

The Medical Laboratory Personnel Shortage (Policy Number 04-04)

Policy Statement

ASCP believes that the severity of the medical laboratory personnel shortage requires the creation and development of federal policy initiatives such as grant programs, service learning, continuing education, and public service announcements.

Background and Rationale

I. Introduction

Our nation's clinical laboratories are facing a critical and growing shortage of qualified laboratory personnel. This shortage hampers the ability of clinical laboratories to meet patient testing demands, which may pose problems for patient health and welfare. To address this problem grants, loans and other funding mechanisms are needed to encourage students to consider careers in clinical laboratories and encourage the development and enhancement of laboratory training programs. These programs can come in the form of public service announcements, scholarships/fellowships, low interest loans, loan forgiveness programs, and grants to academic institutions and professional associations. These types of programs will support the education, training and continuing education of laboratory professionals and is needed to address this growing national problem.

ASCP will work with legislators, educational entities and other laboratory and medical associations to establish, enhance and/ or maintain programs and educational and recruitment efforts designed to address this growing national problem.

II. Substantial Vacancy Rates Impact Hiring and Quality

America's medical laboratory professionals play a critical role in health care. The vast majority of all medical diagnoses are based on laboratory test results.¹ Because these important health care practitioners seldom have direct patient contact, their critical role in health care often goes unnoticed. Unfortunately, the United States is facing a severe and increasingly problematic shortage of qualified laboratory personnel, raising questions about whether America's medical laboratories have the personnel needed to handle today's and tomorrow's demand for medical laboratory testing services.

Over the last ten or more years, our nation's ability to train new laboratory practitioners has consistently been unable to meet the demand for their services. Moreover, there has been a steady and alarming erosion in the number of students graduating from medical laboratory training programs. According to a 2003 study by the American Society for Clinical Pathology, rural areas and areas served by smaller hospitals, in particular, are finding it increasingly difficult to recruit and retain qualified laboratory personnel. In addition, half of all laboratories are reporting problems hiring laboratory personnel. Medical laboratories reported even greater difficulty finding testing personnel for evening and night shifts at 72 and 82 percent, respectively.²

III. Educational Programs Are Evaporating

Earlier this year, the U.S. Department of Labor projected that approximately 13,800 medical laboratory professionals will be needed each year through 2012 to fill vacant laboratory positions.³ Unfortunately, today fewer than 4,000 individuals are graduating from accredited or approved training programs each year, including only 260 cytotechnologists (the individuals who examine gynecologic (Pap smears) and non-gynecologic specimens).⁴ To put these numbers in a historical context, approximately 9,000 individuals graduated from accredited and approved training programs in 1983. By 1992, this number had been reduced to 5,760. In percentage terms, we are graduating 30 percent fewer laboratory practitioners than 10 years ago and 56 percent fewer laboratory practitioners than 20 years ago. It should be noted that since 1980, the U.S. population has increased by more than 20 percent.

To make matters worse, our nation's capacity to train new testing personnel has declined substantially over the past ten years. According to the National Accrediting Agency for Clinical Laboratory Sciences, over the last ten years the number of programs training these individuals has been reduced approximately 30 percent, from 659 programs in 1992 to 468 programs in 2002. For cytotechnologists, the number of training programs has been reduced 25 percent over the last ten years, from 65 programs in 1994 to 49 programs in 2004. The reduction in the number of training programs is particularly problematic in rural areas, where many potential laboratory practitioners seek training programs near their homes. At the same time, many urban areas have also been affected. The cities of Los Angeles and Miami do not have any medical technologist or medical laboratory technician training programs. Moreover, there are no cytotechnologist training programs in Florida.

IV. An Aging Workforce: A Major Concern

Another cause for concern is the average age of the laboratory workforce, which has been increasing steadily over the past few years, reflecting the fact that the pace with which younger, newly trained laboratorians have entered the laboratory workforce has slowed. At 43.7, the average age of certified medical technologists is slightly older than of nurses (43.3).^{5,6} In fact, the laboratory personnel labor force is aging at a 78 percent faster rate than the entire U.S. labor market, citing a rate of 4.5 percent compared to the overall labor market's 2.5 percent of aging.⁷ An older work force can be problematic for a number of reasons. For one, an aging workforce generally leaves the work force through retirements at a faster rate than younger health care personnel. Older worker's participation in the laboratory labor market may also be more tied to the state of the economy, which was in recession at the time of the study. Older workers can also be more vulnerable to the adverse health and safety risks associated with shift work.⁸ Moreover, as our nation ages, estimates project that the demand for laboratory testing services will increase.

V. Additional Factors Contribute to the Problem

Personnel turnover is also an increasing problem. With competition for laboratory personnel intensifying over the last year, turnover rates for some categories of laboratory personnel now exceed 20 percent. Because of the difficulty in finding qualified staff, medical laboratories are increasingly turning to temporary staff to handle the patient testing workload.

A number of factors explain the low numbers of individuals entering the medical laboratory workforce. Training laboratory personnel is expensive and there are few scholarship or loan programs available for prospective laboratorians. To become a medical technologist generally requires a baccalaureate degree and a year of training in an accredited or approved laboratory training program. To become a medical laboratory technician generally requires an associate degree and a year of training in an accredited or approved laboratory training program.



Others are lured away from careers in laboratory medicine by higher salaries in other allied health careers or research medicine. Typical entry-level salaries for medical technologists and medical laboratory technicians in 2002 were \$33,280 and \$27,040, respectively. The median salary for medical technologists and medical laboratory technicians is estimated at \$43,000 and \$30,200, respectively.⁹ As a comparison, registered nurses average \$48,240, physical therapists average \$59,130, and pharmacists average \$72,800.¹⁰

Additional factors that affect career decisions are the high stress levels associated with laboratory work, potential exposure to dangerous pathogens, demanding working schedules, and lack of career mobility.¹¹

References

1. Foubister, V. Bench Press: The Technologist/Technicians Shortfall is Putting the Squeeze on Laboratories Nationwide. *CAP Today*. September 2000. pp 84.
2. Ward-Cook, K. 2002 Wage and Vacancy Survey of Medical Laboratories: Part 1: Salaries Continue to Show Moderate Gains. 2003; September; page 633.
3. Hecker DE. Occupational Employment Projections to 2012. *Monthly Labor Review*. 2004; February: page 80-121.
4. Interview with Dan Tice. National Accrediting Agency for Clinical Laboratory Sciences. June 24, 2004.
5. Interview with Kory Ward-Cook. American Society for Clinical Pathology. November 18, 2003.
6. Center for Disease Control and Prevention. Federal Register. November 5, 2003. 68 CFR 62607.
7. Calculations derived from Table 15, Employer Persons by Detailed Occupations, Sex, and Age. 2000- 2003, in "Occupational Employment Statistics" (Source Current Population Survey), Bureau of Labor Statistics.
8. Ibid.
9. Ward-Cook, K. 2002 Wage and Vacancy Survey of Medical Laboratories: Part 1: Salaries Continue to Show Moderate Gains. 2003; September; page 633.
10. Hecker DE. Occupational Employment Projections to 2012. *Monthly Labor Review*. 2004; February: page 80-121.
11. Frings C. What to Do When Your Lab is Sold and How to Hire MTs and MLTs When There is a Tech Shortage. *Medical Laboratory Observer*. 2002; October 1.