Minnesota – Star of the North
(and South, and East, and West)

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Current Trends in Clinical Laboratory Education:
Number of Programs – U.S.
Current Trends in Clinical Laboratory Education: Number of Graduates – U.S.
Number of Programs in Minnesota

![Bar chart showing the number of programs in Minnesota from 1977 to 2010. The chart indicates a peak in 1977 with 12 programs, followed by a decrease to 2 programs in 2000, and a gradual increase to 2009 and 2010 with 8 programs.](chart.png)
New Programs in Minnesota

- 2005 Fairview CLS Program
- 2008 Rasmussen College CLT Program
- 2008 U of M – Rochester CLS Program
- 2009 Argosy MT Program
- 2009 Mayo CLS Program*
- 2010 Winona State CLS Program*
- 2010 St. Cloud State CLS Program*

* Seeking NAACLS accreditation
Number of Graduates

- 4 MLT programs – increase of 35 students from 2009-2011
- Through 4 CLS programs – increase of 100+ students from 2009-2012
  - California had 125 CLS graduates in 2008
  - Minnesota is projecting approximately 200 CLS graduates in 2012
Successes

- PARTNERSHIPS
- LEADERSHIP
- US Department of Labor Grants
- Minnesota Job Skills Partnership Grant
- Statewide Conversations
  - MLT Standardization
  - Simulation
  - National Practice Levels Study
  - “Breaking the Bottleneck” Conference
Why?

- **CLS/MTs**
  - 2,231 CLS/MTs in Minnesota hospitals and hospital-affiliated clinics
  - Projected hiring of 300 per year for next 10 years to stay at that level

- **MLTs**
  - 1,208 MLTs in Minnesota hospitals and hospital-affiliated clinics
  - Projected hiring of 141 per year for next 10 years to stay at that level

Data from Minnesota Hospital Association Workforce Planning Tool
Staff Shortages in Labs May Put Patients at Risk

The swine-flu outbreak has focused a spotlight on a looming risk for hospitals and their patients: a shortage of technicians to run critical lab tests.

Vanderbilt University Hospital's lab had to pull staffers from other parts of the hospital and ask technicians to work double shifts to test incoming patients for swine flu earlier this month. "It was all hands on deck for a week," says Michael Laposata, chief pathologist at the large medical center in Nashville, Tenn.
WHERE WE ARE

BOTTLENECK of clinical site capacity for student clinical experience
WHERE WE WANT TO BE
WHERE WE ARE
WHERE
WE
WANT
HAVE
TO BE
GOT STUDENTS?

• We need your help breaking this bottleneck!
  • Need sites of all types and sizes
    • Large/small; clinic/hospital
  • Rotations of 4-19 weeks
  • Largest bottleneck is Microbiology and Blood Bank but ALL areas are needed
  • Serving as a clinical site benefits the individual laboratory and the State of Minnesota
    • Cost Effective
Cost to Train a CLS or CLT Student

- Student rotations are 17 – 26 weeks
  - {Can be as short as 4 weeks!}
- On average there is a 30% productivity impact for the trainer in a clinic setting and up to a 50% productivity impact for the trainer in a hospital setting.
- Assuming a CLS salary for trainer = $50,000
- Assuming a CLT salary for trainer = $35,000
- Other miscellaneous costs may be minimal
Cost to Recruit New Employee

- Most HR departments will factor 1 to 1.5 times the employee’s annual salary.
- This includes direct and indirect costs for:
  - Processing the termination, payout of benefits
  - Review and authorization to replace vacated position
  - Job posting and advertising
  - Interviews
  - Processing the hired applicant (Health Service and screening)
  - Orientation and Training
- Assuming an annual salary of $50,000, replacement cost will range from $50,000 – 75,000.
- Assuming an annual salary of $35,000, replacement cost will range from $35,000 - $52,500.
Do the Math

- Assumptions:
  - Training CLS or CLT student for complete internship
  - Using maximum internship of 26 weeks
  - Using conservative estimate of 1 year salary to replace

- Break-even point is to hire 1 Student for every 4 trained!
% of Students Hired - Urban

- Allina Hospitals 31%
- Allina Clinics 73%
- Childrens, Mpls 50%
- Fairview Hospitals 65%
- Fairview Clinics 66%
- HCMC 33%
- HealthEast Hospitals 25%
- North Memorial 33%
- Regions 25% - 50%
% of Students Hired - Rural

- Albert Lea Medical Center, Albert Lea: 25%
- CentraCare, St. Cloud: 60%
- Kanabec Hospital, Mora: 33%
- Long Prairie Hospital, Long Prairie: 100%
- Rice Memorial, Willmar: 40%
- Stevens Community Medical Ctr, Morris: 43%
- St. Lukes Hospital, Duluth: 30%

Note: Rice Memorial reports that 26% of their current employees were at one time students! Of 45 interns since 1985, 18 are current employees and 13 are still working in rural areas 69%! 
## Cost Comparison

<table>
<thead>
<tr>
<th>Hospital Cost to Train</th>
<th>Clinic Cost to Train</th>
<th>Cost to Recruit CLS</th>
<th>Cost To Recruit CLT</th>
<th>Break Even CLS</th>
<th>Break Even CLT</th>
</tr>
</thead>
<tbody>
<tr>
<td>$12,500</td>
<td>$5,250</td>
<td>$50,000</td>
<td>$35,000</td>
<td>Hire 1 in 4</td>
<td>Hire 1 in 6</td>
</tr>
</tbody>
</table>
Value to Employer

- Patient safety
- Having students helps us keep our procedures up to date and easy to follow
- Keeps existing employees “sharp” on their skills, knowledge, and behaviors
  - Follow and explain procedures
  - Utilize best practice or standard work practices
  - Model proper behaviors for customer service, etc
- Ability to “pre-screen” before hiring – six-month interview period
Value to Employer

- “Many of our students stay on and become valuable employees.”
- “They may one day become employees in our facility and by training the students we are re-training ourselves and learning along with them.”
- “We were all students at one point in our careers and we want the students to become good practitioners who will care for us some day!”
Tools and Assistance

- Preceptor Training
- Mentors
- Tool Kits
- Clinical Coordination
Advanced Medicine, Skilled Professionals, EXCEPTIONAL CARE.

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310 S Hwy. 65, Mora   www.kanabechospital.org
Overview

- County-owned
- Self-supporting
- Governed by an active Board of Directors
- Located in Kanabec County; serves the communities of Mora, Hinckley, Pine City, Braham, Isle, Ogilvie and surrounding areas
- Critical Access hospital
Mission
To support and improve the health of the communities we serve.

Vision
To foster a patient-centered culture and maintain a complement of services that meet the changing needs of the communities we serve.

Culture Regarding Students
If we expect to have the staff we need to serve our community, we are responsible/obligated to help train them.
Departments that take students

College Clinical Rotations as well as our local High School Students in the Medical Careers Exploration (MCE) semester long class

- Nursing Service
  - LPN
  - HUC
  - RN

- Rehab Services
  - PT
  - OT
  - Speech

- Medical Staff
  - RPAP
  - Resident

- Laboratory Services
  - MLT
  - MLS
  - Phlebotomy

- Imaging Services
  - Radiology Tech

- Health Information Management

- Pharmacy
  - PharmD IPPE and APPE Interns
  - Residents
  - Pharmacy Techs
Laboratory

10.6 FTEs, Staffed 24/7, one tech 6pm – 6am M-F, one tech all weekend, with a phlebotomist on day shift. 3-5 techs on weekdays, all participate in the training, most are MLTs.

Train both MLT and MLS students: U of ND, U of M, Argosy, Lake Superior College, other MNSCU schools

Average inpatient census about 15, see about 7000 ER patients a month, active outpatient services with chemotherapy, oncologist 2 days/month, surgery 5 days a week.

Testing in Chemistry, Hematology, Coagulation, Urinalysis, Microbiology and Blood Banking

Lab does all the blood draws and the EKG’s, and provide therapeutic phlebotomy services
**Perks for the Hospital**

Advantage of knowing who you may want, or not want, to hire.

If you do hire, they’re already partially trained in = cost savings.

Can keep them rural if we train them in a rural setting.

**Perks for the Student**

Kanabec Hospital owns houses adjacent to the property and can offer a room (sharing rest of the house) at no cost.

In a small institution, can see the interaction with other departments. In lab specifically, can see the patient and do phlebotomy, which is not always done in a large facility.
KANABEC HOSPITAL
Exceeding Your Expectations.
I was skeptical of the use of doing a non-metro rotation, but now that I’m done with it, I’m really glad I had the opportunity. Working in a smaller hospital really gave me a good look at how a hospital works, along with how a lab works, on a smaller scale. If I would have only worked in large hospitals, I don’t think I would have had the opportunity to draw blood from a patient, walk the sample to the lab, run it through the analyzer and look at the results. It really gave me a connection to the patient, instead of seeing them as a tube of blood.
Gaining Support from Staff

- Lab staff and hospital staff (human resources, administration, nursing).
- Over the years, we have developed an “education culture” at Rice.
- Staff view clinical training as an essential part of their job. Part of their job description.
- Keeps staff up to date and offers a form of continuing education.
Rice currently has 14 MLT’s on staff
  - 9 were MLT students at Rice (65%)
  - Our last 5 MLT hires were students who continued at Rice after their rotation
Replaced our next retiring HT with student
Often viewed as training a new employee
Students often state that they enjoy “working” at Rice
Gaining Support from Staff

- 2008 – Rice Laboratory trained the following:
  - 3 MLT Students (Alexandria Technical College)
  - 8 MT Students (U of Minnesota, U of Cincinnati)
  - 1 HT Student (Harford Community College)
  - 1 CT Student (U of North Dakota)
  - 26 MA Students (Ridgewater College)
- Also various job shadows – high school, college
- Also enhancements for other students in Blood Bank, Microbiology, or Chemistry as needed
2009 – Rice Laboratory scheduled to train:

- 4 MLT Students (Alexandria Technical College)
- 11 MT Students (U of Minnesota, U of Cincinnati)
- 1 HT Student (Harford Community College)
- 1 CT Student (U of North Dakota)
- 24 MA Students (Ridgewater College)
- 20 Phlebotomist and 9 EMT’s (Ridgewater College)

Also enhancements for other area students as needed
Gaining Support from Staff

- It all starts by taking your first student!
- Keep staff involved and give them ownership in the process (coordinating and teaching)
- Show them the value of the continuing education they receive by training others
- They may be training their next co-worker!
Allina Hospitals & Clinics

Clinical Laboratory Initiatives
Educational Relationships

- **CLT/MLT**
  - North Hennepin Community College
    - Allina employees program director and faculty
  - St. Paul College
  - South Central Technical College
  - Argosy University

- **Histology Technicians**
  - North Hennepin Community College
    - Allina employs program director and faculty

- **Phlebotomy**
  - College of St. Catherine’s

- **CLS**
  - University of Minnesota
  - Winona State University
CLT/MLT student rotations
Clinic rotations + BB/Micro at hospital sites

- Spring 2008 (12 students): St. Paul College (SPC), South Central Technical College (SCTC) and North Hennepin Community College (NHCC)
- Fall 2008 (3): Argosy University
- Spring 2009 (10): SPC, SCTC and NHCC
- Summer 2009 (4): Argosy University
- Spring 2010 (20): SPC, SCTC and NHCC
The Numbers

• MLT – Spring Semester, January – mid-May
  – Starting 2010, 20 students for the 19 weeks
  – Every student will spend time in a hospital environment and in a clinic environment
  – The first week for all students is Orientation
    • Safety and LIS training modules
    • Expectations, etc.
    • ANW Hospital tour
    • FUN stuff, too!
The Numbers

• MLT
  - By adding additional clinics as sites, and using every possible 4-week block of time at the sites that perform Micro, capacity for MLT students was increased from a maximum of 16 to 20 full 19-week rotations
  - A plus for students – exposure to at least one clinic lab and at least one hospital lab
The Numbers

• **CLS – U of M**
  - 26-28 U of M students between mid-May and early December
  - 4-week rotation in one of the 4 major departments
  - At Metro hospital sites
  - Micro at ANW central lab only for CLS level

• **U of Cincinnati as needed, most have been spring or summer, 1-2 per year**

• **UND as needed, most have been Allina employees**
Investing actively in education

- Provide program director and faculty for the MLT and HT programs at North Hennepin Community College
- Partner with NHCC and St. Cloud State University through initial MSJP (MN Job Skills Partnership) grant for MLT to CLS program initiative
- D.O.L. grant partnerships
- Recent AMS productivity/staffing consulting engagement recognized need to adjust hospital lab staffing benchmarks to enable teaching
What makes this possible?

- Workforce issues are a top priority of the organization
- It’s the people!
  - Active support from Allina senior leadership
  - Active leadership from Allina laboratory leadership
    - Mike Dalager, Director of Lab Operations
    - Jean Bauer, Director of Allina Medical Clinic laboratories
    - Hospital Lab Directors, Managers, Supervisors, Leads and staff
    - Clinic laboratory leads and staff.
  - Active support Allina Workforce Center: Jane Renken, Director, Mary Jo Huebner and others
  - Active support from Nancy Denny – Director of NHCC MLT/HT programs and AML Education Coordinator.
    “She makes this all possible. The detail person.”
What makes this possible?

- Culture
  - Understanding that the support of laboratory education is necessary for meeting current and future staffing needs of Allina
  - Understanding that Allina must play a key role in supporting education initiatives across the state and meeting personnel training needs for the entire state.
Summary

- Lots of help
- Value in learning in a variety of settings
- All of you can provide that experience
GOT STUDENTS?
GOT STUDENTS?

GET STUDENTS!