

## The Academy of Rural Veterinarians: Grassroots Innovation to Address the Rural Veterinarian Shortage

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### **Introduction**

In 2000, a group of dedicated rural veterinarians met while taking the Beef Cattle Production Management Course at the Great Plains Veterinary Education Center at Clay Center, NE. Upon finding an a common belief in the value of rural practice, this group began visiting each other's practices and offered critiques about ways that the practice could work more efficiently. One thing became almost immediately noticeable through these visits—the challenge of finding qualified associates interested in joining a rural practice.

At a June 2003 meeting on practice management in Bridgeport, NE, a discussion ensued about what rural veterinarians were doing to promote their noble profession. The group agreed that the perception of rural practice had many stereotypes, such as low pay and poor quality, yet many in practice made a good living and enjoyed the work. The group decided to organize, with the mission of promoting veterinary practice in rural America.

The Academy of Rural Veterinarians (ARV) formally came into being in the fall of 2003 at a meeting held at the HR Bar Ranch in Buffalo, WY. Its "originators" were Doctors Brett Andrews of Nebraska, Phillip Kesterson of Nebraska, Bob Gentry of Kansas, Steve McDonald of Texas, Larry Moczygemba of Texas, Keith Schumacher of Nebraska, and Kurt Walters of Wyoming. Larry Moczygemba was elected the new association's first president. The group was greatly assisted in its formation by several dedicated advisors: Drs. Mike Apley, Peter Chenoweth, Dee Griffin, Dale Grotelueschen, Larry Hollis and Dave Horn.

The inauguration of the new Academy dovetailed with the headlines that began to appear in the media detailing a crisis in rural America—the shortage of veterinarians to serve farmers and ranchers across the country, particularly in the heartland.<sup>1</sup> The crisis has been "a long time in the making" as the United States shifted from a rural to an urban population. The number of farms in the nation has decreased, resulting in fewer people raised with an agrarian background. "Farm kids who once might have grown up to become rural veterinarians aren't there anymore."<sup>2</sup> At the

same time, the Bureau of Labor Statistics has predicted national demand for veterinarians will increase 35% from 2006 to 2016.<sup>3</sup>

To launch its initiatives, ARV was able to secure a grant through the Agriculture and Food Research Initiative (AFRI) at the Cooperative State Research, Education and Extension Service (CSREES). The grant funded the establishment of a school meeting program and a presence for ARV on the web. Dr. Paul Click of Alabama, one of ARV's first members, recalls the early days: "We were actually doing something to address our problems instead of whining and wringing our hands."<sup>4</sup> The use of federal and industry grant money allowed ARV to formulate direct contact for veterinary students with practitioners—allowing for promotion of the rural profession.

ARV plunged into its work by organizing school visits in order to present to students and show them through personal example and experiences that the perceptions of rural practice were simply not true. ARV's first school meeting was presented in 2004 at Texas A&M University. Over the next four years, this outreach program was formalized with more schools visited ([Table 1](#)). Members of ARV continued to personally speak about their careers and the impact that rural practice had on their lives, and the lives of the communities they serve. Today, ARV pays an annual visit to every veterinary school in the country and also to many pre-veterinary programs at undergraduate institutions ([Table 1](#)). ARV, in conjunction with the schools visited, conducts a survey of the students who attend a presentation by Academy members. In 2009, 82% of students visited indicated that they had never given thought about pursuing a rural career and that the visit raised their awareness of this valuable option.<sup>5</sup>

**TABLE 1.** Records Of Arv Student Outreach Program And Site Visits: 2004 – 2010.

Year	Schools Visited by ARV Members	# of Veterinary Students in Attendance	Average # of Students for each ARV Presentation
2004	10	650	65
2006	17	840	49
2008	31	1,075	35
2010 *	36	1,360	38

\* - Represents visits conducted to date and those planned through the end of 2010.

During these formative years, ARV's volunteer leaders also established another proactive outreach program with the hopes of increasing the number of veterinary students who would later pursue a rural career. The Externship Grant Program places veterinary students in rural practices to work side-by-side with seasoned professionals to discover the rewards of this field. "We see a lot of students that did not grow up on farms or ranches or even rural communities. ARV externships give students a chance to see what life is like on a day-to-day basis in rural America and rural practices,"<sup>6</sup> says Dr. Dean Christianson of North Dakota.

Recent studies show that active exposure to rural veterinary practice during veterinary school is ranked as being of high importance in developing an interest and eventual rural career path. The ARV Externship Program is one such program that is contributing to an increase in the number

of veterinary students choosing rural practice as their career.<sup>7</sup> ARV sincerely hopes that, as these young veterinarians grow in their careers, they will remember the encouragement and guidance given to them and, in turn, encourage the next generation of rural veterinarians. Since its inception, over 200 students have worked with 150 seasoned mentors in the Externship Program.

### **Continued Growth and Increasing Success**

In early 2008, the ARV Board of Directors began discussing the future. Recognizing that growth was directly linked to the amount of time that volunteer leaders could put into the administering ARV, the board entered into a partnership with Capitol Hill Management Services (CHMS), an association management firm based in Albany, NY, that has a background in veterinary organizations, having administered the Veterinary Hospital Managers Association and the New York State Association of Veterinary Technicians.<sup>8</sup>

ARV undertook a strategic planning process in order to analyze where the Academy was in terms of development and energy. After five years of foundation building, the group wanted to maintain momentum, further study the factors that lead to a rural career, increase membership and ARV's visibility and advocacy, and obtain corporate backing in order to support greater levels of programming.

Through the college visit and Externship Programs, ARV began compiling a wealth of anecdotal evidence from students and sponsoring veterinarians regarding preparation for entering the field of mixed practice. This information being obtained summarized the theory vs. practice argument. In order to properly assess the information being received, ARV undertook a Veterinary Training Survey with the purpose of assessing the educational experiences of practicing veterinarians and current veterinary school students in relation to practice situations and overall preparation for serving in a rural setting.

The Veterinary Training Survey was sent to two groups, ARV members and mentors and ARV student members. The survey was distributed through *The Rural Vet*, the academy's newsletter, and through member e-communications. Both hard copy and online versions of the survey were made available.

The practicing veterinarians' version of the survey had three parts. The first part asked the veterinarian to assess their own educational preparation and rate confidence levels for 15 practice procedures/situations based on their own experience as a new graduate entering the field. Confidence levels were rated on a sliding scale with 1 representing "No confidence" to 5 representing "Very confident" (Table 2). The second part of the survey asked the practicing veterinarian to rate the confidence level of new graduates that they have come into contact with (i.e. supervised as an intern/extern or hired). The third part of the survey afforded veterinarians the opportunity to provide narrative responses regarding other factors that might influence confidence levels and the preparation of students for mixed practice.

The veterinary students' survey asked them to rate their confidence in dealing with situations that they may soon encounter after graduation if employed in a rural mixed animal practice. Students

were provided with the same 15 procedures/situations as the practitioners and rated confidence using the same scale (Table 2).

Respondents to both the practitioner and students versions of the survey represented a national cross-section with the majority (65%) coming from the Great Plains. 119 rural veterinarians, representing 31% of ARV's active membership responded. 332 students, representing 41% of ARV student membership, completed the survey. The survey results suggested both practitioners and students rate their confidence at the start of their careers very similarly—with the overall confidence level being practically the same (3.3 for practitioners vs. 3.2 for students).

**Table 2.** Comparison of Veterinarian & Veterinary Students Ratings of Confidence Levels Based on Experience/Preparation

Procedure/Situation	Practicing Veterinarian rating own experience as a New Graduate	Practicing Rural Veterinarian rating New Graduates	Current Student rating own experience/readiness to handle
Dystocia in large animal	3.6	2.6	3.3
Dystocia in small animal	2.8	2.3	2.5
Equine rectal palpation	2.4	2.2	3.2
Bovine rectal palpation	4.0	2.3	3.5
Equine colic	3.4	2.9	3.0
Acute, life threatening blood loss any specie	3.2	3.0	2.9
Acute abdominal crisis, other than equine	3.0	2.5	2.6
Fluid therapy, any specie	3.9	3.7	3.5
Sudden death in a herd or group of animals	3.0	2.5	2.9
Lameness in any specie	3.3	2.8	3.3
Communicating effectively with clients	3.5	2.9	4.0
Ability to handle and restrain large animals safely	2.9	3.4	3.6
Ability to handle and restrain small animals safely	2.9	3.4	4.2
Expertise in business management	2.2	1.8	2.5
Familiarity with rural culture	4.1	2.9	3.5
<b>OVERALL CONFIDENCE LEVEL</b>	<b>3.3</b>	<b>2.7</b>	<b>3.2</b>

Scale: 1 = No Confidence, 3 = Average, 5 = Very Confident

Veterinarians taking the survey were asked to provide narrative responses concerning other factors that might influence confidence levels of graduating veterinary students and what changes could be made in curriculum to better prepare students for rural practice. Of the 119 respondents, 84% (100) submitted written responses. These responses were reviewed and grouped based on similar topics. Veterinarians' major concerns about preparation and curriculum improvement focused on three major categories: more hands-on/practical experiences needed in preparation for the career; more business management training needed in school; and the denoting of specific skills or techniques that respondents believed veterinary students should receive prior to graduation. These three concerns will be looked at in more detail.

*More hands-on/practical experiences needed*

Of the narrative veterinarian respondents, 47% recognized the value of internships, externships and mentorships, and in every instance, noting that such experiences are crucial in the preparation of a successful mixed animal/rural veterinarian.

The following response from a rural practitioner in Texas exemplifies the views expressed by respondents:

*“Most of the experiences in senior clinics at vet school did very little to prepare me for working in rural private practice. I gained most of my experience and confidence through working in private practices before and during vet school and on my externships spent off-campus. Vet students need to spend more time on externships working in clinics especially during senior year. The university referral hospitals offer a totally different environment and way of doing things that is often not applicable to working in a rural private practice.”*

*More business management training needed*

Many practitioners (30%) emphasized that veterinary students should receive additional training in the economic/business side of practice. Such statements reinforced the confidence level responses of these veterinarians. Of all the procedures/situations presented in the survey, “Expertise in business management” received the lowest confidence level factor for both practitioners (2.2) and current students (2.5). The most common economic/business areas mentioned by these respondents were: agricultural economics, practice management, business management, financial management, and food animal management.

*Specific skills mentioned that should receive attention*

Narrative respondents offered a number of areas that they felt schools should provide training in order to increase student confidence and make sure that they are prepared for rural/mixed animal practice. The following responses were offered five times or more in submission:

- Animal behavior
- More exposure to rural practices with basic ambulatory cases such as simple colics, lacerations, restraint, and sick large animals.
- How to diagnose and treat when not every last diagnostic tool is available.
- Small animal hygiene, including trimming nails, expressing anal glands and cleaning ears.
- Familiarity with large animal side issues that may not be seen very often, i.e. rectal prolapse in a feedlot steer, vaginal prolapse in a cow, suturing up a corneal ulcer in a calf, or pulling wolf teeth in a colt.
- Rectal palpation either in bovine or equine species
- Equine dentistry
- Not knowing antibiotics and other therapies for large animals.

Finally, 10% of the narrative respondents focused on the fourth year of veterinary education, recommending that more opportunity should be provided for students to work with large animal species.

In looking at the results of the student survey, 64% of the respondents (213) felt that they gained confidence for practicing the profession outside the classroom through “hands-on” or “life” experiences. Externship experiences were the best in providing insight into rural practice for many students (52%, 111 students), while 48% (102 students) believed their confidence came from growing up in a rural community or being related to a veterinarian.

The following submissions reflect the overall responses by students:

- “I’m hoping that clinics will give me more confidence in these areas, but as of now my confidence is determined by externships and experience that I had before veterinary school.”
- “Most of the hands-on skills I have acquired during vet school, the kind that I will need starting the day I graduate, I did not learn at school. I learned them through my own initiative to go out on externships and in summer jobs. School gave me the ‘book smarts’ and nothing else, and it cost me \$100,000.”

Students were asked to identify either practical skills or a specific area that they felt was lacking in their training. 29% of respondents (96 students) offered the following responses dealing with the ability to:

- Handle nighttime emergency cases on own
- Drive standard transmission trucks
- Deal with patients in relating death of an animal

- Perform small/large animal dentistry
- Perform large animal ophthalmology

The veterinary training survey results reinforced ARV's strong belief in the value of its school visit, externship and mentoring programs.

### **Increasing Membership, Visibility and Advocacy**

ARV's initial membership was built up through the direct recruiting efforts of its founders. Soon rural veterinarians from across the nation were inquiring about the Academy and joining to support its mission. ARV began consolidating its database and increased its recruitment and retention of rural veterinarians through increased mailed and electronic communications. Membership has increased by over 1400% since 2004 ([Table 3](#)). To date, ARV has 390 active members in 49 of the 50 states, with the greatest concentration hailing from the Great Plains.

**Table 3.** Membership of Academy of Rural Consultants: 2004 - 2010

Year	Active Members	Student Members
2004	25	0
2006	174	437
2008	263	732
2010 (as of 7/1/10)	390	788

“Success breeds success” – ARV leaders use this adage as a guide in heightening the association's visibility across the profession. In 2008, ARV collaborated with Oregon State University, The Ohio State University, Michigan State University and Colorado State University in investigating the issue of retention of veterinarians in rural practice. The results of this study appeared in April 2010 as a special report in the *Journal of the American Veterinary Medical Association*. The study states that recruitment efforts need to be targeted to reach prospective veterinarians at an early age. Potential new rural veterinarians need to be mentored early on by veterinarians in rural veterinary practice and should have ample opportunities to experience rural practice throughout their training in veterinary school.<sup>9</sup>

In April 2009, the work of ARV was featured in *DVM Newsmagazine's* investigation of the shortage in rural veterinarians. The article stated that the strategies to stem the shortage have not been studied at length by the veterinary profession and that it will take time to find the proper solutions. However, talking to students, as is done by the ARV college visit program, is key because it helps eliminate the stereotype that the life of a rural veterinarian is bleak.<sup>10</sup> In an August 2009 *JAVMA* article concerning food animal medicine in crisis, Dr. Jennifer Walker singled out the Academy for its “innovative mentoring program” which addressed the void in mentorship of potential food animal veterinarians and “may prove vital in battling attrition.”<sup>11</sup>

In the past two years, ARV has seen a continued increase in awareness for the Academy's mission by the veterinary profession and supply industry. ARV has a representative on the

Association of American Veterinary Medical Colleges' Academic Food Supply Veterinary Medicine Committee. In order to support the work of the North American Veterinary Medical Education Consortium to develop a national plan, ARV submitted the findings of the ARV Veterinary Training Survey in order for ARV members' and current veterinary students' views on their preparation for a rural career to be known.

### **Corporate Partnerships for Success**

ARV has been very fortunate to build partnerships with a number of companies that provide pharmaceuticals, supplies and services to veterinarians (see acknowledgement at conclusion of article). In late 2008, ARV began discussions with Pfizer Animal Health on how the two could work together to advance rural veterinary practice. Both the Academy and Pfizer wished to see a pipeline developed to promote rural practice across the diversity of young people in the United States. In order to address an across-the-board effort in building interest in rural practice, the two parties created the ARV-Pfizer Rural Practice Awareness Partnership in November 2009. This partnership will be comprised of the following programs.

#### *ARV-Pfizer Rural Practice Awareness Visit Program (RPAVP)*

With Pfizer corporate support, ARV will build upon the college visit structure it has in place, with a new focus on undergraduate institutions. ARV will research and conduct a survey of undergraduate programs in order to identify and target feeder schools. In 2010, ARV will conduct a pilot program with undergraduate visits in every ARV region. The survey and pilot program visits will offer a solid foundation for building a national RPAV Program.

#### *Urban High School Outreach Pilot Program (UHSOPP)*

ARV fully supports diversity in society and the workplace. The Academy's mission to promote the rewards of rural veterinary practice extends to all, regardless of gender, race, age or creed. In an effort to promote diversity in the profession and educate a young urban population to the possibilities of rural practice, ARV will create a pilot program in which ARV will partner with Pfizer and the Future Farmers of America to reach out to inner-city high schools with agriculture specialty programming. In fall 2010, ARV will target two specific institutions: W.B. Saul High School of Agricultural Sciences in Philadelphia and John Bowne High School for Agricultural Science in New York City. ARV member-mentors would visit these schools and present to the students "A Day in the Life of a Rural Veterinarian," a multi-media presentation on the profession.

### **Continued Expansion of Programs and Services**

ARV continues to strategize and plan for ensuring the future of rural veterinary practice in America. Recently, Dr. Lisa A. Willis of Texas was appointed to lead ARV's efforts in improving retention of post-graduates just starting their rural careers.<sup>12</sup> In August 2010, ARV

offered its first professional development symposium entitled “Veterinary Business Best Practices in Rural America,” which focused on the most important factors to consider when buying in/purchasing a rural practice, planning a successful transition to practice ownership and leadership tips for creating a successful rural practice.

### **Conclusion**

Through hard work, dedication and grassroots advocacy and example, the Academy of Rural Veterinarians has become the recognized leader and principal source of expert information about the challenges and rewards of rural veterinary practice in America. A generation of graduates in practice has come to know ARV and rural practice through campus visits and have experienced the profession first hand through externships. These young veterinarians are now associates who will someday take over the practices and train future generations of rural practitioners.

One of ARV’s original members, Dr. Brett Andrews of Nebraska, sums it up best: “ARV’s biggest strength is that the Academy is made up of and run by practicing rural veterinarians that are willing to advocate on behalf of all rural veterinarians. This is our passion. We must act for this is about the future of rural life itself.”<sup>13</sup>

### **ARV Sponsor Acknowledgement**

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**End Notes:** Lenz, Shelley and Brian Buff. "The Academy of Rural Veterinarians: Grassroots Innovation to Address the Rural Veterinarian Shortage." [Online Journal of Rural Research & Policy](#) (5.7, 2010).

1. News stories concerning the rural veterinarian shortage appeared in a wide range of media across the United States, including such headlines as "Vet shortage threatens food system" (*USA Today*, 28 February 2003) and "A New Problem for Farmers: Few Veterinarians" (*The New York Times*, 2 February 2007). [\[back\]](#)
2. Victoria G. Myers, "Animal Health Care in Crisis," *The Progressive Farmer*, September 2009, p. 33. [\[back\]](#)
3. Victoria G. Myers, "Animal Health Care in Crisis," *The Progressive Farmer*, September 2009, p. 33. [\[back\]](#)
4. Paul Click, DVM, interview by authors, Vernon, AL, 16 March 2010. [\[back\]](#)
5. Academy of Rural Veterinarians, School Visit Survey Compilation for Membership Year 2009, February 2010. [\[back\]](#)
6. Dean Christianson, DVM, interview by authors, Ashley, ND, 16 March 2010. [\[back\]](#)
7. Aurora Villarroel, DVM, MPVM, PhD; Stephen McDonald, DVM; William Walker, DVM; Lana Kaiser, MD, DVM; Renee Dewell, DVM, MS; Frant Dewell, DVM, PhD, "A survey of reasons why veterinarians enter rural practice in the United States," *JAVMA*, Vol 236, No. 8, 15 April 2010, p.849-857. [\[back\]](#)
8. "Working with a nationally known association management firm allowed ARV to establish a national office that now takes care of our daily operation. This allowed our very dedicated Board Members to focus on the future of ARV and the critical issues facing our profession states ARV Past President Dr. Rexanne Struve of Iowa. Rexanne Struve, DVM, interview by authors, notes, Manning, IA, 17 March 2010. [\[back\]](#)
9. Aurora Villarroel, DVM, MPVM, PhD; Stephen McDonald, DVM; William Walker, DVM; Lana Kaiser, MD, DVM; Renee Dewell, DVM, MS; Frant Dewell, DVM, PhD, "A survey of reasons why veterinarians enter rural practice in the United States," *JAVMA*, Vol 236, No. 8, 15 April 2010, p.849-857. [\[back\]](#)
10. Christina Macejko, "Changes in Agriculture Place New Demands on Rural Veterinarians," *DVM Newsmagazine*, April 2009. [\[back\]](#)
11. Jennifer Walker, DVM, "Food Animal Medicine in Crisis," *JAVMA*, Vol 235, No. 4, 15 August 2009, p. 370-371. [\[back\]](#)
12. "The first years of practice offer challenges for anyone, and in a rural setting it is important to know that we can still be available for each other, especially for the new graduate facing personal and professional dilemmas. ARV is a valuable resource for new practice owners in rural areas. We are currently building a network of recent graduates and new practice owners to help with the day to day challenges of running your own practice. It is through this network that we will offer help with business planning, SBA loans, and other important topic." said Dr. Lisa A. Willis of Texas. Lisa A. Willis, DVM, interview by authors, Gustine, TX, 15 March 2010. [\[back\]](#)
13. Brett Andrews, DVM, interview by authors, Burwell, NE, 17 March 2010. [\[back\]](#)

## Author Information

### Shelley Lenz ([back to top](#))

Dr. Shelley Lenz is serving her second term as President of the Academy of Rural Veterinarians. A PhD in Pharmacology, she earned the DVM at Ohio State in 2001. Dr. Lenz worked as an equine vet for three years at Hagyard-Davidson-Mcgee in Lexington, Kentucky, two years as an equine/small animal vet in a mixed practice in South Dakota, and one year as a primate veterinarian at the University of California - Davis. In January 2007, she opened a start-up equine/small animal practice in Killdeer, North Dakota.



### Brian Buff ([back to top](#))

Brian Buff is a Senior Account Executive for Capitol Hill Management Services, an association management/government affairs firm based in Albany, New York. He serves as Administrator for the Academy of Rural Veterinarians and several other professional organizations, as well as strategic planning facilitator for the firm. Mr. Buff holds a masters degree in Public History with a concentration in historic agency management from the University at Albany.

