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**Report of Joint Taskforce on Dental Hygiene
UNMC College of Dentistry and Southeast Community College:**

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Introduction

During the past two years, Southeast Community College (SCC) has explored the potential for developing a dental hygiene program on its Lincoln campus. The program would articulate with the existing twelve-month diploma program in dental assisting and offer an associate of applied sciences degree in dental hygiene. The program is intended to meet both student demand and workforce needs in Nebraska.

Three dental hygiene programs are currently offered in Nebraska. Programs at Creighton University and University of Nebraska Medical Center (UNMC) offer four-year baccalaureate degrees. The UNMC program is offered in two locations, Lincoln and Scottsbluff. The Creighton program is a baccalaureate completion program and has had only two graduates in the last five years. Clinical experience is provided under supervision of each institution's College of Dentistry. The third Nebraska program is a two-year associates in applied science degree offered by Central Community College (CCC) at the Hastings Campus. Students complete clinical work at a 13-chair clinic at the institution under the supervision of licensed dentists and registered dental hygienists. In addition, there is a cooperative program between Creighton University and Iowa Western Community College (IWCC) in the Omaha metropolitan area. Students take course work at IWCC and complete clinical work in Omaha at Creighton University.

The argument that there is a need for an additional dental hygiene program in Nebraska depends upon several complex, inter-related factors including projected demand for dental hygienists over the next decade and longer, availability of patients and clinical sites for teaching purposes, program costs and optimal approaches from a cost effectiveness perspective, and best approaches to providing access to a dental hygiene career path for existing and future dental assistants.

Establishment of a taskforce

In February 2006, J.B. Milliken, President, University of Nebraska, and Jack Huck, President, Southeast Community College, asked then University of Nebraska Provost Jay Noren to convene a taskforce to look at issues related to establishment of a new two-year program at the Lincoln

campus of SCC. The charge to the taskforce issued by former Provost Noren on February 21, 2006 is included as Appendix A.

Members of the task force were identified by Presidents Milliken and Huck. The members are David Brown, Executive Associate Dean, College of Dentistry, UNMC; Dennis Headrick, Vice President of Instruction, SCC; Gwen Hlava, Chair, Dental Hygiene, College of Dentistry; UNMC, and Susan Noler, Dean of Health Occupations, SCC.

The initial taskforce meeting was April 13, 2006. Members reviewed and discussed the charge and agreed to provide specific information on the UNMC program and the SCC proposed program. They agreed that in order to determine the need for a new program to educate additional dental hygienists, the primary issue was to gain an understanding of supply of trained hygienists in the state compared to projected workforce demand.

Organizations and individuals who could provide input were identified and a second meeting was planned where members of the professional community would be invited to make presentations. A follow-up meeting was held on June 15, 2006. Invited speakers included:

Nebraska Dental Hygienists' Association
Teena Beehner, President,
Annette Byman, Legislative/Policy & Procedure
Nebraska Workforce Development, Department of Labor
Mary Findlay, Research Analyst
Scott Hunzeker, Research Supervisor
Nebraska Health & Human Services System
Kim McFarland, Office of Oral Health, Dept. of Regulation & Licensure
Nebraska Dental Association
David O'Doherty, Executive Director

A third meeting was held August 24, 2006 to discuss a preliminary draft report and any additional information that should be collected

Summary of June 15, 2006 presentations to the taskforce

Nebraska Dental Hygienists' Association

The Nebraska Dental Hygienists' Association (NDHA) representatives reported on a survey conducted in 2004 in response to a proposal by SCC submitted to the Coordinating Commission for Postsecondary Education (CCPE). The NDHA was notified in October 2004 of the new proposal submission and that it had 60 days to respond. The submission by SCC was later withdrawn. NDHA conducted two phone surveys in order to obtain data for their response.

The first was a survey of all 105 identified dental practices in Lincoln. The survey was limited to Lincoln practices because NDHA had less than two months to respond to the new program request. The response rate was 94%. Of the respondents, 75% reported currently employing

dental hygienists. Seventy-one (71) dental hygienists were employed full-time and 119 were employed part-time. Eighty-two percent (82%) indicated that they did not anticipate the need to hire a dental hygienist within the next 2 years. Of the 18% indicating that they would be hiring in the next two year, the estimated need was for three full-time and 15 part-time hygienists. Twenty-one percent (21%) of the respondents indicated that they had hired a hygienist in the previous two years. Combined, they the 21 dentists hired nine full-time and 15 part-time staff. Three said they had less than five applicants for the position, 14 reported more than five applicants, and four had no recall.

NDHA also surveyed graduates of the UNMC program from 2002, 2003, and 2004. They received responses from 43 of the 60 graduates for a 72% response rate. Sixty-five percent (65%) of the respondents indicated it was difficult to find employment. Thirty sought positions in the Lincoln area and only seven were successful. The other 23 left the state to find employment. Eighteen (18) reported that they found full-time employment and 25 were working part-time and receiving no benefits.

Based on the survey results, it was the opinion of the NDHA that the Lincoln area job market for dental hygienists is saturated and they are unaware of any trends that would indicate that the job market was going to change.

A copy of the presentation is included as Appendix B.

Nebraska Workforce Development, Department of Labor

Nebraska Workforce Development of the Nebraska Department of Labor, in partnership with SCC and Nebraska Dental Association, conducted a survey of all Nebraska dental offices and produced the *2005 Dental Staffing and Education Needs Report*.

The survey went to every Nebraska dental office with at least one employee in the fourth quarter of 2004. The response rate was 48.8%. Responses were classified by geographic region. A weight was then calculated for each regional distribution to give appropriate weight to that region in projections. Each respondent was asked how many dentists, hygienists, or dental assistants were currently employed and about their projected staffing needs for the next one, three and five years.

The anticipated openings for dental hygienists were predicted by taking the actual responses times a weighing factor for each geographic region. It was projected that dentists would like to hire 135 additional full-time and 67 fewer part-time hygienists within one year. The three-year cumulative projection was for an increase in 248 full-time and a loss of 65 part-time positions. Overall future demand for dental hygienists may depend on the anticipated amount of movement between full-time and part-time positions. Currently, half of dental hygienists work less than 25 hours per week.

In addition to assessing future staffing needs, the Nebraska Workforce development survey also addressed a number of other issues related to the practice of dental hygiene. One-fifth of the dental hygienists in the MidPlains, Northeast and Western regions of the state said they had been

asked to provide on-site hygiene services at nursing homes or schools under the general supervision of a dentist in addition to working in a dental office. It is important to note that dental hygienists must be licensed in Nebraska and must practice under the general supervision of a licensed dentist.

More than half of the dentists responding indicated they would support continuing education for a dental assistant to become a licensed dental hygienist. Over one-fourth (28%) said they prefer to hire someone with a baccalaureate and would likely look at education in making hiring decisions.

When asked if they would consider hiring someone with both dental assisting and dental hygiene credentials, 56% said yes. However, many respondents indicated that assisting and hygiene are "two completely different jobs." They also noted that there are significant salary differences between the occupations. The Workforce Development report lists the average wage for a dental assistant in Nebraska at the time of the study as \$12.38 per hour while the average wage for dental hygienists was \$23.56.

The 2005 Dentistry Staffing and Education Needs Report is included as Appendix C.

Nebraska Health & Human Services System

The Nebraska Health and Human Services System (NHHSS) presentation focused on the state of oral health in Nebraska and not specifically on issues related to the supply or demand for dental hygienists. There are 788 general dentist practices which account for 81.8% of all practices in Nebraska. General dentist practices are those most likely to employ dental hygienists. It is projected that 38% of the practicing dentists plan to retire by 2010 and 50% plan to retire by 2013. Currently 18 counties in Nebraska have no dentists; 30 have two or less. These counties are considered as having fragile dental resources. If retiring dentists are not replaced by new practices, the market for dental hygienists will also decline.

The NHHSS representative confirmed that Nebraska licensing regulations require that a dental hygienist is not allowed to have a stand alone practice, but must work under the general supervision of a licensed dentist.

The NHHSS presentation is included as Appendix D.

Nebraska Dental Association

David O'Doherty, Executive Director of the Nebraska Dental Association (NDA), made informal remarks and answered questions from the group. NDA was invited to present to the group because Nebraska licensure requirements state that a dental hygienist cannot practice except under the general supervision of a dentist who is directly responsible for the patient's dental health care.

O'Doherty indicated that the NDA does not feel there is a shortage of dentists in Nebraska, but rather a distribution problem. Dentists are concentrated in Eastern Nebraska and some

population centers in the Western half of the state, but some areas of the state are left with minimal to no service. The issue is how to attract and retain dentists in Western Nebraska. The need for dental hygienists will depend upon the size and nature of the practice.

In order to increase the number of dental hygienists for Western Nebraska, the NDA approached UNMC about developing a program for students in that area of the state. UNMC responded with the program at the Western Division of UNMC and those graduates appear to be obtaining employment in the area.

David O'Doherty, Executive Director, was asked about the position of NDA regarding employing individuals who had both dental assisting and dental hygiene training. He said there is no official position, but it doesn't seem to work well. It is an inefficient use of a hygienist's training. A primary issue is also determining an appropriate salary level for a blended position. Most dental practices tend to hire two different individuals in either part or full-time positions appropriate to the workload at differing salaries. He indicated that it was common for a hygienist to work part-time for more than one office and not receive benefits from either dentist.

O'Doherty was also asked about providing clinical training for students in dental hygiene programs. He said that the primary concern of the NDA is that the clinical experiences not provide direct competition to dental practices.

O'Doherty's comments were general in nature and no supporting documentation or report was provided.

Additional Information on Workforce Demand for Dental Hygienists

Limitations of presented estimates

The presentations from Nebraska Dental Hygienists' Association (NDHA) and Nebraska Workforce Development presented conflicting pictures of demand. NDHA stated that based on its survey, the market place is saturated and many people seeking full-time employment are unable to find it in Nebraska. The Nebraska Workforce Development study indicated 68 new full-time hygienist positions would be available within one year of its study.

In reviewing the two studies, both have limitations. Statewide generalization of the NDHA study is limited due to the fact that the population surveyed was restricted to dental practices in Lincoln.

The Nebraska Workforce Development study was based on survey questions asking dentists how many hygienists they anticipate hiring in the next one, three or five years. The study surveyed dentists as to their future plans, but gave no information about actual past behavior. It is not possible to determine reliability or validity of the prediction or to gauge whether dentists' stated plans are consistent with past behavior.

In addition, the methodology does not include any adjustment for un- or under-employed individuals currently in the state. An additional limitation is that in tallying the survey results, no distinction was made between general dentistry practices and specialty practices when predicting the demand for hygienists. Dental hygienists are only employed in general dentistry practices. Using a weighted response from all dentists would most likely result in an overestimation of labor force projections.

The task force was charged to pull other appropriate data. The American Dental Association (ADA) provides a regular overview of employment demographics and projected workforce needs for dentists, dental hygienists, dental assistants and other professionals within the field of dentistry. The reports are generally accepted by the profession and provide information by state. The latest publication on the need for dental hygienists is the *2004 Workforce Needs Assessment Survey: Dental Hygienists* (published July, 2005). Data obtained in response to the ADA survey indicated that Nebraska dentists surveyed employed a mean of .7 full-time dental hygienists and .9 part-time hygienists in 2004. Over half of Nebraska dentists surveyed (58.5%) employed no full-time dental hygienists while 27.4% employed a single full-time hygienist in their practice.

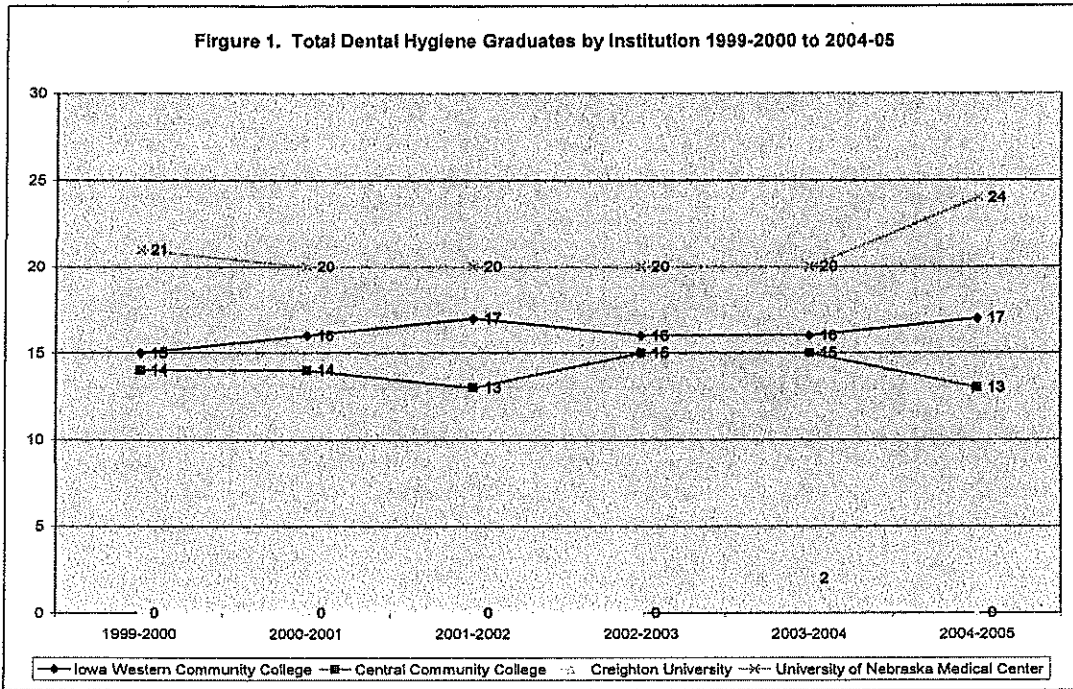
Information on the number of current and anticipated openings for dental hygienists in Nebraska in 2004 was also provided as part of the ADA survey. The ADA survey reported that 95.6% percent of Nebraska dentists had no current openings for full-time dental hygienists, while 88.1% had no part-time positions available. Only 4% of dentists surveyed reported they had a single full-time position currently available; while 11.2% reported a single part-time position opening. Dentists with full-time or part-time positions currently available indicated that the position had been available an average of 7.2 months. A majority of dentists surveyed anticipated hiring no full-time or part-time dental hygienists in Nebraska within a year of the study.

Selected pages of the report appear in Appendix E.

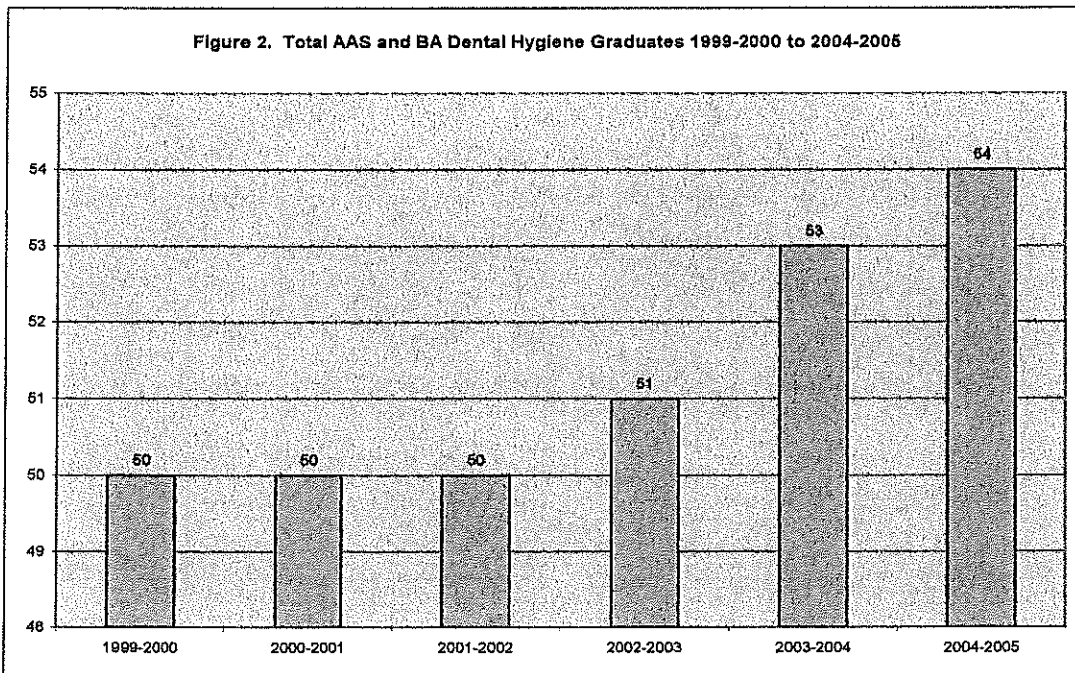
Sources of dental hygiene professionals

New graduates

Four dental hygiene programs directly provide all or part of the training for dental hygienists for the Nebraska labor force. Creighton University and University of Nebraska Medical Center (UNMC) offer four-year baccalaureate degrees. The program at Creighton University is a baccalaureate completion program and has graduated only two students in since 2000. The Central Community College Hastings campus and the cooperative program between Iowa Western Community College and Creighton University lead to two-year associate of applied science degrees. Each program admits a fixed number of students each year. The number of graduates of each program is illustrated in Figure 1. The increased enrollment at UNMC reflects the expansion of the program to the West Nebraska Division. The total number of graduates for the past 6 years is illustrated in Figure 2. If the current trend continues, 54 newly licensed dental hygienists will enter the workforce annually.



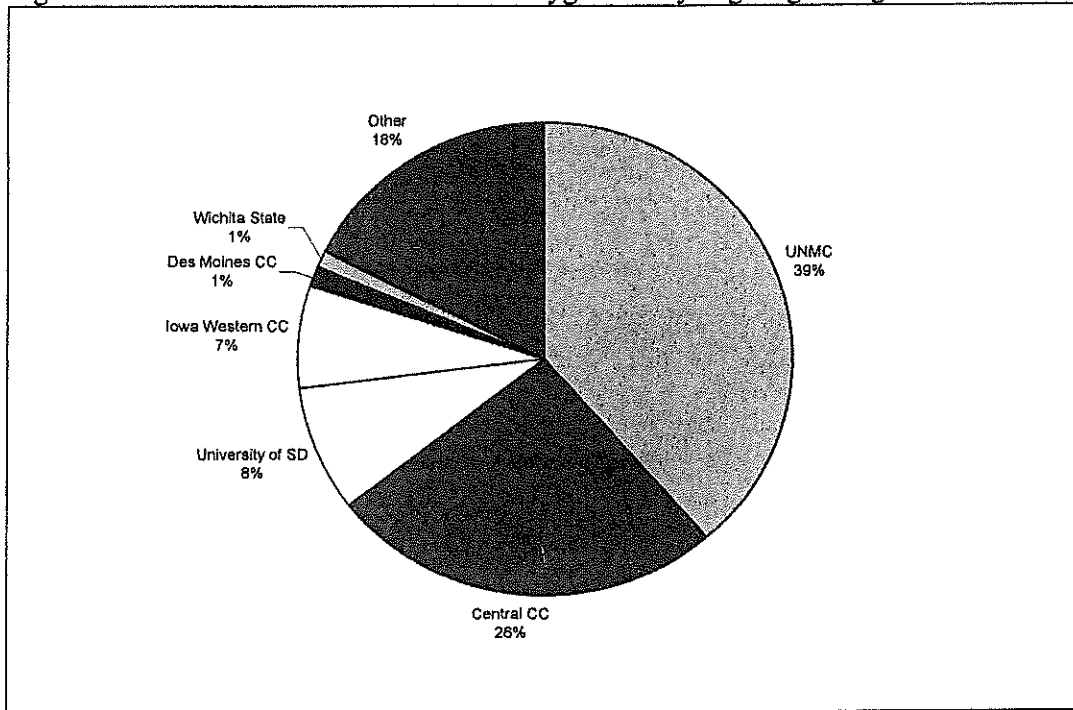
Source: NCES IPEDS degree completion survey.



Source: NCES IPEDS degree completion survey.

The data on dental hygienists with active licenses was also broken down by the institution granting the degree. In addition to graduates from UNMC, Central Community College, and Iowa Western Community College, eight percent (8%) of all dental hygienists are from the University of South Dakota, making it the third largest supplier of licensed professionals in Nebraska. Figure 4 gives a breakdown of degree granting institution for all Nebraska dental hygienists with active licenses.

Figure 4. Percent licensed Nebraska dental hygienists by degree granting institution.



Source: Nebraska Health and Human Services System Department of Licensure and Regulation, September 2006

Summary of Workforce Demand for dental hygienists

Documentation collected by the task force confirms that there is limited demand for dental hygienists in Nebraska.

The NDHA states that the market in the Lincoln area is saturated and UNMC graduates report being underemployed or required to leave the state to work in field. NHHSS reported 788 or 81.8% of the dental practices are general dentist practices in Nebraska. General dentist practices are those most likely to employ dental hygienists. It is projected that 38% of the practicing dentists plan to retire by 2010 and 50% plan to retire by 2013. Currently 18 counties in Nebraska have no dentists; 30 have two or less. The American Dental Association, reporting for the same period as the Nebraska Workforce Development special report, indicated that fewer than 5% of Nebraska dentists had an opening for a dental hygienist. The Nebraska Workforce Development report is the most optimistic estimate, with a maximum of 68 individuals state-wide in full-time positions.

The number or projected graduates combined with the current number of licensed professionals should be adequate to meet state demand. As pointed out by the Executive Director of the Nebraska Dental Association, the workforce demand issue in Nebraska is not one of numbers, but rather of distribution throughout the state. The NHHSS data confirms that a number of western counties are considered fragile in terms of dental health care.

Cost of attendance for students

There are some distinct differences between the programs offered by UNMC and those offered at Central Community College and proposed by Southeast Community College.

Students graduate University of Nebraska Medical Center program with a Bachelor of Science (B.S.) degree in dental hygiene. Students are required to enroll in the same core general education requirements in the humanities, social sciences and physical sciences as other students obtaining a B.S. After two years of a preparatory work, students apply to the specialized upper division program. If a student completes the program and is unable to find employment in the field, they still have a B.S. with a predominantly science focus and are qualified for employment in other fields.

Both the Central Community College program and that proposed by Southeast Community College offer an Associates of Applied Sciences (A.A.S.) degree. The A.A.S. degree is typically awarded to students who are permitted to relax some of the general education requirements in order to study more course work in their program area. Typically, this degree is for students who intend to enter the work force in the major field upon graduation, whereas an Associates of Sciences degree is more oriented towards facilitating students' transfer to a four-year program. The coursework for an A.A.S. degree is usually considered terminal and would produce fewer credits transferable toward a B.S. than an A.S.

Just as the degree programs differ in nature, so do the cost to the student and the cost to the institution to provide the coursework.

The proposed A.A.S. program at SCC would require 108 quarter credit hours. At a current cost per quarter credit hour of \$42.00, the cost to the student would be \$4,536. There are additional programmatic fees, instruments and equipment.

A B.S. from UNMC requires that a student fulfill 67 semester credit hours in the first two preparatory years and an additional 64 semester credit hours at UNMC for a total of 131 semester credit hours, which is approximately 200 quarter credit hours. The total cost of attendance will vary significantly depending on where the student chooses to do the first two years of his/her program. The cost for years three and four is \$160 per semester credit hour or \$10,240. There are additional programmatic fees, instruments and equipment. The total cost of tuition could range from \$14,776 if a student was accepted with no deficiencies from a community college academic transfer program to \$20,960 if the first two years were completed at the University of Nebraska-Lincoln.

Cost of delivery of program

It is extremely rare in higher education that the cost of delivery of a four-year baccalaureate program would be compared to a two-year technical program because the resultant credentials are not equivalent.

The UNMC dental hygiene program is a two-year upper division program within the College of Dentistry. All faculty in the college are engaged in teaching, research and outreach. Dentistry students, dentistry graduate students, and dental hygiene students all receive clinical training under the supervision of Dentistry faculty in the College of Dentistry clinic.

If SCC were to initiate a program, additional faculty would need to be hired. In addition, SCC would have to establish a facility for clinical training under supervision of licensed dentists.

The availability of patients for the College of Dentistry has been and continues to be a growing problem. Patients are needed in all categories including children, adolescents, adults, geriatric and special needs. In addition there needs to be a wide selection of patients with a variety of dental hygiene needs that will expose students to the appropriate range of clinical experiences. The College of Dentistry estimates that training 20 graduates per year requires 92 patients per student which is 1840 patients in Lincoln. In order to address the problem, dental hygiene students currently spend eight weeks outside the College in the senior year in rural or underserved areas treating adults with limited to no access to dental care. The College has also worked carefully with the Nebraska Dental Association and the Lincoln District Dental Association to ensure that they are not in competition with local dentists.

Student demand for programs in dental hygienist

The existing dental hygiene programs in Nebraska all have a fixed number of openings. Each reported far more applicants to the program than openings. SCC indicated that 23 of 26 students currently enrolled in the dental assisting diploma program have stated they would be interested in studying dental hygiene.

Conclusions and Recommendations

Evidence supports the continued student demand for programs in dental hygiene. However, data collected by the task force shows that supply of existing professional and new graduates exceeds the demand for dental hygienists.

The data on labor supply of dental hygienists indicates a consistent production of 54 graduates per year from Nebraska dental hygiene programs, in addition to an existing pool of un- or under-employed dental hygienists seeking employment. Reports from the Nebraska Dental Hygienists' Association and the American Dental Association show that the labor supply exceeds the work force demand. Nebraska Workforce Development reported demand for 68 new hygienists per year. This estimate far exceeds the findings from the other two sources. Even at the higher level of work force demand projected by Nebraska Workforce Development, there is an adequate number of existing and newly trained dental hygienists.

The taskforce concludes that although students would enroll in a new dental hygiene program were it offered, demand for qualified dental hygienists is less than the current supply.