the most common telemedicine services billed were psychotherapy diagnostic interview, individual psychotherapy, and pharmacologic management. The committee learned most telemedicine providers in the state are located in Grand Forks, Fargo, and Jamestown, but telemedicine patients are located throughout the state.

The committee learned telepharmacy has been implemented in several hospitals across the state, and several critical access hospitals have contracted with a group of out-of-state physicians to provide oversight by tele-e-care in emergency rooms. The committee learned this system of care has been successful in South Dakota but raises issues relating to credentialing of out-of-state physicians, liability, and reimbursement for covered services.

The committee learned the UND Department of Family and Community Medicine, School of Medicine, and the College of Nursing formed a partnership to plan, develop, and implement a North Dakota area health education center program. The committee learned two area health education centers are operating in the state--one at Mayville for the eastern region and the other at Hettinger for the southwest region. A third area health education center is anticipated for the northwest region in 2012. Area health education centers connect students to health care careers and to the rural, underserved communities in the state through activities developed for kindergarten through postsecondary students, educational programs, clinical rotations, and recruitment and retention of health care providers. The committee learned funding for the program is from a federal Human Resources and Services Administration grant, the School of Medicine, and a Dakota Medical Foundation grant.

The committee received other information regarding efforts to improve and increase rural health care in the state, including federal rural health grants, a critical access hospital quality network, emergency medical services access critical grants, community-based outpatient clinics for veterans' care, health professional workforce development, and efforts to increase the viability of rural hospitals.

The committee made no recommendations regarding the unmet health care needs study.

## SCHOOL OF MEDICINE HEALTH CARE WORKFORCE INITIATIVE

During the 2009-10 interim, the Higher Education Committee received information regarding issues affecting the School of Medicine, including medical student residencies and future health care needs. The committee learned the medical school class of 2014 includes 66 students, and the average student age is 24.8 years. The following schedule details the state of residence for the students, including students enrolled through an agreement with the Western Interstate Commission for Higher Education:

| Residency Type | Number | Percentage of Total Students |
|---|---|---|
| North Dakota resident | 46 | 78% |
| Minnesota resident | 6 | 10% |
| Enrolled through the Western Interstate Commission for Higher Education exchange program | 7 | 12% |
| Total | 59[1] | 100% |

[1]Does not include seven students enrolled in the Indians into Medicine Program.

The committee received the following information comparing medical student residencies in North Dakota to national averages:

| | North Dakota | National Average |
|---|---|---|
| Number of residencies per 100,000 residents | 17.8 | 35.7 |
| Ratio of medical residents to medical students | 0.42 | 1.11 |
| Percentage change in the number of medical residents from 1999 to 2008 | (3.4%) | 12.6% |

The number of first-year residencies available in North Dakota was 44 in 2010. Of this amount, 17 were related to family medicine. The following schedule details the number of physicians that remain in the state after attending medical school in North Dakota or completing a residency in the state:

| | North Dakota | National Average |
|---|---|---|
| Retention of students that attend medical school in the state | 31% | 37% |
| Retention of students that complete a medical residency in the state | 43% | 45% |
| Retention of students that attend medical school in the state and complete a medical residency in the state | 63% | 66% |

The committee learned 1,489 physicians are actively practicing in the state. Of these physicians, 51 percent are aged 50 or younger and 17 percent have their primary office in a rural area. Of the total number of actively practicing physicians in the state, 461 are graduates of the University of North Dakota School of Medicine and Health Sciences.

The committee learned the School of Medicine RuralMed Program provides eight new freshman medical students per year with a full tuition waiver for all four years of medical school if the student agrees to complete a family medicine residency and then practice family medicine in a rural area of the state for five years. Guidelines for the RuralMed Program define a rural area of the state as being anywhere in the state except Bismarck, Fargo, Grand Forks, and Minot.

The School of Medicine RuralMed Program is modeled after the School of Medicine Indians into Medicine Program. The Indians into Medicine Program was established as a means of providing American Indian health professionals to meet American Indian health needs. The School of Medicine reserves places in its medical school freshman class, and physical therapy and occupational therapy programs, for fully qualified American Indian students.

The UND School of Medicine and Health Sciences Advisory Council provided information during the 2011 legislative session regarding strategies to meet the state's health care workforce needs. Strategies outlined include training more physicians and other health professionals, retaining more trained health professionals, and aggressively recruiting from outside the state to fill health care workforce needs. The School of Medicine provided information regarding the school's health care workforce initiative. Original proposals included:

- Cooperating with North Dakota State University to provide a new master of public health degree with estimated costs during the:
  - 2011-13 biennium of $1.2 million;
  - 2013-15 biennium of $1.3 million; and
  - 2015-17 biennium of $1.4 million.
- Expanding training in geriatrics with estimated costs during the:
  - 2011-13 biennium of $1.2 million;
  - 2013-15 biennium of $1.2 million; and
  - 2015-17 biennium of $1.3 million.
- Increasing the number of medical students by 16 per year for four years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $858,000;
  - 2013-15 biennium of $4.5 million; and
  - 2015-17 biennium of $7.7 million.
- Increasing the number of resident positions by 17 per year for three years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $2.2 million;
  - 2013-15 biennium of $11.5 million; and
  - 2015-17 biennium of $14.6 million.
- Increasing the number of health sciences students by 30 per year for three years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $402,000;
  - 2013-15 biennium of $2.1 million; and
  - 2015-17 biennium of $2.7 million.
- Constructing a new health sciences facility addition for program expansion with an estimated cost of $28.9 million.

The estimated 2011-13 biennium base budget increase required to provide for the original proposals totaled $5.9 million, and the one-time cost of the health sciences facility addition was estimated at $28.9 million. The cost of the initiatives was estimated to total $20.6 million during the 2013-15 biennium and $27.7 million during the 2015-17 biennium.

The School of Medicine submitted modified proposals for consideration by the Legislative Assembly. The modified health care workforce initiative proposals did not require construction of a new health sciences facility addition and were as follows:

- Cooperating with North Dakota State University to provide a new master of public health degree with estimated costs during the:
  - 2011-13 biennium of $1.2 million;
  - 2013-15 biennium of $1.3 million; and
  - 2015-17 biennium of $1.4 million.
- Expanding training in geriatrics with estimated costs during the:
  - 2011-13 biennium of $1.2 million;
  - 2013-15 biennium of $1.2 million; and
  - 2015-17 biennium of $1.3 million.

- Increasing the number of medical students by eight per year for four years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $450,000;
  - 2013-15 biennium of $2.3 million; and
  - 2015-17 biennium of $3.9 million.
- Increasing the number of resident positions by nine per year for three years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $1,139,100;
  - 2013-15 biennium of $6.1 million; and
  - 2015-17 biennium of $7.8 million.
- Increasing the number of health sciences students by 15 per year for three years beginning in July 2012 with estimated costs during the:
  - 2011-13 biennium of $210,900;
  - 2013-15 biennium of $1.1 million; and
  - 2015-17 biennium of $1.4 million.

The Legislative Assembly in 2011 appropriated $46.8 million from the general fund to the School of Medicine for the 2011-13 biennium. Included in the funding is $4.3 million of initiatives relating to:

- A new master of public health degree for $1.2 million (included in the executive budget).
- Expansion of geriatric training for $1.2 million (included in the executive budget).
- Increasing the number of medical and health sciences students and residencies for $1.8 million.
- One-time funding for a space utilization study of the School of Medicine for $100,000.

The cost to continue the $4.3 million of initiatives approved by the Legislative Assembly in 2011 are estimated to total $12 million during the 2013-15 biennium and $15.8 million during the 2015-17 biennium.

The School of Medicine provided information regarding admissions to the Legislative Assembly in 2011. A copy of the *UND Medical School Admissions Fact Sheet* is attached as Appendix D.

In addition to the funding included in the 2011-13 executive recommendation for the School of Medicine, House Bill No. 1353 was introduced but was not approved by the Legislative Assembly in 2011. The bill would have:

- Expanded the primary purpose of the School of Medicine to include increasing the health care workforce in the state with a focus on the education of primary care physicians;
- Changed the membership and duties of the UND School of Medicine and Health Sciences Advisory Council, including the appointment of members from small, medium, and large communities;
- Provided for the deposit of tobacco settlement dollars in a health care programs trust fund to be used for defraying the expenses of School of Medicine projects and programs related to increasing the health care workforce in the state, with a focus on the education of primary care physicians; and
- Provided $34.7 million from the health care programs trust fund to UND and the School of Medicine for a new health sciences facility at UND ($28.9 million) and for the expansion of School of Medicine programs ($5.8 million).

## LOAN REPAYMENT PROGRAMS

North Dakota Century Code Chapter 43-17.2 provides for the state community matching physician loan repayment program. A qualifying physician may receive up to $22,500 per year for up to two years for a total of $45,000. Section 43-12.2-01 provides for qualifying mid-level practitioners to receive loan repayments totaling up to $30,000 over two years. Communities must contribute an amount at least equal to the amount of the state contribution for the physicians and mid-level practitioners. The Legislative Assembly in 2009 appropriated $75,000 from the general fund and $272,500 from the community health trust fund for the program, including $67,500 provided in 2009 Senate Bill No. 2227 which removed the limit on the number of recipients and increased the limit on the maximum loan repayment from $10,000 to $30,000 for the medical personnel loan repayment program relating to mid-level practitioners. The 2011-13 executive budget recommended and the Legislative Assembly in 2011 approved $420,000, of which $345,000 is from the general fund and $75,000 is from the community health trust fund, for the medical personnel loan repayment program, $72,500 more than the 2009-11 biennium. Physicians and mid-level practitioners accepted into the program during the last two bienniums include:

| Biennium (Number of Physicians Accepted Into Program) | Communities Served |
|---|---|
| 2007-09 biennium (4) | Cando/Devils Lake<br>Devils Lake<br>Dickinson (2) |
| 2009-11 biennium (7) | Cando/Devils Lake<br>Dickinson (3)<br>Jamestown<br>Wahpeton<br>Williston |

| Biennium (Number of Mid-Level Practitioners Accepted Into Program) | Communities Served |
|---|---|
| 2007-09 biennium (3) | Grafton<br>Turtle Lake/McClusky<br>Williston/Bowman |
| 2009-11 biennium (2) | Oakes (2) |

## 2011 RELATED LEGISLATION

**Medical personnel and physician loan repayment programs** - House Bill No. 1003 revised the eligibility provisions for the medical personnel loan repayment program and the physician loan repayment program by removing the prohibition that an applicant may not have practiced full time in this state for more than one year before the date of application.

**Nurse aide registry** - House Bill No. 1041 directs the State Department of Health to establish and administer a nurse aide registry for the registration and regulation of certified nurse aides, home health aides, medication assistants, and nurse aides; exempts an individual who is registered under the nurse aide registry from regulation by the State Board of Nursing; provides a nurse may delegate medication administration to an individual registered under the nurse aide registry; and provides a nurse may supervise and delegate nursing interventions to an individual registered under the nurse aide registry.

**Supplemental payments to critical access hospitals** - In addition to providing for a study of the future of health care delivery in the state, House Bill No. 1152 provides $3,454,061 of one-time funding, of which $1,527,802 is from the general fund, to the Department of Human Services for supplemental payments to critical access hospitals for the 2011-13 biennium.

**Licensure requirements for graduates of international schools** - House Bill No. 1222 revises the State Board of Medical Examiners' licensure requirements for graduates of international schools, changing the requirement of three years' postgraduate training to 30 months and changing the experience and training equivalency to the second year and third year of postgraduate training to the last 18 months of postgraduate training.

**Pharmacist administration of immunizations to minors** - Senate Bill No. 2035 authorizes a pharmacist to administer an immunization or vaccination by injection to an individual who is at least 11 years of age and to administer an influenza vaccination to an individual who is at least 5 years of age. The bill also clarifies the administration of a drug by injection by a pharmacist may be made upon the order of a physician assistant.

**Prescriptive practice standards** - Senate Bill No. 2148 changes the process under which the State Board of Nursing establishes rules relating to prescriptive practice standards for advanced practice registered nurses by removing the requirement that the board consult with the medical profession. The bill also removes the requirement that the prescriptive practices include evidence of a collaborative agreement with a licensed physician.

**State Board of Integrative Health Care** - Senate Bill No. 2271 provides for the creation of the State Board of Integrative Health Care, which licenses and regulates naturopaths and music therapists.

## STUDY PLAN

The committee may wish to proceed with this study as follows:

1. Gather and review information regarding health care needs in the state, options to address the health care needs in the state, the future of the delivery of health care services in the state--especially in rural areas, and the role of technological innovations and telemedicine in providing health care services in the state from interested persons, including AARP, the North Dakota Healthcare Association, the North Dakota Medical Association, the North Dakota Health Information Technology Office and advisory committee, and the UND Center for Rural Health.
2. Receive information from the School of Medicine relating to:
   a. Students/resident experiences and rotations in community health (SEARCH) program, including information regarding the program and opportunities for health profession students to work in interdisciplinary teams in rural North Dakota communities.
   b. Rural opportunities in medical education program, including information regarding the program, the number of third-year medical students placed in rural communities, and the number of ROME students choosing to practice in rural communities after graduation.
   c. RuralMed scholar program, including information regarding the program and its success at recruiting, educating, and retaining physicians who will practice family medicine in rural North Dakota.
3. Receive information from the School of Medicine regarding shortages of health care professionals in the state, how expanding programs at the university would address health care needs in the state, and the cost of program expansion.
4. Gather and review information on federal health care initiatives, including how they will affect access to health care in the state.
5. Receive information from the Department of Human Services and the State Department of Health regarding programs and services available to provide health care in rural areas of the state.
6. Develop committee recommendations and prepare any legislation necessary to implement the committee recommendations.
7. Prepare a final report for submission to the Legislative Management.

ATTACH:4