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April 2013
Building Global Partnerships

Developing cervical cancer is a serious threat for women who already have HIV/AIDS in sub-Saharan African countries such as Botswana. Now that many of these patients are being appropriately treated with antiretroviral drugs for HIV/AIDS, women are now dying from non-communicable diseases, such as cancer. In sub-Saharan Africa, cervical cancer is the No. 1 cause of cancer death for women. Too many women with highly prevalent HPV infections that cause cervical cancer are not being screened early. Patients are most often diagnosed when the malignancy is in its advanced stage, thereby attributing to the high death rate of women with the disease in Botswana.

In January, I traveled to Botswana with ASCP President Joel Shilling, MD, FASCP, and two other ASCP volunteers, Von G. Samedi, MD, and Martha C. Hales, MD, FASCP. We saw firsthand how the country is lagging significantly behind many others in the laboratory, particularly in anatomic pathology. We realized that pathologists and laboratory professionals who are members of ASCP have the anatomic and clinical expertise to assist patients in this country. By uniting our members’ skills with the strengths of global and local organizations to fund new equipment and educate histotechnicians and other laboratory staff, ASCP can play a pivotal role in improving quality health care for patients in Botswana and throughout sub-Saharan Africa. See Dr. Shilling’s illuminating article and the outline of our proposed three-prong strategy on pp. 6–8.

Journey to Health

In this issue, Michael L. Wilson, MD, FASCP, and a team of four other internationally engaged pathologists evaluate how to increase anatomic pathology capacity in resource-limited regions and offer solutions that include building professional expertise, improving infrastructure, bolstering the supply chain, and considering financial concerns. See pp. 26–29.

Since 2005, ASCP has been in an enduring partnership with the Centers for Disease Control and Prevention for education and improvement of laboratory standards through the President’s Emergency Plan for AIDS Relief in Africa, Southeast Asia, and Eastern Europe. ASCP’s Global Outreach team focuses on sustainability and building in-country capacity in conjunction with ASCP consultants who train in-country personnel to teach their colleagues and partner with in-country organizations to increase their local presence.
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Journey to Botswana Turns Toward the Laboratory Infrastructure

Dr. Shilling (fourth from right) and Dr. Holladay (far right) are providing a three-prong strategy to improve processing specimens in collaboration with other organizations such as the Botswana Ministry of Health and the Bush Institute at the National Health Laboratory in Gaborone, Botswana.
All people have a certain right to quality health care for preserving their well-being and saving their lives. In the United States, Canada, European countries, and parts of Asia, patients have a reliable healthcare infrastructure with plentiful physicians and specialists such as pathologists and histotechnicians, as well as hospitals and clinics close to home. Accredited medical laboratories are abundant, and tests are completed in a timely manner.

In other parts of the world, however, patients may have to travel long distances to see relatively few doctors, even fewer specialists, and to visit hospitals. Medical laboratories usually are not accredited and may be missing basics such as reagents, microtome equipment, tissue embedders, processing equipment, and stainers.

In sub-Saharan Africa, Botswana is saddled with obstacles for patients to receive quality health care, especially in the laboratory, where most diagnoses take place. While Botswana has the second highest prevalence of HIV/AIDS worldwide, with approximately 24 percent of its adults affected, it also has one of Africa’s most advanced antiretroviral drug treatment programs for the disease. Women who have HIV/AIDS, however, are four to five times as likely to develop cervical cancer due to their weakened immune systems. In Africa, HPV infections are highly prevalent, and those who contract cervical cancer without early detection will lose their lives.

As leaders of diagnoses in the laboratory, pathologists and laboratory professionals can help physicians and their patients in countries such as Botswana. While it is a Herculean task for ASCP alone, through collaboration with other organizations the Society can accelerate progress in quality health care for patients worldwide.

**Laboratory: Linchpin for Success**

At the National Health Laboratory in Gaborone, Botswana, Doreen Ramogola-Masire, MD, urged pathologists from ASCP to visit and help diagnose 2,000 specimens in the laboratory’s backlog. In January 2013, Dr. E. Blair Holladay, ASCP Executive Vice President; Von G. Samedi, MD; Martha C. Hales, MD, FASCP; and I traveled to Botswana for a week, in response to her plea to solve this backlog.

What we discovered is that the success of Dr. Ramogola-Masire’s clinical intervention program to treat women had outstripped the laboratory’s ability to keep up with processing specimens, which in turn allows diagnoses of diseases. The laboratory is the critical linchpin to solve this conundrum. It has to expand through purchasing...
new equipment and training more staff, such as histotechnicians, to develop a lasting solution to saving patients' lives through early diagnosis of diseases.

Since our journey to Botswana, ASCP has outlined a three-prong strategy to remedy the crucial concerns in the laboratory and develop a sustainable solution for diagnosing diseases of patients. The Society is forming alliances with organizations to secure funding and provide education. These include the Botswana Ministry of Health, the University of Botswana, and the Bush Institute, which initiated the Pink Ribbon, Red Ribbon campaign for prevention and early detection of breast and cervical cancer. Below is a summary of three primary steps.

**Step 1.** Install automated and semi-automated tissue processing equipment in the laboratory, adding the microtomes, tissue embedders, processing equipment, stainers, and mounting supplies, as well as the necessary staff to use the instruments.

**Step 2.** Train a cadre of histotechnicians who can process the tissue. ASCP can assist by replicating in-country training and "train the trainer" protocols, which the Society has successfully implemented in 19 countries through the President's Emergency Plan for AIDS Relief (PEPFAR) funded by the Centers for Disease Control and Prevention over the past eight years. This training needs to be coordinated with the education of histotechnicians at hospitals and at the University of Botswana.

**Step 3.** Provide diagnostic support once the laboratory infrastructure is in place and the histotechnicians are giving real-time tissue processing. ASCP recommends that whole slide imaging be installed to support the pathologists' workload. Those in the Society's trove of more than 6,000 pathologists can be recruited to donate their time to support real-time diagnostics through whole slide imaging using cloud-based diagnostics to supplement the dearth of pathologists in Botswana.

ASCP began its efforts in Botswana by assisting with the detection of cervical cancer and has since expanded its work to encompass the diagnoses of diseases in the laboratory. This African country, with a relatively high per capita income of $16,300 and a demonstrated will to respond to health crises such as HIV/AIDS, is an ideal place to begin this effort. In time, building an infrastructure for diagnoses in the laboratory can be expanded to other countries in sub-Saharan Africa and beyond.

**Choosing Wisely: Improved Patient Care**

In contrast to Botswana, the United States has an abundance of physicians, technology, and facilities. However, some standards for care may provide few, if any, benefits for patients. According to a recent report from the Institute of Medicine, as much as 30 percent of U.S. health care is duplicative or inappropriate.

In 2010, Howard Brody, MD, PhD, proposed that doctors within each medical specialty society identify the top five tests that physicians and patients should question. His persuasive call to action sparked the Choosing Wisely campaign, a multi-year effort from the American Board of Internal Medicine Foundation. Choosing Wisely supports and engages physicians to become better stewards of finite healthcare resources.

That is why ASCP joined the Choosing Wisely campaign in 2012 and announced its five initial tests on Feb. 21 (see pp. 18–21). It is critical that pathologists and laboratory professionals contribute to improving patient care and reducing the high costs of health care in the United States.

I welcome any comments, questions, or suggestions you may have. Please email them to me at President@ascp.org.

Dr. Shilling is Medical Director, Radiation Safety Officer, and Technical Director of Toxicology at Quest Diagnostics, Portland, Ore.
The American Society for Clinical Pathology journals offer information and education that can aid your practice as pathologists and laboratory professionals. Whether you read the printed journals or get your information online, the American Journal of Clinical Pathology (AJCP) and Lab Medicine provide the latest research, reports, and studies, including these highlights:

**AJCP**

An article by Mansfield et al in the February 2013 issue of AJCP compares the use of FISH vs DISH in helping select the appropriate patients for HER2-targeted therapy in breast cancer. The March 2013 issue of the journal features an article by Jeffrey Warren, MD, that outlines the University of Michigan Health System experience in implementing a laboratory test utilization program that "has led to a robust process of test utilization oversight, excellent communication with clinical services, and significant...reductions in laboratory expense." Finally, the April 2013 issue of AJCP contains four articles arising from the 2011 Society for Hematopathology/European Association for Haematopathology Workshop. These articles cover mycosis fungoides, non–mycosis fungoides cutaneous T-cell lymphomas, cutaneous B-cell lymphoproliferative disorders, and mimics of cutaneous lymphoma. These articles and others can be accessed at www.ajcp.com.

**Lab Medicine**

The Winter 2013 issue of Lab Medicine features a study by Fei Xie, MD, and Qing Song, MD, reporting the associations of the G1359A Polymorphism in the CNR1 gene in patients with metabolic syndrome and coronary artery disease. The issue also offers readers an executive summary of the findings from the 2012 Vacancy Survey of Clinical Laboratories in the United States.

The newly redesigned Lab Medicine website features additional content not found in the printed journal. Visit the site for recent videos on bed bug identification, and submit your laboratory-related questions on the Ask the Expert page. Additionally, the full report on the Vacancy Survey is available on the site. Visit www.labmedicine.com for more.

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Message from the Chair of the Council of Laboratory Professionals

By Barbara S. Caldwell, MS, MLS(ASCP)®SH

Three Ps of Global Health: Pandemics, Prevention, and Philanthropy

Global health involves everyone. Worldwide, efforts are under way to prevent illnesses, combat diseases, and promote health. This work transcends the boundaries and concerns of any particular country. To achieve the goals of improving health and working toward sustaining systems worldwide, it “takes a village.” Through the efforts of ASCP, laboratory professionals will discover specific examples of individuals improving world health. See pages 30–33.

Globally, 12 powerful megatrends in health care are affecting changes in the field and causing some unrecognized consequences as a result, according to the Harvard Business Review. These megatrends include emerging economies, personalized medicine, aging populations, rising costs, global pandemics, prevention, the role of philanthropy, environmental impact, evidenced-based medicine, healthcare providers, payers’ influence, and medical tourism. This Leadership Message focuses on the three Ps of globalization—pandemics, prevention, and philanthropy—and how laboratory professionals can become more attuned to these aspects of global health through ASCP and other organizations’ initiatives.

Pandemics: Mitigate the Threats

Even though countries have become better equipped to cope with potential pandemics, global travel, population...
growth, and inadequate healthcare delivery systems in developing countries contribute to the constant threat of global pandemics. HIV/AIDS continues its rampage across Africa, devastating the people and economies of these countries. Worldwide, about 500 million cases of malaria occur annually, most commonly among children and pregnant women in resource-limited countries. This can be prevented by increasing the number of insecticide-treated bed nets and the timely administration of artemisinin-based combination therapy, as well as supporting preventive therapy in pregnancy.

Respiratory infections are still a major cause of infant and child deaths. Tuberculosis (TB) in adults causes significant morbidity and mortality and is highly prevalent. Sadly, mortality from TB has been on the rise globally due to the spread of HIV. Current vaccination programs against pertussis and measles prevent hundreds of thousands of deaths each year.

In those countries where vaccinations are not available, however, many people, mostly children under 5 years of age, still die from measles. New vaccines against Streptococcus pneumoniae and Haemophilus influenzae type B present cost-effective solutions in low-income countries and have been estimated to prevent at least one million child deaths annually.3

Prevention: Combat High Costs

As medical providers worldwide are challenged to deal with the rising costs of health care, efforts are turning toward the general well-being of populations. Numerous women’s health issues are in the forefront. These concerns include preventing HIV/AIDS transmission from mother to child during pregnancy, delivery, or breastfeeding; childbirth and maternal health; breast cancer screening; increasing access to contraceptive devices; and combating violence against women globally.

The focus on child health is directed toward providing vaccinations and enhancing nutrition. Among children under the age of 5 in the developing world, malnutrition contributes to 53 percent of deaths associated with infectious diseases.4 Other primary global health prevention strategies include decreasing infectious diseases preventable by vaccination and reducing the number of noncommunicable chronic diseases.
Philanthropy: Improve General Health

It takes the right conditions and healthcare systems—as well as a basic working infrastructure with hospitals, local health clinics, and medical schools with educated instructors—to improve the general health of the population. A tremendous effort is needed to address all of these concerns. Additionally, on the financial side, diligent oversight is required to ensure that any and all funds from public and private sectors are spent effectively.

Philanthropic donations play an important role in funding research and development of new drugs for preventing and treating diseases such as TB and malaria, which are prevalent in resource-limited countries. Donors must understand, however, that it may take one full generation or longer to substantially improve public health. If healthcare providers can focus on general well-being of populations and prevention, the massive challenge of improving global health will be eased.

National and Global Health Efforts

Laboratory professionals’ support is needed to help shape the future of global health care at the local, national, and international levels. If laboratory professionals view the world as a laboratory, where health solutions are discovered every day, we can take baby steps toward making people healthier.

Consider contributing your support and technical expertise in the following ASCP national and international initiatives:

- ASCP and the U.S. Centers for Disease Control and Prevention, the African Society for Laboratory Medicine, and the World Health Organization are committed to a collective goal of training 140,000 new health workers in resource-limited countries.
- The Commitment to Action with the Clinton Global Initiative of America and three State University of New York campuses is expanding the capacity of clinical laboratory programs to 350 graduates from 230 over five consecutive years. It is a pilot program, which could be extended to 49 other states.
- Since 2005, ASCP has offered opportunities for laboratory professionals to serve in work groups that develop processes to standardize laboratory procedures, which leads to eventual institution accreditation. Volunteer laboratory professionals serve as trainers specializing in hematology, chemistry, CD4 testing, phlebotomy, and laboratory management in resource-limited nations.

New Trends in Health Care

While health care may be delivered virtually if systems are in place to support this, videoconferencing can be used for procedures such as remote monitoring of blood sugar, blood pressure, heart rate, and other health data. This news bodes well for the future.

While the current state of global health is cause for concern, improvements are being made through organizations such as ASCP, the Bill and Melinda Gates Foundation, and Partners in Health. These nonprofits have seized these challenges as significant opportunities to make a difference.

I welcome your feedback. Please send your questions or comments to me at CLP@ascp.org.

References


Ms. Caldwell is Administrative Director, Clinical Laboratory Services, MedStar Montgomery Medical Center, Olney, Md.
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If you did not attend the 2012 ASCP Annual Meeting, you missed some very inspiring speakers. If you did attend, I hope you were fortunate enough to hear all of the impressive talks, from the keynote address by Ashley Judd to the scientific address by Donald M. Berwick, MD. I thought each one of the keynote speakers, which included Laura W. Bush, shared remarkable insights into the state of health care. They ranged from a personal account of Bill and Giuliana Rancic’s struggle with Giuliana’s breast cancer diagnosis to Ms. Judd’s heartfelt account of her humanitarian efforts around the globe.

Listening to Ms. Judd speak about her experiences abroad to improve health care for underserved popula-
tions worldwide and increase their standard of living was particularly moving. She gave an extremely emotional account of her one-on-one experiences with ailing people, particularly women and children. Her presentation was a stark reminder about the suffering by millions of patients, which is easy to forget during our daily routines and lives.

As a resident, I walked away asking myself: What can I do to get involved in helping those in need? Specifically, as a pathology resident, what skills do I have to offer to aid in the improvement of health care in underserved populations? It is sometimes exasperating being a doctor but not being able to volunteer at a local clinic or go on an international elective to aid those in need. Pathology residents have to remember, however, that we do possess valuable skills and knowledge that can contribute to providing quality health care to underserved populations.

Making a Difference Worldwide

The experience of a recent recipient of ASCP’s Resident Council Subspecialty Grant, Yen-Michael S. Hsu, MD, illustrates this point. The third-year resident at Washington University School of Medicine, in St. Louis, spent a week in Haiti educating laboratory professionals about how to use a new blood clotting assay and developed a hematologic profile of local Haitians, both fundamentally important in regional health care.

When asked about his trip to Haiti, Dr. Hsu says, “The experience was great; I wish I had more time to complete my work there.”

Two other grant recipients, Emily Glynn, MD, and Nadia V. Giannakopoulos, MD, PhD, spent a month studying surgi-
A recipient of the ASCP subspecialty grant, pathology resident Dr. Hsu spent a week in Haiti educating laboratory professionals about how to use a blood clotting assay.

While in Haiti, Dr. Hsu (left) also developed a hematologic profile of local Haitians, which is important for regional health care.
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Global Health

Choosing Turns

By Lee H. Hilborne, MD, MPH, FASCP, DLM(ASCP) CM
Choosing Wisely campaign marks an important turning point in U.S. medicine. It is a landmark effort to spur physicians to look introspectively at how medical procedures and tests are used, and identify those that can be used more appropriately and effectively to improve patient care. The Choosing Wisely campaign dovetails perfectly with ASCP’s efforts to encourage pathologists, residents, and laboratory professionals to become more patient focused.

ASCP joined this campaign in April 2012 and announced its initial five tests for appropriate utilization on Feb. 21, 2013. The Society is working closely with the American Board of Internal Medicine (ABIM) Foundation and its Choosing Wisely campaign, along with 37 other medical societies, to address the needs of patients through better access and use of medical laboratory tests. Examples of inappropriate and over-utilized tests are pervasive throughout both anatomic and clinical pathology and laboratory medicine.

“The American Society for Clinical Pathology (ASCP) joined the Choosing Wisely campaign because it is our responsibility to ensure evidence-based practices in the medical laboratory,” says Dr. E. Blair Holladay, ASCP Executive Vice President. “Measuring outcomes is essential in the fast-approaching evolution of health care and is underscored by the axiom ‘right test, right patient, right time, at the right cost.’”

“The use of the low-risk human papillomavirus testing (HPV) for cervical cancer, which is proven to have no relationship to the development of cervical cancer, and the practice of unnecessary preoperative testing panels unrelated to the corresponding surgery are instances of inappropriate test utilization for patients.”

No. 1: Patients’ Health

This is a monumental time for patients to get firsthand knowledge of the types of tests—and their ramifications—
ASCP Initial Five Tests

1. **Do not perform population based screening for 25-OH-Vitamin D deficiency.** Vitamin D deficiency is common in many populations, particularly in patients at higher latitudes, during winter months and in those with limited sun exposure. Over-the-counter Vitamin D supplements and increased summer sun exposure are sufficient for most otherwise healthy patients. Laboratory testing is appropriate in higher-risk patients (e.g., those with osteoporosis, chronic kidney disease, malabsorption, some infections, obesity) when results will be used to institute more aggressive therapy. 2,3,4,5

2. **Do not perform low risk HPV testing.** National guidelines provide for high-risk HPV testing in patients with certain abnormal Pap smears and in other select clinical indications. The presence of high-risk HPV leads to more frequent examination or more aggressive investigation (e.g., colposcopy and biopsy). There is no medical indication for low-risk HPV testing because the infection is not associated with disease progression and there is no treatment or therapy change indicated when low-risk HPV is identified. 6,7,8

3. **Avoid routine preoperative testing for low risk surgeries without a clinical indication.** Most preoperative tests performed on elective surgical patients are normal. Findings influence management in fewer than 3 percent of patients tested. In almost all cases, no adverse outcomes are observed when clinically stable patients undergo elective surgery, irrespective of whether an abnormal test is identified. Preoperative testing is appropriate in symptomatic patients and those with risk factors for which diagnostic testing can provide clarification of patient surgical risk. 9,10,11,12,13

4. **Only order Methylated Septin 9 (SEPT9) on patients for whom conventional diagnostics are not possible.** Methylated Septin 9 (SEPT9) is a plasma test to screen patients for colorectal cancer. Its sensitivity and specificity are similar to commonly ordered stool guaiac or fecal immune tests. It offers an advantage over no testing in patients who refuse these tests or who, despite aggressive counseling, decline to have recommended colonoscopy. The test should not be considered as an alternative to standard diagnostic procedures when those procedures are possible. 14,15

5. **Do not use bleeding time test to guide patient care.** The bleeding time test is an older assay that has been replaced by alternative coagulation tests. The relationship between the bleeding time test and the risk of a patient’s actually bleeding has not been established. Further, the test leaves a scar on the forearm. There are other reliable tests of coagulation available to evaluate the risks of bleeding in appropriate patient populations. 16,17,18

so they can make informed choices for the first time in the history of medical care. Moreover, in the impending age of genomic testing, it will be increasingly important for pathologists and laboratory scientists to consult with the clinicians on appropriate test utilization. It is estimated that as many as 5,000 new genomic laboratory tests will be available to add to the menu portfolio from which clinicians choose in the next five to 10 years. These new tests double the number of current choices.

In addition, patients often want to have all available genetic tests at their disposal, even though they may not appreciate the harmful consequences of inappropriate testing. A balanced discussion and recommendations are absolutely required.

For pathologists and laboratory professionals, diagnostic tests are one of the crucial links to patients. While the analytic quality of a test is important, there must also be a medical reason to justify why a particular test is being ordered and how the results will contribute to effectively guiding patient management. Why is this test necessary for this patient? Are there equal or better alternatives to consider? In these cases, pathologists and laboratory professionals can step forward and help clinicians become better stewards of medical laboratory resources.

**No. 2: Consultants to Clinicians and Patients**

As these laboratory test recommendations are unveiled, the next step is for pathologists and laboratory professionals to educate clinicians and patients about when patients need these five medical laboratory tests and when they do not. Most are needed in select situations; others on the list are never needed. Additionally, laboratory tests are usually so reliable that physicians and patients do not realize they have limitations. By becoming consultants to clinicians and patients, pathologists and laboratory professionals can improve the diagnostic value of laboratory tests while preventing the misuse of resources.

**No. 3: Laying the Foundation for Change**

Development of the ASCP list of five initial tests that physicians and patients should question was spearheaded by the Society’s Institute Advisory Committee. The review panel examined hundreds of options based on both the practice of pathology and evidence available through an extensive review of the literature. These initial five recommendations, if instituted, would result in higher quality care, lower costs, and more effective use of the medical laboratory’s resources and personnel. Given the breadth of our practice, this is just an initial list. There are many other services that could be more appropriately used with the input of pathologists and laboratory professionals.

Participation in the **Choosing Wisely** campaign is critical for physicians and their medical specialty societies to help facilitate use of the most appropriate tests and treatments for individual patients. Up to 30 percent of medical care in the United States is duplicative or not appropriate. 1 These services add no value and, in some cases, result in harm. That is why ASCP decided to participate in *Choosing Wisely* and add the voice of pathologists and laboratory professionals.

Participation in the **Choosing Wisely** campaign is critical for physicians and their medical specialty societies to help facilitate use of the most appropriate tests and treatments for individual patients. Up to 30 percent of medical care in the United States is duplicative or not appropriate. 1 These services add no value and, in some cases, result in harm. That is why ASCP decided to participate in *Choosing Wisely* and add the voice of pathologists and laboratory professionals.
professionals to the conversations to improve patient care while reducing costs.

References


Dr. Hilborne served as the 2011–2012 Chair of the ASCP Institute Advisory Committee and spearheaded the process of determining and then defining these five tests physicians and patients should question. Additionally, he is a former ASCP President. Dr. Hilborne is Professor of Pathology and Laboratory Medicine at the David Geffen School of Medicine at the University of California at Los Angeles; Global Health Researcher, RAND Corporation in Santa Monica, Calif.; and Medical Director of Quest Diagnostics, West Hills, Calif.
As the landscape of health care and medicine continues to evolve, one thing remains constant for all healthcare organizations: Providing patient-centric care is crucial for success.

Looking at the entire medical community, pathologists and laboratory professionals account for a scant 4 percent, and yet their impact is enormous.

"In a given day, our members can see hundreds of specimens, and that's the equivalent of hundreds of patients," says E. Blair Holladay, executive vice president of the American Society for Clinical Pathology (ASCP). "No primary-care physician can see hundreds of patients in a day—but we can."

The ability to "see" so many patients makes pathologists and laboratory professionals influential beyond their numbers. Giving pathology an even sharper edge are the profession's subspecialties that continually advance science, education, and outcomes. Combined, these subspecialties strengthen the profession. But the downside of this increased specialization is the fragmentation that can dilute the influence that any one subspecialty has on medicine and laboratory practice.

To prevent that, ASCP has partnered with several subspecialty groups to unify the profession and strengthen the influence of pathologists and laboratory professionals.

"ASCP has in sum entered into a dialogue with societies that share our vision and mission to patients, and our desire to make the practice of pathology and laboratory medicine a strong part of the practice of medicine and 'stronger together,'” says C. Bruce Alexander, MD, FASCP, professor and vice chair, Department of Pathology at the University of Alabama at Birmingham, and immediate past president of ASCP.

The initiative to collaborate with subspecialty groups started under Dr. Alexander’s presidency, and in 2012...
New partnerships join ASCP and subspecialty organizations.
ASCP formed official ties with the American Society for Cytopathology; the Association of Directors of Anatomic and Surgical Pathology; the California Society of Pathologists; and the Society for Hematopathology. In 2013, ASCP forged alliances with the Association of Clinical Scientists and the Association for Pathology Informatics. And in 2010, it partnered with the American Pathology Foundation. The partnerships will be evaluated on a yearly to thrice-yearly basis, depending on each organization’s agreement, with leadership from both ASCP and the affiliated organization coming together once a year to identify areas of strength and those areas that need improvement. The decision to build a future with these organizations, Dr. Holladay says, was an easy one.

“From our standpoint,” he explains, “we see these groups and their success, and their ability to succeed and become more powerful, as critical for ASCP to support, because the entire enterprise can only get stronger through these partnerships as we see all disciplines continue to soar.”

New Partners, New Opportunities

These new partnerships bring a wealth of benefits to ASCP, including adding niche technical and educational expertise in areas where the Society has wished to provide robust offerings for members. For example, through the partnership with the Society for Hematopathology (SH), ASCP members will have the opportunity to partner with the SH’s biennial slide workshop, an indispensable learning opportunity for those in the hematopathology field.

In return, affiliated organizations get access to ASCP’s operational manifold as well as to its IT, marketing, and promotional expertise.

“We’ve had very successful development over the past ten to 15 years,” says Roland Valdes Jr., PhD, FACB, President of the Association of Clinical Scientists (ACS), “but after the passing of our founder’s son, the organization needed to decide how to move forward and advance its mission.”

Dr. Valdes explains that when vetting potential partnerships, ACS focused on those organizations that would provide an advantageous partnership for both sides, and they found that in ASCP.

“We were looking for an organization that would stabilize logistics, in terms of helping us manage membership acquisition, help us with our journal, help us with distribution of literature, develop contacts with other groups and colleagues, and help increase our fellowship while also providing valued benefits to that organization,” Dr. Valdes says. “Coupling that with some of the work that ASCP does, it helps tremendously in advancing our mission.”

The partnerships provide an opportunity for members of all the affiliated organizations to network and learn from one another through mentorship programs and meetings. Specialists from different disciplines can meet and possibly collaborate on creative new initiatives that neither could achieve alone, while specialists and generalists can benefit from each other’s insights and experiences.

“The more we can co-locate with these groups, and take advantage of all the operations we’re already putting in place with these meetings, the more we can empower these organizations to grow to be richer and more dynamic,” ASCP’s Dr. Holladay says.

Ronald Weiss, MD, MBA, past president of the American Pathology Foundation (APF), notes that the commonalities between the two organizations’ audiences—pathologists, practice managers, medical technologists, and lab professionals—underscored the potential synergies that could be forged through meetings, presentations, and mentorships.

“The idea was that APF can bring content experts in lab and practice management not only to pathologists, but also to practice managers and laboratory managers,” Dr. Weiss says. “And in return, [APF could] utilize the resources of ASCP.” That includes, he continues, putting on joint programs at annual meetings. For example, this spring, one of APF’s pre-conference workshops was devoted to Laboratory Management University, a joint collaboration between APF and ASCP to help develop the leadership, operations, informatics, personnel management, financial management, and compliance
skills necessary to run a productive and dynamic lab.

“The APF recognized that it’s a small organization and needed to remain relevant,” Dr. Weiss says about seeking a partnership with ASCP. “I think one of the challenges of the organizations that represent pathology is relevancy. And for members, [it can be difficult] deciding which organization to continue to be members in, with so many in some way representing our interests.

“In an era of diminishing resources and finances,” he continues, “it’s better to look at where we can complement each other and work together in collaboration rather than try and compete against each other.”

“It’s through these relationships that we’re able to improve application processes from a certification standpoint,” Ms. Young says. “That translates into more competent professionals in the lab, resulting in better patient care. We want to improve the quality of the individuals in the lab, or support a certification process where there is none. And that also lends recognition to the profession.”

ASCP continues to focus on strategic international goals and in July will launch an international division for the Society. The division will adapt the infrastructure that was put in place by the ASCP Board of Certification to the needs of an international audience, and will both market ASCP certifications and work with international groups to promote educational opportunities, Ms. Young explains.

Additionally, ASCP has partnered with the African Society for Laboratory Medicine (ASLM), working to improve laboratories and educating laboratory professionals to create sustainable workforces across the continent. The ASCP Institute for Science, Technology, and Policy, Center for Global Health team has helped implement the Strengthening Laboratory Management Toward Accreditation (SLMTA) program to great success.

“At the most recent ASLM meeting in December 2012,” says Shannon Castle, director of the ASCP Institute for Science, Technology, and Policy, Center for Global Health, it was clear that “these programs are absolutely country-owned, and people are excited about it, people are seeing improvements in their labs. SLMTA really teaches how to advocate for the lab, and how to use data to advocate for the lab; there has been a lot of morale improvement.”

Forward Together

“One of the things that’s really important to consider is the growing importance of laboratory medicine in the scheme of health care and its practice,” says ACS’s Dr. Valdes. “We’re really shifting from an intuitive practice of medicine to a more precise practice of medicine. And the clinical laboratory is really the central provider of the information that makes that possible.”

Getting that information out to pathologists and laboratory professionals is made possible by new partnerships between ASCP and subspecialty groups. But, as ASCP’s Dr. Holladay explains, “it only works if it’s a win–win for both organizations.” Not every group makes for a good affiliation, and partnering with other organizations is not about “collecting chess pieces,” he adds.

“We need to continue to fight for our right to be relevant in medicine,” Dr. Holladay says. “So we need to cultivate our niche as the experts for diagnostic medicine, and partnering with subspecialty groups is the way to do that. We don’t partner with organizations just for the sake of partnering. These partnerships have to improve medicine, improve patient care, and help both organizations grow and prosper.”

Ms. Strzelecki is Senior Editor of Critical Values.
Anatomic pathology services are severely limited in many countries and regions, particularly in sub-Saharan Africa (SSA). In a recent survey of pathology capacity in SSA, the number of pathologists ranged from one pathologist for every 226,470 persons to one pathologist for every 8,749,000 persons. Three countries in SSA reported having no pathologists at all. In contrast, the number of pathologists in the United States is one for every 19,232 persons and in the United Kingdom it is one for every 15,108 persons. Although similar data are lacking for other regions of the world, many regions have minimal to no anatomic pathology capacity. The obvious questions are: Why are there so few pathologists? Why are there so few pathology training programs? What are the obstacles to increasing and improving capacity in anatomic pathology? The questions may be simple, but the answers are not.
and the academic/professional conditions necessary to retain pathologists in their home countries must improve. Issues that hurt retention of professionals include a widespread lack of opportunities for continuing medical education, peer networking, and ongoing professional development.

Infrastructure

Too many hospitals and clinics in SSA lack functional laboratories, libraries, morgues, and other physical infrastructure necessary to support contemporary pathology and laboratory practice. Even some large teaching hospitals in modern cities lack the necessary infrastructure. Many hospitals have either no or inadequate air conditioning, resulting in high ambient...
temperatures that compromise performance of critical laboratory equipment. Intermittent and unreliable electrical supplies result in damage to electrical equipment and refrigerated or frozen reagents. Surge protectors offer some protection, but those needed for large pieces of equipment are expensive and last a finite amount of time before they wear out. Gaps in information technology are widespread—no or slow Internet capabilities or functional networks—and preclude both anatomic and clinical pathologists from taking full advantage of resources through the Internet, as well as hinder responsibilities to collect, analyze, report, and archive results.4

Supply Chain

Developing a consistent and reliable supply chain is a major challenge in developing countries. The challenge arises in part because of the location of manufacturing sites on other continents, inadequate road and railway systems, and a lack of local suppliers for many necessary reagents and supplies. In many parts of the world, particularly in tropical areas, the lack of refrigeration makes it difficult if not impossible to maintain labile reagents and supplies at the proper temperatures. In spite of the recent development of assays that remain stable at room temperatures, many commercial assays still require a cold supply chain.
Financial Issues

In order to develop and sustain robust pathology and laboratory services, governments, hospitals, and clinics need sufficient and predictable funding. There are three ways to fund these services: Government subsidy, foreign aid, and income derived from fees for services. In most areas a combination of these approaches is used, but in general, funding for pathology and laboratory services is inadequate. Foreign aid can be useful to jumpstart initiatives, but ultimately it is non-sustainable. Self-sustaining funding models, whether these come from government subsidies as part of a national health system or from local income, need to be developed.

Appreciation of the Profession

Many physicians in Africa treat patients using a syndromic approach. In medical schools they are taught pathology and laboratory results for different entities, similar to those used in the Western world. However, as they start practicing, their reality proves to be very different from what is shown in textbooks. They have minimal laboratory and pathology results with which to diagnose and treat patients, and consequently pathology and laboratory medicine are poorly integrated into healthcare delivery systems. For example, there is often little or no linkage to local or national cancer registries, and some places even lack a local tumor board. Few countries have mandatory reporting systems for laboratory diagnoses that are of public health concern. All physicians working in SSA should advocate for pathologists and laboratories to help them diagnose, treat, and follow up with their patients. As physicians ask for these services, and come to appreciate the value that pathology and laboratory results bring to their patients, services in Africa will improve.

Putting It All Together

Two fundamental challenges exist that must be addressed in order to improve anatomic pathology and laboratory capacity in SSA. First is the interdependence of the many factors that have to come together to develop adequate capacity. It would not be possible to pick from this list of issues and determine which is the most important, or even to assign relative degrees of importance. Solving one problem without addressing the others is unlikely to result in any appreciable improvement in either quality or quantity of services. Second, addressing these issues requires many different skill sets: No one person or organization possesses all of the skills and knowledge needed to address the obstacles to improving pathology and laboratory capacity in SSA. To address both of these challenges, it is now widely recognized that efforts to improve either the quality or quantity of healthcare services in SSA require an integrated team approach.6

What Works and What Doesn’t

No one has performed a systematic analysis of why some pathology departments are successful and others are not, and yet we can make several general conclusions based on the published literature and the collective experience of both African and non-African pathologists. First, although there is an irreducible minimum in resources that must be met, resources alone do not guarantee a successful department. In fact, there are examples where substantial improvements in capacity have been made through modest increases in resources. Second, clinicians and patients must demand high-quality services. Third, governments must demand accountability for both services provided and use of any government funding. Fourth, ad hoc efforts to improve capacity almost always fail in the long run; what works instead are long-term commitments that create a sense of ongoing support, mutual exchanges of opportunity, and mutual learning.6 Finally, the goal for those providing assistance should be to eventually no longer be needed, except as colleagues on equal footing.

References

Working in global public health can be demanding and sometimes frustrating. Limited resources and knowledge and a shortage of qualified laboratory professionals are only a few of the obstacles faced by those working in this arena. But that doesn’t mean the obstacles are impossible to overcome.

The American Society for Clinical Pathology (ASCP) Institute for Science, Technology, and Policy, Center for Global Health works around the world, side-by-side with in-country professionals and organizations to help those underserved countries find solutions to their most pressing healthcare needs. True solutions and successes are achieved only when there is ownership of the process by ASCP’s in-country colleagues and partners.

A key to successful development projects is working as an equal partner with colleagues in-country and developing tools that facilitate sustainability. The countries ASCP assists have complex public health issues that require complex solutions. They have sought out ASCP based on its expertise and scope of work, which they have learned about either from working with the society firsthand or from the reputation ASCP has developed. These countries allocate funding to work with ASCP based on the goals and objectives that match up with the Society’s experience. And, when all of the moving parts of a project align, the reward is immeasurable. This article shares sustainable progress completed in recent months in Kenya, Rwanda, Vietnam, and Namibia.
A laboratory assessment in Vietnam helped shape curriculum for training new laboratory professionals.

(Left) Vietnamese laboratory professionals practice techniques during a CD4 workshop.

(Below) Laboratory professionals in Rwanda work on a SLMTA workshop activity.
Mentoring in Kenya

In Kenya, the ASCP Institute established a Technical Assistance Mentorship program to help low-performing labs work toward accreditation. The mentorship is an equal relationship in which people from the same backgrounds and communities work together toward a common goal. The goal of the mentorship program was to improve the laboratory quality systems in preparation for an external assessment at the end of the year. Mentors actively worked with laboratory personnel to develop documents such as safety manuals, quality manuals, and personnel files. Laboratory improvement was the end goal, and the mentors were able to help the labs obtain measurable positive results documented at lab assessments in pre-defined intervals.

But the process was not without its trials. Four Kenyan mentors, who themselves were laboratory professionals, traveled to various laboratory sites two weeks of each month for three months and when not physically in the lab, continued support via email and phone calls. These mentors faced challenges. Two of the labs were in conflict zones, where travel is discouraged. And when the program began, lab personnel were not receptive to the mentors' suggestions and recommendations. It took the mentors many visits before earning the lab personnel’s trust, gained by the simple act of reliably showing up to give support to the laboratories. Once that happened, relationships between the mentors and lab personnel flourished.

The results of the final assessments showed significant improvement in each of the five labs that were mentored. Results like these are the reason people work in global public health. Working toward in-country ownership of processes and training is always the end goal, and mentorships facilitate in-country ownership quite well. Seeing measurable change is inspiration to continue to work hard with ASCP’s in-country partners and colleagues to build relationships and lab capacity and quality. Improving labs does not just affect the lab personnel themselves; it also greatly improves patient care, which is truly the focus of increasing laboratory capacity.

Ownership in Rwanda

Rwanda has also had great successes in building capacity through country ownership. Like Kenya, mentorship was vital to success in Rwanda. Ten labs in Rwanda went through the Strengthening Laboratory Management Toward Accreditation (SLMTA) process (three workshops three to five months apart) taught by ASCP. In the first round, the five labs that went through the SLMTA process were located in the central Kigali area. In the second round, satellite labs across the country were chosen by the World Bank to go through the process. Quality improvement projects were developed in each workshop, and the laboratory professionals returned to their home labs to implement the projects. Each of the labs was reassessed prior to the next SLMTA workshop using the World Health Organization (WHO) Stepwise Laboratory Improvement Process Toward Accreditation (SLIPTA) Checklist, a framework for improving the quality of public health labs in developing countries. The checklist specifies requirements for quality and competency aimed at developing and improving laboratory services that will raise quality to established national standards.

When first assessed, laboratories scored 0 to 1 stars. However, final assessment after the workshops showed the laboratories had greatly improved and achieved scores of 2 to 3 stars. This increase was due to several factors. Mentorship played a large part in helping these laboratories develop and improve. Internally driven improvement was another big factor in the positive outcomes that Rwanda experienced as laboratory professionals often had to find creative solutions to problems. For example, in one resource-limited laboratory, a whistle was hung on the wall to act as a type of fire alarm in lieu of a traditional alarm. Such improvements are the most sustainable because while there is support from mentors, most of the improvements grow out of the hard work and dedication of laboratory personnel. These incremental improvements have already positively affected patient care, through fewer needle stick injuries, improved communication with clinicians, reduced turnaround time, fewer rejected specimens, and use of and interpretation of quality control results to ensure accurate and reliable patient test results.
Increased Demand in Vietnam

There is a huge demand for qualified laboratory professionals and faculty throughout Vietnam, but the country’s laboratory capacity building began with Hanoi Medical University asking for assistance in developing a separate department for its Medical Laboratory Science (MLS) Program. The curriculum was reviewed, revised within Vietnam’s Ministry of Health guidelines, and implemented. The challenge faced by universities throughout Vietnam was to expand their faculty to meet the increasing number of students in the program. With assistance from ASCP, medical universities within Vietnam collaborated to develop their own in-country training team. Identifying and training faculty for the training team took two years, and at each successive training, ASCP consultants delivered fewer modules while the Vietnamese faculty facilitated the majority of the training. As of January 2013, the Training Team includes faculty from five universities and all materials have been translated into Vietnamese. Students achieve entry-level skills and competencies through the revised curriculum, meaning new graduates are available to fill the vacancies. ASCP consultants continue to communicate with their faculty colleagues and offer support via email; it is rewarding to receive an email from a Vietnamese colleague excited that a new interactive teaching strategy tried in his or her classroom was successful.

Implementing Improvements in Namibia

The Namibian Institute of Pathology (NIP) owns and runs the majority of medical laboratories in Namibia. The NIP elected to use ASCP’s Basic Laboratory Operations Training (BLOT) materials to implement improvements throughout their laboratories. Laboratory professionals from each lab attended the BLOT workshops and returned home to implement quality improvement projects. Pre- and post-workshop assessments were conducted by qualified assessors using the WHO SLIPTA Checklist to measure improvement. As in Kenya and Rwanda, the improvement processes and assessments have been ongoing for 24 months with incremental improvements demonstrated in all nine labs. Generally, the improvements were in employee and patient safety practices, specimen collection, supply chain management, and communications. The laboratory personnel take pride in their success and accomplishments. At one hospital, nurses, clinicians, and laboratory professionals attended both phlebotomy and BLOT workshops. As the ASCP team toured the hospital, they were met by professionals talking about improved pre-analytical patient care and the best specimen collection practices all departments had adopted since returning from the workshops. Again, the ASCP Institute has made a difference in Namibia by educating laboratory professionals, raising awareness of quality lab practices, and generally helping to improve community health.

The ASCP Institute for Science, Technology, and Policy, Center for Global Health will always be a hectic and busy place; but it is all worth it when the result is improved patient care in resource-limited settings. ASCP recently funded the attendance of 12 laboratory professionals from African countries to ASLM 2012, the first conference for the African Society for Laboratory Medicine. At this meeting, participants were able to meet with other lab professionals and gain knowledge to bring back to their own labs. When changes in laboratories are internally driven, the labs have the best chance for continued improvement. Knowledge is one thing that thrives, even in a resource-limited environment. As long as people continue to be trained, educated, and motivated, laboratory capacity across the developing world will continue to improve, and patient care will improve right alongside it.

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Tim Scheel is a Project Assistant for the ASCP Institute for Science, Technology, and Policy, Center for Global Health.

Cathy Robinson is one of two International Technical Managers for the ASCP Institute for Science, Technology, and Policy, Center for Global Health.
Working for the Future

Educating lab professionals around the globe is essential for a sustainable workforce

Let’s say that a life-threatening disease were sweeping through your community. People would be encouraged to go to their doctor to get tested and treated. Labs would be running at full-tilt, processing samples and giving results. With any luck, all of this information would eventually help stop, or at least slow, the spread of the disease.

But let’s say your community, or bigger, your country, didn’t have the lab professionals needed to run these tests, or have the knowledge base to accurately interpret the results.

This is not a hypothetical scenario; it is a reality in many of the world’s developing nations.

And that reality is slowly changing, thanks to several recent collaborative initiatives.
Breaking New Ground

The President’s Emergency Plan for AIDS Relief (PEPFAR) was started in 2003 by former President George W. Bush to redress the gap between how developed and developing nations were addressing HIV/AIDS detection and treatment. PEPFAR committed $15 billion over five years to help fight AIDS on a global scale with the goal of providing antiretroviral treatments (ART) to millions of people with HIV, to prevent new infections, and to provide treatment for those already infected in underserved countries. The focus on HIV/AIDS expanded to include other communicable diseases, such as tuberculosis and malaria, under the Obama Administration’s Global Health Initiative (GHI), and helped institute massive healthcare changes in developing countries, generating both awareness and testing. While PEPFAR and GHI continue support in these countries through the work of a multitude of organizations, their mission has expanded to also address the lack of a trained and sustainable laboratory workforce.

“We cannot achieve program goals without a strong and comprehensive laboratory system in these countries,” says John Nkengasong, PhD, chief of the International Laboratory Branch of the Division of Global HIV/AIDS for the Centers for Disease Control (CDC). “We will not be able to [meet the current goal from President Obama] to get 6 million people on ART without a strong support for lab testing.”

Without lab support, he continues, there is no way to test a patient, let alone treat and monitor the patient. There is also no way to identify trends.

“You need lab testing to know if your interventions are working, or if your incidents are dropping,” Dr. Nkengasong says. “You have to be able to diagnose and manage infections appropriately. And all of this requires lab testing.”

Additionally, as developing nations begin to address non-communicable diseases, such as cancer, diabetes, or heart
Addressing the Workforce Shortage

Building laboratory capacity and creating a sustainable workforce are daunting tasks, and developing and implementing solutions doesn’t happen overnight. Under PEPFAR, several organizations, including ASCP, have worked with and in developing countries and made strides toward expanding the laboratory workforce.

The first step toward that goal involves training and educating laboratory staff. Don Simpson, PhD, MPH, director of the Office of Global Health at the University of Arkansas Medical Center, Little Rock, Ark., stresses that building the manpower to run the labs is essential, but even more important is for a country to create programs and develop a workforce that originates from within that country.

“Namibia has only about 160 laboratorians, and about half of them are from Zimbabwe,” Dr. Simpson explains as an example. The laboratory professionals from Zimbabwe, he adds, came to Namibia during a time of political unrest in their home country. Should that political situation right itself, the Zimbabwean laboratory professionals would most likely migrate back to their home country. And that mass exodus of personnel, Dr. Simpson says, would cause the Namibian labs to suffer even more.

Dr. Simpson and colleagues started to tackle this problem in 2007, when they spearheaded an effort in Namibia to develop a four-year degree program in the biomedical sciences. The first cohort completed the program in April 2012, with 21 graduates, Simpson says, and many of them went on to take the African equivalent of an ASCP board certification test, succeeding with a 70 percent pass rate.

“They are the first home-grown product in that country for laboratory scientists,” Dr. Simpson says.

Graduating newly minted laboratory workers is but a first step toward creating a reliable workforce. Lab professionals need to continue their training and update their skills and knowledge throughout their careers. Not only do they need to keep their skills sharp, they also must learn to manage and maintain their labs.

As a result, ASCP, in conjunction with the CDC and the World Health Organization Regional Office for Africa,
developed the Strengthening Laboratory Management Toward Accreditation (SLMTA) program, a three-workshop series focusing on laboratory management with the ultimate goal of achieving lab accreditation. Moving laboratories toward improved function is a worthy goal, notes Shannon Castle, director of the ASCP Institute for Science, Technology, and Policy, Center for Global Health, but the true test of achievement comes in the form of ownership.

“When we started implementing SLMTA in different countries, there was no country ownership—it was just something we were doing,” Ms. Castle explains. “People would participate, but they wouldn’t really own the process.” But at the December 2012 meeting of the African Society for Laboratory Medicine in Cape Town, South Africa, it was evident that the process “is now absolutely country-owned” by participants, she says.

Additionally, ASCP and the American Society for Microbiology (ASM) collaborated to share knowledge and coordinate laboratory-strengthening activities; for example, ASM translated the SLMTA toolkit into French for use in countries such as Ivory Coast. ASM also was invited by ASCP to help facilitate a pre-service curriculum review workshop in Kenya in 2008, a first step in updating the country’s medical technology curriculum, says Jason Rao, PhD, director of international affairs for ASM.

Dr. Rao adds that mentorship also plays a significant role in the continued sustainability of a laboratory workforce. In places such as Tanzania, Botswana, Haiti, Kenya, Vietnam, and Ivory Coast, ASM’s mentorship program pairs ASM experts with local laboratory professionals in a multi-week course that covers all areas of basic clinical microbiology, including techniques and best practices in lab management, Dr. Rao explains.

“The mentors are trained, then follow-up assessments occur throughout a multi-year timeline to ensure competency,” he says. “In the near future, ASM has plans to launch a virtual interface to allow remote and online resources to complement the program.”

**New Territory, New Lessons**

The programs implemented under PEPFAR have put developing countries on a solid path toward building their laboratory workforce, but the process has not been without considerable challenges. No two countries are the same, and a learning curve bends through each new country, each new program established, for the organizations involved.

Challenges are constant, and constantly complex, ASM’s Dr. Rao says, and constantly evolving. “You have to be prepared to know that it’s going to be difficult,” he says. “But the willingness and interest of your foreign counterpart is perhaps the most important ingredient.”

ASCP’s Ms. Castle notes that cultural differences also have played a part in workforce development.

“There are hierarchy issues that we weren’t expecting,” Ms. Castle explains. She cites a phlebotomy-training workshop that ASCP facilitated in Swaziland. The workshop taught proper techniques and procedures, encouraging safe practice habits to new phlebotomists. Participants were expected to share this new knowledge upon returning to their labs, but that proved to be a challenge. The experienced laboratory staff weren’t quick to accept these new ways of performing the lab procedures.

“There was a struggle,” Ms. Castle says. “In their culture, you don’t tell a supervisor he or she is wrong, even when you know better than they do.” But that attitude is changing, she adds, albeit slowly.

A second workshop was then held for supervisors, Ms. Castle explains, which was difficult, as the group was resistant to change and ready to fight for their established procedures, even if they weren’t performed in the proper or safest way.

“IN the supervisor workshop, we looked a lot at standard operating procedures and looked at competencies,” Ms. Castle says. Showing the group step by step how the new techniques would create a better maintained and more productive lab eventually brought the supervisors on board.

For Dr. Simpson, the best lesson he’s learned from working with countries to build a sustainable workforce, he jokes, “is when to keep your mouth shut.”

On a more serious note, he adds, stepping back to take in the whole picture of the country is essential if the work is to continue once collaborating organizations are gone.

“We can’t go into a country and say, ‘Here’s what you need to do.’ We have to let them define it, take ownership of the project, and make it sustainable. And then back off, lend our technical expertise and let them try it.”

Increasing laboratory capacity around the globe demands a lot of time, a lot of money, and even more commitment from the organizations willing to see the work through. But those involved in these endeavors find no small gratification in the impact they have on health systems in developing nations.

“My greatest satisfaction and joy is that we’ve turned the tides on the neglected lab systems we encountered almost a decade ago,” CDC’s Dr. Nkengasong says. “The cultural change we wanted to have is finally beginning to take hold. Our scientific community is excited, not only on the part of the partners, but also on country officials to focus on the labs, strengthening lab systems, and recognizing their vital role in disease control.”

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Ms. Strzelecki is Senior Editor of *Critical Values.*
The 2013 ASCP Annual Meeting in Chicago goes beyond the four walls of the laboratory and takes a global view of pathology and laboratory medicine, reflecting its theme of “Beyond the Lab.” The ASCP Annual Meeting, Sept. 18–21, at the Hyatt Regency Chicago, will convene the foremost experts in pathology and laboratory medicine to present the latest scientific innovations and offer their perspectives on how laboratory medicine can play a role in improving health care and enhancing patient-centric care.

The 2013 ASCP Annual Meeting will kick off with a plenary session on the morning of Wednesday, Sept. 18. The keynote presentation and grand opening of the exhibit hall will take place Wednesday evening.

Outstanding Faculty Share Insights

Over four days, the Society’s outstanding faculty members will share their knowledge and expertise with pathologists and laboratory professionals from around the world. Key topics will include molecular diagnostics and genomics, global health, appropriate test utilization, the multidisciplinary healthcare team, and the role of pathologists and laboratory professionals as consultants for patient-centered care. With data and technology playing an increasingly important role in laboratory medicine, the 2013 ASCP Annual Meeting will also expand the number of sessions offered in healthcare informatics.

“Our role as laboratory professionals and pathologists is changing,” she says. “We’ve gone from providing test results to physicians to being consultants on what tests physicians should order and assisting them with the interpretation of the test results. Additionally, the integration of molecular testing is helping to provide medical management and to decide medical therapy for patients as we enter the era of personalized medicine.”

The 2013 ASCP Annual Meeting allows pathologists and laboratory professionals to learn how their colleagues are implementing patient-centered care at their institutions, to expand their knowledge and professional skills as they advance their careers, and to build relationships with others in the field.

Several medical societies, including the Association of Clinical Scientists, Association of Directors of Anatomic and Surgical Pathology, Association for Pathology Informatics, and American Pathology Foundation, are developing specific educational tracks. Poster sessions will be expanded from one hour to three half-day sessions, with two sessions on Thursday, Sept. 19, and one on Friday, Sept. 20, to provide an opportunity for more people to review the posters and interact with the presenters.

Compelling Educational Sessions

The full schedule of educational sessions is available starting April 1 on ASCP’s website. Jonathan Genzen, MD, PhD, FASCP, and ASCP RISE Committee Member, attended the 2012 ASCP Annual Meeting and valued its focus on bringing together pathologists and laboratory professionals. “It emphasizes the role we all play as part of the laboratory and clinical team,” says Dr. Genzen, Assistant Professor at Weill Cornell Medical College/New York Presbyterian Hospital, New York, N.Y.

“The ASCP Annual Meeting has a clear focus on education and professional development, which is really helpful to those of us at early stages of our careers,” Dr. Genzen says. “The attention to global health is also extremely valuable, as ASCP is playing an important role in improving laboratory services, not just nationally but also around the globe. It’s inspiring.”

Altogether, more than 1,300 attendees came from around the world to attend the 2012 ASCP Annual Meeting, including a faculty member who paid a $750 cab fare from Philadelphia to Boston when her flight was canceled because of Hurricane Sandy.
For more updates on the 2013 ASCP Annual Meeting, follow ASCP on Facebook and Twitter, or visit www.ascp.org/2013AnnualMeeting.

ASCP and ACS Join Forces in Mutual Scientific Pursuit

ASCP and the Association of Clinical Scientists (ACS) signed a Memorandum of Understanding, effective Jan. 1, to collaborate on education, advocacy, and membership strategies to the mutual benefit of the pathologists and doctorate-level clinical scientists who belong to both medical organizations. This strategic alliance enables each organization to gain from one another’s areas of expertise. For ASCP members, ACS offers specialized knowledge in critical areas such as genomics, personalized medicine, and clinical informatics. ASCP pathology residents will have access to ACS members who serve as senior faculty at forums such as the 2013 ASCP Annual Meeting and who offer them informal mentoring and references for future fellowships and jobs.

For all ACS members, ASCP is extending a one-year complimentary membership, effective March 1. Through the new ASCP Institute of Science, Technology, and Policy, ACS members will have a stronger voice in Washington, D.C., and can play an integral role in advancing the ASCP Institute’s Health Services Center.

Vacancy Survey Underscores Need for New Workforce Skills and Increased Demand in the Future

Increasing demand for medical care for an aging population is prompting rapid change in medical technology, coupled with dramatic increases in the volume of laboratory tests. This may require new workforce skills to meet future laboratory needs, according to the ASCP 2012 Vacancy Survey Report.

The results showed national vacancy rates of around 7 or 8 percent for nonsupervisory medical laboratory scientists. ASCP Director of Public Policy Andrea Bennett, MPH, MT(ASCP), surmised that the survey results showing a slight decrease in job vacancies across the laboratory professions may indicate that more employees are staying in their jobs, rather than retiring at age 65, because of the sluggish economy. Yet some say the results do not reflect the extent of shortages they are experiencing locally.

The confidential survey has served as the primary source of information for academic, government, and industry labor analysts. Look for the results of the ASCP 2012 Vacancy Survey in the February 2013 issue of Lab Medicine or log on at http://labmed.ascpjournals.org/content/44/1/3.full.

NIH Grant Moves Pathologists to the Forefront of Genomic Medicine

Richard Haspel, MD, FASCP, of Beth Israel Deaconess Medical Center (BIDMC) in Boston, in partnership with ASCP, has been awarded a five-year, $1.3 million R25 grant from the National Institutes of Health (NIH) to expand a resident genomic pathology curriculum, based on an initiative first developed three years ago.

In 2009, BIDMC created the first genomic medicine training program for pathology residents. In 2010, building on this work and with the backing of the Pathology Residency Program Directors Section of the Association of Pathology Chairs, the Training Residents in Genomics (TRIG) Working Group was formed.

With key administrative support from ASCP, this group, chaired by Dr. Haspel, consists of experts in molecular pathology, genetic counseling, and medical education. Using the BIDMC model as a starting point, the TRIG Working Group developed a revised curriculum, which is now available to medical schools nationwide.

The NIH grant will enable Dr. Haspel and his collaborators to expand on the training program, create educational resources, and test efficacy at four residency programs. ASCP is providing a wide range of educational, administrative, and technical support for the delivery of the innovative educational solutions.

ASCP Receives $434K Grant to Develop MDS Curriculum

ASCP has been awarded a $434,055 educational grant by Celgene Corporation, of Summit, N.J., to design, develop, and implement a curriculum that will address gaps in knowledge about myelodysplastic syndromes (MDS).

MDS is a rare but potentially deadly cluster of blood and bone marrow disorders that are extremely difficult to diagnose. In about one third of patients with MDS, the disease transforms into acute myelogenous leukemia (AML), usually within months to a few years. Patients who have MDS are frequently misdiagnosed or diagnosed when cancer is already in the late stages.

The complexity of the diagnosis underscores the need to educate general pathologists and hematopathologists about accurate diagnosis, application of appropriate prognostic tools, and the use of standardized terminology for effective and clear communications with the treating hematologist or oncologist to determine the best therapeutic plan for treatment.

The curriculum, titled “The Diagnosis, Classification, and Clinical Care of MDS (DC3-MDS),” will provide unique interventions designed to assist pathologists, hematologists, oncologists, and other healthcare providers in better diagnosing and managing care of patients with MDS.

Correction:

The article “The Cancer Genome Atlas: What Will Its Legacy Be?” in the January 2013 issue of Critical Values incorrectly identified Dr. Kenna Shaw, PhD. On page 24, the correct sentence should read, “In the next phase of this project, we will add to our knowledge of some rare tumor types that might otherwise not be examined in these large-scale comprehensive projects,” she says. Critical Values regrets this error.
Milford Graves made his mark in the jazz world as a drummer playing with avant-garde musicians such as Albert Ayler, Paul Bley, and Sonny Sharrock in the 1960s, and he still plays occasionally while on tour in countries such as Japan. For 39 years, he was a professor at Bennington College, Bennington, Vt., where he taught music healing and jazz improvisation classes. Now, at age 71, Mr. Graves has turned his full attention to researching the connection between music and the human heart.

He is uniquely suited to the task. Between music gigs in order to support his family, Mr. Graves studied medical laboratory science and worked for two years with a veterinarian, performing blood chemistry, hematology, histology, and other medical laboratory tests and research for animals. Later he began studying holistic healing methods and teaching courses. Through the process, Mr. Graves noticed the effect of music on physiological functions, especially rhythms in the heart.
cell research studies in Italy. Mr. Graves’ patients contribute to a tax-exempt organization instead of paying him directly.

“I want to help people, not step on the work that doctors and hospitals already do,” Mr. Graves says.

Self-Taught Musician and Scientist

Throughout his life, he has acquired most of his knowledge on his own. Mr. Graves started playing the drums when he was 3 years old and developed a way to play drums like a saxophone player and a piano player. He gained fame quickly in the early 1960s but not much money.

His academic career happened by chance. A friend at Bennington College asked him to play in a concert. After that, a dean at Bennington offered him a three-year contract; Mr. Graves insisted on a one-year contract, and it ended up lasting 39 years.

In 2000, Mr. Graves received a grant from the John Simon Guggenheim Memorial Foundation, which gave him money to buy essential equipment, including computers, to set up a laboratory in his basement in Queens, N.Y.

According to an article in the New York Times, Dr. Krauss called Mr. Graves “what a Renaissance man looks like today.” Dr. Krauss studied acupuncture with Mr. Graves and follows his research.

“To see this guy tinkering with stuff in a basement in Queens, you wonder how it could be legitimate,” Dr. Krauss said. “But Milford is right on the cutting edge of this stuff. He brings to it what doctors can’t, because he approaches it like a musician.”

But Mr. Graves also seeks a scientific understanding. After he stimulates a patient, he takes a blood sample to do a differential for analysis. “There has to be collaboration between scientists and artists for real breakthroughs,” Mr. Graves says.

He remembers studying Afro-Cuban music at the age of 11 and learning that the drum beat comes from the heart. “Doctors need to listen to the pitch of the heart,” Mr. Graves says. “You can learn more from the sound of the heart than from other tests.”

Reference


Ms. Patterson is Director of Communications at ASCP.
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