After a number of years of declining enrollments and reductions in the number of educational programs in the clinical laboratory sciences, there may be somewhat of a turn-around with things headed in a more positive direction. If a reversal is occurring, however, it may be short-lived when viewed against the demographics of the clinical lab workforce and the increasing demand for laboratory services.

Clinical laboratories employ a number of different types of workers including medical technologists, medical laboratory technicians, cytotechnologists, histotechnicians, histotechnologists, and phlebotomists. For purposes of this review, the focus is only on the two largest groups--medical technologists and medical laboratory technicians.

The 2001 Annual Survey of Accredited Medical Laboratory Science Programs conducted by the American Society for Clinical Pathology’s Board of Registry found a slight overall increase from the previous year’s number of applicants. This good news is contrasted with the continued closing of educational programs. According to data from the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), approximately 30 percent of programs in the U.S. have closed in the last five years, leaving in 2002 only 273 programs.

Even if enrollments and program levels appear to be stabilizing, there are other trends occurring that are very troubling. The U.S. Department of Labor’s Bureau of Labor Statistics projects that an average of 13,200 new medical technologists and medical laboratory technicians will need to be produced each year between 2002 and 2010 to meet workforce requirements, but with the graduates averaging only about 5,000 a year, there will be a distinct shortage. Compounding the problem is the fact that, similar to a number of other health professions, a large portion of the clinical laboratory workforce is nearing retirement age. The ASCP BOR has found that nearly three-fourths of the members in its database are over the age of 40. At a time when not enough individuals are graduating from clinical laboratory programs, many clinical lab workers will be retiring, and this will be occurring at a time when laboratory services are expected to increase as much as three-fold by 2010.

How are employers coping with the need for laboratory personnel? Several strategies include the increased use of temporary staff and the use of non-credentialed workers. More people are working overtime. And, after a budgeted position remains vacant for an extended period, it may no longer be listed as a budgeted vacancy, thus giving the impression that the shortage is not as large as it really is.
All parties agree that greater attention needs to be given to student recruitment and increasing the public’s consciousness of careers in the clinical laboratory fields. NAACLS has found an increasing interest from clinical laboratory programs in other countries in obtaining accreditation based on U.S. standards. This would allow graduates of the programs to potentially be eligible to work in the U.S. Due to this interest, in 2001 NAACLS opened the accreditation process to include programs outside of the U.S. The same procedures and standards for U.S. programs have to be met.

According to results of ASCP BOR’s 2002 Wage and Vacancy Survey of Medical Laboratories, the overall vacancy rate for credentialed medical technology workers was 7.0%, contrasted with 4.1% for non-credentialed individuals. While these figures represent overall national statistics, vacancy rates vary widely according to the geographic area and the type of employment setting. Even though some other allied health professions have a higher vacancy rate overall, the demographics and future supply of the clinical laboratory workforce present a very disconcerting picture. One can only hope that things will be headed in a positive direction for the future.

References:

*The article as it appeared in the December 2003-January 2004 issue of Trends follows:*

**Allied Health Enrollments Revisited: How Are We Doing?**

In the year 2000 I wrote a series of articles for *Trends* examining enrollment and graduation data for a number of allied health professions. Now, some three years later, it may be useful to compare those data with the most recent available figures to examine changes and their implications for educational programs and the U.S. health care system. Over the coming months I will present a brief summary each month of one or more allied health professions.

This month’s review examines the clinical laboratory sciences, one of the professions reported by many employers to have a shortage of qualified workers. In the October 2000 issue of *Trends* (“Volatility in the Allied Health Marketplace”), the following enrollments were reported for the 1998-99 academic year. These data are compared to the most recent data from the 2001-2002 academic year.
<table>
<thead>
<tr>
<th></th>
<th>1998-99</th>
<th>2001-02</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Laboratory Scientist/</td>
<td>5,117</td>
<td>3,625</td>
<td>-29%</td>
</tr>
<tr>
<td>Medical Technologist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clin Lab Tech/ Med Lab Tech –</td>
<td>4,754</td>
<td>3,703</td>
<td>-22%</td>
</tr>
<tr>
<td>Associate Degree</td>
<td></td>
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As can be seen, enrollments have decreased substantially in programs at both levels. These decreases in enrollment are on top of decreases for the previous five-year period, 1993-1998, of 32% for the clinical laboratory scientist and 39% for the clinical laboratory technician. Such decreases in program enrollments are causing concern, particularly with the increased use of laboratory tests. For an expanded presentation and discussion of this issue, please click on the following link, [UAB School of Health Related Professions](#), and then click on “ASAHP trends articles” on the right sidebar.