Addressing Dental Access through Community Based Education

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Rice Memorial Hospital

Paul Schulz, DDS, MPH
Director of Outreach, University of Minnesota School of Dentistry
Topics

- Dental access in Minnesota
- The right idea. The right place. The right time.
- Articulating goals and identifying partners
- Designing the model for the community
- Outcomes
- Factors for Success
Dental Access in Minnesota

- Dentist-to-population ratio:
  - 1/1,693 overall,
  - Some rural counties: 1/8,099,
  - One county of 5,000 people: no dentist
- Growing dental access issues
- Unique situations in every community
Minnesota AHEC: An important resource in linking the University of Minnesota with Greater Minnesota

Our vision for our rural education programs in Minnesota is to:

- Promote **health outcomes** by developing future health professionals who value community engagement

- Assure a **vital health professions workforce** through community-campus partnerships with the University of Minnesota

- Contribute to a **vibrant rural economy** by eliminating health professions shortage areas.
Minnesota AHEC – Where We Are
The right idea. The right place. The right time.

- The right idea…
  - A community-based dental practice and education model designed to provide exceptional care for patients and exceptional learning for students

- The right place…
  - All roads lead to Rice Memorial Hospital

- The right time…
  - Committed leadership, an engaged community-owned hospital, documented need and a University commitment to serve
University of MN School of Dentistry:  
A Regional Resource for Education & Service

- University of MN is a land grant institution.
- Only dental school in the state.
- Only dental school between Milwaukee & Seattle
- Students from:  
  Minnesota  
  North Dakota  
  South Dakota  
  Wisconsin  
  Montana
School of Dentistry goals:

- Graduating professionals who provide the highest quality care and service to the people of Minnesota and the world;

- Discovering new knowledge through research, which will inspire innovation in the biomedical, behavioral and clinical sciences; and

- Providing oral health care to a diverse patient population in a variety of settings.
Promoting health careers
Program for Advanced Standing Students
National leadership: Dental Hygiene
Increased class size 75 to 106
New requirements – 6-8 week rotations
Work with the Minnesota AHEC
Infusion of state-of-the-art teaching technology
Commitment to community oral health programs
- Students fine-tune clinical skills & increase confidence & efficiency in patient care;
- Experience greater variety of oral health needs;
- Develop broad understanding of professionalism;
- Provide direct care to underserved populations;
- Introduce students to life & dental practice in greater Minnesota;
  - Increases likelihood students will practice in rural communities after graduation.
Community Oral Health Programs

Outreach Programs

- One of top providers of services to public program patients
- Serve thousands of low-income patients:
  - Rural: Hibbing, Mobile Dental Unit, Rice Regional Dental Clinic, Prairie Winds
    - 80% patients are uninsured & working poor
  - Metro: CUHCC, North Point, Walker
    - 62% of patients are uninsured & working poor
Rice Memorial Hospital
Rice Memorial Hospital

Mission
To restore and promote the health and well being of the residents and communities of West Central Minnesota.

Vision
Rice will be a leading health care system offering exceptional quality in a variety of care settings.

Values
- Respect
- Integrity
- Compassion
- Excellence

Living our Values
Rice Memorial Hospital

Commitment to restoring and promoting the health and well-being of the communities it serves

- Opened in 1937
- Largest city-owned hospital in Minnesota
  - Willmar population: 19,000; County population: 42,000
- Regional provider
  - 14 county primary & secondary service area
- 2007 Inpatient Admissions - 4,700
- Outpatient visits - 23,660
- 2007 Net Revenues - $91.4 million
- Selected as regional AHEC host in 2004.
- Diverse community population
  - 22% Hispanic
  - Growing Somali and East African community
Rice Memorial Hospital
A long standing commitment to education

More than 300 health professions students train at RMH annually in the following fields:

Nursing                      Medicine
Laboratory science           Radiography
Anesthesia                   Physician Assisting
Pharmacy                     Dentistry
Therapies                    Dental Hygiene

In addition, RMH employees offered job-shadowing experiences to 106 high school and college students in 2007
Rice Regional Dental Clinic

- A partnership between Rice Regional Hospital, Minnesota AHEC and University of Minnesota Academic Health Center

- Owned, staffed and operated by Rice Memorial Hospital in affiliation with the University of Minnesota School of Dentistry

- Opened its doors on December 5, 2007
Designing the Model

- Broad engagement of community
  - Hospital Board and interested parties
  - Community meetings with area dentists
  - State dental society

- Shared responsibility for designing a financially sustainable model

- Commitment to providing exceptional services to the underserved in a state-of-the-art facility
Critical Partnerships for Success

- Strong community support with identified leaders
- State dental society
- State or regional dental school
- Linkages to core supporters
  - Industry
  - Philanthropy
  - County Public Health Departments
  - AHECs
Rice Memorial Dental Clinic
The right idea. The right place. The right time.

A dental clinic at Rice Memorial Hospital:

- Increases access to Primary dental care for thousands in the 12-county area
Increases access to comprehensive dental care for 12-county area

<table>
<thead>
<tr>
<th>County</th>
<th>County Population</th>
<th># of Dentists</th>
<th>Dentist to Population Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Stone</td>
<td>5,653</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Chippewa</td>
<td>12,808</td>
<td>5</td>
<td>1:2562</td>
</tr>
<tr>
<td>Kandiyohi</td>
<td>41,148</td>
<td>26</td>
<td>1:1583</td>
</tr>
<tr>
<td>Lac Qui Parle</td>
<td>7,867</td>
<td>3</td>
<td>1:2622</td>
</tr>
<tr>
<td>Lyon</td>
<td>24,819</td>
<td>9</td>
<td>1:2758</td>
</tr>
<tr>
<td>McLeod</td>
<td>35,864</td>
<td>22</td>
<td>1:1630</td>
</tr>
<tr>
<td>Meeker</td>
<td>23,205</td>
<td>6</td>
<td>1:3868</td>
</tr>
<tr>
<td>Pope</td>
<td>11,252</td>
<td>4</td>
<td>1:2813</td>
</tr>
<tr>
<td>Redwood</td>
<td>16,231</td>
<td>5</td>
<td>1:3246</td>
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<tr>
<td>Renville</td>
<td>16,851</td>
<td>7</td>
<td>1:2407</td>
</tr>
<tr>
<td>Swift</td>
<td>11,656</td>
<td>3</td>
<td>1:3885</td>
</tr>
<tr>
<td>Yellow Medicine</td>
<td>10,677</td>
<td>6</td>
<td>1:1780</td>
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<tr>
<td>Service area</td>
<td>186,031</td>
<td>97</td>
<td>1:1938</td>
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</tbody>
</table>

Reasonable: population ratio: 1:1200
A dental clinic at Rice Memorial Hospital:

- Increases access to comprehensive dental care for thousands in the 12-county area;
- Expands & enhances U-M presence in and long-term commitment to the area;
Expands & enhances UMN presence & long-term commitment to the region

- Helps fulfill UMN commitment to Southern Minnesota AHEC:
  - Creates rural health educational opportunities;
  - Increases health professions students training in southern Minnesota
  - Supports health professionals currently practicing in southern Minnesota communities
    - Establishes a pipeline for the recruitment of young dentists to fill workforce vacancies
    - Provides opportunities for continuing dental education programs, distance learning and consults.
A dental clinic at Rice Memorial Hospital:

- Increases access to comprehensive dental care for thousands in the 12-county area;
- Expands & enhances U-M presence in and long-term commitment to the area;
- Leverages resources, circles of influence, reputations & opportunities;
## Funding Summary:

### CONSTRUCTION & EQUIPMENT

<table>
<thead>
<tr>
<th>Grant Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>State of Minnesota Bonding Bill Appropriation</td>
<td>$ 500,000</td>
</tr>
<tr>
<td>Minnesota Department of Health Dental Innovations Grant</td>
<td>$ 500,000</td>
</tr>
<tr>
<td>Healthier Minnesota Communities Grant</td>
<td>$ 99,000</td>
</tr>
<tr>
<td>Rice Health Foundation Grant</td>
<td>$ 130,000</td>
</tr>
<tr>
<td>Southwest Minnesota Foundation Grant</td>
<td>$  6,500</td>
</tr>
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<td><strong>TOTAL</strong></td>
<td><strong>$ 1,235,500</strong></td>
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Rice Regional Dental Clinic
Construction
Rice Regional Dental Clinic
Construction
Rice Regional Dental Clinic Construction
Rice Regional Dental Clinic
Funding Summary:

<table>
<thead>
<tr>
<th>Grant</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delta Dental Grant*</td>
<td>$450,000</td>
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<tr>
<td>Health Resources &amp; Services Administration Grant*</td>
<td>$375,000</td>
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<tr>
<td>Otto Bremer Foundation Grant*</td>
<td>$225,000</td>
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<tr>
<td>University of Minnesota MERC Grant</td>
<td>$100,000</td>
</tr>
<tr>
<td>U Care Grants (Kandiyohi &amp; Swift Co)</td>
<td>$25,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,175,500</strong></td>
</tr>
</tbody>
</table>

*Funding is spread over a three year period*
A dental clinic at Rice Memorial Hospital:

- Increases access to comprehensive dental care for thousands in the 12-county area;
- Expands & enhances U-M presence in and long-term commitment to the area;
- Leverages resources, circles of influence, reputations & opportunities;
- **Positions Willmar & Rice Memorial Hospital as a regional talent magnet & destination of choice for health care professions, professional spouses and patients;**
Destination of choice for providers, their professional spouses, & patients

- Potential to attract 8,500 new patient visits annually to hospital;
- Enhances the hospital & community advantage in recruiting health care professionals;
- Creates a regional gathering place for the dental professional community;
- Gives national visibility to Rice Memorial Hospital & Willmar as a model for interprofessional education programs and health care services.
A dental clinic at Rice Memorial Hospital:

- Increases access to comprehensive dental care for thousands in the 12-county area;
- Expands & enhances U-M presence in and long-term commitment to the area;
- Leverages resources, circles of influence, reputations & opportunities;
- Positions Willmar & Rice Memorial Hospital as a regional talent magnet & destination of choice for health care professions, professional spouses and patients;
- **Serves as an engine for economic growth & development for rural communities.**
Rice Regional Dental Clinic Staff

- **Dr. Robert Erickson**, Dental Director
  - Graduate of the University of Minnesota School of Dentistry
  - Dr. Erickson is employed by Rice
  - Adjunct Faculty appointment with the U of M School of Dentistry
- **Karen Carlson**, Clinic Administrator
  - Long-time community member
  - Working most recently at a local dental clinic
- Other new staff
  - Dental Hygiene/Instructor, Marilyn Bolin
  - Dental Assistants
    - Dixie Johnson
    - Kim Molin
    - Ann Ree
  - Deb Otte, Receptionist
Rice Regional Dental Clinic
Rice Regional Dental Clinic
Rice Regional Dental Clinic
Creating a Supportive Learning Environment for Students

- Students stay in the same house, each with own bedroom
Creating a Supportive Learning Environment for Students

- Reduced Rates at YMCA
- Ability to participate in classes
Outreach Program Objectives

- Provide students a supervised clinical experience treating a diversity of patients in a variety of off-site clinical settings, while reinforcing diagnostic and treatment planning skills.
- Expose students to patient populations of diverse ethnicity and dental needs.
- Involve students in community health promotion and service opportunities.
- Promote dental career opportunities at schools surrounding Greater Minnesota Outreach sites.
- Offer clinical instruction and mentoring from dentists and dental hygienists (adjunct faculty) who support the education and service missions of Outreach clinic sites.
- Provide opportunities for inter-professional experiences with students from other health disciplines.
The Training Model: A Learning Laboratory

- 4 senior dental students for 4 week rotations
- 2 dental hygiene students for 2 week rotations
- Students in clinic 48 weeks per year
- All students are expected to participate in 4 hours of community service during their rotation, using prepared modules
- Rice dental staff supplemented by area dentists volunteering as adjunct faculty
Community Service and Interprofessional Education

- Groups of 2 dental and 2 dental hygiene students
- Each student participates for four hours
- Work with 15 county schools and groups
- Topics include oral hygiene and dental careers
Statistical Graphs for Rice Regional
Analysis of 3667 patient treatments (for Both pending and approved) 06/19/2000

Gender

- Male: 1,500
- Female: 2,155

Ethnicity

- Native: 38 (1%)
- Asian: 0 (0%)
- Black: 81 (2%)
- Hispanic: 341 (23%)
- Pacific Is: 17 (0%)
- White: 2614 (71%)
- Other: 59 (2%)
- Declined: 4 (0%)
Student Outreach Database

Special Needs

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>215</td>
<td>3440</td>
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</table>

3,440

215

Age Ranges

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Count</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>0-14 (kids)</td>
<td>811</td>
<td>22%</td>
</tr>
<tr>
<td>15-19 (teen)</td>
<td>239</td>
<td>7%</td>
</tr>
<tr>
<td>20-29</td>
<td>682</td>
<td>19%</td>
</tr>
<tr>
<td>30-39</td>
<td>495</td>
<td>13%</td>
</tr>
<tr>
<td>40-49</td>
<td>574</td>
<td>16%</td>
</tr>
<tr>
<td>50-59</td>
<td>415</td>
<td>11%</td>
</tr>
<tr>
<td>60-69</td>
<td>260</td>
<td>7%</td>
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<tr>
<td>70-79</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>80-89</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>90-99</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>100+</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Commitment of Community

- 30 local Dentists and Public Health Directors at Town Hall Meetings
- Many dentists offered support
- Currently 12 adjunct faculty
- Participate in Annual Outreach Dental Review
Supporting the Clinic and its Partnership with the Community

- Periodic community meetings
- Regular Advisory board meetings
- Continuing Education/Grand Rounds with focus on patient evaluation, diagnosis and treatment
  - Dental School provides free CE to area dentists each month
  - Coursework provides for maintenance of license in MN
  - Sent electronically to Willmar, Hibbing and other sites
- Regular review of financials and continued discussions focused on future sustainability
### Rice Regional Dental Clinic

<table>
<thead>
<tr>
<th>Production &amp; Patient Analysis Report</th>
<th>Jan - 08</th>
<th>Feb - 08</th>
<th>Mar - 08</th>
<th>YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of procedures performed</td>
<td>1582</td>
<td>1175</td>
<td>1201</td>
<td>4060</td>
</tr>
<tr>
<td>Patient visits</td>
<td>519</td>
<td>525</td>
<td>463</td>
<td>1507</td>
</tr>
<tr>
<td>Days of full operation with students here</td>
<td>18</td>
<td>17</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Average patients per day</td>
<td>29</td>
<td>31</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Minnesota Care</td>
<td>Blue Plus</td>
<td>Prime West</td>
<td>Health Partners</td>
<td>Medica</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>574</td>
<td>62</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL ON MN CARE</td>
<td>786</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Assistance</td>
<td>227</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jennie O &amp; Others</td>
<td>54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL PATIENTS W/INSURANCE</td>
<td>1067</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What we’ve learned

- Practicing dentists seek opportunities to contribute to the service and care of patients
  - More interest than capacity for dentists to volunteer
  - Provide venue for private dentists to express their commitment to service

- Model provides better care to this patient population – different style of practice management
  - Compensating for complex social circumstances
  - Interpreters
Rice Regional Dental Clinic

QUESTIONS?