Nebraska Rural Health Advisory Commission's

Annual Report
and
Rural Health Recommendations

As provided through the
Nebraska Rural Health Systems and Professional Incentive Act

December 2015

Nebraska Rural Health Advisory Commission
November 2015

Name / Affiliation	Appointment Designation
Commission Chairperson: Marty L. Fattig, C.E.O. Auburn, NE	Rural Hospital Administrator
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Nebraska Rural Health Advisory Commission's
Annual Report of the
Nebraska Rural Health Systems and Professional Incentive Act
December 2015

EXECUTIVE SUMMARY

- The Rural Health Systems and Professional Incentive Act, passed in 1991, created the Rural Health Advisory Commission, the Nebraska Rural Health Student Loan Program and the Nebraska Loan Repayment Program.

- The thirteen (13) members of the Rural Health Advisory Commission are appointed by the Governor and confirmed by the Legislature.

- The Rural Health Advisory Commission's statutory duties include, but are not limited to, establishing state-designated shortage areas, awarding rural student loans and loan repayment to eligible health professionals, and preparing recommendations to the appropriate bodies to alleviate problems in the delivery of health care in rural Nebraska.

- The Nebraska Rural Health Student Loan Program provides *forgivable* student loans to Nebraska medical, dental, physician assistant, and graduate-level mental health *students* who agree to practice an approved specialty in a state-designated shortage area.

- The Nebraska Loan Repayment Program assists rural communities in recruiting and retaining primary care health professionals by offering state matching funds for repayment of *health professionals'* government or commercial educational debt.

- As of August 2015, there are 100 rural incentive program recipients practicing under obligation in Nebraska.

- The Nebraska Loan Repayment Program has a 91 percent success rate of recipients completing their practice obligations.

- The Nebraska Rural Health Student Loan Program buyout rate has dropped from an average of approximately 50 percent in 1998 to the current average of 14.5 percent.

- Based on county population, the rural health incentive programs currently impact over 900,000 people[1] living in Nebraska in underserved areas by providing them access to health care professionals.

- According to studies on the economic impact of rural health care, "One primary care physician in a rural community creates 23 jobs annually. On average, 14 percent of total employment in rural communities is attributed to the health sector."[2]

[1] Based on county and underserved populations.
[2] Doeksen, G.A., St. Clair, C. F., and Eilrich, F.C. "Economic Impact of Rural Health Care." National Center for Rural Health Works, www.ruralhealthworks.org, September 2012.

Nebraska Rural Health Advisory Commission
Recommendation Highlights
December 2015

I. Population Health

- A core set of measures should be developed to track the improvements in personal and community health.
- A statewide health information database that includes all-payer claims data and uniform patient outcomes data from all health care providers should be established.

II. Workforce Shortages and Health Professional Incentive Programs

- The funding for the Nebraska rural health incentive programs (the student loan, loan repayment, and medical resident loan repayment programs) should be expanded.
- Scope of practice barriers for health care workers and new categories of health care workers (e.g., community health workers and community paramedics) should be carefully evaluated.

III. Behavioral Health Issues

- The interdisciplinary training opportunities between primary care physicians, physician assistants, nurse practitioners, and mental health professionals should be expanded.
- More flexible Medicaid and private insurance reimbursement policies that would address transportation and travel costs need to be developed and implemented. Consideration should also be given to increasing or beginning reimbursement for telehealth/telemedicine services.

IV. Rural Integrated Health Care Systems

- Develop additional pilot projects to encourage collaboration between state and local health departments and Patient-Centered Medical Home (PCMH) clinics to implement population health programs and activities.
- Both public and private payers should change their reimbursement policies to help PCMHs build the infrastructure (e.g., care coordinators and data analysis) that is necessary to improve patient outcomes.
- Policies and programs should be developed that will assure transparent pricing by all health care public and private providers.
- The LR 422 Workgroup which is responsible for developing an ideal model for health care delivery in the next 15 years should continue to receive financial and staff support.

V. Emergency Medical Services (EMS)

- A multi-sector coalition should be formed to develop a state EMS Plan. This coalition should include representatives from state and regional EMS organizations, local ambulance services, hospital administrators, hospital personnel, physicians, state and local public officials, state patrol and other law enforcement agencies.
- The Nebraska Hospital Association should work with the Nebraska Congressional delegation to allow all hospitals that own or manage EMS ambulance units to receive cost-based reimbursement.

VI. In-Home Care and Long-Term Institutional Care Services

- Pilot projects that assess new models of in-home care, telemedicine, and home monitoring technology should be developed and evaluated.
- The feasibility of providing public transportation at least in some regions of the state should be evaluated.

VII. Communication and Information Technology Systems

- Standardized protocols for all reporting, transmitting, and the exchange of all health care data should be developed and implemented.

History

The Rural Health Systems and Professional Incentive Act (the Act) was passed in 1991 creating the Rural Health Advisory Commission, the Nebraska Rural Health Student Loan Program, and the Nebraska Loan Repayment Program. In 2015, the Legislature added the Medical Resident Loan Repayment Program; however, funding has not been appropriated for this program. (State of Nebraska employees are not eligible to receive benefits under the rural incentive programs.)

Rural Health Advisory Commission

The Rural Health Advisory Commission is a governor-appointed commission consisting of thirteen members as follows: (1) the Director of Public Health of the Division of Public Health or his or her designee and another representative of the Nebraska Department of Health and Human Services; and (2) eleven members appointed by the Governor with the advice and consent of the Legislature. These eleven members include one representative of each medical school located in the state involved in training family physicians, one physician in family practice residency training, one rural physician, one rural consumer representative, one rural hospital administrator, one rural nursing home administrator, one rural nurse, one rural physician assistant, one rural mental health practitioner or psychologist licensed under the requirements of section 38-3114 or the equivalent thereof, and one rural dentist. *(NE Revised Statutes Section 71-5654)*

The purpose of the Commission is to advise the Nebraska Department of Health and Human Services – Division of Public Health, the Legislature, the Governor, the University of Nebraska, and the citizens of Nebraska regarding all aspects of rural health care and to advise the Nebraska Office of Rural Health regarding the administration of the Rural Health Systems and Professional Incentive Act. *(NE Revised Statutes Section 71-5655)*

By statutory authority the Commission has the following powers and duties: (1) advise the Nebraska Department of Health and Human Services – Public Health Division (department) regarding the development and implementation of a state rural health policy; (2) advise the department and other appropriate parties in all matters relating to rural health care; (3) serve as an advocate for rural Nebraska in health care issues; (4) maintain liaison with all agencies, groups, and organizations concerned with rural health care in order to facilitate integration of efforts and commonality of goals; (5) identify problems in the delivery of health care in rural Nebraska, in the education and training of health care providers in rural Nebraska, in the regulation of health care providers and institutions in rural Nebraska, and in any other matters relating to rural health care; (6) *prepare recommendations* to the appropriate bodies to alleviate the problems identified; (7) advise the department regarding the Rural Health Systems and Professional Incentive Act; (8) designate health profession shortage areas in Nebraska; and (9) select recipients of financial incentives available under the Act. *(NE Revised Statutes Section 71-5659)*

Nebraska Rural Health Student Loan Program

In 1979, the State of Nebraska began awarding low-interest loans to medical students who agree to practice in shortage areas. Due to legislative changes over the years, the Nebraska Rural

Health Student Loan Program now awards ***forgivable*** student loans to Nebraska medical, dental, physician assistant, and graduate-level mental health students who agree to practice an approved specialty in a state-designated shortage area. Approved specialties are defined as follows: medical and physician assistant students must agree to specialize in family practice, general surgery, general internal medicine, general pediatrics, obstetrics/gynecology, or psychiatry; dental students must agree to specialize in general practice, pediatric dentistry, or oral surgery; and mental health students must be enrolled or accepted for enrollment in a training program that meets the educational requirements for licensure by the Department of Health and Human Services for "licensed mental health practitioner" or "licensed psychologist".

The Nebraska Rural Health Student Loan Program is for Nebraska residents attending graduate college in Nebraska. Student loan recipients receive a forgivable educational loan while they are in training in exchange for an agreement to practice in a state-designated shortage area the equivalent of full-time for one year for each year a loan is received. The number and amount of student loans are determined annually by the Rural Health Advisory Commission based on state funding.

Dental students were added to the Nebraska Rural Health Student Loan Program in 2000 and graduate-mental health students were added in 2004. In 2000, the Legislature passed legislation that increased the maximum amount of student loan awards for medical and dental students to $20,000 per year and $10,000 per year for physician assistant student loans. When graduate-level mental health student loans were added in 2004, the maximum amount of a student loan for a doctorate-level mental health student was set at $20,000 per year and for a master-level mental health student, it was set at $10,000 per year. Legislation passed in 2015, effective August 29, 2015, increased the maximum student loan awards to $30,000 and $15,000 per year; however, at this writing there has been no increase in the appropriation. The Rural Health Advisory Commission is awarding student loans in the amount of $20,000 for doctorate-level students and $10,000 for full-time master-level students.

Nebraska Loan Repayment Program

In 1994, the Nebraska Legislature appropriated funding for the Nebraska Loan Repayment Program for health professionals willing to practice in a state-designated shortage area. Initially only physicians, nurse practitioners, and physician assistants practicing one of the defined primary care specialties, clinical psychologists, and master-level mental health providers were eligible for loan repayment. In 1998, pharmacists, occupational therapists, physical therapists, and dentists were added to the program. The approved primary care specialties are the same specialties defined under the Nebraska Rural Health Student Loan Program listed previously.

The Nebraska Loan Repayment Program requires community participation in the form of a local match and a 3-year practice obligation for the health professional. Communities must do their own recruiting, using the availability of the loan repayment program as a recruitment and retention tool. Once a health professional is recruited a local entity and the health professional must submit loan repayment applications to the Rural Health Advisory Commission. Communities may also use loan repayment to retain a health professional if the area is state-designated shortage area.

Nebraska Medical Resident Loan Repayment Program

In 2015, the Legislature passed LB196 which created the Nebraska Medical Resident Loan Repayment Program. The Nebraska Medical Resident Loan Repayment Program will provide financial incentives to medical residents who agree to practice their profession in a designated health profession shortage area within Nebraska. An applicant for this new program must be enrolled or accepted for enrollment in an approved medical specialty residency program in Nebraska and have government or commercial student loans. The amount of financial assistance provided through the medical resident incentive program shall be limited to forty thousand dollars per recipient per year and shall not exceed one hundred twenty thousand dollars.

The Department of Health and Human Services will be working on writing rules and regulations for this new incentive program in 2016 along with updating the regulations for the current student loan and loan repayment programs. The Rural Health Advisory Commission will establish guidelines for awarding medical resident loan repayment. *This new program has not been funded by the Legislature at this time.*

State-Designated Shortage Areas

The Rural Health Advisory Commission has the responsibility of establishing guidelines and identifying shortage areas for purposes of the Nebraska rural incentive programs for the primary care specialties defined in the Act. Every 3 years a statewide review of all the shortage areas is completed. If changes occur in an area during the years between the statewide reviews, the community may request a shortage area designation from the Commission. Any data or information submitted for review is verified by the Nebraska Office of Rural Health and University of Nebraska Medical Center – Health Professions Tracking Services. If the area meets the guidelines for state designation, the Commission may designate it. The next statewide review will be done in 2016.

Criteria for the federal and state shortage area designations differ and are used for different federal and state programs. Nebraska Office of Rural Health staff can assist with the data requirements and benefits of the various shortage area designations and incentive programs. Guidelines for the state-designated shortage areas and the current federal and state shortage areas are posted on the Nebraska Office of Rural Health webpage.

While the Nebraska rural incentive programs primarily focus on *rural* shortage areas Federally Qualified Health Centers (FQHCs) may request to be designated as state-designated shortage areas for family practice and/or general dentistry. As a state-designated shortage area, FQHCs may then qualify for benefits under the state incentive programs in addition to *federal* health professional incentive programs.

The Nebraska Office of Rural Health works to maximize state funds for areas not eligible for the benefits under the federal incentive programs due to practice area or practice specialty eligibility. Health professionals who are practicing in a federal Health Professional Shortage Area (HPSA), and are eligible, are encouraged to apply first for the National Health Service Corps (NHSC) Loan Repayment Program or the ***new*** NHSC Nebraska State Loan Repayment Program (NHSC

SLRP) before applying for the Nebraska Loan Repayment Program. Depending on the availability of federal funds, the NHSC will often times award loan repayment to health professionals based on the HPSA score. When higher HPSA scores are needed to qualify, there is a greater demand for the Nebraska Loan Repayment Program because Nebraska HPSA scores tend to be lower compared to other areas nationally.

Effective September 1, 2014, the Department of Health and Human Services, Office of Rural Health was awarded a 4-year grant of $100,000 per year for the National Health Service Corps ***State*** Loan Repayment Program (NHSC SLRP). This program has the same criteria as the NHSC Loan Repayment Program except a match from the community is required and health professionals can practice in any federal HPSA without regard to the HPSA score. As of September 1, 2015, the Office of Rural Health was notified of an increase of $100,000 per year to the NHSC SLRP grant. The Nebraska Office of Rural Health is using the NHSC SLRP to complement the Nebraska Loan Repayment Program. For additional information about the NHSC SLRP, contact the Nebraska Office of Rural Health.

Analysis of the Rural Incentive Programs

Chart 1 on page 12 shows graphically the number of rural incentive recipients by program receiving payments by fiscal year. The current fiscal year (FY2015-16) shows awards as of September 1, 2015. It is anticipated that the Rural Health Advisory Commission will obligate all of the funds for FY2015-16 at their November 2015 meeting and move approximately 4 more applicants to the waiting list for a total of 9 applicants on the waiting list for the Nebraska Loan Repayment Program. It should be noted that 6 of the 9 applicants will not begin practice until FY2016-17.

Several factors influence the number of incentive recipients each year. These factors include the amount of state funds available, the amount of each individual incentive award, and the educational level of the recipients. As one commission member stated, *"of all the programs, these are the most successful and the money comes back many times over."* The demand for the rural incentive programs remains high and total student loan debt is continuing to rise each year. Based on the current loan repayment recipients' applications the *mean* and *median* student loan debt for a physician is $186,000 and $193,000, respectively, and for a dentist is $229,000 and $227,000, respectively.

Chart 2 on page 13 shows the budget amounts by source for each fiscal year. Comparing Charts 1 and 2 demonstrates the direct relationship between funding and the number of incentives awarded by the Rural Health Advisory Commission. Beginning July 1, 2013, the Legislature transferred $1.5M from the Department of Health and Human Services cash fund and moved it to the Rural Health Incentive Fund. Cash spending authority was granted to use $500,000 of this money for each of the next two years (FY2013-14 and FY2014-15) for the state match for loan repayment. In addition, the Legislature authorized spending authority for the local match funds in the same amount as the state match. (This is essential for the loan repayment program because this program requires a 50-50 state and local match.)

The Department of Health and Human Services in FY2014-15 requested a reduction in cash spending authority which was no longer needed for the Merck settlement cash. Merck settlement cash was deposited in the Rural Health Incentive Cash Fund account by the Legislature in FY08-09. Cash spending authority was authorized to use $500,000 per year for the state match for loan repayment and $500,000 for the local match for loan repayment for four years, through FY11-12. Once the Merck funds were depleted cash spending authority was no longer needed.

Chart 3 on page 14 shows the dollar amount of rural incentive awards by program by fiscal year. Student loans are awarded by the Rural Health Advisory Commission in June prior to the beginning of each fiscal year; therefore student loans are projected for fiscal years beyond FY2015-16.

Loan repayment awards are made at each Rural Health Advisory Commission meeting as applications are received and state funds are available. Loan repayment requires a 50-50 local-state match and cash spending authority to spend the local match. Based on the number of loan repayment applications received as of November 1, 2015, it is anticipated that the Rural Health Advisory Commission will award 8 applicants loan repayment at the November meeting and move 4 applicants to the waiting list. Of the 9 waiting list applicants, 6 will not begin practice until FY2016-17.

Chart 4 on page 15 gives another perspective to the loan repayment awards. Since loan repayment requires a 50-50 state-local match, Chart 4 shows the funding impact of loan repayment awards by fiscal year. The increase "bump" beginning in FY2013-14 is the addition of the cash funds transferred to the rural incentive cash fund.

The Nebraska Loan Repayment Program requires a 3-year practice obligation so when the Rural Health Advisory Commission awards loan repayment the obligation of funds is projected over the 3-year practice obligation. Loan repayment awards being made in FY2015-16 will impact the rural incentive program budget in FY2016-17, FY2017-18, and FY2018-19; hence the future budget obligations shown on Chart 4.

Charts 5 and 6 on pages 16 and 17 show the number of recipients by profession by fiscal year for the Nebraska Loan Repayment Program and Nebraska Rural Health Student Loan Program; respectively. While more medical professionals use the *loan repayment* program than the other eligible health professionals, the Nebraska Rural Health *Student Loan* Program has been a good program for dental students interested in rural practice.

Unlike the Nebraska Loan Repayment Program, student loan recipients do not have to find a local agency to match the state loan repayment funds and they can be self-employed and still receive forgiveness of their rural health student loans. Due to the number of qualified *medical* students applying for the Nebraska Rural Health Student Loan Program in 2014, the Rural Health Advisory Commission was able to award 8 out of the 14 student loan awards to medical students.

Table A on page 18 shows the number of student loan awards issued each year from FY2006-07 through FY2015-16. Since FY2006-07, the Rural Health Advisory Commission has awarded an

average of 7 new student loans and 7 continuation student loans per year. New student loan awards are based on the quality of applicants each year and the likelihood that the applicant will return to a rural shortage area to practice.

Prior to 1998, buyout rates for student loans averaged about 50 percent. Given four years of medical school and at least three years of residency training, a medical student loan recipient will not be available to practice in a shortage area for up to seven or more years. To improve the success rate of recipients fulfilling their practice obligations, administrative changes were implemented in 1998 to remind student loan recipients of their practice obligation. Then in 2007, the Rural Health Advisory Commission recommended a legislative change to reduce the default cost for student loan recipients from 24% simple interest from the date the loan was received to 150% of the principal plus 8% at the time of default. During the most recent 5-year period (FY2007 – FY2011), for which data are available, the buyout rate has dropped to an average of 14.5%.

Table B on page 19 provides a summary of the Nebraska Loan Repayment Program from 1994 through 2015 (as of September 1, 2015). Since 1994, 514 health professionals have participated or are participating in the Nebraska Loan Repayment Program. Ninety-one percent (91%) of loan repayment recipients have completed their practice obligation or are currently serving their practice obligation. Less than 8% of loan repayment applicants have defaulted on their practice obligation. As of September 2015, there are 99 *loan repayment* recipients in practice under obligation in rural or underserved areas of Nebraska with more to be added as awards are made and contracts are signed.

The map on page 20 shows the practice location of rural incentive recipients as of August 2015 and includes the Legislative District outlines. At that time 107 licensed health professionals were in practice under obligation.

Summary

As a result of both the rural incentive programs, as of August 2015, there are 107 licensed health professionals in practice under obligation providing access to health care services for over 900,000 people living in Nebraska. These two rural incentive programs (student loans and loan repayment) are the only state-funded programs of this type to encourage health professionals to practice in state-designated shortage areas. The only limitation to these programs is the level of the state appropriation.

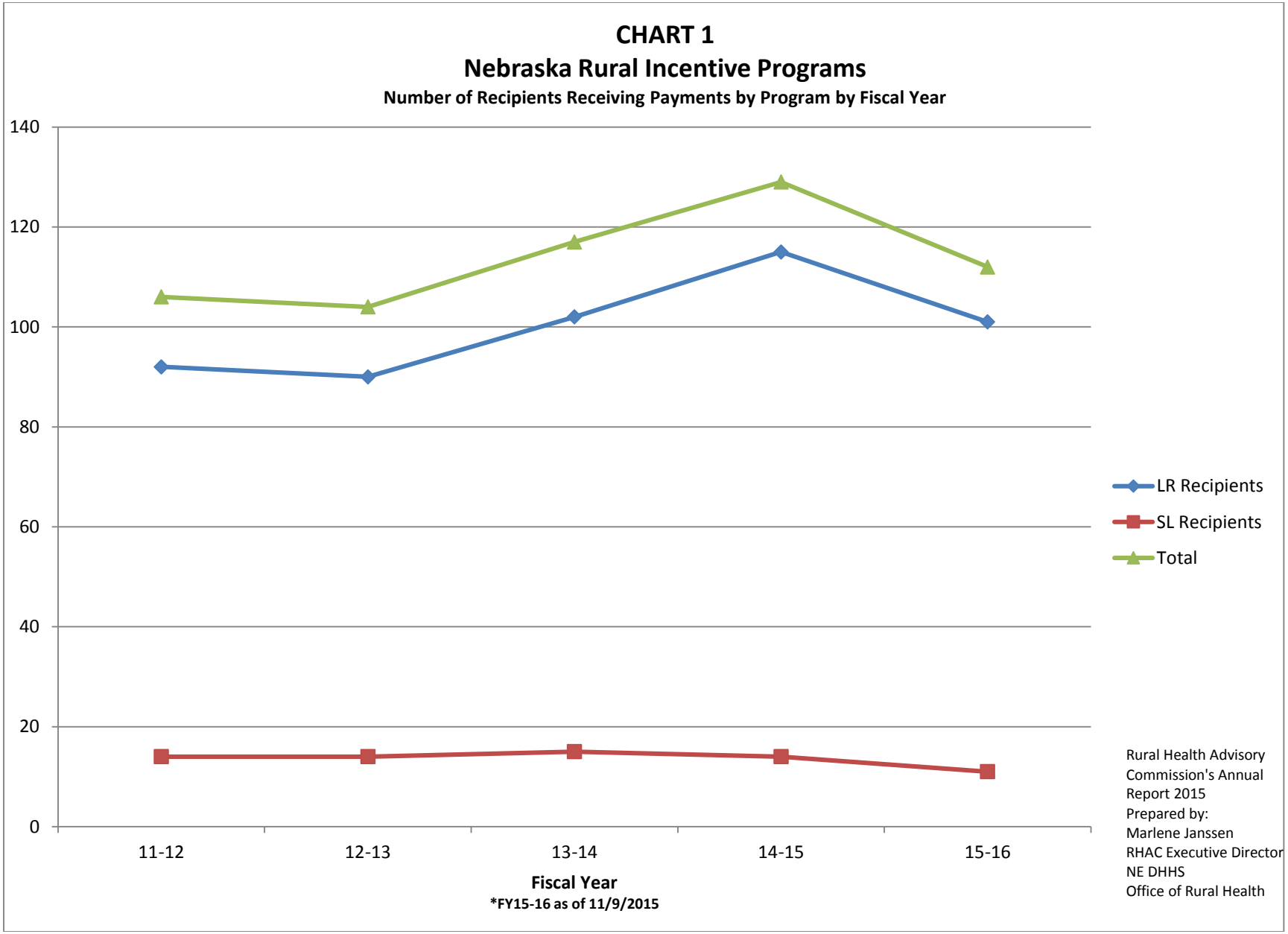
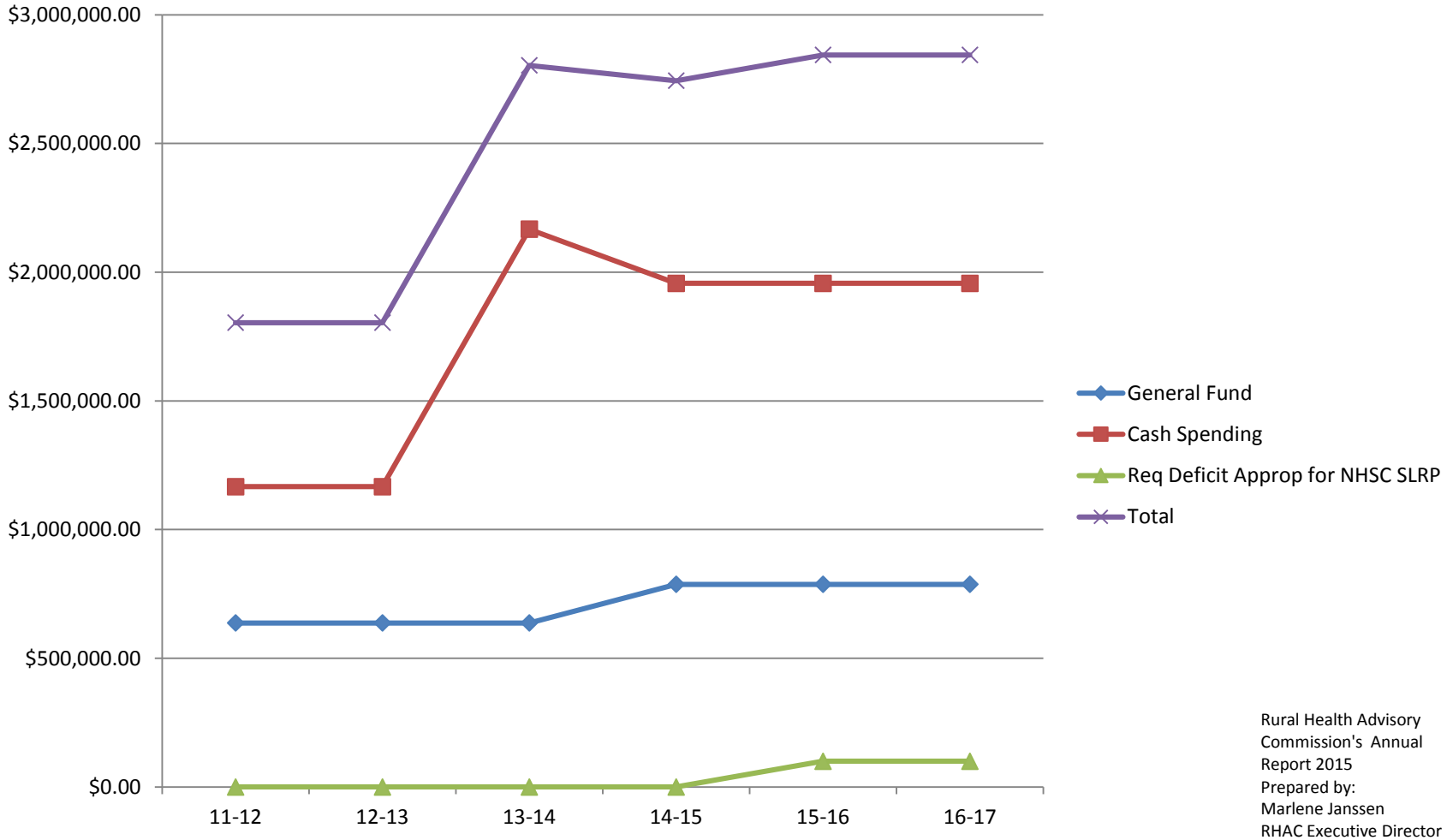


CHART 1
Nebraska Rural Incentive Programs
Number of Recipients Receiving Payments by Program by Fiscal Year
140
120
100
80
60
40
20
0
11-12
12-13
13-14
14-15
15-16
Fiscal Year
*FY15-16 as of 11/9/2015
LR Recipients
SL Recipients
Total
Rural Health Advisory Commission's Annual Report 2015
Prepared by:
Marlene Janssen
RHAC Executive Director
NE DHHS
Office of Rural Health

Chart 2

Nebraska Rural Incentive Programs
State Budget Appropriation By Source By Fiscal Year



Fiscal Year

FY14-15 cash spending authority reduced by DHHS, no longer needed for Merck cash

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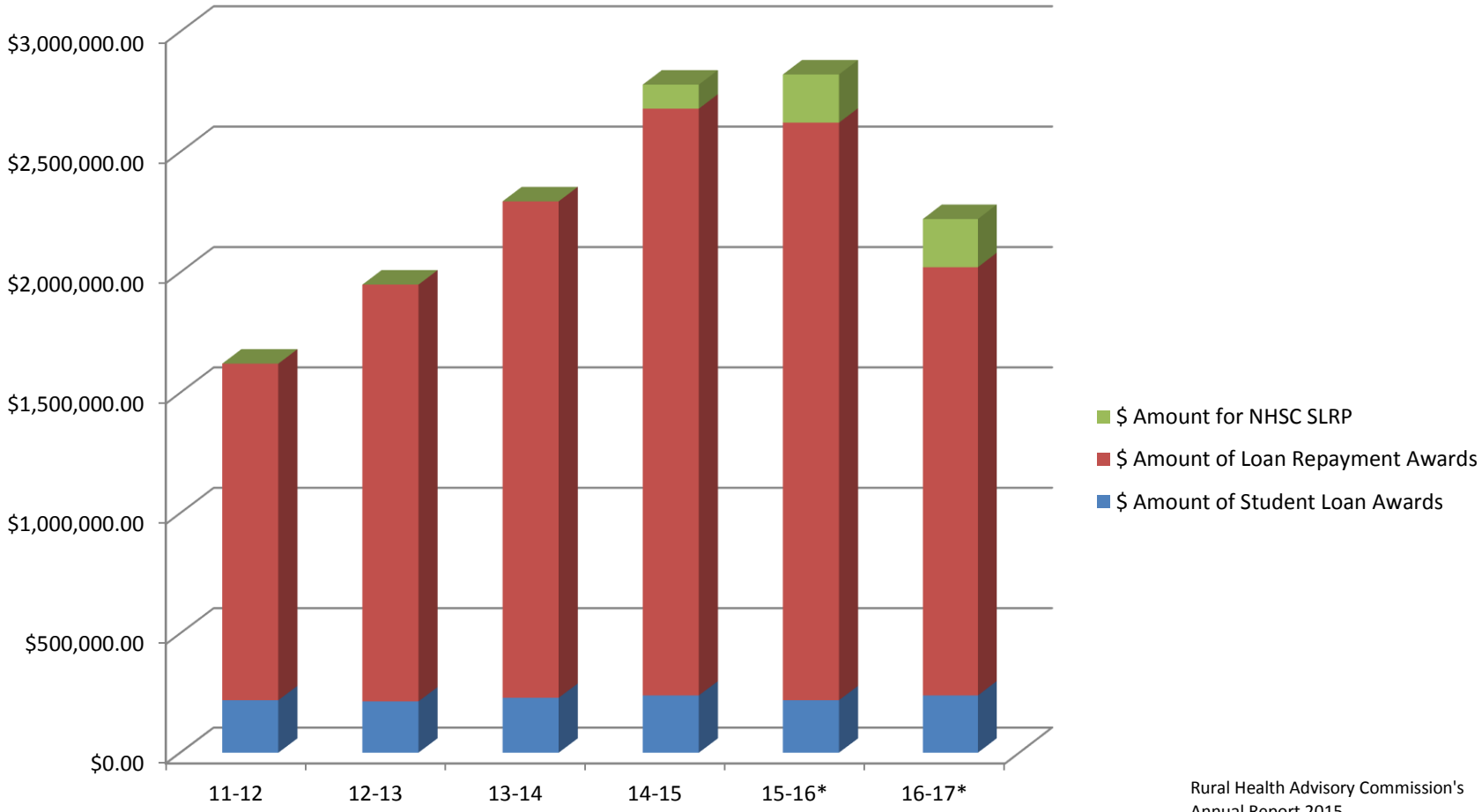
CHART 3
Nebraska Rural Incentive Programs
$ Amount of Rural Incentive Awards by Program by Fiscal Year



Fiscal Year

(FY2015-16 is as of 11/9/2015)

(*LR is a 3-year program, FY2015-16 through FY16-17 shows *current* LR obligations. SL awards are projected for FY15-16 & FY16-17.)
National Health Service Corps State Loan Repayment Program grant awarded 9/1/2014.)

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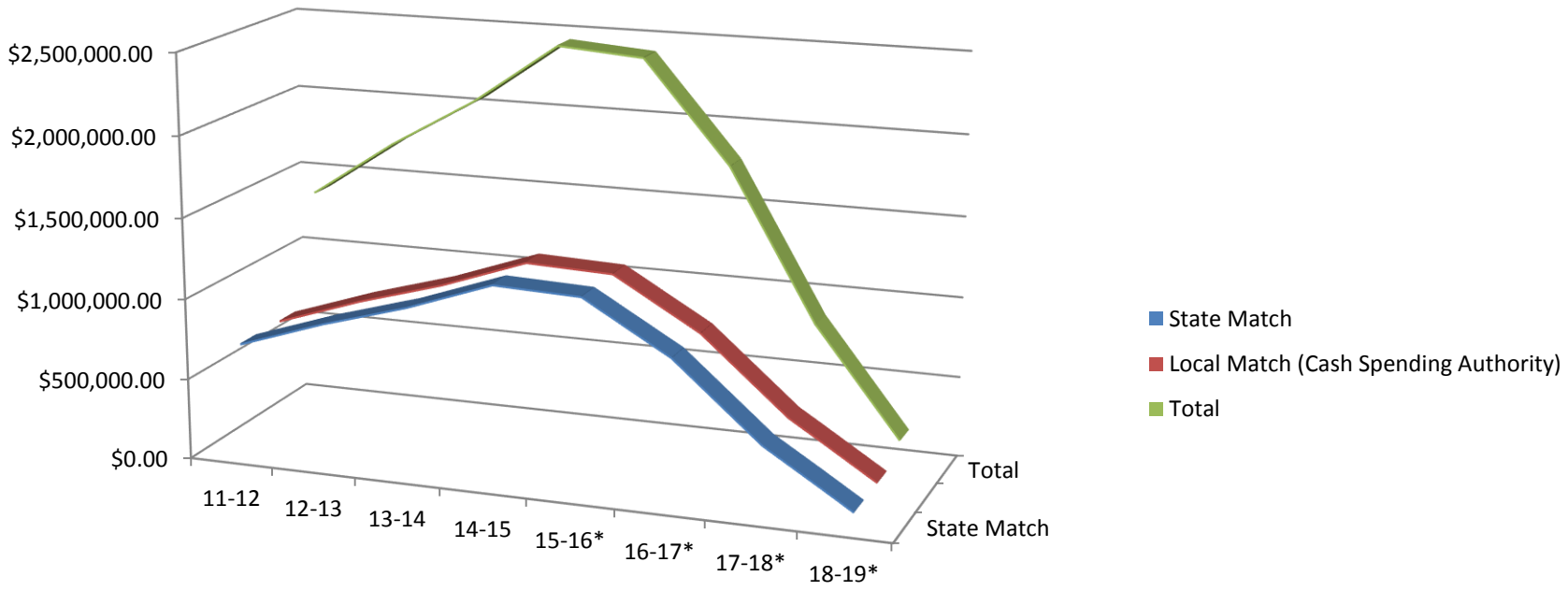
CHART 4

Nebraska Loan Repayment Program

$ Amount of Awards by Contribution Source by Fiscal Year

(Note: Loan Repayment requires a 50-50 State & Local Match. Cash Spending Authority is needed for the Local Match)



Fiscal Year

Note: Loan Repayment requires a 3-year practice obligation
***FY15-16 is based on current & expected LR awards**
***FY16-17 through FY18-19 are based on current obligations.**

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CHART 5
Nebraska Loan Repayment Program
Awards by Profession by Fiscal Year

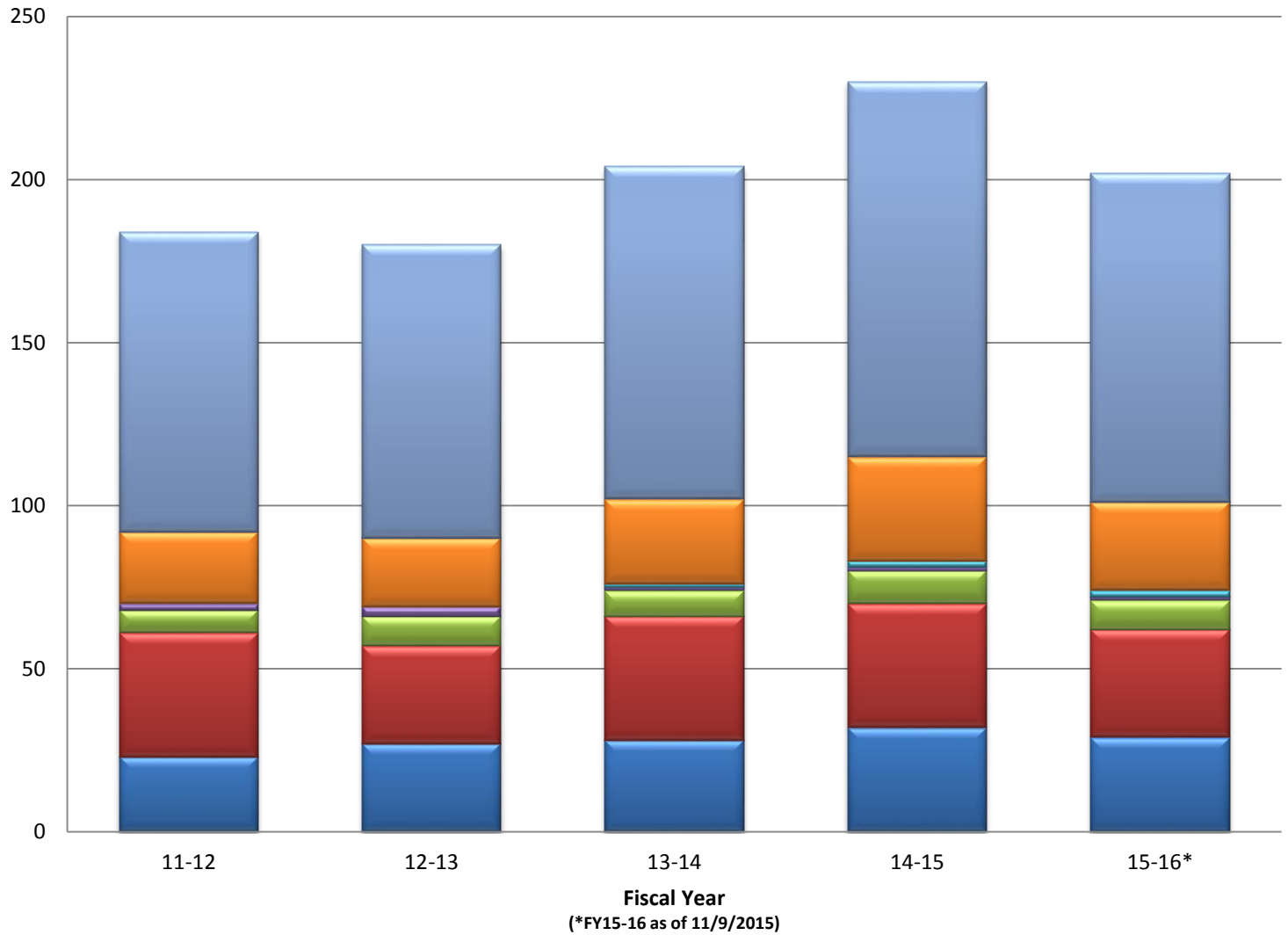

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CHART 6
Nebraska Student Loan Program
Student Loan Recipients by Profession by Fiscal Year

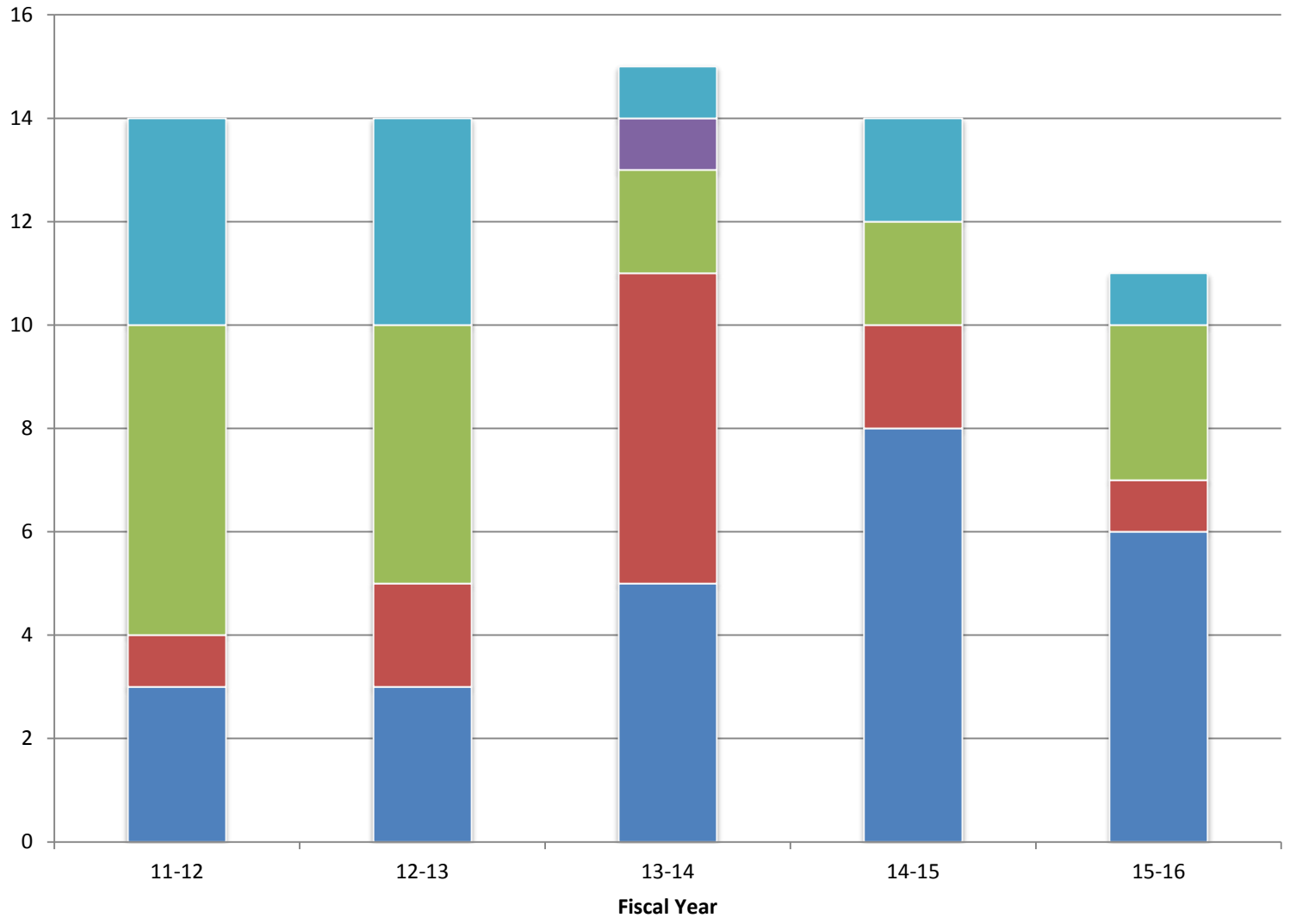

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TABLE A

Nebraska Rural Student Loan Program

Number of Student Loans by Type & Outcome By Fiscal Year

(Duplicate Counts (1))

Fiscal Year	Total Amount Awarded	Student Loan Awards			In Training As of 2015 (2)	Outcomes As of 2015				
		New	Continuation	Total		In Practice Forgiveness	Completed Practice	Partial Forgiveness/ Buyout or Write Off	Contract Buyout	Buyout Rate (3)
2006-07	$341,250	6	16	22	1	1	14	2	4	18.2%
2007-08	$236,250	6	9	15	1	3	7	2	2	13.3 %
2008-09	$227,500	7	7	14	2	5	3	1	3	21.4%
2009-10	$220,000	6	7	13	4	6	0	2	1	7.7%
2010-11	$255,000	7	10	17	6	7	1	1	2	11.8%
2011-12	$220,000	6	8	14	6	7	0	0	1	NA
2012-13	$215,000	8	6	14	9	4	0	0	1	NA
2013-14	$230,000	11	4	15	14	1	NA	NA	NA	NA
2014-15	$240,000	7	7	14	14	NA	NA	NA	NA	NA
2015-16	$220,000	5	6	11	11	NA	NA	NA	NA	NA
								5-Year Average Buyout Rate		**14.5%**

Footnotes:

1. Student loan recipients may receive up to four annual loans. This means a recipient will be counted as "New" the first year and then as "Continuation" in subsequent years. Summing the "Total" student loan awards over several years will result in duplication of individuals receiving awards.
2. "In Training" means in school, residency, or provisionally licensed.
3. "Buyout Rate" is the number of recipients who buyout their contracts without ever practicing a primary care specialty in a shortage area divided by total student awards for each year. Buyout rates are not applicable for 2011-2015 since most recipients are still in training.

Historical Notes:

* In 2000, dental students became eligible to apply for the Nebraska Student Loan Program. The maximum student loan award amount was increased to $20,000
* In 2004, graduate-level mental health students became eligible for the Nebraska Student Loan Program.
* In 2009, the Rural Health Advisory Commission began awarding student loans at the maximum amounts: $20,000 for doctorate level students and $10,000 for full-time master's level students.

TABLE B

Nebraska Loan Repayment Program

Number of Awards by Status

1994-2015

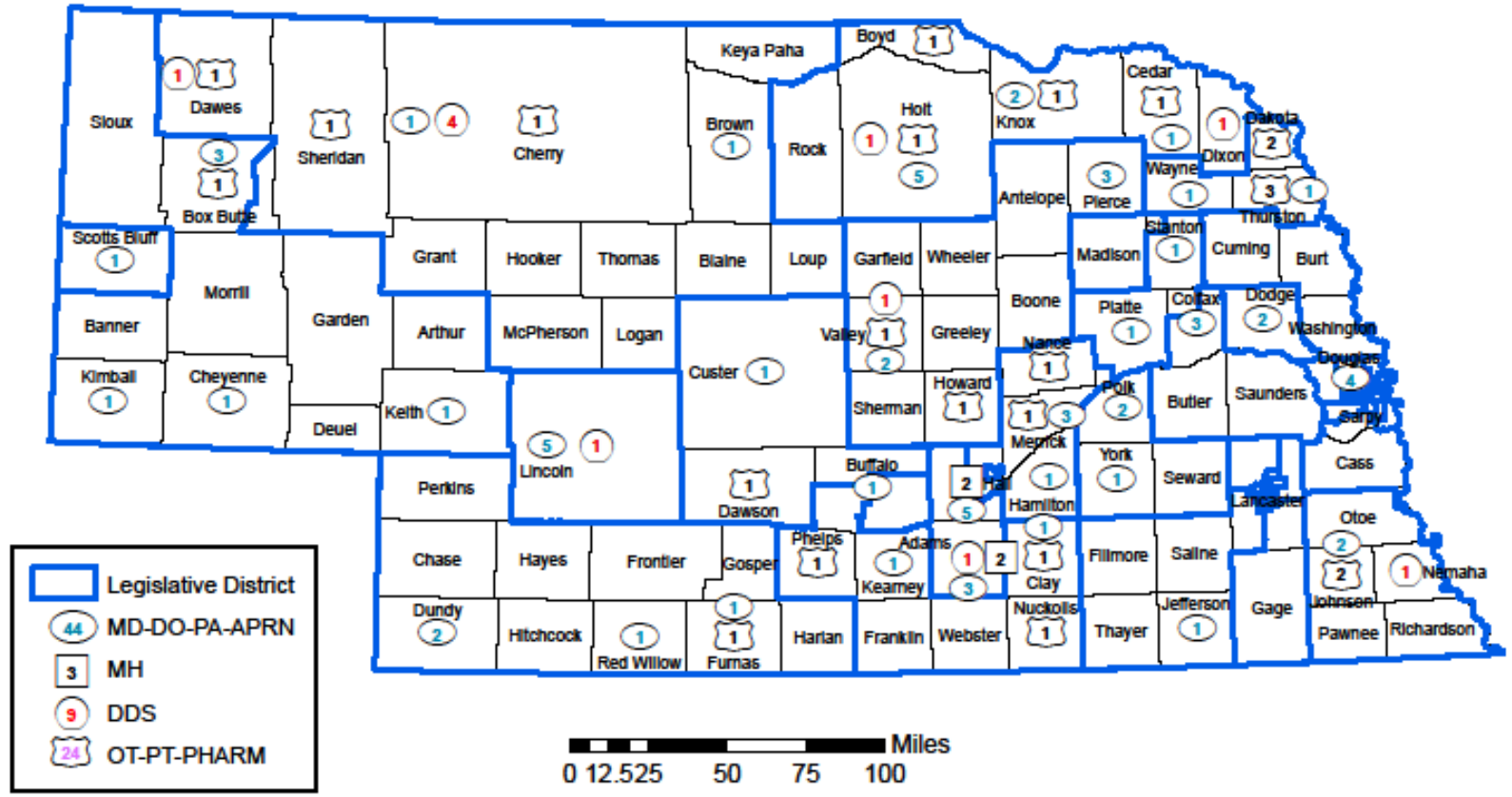
Status	Awards
In Practice Under Obligation as of 09/2015	99
Completed Practice Obligation	371
Default	40
Other	4
Total	**514**

Nebraska's Rural Incentive Programs

Nebraska State Student Loan and Loan Repayment Programs

[100] Obligated Health Care Providers

as of August 2015



Source: Rural Health Advisory Commission
DHHS - Nebraska Office of Rural Health
August 2015
Location: K: RURAL_HEALTH > Rural Health Intern > StateIncentives > 2015StateIncentives

Cartography: Heather Hansen | Community & Regional Planning Intern | DHHS
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Rural Health Advisory Commission's
Rural Health Recommendations
December 2015

Background and Purpose

In the past few years the health care system has undergone dramatic changes. Many of these changes create new opportunities for both rural providers and communities to improve the integration of health care services, to enhance the quality of care and the patient's experience, and to provide a greater emphasis on prevention and population health. Unfortunately, the changes have also led to significant challenges: new financial incentives and reimbursement systems have produced lower revenue streams for many rural providers; innovative delivery models may lead to greater consolidation and loss of local control; and the adoption and use of electronic health records have the potential to improve health outcomes but have been costly to implement. In addition, many traditional challenges still remain such as the shortages of various types of health professionals, a larger number of hospitals with very low or negative margins, a continued lack of public transportation, and fragmented delivery systems.

The passage of the Rural Health Systems and Professional Incentive Act in 1991 authorized the Rural Health Advisory Commission (RHAC) to develop a series of recommendations regarding the direction of state rural health policy. These recommendations should address the problems related to the delivery of rural health care, the education and training of health professionals, the regulation of rural health providers and institutions, and other factors that impact rural health care. The recommendations must be prepared annually and submitted to all appropriate government agencies and bodies, including the Governor, the State Legislature, and the Department of Health and Human Services. The purpose of this report is to identify some of the major rural health issues and propose recommendations that will address these issues. These recommendations are intended to complement the work that has been done under the LR 422 Commission and the new edition of the Nebraska Rural Health Plan that is being prepared by the Office of Rural Health.

Vision Statement

In preparing the recommendations, the RHAC developed the following vision statement to serve as a guide for the direction of rural health policies:

All of the people in rural Nebraska have access to a high quality, affordable, and integrated health care services that meets all of their physical and mental health needs.

This vision implies that people in rural Nebraska have access to health care services. It is recognized that not all services can or should be provided locally, but needed services should be reasonably accessible to all rural residents. This vision also implies that the rural providers and communities should not only treat illnesses and injuries but also focus on keeping people healthy. Rural communities should be responsible for identifying their needs, establishing priorities, and developing intervention strategies to address their unique needs.

The recommendations in this report are designed to improve the health outcomes of rural populations and strengthen and transform the rural health care delivery system. They are intended to improve both the efficiency and effectiveness of the system, produce better physical and mental health outcomes, lead to higher quality health care services, and create a more integrated and coordinated system of care. The recommendations are focused on the following areas:

- Population Health Issues
- Workforce Shortages and Health Professional Incentive Programs
- Behavioral Health Issues
- Rural Integrated Delivery Models
- Emergency Medical Systems (EMS)
- In-Home and Long-term Institutional Care Services
- Communication and Information Technology Systems

I. Population Health Issues

People living in rural communities face a unique combination of obstacles and challenges that are often different from those in urban areas. Some of these differences relate to the demographic and socioeconomic status of the population. For example, the percentage of the population over 65 in rural Nebraska is 19.6 percent as compared to 10.7 percent in large urban areas. As a result, rural populations tend to have a higher prevalence of chronic conditions. There is also a smaller and declining population base in most parts of rural Nebraska. In addition, a total of 33 counties have less than six people per square mile. This problem is further magnified because of the lack of public transportation.[3]

Access to care in rural areas has been a critical challenge for several years. There is currently a shortage of many types of health professionals, including primary care practitioners, mental health professionals, dentists, physical therapists, pharmacists, and many others. Rural populations also have a higher uninsured rate and generally less adequate insurance coverage because of the higher proportion of small businesses. The lack of health care providers and no or inadequate insurance coverage has led to fewer annual routine checkups and less health screenings for rural residents. In comparison with their urban counterparts, rural residents are less likely to have their cholesterol checked every five years and less likely to have been screened for colon, breast, and cervical cancer.[4]

Rural residents are also at greater risk of chronic disease because of specific risk factors. For example, about 32 percent of rural residents were obese as compared to 28 percent in large urban areas. Rural residents have slightly higher hypertension rates, are more likely to binge drink, less

[3] Department of Health and Human Services, Division of Public Health, "Nebraska Health Status Assessment 2015," August, 2015, p. 2.
[4] Department of Health and Human Services, op. cit., p. 58.

likely to wear seat belts, and less likely to consume fruits and vegetables. Finally, they are less likely to engage in physical activity and visit a dentist during the year.[5]

In response to these access and health status issues, many rural communities are beginning to develop plans for addressing these issues. For example, most local health departments either have or are in the process of developing five-year community health improvement plans (CHIPs). In addition, the Patient Protection and Affordable Care Act authorized all nonprofit hospitals to develop a community health needs assessment (CHNA) and an implementation plan. The vast majority of local health departments and hospitals are working together on these plans to include similar goals, priorities, and intervention strategies. During both the planning and implementation stages, it is also important to include other organizations.

Recommendations

1. Local health departments and hospitals should work together to develop their respective plans and involve other appropriate community and regional organizations (e.g., community action agencies, Nebraska cooperative extension, schools, and employers).
2. Intervention strategies should be evidence-based whenever possible; promising strategies should only be implemented if there are resources to provide a rigorous evaluation.
3. To address broad health issues (e.g., obesity, access to care, and mental health issues), resources at the local level should be aligned to create a greater collective impact.
4. The Division of Public Health, other divisions within the Department of Health and Human Services, the College of Public Health at the University of Nebraska Medical Center, and others should provide technical assistance in the development of local plans and fund pilot projects to assess the value of promising innovative intervention strategies.
5. A core set of measures should be developed to track the improvements in personal and community health.
6. A statewide health information database that includes all-payer claims data and uniform patient outcomes data from all health care providers should be established.
7. To improve the health literacy of both children and adults, more effective workplace and school health education programs need to be established.
8. To promote greater personal responsibility for wellness, it is essential to provide proactive, culturally-competent patient education on disease management and prevention as well as financial incentives for personal health-related improvement.
9. A Center of Health Care Data and Planning should be established to perform the following functions: (1) prepare reports to inform decision-makers regarding the high priority health care needs, (2) create a profile of health in the state, (3) suggest changes to state laws and regulations, (4) develop metrics to monitor the effectiveness of population health outcomes, and (5) recommend policies to reduce health care disparities.

II. Workforce Shortages and Health Professional Incentive Programs

According to the Health Resources and Services Administration, the total number of primary care physicians, physician assistants, and nurse practitioners in the U.S. is expected to increase nationwide by 2020, but the increasing supply will not be adequate to meet the growing demand

[5] Ibid

for primary care services. The demand for services is expected to increase because of the expanding aging population, the growth of the total population, particularly in urban areas, and to a lesser extent the expanded insurance coverage under the Affordable Care Act.[6] The imbalance between supply and demand has a significant impact on both rural and urban areas where many older physicians are nearing retirement age and will need to be replaced. For example, 37 percent of family practice physicians in rural Nebraska are 55 years of age or over and 44 percent of family practice physicians in the urban areas of Nebraska are aged 55 or older.[7] In addition, the rising level of student debt and lower reimbursement rates make rural areas less attractive to new physicians. The demand for primary care practitioners in urban areas is expected to increase sharply because of a growing population base, expanded insurance coverage, and new models of care (e.g., Accountable Care Organizations) which emphasize a greater use of primary care and preventive services. The expanded use and recruitment of primary care practitioners in urban areas may greatly magnify the shortages in rural areas.

While many rural areas face challenges in the recruitment and retention of physicians, physician assistants and nurse practitioners, the supply of other health professionals such as dentists, pharmacists, mental health practitioners, physical therapists, and occupational therapists is also inadequate to meet the need. Most rural hospitals, physician clinics, and nursing homes are forced to pay a nationally competitive wage rate in order to attract these health professionals to their communities. However, the reimbursement rates allowed by Medicare and other third-party payers are often based on local costs, which may not be sufficient to pay these competitive rates.

Although Nebraska has benefited from the federal National Health Service Corps programs, the number of qualified shortage areas has declined in the past several years. As a result, Nebraska has relied on the state-funded student loan and loan repayment programs to encourage health professionals to practice in state-designated shortage areas. Since the inception of the loan repayment program in 1994, a total of 470 eligible health professionals have practiced or are practicing in shortage areas with a default rate of only 8 percent. In 2015, the State Legislature enacted a law (LB 196) which increased the maximum award amounts for the student loan and loan programs and created a medical resident loan repayment program. The medical resident loan repayment program provides loan repayment to primary care medical residents attending residency training in Nebraska for a commitment to practice in a state-designated shortage area once residency training is completed. The medical resident loan repayment recipient must practice the equivalent of full-time for one year for each year loan repayment was received.

Recommendations

1. The funding for the Nebraska rural health incentive programs (the student loan, loan repayment, and medical resident loan repayment programs) should be expanded.

[6] The U.S. Department of Health and Human Services, Health Resources and Services Administration, "Projecting the Supply and Demand for Primary Care Practitioners through 2010," http://bhpr.hrsa.gov/healthworkforce/index.html

[7] Unpublished data obtained from the Health Professions Tracking Service, College of Public Health, University of Nebraska Medical Center, September 2015.

2. A comprehensive plan that projects the future demand and supply of health professionals in Nebraska should be developed. This plan should also establish priorities for future funding levels for the Health Professional Incentive Programs and should include recommendations that would make these programs more attractive to health professionals in Nebraska.

3. Scope of practice barriers for health care workers and new categories of health care workers (e.g., community health workers and community paramedics) should be carefully evaluated.

4. New technology such as telehealth, home monitoring, and internet-capable care should be expanded. This new technology can be more effectively and efficiently used by assuring adequate broad-band access and assuring standardization/integration of health care platform interoperability.

III. Behavioral Health Issues

There has been a chronic shortage of behavioral health professionals in rural Nebraska for many years. The shortages of personnel include psychiatrists, psychologists, licensed mental health practitioners, advanced practice registered nurses practicing psychiatry, alcohol and drug abuse counselors, and others. Currently, out of the 90 rural counties, the RHAC has fully designated 79 counties and nine counties have been partially designated as mental health shortage areas.

The shortage of behavioral health professionals has a serious impact on rural Nebraskans. The lack of providers affects availability and accessibility of behavioral health care services and leads to less than adequate care for many residents. There are many issues in providing rural mental health care including dealing with communication problems, social network issues, social exclusion factors, stigma labels, and lack of anonymity. Presently, many rural residents consult their primary care provider for mental health issues, which often leads to burdens for the local physicians such as causing backlogs in their daily schedules. Also, the primary care doctor may not be able to effectively or efficiently treat the patient in need of behavioral health services.

The RHAC is supportive of an integrative approach to providing behavioral health services in rural Nebraska. This approach would integrate mental health professionals into existing primary care settings. Research shows that most patients prefer to receive their behavioral health care from their family physician.[8] The plan proposed here would allow patients to be seen in the comfortable, familiar environment of their primary clinic; an approach that would help considerably in fighting factors such as stigma and social network issues. Having mental health professionals available in primary care settings would also help deal with other rural problems such as provider isolation and would allow for an integrated approach for care that would treat the whole individual.

There are other promising strategies to address the workforce shortage. Telebehavioral health has been used effectively in Nebraska and in other states. This model has a great deal of potential for the delivery of high quality behavioral services, although presently this modality is

[8] Mims, S. (April 6, 2006). *Integrated Health Care: Involving Primary Care Physicians in the Continuum of Care.* Presentation at the WNC Symposium on Mental Health and Substance Abuse. Asheville, NC.

underutilized. Another present strategy underway is to increase the number of mid-level providers. Recently, the University of Nebraska Medical Center began training advanced practice registered nurses and physician assistants with a specialty in psychiatry. In 2014, there were 29 advanced practice registered nurses practicing psychiatry in rural communities and all but five of them worked in communities with a regional hospital (e.g., Kearney and Scottsbluff). There are only four physician assistants practicing psychiatry in rural communities.[9] These programs are a good start although many more professionals are still needed in rural Nebraska.

Recommendations:

1. The interdisciplinary training opportunities between primary care physicians, physician assistants, nurse practitioners, and mental health professionals should be expanded.

2. Pilot projects that integrate primary care practitioners, critical access hospitals, and behavioral health services should be funded and evaluated.

3. More flexible Medicaid and private insurance reimbursement policies that would address transportation and travel costs need to be developed and implemented. Consideration should also be given to increasing or beginning reimbursement for telehealth/telemedicine services.

4. LB 108 was introduced in the 2015 legislative session. This bill would appropriate $250,000 per year for two years to the University of Nebraska Medical Center to establish 12 one-year behavioral health master's level internships in rural and underserved areas of Nebraska. This bill should be amended by defining "rural" and "underserved" areas of Nebraska.

5. State incentive programs for mental health providers practicing in rural areas should receive increased funding. This funding should be used to provide support services and additional training for the current workforce, maintain competitive reimbursement rates, and support new incentives for rural practice.

IV. Rural Integrated Health Care Systems

The health care system in the United States is undergoing a major transformation and these changes are likely to have both a positive and negative impact on the rural health care system. Many of these changes such as a new focus on population health, the use of new technologies, and new types of health care workers have been discussed in other sections. The main driver of these changes is a shift in payment strategies from fee-for-service and cost-based reimbursement to value. Value has been defined "as better health care (improved clinical quality, patient safety, and patient experience) and lower per capita cost."[10] This new emphasis on value has led to the development of new delivery models, including the patient-centered medical home (PCMH) and

[9] Shinobu Watanabe-Galloway, et al., "Nebraska's Behavioral Health Workforce – 2000-2014," University of Nebraska Medical Center, 2014.
[10] Charles Alfero, et al., "Advancing the Transition to a High Performance Rural Health System, "Rural Policy Research Institute," November, 2014, p. 3.

accountable care organizations (ACOs). These new models have financial incentives to improve health outcomes and control costs (e.g., reducing avoidable hospitalizations, improving cancer screening rates, and increasing immunization levels).

In a patient-centered medical home model (PCMH), health care services are more accessible, continuous, timely, patient-centered, and coordinated. There is an emphasis on preventive services (e.g., providing mammograms, cholesterol and blood pressure screenings, and up-to-date immunizations). With this model, there is also an incentive to work closely with behavioral health providers, public health professionals, and long-term care support services. Several PCMH clinics are developing in Nebraska, but new revenue streams are needed to build the capacity that will make these models successful. Limited funding for pilot projects has also been provided by the DHHS Division of Public Health to encourage local public health departments to collaborate with PCMH clinics on implementing diabetes prevention programs and using community health workers to encourage patients with chronic diseases to make lifestyle changes (e.g., increase physical activity and eat more nutritious foods).

Recommendations

1. Develop additional pilot projects to encourage collaboration between state and local health departments and PCMH clinics to implement population health programs and activities. These pilot projects should be based on the following principles:

    - An integrated system should be developed from the "bottom up" and guided by a comprehensive planning process that involves health care providers, local health departments, community action agencies, Nebraska extension, community officials, and consumers.

    - Although all integrated rural health systems will have many common characteristics, diverse approaches are necessary because of the differences in the needs of the population, the economic characteristics of the area, and the local culture.

    - All integrated systems should foster cooperation, collaboration, and integration of services and activities, including innovative technology such as telecommunications.

    - All integrated systems should be evaluated based on the Triple Aim (better health outcomes, better quality of health care services, and lower per capita costs).

2. The educational medical centers in Nebraska should emphasize interdisciplinary training and a team-oriented approach to delivering health care services.

3. The Office of Rural Health should work with both public and private agencies to build integrated health networks.

4. Both public and private payers should change their reimbursement policies to help PCMHs build the infrastructure (e.g., care coordinators and data analysis) that is necessary to improve patient outcomes.

5. Innovative insurance models that decrease the number of uninsured, reduce the cost and improve the coverage for small groups and individuals, and use private sector programs to provide low-risk self-funded pools should be developed.

6. Policies and programs should be developed that will assure transparent pricing by all health care public and private providers.

7. Reimbursement policies should be designed to reward health care providers for improving health outcomes.

8. Palliative and end-of-life care should be promoted across the continuum of care.

9. The Center of Health Care Data and Planning should establish statewide goals for health care quality and transparency, recommend uniform clinical preventive services, and recommend health care redesign to improve population health.

10. The LR 422 Workgroup which is responsible for developing an ideal model for health care delivery in the next 15 years should continue to receive financial and staff support.

V. Emergency Medical Services (EMS)

Emergency medical services are an essential and often unrecognized component of the rural health care system. The goal of the EMS system is to provide a coordinated, timely, and effective response to medical emergencies. These services are essential in rural areas because of the distances between population centers and the need to transport patients from hospitals and nursing homes in small communities to larger facilities. Although emergency services/skills are essential, many challenges exist in small communities. These challenges will only intensify as the demand for health care services expand because of a growing elderly population, more chronic illnesses, and new technological innovations.

One of the major challenges is to recruit and retain volunteers who are interested in becoming EMTs and paramedics. Some of the major factors contributing to this problem are: (1) the work is often emotionally stressful and burnout may occur, (2) the compensation and benefits are low or non-existent for volunteers, (3) it is difficult to maintain coverage during the day because many volunteers work out of town and/or employers may not allow EMTs to miss work, and (4) the training and educational requirements are considered excessive by some volunteers.

Another challenge is the lack of research and data about the effectiveness of the EMS system and patient outcomes. Although some states, including Nebraska, are collecting EMS performance data (e.g., length of time to reach a destination), major gaps still exist and the analysis of the data is very limited. Without the widespread adoption of improved communication systems and health information technology that will allow the exchange of patient information across the

continuum of care, it will be very difficult to evaluate the quality and performance of the EMS system related to patient outcomes.

According to a 2006 report by the Institute of Medicine, the lack of knowledge about the quality of EMS services results from the lack of nationally agreed-upon measurements of EMS quality, the absence of nationwide standards for the training and certification of EMS personnel, no accreditation of institutions that educate EMS personnel, and virtually no accountability for the performance of EMS systems.[11] Since this report was published national standards for the training and certification of EMS personnel have been adopted.

Finally, the EMS system is difficult to change because of the fragmentation and lack of coordination between pre-hospital providers. In Nebraska, it is not uncommon for multiple EMS agencies to serve the same population center. For example, Thayer County has eight ambulance units to serve 5,317 residents. Many of these EMS units are not able to communicate effectively with one another, although new communication technology can alleviate most of the problems. Adopting new communication systems would allow hospital emergency room personnel to better treat the patient or transport the patient to a tertiary facility.

To improve coordination and communication among EMS providers and between EMS providers and other health care services (e.g., hospitals), a new vision is needed. This vision needs to take into account the overlapping EMS roles and responsibilities that include health care, public health, and public safety. This new vision and the strategic initiatives to achieve the vision need to consider which entity or entities should lead this effort and ultimately assume responsibility and accountability for the performance of EMS care. Consideration should also be given to identifying the strengths and weaknesses of regionalization and what standards need to be established to evaluate the quality and performance of the EMS system. In Nebraska, no public or private entity is responsible for the scope, authority, and operation of local EMS systems. Finally, it will be critical to identify potential local, state, and federal funding sources, existing and new incentives, and reimbursement policies to make the EMS system more effective and efficient.

Recommendations

1. A multi-sector coalition should be formed to develop a state EMS Plan. This coalition should include representatives from state and regional EMS organizations, local ambulance services, hospital administrators, hospital personnel, physicians, state and local public officials, state patrol and other law enforcement agencies. The plan should address roles and responsibilities of various public and private entities, assess the strengths and weaknesses of regional models and the coordination of large and small EMS units, and identify measures that can be used to evaluate the quality and performance of local ambulance units and state policies that impact the EMS system. The coalition should recommend an entity at the county or regional level that would be responsible for EMS services in the area.

[11] Institute of Medicine (2006). *Emergency Medical Services at the Crossroads.* Washington, D.C.: The National Academies Press.

2. The Nebraska Office of Emergency Medical Services should continue to assess local EMS services in rural communities and encourage innovative models that make the system more effective and efficient.

3. The Nebraska Hospital Association should work with the Nebraska Congressional delegation to allow all hospitals that own or manage EMS ambulance units to receive cost-based reimbursement. (Currently, only hospitals that own or manage EMS units that are 35 miles from another unit can receive cost-based reimbursement.)

VI. In-Home Care and Long-Term Institutional Care Services

In rural Nebraska, the population over 65 years of age is considerably higher than the percent in urban areas. With an older population, rural areas have a higher proportion of chronic illnesses and a need for many types of health care services. Despite a greater need for services, access to these services is limited by the lack of public transportation, an inadequate supply of health care providers, limited in-home support services, and inadequate resources to pay for these services. Access to home health and in-home services vary considerably across the state. Although long-term institutional care services (i.e., skilled nursing care and assisted living care) are generally available, these services are more expensive and many of these facilities receive a significant proportion of their revenues from Medicaid. In addition, all critical access hospitals have swing beds which provide long-term care support.

While it is critical to have an adequate supply of long-term care beds, it appears that there is an imbalance between institutional care and in-home care. New technology and greater support services would allow a greater share of the aging population to remain in their own homes for a longer period of time and would reduce costs.

Recommendations

1. Pilot projects that assess new models of in-home care, telemedicine, and home monitoring technology should be developed and evaluated.

2. The feasibility of providing public transportation at least in some regions of the state should be evaluated.

~~3.~~ A "team approach" training program that is focused on the at-risk elderly population should be established for current health care providers and staff who work in facilities.

4. Electronic medical records should be used to assess patient needs and identify appropriate treatments at multiple points of care.

5. Provider training initiatives related to the aging patient (e.g., pharmacy modifications and appropriate treatment of the elderly trauma patient) should be developed.

6. The number of health professionals (e.g., geriatric nurses, certified nursing assistants, and mental health professionals) who are better able to provide care for older patients should be expanded.

VII. Communication and Information Technology Systems

Electronic technologies are transforming the rural health delivery system and they have the potential to expand access to services, improve the quality of care, and provide clinical and managerial data that will support informed decision-making. For example, electronic health records have already been implemented by most hospitals and the majority of physician clinics. While these data are now generally used for internal decisions, in the future they will be shared among all providers. New technology has improved the quality of care through e-ICUs, remote EKG readings, teletrauma, e-pharmacy, telebehavioral health, telemedicine access to specialty care (e.g., cardiologists), and home monitoring systems. Unfortunately, most of these new technologies are greatly underutilized because of payment policies, lack of training, and practice cultures.[12]

Recommendations

1. Staff from the Department of Health and Human Services should identify the best practices in advanced rural telehealth network models that could be duplicated in other areas of the state.

2. The use of telecommunications for consultations, education, and electronic health information delivery to and from homes, hospitals, and other health care providers should be promoted and encouraged.

3. Strong telecommunications linkages between public health departments, area hospitals, and other health professionals to address district-wide, regional, and statewide health needs should be developed.

4. Electronic health records (EHR) technology should be used by all health care providers to share patient information through the Nebraska Health Information Initiative (NeHII). NeHII is the prominent Health Information Exchange (HIE) in the state and, with greater participation from hospitals and physician clinics, it can be a valuable partner in the sharing of patient data and the development of a complete electronic patient record. It can also become the ideal conduit to share data with public health and other state and federal agencies.

5. Standardized protocols for all reporting, transmitting, and the exchange of all health care data should be developed and implemented.

[12] "The Future of Rural Health," The National Rural Health Association, 2013, pp. 18-20.

6. The capacity of state agencies should be expanded so they can send and receive the patient information that providers with certified electronic health records (EHRs) are required to transmit and receive to and from these agencies.

Conclusion

The health care environment is changing rapidly and these changes are having a dramatic impact on the rural health system. These recommendations attempt to bridge some of the major gaps during this transition period. While there are many new opportunities to help achieve the RHAC's vision (e.g., new incentives to build integrated models of care, new data that can be used to improve the quality of care and health outcomes, and new technologies to expand access to care), many major challenges remain. Some of these challenges, including a shortage of health professionals, more consolidated networks which threaten local control of health services, and lower reimbursement rates, make it more difficult to build integrated care models. However, by working together and moving quickly, communities have an opportunity to reshape their health system to produce better health outcomes, enhance the quality of health care services, and develop a more efficient, cost-effective system.