Dealing with the Nursing Shortage:

An overview of how the Rio Grande Valley successfully employed the concepts of TOC to increase the throughput of locally trained nurses and allied health professionals

Presented By: Dominique Halaby, D.P.A., UTSA

Date: June 6-9, 2009
BACKGROUND

The Rio Grande Valley Allied Health Training Alliance was organized to 1) identify two training needs in Allied Health in the Rio Grande Valley and 2) develop a strategic plan to meet employer’s workforce needs.

The goal of the Alliance is simply to enable area hospitals to meet their need for nurses and allied health practitioners with local residents.
Alliance was established to:

- Seek collaborative solutions to the region’s nursing and allied health labor shortages based on sound workforce development principles and uphold professional standards in education and on-the-job quality service delivery.
- Develop a regional funding strategy to address the nursing and allied health labor shortage.
- Provide the organizational structure and regional voice necessary to address the potential political obstacles in addressing the issues surrounding the nursing and allied health labor shortages.
- Lead a campaign in community awareness on the allied health labor shortage.
- Develop a forum for nursing and allied health students and healthcare professionals to address the challenges and opportunities in their professional development and ensure student recruitment and retention in the area.
- Study the allied health shortage through research, focus groups and interviews to identify potential barriers and possible solutions.
- Collaboratively implement the strategies agreed upon by members to address the shortage.
RIO GRANDE VALLEY ALLIED HEALTH TRAINING ALLIANCE
TIMELINE

2001
City of McAllen grants $350,000 over two years to VIDA to develop plan to address allied health shortage

2002
Group of Valley business leaders travel to Germany and Ireland to research apprenticeship concept

2003
TWC grants $350,607 to AHTA

2004
U.S. Senator John Cornyn and Congressmen Ruben Hinojosa and Solomon Ortiz on hand to announce DOL $4 million grant

2005
AHTA receives $313,000 grant from WorkFORCE Solutions

2001
Houston Endowment Inc. grants $200,000 to VIDA to address allied health shortage

2002
DOL H1-B grant approved. VIDA and UTB/TSC begin work on allied health feasibility

2003
Rio Grande Valley Allied Health Training Alliance officially formed

2004
Hospital CEO’s, Workforce board directors and college deans meet to discuss the region’s strategy for ‘Growing Our Own’

2005
AHTA begins looking into the development of career pathways and adoption of K through Life education/ training continuum

AHTA winner of TWC 2004 Transitional Workforce Award

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The Rio Grande Valley comprises the four southernmost counties in Texas bordering the Republic of Mexico.

According to latest Census figures, the Rio Grande Valley's population is estimated at one million residents.

As a result of its proximity to Mexico, the area is comprised of nearly 85 percent Hispanics.

The population is also very young. The median age of the Rio Grande Valley is 29

### RGV TOP FASTEST GROWING OCCUPATIONS

<table>
<thead>
<tr>
<th>Licensed Vocational Nursing</th>
<th>Surgical Technician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nursing</td>
<td>Pharmacy Technician</td>
</tr>
<tr>
<td>Radiologic Technician</td>
<td>Medical Lab Technician</td>
</tr>
<tr>
<td>Sonographer</td>
<td>Respiratory Therapist</td>
</tr>
<tr>
<td>MRT Technician</td>
<td>Emergency Medical Technicians</td>
</tr>
<tr>
<td>CT Technician</td>
<td>BioMedical Equipment Technician</td>
</tr>
<tr>
<td>Nuclear Technician</td>
<td>U.S. Census</td>
</tr>
</tbody>
</table>

The per capita income among the lowest in U.S.

- Hidalgo County $9,899
- Starr County $7,069

U.S. Census
• Unemployment figures for November 2004 indicate that 10.7 percent of the McAllen area working-age population and 9 percent of those in Brownsville were without jobs, ranking the unemployment figures of Valley cities the highest in the state.
Hospitals find themselves recruiting from outside the state and as far away as Canada and the Philippines for qualified nurses and allied health practitioners.

Texas Nursing Foundation, if states were ranked by the number of Registered Nurses per 100,000 population, Texas would rank among the bottom 10 percent or 45 out of 50. What is perhaps more striking is that the need for nurses along the border with Mexico is greater than the rest of the state.
The issue of a shortage of trained nurses has gotten the attention of the area CEO's because this has caused us to close beds in our hospitals. Closing beds means a reduction in income.

The CEO's have also found it to be in their best interest to work together to attempt to help resolve this problem because united we have a larger voice and can influence change.
The CEO's must communicate with the schools and the legislators to encourage change and to "think outside the box".

There is no competition between CEO's regarding this issue, we know that individually we will not start a leap frog effort in increasing salary rates to move nurses between the hospitals because no one wins that war. We all loose by starting that process.
<table>
<thead>
<tr>
<th>RGV ALLIANCE TARGET OCCUPATIONS (Feasibility Study Results)</th>
<th>Traditional Health Occupations Career Programs</th>
<th>Career Education Support Ladder Model Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensed Vocational Nursing</td>
<td>CERT Vocational Nursing</td>
<td>Nursing Specialty Certification</td>
</tr>
<tr>
<td>Registered Nursing</td>
<td>AAS -LVN-RN Transition</td>
<td>• Critical Core/Intensive Care</td>
</tr>
<tr>
<td></td>
<td>AAS-Associate Degree Nursing (ADN)</td>
<td>• Perioperative Nursing</td>
</tr>
<tr>
<td></td>
<td>BS-Bachelor in Nursing (BSN)</td>
<td>• Emergency Nursing</td>
</tr>
<tr>
<td>Radiologic Technician</td>
<td>AAS-Radiologic Technology</td>
<td>• Obstetrical Nursing (Labor/Delivery)</td>
</tr>
<tr>
<td>• CT TECHNICIAN</td>
<td></td>
<td>• Neonatal Intensive Care</td>
</tr>
<tr>
<td>• MRI TECHNICIAN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SONOGRAPHER</td>
<td>AAS SONOGRAPHY</td>
<td>Imaging Services:</td>
</tr>
<tr>
<td>NUCLEAR TECHNICIAN</td>
<td>AAS NUCLEAR MEDICINE TECHNOLOGY *</td>
<td>• Computerized Tomography</td>
</tr>
<tr>
<td>SURGICAL TECHNICIAN</td>
<td>CERT/AAS SURGICAL TECHNOLOGY</td>
<td>• Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>PHARMACY TECHNICIAN</td>
<td>CERT/AAS PHARMACY TECHNOLOGY</td>
<td>• Mammography</td>
</tr>
<tr>
<td>MEDICAL LAB TECHNICIAN</td>
<td>AAS MEDICAL LAB TECHNOLOGY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BS CLINICAL LAB SCIENCE</td>
<td></td>
</tr>
<tr>
<td>RESPIRATORY THERAPIAN</td>
<td>AAS RESPIRATORY THERAPY</td>
<td></td>
</tr>
<tr>
<td>EMERGENCY MEDICAL TECHNICIANS</td>
<td>CERT/AAS EMERGENCY MEDICAL TECHNICIAN (BASIC INTERMEDIATE PARAMEDICS)</td>
<td>Advanced certification in trauma (ACLS, PALS, ATLS) EMS Instructor Certification</td>
</tr>
<tr>
<td>BIO MEDICAL EQUIPMENT TECHNICIAN</td>
<td>BS/MS BIOMEDICAL TECHNOLOGY</td>
<td></td>
</tr>
</tbody>
</table>
NURSING AND ALLIED HEALTH SUPPLY CHAIN

Recruitment
- Performed by college
- May require that students attend advisement
- Word of mouth
- College marketing department
- H.S. articulation agreements and dual enrollment programs

Screening
- Performed by college
- Application
- High School transcript or GED
- ACT test scores
- College GPA
- Transcripts
- Letters of recommendation
- Completion of prerequisite coursework
- Mastery of college readiness measures

Coursework
- Provided by college
- Traditional track (Biology, Math, Anatomy & Physiology, Nursing, etc.)
- Advanced placement track (Transition coursework)

Clinical Rotation
- Performed by college in conjunction with hospital
- Provided in conjunction with coursework
- Preceptorships
- Student ratio mandated by state boards and external accrediting organizations

State Exam
- Administered by state board
- Review courses for licensure exams
- Operates as quality control to ensure program graduates meet minimum standards
- Upon successful completion conferred state nursing and allied health professional license or certification

Job Placement
- Performed by hospital
- Bonuses

Specialty Training
- Performed by hospital
- Three to nine months of additional skills training
- Neonatal
- Obstetrics
- Pediatrics
- Critical care
- Preoperative
- Emergency care
CONSTRANTS

• Hospital (clinical) related barriers
• Number of available clinical locations
• Number of available shifts for each clinical procedure
• Number of qualified and available hospital staff to operate as preceptors
• Hospital sponsored post-licensure training drains resources
• Policy limitations
POLICY CONSTRAINTS

- Texas Higher Education Coordinating Board/Texas Department of Health Report to the 77th State Legislature titled Texas-Mexico Border Health Education Needs the “supply of nurses is affected principally by a shortage of nursing faculty, noncompetitive faculty salaries, changes in career preferences for women, and the aging of the nursing population.”

- “sets for the requirements for the ratio of faculty to students in clinical learning experiences for basic nursing education programs (diploma, associate degree, baccalaureate degree, or entry-level master’s degree) and post-licensure baccalaureate nursing education programs”

- Requires that master degree nurses operate as clinical teaching assistants for no more than 10 students

- Rule 215.10 (g) (1) enables baccalaureate nurses to serve in conjunction with a master degree nurse and be permitted to serve an additional 5 students or 2:15
## 2004 Hospital Staffing and Student Clinical Patterns

The table below outlines the staffing and clinical patterns for various hospitals in 2004:

<table>
<thead>
<tr>
<th></th>
<th>Starr County</th>
<th>Valley Baptist</th>
<th>Mission Hosp</th>
<th>Rio Regional</th>
<th>So. TX. Health</th>
<th>Knapp Medical</th>
<th>Brown Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSN</td>
<td>2</td>
<td>16</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BSN</td>
<td>16</td>
<td>190</td>
<td>85</td>
<td>110</td>
<td>847*</td>
<td>100</td>
<td>3</td>
</tr>
<tr>
<td>A.D.N.</td>
<td>17</td>
<td>262</td>
<td>162</td>
<td>129</td>
<td>-</td>
<td>144</td>
<td>200</td>
</tr>
<tr>
<td>LVN</td>
<td>9</td>
<td>189</td>
<td>38</td>
<td>28</td>
<td>165</td>
<td>112</td>
<td>150</td>
</tr>
<tr>
<td>C.N.A.</td>
<td>20</td>
<td>98</td>
<td>42</td>
<td>55</td>
<td>183</td>
<td>90</td>
<td>125</td>
</tr>
<tr>
<td>Bilingual</td>
<td>77%</td>
<td>Unknown</td>
<td>80%</td>
<td>41%</td>
<td>80%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>Foreign</td>
<td>7</td>
<td>40</td>
<td>29</td>
<td>90</td>
<td>Unknown</td>
<td>75</td>
<td>20</td>
</tr>
<tr>
<td>Out of State</td>
<td>0</td>
<td>20</td>
<td>29</td>
<td>20</td>
<td>Unknown</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>$235,837.50</td>
<td>$500,000</td>
<td>$210,000</td>
<td>$407,905</td>
<td>Data pending</td>
<td>$200,000</td>
<td>Data pending</td>
</tr>
<tr>
<td># of Students (Host)</td>
<td>10</td>
<td>Data pending</td>
<td>20</td>
<td>250</td>
<td>100</td>
<td>20</td>
<td>50</td>
</tr>
</tbody>
</table>

*Total number of registered nurses working in the four hospital system.
PREVIOUS RESPONSE

- Hospital-sponsored financial aid programs
- Faculty sharing
- Employment bonuses
- Foreign recruitment
- Mexican nurses
COLLEGES/UNIVERSITIES

- The “Career Education Ladder” is an existing structure that allows students/workers to progress from beginning to higher levels within their professions.
Traditionally, students/workers have tried to climb the Career Education Ladder on their own.

Some make it by balancing work, school and family.

Others are less fortunate.
• With the critical shortage of healthcare workers today, we need more people on the career education ladder.

• We cannot afford to lose capable worker/students.
The workplace provides support through clinical resources and education program support initiatives.

The Department of Labor provides support through targeted investments of workforce development resources.

Educational Institutions provide more steps through career ladder program options, flexible course scheduling, student success initiatives, and distance learning delivery models.

With support more can climb and faster!
• Adjustment of policies regarding clinical/student ratios and preceptor qualifications
• Regional student/clinical scheduling system
• Hospital support system for staff participation as preceptors
• Retention services
• Formalized specialty instruction for post-licensure training
RIO GRANDE VALLEY ALLIED HEALTH TRAINING ALLIANCE
ALTERNATIVE PROFESSIONAL MODEL

ALTERNATIVE PROFESSIONAL MODEL (APM)
Flow Chart

Occupations being addressed:
- Registered Nurse (ADN & BSN)
- Nursing Specialty (Intensive Care, Preparative, Emergency, Obstetrics and Neonatal)
- Licensed Vocational Nurse
- Sonographer
- Radiologic Technologist
- Biomedical Technician
- Medical Lab Technician
- Surgical Technologist
- Dental Lab Technologist
- Occupational Therapist
- Physical Therapist Assistant
- Emergency Medical Technician

Community Outreach
Charities, Employers, High Schools & One Stop Centers

Interest in Program

YES

Referred to traditional program

MDA for Assessment & Individual Service Plan

NO

Referral to Alliance hospital

Incentive Workers

YES

Referred to appropriate college for acceptance (ECC, UTD, UT at El Paso)

NO

Sponsorship

Stipends/indirect costs

Referred to appropriate college for acceptance (ECC, UTD, UT at El Paso)

Continued in program

YES

Issued a voucher

Develop a plan for coping with barriers and academic resolution

Continued on following page

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RIO GRANDE VALLEY ALLIED HEALTH TRAINING ALLIANCE
ALTERNATIVE PROFESSIONAL MODEL
• Enabling clinical information to be collected in a centralized system protects the consistency of the data
• Enables greater flexibility in scheduling clinical rotations
• Adds more flexibility to the clinical experience
• Aids in negotiating schedules to accommodate both student and instructor needs
• Can be used by various partners at several locations, enabling all partners at several to send a consistent message regarding the needs of the students and availability of the host partner
• System is scalable, allowing new partners to be added and enabling data to be updated as the needs of the student and host institution change
All rotations at this site are displayed for the specified time period. Clicking on the appropriate link for a specific rotation will provide details about the school that scheduled the rotation, the facility the rotation takes place in, the rotation’s instructor, or the overall details of the rotation. The number of students currently attending the rotation are also displayed.
The table shows (by intervals of fifteen minutes) all the possible times for each day of the week. To specify a time period where this facility will be unavailable, simply click a starting time and then the ending time. Unavailable time periods show up as black rectangles.

**Note:** You must specify the start of the time interval first as once the first time is chosen, all times before that time on that day will be unavailable until a later time is chosen.

To modify or delete an unavailable time period, click the **Modify** or **Delete** buttons.
### Facility Information

The table below shows students attending rotations in this facility.

<table>
<thead>
<tr>
<th>School</th>
<th>Student Name</th>
<th>Student Number</th>
<th>From</th>
<th>To</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>STC</td>
<td>Andrea Avila</td>
<td>777-41-6277</td>
<td>07/26/06</td>
<td>07/31/06</td>
<td>Thursdays 7:00 AM-12:15 PM</td>
</tr>
<tr>
<td>STC</td>
<td>Mark Johnson</td>
<td>444-44-4444</td>
<td>07/26/06</td>
<td>07/31/06</td>
<td>Thursdays 7:00 AM-12:15 PM</td>
</tr>
<tr>
<td>STC</td>
<td>Rah Hahn</td>
<td>545-47-3633</td>
<td>07/26/06</td>
<td>07/31/06</td>
<td>Thursdays 7:00 AM-12:15 PM</td>
</tr>
</tbody>
</table>
SOUTH TEXAS COLLEGE
REGISTERED NURSE GRADUATES

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SOUTH TEXAS COLLEGE
TOTAL NURSING & ALLIED HEALTH GRADUATES

TOCICO 2009 Conference
JUNE NURSING VACANCIES AT ALLIANCE HOSPITALS

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To quote an anonymous author, "If you've come here to help me, you can go home. But if you see my struggle as key to your own survival, let's get to work."
About Dominique Halaby, D.P.A.

- Dominique Halaby, D.P.A. is the Director of the IED’s Center for Community and Business Research at the University of Texas at San Antonio. Dr. Halaby spent most of his career building a non-profit organization in the Rio Grande Valley (RGV) dealing with workforce and economic development. He has successfully secured over $28 million in funding, including one of the largest federal training grants awarded in South Texas. He was successful in achieving broad collaboration in the RGV among healthcare providers and educators to strengthen collaborative approaches to meet their skilled workforce needs, and is the inventor of the Centralized Clinical Scheduling System.

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