

# Veterinary Research News

## Banking on wellness

Wellness plans offer the promise of enhancing preventive care for dogs and cats while improving finances for pet owners and veterinary clinics.

The plans are packages of preventive care services with charges billed monthly rather than at the time of each veterinary visit. The 2011 Bayer Veterinary Care Usage Study revealed that 45 percent of pet owners said they would visit a veterinarian more often if the practice offered a wellness plan billed monthly.

In reality, the plans can be hard to create and maintain, and pet owners sometimes confuse them with pet health insurance. The Bayer study found that only 5 percent of practices offered a wellness plan billed monthly, although 29 percent would be willing to do so.

Partners for Healthy Pets introduced free resources in 2012 to help practices implement monthly payment preventive health care plans. At least half a dozen companies now provide services to assist practices with plan development or administration. And more practices are trying out the plans with their clients.

Dr. David B. Goodnight, a senior consultant for Brakke Consulting, said the veterinary community has taken a great deal of interest in wellness plans—partly because of the success of Banfield Pet Hospital's Optimum Wellness Plans.

"I'm a big believer in these wellness plans, and I believe they do hold a lot of promise for the profession," Dr. Goodnight said. "The consumer really is in favor of these plans. They like to be able have this comprehensive annual plan that they can pay out monthly."

The mission of Partners for Healthy Pets is to promote preventive care through regular veterinary visits. Jessica Goodman Lee, a Brakke practice management consultant, devel-

oped the coalition's free resources on monthly payment plans.

Goodman Lee did research with the few practices that had plans and looked at the Banfield model as well as payment options in human dentistry. She found that one popular aspect of the plans at certain veterinary practices, including Banfield, is the inclusion of additional examinations at no additional charge.

"What people who have done them so far are finding is that they are making more money," Goodman Lee said. "The client may be spending less at each visit, but they're coming in more often, and the overall revenue is increasing—and the care is increasing."

Dr. Goodnight is familiar with how challenging wellness plans can be for individual practices. The practice team must have the motivation to make the plans happen, he said.

"The person in the hospital who is the champion has to keep the momentum going on these things and keep them ever present in the staff's

minds and in the clients' minds," Dr. Goodnight continued.

In his experience, some practice teams became extremely motivated, despite the complexity of wellness plans. He listed components of the plans as including plan design, secure billing, tracking of usage, and annual renewals. He said practices can turn to service providers to alleviate the administrative burden.

Goodman Lee said a major technical hurdle is a lack of integration between most payment platforms and practice management software. She thinks the slow adoption rate for preventive care plans also results from other difficulties with implementation or from a wait-and-see attitude, depending on the practice.

She said most practices will find preventive care plans to be worthwhile. "The ones that have really taken the time to implement are very, very happy."

The Partners for Healthy Pets resources on preventive care plans are available at [www.partnersforhealthy-pets.org](http://www.partnersforhealthy-pets.org).



Dr. Kristin Hussey, lead veterinarian at the Banfield Pet Hospital in Lake Oswego, Ore., examines Boo Boo, whose owner, Phyllis Lapainis, has had an Optimum Wellness Plan since 2010.

Photo by Jeff Hinds Photography

## Pandemic viral threats considered

Harvey V. Fineberg, MD, said the world is ill-prepared for a sustained pandemic, and a severe one could kill tens of millions of people.

At a meeting in March of the Institute of Medicine's Forum on Microbial Threats, which acts as an advisory panel on disease issues, he was among speakers whose presentations collectively indicated that many of the countries where coronaviruses and influenza viruses emerge from wild-life—particularly birds and bats—lack the means to identify these agents in humans or animal reservoirs, increasing the risk that the viruses could cause pandemics in humans. Travel, trade, ecologic change, and urbanization are among human-source factors that increase risk. The IOM is the health arm of the National Academy of Sciences.

By detecting and studying viruses while they remain in wild or domesticated animals, public health authorities may be able to disrupt pathogens' spread and evolution, providing a long-term strategy to reduce their harm, according to Dennis Carroll, PhD, director of the pandemic influenza and emerging threats unit for the U.S. Agency for International Development. He cited international efforts to monitor and contain the H7N9 influenza virus, which is carried by chickens and has caused infections and deaths among people in China but without sustained transmission among humans.

Other speakers indicated public health infrastructure investments are lessening as people take for granted the safety of their food and water and security from pandemics and as countries' investments to monitor wildlife health and wildlife pathogens remain lacking. Preparing for pandemic threats requires substantial resources, as nobody knows when one is smoldering.

## Bigger challenge than PRRS

Porcine epidemic diarrhea is the biggest challenge Dr. Luc Dufresne has faced in 25 years in practice.

He said challenges associated with PED outbreaks over the past year surpass even the challenges of

porcine reproductive and respiratory syndrome, a viral disease that has caused deadly outbreaks and billions of dollars of damage since the causative virus emerged in the U.S. in the late 1980s.

In a presentation in March during the annual meeting of the American Association of Swine Veterinarians, he detailed the effects of the PED virus, which requires only low doses for infection, is easily carried on people and vehicles, is difficult to remove from trucks through washing, and has caused outbreaks on 36 of his company's 47 farms.

Dr. Robert Morrison, a professor of veterinary population medicine at the University of Minnesota, said environmental sampling also showed that the virus is present in a variety of locations on farms, including on doorknobs, in medicine rooms, and in areas where workers wash their boots. The likelihood a farm will have PED virus infections increases with factors such as the proximity of other farms, the frequency of rendering service visits, and the presence of wildlife, he said.

Dr. John Clifford, chief veterinary officer for the Department of Agriculture, said the USDA Animal and Plant Health Inspection Service is developing its Comprehensive and Integrated Swine Surveillance Program to provide a federal structure for reporting the presence of livestock diseases of zoonotic or economic concern, and he needs swine veterinarians' support.

## Report highlights growing practices

An analysis of data from 4,106 animal hospitals across the country found that 23 percent had an increase in revenues of more than 10 percent from 2012-2013. Of those, 44 percent also had an increase in revenues of more than 10 percent from 2011-2012.

The American Animal Hospital Association released the results during its yearly conference in March as part of its annual State of the Industry report. For the report, AAHA and Idexx Laboratories Inc. analyzed data from AAHA-accredited and nonaccredited companion animal practices.



Courtesy of Idexx Laboratories Inc.

The analysis found that revenues increased at 73 percent of hospitals from 2012-2013. Averaging across hospitals, revenues increased 5.5 percent. The number of active patients, or patients with at least one transaction during the year, increased a mean of 1.4 percent. Patient visits increased a mean of 2.1 percent.

A small follow-up survey of 202 hospitals found 16 of 46 factors that were significantly different between 21 "consistent outgrowers," hospitals that saw revenues increase more than 10 percent for each of the past two years, and 65 decliners, hospitals that had a decline in revenues from 2012-2013.

The survey examined success factors across four bonds: pets and owners, practice and clients, practice and patients, and veterinarians and staff. Two-thirds of consistent outgrowers cited the pet-owner bond as very important to their success, in comparison with less than half of decliners.

Later in the year, AAHA and Idexx plan to publish the full results of the survey in a white paper.

## Mentorship, internship models evolving to meet needs

Dr. Kristen Britton went to work for her mom, previously a solo practitioner, after earning her veterinary degree last year. Regardless of the relationship, the new associate was looking for a mentorship arrangement. So she turned to the Mentorship Toolkit that she co-founded as a veterinary student.

Dr. Britton told her story at the annual conference of the American



Courtesy of Pet Care Clinic-Kuna

Dr. Kristen Britton (right) joined the practice of her mother, Dr. Bobbi Konzek, after earning her veterinary degree last year. The two veterinarians worked out a mentorship arrangement.

Animal Hospital Association in March as part of a panel on mentorship and internship models.

Mentorship arrangements sometimes result in unmet expectations for mentors and mentees, said panelist Stith Keiser, co-founder of the Mentorship Toolkit and manager of career development for AAHA.

AAHA and VetPartners, a practice managers' and consultants' association, developed the Mentorship Toolkit in conjunction with the National Veterinary Business Management Association, a student association, to help practices implement mentorship programs. One goal of the initiative is to offer an alternative for recent graduates seeking internships specifically in hopes of receiving mentorship.

Dr. Jon Geller, owner of three emergency practices in Colorado, shared his perspectives on models for internships.

Dr. Geller co-authored the *JAVMA* commentary "A call for internship quality control" (*JAVMA* 2012;240:939-942), which concluded that the AVMA and other veterinary organizations should develop a system of accreditation and oversight for internships. An AAHA task force, led by Dr. Geller, currently is looking into issues with internships.

The Mentorship Toolkit is available at <https://mentorship.aahanet.org>. Anyone can access the basic tools. Mentees and mentors need to be AAHA members to access the full functionality of the site.

## Cat transmits TB to humans in UK

Two United Kingdom residents developed tuberculosis after contact with a domesticated cat infected with *Mycobacterium bovis*, according to public health authorities.

Public Health England and the Animal Health and Veterinary Laboratories Agency announced March 27 that the two people were responding to treatment and were among 24 people who accepted TB screening following contact with a cluster of cats infected with *M bovis* during late 2012 and early 2013. The screening also revealed two other people had been exposed to the bacteria by other infected cats but did not have the disease at the time of screening, preventing identification of the exposure source.

The bacteria isolated from infected cats and humans was indistinguishable in molecular analysis, indicating transmission from an infected cat, the announcement states.

In the announcement, Dr. Dilys Morgan, head of the gastrointestinal, emerging, and zoonotic diseases department at PHE, said the infections were the first documented cases of cat-to-human transmission. The risk of people becoming infected by cats remained low, but the PHE recommended those close to cats with confirmed infections should receive assessments and public health advice.

A related government report, "Qualitative assessment of the risk that cats infected with *Mycobacterium bovis* present to human health," states that the owners of cats found to be infected with the bacteria should be told about the risks associated with the diagnosis. The choice between treatment and euthanasia is a decision for owners in consultation with veterinarians, but treatment could present a public health risk.

## Novel pain assessment developed for horses

Results from a study by European researchers provide a new approach to assessing pain in horses on the basis of a standardized scale of facial

expressions called the Horse Grimace Scale.

To begin, the researchers evaluated 40 stallions and colts of various breeds between 1 and 5 years of age that underwent routine surgical castration under general anesthesia. One group received the NSAID flunixin meglumine immediately before anesthesia, and the other group received flunixin prior to anesthesia and six hours after surgery. A third group, of control horses, underwent noninvasive, indolent diagnostic procedures under general anesthesia.

Then, using images collected from high-definition videocameras set up in the horses' observation stalls, two of the veterinary researchers, Drs. Michela Minero and Matthew C. Leach, determined six signs of pain in horses: stiffly backward ears, orbital (eye) tightening, tension above the eye area, strained chewing muscles, strained mouth and pronounced chin, and strained nostrils with flattening of the profile.

Finally, once the Horse Grimace Scale was defined, five participants—not experienced with horses—were trained to use the scale to evaluate and score images of the study horses before and after surgery.

The evaluators found no difference in HGS scores of horses before surgery. However, the evaluators



A horse eight hours after castration.

Courtesy of Animal Welfare Indicators

correctly identified 73.3 percent of images obtained after surgery as postsurgical images. Additionally, horses that received flunixin after surgery consistently scored lower on the HGS than horses that did not.

The findings were published March 19 in the open-access journal PLoS One.

### Scientists develop method to detect pain relief in cats

Scientists in the Comparative Pain Research Laboratory at the North Carolina State University College of Veterinary Medicine have developed a method to detect pain relief in cats with degenerative joint disease.

A large placebo effect is often seen in trials for pain relief, even in pets, said Dr. Duncan Lascelles, the study's lead investigator. Dr. Lascelles said studies of treatments for pain in veterinary medicine frequently use



Dr. Margaret Gruen

Photo by Wendy Savage/KCSU

subjective outcome measures, such as asking caregivers to rate the pet's level of activity and pain relief.

In the new study, cat owners rated their cat's improvement on measures of activity both on and off of a daily NSAID.

"When we looked at levels of activity and pain relief in active medication versus placebo cats, we did not see a difference in caregiver rating. Both groups were much improved," said Dr. Margaret Gruen, a veterinary behaviorist and the study's lead author. "However, when we looked at the study's blinded washout phase that followed a treatment period, we found caregivers clearly noticed the return of clinical signs after withdrawal of the active medication, but not after the withdrawal of the placebo."

The study, "Detection of clinically relevant pain relief in cats with degenerative joint disease associated pain," appears in the March/April issue of the *Journal of Veterinary Internal Medicine*.

### Richardson stepping down as dean at KSU

Dr. Ralph C. Richardson has announced his plans to leave his position as dean of the Kansas State University College of Veterinary Medicine no later than July 2015. He will then assume a faculty position. Dr. Richardson became the veterinary college's 11th dean in 1998.

April Mason, PhD, K-State provost and senior vice president, said Dr.

Richardson has championed many innovative programs, including the U.S.-China Center for Animal Health and Beef Cattle Institute. Plus, the veterinary college and its faculty played a role in the university's selection as the site of the future National Bio- and Agro-Defense Facility, a biosafety level 4 facility.

During Dr. Richardson's tenure, enrollment in the veterinary college grew from a graduating class of 79 students in 1998 to a current class size of 112 for each incoming class.

Prior to becoming dean at KSU, he served as the head of the clinical sciences department at Purdue University College of Veterinary Medicine. Dr. Richardson received his DVM degree from KSU in 1970, then completed an internship in small animal medicine and surgery at Purdue in 1973, a residency in small animal internal medicine at the University of Missouri-Columbia in 1975, and a training program in clinical oncology at the University of Kansas Medical Center in 1978.

Dr. Richardson is a double-boarded diplomate of the American College of Veterinary Internal Medicine in the specialties of internal medicine and oncology. He sits on the board of directors of the Kansas City Animal Health Corridor.



Dr. Ralph C. Richardson