Creating Sustainable Human Resources Plan for Laboratory Medicine

Paula Carroll-Spence
Educator, Department of Paediatric Laboratory Medicine
The Hospital for Sick Children

MLT Symposium
April 13th, 2010
Agenda

- Objectives
- Health Care Context
- Platform for Discussion: Proposed Educational/Career Path Model
- Benefits and Challenges
- Continuing the Conversation – Moving Forward
Objectives

• **Create Awareness**
  • ...of issues facing clinical laboratories and impact of “Era 3” of healthcare

• **Develop a platform for discussion**
  • ...on alternative education/career path model to sustain laboratory medicine

• **Engage Stakeholders**
  • ...to design solutions to meet future needs
Context

- It has been widely established that:
  - Laboratory medicine has human resources issues (e.g. looming MLT shortage)\textsuperscript{1-2}
  - There is reduced availability of MLT clinical training placements\textsuperscript{3} ; and
  - Quality of patient care in the evolving healthcare will be compromised if laboratory human resources are not sustained.

- Stakeholder engagement is pivotal in sustaining laboratory medicine
Health Care Environment
The Evolving Healthcare System

The First Era (Yesterday)
1750 - 1950
- Focused on acute and infectious disease
- Medical Care
- Reducing Deaths

Health System 1.0

The Second Era (Today)
1950 - 2010
- Increasing focus on chronic disease
- Chronic disease management & prevention
- Prolonging disability-free life

Health System 2.0

The Third Era (Tomorrow)
- Increasing focus on optimal health status
- Complex causal pathways (predicative)
- Investing in population based prevention
- Producing optimal health for all

Health System 3.0
Laboratory Medicine Human Resources

The First Era (Yesterday)
- Late 1950’s - Early Medical Laboratory Technology Program
- Entry: On-the-job training

The Second Era (Today)
- Registered General Technologists
- “Subject” Registered Technologists (up to 1990’s)
- Advanced Registered Technologists (ART)
- BScMLS (some prov.)
- Entry: Medical Laboratory Program and passing national examination

The Third Era (Tomorrow)
- Registered General Technologists
- BScMLS
- Laboratory Specialists
- Entry: Proposed model of entry into profession
Entry to Profession (MLTs)

- Many students enter MLT program with degree(s)\(^6\)

<table>
<thead>
<tr>
<th>Province</th>
<th>Degree before MLT Program % responses</th>
<th>No degree but completed some university courses % responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>NF</td>
<td>11.1</td>
<td>20.0</td>
</tr>
<tr>
<td>NB</td>
<td>54.5</td>
<td>30.8</td>
</tr>
<tr>
<td>QC</td>
<td>6.5</td>
<td>4.5</td>
</tr>
<tr>
<td>ON</td>
<td>45.8</td>
<td>56.4</td>
</tr>
<tr>
<td>MB</td>
<td>12.5</td>
<td>71.4</td>
</tr>
<tr>
<td>SK</td>
<td>25.0</td>
<td>0</td>
</tr>
<tr>
<td>AB</td>
<td>50.0</td>
<td>16.7</td>
</tr>
<tr>
<td>BC</td>
<td>44.4</td>
<td>39.1</td>
</tr>
</tbody>
</table>
Today:

- Is there a way to get technologists on the bench faster?
- Examples of BSc’s: Microbiology, Biochemistry, Biological Sciences, Pharmaceutical Chemistry, Nutritional Sciences
- Is there a way to capitalize on knowledge and skills gained through previous education?

MLT Program
- Haem, Chem, TM, Microbiology, Pathology

ART
- Specialists
- Middle Mgt
- Research & Dev.
- Education

Senior Mgt
- Master
- PhD
- MD

3-4 years • 3 years = 6-7 years before entry into workforce
Career Path/Ladder

• Technical expertise is diminishing as senior technologists/technical specialists retire

• Knowledge gap

• Very few established programs available to provide advanced education and practical skills

• Is there a way to build and sustain technical expertise?
Career Progression

• Laboratories are made up of many professionals, each with human resource issues

• Is there a way to ensure sustainability across all positions?
Career Progression

- Educational programs operate in isolation

- Is there a way to progress through different medical laboratory careers efficiently and effectively?
Creating a Platform for Discussion
Comparison: Training/Education Path

Today

- BSc
  - MLT Program
    - Haem, Chem, TM, Microbiology, Pathology
  - ART Specialists
    - Middle Mgt
    - Research & Dev.
    - Education
  - Senior Mgt
    - Master
    - PhD
    - MD

= 6-7 years before entry into workforce

Tomorrow (Proposed)

- Core Foundation
- General MLT
- Lab Specialist
- BScMLS
- Master Management
  - Research & Dev.
  - Education
  - Quality Mgt
  - Information Mgt
  - Paths’ Ass’t
- PhD
  - (Clinical, Scientist)
- MD
  - (Pathologist)

= 2 years before entry into workforce
Benefits of Proposed Model

- “Fast-track” entry into the profession, multiple entry
- Potentially more attractive to enter laboratory medicine
- Offers natural career progression/ladder
- May increase employers’ interest in participating in clinical placements
- Supports staffing for routine and laboratory specialization
- Stakeholder collaboration
Challenges of Proposed Model

- Cannot start tomorrow
- Need to build consensus
Continuing the Conversation
Moving Forward

- National Survey
- Focus Groups
- White Paper
Questions?
Education Model Survey
Privacy

- The survey is anonymous. Neither name or other personal information, which could lead to an identification, are asked during the survey. The survey data will be stored and later used for reference and analysis. All survey data will be aggregated, it is not possible to backtrack single data files or identify the participants.
Question 1

In your opinion, what is the most important issue faced in the laboratory today?

A. Human resource shortage/succession planning
B. Recognition within the healthcare community
C. Adapting to changes and trends in healthcare
D. All of the above
E. None of the above
Question 2

In your opinion, what level of training is required to perform front line bench functions?

A. MLA
B. MLT – 2 year Diploma
C. MLT – 3 year Diploma
D. BScMLS
E. BSc + MLT diploma
Question 3

In your opinion, what level of training is required to perform specialized testing?

A. MLT – Diploma
B. MLT + ART
C. BScMLS
D. BSc + MLT Diploma
E. MSc/PhD or Equivalent
Question 4

In your opinion, what level of training is required for entry level management positions?

A. MLT – Diploma
B. MLT + ART
C. BScMLS
D. BSc + MLT Diploma
E. Masters (MSc/MHA) or Equivalent
Question 5

For the following statement, please rate your level of agreement:

“A general Science degree should be required to practice medical laboratory technology.”

A. Strongly agree
B. Agree
C. Neutral
D. Disagree
E. Strongly disagree
Question 6

For the following statement, please rate your level of agreement:

“Currently, career laddering and educational opportunities are clearly delineated for individuals entering or considering entry into the medical laboratory field.”

A. Strongly agree
B. Agree
C. Neutral
D. Disagree
E. Strongly disagree
Question 7

Approximately what percentage of your laboratory colleagues at your organization have worked in a single lab area or discipline for the majority of their career?

A. 80-100%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%
Question 8

In your opinion, what do the students of current generation value?

A. Long term job tenure
B. Flexibility
C. Work-life balance
D. Career development and career laddering
Question 9

To what extent do you support the concept of discipline-specific specialists?

A. Strongly agree
B. Agree
C. Neutral
D. Disagree
E. Strongly disagree
Question 10

To what extent do you agree that a new conceptual model for laboratory medicine education needs to be developed?

A. Strongly agree  
B. Agree  
C. Neutral  
D. Disagree  
E. Strongly disagree
Thank you!
References


