TEXAS A&M
TVMDL
VETERINARY MEDICAL
DIAGNOSTIC LABORATORY

STRATEGIC PLAN
FY24-25

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AGENCY OVERVIEW

The Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL) is a member of The Texas A&M University System and is composed of two full-service laboratories, one located in College Station and the second in Canyon, and two poultry laboratories, one located in Center and the second in Gonzales. With our strategic locations, TVMDL is uniquely positioned to serve the animal industries of Texas. TVMDL receives approximately 270,000 accessions and runs an average of 1.1 million tests per year. Submissions received in the laboratory originate from Texas, neighboring states, and around the world.

TVMDL employs approximately 125 staff at the College Station location and approximately 25 staff in Canyon. The Center facility has a staff of five while the Gonzales laboratory employs four. In its entirety, TVMDL employs over 60 professionals with advanced degrees, including almost 30 veterinarians. Most hold board certifications in their specialty.

The agency's vision is to be the global leader in providing innovative and state-of-the-art veterinary diagnostic services. The mission of TVMDL is to promote animal health and protect agricultural, companion animal and public health in Texas – and beyond – through excellence in veterinary diagnostic services.

While maintaining traditional services to the food animal industries and companion animal owners of Texas, TVMDL is dedicated to developing new diagnostic tools, incorporating state-of-the-art technology, increasing efficiency, and continuing to provide clients with professional expertise to help them solve difficult cases. The laboratory's success can be attributed to a dedicated and skilled professional, technical, and administrative staff and to the professional relationships TVMDL has developed with Texas A&M System partners, practicing veterinarians, industry leaders, and the general public.

Our testing efforts facilitate commerce of Texas livestock by providing tests required for international, intrastate, and interstate movement of animals. TVMDL also provides critical laboratory data necessary to identify disease outbreaks, including emerging, reemerging, and zoonotic diseases, and provides appropriate warnings to individuals and governmental agencies. Early disease detection is a critical contribution by TVMDL to the One Health/One Medicine approach to ensuring public health. Agency income is derived from state appropriations and fees charged for services rendered.

STRATEGIC PLANNING

TVMDL has identified four strategic priorities that will guide our work over the coming years to ensure TVMDL remains a trusted, relevant partner and service provider to our many constituents. These priorities are designed to meet the expected and unexpected challenges and opportunities that we face as a state agency, veterinary diagnostic laboratory, and animal health surveillance partner.

Priority 1: Keep Texas Prepared
TVMDL has been committed to providing superior and timely diagnostic testing services to the veterinary industry for over 50 years. In addition to routine diagnostic testing, TVMDL is prepared to act in the event of a high-consequence animal disease outbreak. To continue this commitment, TVMDL's workforce must be fully staffed with trained, experienced veterinary diagnosticians who will recognize the first signs of a potentially devastating animal or zoonotic disease threat.

Viruses will continue making the jump from animal (wild or domesticated) populations to humans, making robust surveillance of disease in animal populations critical. A robust surveillance program ensures the detection of critically important diseases that pose catastrophic threats to public health, animal health, food safety, and the economic viability of the $18 billion livestock industry in Texas.

TVMDL has joined forces with the Texas Division of Emergency Management (TDEM), Texas A&M AgriLife Extension Service, Texas A&M Forest Service, and the Texas A&M Engineering Extension Service for the Keeping Texas Prepared Initiative. Our 5 agencies are crucially important to reducing the consequences on loss of human life, property, and the economic viability of communities and the State.

As part of this cohort, TVMDL will invest in professionals and tools required to provide training programs for diagnostic laboratory specialists needed to augment existing staff and replace expected losses of expertise. Sample handling automation and robotic tools will allow machines to take over routine and repetitive testing procedures, increasing efficiency and freeing the skilled workforce for higher-level tasks, such as data analysis, novel assay development, and communication of information.

The COVID-19 pandemic highlighted the need for accurate and rapid diagnostic testing within human medicine. Throughout the pandemic, TVMDL assisted in COVID-19 response by producing viral sampling kits and establishing partnerships with local human healthcare providers to allow high throughput testing using the agency's laboratory space and equipment. The response to COVID-19 illustrated the direct impact TVMDL can have in responding to disease outbreaks.

These increased efforts are in addition to TVMDL's ongoing efforts as a member of the National Animal Health Laboratory Network (NAHLN), nationwide strategy that enhances the Nation's early detection of, response to, and recovery from animal health emergencies. This partnership of over 60 Federal, state, and university-associated animal health laboratories distributed throughout the US is capable of testing large numbers of samples for specific disease agents originating from food animals.

TVMDL's goal is to ensure early, rapid, and accurate detection of human and animal disease threats, potential bioterrorism events, changes in antimicrobial resistance of pathogens as well as the timely and effective communication of disease data to decision makers. All of this work is accomplished according to a rigorous quality assurance program and is accredited by the American Association of Veterinary Laboratory Diagnosticians (AAVLD).

Outcomes
- Establish a residency training program to ensure a future veterinary diagnostic workforce trained in epidemiology, microbiology, toxicology, and pathology.
- Conduct several regional and one statewide tabletop exercise centered around a foreign animal, emerging, or zoonotic disease outbreak in Texas. These exercises will enhance local first responders, regional, and statewide partners' capabilities to manage a disease outbreak.
- Partnering with our human health colleagues, TVMDL will develop epidemiological data analytics and an IT infrastructure for disease reporting and communications not only for animal diseases, but for zoonotic disease that have a real threat to the citizens of Texas.
- Maintain level 1 membership in the NAHLN and ensure agency staff actively participate in NAHLN committees, exercises, proficiency testing programs, and other readiness activities.
- Maintain full accreditation from AAVLD for all laboratory locations.

Priority 2: Provide Value-Added Services

Veterinarians and animal owners have more choices than ever when it comes to diagnostic testing. Overnight shipping makes it possible to shop for price, turnaround time, and value-added testing services. An estimated 70% of TVMDL's revenue is generated by user fees, requiring the agency to be responsive to the needs of its laboratory clients.

To remain competitive and viable, TVMDL must provide a value proposition to clients to earn and keep their business. This means investing in technology, hardware, and people to enhance our reporting capabilities. Clients, business owners, regulatory agencies, and others who use TVMDL want geographic, temporal, and spatial analysis of test findings to protect their animals, herds, flocks, and communities. Dashboards dedicated to veterinary practices, farms, regions, diseases, or conditions can help all clients make informed decisions earlier.

TVMDL is the state diagnostic laboratory for Texas. We strive to provide testing for as many diseases and conditions as possible, using a myriad of techniques both classical and state of the art. Some of those offerings will be loss leaders, but as the state laboratory, TVMDL is dedicated to offering those services. When evaluating our testing services, revenue is not the driving factor. However, we must be strategic about our offerings to ensure the overall success of the agency is not compromised with the addition or continuation of unsustainable services. Staff focused on research and development are guided by agency experts to ensure new offerings are right for our agency, our clients, and the State of Texas.

In everything we do, we must consider the customer experience. Doing business with TVMDL should be painless and straightforward. Once samples arrive, TVMDL must process requests in a timely and accurate manner. Results must be produced in a straightforward and easy to digest format. Staff need to be available when clients wish to consult about results. Testing needs to be affordable, and paying invoices should be seamless.

Outcomes
  • Create a robust epidemiology program that provides dashboards, maps, and real time notifications of disease events and trends.
  • Enhance reporting capabilities with state and federal regulatory agencies for faster, more accurate surveillance reports.
  • Create custom reports to aid in herd health monitoring and decision making.
  • Focus research and development on new technologies and animal health concerns that are important to animal health in Texas and beyond.
  • Continually evaluate existing test offerings to ensure sustainability and protect animal health.
  • Improve methods to create accounts, manage account information, and pay invoices.
  • Create and train to standard operating procedures that allow for fast, efficient, and accurate sample processing.

Priority 3: Strengthen our Workforce

TVMDL's most important resource is our workforce, and the success of our agency relies on recruiting, retaining, and recognizing expertise throughout the laboratory system. Our success is strongly influenced not only by our employee's knowledge and skill, but equally by their job satisfaction and commitment to the agency mission.

As a small agency, TVMDL feels the impact of turnover more acutely than a large organization. The time, expense, and effort to recruit, hire, and train new employees is significant, so a focus on retention is essential to maintain a stable workforce. Agency leadership pays particular attention to market equity for salaries, both with peer institutions in the Texas A&M System and across veterinary diagnostics. A renewed focus on employee wellness programs, flexible work arrangements, alternative work scheduling, educational reimbursement programs, professional development, career growth, and other incentive programs are designed to improve retention.

Alternative veterinary medicine professions, such as diagnostic medicine, continue to struggle to develop and maintain a pipeline of professionals to assume scientific and managerial roles in their respective industries. The establishment of a residency training program to focus on epidemiology, microbiology, toxicology, and pathology will help fill this need and provide succession planning strategies for TVMDL. It will also allow our staff opportunities to work in multi-disciplinary teams to educate residents in veterinary diagnostics.

Most of our positions are technical and para-professional employees who prepare samples and perform routine testing. While our staff are well trained to perform complex diagnostic testing, it's important that staff also understand their role in veterinary medicine, animal health, and food production systems. TVMDL is starting an initiative that will take employees to client facilities to directly observe and learn about their operations. Staff will learn how samples are collected, understand the importance of surveillance testing, and observe TVMDL's role in food animal production and trade. Showing our staff firsthand the impact they make can help them see TVMDL is more than a job, it's a place you can build a career that makes a difference.

Outcomes
- Use market studies to ensure staff at all levels maintain parity with peers in academia, government, and when possible, private industry. Complete annual equity reviews to ensure parity within the agency.
- Continue to provide and develop programs that provide advancement opportunities, professional growth, continuing education, and retention incentives for all employees.
- Launch the TVMDL Learning and Investing in our Network of Clients and Staff (LINCS), an initiative designed to designed to enhance industry knowledge amongst our technical staff.
- Using funds from the Keeping Texas Prepared initiative, establish a residency training program to ensure a future veterinary diagnostic workforce trained in epidemiology, microbiology, toxicology, and pathology.
- Continue to provide and encourage participation in wellness programs, including programs for mental health, physical health, work/life solutions, and overall wellness for all employees.

Priority 4: Optimize Agency Resources
Lean analysis and process streamlining have allowed the agency to eliminate redundancies, improve training and compliance, and get results to clients faster with fewer resources. We have invested in honing revenue and expenses to set fees that are competitive and sustainable. Staff schedules, hours of operation, and daily test schedules have been reviewed and refined to improve efficiencies. Leadership routinely reviews test counts to determine if some offerings can be retired or if additional resources need to be put towards a service. Cross training and sharing staff across sections has improved job satisfaction and softened the impact of testing surges and turnover. Conversely, some staff have become more specialized to maximize skillsets and expertise.

As an agency, we are working less in siloed disciplines, instead seeing the value of multi-disciplinary, cross location efforts to provide improved service to our clients. Monthly leadership strategy meetings gather decision makers from across the agency to tackle common problems and propose agencywide solutions.

To remain competitive and provide the service necessary to the citizens of Texas, TVMDL must continue to invest in sophisticated testing equipment. As in every sector of society, technology in veterinary diagnostics is changing exponentially, making most equipment obsolete in 5-10 years. Within the next two fiscal years, 60% of our equipment will be beyond useful life. With the shortened life expectancy of capital equipment, we must adjust how the agency budgets for these large financial expenditures.

Outcomes
- Continue to build the Veterinary Services Section to provide cross-discipline consultation services to clients in test selection and testing strategies, interpretation of results, as well as disease prevention, surveillance, and control programs.
- Create an account, determine an annual goal, and begin to set aside funds to offset future infrastructure improvements and repairs.
- Formally review test counts and revenue by section at least two times per year. Construct a program to automate the fee analysis process.
- Use business analytics and epidemiology data to inform agency business decisions.
- When indicated, cross train staff in to allow for increased redundancy and job satisfaction.
- Challenge norms and historical structures in organizational structure and function. Recognize and embrace that what works for one section may not suit another; one size does not fit all.

SUMMARY

TVMDL services and staff are recognized as industry leaders amongst state veterinary diagnostic laboratories. We offer a diverse and wide-ranging catalog of test offerings rarely matched amongst our peers. However, the industry is ever evolving, and client expectations continue to rise. Rapid changes in the workforce requires TVMDL to be nimble and flexible. Our funding mechanism all but ensures we operate with an entrepreneurial, business mindset, yet work within the structure of state agency of the Texas A&M System. We face all of these changes with a singular focus - that is, to remain a critical partner in disease detection to ensure the health and welfare the livestock and poultry industries, veterinary medicine, citizens of Texas, and the global economy.