Before I begin my remarks, let me say this: When it comes to the future there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened. I’ve been asked to speak to you today as someone with an international perspective about what the future holds for the animal health industry -- which is the business I am in. The same issues affecting my industry will affect yours, too. We all know what these issues are. What we are here this weekend to decide is, will we let the future happen to us, or will we shape it to our advantage? Tomorrow belongs to the people who prepare for it today.

When I joined the Animal Health Division of Bayer Healthcare, most of what I knew about veterinary medicine was what I learned taking my dog to the clinic once a year. By the way, this is about the same amount of information 99% of North Americans have about the veterinary profession.

But the image most Americans share of the caring local veterinarian who keeps their pets healthy is just one aspect of this profession. One might argue that the practice of the small animal veterinarian will evolve just as we saw an evolution in healthcare, from local doctors making house calls to managed care. My point is, the profession needs to change to reflect where the world is going.

Global forces are shaping economics, food production and health. The veterinary profession must prepare for a future that demands greater engagement in public health, with a shared responsibility for animal welfare, food safety and disease surveillance. National economies, public health systems, food systems, ecosystems and animal welfare practices are all intertwined. The importance of animal health and ecosystem management in our society has never been greater and global economic and nutrition trends will only increase the importance
of the veterinary profession in the next decade. The crisis we face – and yes, it is a crisis – is that academic veterinary centers are not preparing graduates for this new world.

Let me start by painting a picture of the future.

In the next 30 years, cities will continue to grow. By 2030, 60 percent, or three out of five people, will be city dwellers. By 2025, Asia alone will have at least 10 megacities. Mumbai is projected to reach a population density of 33 million people – equal to today’s current population of Canada.

The global demand for animal products will double by 2030, according to the World Bank, rising with the swelling affluence of new economies in Asia and even Africa. But population growth means that animals and agriculture will have less land to live on, and will live more closely together. That closeness will increase environmental pressure on the food supply. And because only about 20 % of the world’s countries have the capacity to respond effectively to health crises caused by disease in livestock destined for human consumption, the Food and Agriculture Organization of the UN predicts a major food safety crisis within the next ten years.

Another factor increasing the complexity of managing food safety and security across geographies is the global sourcing trend. In an ever-more vertically integrated global food chain, trade between countries of beef, pork and chicken increases the risk of disease transmission, but the patchwork of food safety, quality and health standards strung over multi-country operations is stretched beyond the point of reliability. Last year Brazilian meat conglomerate JBS became the world’s largest meat producer by snapping up feedlots in Argentina, the US, India, Eastern Europe and some Middle Eastern countries. And on June 2, 2010, Russia suspended meat imports from a number of slaughterhouses in Brazil, including three plants owned by JBS, for detection of excess amounts of ivermectin in meat shipments.

Another top priority will be bio-security – the safeguarding of animal and human health. For the past 200-300 years, a new or variant plague has occurred in veterinary species every 2-3 years and this will continue to be the case in the coming decades. But the market has zero
tolerance for serious disease outbreaks, which can bring an animal products industry to its knees as we saw first with the Mad Cow crisis and more recently with avian flu.

Finally, increased risk of agro-terrorism will propel explosive growth in the need for food security experts in public and private enterprise.

So this is the situation we face at the beginning of the Third Millennium. A growing demand for food is in conflict with diminishing availability of farm land due to population growth, climate change and declining water resources. There will be an enormous need for veterinarians educated in the agents that can cause disaster, who are crisis managers in food safety and security within federal governments, who are integrated as public healthcare professionals across all species, and who are skilled in the epidemiology of food-related diseases and allergies, environmental health risks, production processes and traceability. In short, the world will need veterinarians with an entirely different skill set than the ones being trained today by the world’s veterinary colleges.

Now let me paint a picture of the present. Historically, urban growth has been accompanied by growth in the number of small animals that people bring into their lives. The AVMA held a special workshop a few weeks ago about so-called “Pocket Pets” -- hedgehogs, rabbits, mice, ferrets, prairie dogs and rats -- that are growing in popularity. It is economically inevitable that veterinary graduates with $120,000 in debt will overwhelmingly head to small animal practices where salaries are higher. Yet in practical terms they are underprepared for these jobs because their education devoted as many hours to the ailments of cows, swine, and horses -- animals they may never meet in a clinic setting -- as to dogs, cats, birds and guinea pigs. Rather than producing well-rounded professionals, this method gives us vets whose practical knowledge is an inch deep and a mile wide.

Regardless of which end of the animal continuum one occupies, world events are bringing to the fore the need to look anew at the veterinary curriculum. The profession and educational system have not changed with the times. If we don’t start talking about how to make these changes happen, we will be in serious trouble.
Remember the doctor who made house calls? Let me give you an example of where things are going for veterinarians. In 20-25 years, much like on the human healthcare side, there will be clinics within Wal-Mart to provide basic veterinary services like vaccinations, flea and tick products and well-animal care. Call it Wal-Vet. Wal-Mart takes this model very seriously – it will be a lucrative extension of its food and pet products offering. They’re going to do it with or without the veterinary profession. Imagine the equivalent of Jiffy-Lube for animal care, with its high through-put and trusted brand name. The pet-owning public might well greet Wal-Vet with enthusiasm. A role model – Banfield, with its 750 hospitals – has already shown that there can be economies of scale even in the practice of veterinary medicine.

Think for a minute about how giant retailers like Wal-Mart look for new revenue streams. They see 25,000 veterinary clinics in America. They see that every year Banfield hires 1,000 new veterinarians for its hospitals, and VCA hires an equivalent number. And they see that changes in the veterinary industry are being driven by convenience. What could be more convenient than going to a retail outlet that already sells pet food and pet accessories, for veterinary care? Why wouldn’t Wal-Mart want a piece of that? And whatever Wal-Mart does, they want to be the leader. In 30 years there may be only 2,000 veterinary clinics left, and the rest will be in chains or integrated into retail.

Today’s veterinary students will be practicing in a world that looks very different from the one they see today – or even the world they saw when they entered school.

Veterinary education needs game-changing transformation. I believe it comes down to abandoning the one-size-fits-all approach to veterinary education and developing a more tailored approach. Just like the future of pharmaceuticals is in targeted therapies and personalized medicine, so too is the veterinary industry ripe for a more targeted approach to educating future animal healthcare professionals. Especially as companion animal care drifts further away from food animal care and food safety, our method of educating veterinarians must follow.
To give you an example of how specialization is driving our business, at Bayer Animal Health, we have reorganized our business structure into two divisions: Companion Animal Products and Food Animal Products. We support both with veterinary technical services tailored to the needs of those markets. Most of our competitors are moving in this direction, too.

Another big problem for the veterinary industry is salaries. Graduates with $120,000 in debt are simply not likely to take public sector jobs with lower pay — and are perceived to be lower in prestige — than clinic jobs. Yet the growth areas for veterinarians will be in disease surveillance and food safety, in food industry companies producing animal protein on a massive scale for a global audience, in ecosystem management companies, and in biomedical research that crosses the boundaries of human and animal health. Unless educators can figure out a way to ease the debt burden of graduates or realign incentives to encourage new graduates to pursue public health careers, the government will be left behind. The recently proposed Veterinary Medicine Loan Repayment Program Enhancement Act is a small step in the right direction, but it’s an incremental approach.

For one thing, schools could partner with government to offer specialized education for veterinarians who agree to a career — or a term — in government service in exchange for low or no debt upon graduation. Government debt relief would virtually ensure a well-trained workforce for the challenges that lie ahead. Lufthansa does something similar, where pilots are paid €50,000 when they join but have to pay it back if they leave. The message is reinforced: I will only invest in you if you commit to me.

Let me give you another example. Currently in Germany there is an obligation to perform public service after high school. You can either go into the army for 6 months, or go into social service, which is 3 months longer.

I opted for social service. My service was like a “Flex Spend Account,” meaning I had the choice of spending 9 months all at once working e.g. at a hospital, or 200 hours per year over 10 years. I chose the latter and worked on an ambulance. This brought me the freedom to pursue my career while at the same time fulfilling my obligation.
Veterinary schools should be partnering with governments to answer the question of how to get more people into government careers. How about a veterinary public service “Flex Spend Account” – 5 years of your time before you’re 40 – in exchange for debt relief?

Here’s another idea. There are hundreds of animal clinics within a certain radius of most veterinary schools. Let’s say some of those clinics are in the Banfield chain. Could Banfield pay part tuition for its employees who qualify for admission to veterinary school? The advantage for the student is hands-on education and lower debt. The advantage to the employer is lower turnover and a more highly trained clinic staff.

Veterinary schools could offer students a specialized course of study that lets them graduate in three years instead of four, which would have the double benefit of lowering debt for the student, and providing more focused training in their area of specialty.

A tailor-made approach can also help with the issue of specialization. California has a lot of dairy cows. North Carolina and Iowa have a lot of swine. Schools in those areas could partner with government to offer work/study opportunities where students alternate a year at CDC with a year of education. The CDC would help underwrite student education in exchange for a motivated and skilled workforce. These approaches could be pilot-tested and refined over several years and, if successful, adopted more broadly.

I have spent my entire career in consumer marketing and here’s what I see: The crisis facing the veterinary profession is being driven by a rapidly changing global marketplace. Academic veterinary institutions are not preparing graduates to thrive and survive in this new world order. The veterinary profession must change, or change will be forced upon it.

Charles Darwin famously said that “It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.” There are risks and costs to any program of action. But they are far less than the long-range risks and costs of doing nothing.
We have the vision, but do we have the leadership, to adapt to 21st century challenges? To answer that question, I will leave you with the words of that great 20th century philosopher, Jedi Master Yoda. “Do, or not do. There is no ‘try.’”

Thank you for your kind attention