

COMPANION ANIMAL VETERINARIANS' ROLE IN ONE HEALTH: IS IT UNDERVALUED?

Companion animal veterinarians occupy a unique and underappreciated position within the One Health framework. Through daily clinical work, they manage zoonotic disease risks, promote antimicrobial stewardship, and deliver public health education directly to pet owners. These roles deserve explicit recognition in both professional discourse and policy, writes Karolina Poniecka MVB, a Dublin-based small animal veterinarian

One Health has become something of a watchword in both veterinary and human medicine, and for good reason. The framework captures something genuinely important: that human health, animal health, and environmental health are not parallel concerns but deeply entangled ones.

The concept was formalised in the early 2000s through collaboration between the World Health Organization (WHO), the Food and Agriculture Organization (FAO), and the World Organisation for Animal Health (WOAH, formerly OIE). However, the underlying idea that animal and human disease are inseparable has been recognised in epidemiology for far longer^{1,8}.

Yet One Health conversations tend to gravitate towards the dramatic end of the spectrum: novel zoonotic spillover events, antimicrobial resistance in livestock, wildlife trafficking, and emerging pandemic pathogens. Companion animal medicine rarely features prominently in these discussions, and when it does, it is often as an afterthought. This is a mistake worth correcting².

Dogs and cats now share beds, kitchens, and daily routines with their owners in a way that would have been unusual even a generation ago. In Ireland, as across Europe, pet ownership has grown steadily, accelerated further by pandemic-era adoptions. In Ireland alone, the pet dog population stood at approximately 520,000 in 2023, with nearly 60 per cent of Irish households owning at least one pet⁹. That proximity carries real public health implications, and the veterinarians managing those animals are better placed than almost anyone to act on them.

This article argues that companion animal practitioners are already functioning as frontline One Health workers and that recognising them as such would benefit both the profession and public health more broadly.

The zoonotic reality of first-opinion practice

The zoonotic disease burden associated with companion animals is easy to underestimate precisely because much of it is familiar. Dermatophytosis, leptospirosis, campylobacteriosis, toxoplasmosis - these are not exotic conditions. They appear in routine caseloads, which can make it tempting to treat them as purely clinical rather than public health concerns.

But familiarity should not obscure significance. Research has shown that more than 100 species of bacteria have been isolated from infected dog bite wounds alone, suggesting that most of the oral flora of dogs has pathogenic potential³. The more familiar zoonoses seen in routine practice deserve the same seriousness.

Consider what these cases look like in practice. A first-opinion clinician who diagnoses ringworm in a cat from a household with young children is making a public health judgment call, whether or not it feels like one. The same applies to counselling an immunocompromised owner about *Toxoplasma* risk, or advising on tick prevention in a dog that walks through scrubland with its elderly owner³. Vector-borne diseases, including Lyme borreliosis and spotted fever group rickettsioses, are increasingly relevant in European companion animal practice and the veterinarian is often the first professional to raise them with a concerned owner^{4,10}. What companion animal practitioners bring to this is not just clinical knowledge but context. They often know their clients, their households, and their routines in ways that a human GP may not. A veterinarian who has been treating a family's dog for several years knows whether there are young children at home, whether a family member is immunosuppressed, and whether the owner is likely to follow through on hygiene advice. That positional knowledge is a genuine public health asset that is routinely underutilised³.

There is also a surveillance dimension that is easy to overlook. Companion animal veterinarians sometimes encounter early signals of emerging, or re-emerging, zoonotic disease. The COVID-19 pandemic demonstrated the value of monitoring SARS-CoV-2 infection in pets, both as a welfare concern and as a means of tracking viral variants. More systematic integration of small animal practitioners into disease surveillance networks would be a logical extension of their existing role.



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A veterinarian who has been treating a family's dog for several years knows whether there are young children at home, whether a family member is immunosuppressed, and whether the owner is likely to follow through on hygiene advice. Photo courtesy of author.

Client communication as public health work

There is a tendency to frame public health as something that happens in agencies, laboratories, or government departments. In practice, a great deal of it happens in consulting rooms.

Routine preventive medicine consultations, vaccination checks, parasite control discussions, and nutrition advice, are also opportunities to reinforce hygiene practices, identify vulnerable household members, and discuss zoonotic risk in ways that are proportionate and practical rather than alarmist. Research has shown that pet owners frequently cite their veterinarian as their primary source of information on disease risks associated with their animals, often above their own GP⁵. In Ireland, a 2023 survey found that 81 per cent of dog-owning households allow their dogs to sleep

inside the home¹¹. That level of proximity makes zoonotic risk communication not an occasional conversation but a routine clinical responsibility.

This places a real responsibility on first-opinion practitioners. The quality of zoonotic risk communication varies considerably in practice, and there is evidence that even experienced clinicians can find these conversations challenging, particularly when they involve recommending changes to behaviour that owners find emotionally difficult, such as restricting contact with a pet during pregnancy or advising against bed-sharing⁵.

In practice, the conversation that comes up most often is not about leptospirosis or campylobacter, it is about the pregnant owner who has been told by her midwife to get rid of the cat. Getting this right is genuinely difficult. Overstate the risks and you damage the human-animal bond unnecessarily, potentially contributing to animal relinquishment. Understate them and you miss a chance to prevent something avoidable. The balance requires clinical judgement, communication skill, and an understanding of the household context, all of which companion animal veterinarians develop over time, but which are rarely framed explicitly as public health competencies⁵.

Households containing children under five, elderly individuals, pregnant women, or immunocompromised patients deserve particular attention. Guidelines exist for managing zoonotic risk in these groups, but awareness and application in companion animal practice remains inconsistent. Clearer protocols and better integration of these guidelines into preventive medicine consultations would represent a straightforward public health gain.

Antimicrobial stewardship: a shared responsibility

The emergence of multidrug-resistant organisms in companion animals has made it difficult to argue that antimicrobial stewardship is primarily a human medicine or livestock issue. Methicillin-resistant *Staphylococcus pseudintermedius* (MRSP) and extended-spectrum beta-lactamase (ESBL)-producing organisms are now documented findings in small animal practice across Europe, including Ireland. These pathogens are relevant not only to treatment outcomes in animal patients but to the broader resistance landscape shared with human medicine⁶.

The evidence for transmission of resistant organisms between companion animals and their owners is accumulating. Studies have identified household clustering of resistant *Staphylococcus aureus* strains between dogs and humans, and similar patterns have been observed with resistant *Escherichia coli*. The close contact between pets and owners that makes the human-animal bond meaningful is the same proximity that facilitates pathogen sharing⁷. Responsible stewardship in first-opinion practice means using culture and sensitivity testing appropriately before repeating antibiotic courses, resisting client pressure to prescribe empirically when it is not clinically warranted, choosing narrow-spectrum agents where possible, and being willing to have frank conversations with owners about why a prescription is not always in their animal's best interest⁶.

These are not easy habits to maintain under the time pressures of a busy practice, particularly when a client is distressed about a sick pet and is expecting a tangible



Companion animal veterinarians sometimes encounter early signals of emerging, or re-emerging, zoonotic disease. Photo courtesy of author.

intervention. The fact that many companion animal clinicians manage it, and are increasingly doing so in the context of formal stewardship frameworks such as the PROTECT ME guidelines, deserves acknowledgment⁶.

Veterinary schools and CPD providers have a role to play here too. Stewardship training that is grounded in the realities of first-opinion companion animal practice, time pressure, client expectations, and diagnostic constraints, is more likely to be applied than guidance developed primarily for hospital or farm settings.

A foundation, not a stepping stone

It is worth addressing something implicit in how companion animal practice is sometimes discussed in relation to One Health: the idea that it functions mainly as a training ground for veterinarians who will eventually move into more serious public health roles. This framing undersells what first-opinion practice actually is. The diagnostic reasoning, emergency management, infectious disease experience, and communication skills developed in small animal practice are not just transferable, they are directly relevant to epidemiological work, disease surveillance, and public health education. Companion animal clinicians learn to identify patterns of disease across a population of patients, implement biosecurity in a clinical setting, and communicate complex health information to a non-specialist audience under time pressure. These are core public health competencies².

More importantly, companion animal clinicians are not just developing skills for use elsewhere, they are already deploying them. Every consultation involving a zoonotic risk discussion, every culture result that prompts a stewardship conversation, every vaccine reminder that also addresses parasite prevention in a household with a newborn is a public health intervention. The question is not whether companion animal veterinarians contribute to One Health; the question is whether we choose to recognise, measure, and support that contribution.

Greater recognition would have practical benefits. It would strengthen the case for including companion animal practitioners in national disease surveillance networks, inform CPD programme design, and help make the professional case for adequate resourcing of first-opinion practice. It might also make the work more visible to practitioners themselves and serve as a reminder that a well-run small animal clinic is a public health institution as much as it is a business.

Conclusion

The argument here is not that companion animal medicine should be repositioned as something other than what it is. It is simply that, while the public health dimensions of first-opinion practice are real and substantive, they are currently underweighted in how we talk about One Health.

As pet ownership continues to intensify, with animals living in closer quarters with more people, including increasingly vulnerable populations, the role of small animal practitioners in disease surveillance and prevention will only grow. Integrating them more deliberately into One Health frameworks is not a gesture towards professional inclusivity; it is a practical step towards more effective public health. For the typical companion animal practitioner in Ireland, the take-home point is straightforward; the public health work is already happening. The zoonotic risk discussion, the culture swab before the repeat prescription, the hygiene advice to the family with a newborn: these are One Health in action. They deserve to be seen as such.

References

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READER QUESTIONS AND ANSWERS

1. WHICH OF THE FOLLOWING BEST DESCRIBES THE ONE HEALTH FRAMEWORK?

- A. A WHO initiative focused solely on pandemic preparedness in wildlife
- B. A framework recognising that human, animal, and environmental health are interconnected and require collaborative management
- C. A livestock-specific antimicrobial resistance programme
- D. A surveillance system for exotic zoonotic diseases only

2. A SIX-YEAR-OLD CAT IS DIAGNOSED WITH DERMATOPHYTOSIS. THE HOUSEHOLD CONTAINS A THREE-YEAR-OLD CHILD AND A GRANDMOTHER RECEIVING CHEMOTHERAPY. WHAT IS THE MOST APPROPRIATE NEXT STEP BEYOND TREATMENT OF THE CAT?

- A. No additional action is needed as dermatophytosis is rarely transmitted to humans
- B. Advise the owner to rehome the cat until treatment is complete
- C. Provide practical hygiene guidance, advise restricted contact for the child and immunocompromised household member, and recommend they inform their GP or oncologist
- D. Delay treatment until the owner has consulted a human dermatologist

3. A DOG PRESENTS FOR THE THIRD TIME IN 12 MONTHS WITH A SKIN INFECTION. THE OWNER IS REQUESTING ANOTHER COURSE OF THE SAME ANTIBIOTIC USED PREVIOUSLY. WHAT IS THE MOST APPROPRIATE APPROACH?

- A. Prescribe the same antibiotic as it has worked before
- B. Prescribe a broader-spectrum antibiotic to ensure efficacy
- C. Perform culture and sensitivity testing before prescribing, and discuss antimicrobial stewardship with the owner
- D. Refer to a dermatologist without initiating treatment

4. WHICH OF THE FOLLOWING MULTIDRUG-RESISTANT ORGANISMS HAS BEEN DOCUMENTED AS A GENUINE CONCERN IN EUROPEAN COMPANION ANIMAL PRACTICE?

- A. Methicillin-resistant *Staphylococcus pseudintermedius* (MRSP)
- B. Vancomycin-resistant *Enterococcus* (VRE) only in cats
- C. Carbapenem-resistant *Acinetobacter* in toy breeds only
- D. Resistant organisms are not considered clinically relevant in companion animal practice

5. A PREGNANT CLIENT MENTIONS SHE HAS BEEN ADVISED BY A FRIEND TO GET RID OF HER CAT TO AVOID TOXOPLASMOSIS. WHAT IS THE MOST EVIDENCE-BASED RESPONSE?

- A. Agree that relinquishment is the safest option
- B. Explain that the risk from cats is often overstated; practical precautions such as avoiding litter tray cleaning and good hand hygiene allow safe cohabitation, and she should discuss this with her obstetrician
- C. Advise testing the cat for *Toxoplasma* and only retaining it if the test is negative
- D. Tell her toxoplasmosis is not a concern in indoor cats

6. WHAT IS THE PRIMARY PUBLIC HEALTH VALUE OF COMPANION ANIMAL VETERINARIANS BEING INTEGRATED INTO DISEASE SURVEILLANCE NETWORKS?

- A. It allows veterinarians to diagnose human disease directly
- B. It provides early signal detection for emerging or re-emerging zoonotic pathogens at the human-animal interface, before they reach significant human case numbers
- C. It reduces the need for human epidemiologists
- D. It is primarily an administrative measure with no direct public health benefit

1B, 2C, 3C, 4A, 5B, 6B.