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# Promoting Preventive Care Protocols

*Evidence, Enactment, and Economics*



# Promoting Preventive Care Protocols: Evidence, Enactment, and Economics

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## Dear Colleague:

At the heart of preventive care is a focus on doing all we can to ensure quality of life and longevity for our patients. A small number of trailblazing practices have already adopted advanced preventive care protocols for pets of all ages. For others, now is an ideal time for preventive care to be an important focus of the medicine we provide to our patients and the service we provide to pet owners.

- **Akin to human medicine, veterinary practice is rapidly shifting from firefighting to attentive monitoring**, so disease can be caught and addressed as early as possible.
- **Innovations in diagnostics, diets, and treatments provide us an ever-growing number of tools to make maintaining health easier.** The “history” and “physical” have long been hallmarks of the annual wellness visit—and now we can add a range of personalized diagnostic plans to catch hidden or emergent disease. We expect our own physicians to detect, for example, hypertension, and intervene as early as possible; pet owners want the same from us.
- **Pet owners are more receptive than ever to engaging in consultations on preventive care.** For example, we see millennials expressing greater interest in preventive care products and services because of their deep emotional commitment to their pets (2017–2018 American Pet Product Association National Pet Owners Survey).

Innovation and shifting demographics will help preventive care become the norm. Consider a scenario where we offer our guidance during every annual visit on how to help a patient avoid disease by discussing diet, trends in blood results, behavior, vector-borne disease, genetic predisposition, and more. Those interactions are so much more impactful—for the patient, pet owner, and practice alike—than an annual visit focused on vaccinations.

For the veterinary profession to accept and act on preventive care as the new standard, we must show the value it offers to the pet, pet owner, and practice. We hope the information presented here does just that.

IDEXX’s purpose is to enhance the health and wellbeing of pets, and we are proud to work with AAHA in pursuit of this mission.

Warmly,



Graham Bilbrough, MA, VetMB, CertVA, MRCVS  
Veterinarian from IDEXX Medical Affairs





## Preventive Care Focus: Why Now?

In the ongoing quest to prevent diseases, veterinary medicine continues its shift toward proactive veterinary services and recommendations. This preventive care focus gives more pets a greater chance at longer and better lives. It also gives veterinary practices the opportunity to grow practice income and build a sustainable economic future.

Evidence-based medicine—often now aided and even accelerated by patterns seen in big data—can help drive veterinary recommendations for conducting veterinary diagnostics.

Even as more veterinary practices implement lab work protocols for both sick-pet and wellness scenarios, only 14% of clinical visits included a chemistry panel in 2017.<sup>1</sup> With sick pets, lab work often provides actionable information for clinicians. The same may be true in wellness scenarios.

Although some conditions can remain undiagnosed despite performing lab work, normal lab results are still something to celebrate in seemingly healthy pets. Performed consistently, screening lab work generates trend data for each pet that may be helpful later—both

for making clinical decisions and for building stronger bonds with clients by taking an individualized medical approach to each pet.

And, if lab work turns up something that makes the clinician pause, as big data says it might, that can trigger proactive investigation, monitoring, and management of subclinical cases. It may prevent a medical crisis later. Even if something devastating shows up in the lab results, better to find it now, in a calm moment, so that you can recommend a plan and prepare clients for what's ahead.

### Big Data in Veterinary Medicine

Thanks to ever-more-powerful computers and greater connectivity in veterinary medicine, including integrations via practice management software and digital medical records, clinical details about pets can be collected in larger numbers more easily. This big data in veterinary medicine has the potential to improve and expand clinical preventive care strategies for pets of all ages. At one time, a data set of 100 seemed big, but researchers now can access and analyze data sets in the tens or hundreds of thousands.

<sup>1</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA. Analysis of IDEXX Practice Intelligence and internal data for 2,543 US practices that use IDEXX for both their in-house and reference lab chemistry testing, 2017.

Big data does have limitations and comes with caveats, but it can give researchers the opportunity to observe patterns unknowable from smaller data sets. Investigators can then use these patterns to ask the right questions with less trial and error and take traditional and deliberate inquiries in more promising directions. In that way, big data may help drive medical discoveries faster.

As data patterns emerge, those observations may provide information that further supports the case for preventive care screening in pets of all ages. The more pets getting lab work, the better the big data set becomes. Better data means evidence-based insights that may inform the choices you make in clinical practice.

### Benefits of Preventive Care Screening

Historically, veterinary preventive care has primarily meant vaccinations and protection from internal and external parasites. As vaccination protocol timelines grew from one to three years or beyond, practices began focusing on the wellness exam itself as a standalone service. Diagnostics such as blood chemistry, complete blood count, and other lab screenings, including wellness exams for pets of all ages, may be the next step for medical and economic reasons:

#### Medical

- Find subclinical issues and intervene before they become dangerous or dramatic.
- Get baseline values and monitor trends for individual patients.
- Celebrate good news with clients.

#### Practice Economics

- Establish more sustainable practice profitability.
- Grow a budget line that can't be lost to nonveterinary sources.
- Build client loyalty that can drive practice success long term.

## Defining Big Data

While everyone defines “big data” differently, the data itself typically features these characteristics:

**Velocity:** Data now accumulates at a rapid pace—and faster all the time.

**Volume:** While the definition “big” is a moving target, some say that 10 million observations is an undisputed threshold of what constitutes big.

**Variety:** Whereas scientific studies function as self-contained efforts with deliberate data collection and objectives for analyzing that data, big data is different. It comes from a variety of sources. It gets collected for completely different reasons other than scientific analysis. Sometimes we know those real reasons and uses. Sometimes we don't.

**Pros & Cons:** Big data may reveal relationships, patterns, and trends. Big data cannot uncover causality or correlation. That requires additional investigation. Big data sets also suffer from self-selection or self-exclusion challenges.



# The Medical Case for Preventive Care Screenings

Preventive care exams remain veterinarians' best chance to influence good outcomes throughout their patients' lifetimes. Through these hands-on moments with patients and regular consultations with pet owners, you can provide advice, preventive care services, and additional recommendations tailored to individual pets. Clients rely upon and pay for your expert ability to distinguish which changes in pets are concerning and which ones aren't. In turn, you rely on researchers to provide evidence-based guidance for the screenings themselves and any action to be taken in response to the results.

Since time and financial resources are often limited, it's important to have a logical rationale for what's included (or not) in annual or twice-yearly visits. In other words, consider which strategies are effective enough to warrant inclusion in your tight wellness exam schedule and budget.

Is inclusion of blood tests justified? There is no question that even when testing healthy-looking patients, we will find abnormal results. Yet the benefit of these tests comes only when the results have the potential to change our recommendations to the pet owner.

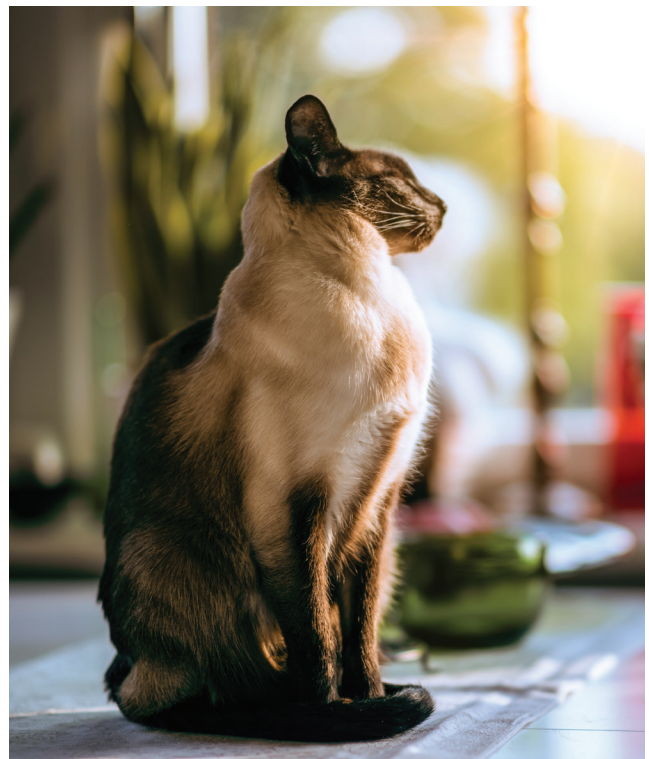
A single abnormal result, as defined by a reference interval, may not warrant clinical follow-up or veterinary intervention. Common examples include alanine transaminase (ALT) and alkaline phosphatase (ALKP) results below the reference interval. These results require only an explanation to the pet owner of why an abnormal result may not be worrisome. Furthermore, some mildly elevated or decreased results may not prompt action beyond recommending rechecking next year.

Sole reliance on reference intervals could cause practitioners to miss clinically significant changes hidden within the range, reinforcing the importance of following trends within the patient's historical results. This is described in the veterinary literature.

## Research and Results

One study looked at the results of screening 59 apparently healthy senior and geriatric dogs from an original pool of 100 dogs. In these 59 cases, abnormalities were found that required further investigation to determine clinical relevance. The authors noted, "Routine monitoring of clinicopathologic data is important in the management of older animals. Ideally, the trend should be followed for an individual animal so that small, but clinically significant, changes can be detected, even when they are still within the [reference interval]. This approach, preferably with subject-based [reference intervals], can help to detect chronic disease in an early stage."<sup>2</sup>

A similar study of 100 apparently healthy middle-aged cats also found examples of results outside the reference interval and produced debate about whether the results reflected occult disease or problems with the interval itself.<sup>3</sup>



<sup>2</sup>Willems, A. et al. 2017. "Results of screening of apparently healthy senior and geriatric dogs." *Journal of Veterinary Internal Medicine* 31(1):81-92.

<sup>3</sup>Paepe, D. et al. 2013. "Routine health screening: Findings in apparently healthy middle-aged and old cats." *Journal of Feline Medicine and Surgery* 15(1):8-19.

Both papers concluded that regular health checks and screenings improve detection and allow for early therapeutic intervention.

In another study that looked at the laboratory profiles of 406 dogs and 130 cats, investigators found that only 55 of the dogs and 26 of the cats had no abnormalities identified.<sup>4</sup> The study relied on the interpretations of the veterinarians performing the pet profile reviews. “Most changes were minor or considered artifactual; however, changes that were diagnostic, indicated significant disease, or warranted additional evaluation were identified in 25 dogs (6.2%) . . . and 25 cats (19.2%). Significant abnormalities included anaemia, inflammation, and evidence of liver, kidney, and pancreatic disease.”<sup>5</sup>

Prior studies have relied on relatively small numbers of patients for practical reasons; each profile had to be individually reviewed to determine clinical significance. In addition, the client-owned patients were drawn from limited geographic and socioeconomic situations.

Some investigators are now taking an alternative and complementary approach to determine how often a profile would prompt action. Using data gathered from practice management software, investigators examined the records from 5,016 North American veterinary practices. The objective was “to use a big-data approach to investigate the frequency of clinically significant abnormal profiles for apparently healthy adult dogs and cats of all adult life stages.”<sup>6</sup>

Investigators looked for profiles associated with consultations invoiced as a “wellness examination” that included blood chemistry, complete blood count (CBC), and symmetric dimethylarginine (SDMA) tests. This yielded 268,817 profiles.<sup>7</sup>

Analyzing this number of profiles required automation using predetermined criteria, which are described in Table 1. To focus on results that were likely to be clinically significant, many reference intervals were replaced by somewhat wider limits (“critical



thresholds”). The testing was performed at multiple reference laboratories.

This does not remove the possibility that, by chance alone, a small percentage of results would be outside of the new critical thresholds. Also, as most blood tests are not completely specific, a more cautious approach was taken where, for most tests, a profile was deemed to be significant only if three or more results were outside the new thresholds.

Other tests with superior sensitivity and specificity, and defined medical algorithms, need to be treated in a different manner where a single abnormal result suggests follow-up. For this study, SDMA was treated in this fashion, as an elevated result indicates that a urinalysis must be performed.

<sup>4</sup>Dell’Osa, D. and Jaensch, S. 2016. “Prevalence of clinicopathological changes in healthy middle-aged dogs and cats presenting to veterinary practices for routine procedures.” *Australian Veterinary Journal* 94(9):317–23.

<sup>5</sup>Dell’Osa, D. and Jaensch, S. 2016. “Prevalence of clinicopathological changes in healthy middle-aged dogs and cats presenting to veterinary practices for routine procedures.” *Australian Veterinary Journal* 94(9):317–23.

<sup>6</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

<sup>7</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

## Table 1. Reference Interval Values

Lower Threshold	Analyte (Units)	Upper Threshold
Unchanged	ALB (mg/dL)	▲ ULRI+0.3
▼ Set to zero	ALKP (U/L)	Unchanged (cat) ▲ ULRI x 1.1 (dog)
▼ Set to zero	ALT (U/L)	Unchanged
▼ Set to zero	AMYL (U/L)	Unchanged
▼ LLRI x 0.95	BUN (mg/dL)	Unchanged
Unchanged	Ca (mg/dL)	Unchanged
▼ Set to zero	CHOL (mg/dL)	▲ ULRI x 1.05
▼ LLRI x 0.975	CL (mmol/L)	▲ ULRI x 1.05
Unchanged (cat) ▼ Set to zero (dog)	CREA (mg/dL)	Unchanged
▼ Set to zero	GGT (U/L)	Unchanged
Unchanged	GLOB (g/dL)	Unchanged
Unchanged	GLU (mg/dL)	Unchanged
▼ LLRI x 0.975 (cat) Unchanged (dog)	K (mmol/L)	▲ ULRI x 1.05 (cat) Unchanged (dog)
▼ Set to zero	LIPA (U/L)	Unchanged
▼ LLRI x 0.975	Sodium (mmol/L)	▲ ULRI x 1.05
Unchanged	PHOS (mg/dL)	▲ ULRI x 1.1 (cat) ▲ ULRI x 1.25 (dog)
Unchanged	TBIL (mg/dL)	Unchanged
Unchanged	TP (g/dL)	▲ ULRI+0.2



Lower Threshold	Analyte (Units)	Upper Threshold
<b>HEMATOLOGY PATTERNS</b>		
▼ LLRI x 0.97 (cat) ▼ LLRI x 0.90 (dog)	Anemia (Hemoglobin; mg/dL)	N/A
N/A	Reticulocytosis (K/ $\mu$ L)	Unchanged (cat) ▲ ULRI x 1.20 (dog)
N/A	Leukocytosis (WBC; K/ $\mu$ L)	Unchanged (cat) ▲ ULRI x 1.18 (dog)
Unchanged	Stress leukogram (lymphopenia and eosinopenia; K/ $\mu$ L)	N/A
N/A	Eosinophilia (K/ $\mu$ L)	Unchanged (cat) ▲ ULRI x 1.14 (dog)

## Notes

As the testing was completed in multiple reference laboratories, mathematical adjustments were made to the interval supplied with each result.

A profile was classified as abnormal when three or more results and patterns were outside of these ranges or the SDMA was  $>14\mu\text{g/dL}$ .

For hematology, many aspects of the report were not suitable for automated review.

LLRI: Lower limit of the reference interval

ULRI: Upper limit of the reference interval

Unchanged: Used the reference interval

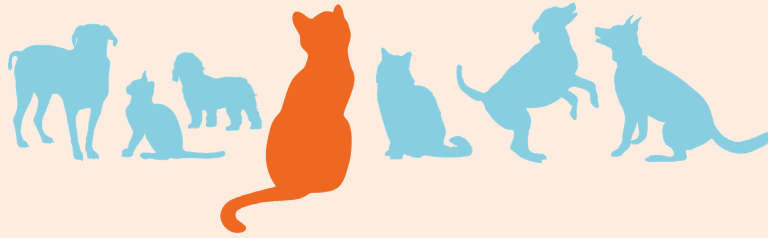
N/A: Not applicable

# When Does a Preventive Care Profile Demand Action?

268,817 wellness consultations from 5,016 clinics using IDEXX Reference Laboratories

## 1 in 7 adults

dogs aged 3–6 years;  
cats aged 2–8 years



## 1 in 5 seniors

dogs aged 7–10 years;  
cats aged 9–13 years



## 2 in 5 geriatrics

dogs aged 11+ years;  
cats aged 14+ years



Preventive care profiles (Chem 22 with IDEXX SDMA and CBC) revealed significant findings that indicated further workup or consideration in adults (one year of age and older; combined dogs and cats) of all life stages (adults: 15%; seniors: 21%; geriatrics: 42%). Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

Within the profiles automatically classified as normal, some of them a veterinarian would have deemed abnormal for a variety of reasons:

- Dramatic changes in one or two tests.
- Historical trends.
- Not all aspects of the CBC review could be automated (e.g., subjective comments on the blood film).

This “under reporting” was accepted for the purposes of conservatism within the automation.

Examining data from more than a quarter of a million wellness visits that included a chemistry panel, CBC, and SDMA tests revealed significant findings in patients from adult to geriatric life stages—requiring veterinary follow-up.

- Adult: 15%
- Senior: 21%
- Geriatric: 42%<sup>8</sup>

Findings from the analysis of big data and traditional

scientific inquiry seem to indicate that veterinarians who screen pets may find significant results for some pets that require additional discussion, monitoring, or workups. This is important for a true preventive care mindset with the goals of finding and managing subclinical cases and, as much as possible, avoiding dramatic shifts in pets’ health status.

### Always Have a Plan

Even when a pet’s screening results come back normal, you should have a plan. It’s easier to think about setting up additional screening or early intervention protocols when clinically actionable abnormalities such as hyperglycemia, azotemia, or elevated liver enzymes are detected, but normal results require a plan as well.

What’s that plan? Share the normal results with clients. Celebrate. Suggest rechecking in one year (or possibly six months if a practice prefers wellness exams twice a year). Gathering benchmark values and watching case trends over time represent significant pet wellness

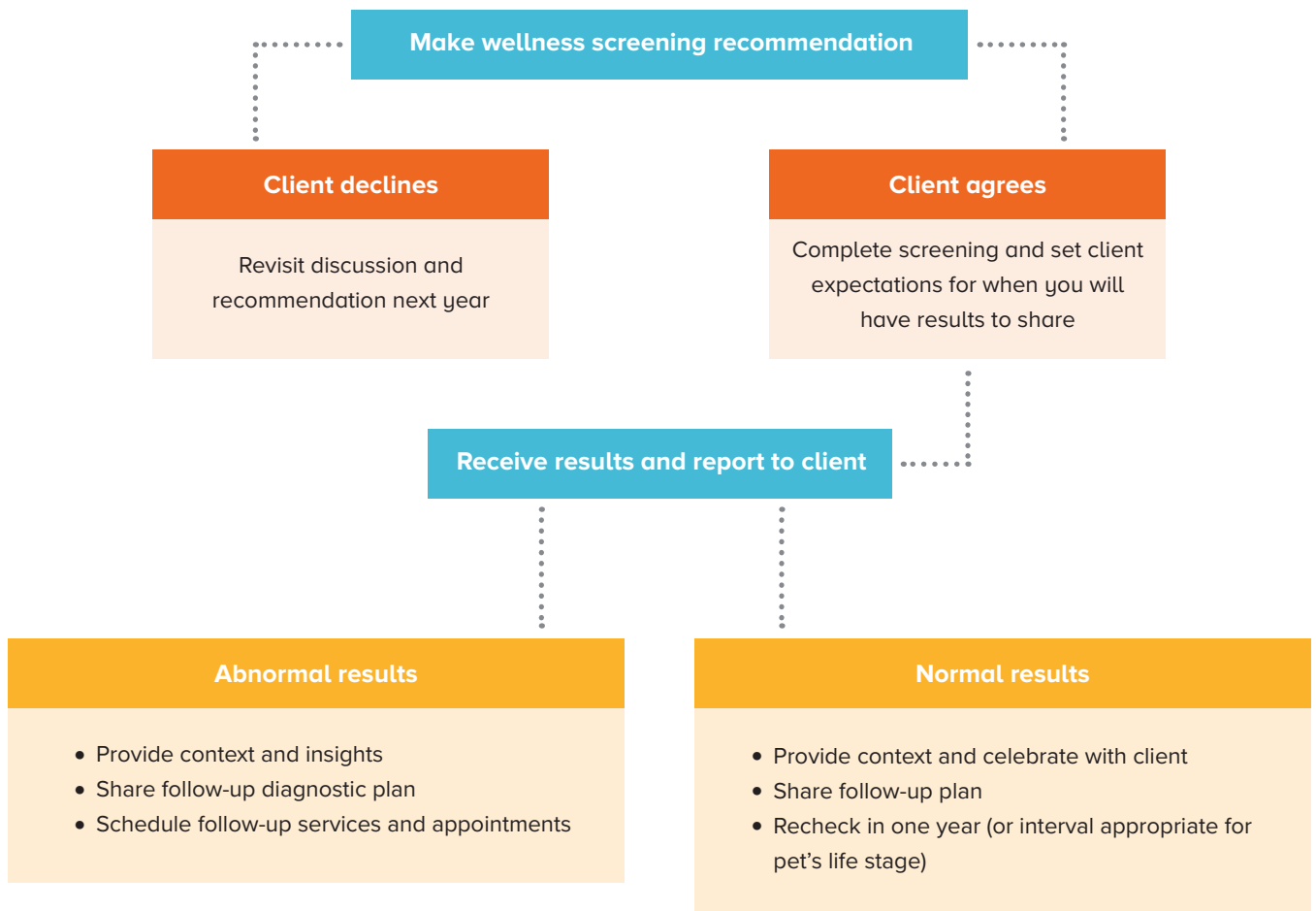
<sup>8</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

processes. In your conversations with clients, help them understand the clinical value of monitoring their pet's test results repeatedly over time, both in relation to reference values and to what's normal for their specific pet. Clients often feel motivated, and even emotionally touched, by the idea that you're approaching their pets as unique individuals. In these conversations, also talk to clients about the limitations of these tests, including that some conditions cannot be detected through lab work alone.

Each team can decide how to respond when presented with abnormal screening results as well. For example, additional diagnostics may differ for borderline results, significantly low results (such as anemia or

neutropenia), or significantly elevated values. With kidney values, you may recommend a complete urinalysis with a urine protein: creatinine ratio and culture, if not already performed, as part of the wellness package. Additional recommendations might include monitoring blood pressure or performing an abdominal ultrasound to look for abnormalities, including congenital ones. With elevated liver values, the protocol likely includes bile acids, an abdominal ultrasound, evaluating and perhaps adjusting current medications and supplements, and rechecking values in six or eight weeks. Obviously, the action plan changes with any clinical signs or extremely abnormal values.

## Communicating with Clients About Screenings



## The Power of Stories

Leverage the experiences of forward-thinking clients to collect preventive care success stories to share. Connecting evidence-based recommendations to the lives of pets in your community can be compelling for clients.



### Case Example: Kitten

A four-month-old kitten presented for an elective orchiectomy. Since the kitten first came to the practice for vaccinations and well-kitten visits, the veterinary team had been preparing the client to expect preanesthetic bloodwork to be part of the surgical package. The practice serves a community that wants to do what's best for pets, but individual clients are often tight on money. So far, the client had not agreed to the bloodwork, but the veterinary team member who admitted the kitten for surgery made the recommendation. The client declined. The veterinary team member explained again why it was important, and, at the last minute, the client agreed. The kitten appeared normal in a presurgical examination. However, in-house bloodwork found severe anemia. The veterinarian cancelled surgery. The client wept with relief that she had ultimately agreed to the bloodwork. The kitten's bloodwork improved in follow-up testing. He was later cleared for surgery, which was a success.



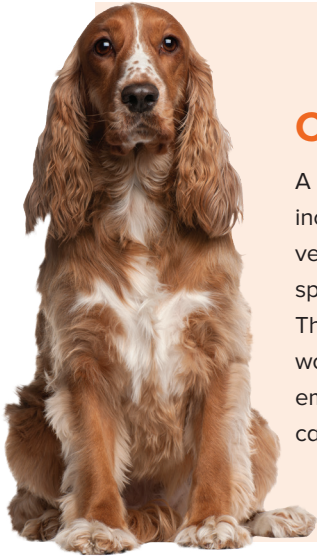
### Case Example: Eighteen-Month-Old Labrador Retriever

An eighteen-month-old Labrador retriever presented for a wellness exam, including a heartworm test, blood chemistry, and hematology. The young adult dog seemed to be thriving, but his blood chemistry showed abnormal kidney values. Even with no other clinical signs, the values warranted additional diagnostics, including an ultrasound of the kidneys. His veterinarian found a severe congenital kidney dysplasia. Through dietary management the clinician prescribed, the dog lived to see his third birthday. While the outcome was devastating to his family, his veterinarian estimates that finding the problem and intervening early extended the dog's life at least a year. In addition, early screening prevented the dog from suddenly presenting with acute kidney failure—potentially leading to immediate euthanasia. The time between diagnosis and final decline also allowed the veterinary team to prepare the family. It's a sad case, but early diagnosis had an impact on the dog's life—as short as it was.



### Case Example: Mature Cat (Seven to Nine Years Old)

A mature cat presented for a wellness exam, including blood chemistry and hematology. Bloodwork was performed and revealed low albumin—not just low compared to reference values, but low for this cat, which the veterinary team knew from screening over several years. These abnormal results triggered additional diagnostics, including an ultrasound and biopsy. The diagnosis? Inflammatory bowel disease. While this cat had lost some weight over time, he did not present with the clinical sign of significant weight loss. The veterinarian recommended dietary changes and medications that continue to keep this feline patient stable.



## Case Example: Six-Year-Old Cocker Spaniel

A seemingly healthy six-year-old cocker spaniel came to see his veterinarian for a wellness exam, including bloodwork and hematology. The results showed that the dog had a low hematocrit. The veterinarian recommended an abdominal X-ray as a next-step diagnostic. The image showed a splenic mass. The dog went into surgery that same afternoon. Pathology reported the mass as benign. Thanks to preventive care screening, though, the family avoided a medical crisis, where the dog likely would have needed a blood transfusion and would have been at greater risk from anesthesia during emergency surgery. By finding the mass before crisis hit, the veterinary team was able to handle the case proactively.



## Case Example: Fourteen-Year-Old Cat

A fourteen-year-old, male, domestic shorthair cat presented for a biannual wellness visit. His family reported he was eating well but perhaps had lost some weight. Physical examination revealed that the cat was slightly thin with a low body condition score of 2.5 of 9. The veterinarian found the cat to be tachycardic with a heart rate of 240 beats per minute. A palpable thyroid nodule was also found. Results from the recommended lab work found elevated total T4 values and slightly elevated SDMA values. The cat's creatinine values were reported at the low end of the normal reference range, and his blood urea nitrogen (BUN) values were reported at the high end of the normal reference range. These values considered together provided keen clinical insights to the veterinarian. While kidney disease is common in cats with hyperthyroidism, hyperthyroidism can mask kidney disease. By considering T4 values and SDMA values in conjunction with the others, the clinician recommended treatment for hyperthyroidism and kidney disease, rather than hyperthyroidism alone.

### Sources for Case Examples

Williams, T. 2015. "Chronic kidney disease in cats with hyperthyroidism." *Clinician's Brief* Sept: 10–12. [cliniciansbrief.com/article/chronic-kidney-disease-cats-hyperthyroidism](http://cliniciansbrief.com/article/chronic-kidney-disease-cats-hyperthyroidism). Accessed October 9, 2017.

Mooney, C.T. et al. 1996. "Effect of illness not associated with the thyroid gland on serum total and free thyroxine concentrations in cats." *Journal of the American Veterinary Medical Association* 208:2004–2008.

Peterson, M. 2012. "Hyperthyroidism in cats: What's causing this epidemic of thyroid disease and can we prevent it?" *Journal of Feline Medicine and Surgery* 14:804–818.

# The Financial Case for Preventive Care Screenings

Pet owner spending on veterinary services is growing faster<sup>9</sup> than the US economy, as measured by the growth in the gross domestic product (GDP).<sup>10</sup> That's the amazing thing about the business of veterinary medicine. Often, in tough economic times, veterinary businesses don't experience declines as big as those seen in other areas of the economy. And in good times, veterinary businesses often outpace the economy overall.

That's not to say the profession doesn't face new and changing financial pressures. For a long time, veterinarians held a monopoly on the distribution of veterinary-quality products. That's no longer the case because pet owners buy the same products online or through big-box stores. Margins on veterinary products have gotten much thinner.

How can any practice create growth in the face of thin margins? Focus on the top line, not the bottom line. The real key to a healthy veterinary practice is greater profitability, and profitability comes from driving volume, not simply cutting expenses.

Expenses do matter, but variable expenses can be good expenses too. Take lab costs as an example. Lab expenses vary, but when you stop thinking of that budget line only as an expense and start thinking of lab expenses as a way to fuel practice revenue growth, you can go farther—like a rideshare driver with a full tank of gas.

## Growing Revenue for the Future

When veterinary practices institute preventive care screenings that include lab work, it gives them the opportunity to build a sustainable economic future. In addition, because diagnostic screening is a hands-on veterinary service, it cannot be lost to nonveterinary, online, or external sources. Even if only 10% more clients agree to annual screening lab work in a given year, this could fuel brag-worthy practice growth.

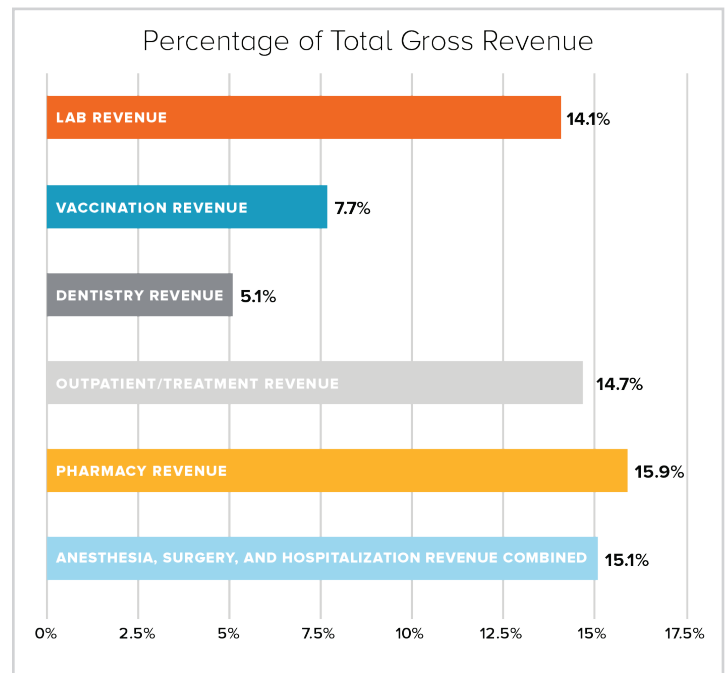
According to *Financial and Productivity Pulsepoints* (Ninth Edition, 2017, AAHA Press), at 14.1% of total gross revenue, lab income is much more than:

- Vaccination revenue, which is 7.7%
- Dentistry revenue, which is 5.1%

In addition, lab revenue as a percentage of total gross revenue is almost on par with:

- Outpatient/treatment revenue, which is 14.7%
- Pharmacy revenue, which is 15.9%
- Anesthesia, surgery, and hospitalization combined, which is 15.1%

## Veterinary Practice Gross Revenue Categories



When ramping up lab work recommendations as an integral part of preventive care protocols in a practice, pay keen attention to pricing strategies. Take into consideration materials and supplies costs as well as the costs of the time spent by the attending veterinarian and other practice team members. These considerations can be quite different between sick-pet visits and well-pet visits. Sick pets and their worried families require a lot more veterinarian time.

<sup>9</sup>American Pet Product Association 2017 report. [americanpetproducts.org/press\\_releasedetail.asp?id=141](http://americanpetproducts.org/press_releasedetail.asp?id=141).

<sup>10</sup>"United States GDP." [tradingeconomics.com/united-states/gdp](http://tradingeconomics.com/united-states/gdp).



The ability to set reasonable and realistic prices for sick patients hinges on pricing wellness visits at profitable levels as well. See the financial case example from Capital Vets for insights on how one practice did this (page 17).

In addition, clients coached toward lifelong pet wellness screenings often experience higher satisfaction, which can lead to stronger client loyalty. It's not only less expensive to keep current clients than to acquire new ones, loyal clients also provide greater long-term value to a practice—making them key to financial sustainability.<sup>11</sup>

When asked if they would choose preventive care recommendations if they knew it could prevent problems and expensive treatments later, 59% of dog owners and 56% of cat owners responded affirmatively.<sup>12</sup>

To meet this need, many practices introduced budget-friendly wellness plans that bundle a year's worth of preventive care at a discount to encourage more regular and frequent visits. Clients typically make monthly payments toward the total annual

amount of wellness services. In addition to clients not having to pay on the spot, monthly payments also provide a steady flow of income to the practice. Some practices also give clients the option of saving even more by prepaying for the year's wellness services. Either way, wellness plans can help clients commit to recommended preventive care.

It might seem like wellness plans will appeal only to lower-income clients, but 8 out of 10 pet owners express interest in preventive care plans, regardless of their income.<sup>13</sup>

### **The Power of Knowing**

Before implementing major preventive care changes, be sure to pull relevant financial and other data so that you have your baseline numbers. If you haven't already, now is a good time to calculate your lab revenue as a percentage of your total revenue for last year. Knowing where you are and tracking results from new strategies can provide reasons to celebrate or make adjustments. It also helps empower future changes you make. Success builds upon success.

<sup>11</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

<sup>12</sup>Bayer Veterinary Care Usage Study. Bayer HealthCare LLC, Animal Health Division.

<sup>13</sup>Data on file at IDEXX Laboratories, Inc. Westbrook, Maine, USA.

## Financial Case Example: Suffolk Animal Hospital, Suffolk, Virginia

Suffolk Animal Hospital is currently a one-doctor practice. In January 2016 the practice began offering wellness plans that include lab work. In January 2017 the practice switched from its original wellness plan provider to one that focuses on preventive care and wellness plan monthly payments.

Suffolk’s income growth can be attributed, at least in part, to a focus on preventive care with the support of wellness plan monthly payments. The practice’s income in 2017 was 96% higher than in 2014, before educating clients on the importance of preventive care screenings and implementing wellness plans. As of early March 2018, 4.5% of the practice’s 2,621 active clients participate in a wellness plans with their pets.

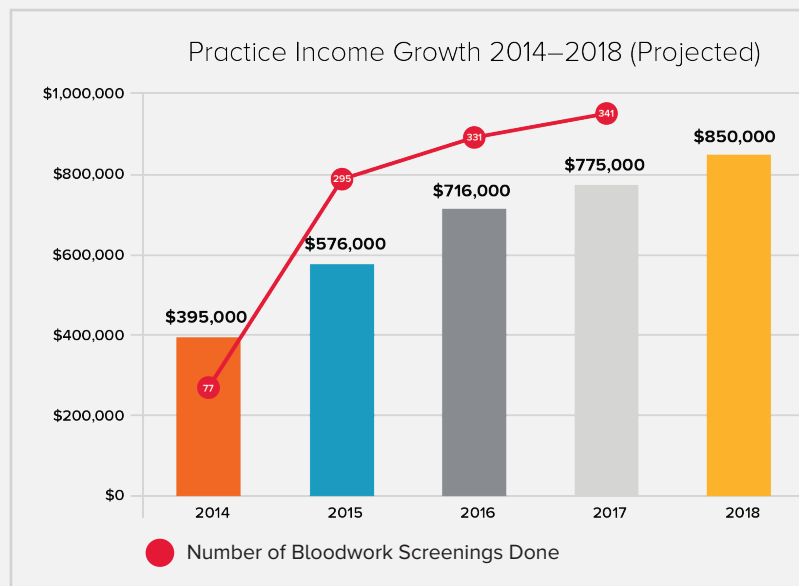
In 2018, the practice projects nearly 10% growth in income. Final figures may be even higher since Suffolk is looking to add a second veterinarian.

Annual Practice Income	
2014	\$395,000
2015	\$576,000
2016	\$716,000*
2017	\$775,000**
2018	\$850,000***

\*1.5 doctors on staff part of the year

\*\*1.5 doctors on staff part of the year, then back to one doctor

\*\*\*Projected



Number of Bloodwork Screenings Done	
2014	Bloodwork recommended and obtained only on sick/ADR cases. (77)
2015	Staff trained to recommend bloodwork, but clients often hesitated to agree. (295)
2016	Wellness plans implemented, including recommended bloodwork, to help overcome client cost objections.* (331)
2017	Added annual bloodwork to client reminders and began shifting clients’ perspective from performing bloodwork only when the pet is sick to using it as a routine monitor of the patient’s health.** (341)

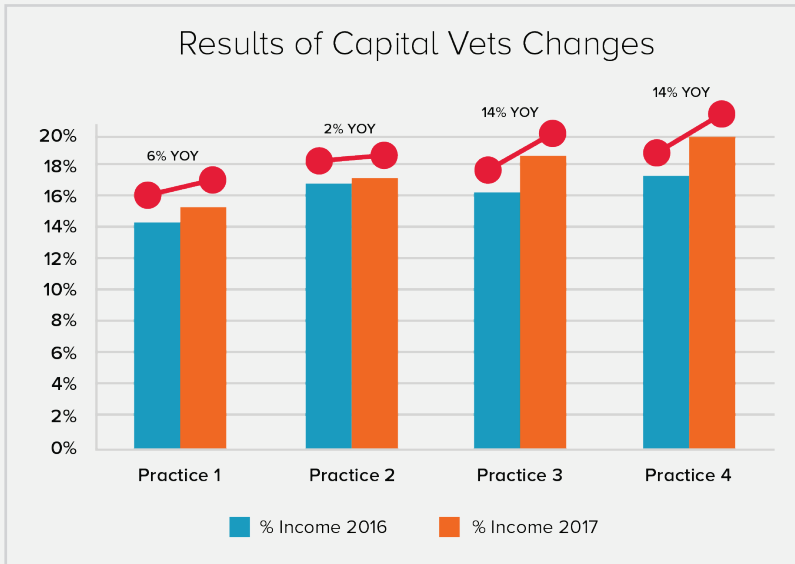
\*1.5 doctors on staff part of the year

\*\*1.5 doctors on staff part of the year, then back to one doctor



## Financial Case Example: Capital Vets, Hudson Valley Region, New York

Capital Vets owns five practices in the Hudson Valley region of New York. Together they employ 15 veterinarians, including full-time and part-time doctors. While the practices have done wellness screenings for several years, four of the locations began focusing on preventive screening recommendations in the first quarter of 2017. The fifth practice joined the group in December 2017 and is not represented in these results.



When you consider that some of these mature practices sit in highly competitive areas, even seemingly small bumps in lab income growth year over year look impressive.

Some of the differences in lab income growth among the four practices can be attributed to outstanding teamwork and a progressive mindset among veterinarians at those practices.

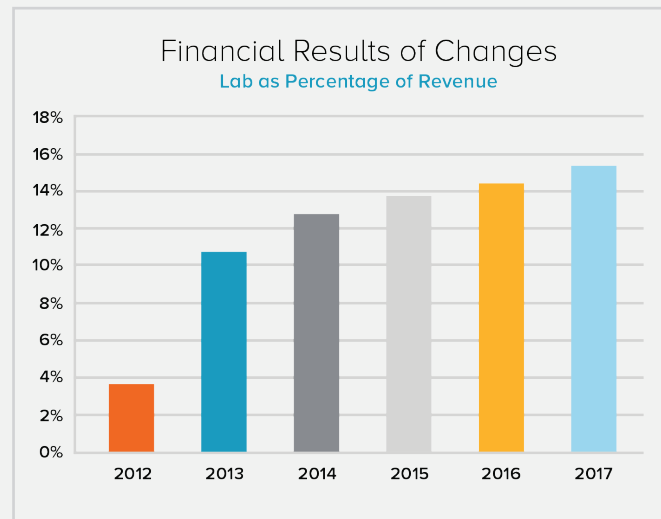
That said, the 6% growth in Practice 1 looks good when you consider that five years ago, its lab income was 3.4% of gross income.

Aggressive pricing of the wellness screening bloodwork panels also played a major role in preventive care growth for Capital Vets. How aggressive? About half of what other practices in the surrounding area charge for comparable lab work. A strong relationship with their lab helped make the pricing model possible, so that Capital Vets can keep lab services profitable.

One interesting downstream outcome from implementing preventive screening protocols is that Capital Vets also experienced growth in dental income. With good lab work results in hand, clients suddenly became more willing to agree to dental care recommendations, too. In many cases, especially with older pets, it's as if people recognized that their pets were healthier and might live longer than they thought. It made them want to treat pets' dental disease.

In addition, the practice with the strongest lab income growth also has the highest client satisfaction.

Preventive care protocols will relaunch in 2018 at the two lower-performing practices, thanks to a mindset of resilience and progress.



## Implementing Preventive Care Protocols for Pets of All Ages

It takes the entire veterinary practice team to implement preventive care protocols that include lab work screening for pets of all ages. It also takes time for the processes and conversations to become second nature. If your practice is already making lab work recommendations for senior pets, it will feel like less of a leap to make similar recommendations for younger pets.

Different practices will approach new protocols in different ways. AAHA-accredited hospitals can find additional guidance in the laboratory section of AAHA's Standards, including those addressing quality control, equipment and supplies, and client communication. In addition, use this outline to think through each element of your preventive screening plans.

### Preventive Care Protocol Planning Guide

Component	Objective	Steps
Team Education and Training	Understand the medical and financial rationale for preventive care protocols.	<ol style="list-style-type: none"> <li>1. Find or request relevant research for everyone to read.</li> <li>2. Schedule staff training (typically a few hours over several sessions).</li> </ol>
Comprehensive Wellness Exam Protocol	Proactively expand screening recommendations in wellness exams for pets of all ages (with relevant differences based on life stage, age, health status, or need for long-term medications).	<ol style="list-style-type: none"> <li>1. Set expectations for the veterinary team and for clients about which services and screenings define a comprehensive wellness exam.</li> <li>2. Set time interval for how often veterinarians recommend a comprehensive wellness exam (may be different depending upon the life stage and health status of a specific pet).</li> </ol>
Pricing	Set screening price that's affordable for clients and profitable for the practice (may include initial promotional price for a limited time—such as an additional 10% discount for the first quarter).	<ol style="list-style-type: none"> <li>1. Decide what lab work will be done in-house and what will be sent out.</li> <li>2. Work with your diagnostic sales professional on screening panel and pricing details.</li> </ol>
Client Communication	Work on ways to explain the medical reasoning, value, and follow-up plans for screening.	<ol style="list-style-type: none"> <li>1. Role play conversations with clients.</li> <li>2. Set client expectations for how soon you will contact them with results.</li> <li>3. Make specific plans for handling the increased client contact required to report results.</li> <li>4. Make specific follow-up plans for all screening outcomes, including good news.</li> </ol>

Component	Objective	Steps
Setting Goals	Choose realistic goals and timelines for protocol implementation.	<ol style="list-style-type: none"> <li>1. Divide patients into wellness screening groups based on age, life stage, species, etc., as appropriate.</li> <li>2. Decide timeline for rolling out updated screening recommendations for patient categories.</li> </ol>
Tracking Results	Monitor progress toward goals on a regular basis.	<ol style="list-style-type: none"> <li>1. Know your baseline values for key metrics before you start: <ul style="list-style-type: none"> <li>• Number of recommendations made per day or week</li> <li>• Number of wellness screenings done per month or year</li> <li>• Lab income as percentage of gross income</li> </ul> </li> <li>2. Provide updates and feedback to the entire practice team on progress.</li> <li>3. Plan team-wide milestone celebrations and rewards.</li> </ol>
Retooling	Adjust plans in response to results and feedback.	Evaluate what's working and what isn't so that you can adjust plans and continue making progress.

## Setting Achievable Goals

While it can be exciting to set aspirational goals practice-wide, it's often better to set smaller success steps and metrics. It's more motivating for most people to overachieve a goal than to miss the mark. That's why many coaches, consultants, and practice managers prefer to instill new habits and protocols through mini-goals. For example, rather than only setting a goal to increase lab income as a percentage of gross income, set specific goals for increasing lab-related income for different categories of pets. Consider setting different goals based on:

- Species
- Age or life stage
- Breed-specific risk factors

You may still hit your bigger goal for lab income overall, but it will be made up from smaller gains by category. And remember, even if you make consistent

lab work recommendations at 100% of exams for pets of all ages, it's still a success if only 1 out of 10 clients agrees. The act of making the recommendation is an achievement in itself.

You may even want to roll out the protocol to different categories of pets over time rather than all at once. It can boost team enthusiasm to have early and easy wins if you decide to focus initially on one segment of pets.

## The Power of Patience

Plan to track results weekly, monthly, and quarterly. While you can focus on continual improvement by discussing as a team what's working and what isn't, you may not get a complete view of your results for a full year. Implementing preventive care protocols may be a big shift in practice culture, and change needs time to take root.

## Finding What Works

Practices that have already implemented wellness screening protocols offer these successes and stumbles from which other practices can learn:



### **Get buy-in from veterinarians in your practice.**

Their support is critical for introducing new preventive care protocols. Without their leadership and support, even

the most motivated practice manager won't be able to make it happen. In addition, without buy-in from the whole team, the project may struggle, which makes introducing any future changes that much harder. Team members who don't buy in when everyone else does stick out and often choose to exit the practice. That's okay.



### **Include the entire team in choosing rewards for meeting goals.**

Individual rewards, such as gift cards, don't work as well, so consider group rewards, such as bringing in a popular food truck for lunch

or taking everyone to a professional sports game, concert, amusement park, or popular event.



**Develop a good relationship with your lab.** Often, diagnostic sales professionals can help with educational materials, recommendations on what

has worked in other practices, and profitable pricing strategies.



### **Be sure to update relevant sections of your practice management and medical records software**

with naming conventions that will make sense to clients when screenings

appear on invoices or reminder notes. Even if you're doing a "senior lab panel" on pets of all ages, make sure that it shows up with an appropriate name on the invoices and reminders for younger pets so that clients don't think you've charged them for the wrong lab work or don't know how old their pet is.



### **Giving veterinarians and the entire practice team access to relevant research**

is an important part of training and education.

Working through the information from your lab and other sources as

a group typically takes a few hours—often an hour at a time over several sessions so that people have time to process the information and think about any questions or challenges that arise. It's important that the entire team understands the medical and financial rationale for preventive care protocols. Each member also needs to find a personal connection to the topic. Maybe it's their own experience with wellness screenings. Maybe it's how a favorite patient benefited. Maybe it's the satisfaction of helping more pets get the care they need through budget-friendly wellness plans.



### **Make time to role play**

**conversations with clients** in a variety of scenarios. Often this process uncovers which team members feel comfortable with the information and strategy and which ones don't.



### **Talk openly with your team about true costs and pricing decisions.**

It can be helpful to detail how much each wellness service costs clients as a standalone item so that the team can see how bundling preventive

care screenings represents a discount. Work with your diagnostic sales professionals on pricing so that you can make lab work affordable to clients and profitable for the practice.



### **Make specific plans for client communication**

because the necessity for contact by phone, email, or text message will increase when you implement preventive

care protocols. Set clear expectations for when you will contact clients with results. Be efficient and timely about delivering on this promise. If it takes a week or more for clients to hear back, even to hear good

## Team Roles and Responsibilities



### Veterinarians

- Lead team research, education, and discussion of medical reasons for preventive care.
- Set wellness standards for pets of all ages.
- Make screening recommendations to clients.
- Create plans to report results and make follow-up recommendations.



### Practice Managers

- Plan and schedule team training and education sessions.
- Pull benchmark data for comparison.
- Coordinate protocol launch marketing and client communications.
- Coach the team as needed during implementation.
- Track and report progress toward goals.



### Technicians

- Recap screening recommendations during client communication and history-taking time.
- Answer clients' questions about recommendations and results.
- If assigned, deliver screening results to clients, particularly normal results.



### Front-Desk Team

- Introduce screening recommendations when making wellness appointments for clients.
- Mention all services included in wellness exams when clients check in for appointments.
- At checkout, provide positive feedback for clients who agreed to recommended screening.



### Everyone

- Find a way to connect personally with the reasons for recommending preventive care screenings so that conversations with clients feel specific and heartfelt.



news, the delay undercuts your message about the importance of preventive care. If you find that certain team members or technicians are better at delivering good news to clients than certain veterinarians are, leverage that skillset, especially if it helps get results to clients faster.



**Convey the value of preventive care.** If you see results start to fall off in year two, after big gains in year one, it may mean client communication and follow-up plans—especially when it's

good news—did not convey the value of lab work monitoring in seemingly healthy pets. If clients agreed to the recommendation, but then didn't see, hear, and feel the value when the results came back, they may be less likely to agree to lab work again the next year.



**Don't give up.** Teams that try together may not achieve all their goals, but the act of trying, and evaluating results, matters. It's okay to see what happens and adjust plans. Be brave. Be resilient.

If clients agreed to the recommendation, but then didn't see, hear, and feel the value when the results came back, they may be less likely to agree to lab work again the next year.

## Talking Points

Keep the following types of messages in mind when talking to clients about preventive care. Customize them to match your own communication style and find a way to explain recommendations in ways clients understand and feel good about.

- We recommend yearly bloodwork for all pets starting at age one, and before any procedure requiring anesthesia. While our veterinary team performs a thorough physical examination on the outside of your pet, we cannot see what's going on inside. This lab work gives us important information about seemingly healthy pets, and it lets us know how the internal organs are functioning.
- Thanks to extensive data collection and more powerful computing, medical and scientific advancement happens faster than ever. That's why we're updating wellness recommendations now and may update them again in the future.
- Wellness screening can help us make decisions that extend the length and quality of pets' lives. When we get good news, we'll take a moment to celebrate with you. We'll also add the results to our monitoring efforts. In addition to comparing results to limits in the lab sets, we also want to track trends in values specific to your pet. If we find something notable, we'll work to figure out what's going on so that we can intervene before something dramatic happens.





## Looking Forward: Advancements Driven by Preventive Care

Medical discoveries, advanced treatments, consolidation, and changing client expectations drive the type and pace of changes in the veterinary profession. Amid the noise, stress, and pressure, evidence-based strategies can help pave a clear and more sustainable future for veterinary practices.

There are good medical and financial reasons to implement wellness screening protocols for patients of all ages. In addition, as more pets get screened, the more likely it is that investigators monitoring the resulting data will find clinically significant patterns.

For example, labs soon may be able to provide age-specific reference intervals that help you know what's normal and what isn't for a young adult pet and how that differs from values seen in middle-aged or senior pets.

Or, what if you had access to breed-specific reference intervals? Or even metrics that could describe how the blood chemistry of healthy puppies and kittens looks?

The possibilities are out there. In addition to helping patients and practices, preventive screenings in pets of all ages could drive big breakthroughs in veterinary medicine.

### Additional Reading

Dell'Osa, D. and Jaensch, S. "Prevalence of clinicopathological changes in healthy middle-aged dogs and cats presenting to veterinary practices for routine procedures." *Australian Veterinary Journal* 94(9):317-23.

Paepe, D. et al. 2013. "Routine health screening: Findings in apparently healthy middle-aged and old cats." *Journal of Feline Medicine and Surgery* 15(1):8-19.

Willems, A. et al. 2017. "Results of screening of apparently healthy senior and geriatric dogs." *Journal of Veterinary Internal Medicine* 31(1):81-92.



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## Coming in 2019! AAHA Canine Life Stage Guidelines

Look for the latest evidence-based recommendations for dogs in various life stages.